



Erasmus+ Higher Education Impact Study



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Erasmus+ Higher Education Impact Study

Final Report

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Executive Summary

Between 2014 and 2018, two million students and staff in higher education undertook a learning, training or teaching period abroad with the new Erasmus+ programme. This Executive Summary outlines the main findings of the Erasmus+ Higher Education Impact Study, conducted by CHE Consult and ICF Consulting between January 2017 and April 2019. The objective of the study was to assess the impact of Erasmus+ mobilities on staff, students and higher education institutions. It was based on almost 77,000 survey responses from these groups.

Impact on Higher Education Students

The impact study found that students who complete an Erasmus+ mobility for studying or training boost their employability skills, with a large majority (72%) saying it had been beneficial or highly beneficial in finding their first job. Their mobilities increased their technical, inter-personal and inter-cultural skills and competences, as well as their self-confidence, ability to achieve goals, and social and cultural openness.

40% of participants who went on a traineeship were offered jobs with the companies/ organisations in which they did their traineeship, and around 10% started their own company, with many more (75%) planning to do so in the future. Erasmus+ participants often change their study plans as a result of their mobility period and they have a clearer idea of what they want to do in their future careers after their period abroad. Those Erasmus+ participants who are in the labour market report to be happier in their jobs than non-Erasmus+ students. It is also more likely that their jobs will be abroad (23% of Erasmus+ students, compared to 15% in the case of non-Erasmus+ students) or have an international dimension.

Erasmus+ also contributes to the creation of a European identity, with over 32% of Erasmus+ students identifying themselves only or primarily as European after completing their mobility period –compared to 25% before the mobility period.

Erasmus+ students also embrace new learning methods, and more students plan to continue onto higher levels of learning than non-Erasmus+ students.

Students who undertake a period of mobility under Erasmus+ are exposed to new teaching methods and experiences in their studies. This helps them to discover what they want to do in their futures and makes them better able to assess their own strengths and weaknesses. They often change their study plans after their mobilities to better match their career ambitions, and they also aim to progress to higher levels of education and start using new learning methods in their studies.

- Almost three out of four Erasmus+ students reported that they had a **better idea of what they want to do in their career** after their mobility.
- More than a quarter changed their study plans after their mobility and **reported they had re-oriented their study plans in some way**; 80% of these students said that the mobility was useful to discover what they want to study.
- Erasmus+ students **experience new teaching methods and learning practices, which has a positive impact on their academic ambitions and improves their competences for effective learning.**
 - More than **two out of three** former Erasmus+ students **started to use new learning methods** during their stay abroad. These figures are even higher for students from Southern European Programme Countries (72%)

and Partner Countries (79%) outside of Europe. This shows how Erasmus+ both helps students decide what they want to learn and how they can learn.

- Erasmus+ students plan to **progress to higher levels of education**.
 - Around **80% of first cycle Erasmus+ students** (Bachelor degree) aim to proceed to a higher level of studies; the same is true for 58% of **second cycle students** (Master degree).
 - **The highest impact on their academic development** (progress and competences for effective learning, experience with innovative teaching methods and the motivation to complete the studies) is **reported by Erasmus+ students from low GDP countries, Southern European Programme Countries and Partner Countries**.

The study found that former Erasmus+ participants find a job quicker than non-mobile graduates and a vast majority says their experience abroad helped them get their first job.

- A higher share of Erasmus(+)¹ graduates (who were on an Erasmus or Erasmus+ mobility as a student and finished their studies) **find their first job after graduation** within three months, compared to graduates who have not been mobile during their higher education.
 - Around **80% of Erasmus(+) graduates found their first job after graduation in less than three months**.
 - 72% of Erasmus(+) graduates stated that **Erasmus+ had been beneficial or very beneficial for them in finding their first job**.

Erasmus+ traineeships often lead to jobs within host companies; many trainees also start their own companies.

- Erasmus+ traineeships have a direct effect on employment after graduation
 - **40%** of participants who went on a traineeship **were offered a job position** at the host company/organisation. This is a relative increase of 20% compared to the previous Erasmus programme.
 - Around 1 in 10 Erasmus+ graduates who participated in traineeships **started their own company**; many more plan to do so in the future, as almost **75% plan to start their own company or can envisage to do so**.

Regarding their careers, the study found that Erasmus(+) graduates are happier with their jobs, they score higher on factors measuring job quality and have more international careers.

- 84% of Erasmus(+) graduates feel they have **opportunities to grow professionally**, compared to 78% of non-mobile graduates and they are **more satisfied with their earnings than students who did not participate in Erasmus+**.
 - A higher share of Erasmus(+) graduates (two thirds) characterise their jobs as "high income" than in the case of non-mobile graduates (58%).
- Erasmus(+) graduates are also **more satisfied with their jobs** and have **more international careers** than non-mobiles.

¹ Erasmus(+) is used to refer to respondents who have already graduated, and who may have taken part in Erasmus+ higher education student mobility or in Erasmus mobility-for higher education students- under its predecessor, the Lifelong Learning Programme.

- More than **90%** report that they **have possibilities to use their knowledge and skills** and **86%** that they undertake **challenging tasks**.
- Erasmus(+) graduates report substantially more often that their jobs are characterised by an **international environment** (75%) and have **social recognition/ status** (73%) than non-mobile graduates (70% and 66% respectively).
- **Erasmus(+) graduates work abroad much more frequently than non-mobile graduates** –and often in the country where they did their Erasmus(+).
 - **23%** of Erasmus(+) graduates reported to have **started their job in a country different to their country of origin**, compared to 15% in the case of non-mobile graduates.
 - **Almost half of Erasmus(+) graduates who got their first job abroad, got it in the country where they stayed during their Erasmus(+)**.
 - While around **90%** of former Erasmus+ students from Northern, Southern and Eastern European Programme Countries (and even more from Partner Countries) **definitely want to work abroad for a while** in the future, 80% of students from Western European higher education institutions report that to be the case.
 - **Erasmus(+) graduates from Southern and Eastern European Programme Countries** that got their first job abroad moved to Western European Programme Countries more often than to any other region.
 - Graduates from **Northern and Western European Programme Countries** tended to start their first job abroad **in the same region**, even when they move abroad.

Participation in Erasmus+ is associated with the development of skills for employment and social cohesion.

- Former Erasmus+ students report gains on skills demanded in the **labour market**
 - **9 in 10** reported improvements in **adaptability, interactions** with people from other cultures, **communication skills** and **intercultural competences**.
 - **In addition, more than half** of Erasmus+ participants reported to have improved their **digital skills**.
- Erasmus+ **develops employability skills** that are in demand in the labour market
 - The results on this aspect are similar to those from 2014, as mobile students continue to enhance their communication skills, adaptability to adapt in new situations and their sector- and field-specific knowledge.
- Erasmus+ students also reported improvements on skills that foster **social cohesion**, a key issue in the current social and political environment.
 - **95%** reported to have learned to **better get along** with people from **different cultures** and **93%** to have improved their ability to take **cultural differences** into account.
 - **Half** reported that after their mobility they stand **even more against discrimination, intolerance, xenophobia or racism**.
- The **highest gains on employability skills and intercultural openness** were reported by former participants from **Southern and Eastern European Programme Countries**.
- Travelling to **non-neighbouring countries** leads to higher gains on intercultural openness.

- Psychometrical measures of a range of **dispositions, attitudes and behaviours (self-confidence, goal orientation, cultural and social openness) show improvements thanks to mobility.**
 - Comparing the answers of the same individuals before and after their Erasmus+ mobility shows that there is a **significant gain while being abroad**, while there is virtually no development for non-mobiles over similar periods of time.
 - Students **experience larger improvements during their mobility compared to the results obtained in 2014.**
 - Erasmus+ participants show much higher scores than non-mobiles, especially in **Cultural and Social Openness** prior to departure, and improve over the mobility period; improvements are, nevertheless, largest for **Self-Confidence.**

Erasmus+ was found to produce higher impact than other mobility programmes on personality development, social engagement, intercultural openness and also on academic development.

The report also found that Erasmus+ student mobility influences European identity and awareness about the benefits of the European Union, in particular amongst more sceptic students.

- Erasmus+ mobility **contributes to the creation of a European identity and understanding about the benefits the EU has on the daily life of European Citizens.**
 - After their Erasmus+ mobility **more than 90% of students agree that the European Union is necessary and see an added value in being European.**
 - Before going abroad, one quarter of Erasmus+ students feel **only or primarily European**; after the stay abroad, this is reported by **nearly one third (an increase of 7 percentage points) to 32%.**
 - **The weaker** the European Identity **prior to the mobility, the larger the gain** experienced during mobility.
 - **Going to non-neighbouring countries** further increases these gains.
- European identity differs slightly between regions.
 - Young people from **Eastern European Programme Countries** show the **strongest European Identity** among all Erasmus+ students, before and after the mobility, followed from students from Southern European Programme Countries.

Erasmus(+) and 'international relations': Erasmus(+) graduates have a partner from a different nationality almost twice as often as non-mobile graduates.

- There are **love stories** in Erasmus(+).
 - **23%** of Erasmus(+) graduates who live with a partner are in an 'international relationship', this is, have a partner **with a different nationality to their own** - compared to 13% of non-mobile graduates.
 - **More than half (54%)** of those Erasmus(+) graduates in **international relationships met their partner during their Erasmus(+) mobility.**
 - Overall, **one in five Erasmus(+) graduates who live with a partner met their partner during an Erasmus(+) mobility.**
 - 16% of international "Erasmus" couples older than 27 years of age have children.

The reasons why students go abroad were also explored in the study.

- The main motivations for Erasmus+ students² are to **experience life abroad (70% of students)**, improve their **language (62%) and soft skills (49%)**, **expand their social network (49%)** and **improve their career chances (49%)** through their Erasmus+ period abroad.
 - Erasmus+ students from Eastern, Southern Programme and Partner Countries are particularly interested in experiencing new teaching and learning practices. Nearly 40% of students from Eastern and Southern Programme countries were motivated by this aspect (55% in the case of Partner Countries).
- **Erasmus+ is an important financial resource**, especially for **students from disadvantaged backgrounds** and those from **Eastern European Programme Countries**: around one in four students from disadvantaged backgrounds reported the Erasmus+ grant to be a main driver for participation, compared to one in five for non-disadvantaged students; one in three students from Eastern European Programme countries reported the grant to be a main driver for participation.

Finally, the barriers to student mobility were also investigated.

- **Financial concerns and personal reasons** remain the most frequent reasons for students not to spend part of their studies abroad: around two thirds of non-mobile students reported some type of financial concern and around one in two reported family reasons and personal relationships as main barriers to mobility.
- The relative importance of **a number of barriers**, however, has **decreased significantly** under Erasmus+ compared to the previous programme:
 - **The identification of lack of information about the programme and how it works as a main barrier to participation has been reduced by over 50%.**
 - **In the case of uncertainty about the costs of a stay abroad the reduction has been around 47%.**
 - **With regards to uncertainty about Erasmus+ grant level the reduction has been around 88%.**

Impact on Higher Education Staff

Higher education staff who take part in an Erasmus+ mobility are more innovative and in touch with the labour market than their peers: around 60% reported to use learning in multidisciplinary groups, teach making use of ICT and use Open Educational Resources compared to less than 45% of non-mobile staff; and 59% reported to have invited staff from enterprises to teach (compared to 40% of staff who have not participated in an Erasmus+ mobility). Erasmus+ helps staff to use innovative methods: 43% reported that they had started to use at least one innovative teaching method during their stay abroad. Participants in the programme also reported to have improved their inter-cultural understanding, transversal and social skills through the programme, and hold strongly positive views about Europe.

² This term is used throughout to refer to participants in international mobility in higher education, including also mobility for traineeships.

The impact study found that higher education staff aim to enhance their professional and institutional advancements by participating in Erasmus+, whereas barriers to participation mainly relate to family and work responsibilities.

- Erasmus+ staff are as motivated to participate by reasons of professional and institutional advancements, as they were in 2014.
 - Reasons for taking part are mainly related to **collaboration and networking (93%), the development of field knowledge (93%) and the opportunity to experience different learning and teaching methods (89%)**.
- The main barriers to participation are **family reasons and personal relationships, and work responsibilities**.
 - The main reason for not taking part are **family reasons and personal relationships (67%), working responsibilities** in the home institution **(64%)**.
 - **Difficulties in finding an appropriate institution abroad (51%) and lack of information about the Erasmus+ programme and how it works (50%)** are also among the top five barriers for staff.

The report shows that staff who take part in Erasmus+ mobilities are more innovative and cooperate more with the labour market. Participation in the programme further increases their intercultural understanding and social skills.

- Erasmus+ mobile staff make greater use of **innovative teaching methods** and connect **with the labour market** more often than their peers.
 - **43%** of staff who participated in Erasmus+ reported that they started to use at least one new **innovative teaching method** (such as work-based and project-based learning, Open Educational Resources or ICT based collaborative workspaces) during their stay abroad.
 - More than a half of Erasmus+ mobile staff use material from **Open Educational Resources**, such as massive open online courses (MOOCs), compared to one third of non-mobile staff.
 - **59% of Erasmus+ staff invite staff from enterprises to teach**, connecting students with latest developments in the labour market; this is almost 20 percentage points higher than for non-mobiles (40%).
 - Staff from **Eastern European Programme Countries and Partner Countries** reported to **learn most from mobility** when it comes to innovative teaching methods.
- Erasmus+ mobility also improves the **intercultural understanding** of higher education staff.
 - **9 in 10** reported that they learned **to get along with people from different backgrounds better** and to **consider different cultural backgrounds**.
- Erasmus+ staff **improve their transversal and social skills**, more than participants in other mobility programmes.
 - **91%** reported a gain in **intercultural competencies** and **86%** in their **social competencies**, compared to 85% and 78% respectively from other mobility programmes.
 - The **highest impact** is perceived from **staff from Southern and Eastern European Programme Countries** and from **Partner Countries**.

Finally, the study shows that Erasmus+ staff hold **even more positive views on the EU than Erasmus+ students**.

- **95%** believe the EU is necessary/ see added value in being European.
- Erasmus+ participants from **Eastern European Programme Countries show the highest values for European Identity, followed by staff working in Northern and Southern Europe**.

Impact on Higher Education Institutions

Erasmus+ is essential for European higher education institutions' strategies to improve their international competitiveness and the quality of their programmes, although there are regional variations across Europe on their strategic objectives for being involved in Erasmus+. Many higher education institutions report a constant over-demand for student and staff mobilities under Erasmus+. Students and staff generally reported an improvement in the support available for Erasmus+ student and staff mobility.

The vast majority of higher education institutions reported Erasmus+ to be crucial for them. The objectives that they seek to achieve through the programme vary somewhat by region.

- Around **9 in 10 higher education institutions reported Erasmus+ to be very important or essential for them**.
- Institutions in different regions are **strategic in the use of the programme to achieve different objectives**.
 - For example, while institutions in Western Europe place a particular emphasis on the involvement of employers through Erasmus+, those in Nordic countries do it on the staff development opportunities the programme offers, and those in Eastern European countries on opportunities to attract staff from abroad.

There are imbalances between demand and supply for places in the programme, but institutional support for participation has improved markedly in recent times.

- In a considerable share of higher education institutions, the **demand for mobility is higher than the number of places available**, both for students (24%) and staff (28%). In 21% of institutions there is a **lower demand** than student mobility places available, and in 19% this is case for staff.
- Institutional **support for mobility has improved markedly** since 2014
 - Erasmus+ students assess the **conditions for internationalisation at their home institutions remarkably better** than they did in 2014; for example, **76% of former Erasmus+ students state that there is a semester well suited to go abroad –an increase of over 10% compared to the previous programme**.
 - Aspects regarding **information and support for students** who want to go abroad for a traineeship has also experienced substantial improvements.
 - Erasmus+ contributes to the **development of institutions**. More than 70% of staff attribute improvements in student mobility management and student support at least to some extent to participation in Erasmus+.

1 Introduction

1.1 Objectives of the study

The objective of the Erasmus+ Higher Education Impact Study is to analyse the impact of the Erasmus+ programme on higher education students, staff and institutions across multiple dimensions. The Erasmus+ programme aims to improve the level of key competences and skills of the participants, with particular regard to their relevance for the labour market and their contribution to a cohesive society; foster quality improvements, innovation excellence and internationalisation in higher education institutions; and to enhance the international dimension of education.³ This study examines, in various ways, the extent to which the expected effects of the programme materialise and for which groups of participants, to provide findings that can support the further development of the programme and its design.

1.2 Impact Areas Analysed

To structure the analysis, the following list of "Impact Areas" (areas where Erasmus+ is expected to produce an impact) for different groups was developed and associated research goals were specified. The report organises the findings according to these areas.

Table 1. *Impact Areas*

Target group	Impact Area	Relevant research goals
Students	Access to mobility – barriers and motivations	To analyse the extent to which Erasmus+ addresses some of the barriers to student mobility (such as linguistic, financial or in terms of recognition, etc.) and makes the programme accessible.
	Academic path and learning experience	To assess how participation in Erasmus+ mobility periods relates to students' learning experiences, in particular in terms of the use of new learning methods.
	Competencies relevant to employment and cohesive society	To analyse how participation in Erasmus+ is associated with variations in the level of a set of key competences and skills considered relevant for the labour market. To analyse how participation in Erasmus+ is associated with variations in the level of key competences and skills considered relevant for a cohesive society.
	Employability	To examine how participation in Erasmus+ is related to variations in a range of employability measures for graduates, including average time to find a first job and the first job location (home country, European country or non-European country). To explore what kind of jobs Erasmus+ graduates hold after their graduation and the proportion of students who have been offered a position by the company where they did their Erasmus+ traineeship.
	European identity	To analyse how participation in Erasmus+ is related to variations in the interaction with citizens from different

³ Erasmus+ Programme Guide, p. 25

		countries to one's own and influences European identity and attitudes towards Europe.
	Personality, attitudes and behaviour	To assess how participation in Erasmus+ is related to variations in personal growth and personality development - with a particular focus on attitudes relevant to career success and employability
Staff	Access to mobility - barriers and motivations	To analyse the extent to which how Erasmus+ contributes to removing some of the barriers to staff mobility (such as linguistic, financial, recognition, etc.).
	Innovative teaching methods	To assess the how participation in Erasmus+ is related to variations in the use of innovative teaching methods.
	Competencies	To examine how participation in Erasmus+ is related to variations in key skills and competences of staff.
	European Identity	To analyse how participation in Erasmus+ is related to variations in the interaction with citizens from different countries to one's own and influences European identity and attitudes towards Europe.
	Social Engagement	To analyse how participation in Erasmus+ is related to improvements in social skills, like intercultural understanding and social engagement
Institutions	Teaching methods and curriculum development	To analyse how participation in Erasmus+ is related to variations in the use/development of teaching methods and new curricula at departmental level in the sending and host institutions.
	Support services	To analyse how Erasmus+ is related to variations in the support services for international students offered by higher education institutions.
	Internationalisation of institutions	To analyse how Erasmus+ is related to variations in the internationalisation of higher education institutions and the facilitation of mobility outside the programme.
	Impact of International Credit Mobility	To explore how institutions approach collaborations with institutions from partner countries as part of Erasmus+ ICM and the extent to which EU funding contributes to the establishment of international credit mobility arrangements.
	Cooperation with enterprises	To explore the added value on teaching and learning of different forms of contact with enterprises as part of Erasmus+, both from the perspective of the individuals involved and from the institutional perspective.
SPs*	Cooperation with external partners	To identify the extent to which participation in SPs is associated with changes in the level of cooperation with actors outside of higher education, and the types of cooperation that take place.

Teaching methods and curriculum development	To explore how participation in SPs is related to variations in the development, use and improvement of teaching methods, teaching activities and curriculum development, in particular, of an innovative character.
Internationalisation of institutions	To analyse the association between participation in SPs and changes in the degree of internationalisation of HEIs –and how this takes place.
Access and diversity	To identify how participation in SPs is related to widening access practices and the diversity of the student body.

*= Strategic Partnerships.

2 Background

2.1 About the programme

Since 1 July 1987, the Erasmus programme has been contributing to the internationalisation and modernisation of higher education in Europe. During the academic year 2016/17 alone more than 400 000 higher education student and staff went abroad thanks to Erasmus+⁴. In contrast to the previous Erasmus programme, Erasmus+ is not confined to intra-European mobility but also enables students and staff to go from Europe to the rest of the world and vice-versa.

Built on the foundations laid by the Erasmus programme, the new Erasmus+ programme was launched in 2014⁵. Compared to its predecessor programme, Erasmus+ provides stronger opportunities for cooperation between higher education institutions and their stakeholders with an increased focus on quality, impact and accessibility. Past and present Erasmus programmes have aimed to stimulate international mobility of students and staff and enable higher education institutions to improve their quality and relevance through transnational cooperation projects and networks. Many of the projects funded under the Erasmus programme have led to important policy reforms and developments and contributed to further lower the barriers for mobility in higher education, for example through the European Credit Transfer and Accumulation System - ECTS.

In higher education, Erasmus+ introduced three main novelties:

- Strategic Partnerships (SPs). A first type of SPs supports the development of innovative outputs, and/or engage into intensive dissemination and exploitation activities, which is generally done through Higher Education SPs (KA203 projects). A second type of SPs supports the exchange of good practices to allow organisations to develop and reinforce networks and increase their capacity to operate at transnational level. SPs are open to any type of organisation in the field of education, training and youth or other socio-economic sectors, as well as to organisations carrying out activities that are transversal to different fields.
- International Credit Mobility (ICM). Falling under Key Action 1, ICM extends the classical Erasmus and funds short-term mobility for students and staff between Programme and Partner Countries, in either direction.
- Widening access to higher education. The Erasmus+ programme introduced new rules to enhance accessibility and remove barriers of participation. Among a range of other measures, extra financial support is now offered to students from socio-economic disadvantaged backgrounds, students with special needs and students from outermost countries and regions/overseas territories. Besides, the introduction of the Online Linguistic Support (OLS) allows for the assessment of the level of language skills (by CEFR levels) of departing and returning students and has provided courses to 160,000 students since 2014.

In conclusion, the Erasmus+ programme aims to have a direct impact in higher education in the EU and beyond and create benefits for individuals and institutions by stimulating international mobility, strengthening the quality requirements of mobility and offering new opportunities to establish strong institutional partnerships in and outside the EU.

⁴ European Commission (2018) Erasmus Annual Report 2018. Luxembourg, Publications Office of the European Union. P.4.

⁵ Next to higher education, Erasmus+ also encompasses school education, vocational education and training, higher education, adult education, and youth and sports. The current assignment focusses on the impact of Erasmus+ in higher education.

2.2 Literature review

This section presents a summary of the narrative literature review conducted for this assignment. The literature review explored relevant competences in the labour market and for a cohesive society and the need for innovative teaching methods before examining the impact of Erasmus+ and predecessor programmes at individual (students and staff) and institutional level, and barriers to transnational mobility and cooperation.

2.2.1 Competences of relevance in the labour market and for a cohesive society

Economic recovery, job creation and sustainable growth are of great importance to policy makers in EU Member States. The management of the refugee crisis and the prevention of radicalisation are also high on the political agenda. Closing the gap between the skills students learn in (higher) education and those needed on the labour market and for the creation of more inclusive societies can help address these challenges.⁶ As such, policy makers at the European⁷ and national level have paid increasing attention to ensuring that students acquire relevant skills and competences for employability and active citizenship⁸, and supporting educators to innovate and open up education.

Recent developments at policy level have included the update of the ET2020 programme (for 2016-2020)⁹ and related priority actions, with the inclusion of six new priorities including the development of relevant and high-quality skills and competences for open and innovative education. The recently reviewed European Key Competences Framework aims at better supporting education and training systems in the development of competence-based education, training and learning.

The New Skills Agenda for Europe¹⁰, adopted in 2016, sets out a number of actions to ensure that the 'right training, the right skills and the right support is available to people in the European Union'. In his speech ('Building open, cohesive and strong communities in Europe'¹¹) introducing the agenda, Commissioner Tibor Navracsics summarised the rationale of the latter as follows: 'the challenge is to provide not only the right aptitudes, but also the right attitudes. Skills such as flexibility, creativity, problem-solving, communication and critical thinking are all part of the blend of competences employers look for – and that enable people to stand on their own feet and take control of their lives'.

⁶ European Commission: Amendment of the 2017 annual work programme for the implementation of 'Erasmus+': the Union Programme for Education, Training, Youth and Sport
Source: https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus/files/library/c-2017-705_en.pdf

⁷ e.g. Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, strategic programme for European cooperation in the field of education and training (ET 2020)The latter stated that besides all basic skills, creativity, innovation and entrepreneurship should be encouraged at all levels of education and training. The text also underlined that young people should also be equipped with digital competency - as important drivers of sustainable economic development. Full text available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:ef0016>.

⁸ Next to labour market-related objectives, citizenship education is particularly important: in increasingly complex societies it is important to make citizens aware of Europe's values, prerogatives, political history and structure by developing citizenship through formal and non-formal education. http://ec.europa.eu/dgs/education_culture/repository/education/documents/et-2020-swd-161-2015_en.pdf

⁹ <http://ec.europa.eu/social/main.jsp?catId=1223>

¹⁰ Ibid.

¹¹ https://ec.europa.eu/commission/2014-2019/navracsics/announcements/building-open-cohesive-and-strong-communities-europe_en

At programme level, the 2017 Erasmus+ annual work programme¹² stresses the importance of allowing young people to be active citizens and preparing them for the challenges of the 21st century.

Concerning the skills needed for the 21st century, the 2015 World Economic Forum (WEF) report 'New Vision for Education' defined 16 critical 21st-century skills that prepare young people to stand well on the labour market and promote active citizenship and social cohesion. These can be clustered into three main groups: foundational literacies (literacy; numeracy; scientific, ICT, financial and cultural/ civic literacies), competencies required to approach complex challenges (critical thinking and problem solving, creativity, communication and collaboration) or character qualities to effectively operate in a changing environment (curiosity, initiative, persistence, adaptability, leadership and social/ cultural awareness).

2.2.2 The need for innovative teaching methods

In light of the above, and the need to adapt education ecosystems to the digital era we now live in, increased attention has been put by policy makers on support to innovative teaching and learning approaches.

This shift from traditional to innovative teaching/learning approaches has been analysed in a number of research projects. The OECD New millennium learners project¹³, which has been conducted over several years since 2008, has demonstrated that the new generation of learners have a different approach to learning, hence requiring the need to rethink traditional methods of teaching. At the EU level, several policy documents have explicitly called for support and action at Member States level in this area. The 2011 Communication on Modernisation of the higher education agenda¹⁴ underlines that the role of teaching shall be to 'develop confidence in creative abilities, community engagement and a sense of ethical responsibility which can be best achieved by applying new, innovative teaching methods'. More recently the EC consultation on the renewed Modernisation of Higher Education Agenda underlined the importance of tailored approaches to teaching and learning for effectively equipping students with adequate skills and competences to address skills needs in the labour market and enhancing their skills development in specific areas (such as digital skills)¹⁵.

The value of Erasmus mobility in relation to innovating teaching and learning methods was shown in the 2014 Erasmus Impact Study (EIS)¹⁶. The study showed that Erasmus mobility provided participants with opportunities to handle new technological equipment, to enhance their qualifications and to develop new teaching methods and courses. Academic staff often reported that their international experience encouraged them to revise their teaching methods. In the same vein, the studies issued by the EACEA on the

¹² European Commission (2017) Annual work programme for the implementation of 'Erasmus+': the Union Programme for Education, Training, Youth and Sport

¹³ OECD (2008) New Millennium Learners

Source: <http://www.oecd.org/site/educeri21st/40554230.pdf>

¹⁴ European Commission (2011) Supporting growth and jobs – an agenda for the modernisation of Europe's higher education systems

Source: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0567&from=EN>

¹⁵ European Commission (2016), 'Results of the public consultation on the EU's modernisation agenda for higher education accompanying the document A new skills agenda for Europe: Working together to strengthen human capital, employability and competitiveness'.

¹⁶ CHE Consult, Brussels Education Services, CHE, Compostela Group of Universities and Erasmus Student Network (2014) *The Erasmus Impact Study: Effects of mobility on the skills and employability of students and the internationalisation of higher education institutions. Final report to the European Commission*. Luxembourg, Publications Office of the European Union.

main achievements of the Tempus programme¹⁷ confirm that mobility helped participating academic staff to move from a traditional classroom-based learning towards a more participatory way of teaching that combines new possibilities such as e-learning and blended learning and helped them to reform curricula.

The review of the Erasmus+ programme guide shows that the programme aims at supporting practice and mutual learning in the field of teaching methods implementation. A clear emphasis is put on support to innovative teaching methods. As an example, under Strategic Partnerships in higher education, funding can be allocated for developing, testing, adapting and implementing innovative practice for example in relation to joint study programmes, intensive programmes and common modules (including e-modules) between partners from different countries, disciplines or sectors (public/private); embedding international mobility into programmes; the introduction of pedagogical approaches and methodologies in particular for the development of transversal competences; and the integration of a greater variety of study modes (distance, part-time, modular) and new forms of personalised learning.

2.2.3 Impact of Erasmus+ predecessor programmes at individual level: students

2.2.3.1 Introduction

The literature has reported a range of different types of impact of transnational mobility in higher education, as offered by Erasmus+ predecessor programmes, at student and staff level. A number of positive effects are commonly found, which can be mapped against four main types of (expected) outcomes:

- improved skills and competences (for example in terms of foreign language skills; intercultural awareness; interpersonal communication skills; problem solving skills; ICT skills; entrepreneurship skills; leadership skills and learning to learn¹⁸);
- improved personal and social development (for example in terms of self-confidence; autonomy and adaptability; increased network of friends/ contacts from other countries¹⁹);
- improved sense of belonging to the EU and readiness to live in foreign countries (for example in terms of enhanced openness to other cultures; better knowledge about Europe; improved readiness to work/ study/ live abroad; intention to move abroad for work/study/live²⁰); and
- improved employability (shorter transition periods into employment; improved employment prospects, provision of skills and experience demanded by

¹⁷ Education, Audiovisual and Culture Executive Agency, 2014, The Main Achievements of the Tempus Programme (regional publications: Western Balkans, Eastern Europe, Southern Mediterranean).

¹⁸ See European Commission 2007, 2011, 2012; CHE Consult, Brussels Education Services, CHE, Compostela Group of Universities and Erasmus Student Network 2014; Teichler 2012; Teichler and Janson 2007; Mattern 2016; Fombona, Rodríguez and Sevillano 2013, ESN 2013; 2015; CIEP 2009, 2013; CIMO 2015, MOBGAE 2015, Go International 2015, Jašková and Heczková 2010; Madlena 2011; Sorrenti 2015; Balula and Costa 2014.

¹⁹ See European Commission 2007, 2011, 2012; CHE Consult, Brussels Education Services, CHE, Compostela Group of Universities and Erasmus Student Network 2014; Teichler 2012; Teichler and Janson 2007; Mattern 2016; Fombona, Rodríguez and Sevillano 2013, ESN 2013; 2015; CIEP 2009, 2013; CIMO 2015, MOBGAE 2015, Go International 2015, Jašková and Heczková 2010; Madlena 2011.

²⁰ See European Commission 2007, 2011, 2012; CHE Consult, Brussels Education Services, CHE, Compostela Group of Universities and Erasmus Student Network 2014; Teichler 2012; Teichler and Janson 2007; Mattern 2016; Fombona, Rodríguez and Sevillano 2013, ESN 2013; 2015; MOBGAE 2015, Go International 2015.

employers; better career progression prospects²¹), although some studies also mentioned that some of the skills acquired during mobility periods can also be unrecognised by employers in some national contexts (CIMO 2015).

2.2.3.2 Learning and competence development

Evidence of impacts on learning and competence development was found in the vast majority of the sources reviewed. In most reports, reference was made to benefits in terms of improved linguistic skills and a range of 'soft skills' including learning to learn, problem-solving, communication skills and intercultural skills and awareness.

More than 90% of the students surveyed in the EIS²² reported an improvement in their soft skills, such as knowledge of other countries, ability to interact and work with individuals from different cultures, adaptability, foreign language proficiency and communication skills. This concurs with various other reports, including the LLP interim evaluation²³ and the interim evaluation of Erasmus+²⁴, which conclude that Erasmus beneficiaries acquire a variety of new skills in comparison to non-mobile students in most cases. The Erasmus+ interim evaluation noted that there is 'strong evidence of the effect of student mobility on the learners (skills, employability, labour mobility). This concerns both mobility for studies and mobility for work placements'²⁵. It also noted that the vast majority of participants (around three quarters in the case of those that had taken part in mobility in HE) agree that the programme helped them improve more than six competences (such as professional skills and soft skills like planning and organisation or problem solving)²⁶.

Other studies (Teichler 2012) reveal that the majority of Erasmus students 'believe that their academic progress abroad is higher than that expected during a corresponding period of study at home'²⁷. The author concludes that academic learning abroad in the framework of Erasmus is not in 'general superior in substance, but in the stimulation of reflection and comparative thinking'.

Studies also show that in an increasingly global market, employees with "global competences" are in demand by the employers²⁸. These include attitudes, skills and knowledge that enable diverse and internationally minded graduates to tackle the opportunities and challenges that globalisation is presenting. According to Diamond (2011), one of the most important and effective ways to build such set of competences is through participating in international student mobility. Among others, these include the ability to work collaboratively, communication, drive and resilience, and embracing multiple perspectives.

2.2.3.3 Personal and social development

The most frequently reported types of effects on students' personal and social development are increased self-confidence, stronger autonomy and adaptability. The EIS

²¹ See CHE Consult, Brussels Education Services, CHE, Compostela Group of Universities and Erasmus Student Network 2014; Di Pietro 2014; O'Malley 2016; Leroux 2016; MOBGAE 2015; Go International 2015.

²² CHE Consult et al. (2014) Erasmus Impact Study

²³ Public Policy and Management Institute (2011) "Interim Evaluation of the Lifelong Learning Programme (2007-2013)" PPMI, Vilnius.

²⁴ ICF (2018) 'Combined evaluation of Erasmus+ and predecessor programmes' Final report –main evaluation report (volume 1). ICF, Brussels.

²⁵ Ibid. p.289.

²⁶ Ibid. p.209.

²⁷ Teichler, U. (2012) International Student Mobility and the Bologna Process, International Centre for Higher Education Research Kassel (INCHER-Kassel), University of Kassel, Germany.

²⁸ Diamond A., (2011) Global graduates into global leaders. Source:

http://www.ncub.co.uk/index.php?option=com_docman&view=download&category_slug=publications&alias=42-global-graduates-into-global-leaders&Itemid=2728

suggested an impact on personality traits of an average six-month mobility equivalent to a life experience of 4 years. EIS also revealed that 99% of the higher education institutions (HEIs) saw a substantial improvement in their students' confidence and adaptability. Fombona et al.²⁹ note that among other benefits, study periods abroad are a 'valuable opportunity for maturation of their personality, for comparative insights and understanding of other people.'

2.2.3.4 Sense of belonging to the EU and intercultural awareness

Various sources affirm that the mobility schemes offered under the Erasmus programme also strengthened participants' European awareness, nuancing their perspectives on cultural diversity, intercultural relations and European affairs. The ESN Survey 2013³⁰ reveals that mobile and future mobile students are usually better informed about the EU and more interested in international and European politics than non-mobile students. It also provides evidence of an impact on former Erasmus students' intercultural awareness and openness and suggests that mobile students are more likely to live outside their home region than non-mobile students. They are also more capable of searching for jobs in languages other than their mother tongue or English and appreciate working in an international environment, the possibility to travel and ability to work independently more than those without mobility experience.

Mitchell (2012)³¹ finds that engaging in contact with other Europeans makes Erasmus students more interested in Europe and other Europeans and makes them more likely to identify themselves as Europeans. The study also suggests that Erasmus contributes to the development of intercultural skills, further reinforcing Erasmus participants' identification as Europeans. The study, however, identifies limitations to the civic potential of the programme because the outreach of Erasmus, though increasing, is still relatively modest and because those students with the least-European outlooks and attitudes may be the least likely to participate in it.

2.2.3.5 Employability/transition to employment

Employability: key trends

The majority of the studies emphasise the positive impact of mobility on employability. The information set out below mostly draws on the results of the EIS³² and its Regional Analysis³³. Where appropriate this is complemented with findings of other national-level studies.

According to the EIS participation in Erasmus has a large long-term impact on beneficiaries' careers: only 2% of Erasmus graduates were unemployed more than 12 months after graduation while 4% of non-mobile graduates were. This positive effect is especially significant in countries facing higher rates of long-term youth unemployment. In Eastern Europe, Erasmus graduates were much less likely to experience long-term unemployment than non-mobile graduates, whereas the effect in Northern and Western Europe is less striking - implying that better labour market conditions may reduce the competitive advantage of graduates with Erasmus experience. After five years, the unemployment rate among Erasmus graduates was found to be significantly lower than among their fellow graduates who did not go abroad, and they are also more likely to have moved on to higher studies. Participation in Erasmus has also been associated with

²⁹ Fombona, J., Rodríguez, C., Sevillano Pascual (2013) "The Motivational Factor of Erasmus Students at the University." *International Education Studies*, v6 n4 1-9 pp.

³⁰ <https://esn.org/ESNSurvey/2013>

³¹ Mitchell, K., (2012) "Student Mobility and European Identity: Erasmus Study as a civic experience?" *Journal of Contemporary European Research*, 8(4), pp.490-518.

³² CHE Consult et al. (2014) Erasmus Impact Study

³³ CHE Consult (2016), Erasmus Impact Study Regional Analysis. Final Report to the European Commission. Luxembourg, Office for Official Publications of the European Commission.

higher career levels. After five years 57% of Erasmus participants were in managerial positions compared to 53% of respondents who had not done an Erasmus period.

The above findings are consistent with previous research.³⁴ Janson et al. (2009) argue that employers rate the competences of internationally experienced graduates as favourably as the former Erasmus students themselves, as employers believe to a high extent that mobile graduates have higher competences than their non-mobile counterparts. Some contrary evidence is provided by a study by the Center for International Mobility (CIMO³⁵) in Finland, which suggests that the skills obtained and developed during the mobility period are not always visible to the employers. While some competences such as tolerance, language skills or cultural knowledge are traditionally recognised, the study argued, a substantial number of skills developed during study abroad periods remain under the radar of employers -including curiosity or resilience. Janson et al. (2009) found no clear evidence of an impact of the mobility period on remuneration. Moreover, a share of former Erasmus students reported unable to make as good use of their competences as they had hoped for at work. The research raises the question whether this signals that the labour market has an oversupply of competences of this kind. Finally, the paper surmises that Erasmus does not appear to have a higher positive impact concerning the professional value than other study abroad schemes.

According to Rodrigues (2013)³⁶, the effect of student mobility is stronger concerning future career in horizontal dimensions (working abroad and having international tasks) than in vertical dimensions (employment and wages). The study presents -see also Parey and Waldinger (2008)³⁷, who find that studying abroad increases an individual's probability of working in a foreign country by 15 to 20 percentage points, contributing to the development of an integrated European labour market. Secondly, internationally mobile graduates can expect higher hourly earnings (3%) than their non-mobile counterparts. Thirdly, student mobility is associated with a slightly longer time to find a job following the graduation, but this negative outcome is offset by the higher average earnings.

Besides mobility for study, Erasmus has also supported mobility for placements/traineeships since 2007³⁸. These have grown rapidly, and today the annual number of traineeships is more than four times higher than in 2007. The EIS³⁹ suggests that work placements had a direct effect on employment: more than one in three respondents to the study survey of participants (who did an Erasmus work placement) reported to have been offered a job by their host company⁴⁰. Moreover, the study also reported an impact on entrepreneurship: almost 1 in 10 students on a job placement started their own company, and more than 3 out of 4 plan to do so, or can envisage doing so. The relevance of work placements but also study abroad was valued by the HEIs. 94% of

³⁴ Janson K., Schomburg H., Teichler U., (2009) *The Professional Value of ERASMUS Mobility*. Bonn, Lemmens Medien GmbH.

³⁵ CIMO, (2014) *Faktaa: Facts and Figures - Hidden Competences* Source: http://www.cimo.fi/instancedata/prime_product_julkaisu/cimo/embeds/cimowwwstructure/32427_Faktaa_1_2014_Hidden_Competences.pdf

³⁶ Rodrigues, M., (2013) "Does Student Mobility During Higher Education Pay? Evidence from 16 European countries" Joint Research Centre. Luxembourg, Publications Office of the European Union.

³⁷ Parey, M, Waldinger, F., (2010) "Studying abroad and the effect on international labour market mobility: Evidence from the introduction of ERASMUS" *The Economic Journal* 121, no. 551: 194-222.

³⁸ They had been previously managed within the Leonardo da Vinci Programme for vocational education and Training.

³⁹ CHE Consult et al. (2014) *Erasmus Impact Study*. P.119.

⁴⁰ This may also be considered as an indirect proof of the quality of Erasmus work placement students.

HEIs observed a substantial impact of work placements on employability and 92% were of the opinion that studying abroad influenced employability.

A number of national reports have also explored the impact of mobility on employability. The French Erasmus+ National Agency⁴¹ carried out an analysis of a large survey of young people having left the education system for the first time in 2010. The analysis shows that young people who were mobile⁴² during their last period of education or training spent, on average, five more months in employment over the following three years than non-mobiles.

The literature reviewed suggests that the positive impact of Erasmus mobility on graduates' employability largely corresponds to the impact of other student mobility schemes. However, it should be noted that these programmes are generally much smaller, supporting a lower number of students. In the UK, a report from Go International⁴³ on the 2012-2013 undergraduate cohort shows that six months after graduation undergraduates who were mobile⁴⁴ were less likely to be unemployed: only 5.4% of them were unemployed compared to 6.7% of non-mobiles. This positive impact on unemployment is even greater for disadvantaged students, suggesting a higher return to this type of student⁴⁵: 5.0% of mobile disadvantaged students were unemployed while 7.6% of non-mobile disadvantaged students were.

Time for transition into employment

A French Erasmus+ National Agency⁴⁶ study offers interesting insights on how much time it took young people to find a job after leaving the education system. Those who took part in mobility abroad during their last year of education found their first job 2.9 months after leaving the education system, while for those without this experience the same took 1.7 months longer, 4.6 months on average. The latest available evaluation of Erasmus Mundus II⁴⁷, which supports degree mobility and the Erasmus Mundus II graduate impact survey⁴⁸ revealed that 55% of graduates from the programme had jobs within two months of graduation and that they were very well regarded on the job market.

Further research on Erasmus students' transition to the labour market is provided by the EIS study, which examined employment rates three months after graduation: 72% of Erasmus graduates had found a job while 75% of non-mobile graduates had. This suggests that overall, Erasmus mobility did not lead to a reduction in the time necessary to find a first job.

Characteristics of first job

The French Erasmus+ National Agency report provides an overview of the characteristics of young people's first job. Around 40% of young people who were mobile during their last period of education had a fixed-term contract for their first job, 37% a permanent

⁴¹ Agence Erasmus+ France Education & Formation, 2016, Enquête sur l'insertion professionnelle de la Génération Erasmus

⁴² Young people who completed a supervised stay abroad e.g. for work, internships, or at a school or university.

⁴³ Go International (2015) Gone International: Mobile students and their outcomes - Report on the 2012/13 graduating cohort

⁴⁴ Studying, working, or volunteering abroad.

⁴⁵ Students whose parents/guardians fall into one of these occupational categories: lower supervisory and technical occupations, semi-routine occupations, routine occupations, never worked/long-term unemployed

⁴⁶ Agence Erasmus+ France Education & Formation, 2016, Enquête sur l'insertion professionnelle de la Génération Erasmus

⁴⁷ Public Policy and Management Institute (2012) Interim evaluation of Erasmus Mundus II (2009-2013), Final Report to the European Commission. Vilnius, PPMI

⁴⁸ Erasmus Mundus Graduate Impact Survey (2015)

Source: http://www.em-a.eu/fileadmin/content/GIS/Graduate_Impact_Survey_2015.pdf

contract and 9% a temporary agency contract, 8% a subsidised employment contract and 5% were self-employed. Non-mobile young people's first job was less often on a permanent contract (26%) and they more often had to resort to temporary agency or subsidised employment contracts (29%). Over half of former mobile students have accessed high-skill jobs: 65% of them were in a managerial position or in a middle-level profession for their first job, compared to 34% of non-mobile students.

Location of employment

The EIS observed that Erasmus mobility fosters geographical mobility for employment: 40% of Erasmus graduates moved to another country after graduation, while 23% of graduates without mobility experience did. Similarly, the Go International report mentions that 11% of undergraduates with mobility experience were living and working abroad – 7% in Europe and 4% elsewhere in the world – and only 2% of the undergraduates without mobility experience were living and working abroad - 1% in Europe and 1% elsewhere in the world.

As part of the ESN Survey 2011⁴⁹, Erasmus students were asked in which country they would like to work the most, excluding their home country. Data suggests that 21.1% did not actually have a preference. This was followed by over 10% of respondents indicating being keen to work in the UK (10.5%) or in the US (10.2%). Other countries listed (decreasing order from 8% to 1%) mostly comprised EU/EFTA countries (e.g. Germany, France, Spain, Sweden, Switzerland or Norway) but also included third countries (e.g. Australia or Canada).

2.2.4 Impacts of transnational mobility on staff

2.2.4.1 Introduction

The effects of transnational mobility on staff have been subject to less research than its effects on students. Effects that have been reported in the literature include improved skills and competences⁵⁰, new teaching approaches and research opportunities⁵¹; and improved personal and social development and intercultural awareness⁵². These are discussed below.

2.2.4.2 Skills and competence development

With regard to strengthened individual competence development, including aspects such as openness and adaptability and foreign language proficiency the findings for staff are similar to those of students. The EIS found that 70% of the staff surveyed for the study agreed that the most important aspect of mobility was the increase in their knowledge of good practices and their skills.

2.2.4.3 New teaching approaches and research opportunities

Another key impact of transnational mobility on staff relates to the acquisition and/or implementation of new pedagogical approaches. The EIS study⁵³ reveals that there is a strong consensus among staff that the Erasmus programme has a positive impact on the development of teaching methods -and cooperation in research.

Over 80% of the academic staff surveyed reported beneficial effects on the quality of teaching and on multi-disciplinary and cross-organisational cooperation in teaching. Over

⁴⁹ Erasmus Student Network (2012) Exchange, employment and added value - Research Report of the ESN Survey 2011.

⁵⁰ CHE Consult et al. (2014); ESN 2015, 2014, 2013; Unlu 2012, Aydin 2012.

⁵¹ CHE Consult et al. (2014); ESN 2015.

⁵² CHE Consult et al. (2014).

⁵³ CHE Consult et al. (2014) Erasmus Impact Study

90% saw effects on their international cooperation and 69% observed a positive impact on research opportunities.

2.2.4.4 Personal, social development and intercultural awareness

Studies suggest that staff mobility experience enables participants to become more open to innovations and to develop a sense of self-confidence⁵⁴. Erasmus is also perceived to provide staff with intercultural experiences. The EIS explored the association between mobility and the relationship staff has with their HEI and towards Europe. Significant differences between mobile and non-mobile staff were observed: the relationship of mobile staff to the home HEI, city and country was stronger for mobile than non-mobile staff (5% to 10% more) and substantially stronger towards Europe (85% compared to 69%).

2.2.5 Impact of Erasmus+ predecessor programmes at organisation level: mobility and transnational cooperation

2.2.5.1 Introduction

With the exception of one main source, the Erasmus Impact Study, and to a lesser extent the interim evaluation of Erasmus Mundus⁵⁵, the impact of transnational mobility at the institutional level has not been well researched in recent years.⁵⁶ The evidence presented below is therefore mainly based on these two sources. The effects of transnational mobility at organisational level reported in the literature include:

- Openness and internationalisation of teaching and research;
- Improved quality of teaching and learning provision; and
- Increased quality of systems to support HEI student mobility.

Overall, existing evidence suggests that transnational mobility as well as international cooperation between staff in higher education has contributed to improvements in these areas.

2.2.5.2 Openness and internationalisation of teaching and research

Available evidence suggests that transnational cooperation projects funded under Erasmus and similar programmes⁵⁷ acts as a catalyst for supporting effective cooperation and mutual learning on various topics of common interest (e.g. recognition of credits and qualifications, curriculum development, innovative pedagogical approaches, etc.) and in the design of institutions' internationalisation strategies. The 'Impact of ERASMUS on European Higher Education: Quality, Openness and Internationalisation'⁵⁸ study highlights for instance that mobility experiences vastly contributed not only to personal development but also to establishing and expanding networks and partnerships. The report also suggests that participation in mobility programmes has increased the involvement of participant HEIs in international collaborative research projects. In

⁵⁴ Unlu, I. (2015) "Teacher Candidates' Opinions on Erasmus Student Exchange Program." *Educational Sciences: Theory and Practice*, v15 n1 p223-237

⁵⁵ Public Policy and Management Institute (2012) Interim evaluation of Erasmus Mundus II (2009-2013), Final Report to the European Commission. Vilnius, PPMI.

⁵⁶ Some general statements highlighting the importance of student mobility in opening up the HEIs, make those globally visible and capable to host students from all over the world was found in 12 of the reviewed sources.

⁵⁷ There are/were different types of transnational cooperation projects supported under Erasmus (multilateral projects, networks and accompanying measures), Erasmus Mundus (Erasmus joint programmes), Tempus (capacity building and joint projects), Alfa III (joint and structural projects) and Edulink (transnational actions).

⁵⁸ CHEPS, INCHER-Kassel and ECOTEC (2008) The Impact of ERASMUS on European Higher Education: Quality, Openness and Internationalisation. Final report to the European Commission. Twente, University of Twente.

addition, other areas of cooperation improved too, such as research collaboration, the establishment of joint/double programmes, and collaboration on joint publications.

The EIS reported that a majority of HEIs considered the programme to have a greater impact on the HEIs than other programmes in four areas: establishing new contacts (53%); increasing the quality of the HEIs' own student mobility (52%); improvement in the cooperation with other partners (52%); and spin-off effects, such as joint degrees or modules (51%)⁵⁹. The report suggests that the programme led HEIs to focus much more on cooperation with other European countries and HEIs than they would otherwise have done.

2.2.5.3 Improved quality of teaching and learning provision

According to the EIS, staff mobility is a highly effective tool for enhancing the internationalisation of teaching. Those HEIs surveyed perceived staff mobility to be important for the promotion of exchanges of expertise and experience on pedagogical methods (93%) and to motivate staff to become mobile (93%). The majority of HEIs agreed that Erasmus funded cooperation projects made staff more likely to participate in further cooperation: 81% of staff who responded to the EIS survey perceived that participation in Erasmus had an impact on their involvement in multilateral Erasmus projects, and 73% observed a positive effect on participation in joint research projects. Staff mobility was also seen as encouraging HEIs to broaden their offer and enriching their courses (93%), as well as providing links with suitable partner HEIs and enterprises (86%) and promoting mobility in general. Moreover, there is evidence that transnational mobility (at both student and staff level) has helped to improve the quality of teaching notably through 'comparisons and exchange of quality procedures and standards'.⁶⁰

Regarding alignment with Bologna process the EIS survey indicated that the recognition of learning outcomes through the use of ECTS was the aspect of student mobility HEIs most frequently considered important (96% of HEIs considered it important) and that 90% of HEIs declared to recognise credits from host institutions abroad; 85% of the students were convinced that their study programme recognised ECTS credits from a host HEI abroad.

2.2.5.4 Increased quality of systems to support HEI student mobility

A study for the French Erasmus National Agency presents some evidence of an impact of the Erasmus programme on the quality of systems to support HE student mobility.⁶¹ It argues that transnational mobility has led to the development of better advice and support services for mobile students -outgoing and also incoming- with regards to aspects such as study content, access to health and accommodation services abroad. This information is provided through orientation weeks, language courses and social events in some cases informed by post-participation surveys.⁶² Other research concurs

⁵⁹ CHE Consult et al. (2014) Erasmus Impact Study.

⁶⁰ CIEP (for Agence Europe-Education-Formation France), 2013, Impact de la mobilité européenne des enseignants et des personnels administratifs.

⁶¹ CIEP (for Agence Europe-Education-Formation France), 2013, Impact de la mobilité européenne des enseignants et des personnels administratifs.

⁶² CMEPIUS (2013) Evaluation of the impact of the Erasmus Programme on higher education in Slovenia;

Public Policy and Management Institute (2012) Interim evaluation of Erasmus Mundus II (2009-2013), Final Report to the European Commission. Vilnius, PPMI; European Commission (2013) On the way to Erasmus+ - a statistical overview of the Erasmus programme in 2012-2013; EACEA (2013) The Main Achievements of the Tempus Programme in the Western Balkans, Eastern Europe, Southern Mediterranean; European Commission (2015) Erasmus Facts, figures and trends 2013-2014; EMIS Project Consortium (2009) Enhancing support services for Erasmus Mundus students: a practical handbook.

that there is a link between the quality of support services and the existence of mobility programmes⁶³.

According to the EIS⁶⁴ around two thirds of mobile students had positive experiences regarding the support services and information they received, although HEIs differ substantially in the type and range of support services they offer: in some countries support services tend to be limited to those defined in the Erasmus Charter for Higher Education (ECHE)⁶⁵, while in others a wider range of aspects are included. The EIS also indicates that some of the tools developed for the Erasmus Programme (such as the transcript of record, learning agreements) were used in other mobility programmes.

Tempus Programme-related studies⁶⁶ found that the programme contributed to the development of new services and the Interim Evaluation of Erasmus Mundus II⁶⁷ revealed that participation in the programme had a strong impact on the range and quality of mobility related support services for students and staff.

2.2.6 Barriers to transnational mobility and cooperation

2.2.6.1 Barriers perceived by students for taking part in mobility

According to a study undertaken for the European Parliament,⁶⁸ financial demands associated with mobility periods abroad are an important concern for students in all EU Member States. The EUROSTUDENT V study⁶⁹ states that the additional financial burden is perceived as the main obstacle to enrolment abroad for students who have not studied abroad and are not planning to. Around two thirds of the surveyed students⁷⁰ rated financial aspects as either a quite big obstacle or a big obstacle. This compares to 47 % who rated the separation from partner, children, and friends as a (quite) big obstacle, followed by insufficient foreign language skills (29 %), expected problems with the recognition of credits gained abroad, and a lack of information provided by the home institution (each 22 %).

The EIS regional analysis found that financial constraints are more prevalent in Southern and Eastern Europe, and are higher for students with a non-academic family background⁷¹. In the same vein the award of an Erasmus grant was said to be an important factor determining student participation in the programme for 68% of students in Eastern European countries. Recognition and compatibility issues (reported by 37% of students) were again a more prevalent barrier for students from Southern and Eastern Europe (by more than 10% compared to other regions). Lack of information and support was also pointed more frequently by non-mobile students in Southern and Eastern Europe (over 40%) than those in Northern and Western Europe (33%). In line with this, lack of knowledge on the benefits that may derive from the period abroad was more often considered a barrier among non-mobile students from Southern and Eastern

⁶³ MOB G.A.E., (2015) Mobility as a source of personal and professional Growth, Autonomy, Employability - Research Report. Source: <http://www.mobgae.eu/research/>

⁶⁴ CHE Consult et al. (2014) Erasmus Impact Study

⁶⁵ http://eacea.ec.europa.eu/funding/2014/documents/annotated_guidelines_en.pdf

⁶⁶ EACEA (2013) The Main Achievements of the Tempus Programme in the Western Balkans, Eastern Europe, Southern Mediterranean.

⁶⁷ Public Policy and Management Institute (2012) Interim evaluation of Erasmus Mundus II (2009-2013), Final Report to the European Commission. Vilnius, PPMI.

⁶⁸ Vossensteyn, H., Beerkens, M., Cremonini, L., Besancon, B., Focken, N., Leurs, B., McCoshan, A., Mozuraityte, N., Huisman, J., Souto-Otero, M. and de Wit, H. (2010) Improving the participation in the Erasmus programme. Final report to the European Parliament. Brussels, European Parliament.

⁶⁹ Hauschildt, K., Mishra, S., Netz, N. and Gwosc, C., (2015) "Social and economic conditions of student life in Europe: Synopsis of indicators. EUROSTUDENT V 2012-2015" Bielefeld, Germany: Bertelsmann.

⁷⁰ Unweighted cross-country average

⁷¹ According to the study, the largest share of Erasmus students from a non-academic family background can be found in Southern Europe (50%).

Europe (41% and 38% respectively) but was still a frequent barrier in other regions (slightly below 30%). Regarding selection processes, the EIS regional analysis showed that access to the programme was more selective in Eastern Europe (20% of applications were rejected) and Southern Europe (19%) than in Western Europe (9%) and Northern Europe (7%).

Family reasons and personal relationships were also commonly perceived as important barriers to mobility in the EIS, and this is found consistently across regions (59% on average). Souto-Otero et al. (2013)⁷² and Beerkens et al. (2016)⁷³ stress the importance of family and personal relationships as a barrier. Souto-Otero et al. (2013)⁷⁴ report that whilst both Erasmus and non-Erasmus students consider financial barriers as highly important, it is the importance attached to personal barriers that better helps to differentiate between Erasmus and non-Erasmus students. Amongst the five main types of barriers considered in their study (financial barriers, barriers related to Erasmus conditions, barriers related to higher education system comparability, personal background and lack of awareness/ information), some are more important for non-participants than for Erasmus students, others are more important for non-participants and others are common to all.

Recognition problems –partly because non-participants are unlikely to have heard about such problems- can be seen as more important barriers for Erasmus participants than for non-participants. Non-participants perceive lack of awareness/ information and above all personal background related barriers (related to language and even more strongly to personal relationships) as more important than participants. Among non-participants, this barrier is even more pronounced among those students who had not participated in Erasmus and had not considered participation –compared to those who did consider participation. Differences between participants and non-participants are somewhat less pronounced regarding the importance of the level of the Erasmus grant and uncertainties about the quality of education abroad. The study argued for putting extra effort on the marketing and the communication of the programme to change individual perceptions on particularly important perceived barriers to the programme amongst non-participants and for supporting early intervention in terms of language learning.

The same authors follow a slightly different analytical strategy to examine the importance of eight main barriers⁷⁵ (home ties, alternative expectations, disruption to studies, financial barriers, administrative problems, doubts about educational system, language problems, and lack of interest) and examine how perceived barriers differ in seven countries⁷⁶. Their findings reveal no major differences between countries in how Erasmus participants and non-participants perceive the barriers to participation.

Overall, the literature on barriers to mobility suggests that barriers to individual mobility are commonly attributable to socio-economic and also to personal background and attitudinal factors. Those differ among those students who participate and those who do not.

⁷² Souto-Otero, M., Huisman, J., Beerkens, M., De Wit, H. and Vujic. S. (2013) 'Barriers to international student mobility: Evidence from the Erasmus programme' *Educational Researcher*, 42(2), pp.70-77.

⁷³ Beerkens M., Souto-Otero, M., de Wit, H. and Huisman, J. (2016) 'Similar students and different countries? An analysis of the barriers and drivers for ERASMUS participation in seven countries' *Journal of Studies in International Education*, 20(2), 184-204.

⁷⁴ Souto-Otero, M., Huisman, J., Beerkens, M., de Wit, H. and Vujic, S., (2013) 'Barriers to International Student Mobility. Evidence From the Erasmus Program' *Educational Researcher*, 42(2), pp. 70 – 77.

⁷⁵ Beerkens M., Souto-Otero, M., de Wit, H. and Huisman, J. (2016) 'Similar students and different countries? An analysis of the barriers and drivers for ERASMUS participation in seven countries' *Journal of Studies in International Education*, 20(2), 184-204.

⁷⁶ Czech Republic, Finland, Germany, Poland, Spain, Sweden and the UK.

2.2.6.2 Barriers to mobility perceived by staff

Compared to student mobility, barriers to staff mobility have been less commonly researched. While the term 'staff mobility' encompasses various types of practitioners (from non-academic/administrative- or technical oriented to academic staff), no specific evidence distinguishing barriers by type of staff was identified in the research reviewed.

Research by Sweeny (2012)⁷⁷ concludes that the barriers to longer-term mobility experienced by staff include, amongst others, the lack of support from within the department, and teaching, research and administrative responsibilities at the home institution that are difficult to leave for a long period of time. The 2012 Bologna Process implementation report⁷⁸ identifies a lack of language knowledge/skills –consistently with other research⁷⁹-; legal issues, and staff's personal situation as important barriers.

The report states that the language skills deficit relates partly to the way HEIs support their staff's language development: 'some HEIs offer language courses for outgoing staff, and some to incoming staff, while some HEIs consider language learning as a personal responsibility'. Another report suggests that this may be particularly prevalent for non-academic staff as 'in many of the university's non-academic staff do not have a second language other than their mother tongue'⁸⁰. With regard to legal difficulties, these are mostly said to comprise differences between social security systems, double taxation, and difficulty to obtain visas in some non-EU countries. Another major concern is personal and family situations. In this regard, the report points to barriers such as a 'lack of motivation and clear paths for career development as well as heavy workloads at home institutions'⁸¹ that prevent staff from participating in mobility. The 2018 update of the report names personal barriers to mobility such as the need to secure a leave of absence with contractual continuity, addressing differences in social security arrangements abroad, and lack of recognition of the value of periods abroad.⁸²

2.2.6.3 Barriers perceived by HEIs for taking part in transnational cooperation

The Bologna implementation report 2018 underlines the existence of institutional obstacles to staff mobility such as the extra administrative burden related aspects like the temporary replacement of mobile staff, legal and administrative restrictions on employment contracts and recognition of qualifications of incoming staff. No additional evidence was identified on barriers perceived by HEIs for taking part in transnational cooperation.

⁷⁷ Sweeny, S. (2012) *Going Mobile: Internationalisation, mobility and the European Higher Education Area*. York, Higher Education Academy.

⁷⁸ European Commission (2012) 'The European Higher Education Area in 2015 Bologna Process Implementation Report'. Available at:

[http://www.ehea.info/uploads/\(1\)/bologna%20process%20implementation%20report.pdf](http://www.ehea.info/uploads/(1)/bologna%20process%20implementation%20report.pdf)

⁷⁹ E.g. EUA et al., 2014, *Connecting mobility policies and practice: Observations and recommendations on national and institutional developments in Europe*. Available at: http://www.eua.be/Libraries/publications-homepage-list/EUA_MPPC_Mobility_policies_Web See also University of Abertay Dundee – Robbie Ewen fellowship study visit report, 'Going Mobile: Internationalisation, mobility and the European Higher Education', available at: http://www.gla.ac.uk/media/media_183948_en.pdf

⁸⁰ Ibid

⁸¹ European Commission, (2012) 'The European Higher Education Area in 2015 Bologna Process Implementation Report'. Available at:

[http://www.ehea.info/uploads/\(1\)/bologna%20process%20implementation%20report.pdf](http://www.ehea.info/uploads/(1)/bologna%20process%20implementation%20report.pdf)

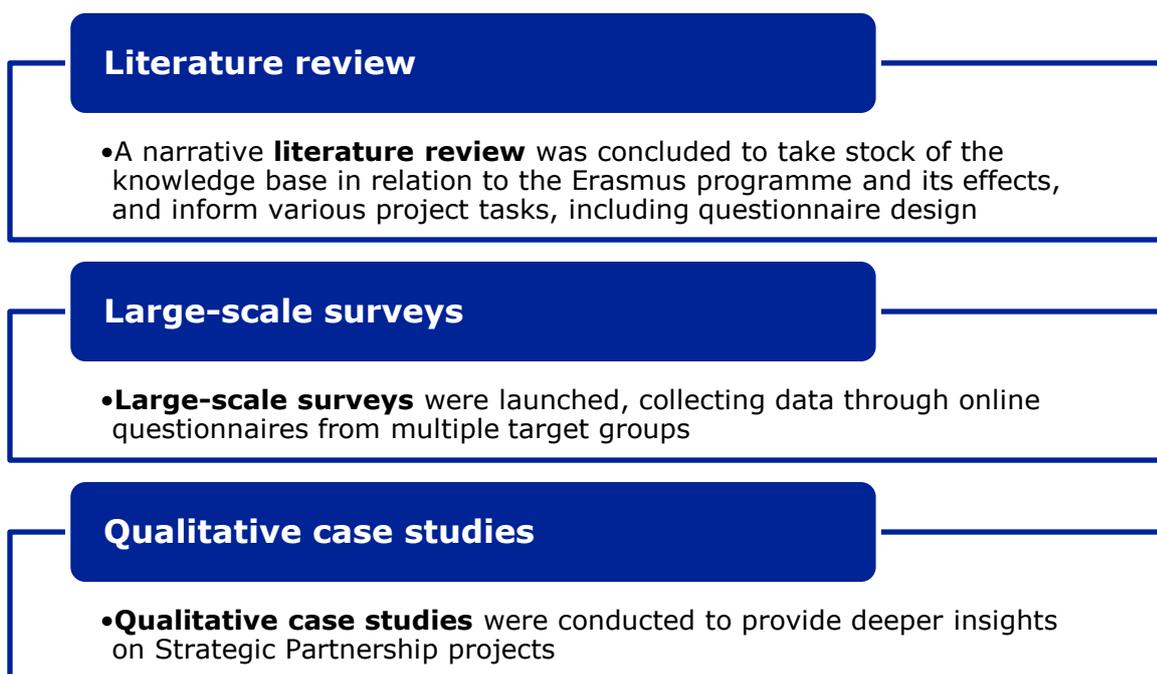
⁸² European Commission/EACEA/Eurydice, (2018) *The European Higher Education Area in 2018: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.

3 Methodology

This chapter describes the essential aspects of the study design and methodology. Following an outline of the study design, key information on data collection and analysis is presented. The chapter then provides a discussion of the limitations of the study. Further information on the methodology employed for this study is provided in the Annexes to this report.

3.1 Study design

The aim of the study was to provide evidence on how participation in Erasmus+ was associated with variations in a range of areas (outlined in Chapter 1). Multiple means of inquiry were applied to explore those variations, specifically:



Source: ICF/CHE Consult

This report provides a summary of the literature review undertaken and the results of the survey work. The study is a follow-up project to Erasmus Impact Study (EIS) published in 2014 and subsequent Regional Analysis (EIS RA) released in 2016. These studies informed various aspects of the project design and in particular the development of questionnaires. Where relevant, results of EIS and EIS+ are compared in the report. Nevertheless, there are substantial differences in the design, scope, methodology and sampling of the two studies, which suggest that caution is required when interpreting the differences in their findings.

3.2 Quantitative data collection and sample design

3.2.1 Target and comparison groups

The study covered several groups of beneficiaries of the Erasmus+ programme and comparison groups. The principal *target groups* of this project are:

1. **Learners** participating in Erasmus+ programme. Groups of students were surveyed shortly (two weeks or less) before their mobility (**E+ PRE**) as well as after their return (**E+ POST**). **Erasmus(+)** graduates with experience of

participation in Erasmus+ or its predecessor Erasmus programme were also surveyed. The difference between the Erasmus+ POST and graduates is that individuals in the POST group were still studying at the time of the survey⁸³.

2. **Staff**: academic and non-academic staff, with Erasmus+ or Erasmus experience.
3. Higher education **institutions** involved in Erasmus+.
4. Coordinators of Erasmus+ Strategic Partnership projects.

Several *comparison groups* were constructed:

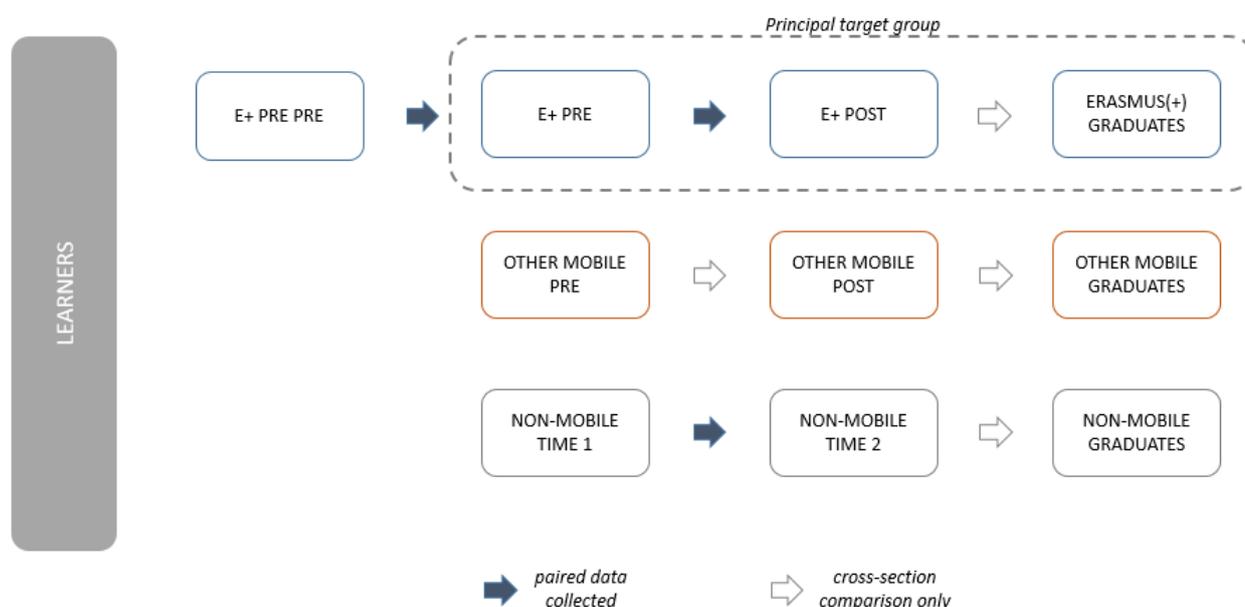
1. For **learners**, these groups included
 - a) students **selected** to take part in Erasmus+ but yet more than three months before departure (**E+ PRE PRE**),
 - b) students and graduates participating in mobility programmes **other** than Erasmus(+) (**OTHER MOBILE PRE, OTHER MOBILE POST, OTHER MOBILE GRADUATES**) and
 - c) students and graduates who had not participated in international mobility experiences at all (**NON-MOBILE STUDENTS, NON-MOBILE GRADUATES**).
2. Similarly, for staff following comparison groups were defined:
 - a) staff members who had participated in mobility programmes **other** than Erasmus(+) (**OTHER MOBILE STAFF**)
 - b) or who had **not** participated in international mobility at all (**NON-MOBILE STAFF**).

Another important difference with most previous Erasmus studies is that **for some target groups paired data were collected** to allow for longitudinal analysis. This was the case of Erasmus+ participants, where –when possible within the time-scale for this project- the same individuals were surveyed twice or even three-times as they moved from the E+ PRE PRE group to E+ PRE or from E+ PRE to E+ POST. This enables a better assessment of individual changes during the period of participation in the programme.

Paired data was also collected from some NON-MOBILE STUDENTS. They received the second questionnaire 6 months after the first one, i.e. an average duration of international mobility periods. The paired data were used primarily to measure the development of attitudes and personality traits using the memo[®] method.

⁸³ Participants were asked at the beginning of the survey if they had graduated. Those who provided a positive reply are classified as graduates. Those who replied negatively were classified as POST students. The analysis reported for POST respondents do not include graduates.

Figure 1. Learners' target and control groups of the Erasmus+ Higher Education Impact Study



Source: Visualisation ICF/CHE Consult

For more detail on definitions of these target groups and their characteristics, please see Annex 01.

3.2.2 Questionnaire development

A questionnaire was designed for each of the above-mentioned target and comparison groups. The Erasmus Impact Study (2014) questionnaires were used as a basis in the development of the questionnaires for the present study. However, the project team made substantial changes to the questionnaires used in the 2014 study in order to cover the impact areas defined for the present study and to implement suggestions received from a group of external experts and the European Commission.

The full text of the questionnaires is attached in Annex 06.

3.2.3 Sampling

A census database of Erasmus+ participants (2014-2016) was available to the research team for the purpose of sampling and survey distribution. A randomly selected subset of 70% of the student's population was used for this project -the other 30% having been provided for an Erasmus+ Mid-Term Evaluation which partly overlapped in time with this study. At the start of the survey in May 2017, a sum of 652,094 cases served as a basis for sampling, including students and staff since 2014.

A random sample of former Erasmus+ participants (both learners and staff, i.e. E+ POST and E+ STAFF) was drawn from the population and invited to take part in the survey. As this sample was selected randomly, it is further considered representative and allows for inference towards the original population. Some individuals who had taken part in the programme in previous years and had graduated already became Erasmus(+) graduates and were included in the graduates' survey.

As the overall amount of learners who had been selected for participation in the programme but who had not yet departed for a mobility at the time of the research team receiving the database of participants was too small (cf. Annex 01), all of them were invited (census survey of this group). Based on the distance between the survey date

and the scheduled date for the start of their mobility experience, those individuals were assigned to the E+ PRE or E+ PRE PRE groups. The invitations were distributed on an on-going basis bi-weekly from May 2017 to April 2018, taking into account new contacts in the regularly updated database of programme participants.

Higher Education institutions participating in the programme were invited to take part in the survey by the European Commission and other institutional channels –see also next section.

Regarding Strategic Partnerships, projects from 2014 were selected as these projects run under the current programme scheme and had finished by the time of the survey. Coordinators of all 152 projects selected in that year were invited to the survey (census survey for projects selected that year).

Further details on the sampling process are provided in Annex 01.

3.2.4 Data collection process

The survey questionnaires were distributed online from Spring 2017 until Summer 2018. Erasmus+ participants (both students and staff) were contacted directly via e-mail, thanks to the contact information stored in the Mobility Tool+ database used for programme administration. The same is true also for Strategic Partnership projects coordinators, whose contact information is stored in the project database. Pre-2014 Erasmus participants were contacted in particular through the Erasmus Student Network. Other target groups (other mobile and non-mobile learners and staff) were contacted indirectly through their institutions. Higher Education Institutions were invited to participate by the European Commission and other institutional channels (Erasmus+ national agencies and university networks, such as the UNICA Network and SGroup Network). Invited respondents were reminded once to fill in the survey if they did not respond initially.

Response rates ranged from 19% to 35% for individual groups of Erasmus+ participants. In the case of Strategic Partnership coordinators, the response rate reached 64%. Although this result is not surprising for an online survey of the target groups for the project, non-response may be a source of bias – if individuals responding to the survey are systematically different from those who did not answer it, e.g. in their feeling about the programme. Other means of data collection, such as face-to-face or phone call surveying could have ensured higher response rate. However, these options were not possible to implement as no contact information was available apart from the e-mail addresses of Erasmus+ participants. The resulting limitations for interpretation stemming from the nature of data collection are discussed at the end of this chapter.

3.3 Sample overview

3.3.1 Sample size

Overall, 95,918 survey responses were registered. During data cleaning, all respondents who did not complete the first set of questions (on demographic background) were excluded from analysis. Respondents in “other mobile” groups who had also had previous Erasmus(+) experience were excluded from the analysis as the impact of Erasmus(+) cannot be separated from the impact of the other mobility in their case. The final cleaned database contained 76,893 valid cases, distributed as shown in the Table below.

Table 2. Valid cases for target and comparison groups

Group		# of answers	
Total		76,893	
Learners	E+	PRE PRE	4,375
		PRE	19,725
		POST	22,769
	Other mobile	PRE PRE*	841
		PRE*	106
		POST*	486
	Non-mobile*	1,860	
Graduates	E(+)	12,366	
	Other mobile*	614	
	Non-mobile*	1,441	
Staff	E(+)	10,021	
	Other mobile*	441	
	Non-mobile*	1,055	
Higher education institutions		708	
Strategic Partnership coordinators		85	

*Due to the data collection process, these groups are not representative, please see Annex 01 and Annex 02 for detailed information

3,080 respondents answered both the E+ PRE and E+ POST questionnaires, creating a sample of paired data. These students are included in both, this specific paired sample as well as in the basic samples and present in the response numbers of E+ PRE and E+ POST.

The sample composition by major breakdowns and subgroups is described in detail in Annex 02.

The actual sample size for individual questions might be lower than the ones indicated in this table because respondents may have skipped the question or chosen answers not recorded in the table ("n/a" or "I don't know") and by the fact that filters were applied to many questions – e.g. only graduates in employment were asked details about their current job position, only teaching staff were asked about the teaching methods that they use etc.

3.3.2 Weighting

Comparison of the data collected with the Mobility Tool+ database revealed some differences between the sample and the Erasmus+ population, but, these were relatively small. Data were nevertheless weighted by those characteristics available from the European Commission's database of Erasmus+ participants, to further improve the match of the sample to the population. This exercise did not lead to strong changes in the results (see Annex 01), suggesting that the risk of "overweighting", or assigning too much weight to some cases, is small.

Results were weighted by gender, age and home region for learners and by gender and home region in the case of staff.

Naturally, weighting can compensate only for imbalances in aspects that are covered by the Erasmus+ participant database. Weighting cannot compensate for differences between the sample and the population in unobserved attributes. As such, it does not eliminate bias derived from other sources, such as non-response, as discussed above.

As no database for the population of 'other mobile' and 'non-mobile' students and staff was available, no weighing could be applied to these groups. No weighing is applied to the HEI institutions and SP coordinators for the same reason –lack of a database containing key variables for the population.

3.4 Quantitative data analysis

The volume of data collected for the project prevents its detailed analysis in all its complexity in a single report. Thus, it was necessary to find a way to select, display and comment on the most relevant findings. Two main approaches were adopted for data reduction and analysis: aggregating interrelated items into indices for the purpose of inter-group comparison and structuring the results chapters by "key messages".

3.4.1 Reducing the complexity through item indices

Indices are variables calculated as combinations of multiple questionnaire items. Across the report, they are presented in addition to the results of individual questions in order to reduce the complexity and streamline comparison between multiple groups. The value of an index (such as 75.2) cannot be compared with the respective values of other indices, i.e. because of different scales, but becomes meaningful in comparison between groups, e.g. across regions, target and comparison groups or even, in some cases, between the current study and its 2014 EIS predecessor.

Items to be put together to form an index were chosen based on whether they measure a related concept, in line with the overview below. The reliability of the indices was validated ex post through Cronbach's Alpha –see also Annex 01. Annex 03 provides additional information on the list of items used for the construction of each of the indices employed in this report.

Index scales typically range from 0 to 100, higher points in the scale always indicating a higher value in the index -e.g. stronger European identity. In some cases, in addition to the core indices, it was possible to calculate also the difference between the same indices over time for the paired sample of respondents who answered the survey more than once – prior to and after the mobility. A difference between the two measurements can theoretically range from -100 to +100 but in practice, they never exceed the range of -10 to +10. In case of such changes, a positive value indicates that the post-return results are higher than the pre-departure ones, i.e. that an average participant increases their score in this respect.

3.4.1.1 Indices for students

Five indices were developed to analyse the effects of mobility as perceived by **students** in individual impact areas:

Table 3. Indices on students' perceived effect of mobility

Index name:	Combination of items indicating perceived impact on:
Intercultural Openness Impact Index	intercultural competencies; new international perspectives and dimensions in life; understanding of host countries' culture, society and economy
Perceived Personality Development Index	attitudes and skills such as tolerance towards different behaviour, decisiveness, ability to assess own strengths and weaknesses etc.
Social Engagement Impact Index	social and political engagement; involvement in the local community; critical thinking; commitment to fight discrimination, intolerance, xenophobia or racism
Employability Skills Impact Index	skills relevant for employment and careers, including soft-skills, field-specific knowledge and other
Study Progress Impact Index	progress within studies; competencies relevant for effective learning; experience with innovative teaching methods; motivation to complete studies

In addition to that, three indices were constructed to assess the attitudes of students prior to and after the mobility to reveal their development or to compare the positions of Erasmus+ participants to the control groups:

Table 4. Indices on students' attitudes

Index name:	Combination of items describing attitudes towards:
International Career Openness Index	Perspective of living abroad in the future; careers in international settings
European Identity Index	European Union; shared European identity and values; European citizenship
Home Institutions Support for Internationalisation Index	conditions for internationalisation at the home institution such as financial and non-financial support, credit recognition, mobility windows and other

3.4.1.2 Indices for graduates

Two indices were constructed to assess the careers of graduates and compare the jobs of graduates with an Erasmus(+) experience and those of other mobile and non-mobile graduates:

Table 5. Indices assessing the careers of graduates

Index name:	Combination of items describing:
Job Quality Index	aspects of current job position such as remuneration, job security, career prospects, opportunity for creativity and innovation, sense of doing something useful for society and more
International Job Index	degree of internationalisation of current job position, e.g. business abroad, international teams and travels

3.4.1.3 Indices for staff

Three indices were created combining the items on impact perceived by **staff**:

Table 6. *Indices on the perceived effect of a mobility by staff*

Index name:	Combination of items indicating perceived impact on:
Impact on Teaching Methods Index	use of innovative teaching methods such as multidisciplinary groups, use of digital tools and open educational resources or project- and work-based learning
Competence Impact Index	field-specific knowledge; transversal skills; social competencies; intercultural competencies
Social Engagement Impact Index	social and political engagement; involvement in the local community; critical thinking; commitment to fight discrimination, intolerance, xenophobia or racism

Additionally, an index was created from a question where staff members were asked if they perceive an impact of mobility on *students*:

Table 7. *Index on staff's perceived impact from a mobility on student*

Index name:	Combination of items describing:
Impact on Student Competence Index	what the staff members think about the impact of mobility on the skills, competencies and attitudes of students

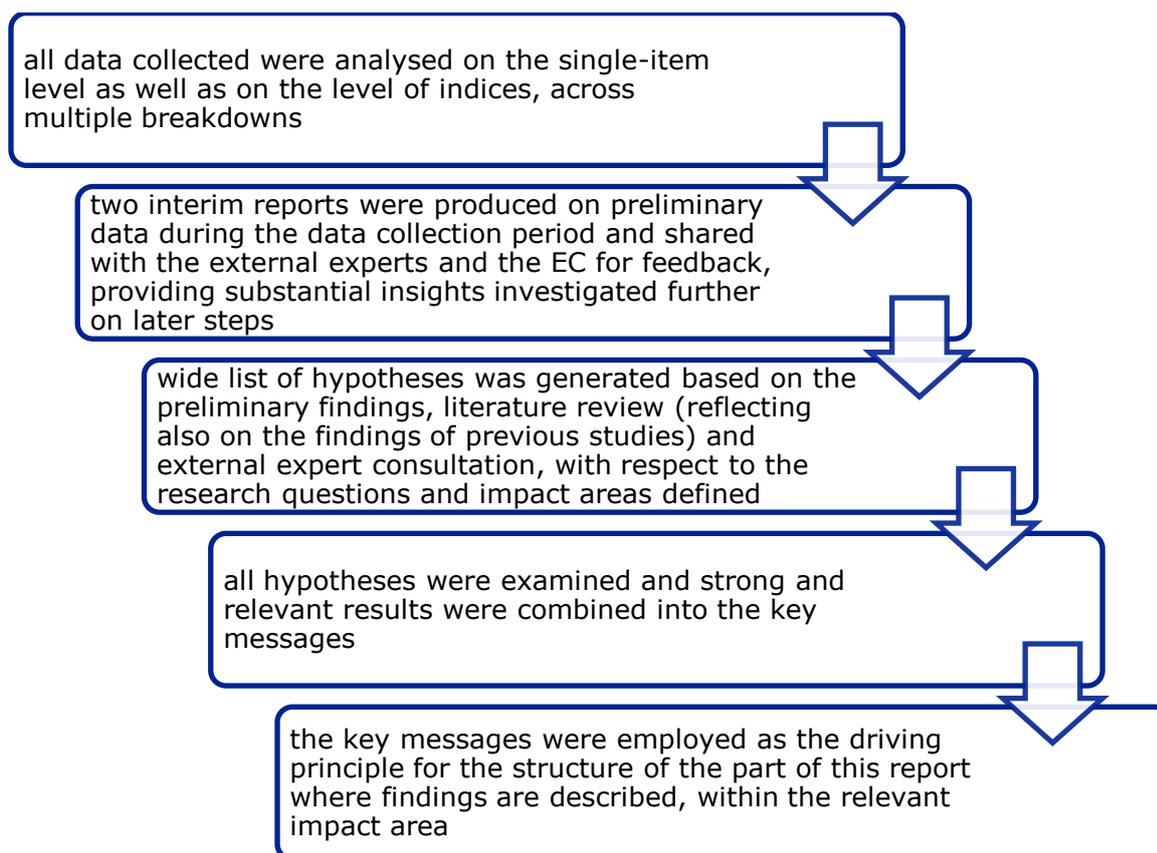
Finally, three indices were constructed to describe other characteristics of staff, which are useful in particular as background information for comparison. The European Identity Index for staff is identical to the students' index with the same name.

Table 8. *Indices on staff's characteristics*

Index name:	Combination of items describing:
Use of Innovative Teaching Methods Index	how frequently staff use innovative teaching methods such as multidisciplinary groups, use of digital tools and open educational resources or project- and work-based learning
International Experience Index	time spent abroad as part of mobility; the length of the longest mobility period abroad; time since last mobility; number of countries visited
European Identity Index	European Union; shared European identity and values; European citizenship

3.4.2 Reducing the complexity through key messages

The chapters that present the report findings are organised around a list of "key messages". Each of these messages is illustrated with relevant charts and accompanying texts providing evidence and details on the findings discussed. Multiple steps were taken for the development of key messages:



Source: ICF/CHE Consult

3.4.3 Country and socio-economic opportunity grouping

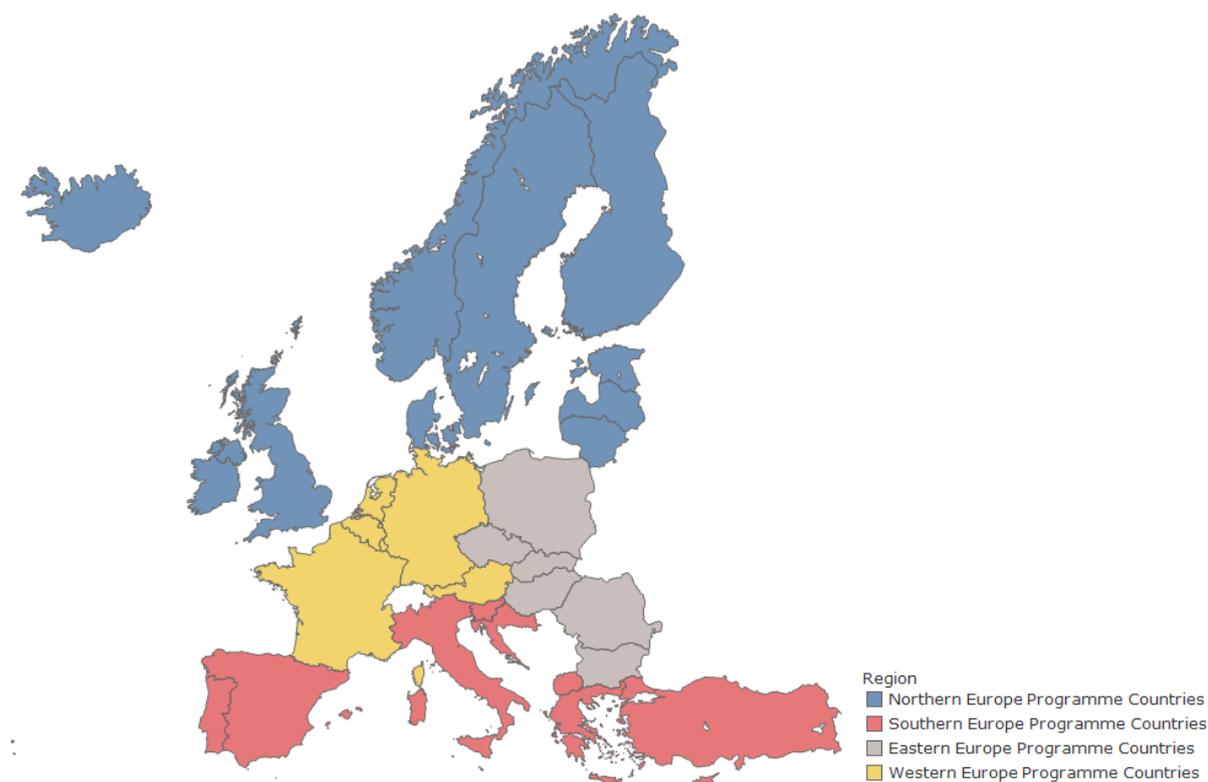
The data analysis makes use, at various points, of country groupings and the identification of participants from disadvantaged backgrounds. These are explained in this section.

3.4.3.1 Grouping countries by geographical regions

Erasmus+ programme countries were grouped into four regions of Europe, following the United Nations Geoscheme⁸⁴. Cyprus and Turkey are not considered part of Europe, but since they are programme countries, they were added to the closest region – Southern Europe.

⁸⁴ United Nations, 2017, available at <https://unstats.un.org/unsd/methodology/m49/>

Figure 2. Geographical country groupings (Europe)



Source: Visualisation ICF CHE Consult

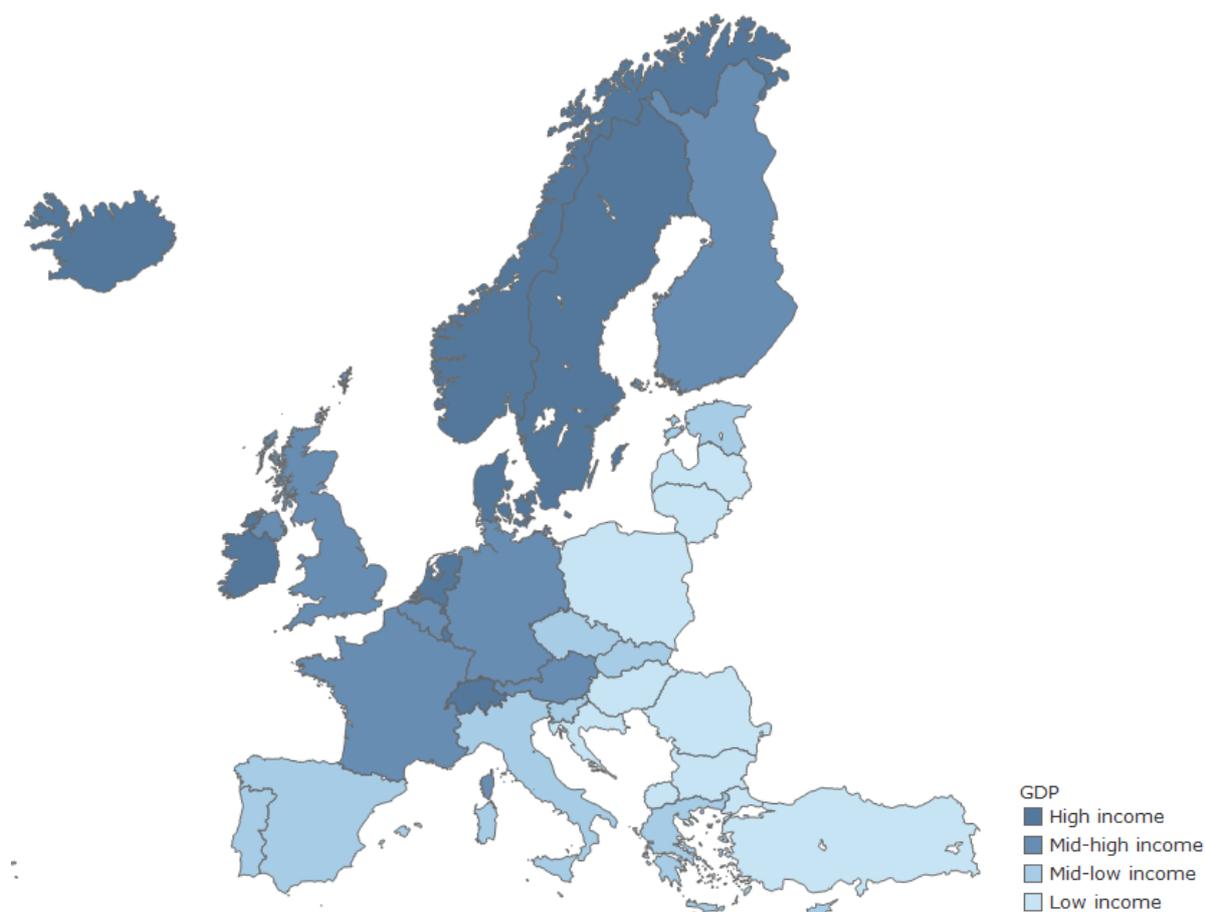
Although participants from all partner countries were invited, not all of them are equally represented in the collected sample – Ukraine, Russia, Serbia and Georgia are the most represented countries both among students and staff (see Annex 01 for full details). In other words, countries with both GDP per capita and educational expenditure lower than the average of programme countries are those with higher levels of participation from Partner Countries.

3.4.3.2 Grouping countries by GDP per capita

In addition to the geographical regions, four groups of programme countries were defined based on Gross Domestic Product (GDP)⁸⁵ per capita for the analysis of results on individual students and staff. The GDP data values were divided into four equal groups by calculating quartiles. These income groups were then used in two ways – both per se (i.e. observing whether the results correlate with the affluence of home or host country) and in pairs of home and host countries (i.e. observing whether the effect of participation differs for mobile participants going to a country in a higher, same or lower income group compared to their home country).

⁸⁵ <https://knoema.com/atlas/topics/Economy/National-Accounts-Gross-Domestic-Product/GDP-per-capita?baseRegion=GB>

Figure 3. Country grouping by GDP per capita



Source: Visualisation ICF CHE Consult

3.4.3.3 Grouping countries by geographical proximity

For each country, a list of neighbouring countries (meaning that they share a boundary) was created. Based on that, mobile respondents are classified as visiting a country “neighbouring” (or “distant”) to their home country. This indicator is used as a proxy for cultural distance – on account of the fact that countries sharing a border typically are culturally closer to each other than to more remote countries. We consider this is a simplified operationalisation of cultural proximity, which adds new perspective to the regional and reveals additional nuances in the flow of mobile students and staff.

3.4.3.4 People with fewer opportunities and non-academic family background

The Erasmus+ Programme Guide⁸⁶ defines participants with disadvantaged backgrounds and fewer opportunities based on following criteria:

- **disability** (i.e. participants with special needs): people with mental (intellectual, cognitive, learning), physical, sensory or other disabilities
- **educational difficulties:** young people with learning difficulties; early school-leavers; low qualified adults; young people with poor school performance

⁸⁶ http://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus/files/files/resources/erasmus-plus-programme-guide_en.pdf

- **economic obstacles:** people with a low standard of living, low income, dependence on social welfare system or homeless young people in long-term unemployment or poverty; people in debt or with financial problems
- **cultural differences:** immigrants or refugees or descendants from immigrant or refugee families; people belonging to a national or ethnic minority; people with linguistic adaptation and cultural inclusion difficulties
- **health problems:** people with chronic health problems, severe illnesses or psychiatric conditions
- **social obstacles:** people facing discrimination because of gender, age, ethnicity, religion, sexual orientation, disability, etc.; people with limited social skills or anti-social or risky behaviours; people in a precarious situation; (ex-) offenders, (ex-) drug or alcohol abusers; young and/or single parents; orphans
- **geographical obstacles:** people from remote or rural areas; people living in small islands or in peripheral regions; people from urban problem zones; people from poorly serviced areas (limited public transport, poor facilities).

A question mirroring this definition was included and all respondents who identified themselves as experiencing at least one of the above aspects were considered as individuals “with fewer opportunities” during the analysis.

Apart from this, to gather additional data on the socio-economic background of respondents a question was included in the project questionnaire on parental education. If at least one parent of the respondent attended university themselves, the respondent is considered to have “academic (or high educational attainment) family background”.

3.4.4 Measuring the development of attitudes and personality traits

To assess how mobility experiences affect the attitudes and behavioural frameworks of students, the project team employed the **memo**® psychometrical tool. Unlike the parts of the survey collecting participant’s perceptions on the impact of mobility, **memo**® tool assesses the respondents on selected psychometrical measures prior to and after the mobility, revealing changes in measures between two or three points.

The same tool was employed in the 2014 EIS study, amongst other projects. Memo results have proven to be closely related to employment outcomes and career success. In this project, new items were added to the questionnaire and the methodology was developed further by a factor analysis conducted on the entire sample collected. As a result, four robust factors describing different aspects of respondent’s attitudes and traits were identified. Due to the adjustment of the methodology these factors are not the same as in the preceding study. Nevertheless, the adjusted methodology was applied to the EIS (2014) data in order to enable comparisons where relevant.

Table 9. The **memo**© factors

Factor:	Combines items describing:
Self-Confidence	confidence in one’s own decisions and the ability to cope with stress and challenges
Goal Orientation	ability to set and achieve goals
Cultural Openness	willingness to expose oneself to new cultures and experience
Social Openness	extraversion, sociability and willingness to meet new people
memo © Total	all the factors above

The four factors are combined into one overall score called **memo**® total. Upon calculation, all results are standardised based on the E+ PRE results so that an average

student prior to mobility has the value in all factors equal to 0 and the standard deviation in the E+ PRE sample is equal to 1. As a result, across the report, memo[©] values higher than 0 indicate a factor stronger than an average Erasmus+ participants before the mobility. Technically, there are minimum and maximum values for each memo[©] factor, stemming from the fact that there were limited scales in the questionnaire for each of them, but these depend on a range of elements, including variance in the sample. Assuming that values are normally distributed, 99% of cases are expected to lay within the range of -3 to +3. The group averages will always be closer to zero as it is very unlikely for a group of respondents to concentrate above 2 or below -2 and in practice, even values above 1 indicate a very selective group. As a rule of thumb, it could be considered that a difference of 1 is equivalent to the difference between an average case and the top 15% of cases (high flies on a factor). To give a sense of the range of values in the report, the strongest difference on the memo[©] values reported is just over 1.00.

More information on the background of memo[©] methodology is provided in Annex 04.

3.4.5 Statistical methods applied during quantitative data analysis

Frequency analysis and descriptive statistics were the core tools employed during the data analysis. In addition, the following methods were applied:

Chi-square test was used to assess an association between two non-cardinal variables. For cardinal variables, T-test was applied to compare the means of two independent samples. Mann-Whitney U test was used as a non-parametric variation if the assumptions of the T-test were violated. One-sample T-test was applied on paired samples, testing whether the change from PRE to POST is significantly different from zero. One-way ANOVA served as a mean comparison for multiple samples (or Kruskal-Wallis H test as a non-parametric variation if the assumptions were violated), followed by appropriate post-hoc tests.

The index construction allowed also for correlation analysis. Pearson's correlation coefficient was applied to assess the relationship between two cardinal variables. Spearman's rank correlation coefficient was used for ordinal variables.

Across the report, 5% significance level was applied. I.e. whenever a result is declared statistically significant, the p-value is always $\leq .05$.

Propensity Score Matching was applied to the analysis of employment outcomes. This helped to compensate for differences in the background of Erasmus(+) graduates and non-mobile graduates. Each non-mobile graduate in the sample was assigned an Erasmus(+) graduate "counterpart" with a demographic profile as similar as possible to the non-mobile graduate. This assignment was performed using information on the following observable demographic characteristics of respondents, which are expected to be related to their career outcomes: age, gender, family background, year of graduation, individual "with fewer opportunities" (i.e. disadvantaged background) status, region in which they studied and field of study.

This report also employed "Erasmus+ big" and "Erasmus+ dim" gain, where a closer look on respondents with particularly high or low perceived impact across areas is provided, thus revealing which students might be benefiting from the mobility or struggling. More details on these can be found in the respective chapter.

3.5 Qualitative data collection and analysis

In addition to the surveys, six case studies were carried out. Their main purpose was to complement insights gained from the surveys of Strategic Partnerships' coordinators and those of HEIs and staff. The case studies focussed on six Strategic Partnerships.

The case studies helped to collate more targeted insights (i.e. focusing on single cases analysed in depth, in their own context) on the experience and impacts perceived by

projects' beneficiaries; critical success factors or obstacles and unintended effects encountered by beneficiaries. The selection criteria for case studies were as follows:

- Degree of implementation of the Strategic Partnership: As in the case with the SP survey, the case studies were selected among the SPs that started in 2014 in order to have already some measurable results of the SP project.
- Innovativeness and potential for impact of the Strategic Partnership: focus was on projects with high potential.
- Types of activities of the Strategic Partnership: attention was paid to retain cases comprising various types of activities.
- Type of leading organisation: the selected case studies cover different types of leading organisations.
- Type of partnership (including size and geographical location of partner organisations): The selected case studies cover different types of consortium projects (from small to bigger partnerships).

The table below provides an overview of the case studies selected.

Table 10. Overview of case studies

Project title	Main focus	Geographical spread	Partners involved
COLIBRI – Collaboration and Innovation for Better Personalised and IT Supported Teaching	Use of digital approaches; Involvement of enterprise; Curriculum design; Blended learning.	DK, DE, EL, LT, NO, PL, ES, TK	Universities and enterprises
CARPE European Sustainable Solutions for Existing and New City Environments	Link education and research; Relevance of teaching; Blended learning; Use of digital approaches; Curriculum design.	NL, DE, FI, ES, UK	Universities and local municipalities
EDUPRO – Promoting LLL in HE by implementing innovative practices in RPL	Recognition of prior learning; Relevance of teaching (share of best practices) Involvement of enterprises;	EN, PL, PT	Universities
Opening Universities for Virtual Mobility	Relevance of teaching; Curriculum design; Blended mobility and use of digital approaches;	LT, ES, PT, BE, IT.	Universities
ISPEHE - Innovative strategic partnership for European higher education	Involvement of enterprise; Digital approaches; Relevance of teaching; Link education and business.	FY, IT, SI, LV	Business institute and universities

Therapeutic Exercise at Workspace	Curriculum design; Link education and research; Relevance of teaching.	DE, PT, EL, CY, NO	Universities and hospital
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3.6 Limitations

The EIS+ study applies multiple strategies to explore the impact of Erasmus+ programme on students, staff and participating institutions. A number of limitations should be kept in mind when interpreting the results reported.

3.6.1 Limitations of the study design and data collection

First, the data collected is not experimental but observational, and the interpretations are limited to association, not causalities. An experimental design cannot be applied to public programmes such as Erasmus+ as it is not possible to assign participants randomly to treatment and control groups for legal and ethical reasons. Although the study mimics some characteristics of a quasi-experimental design by comparing Erasmus+ participants to non-participants, this comparison should be considered indicative rather than conclusive. Causal effects generally are difficult to measure based on surveys, and in our context especially, due to limitations such as potential self-selection biases –into the programme and into survey participation.

Erasmus+ participants may differ from other graduates in more aspects than just participation in the mobility experience. Their self-selection into a mobility experience may reflect differences in their attitudes, motivations, and performance, etc. compared to non-mobile students. These inherent differences cannot be controlled for within the design of this study and, thus, the evidence collected should be considered indicative of the development participants are subject to through their mobility. In addition, given the increase in participation in Erasmus over time, findings on graduates who were among the first to participate in Erasmus might not be transferrable for graduates today. Regarding self-selection into the survey amongst those approached for participation, it cannot be ruled out that reasons to participate in the project surveys could be related to certain personal characteristics that differentiate survey participants from non-participants.

As discussed above, a comprehensive database of Erasmus+ participants was available to the research team for the purpose of data collection for some groups (including the key target groups for this study). However, for some groups (such as non-mobile students and staff as well as participants in mobility programmes other than Erasmus+) this data was not available. Thus, these groups could only be invited to take part in the survey indirectly. The research team did not have control over which members of these groups were invited to take part in the survey and they must be considered non-representative. Other potential sources of bias are the relatively low response rates and, as in the case of Erasmus+ participants, self-selection.

EIS+ assesses own perceptions of participants, asking them whether they believe they improved along the analysed dimensions. This approach is in line with previous evaluation studies in the field and often is the only feasible mean of inquiry. However, the validity of this approach might be questioned due to multiple sources of bias or error – in particular respondents may not be well placed to assess the extent of the impact they have experienced. Answers may be affected by respondents’ political stances, overall satisfaction with the mobility experience and cultural patterns.

The memo© psychometric tool was employed to measure the attitudes, behavioural patterns and personality traits of participants. By using a psychometric approach, the memo survey is meant to circumvent some of the limitations (e.g. the self-assessment of experienced impact) mentioned above: Evading bias by operationalising the concepts on

the basis of behaviour or attitudes and by asking specifically about the current behaviour of a respondent. The method is discussed further above and in Annex 01.

Regarding, specifically, the career outcomes of participation, this report indicates the impact of Erasmus+ participation on careers by comparing the job situation of graduates with and without mobility experience. In some aspects, this might be considered a robust method as it does not focus on self-declared perceptions and evaluations but measures the real outcome: whether the people have a job, if they are satisfied, if they work in an international setting. On the other hand, there are also limits to this method, as the discussion of self-selection into the programme presented above underlines.

Finally, in several instances, EIS+ analyses differences between the attitudes of participants prior to and after the mobility. This is in particular the case of the European Identity Index and International Career Openness Index. Robustness of this method is strengthened by the longitudinal analysis of the paired sample collected – the same respondents were surveyed prior to and after the mobility which reduces the threat of sampling and selection bias. Nevertheless, this method cannot be applied on all impact areas, in particular when a scope of a study is as broad as in this case.

3.6.2 Comparing EIS+ to EIS

Where possible the results of EIS+ are compared to the findings of the first Erasmus Impact Study (2014). On one hand, there are many similar elements between the two studies and the methodology of EIS+ builds on the EIS experience, in particular in questionnaire design. On the other hand, the design of EIS+ is more complex and the goals of the study are somewhat different:

1. **Scope of the study** – the research questions of EIS+ are not identical to those of EIS, as EIS+ covers a larger number of impact areas and has refined their operationalisation –which resulted in relevant questionnaire adjustments. As a result, some items were withdrawn from the questionnaires whereas others were added, and, thus, not all findings can be compared.
2. **Target groups** – while in EIS substantial attention was dedicated to the perspective of employers, EIS+ focuses on the perspective of learners, graduates, staff, institutional representatives and Strategic Partnership projects' coordinators. At the same time, EIS+ is more specific in defining respondent sub-groups in particular in the case of learners, to enhance the validity of results. It also includes more and better-defined comparison groups.
3. **Sampling process** – in contrast to EIS, a comprehensive database of Erasmus+ participants was available for the sampling process of EIS+, which allowed a random sample of respondents to be selected for some of the subgroups.
4. **Methods of data analysis** – the design of EIS+ allowed the application of methods that were not available for the EIS, such as paired data analysis and index construction. The background characteristics applied for the production of analysis by sub-group were modified for EIS+.

Although differences between findings of the two studies may indicate differences in impact between Erasmus and Erasmus+ programmes, they might also be caused, to some extent, by the differences mentioned above. EIS remains an important benchmark for EIS+ and, where relevant, results of both studies are compared throughout the report, but the reader is reminded to be careful about the interpretation of such comparisons.

4 Characteristics of Erasmus+ participants and participating institutions

4.1 Characteristics of students participating in Erasmus+

This section explores the composition of Erasmus+ students from multiple perspectives. The results presented in this chapter are based on the answers of participants who already returned from their mobility – which is the largest sample collected in the course of this study, and the key target group. For sample sizes of the other groups, please see chapter 3.

In our sample, of those who returned from an Erasmus+ mobility, 38% originated from Western European and 33% from Southern European Programme Countries. At the same time, 32% of students who returned from an Erasmus+ mobility had gone to Western European and 29% to Southern European Programme Countries. In other words, Western and Southern European Programme countries are net senders in our sample, unlike Northern European Programme Countries, which have almost twice as much incoming than outgoing students (more than half of them from Western Europe). The region with the least incoming students are Eastern European Programme Countries with only 10% participants spending their mobility there, almost half of which had come from Southern Europe.

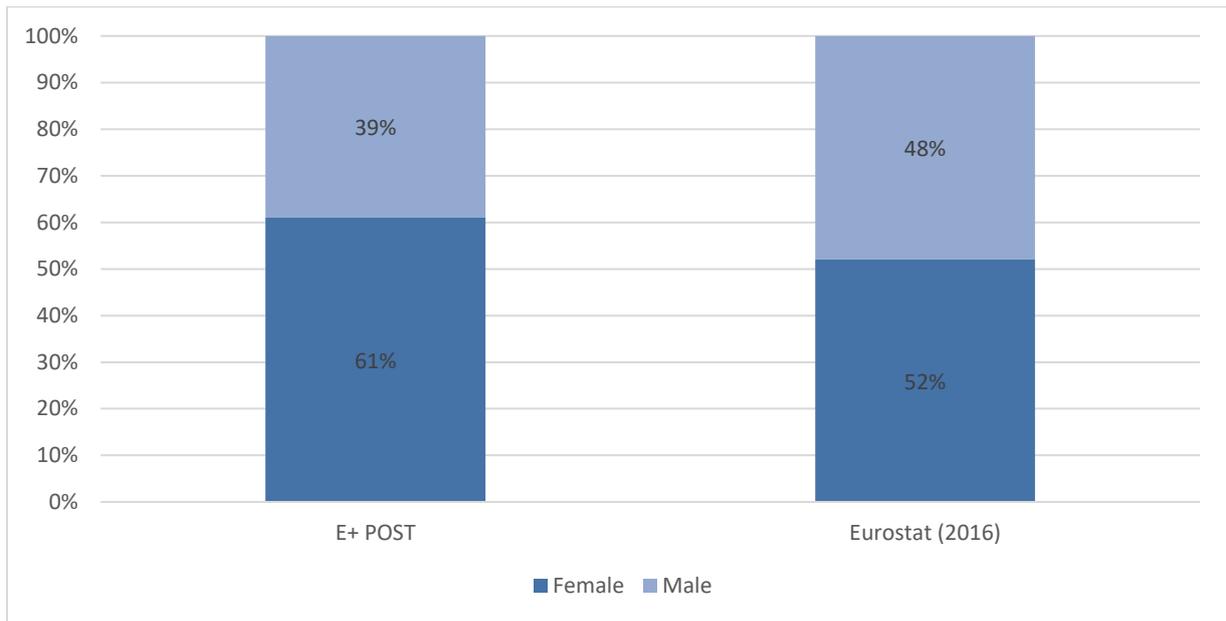
Table 11. EIS+ survey participants who had completed an Erasmus+ mobility, by sending and receiving region

		Sending region					Total
		Northern European Programme Countries	Southern European Programme Countries	Eastern European Programme Countries	Western European Programme Countries	Partner Countries	
Receiving region	Northern European Programme Countries	3.30%	5.70%	1.70%	15.10%	0.20%	26.00%
	Southern European Programme Countries	3.60%	10.30%	5.00%	10.10%	0.40%	29.40%
	Eastern European Programme Countries	1.00%	4.60%	1.70%	2.80%	0.30%	10.30%
	Western European Programme Countries	6.10%	11.90%	3.90%	9.80%	0.50%	32.20%
	Partner Countries	0.30%	0.70%	0.40%	0.60%	0.00%	2.00%
	Total	14.30%	33.30%	12.80%	38.30%	1.40%	100%

Source: ICF/ CHE student survey, $N_{E+POST} = 22,671$

Looking at individual countries using administrative data from the European Commission for the period 2014-17, it can be seen that France and Germany registered the highest numbers as sending countries. Among Partner Countries, Russian Federation and Ukraine send out the highest numbers of students, followed by Serbia, China and Morocco. The number of participants from most developed countries such as the US, Canada or Australia is only a small share of the total. The Figure below shows the number of participants in the period 2014-17 by sending country.

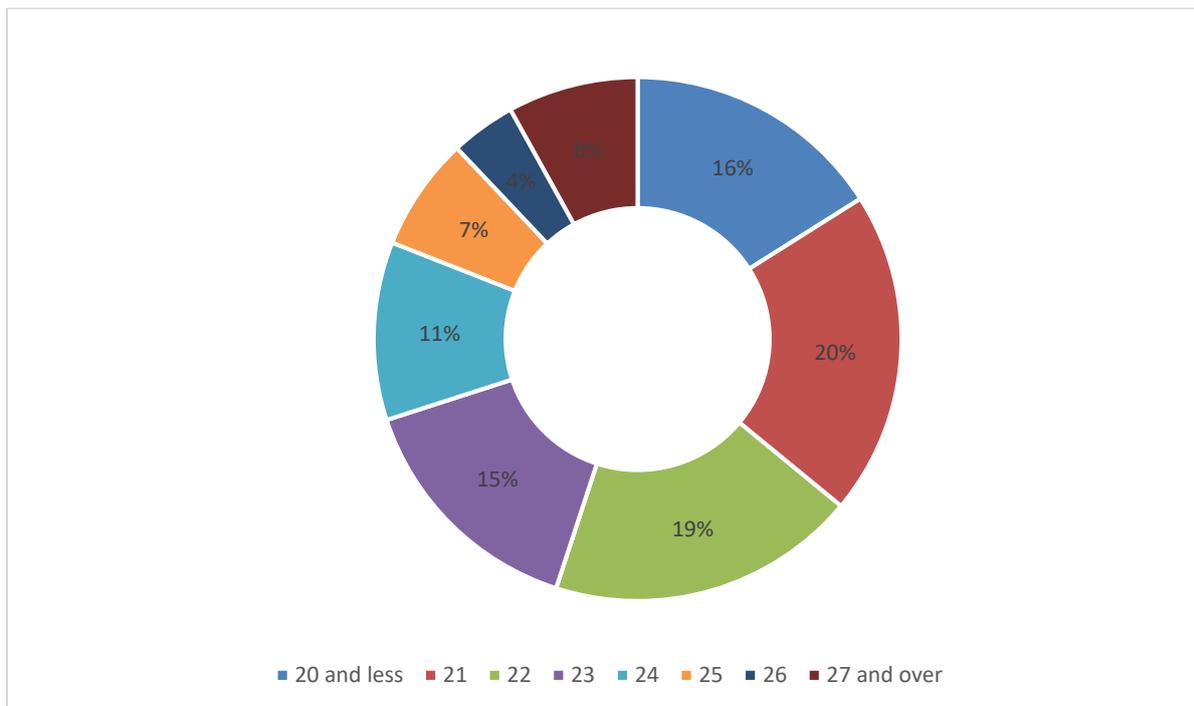
Figure 5. EIS+ survey participants who had completed an Erasmus+ mobility period by gender, comparison to the HE student population



Source: ICF/ CHE student survey, NE+POST=22,605

Regarding age, 55% of students in our sample are 22 years old or younger when they take part in an Erasmus+ mobility; with students aged 21 being represented the most among Erasmus+ participants. In contrast, less than 20% participants are 25 years old or older. This is in line with the observation that the majority of Erasmus+ participants are first cycle students (below).

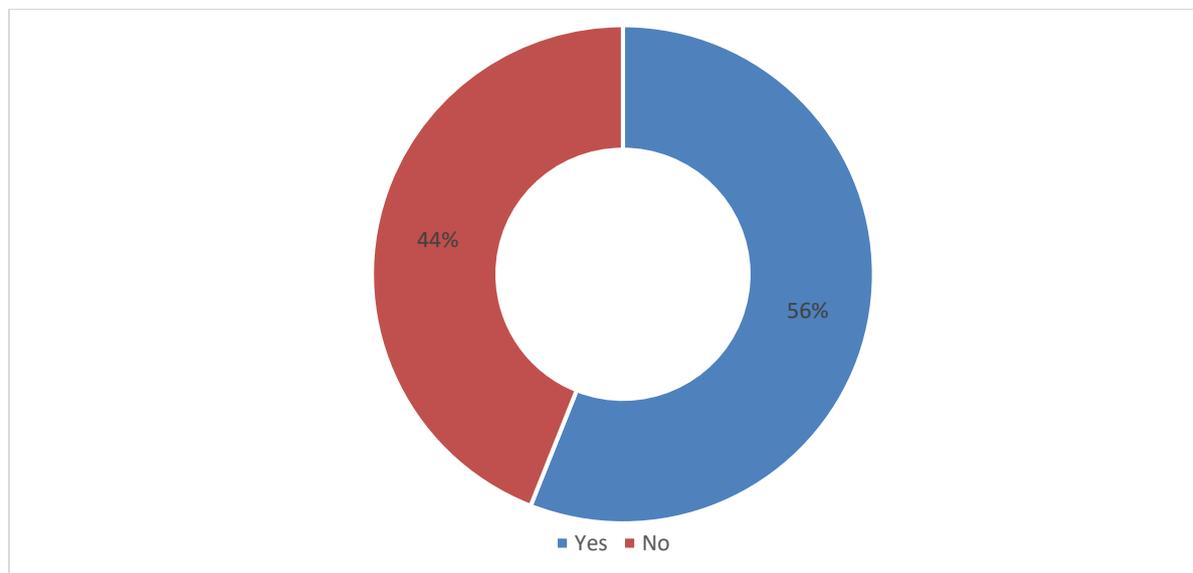
Figure 6. EIS+ survey participants who had completed an Erasmus+ mobility period, by age group



Source: ICF/ CHE student survey, NE+POST= 22,770

Concerning parents' educational background, 56% Erasmus+ POST participants in our survey declare that at least one of their parents had attended university⁸⁹. Thus, students without an academic family background represent almost half of the Erasmus+ population.

Figure 7. Higher education attainment of the parents of EIS+ survey participants who had completed an Erasmus+ mobility period

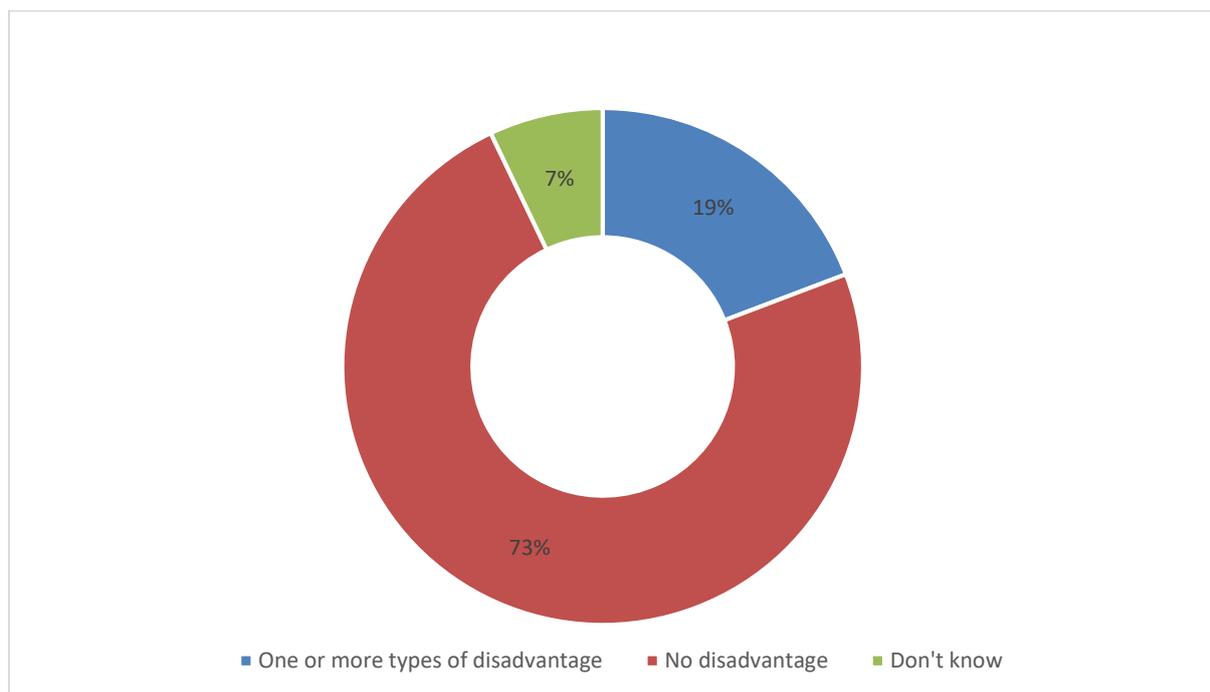


Source: ICF/ CHE student survey, NE+POST= 22,711

Less than 20% Erasmus+ participants report that they faced certain obstacles in HE that allow us to identify them as individuals with fewer opportunities. The most frequent source of disadvantage are economic obstacles such as low income or dependence on social well-fare system (self-declared): close to half of all respondents with fewer opportunities refer to this category.

⁸⁹ Respondents were asked explicitly about university. However, we cannot rule out that some respondents whose parents attended other types of tertiary education might have answered this question positively as well.

Figure 8. EIS+ survey participants who had completed an Erasmus+ mobility period, by disadvantage status



Source: ICF/ CHE student survey, NE+POST= 22,254

5% of Erasmus+ POST respondents report minority or refugee background, 4% indicate social obstacles (typically related to discrimination) and 3% geographical obstacles (coming from remote, deprived or underserved regions). In addition to that, 3% of all participants (i.e. about 17% of young people with fewer opportunities) report serious health problems such as chronic illness or psychiatric conditions and 1% (7% of disadvantaged participants) report mental, physical, sensory or other disability.

Table 12. Types of disadvantages of Erasmus+ participants

Does at least one of the following characteristics apply to you (multiple answers possible)	%
Economic obstacles (people with a low standard of living, low income, dependence on social welfare system or homeless; young people in long-term unemployment or poverty; people in debt or with financial problems)	9%
Cultural differences (immigrants or refugees or descendants from immigrant or refugee families; people belonging to a national or ethnic minority; people with linguistic adaptation and cultural inclusion difficulties)	5%
Social obstacles (people facing discrimination because of gender, age, ethnicity, religion, sexual orientation, disability, etc.; people with limited social skills or anti-social or risky behaviours; people in a precarious situation; (ex-)offenders, (ex-)drug or alcohol abusers; young and/or single parents; orphans)	4%

Geographical obstacles (people from remote or rural areas; people living in small islands or in peripheral regions; people from urban problem zones; people from less serviced areas (limited public transport, poor facilities))	3%
Health problems (people with chronic health problems, severe illnesses or psychiatric conditions)	3%
Educational difficulties (young people with learning difficulties; early school-leavers; low qualified adults; young people with poor school performance)	2%
Disability (i.e. participants with special needs): (people with mental (intellectual, cognitive, learning), physical, sensory or other disabilities)	1%
No	73%
Don't know	7%

Source: ICF/ CHE student survey, NE+POST= 22,254

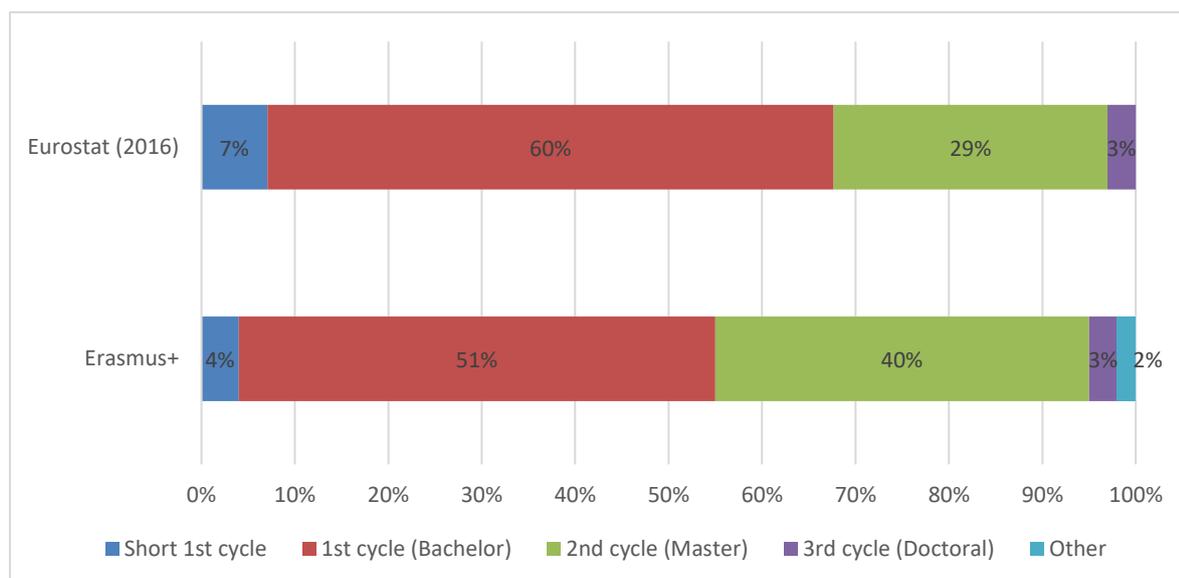
First cycle students predominate among Erasmus+ POST participants in our sample⁹⁰, followed by a substantial proportion of second cycle students. However, as 1st cycle students form 60% of all students in the European Union according to the 2016 Eurostat data⁹¹, they are actually underrepresented in the programme.

Short-cycle, doctoral and other students relatively rarely take part in Erasmus+. While PhD students are represented proportionately, short-cycle students remain underrepresented, compared to their share in the European student population.

⁹⁰ EIS+ data indicates the level of study, when filling the survey

⁹¹ Eurostat 2016: Students enrolled in tertiary education by education level, programme orientation, sex and field of education [educ_uae_enrt03] (<http://appsso.eurostat.ec.europa.eu/nui/show.do>)

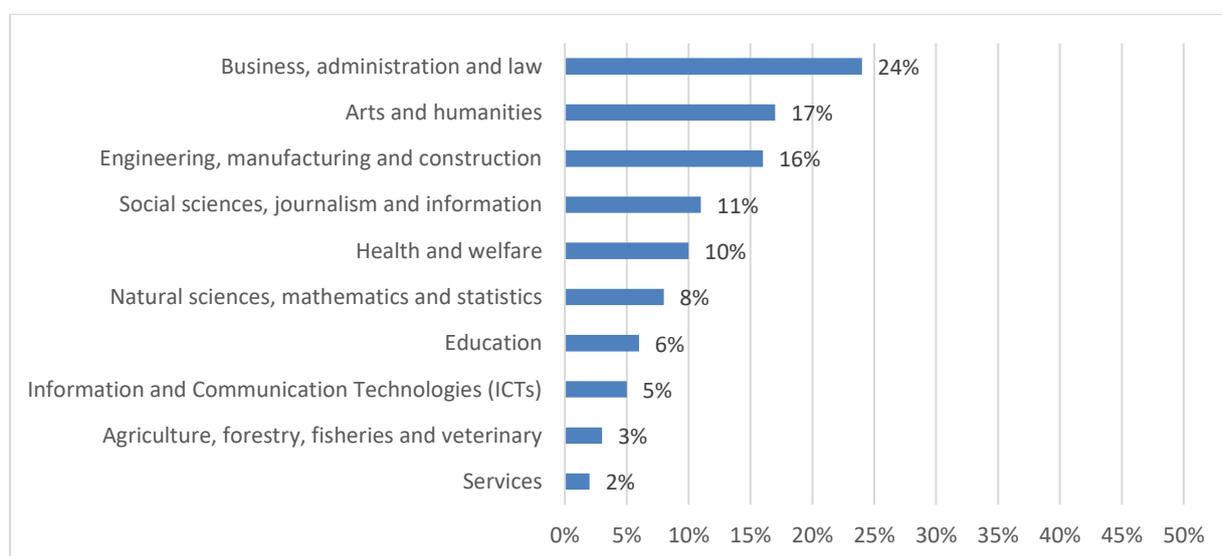
Figure 9. EIS+ survey participants who had completed an Erasmus+ mobility period compared to the HE students' population⁹², by level of study



Source: ICF/ CHE student survey, NE+POST= 22,553

Looking at the academic fields, Erasmus+ POST participants in our sample come from all fields but most frequently from Business, Administration and Law (24%), Arts and Humanities (17%) or Engineering, Manufacturing and Construction (16%).

Figure 10. EIS+ survey participants who had completed an Erasmus+ mobility period, by subject⁹³



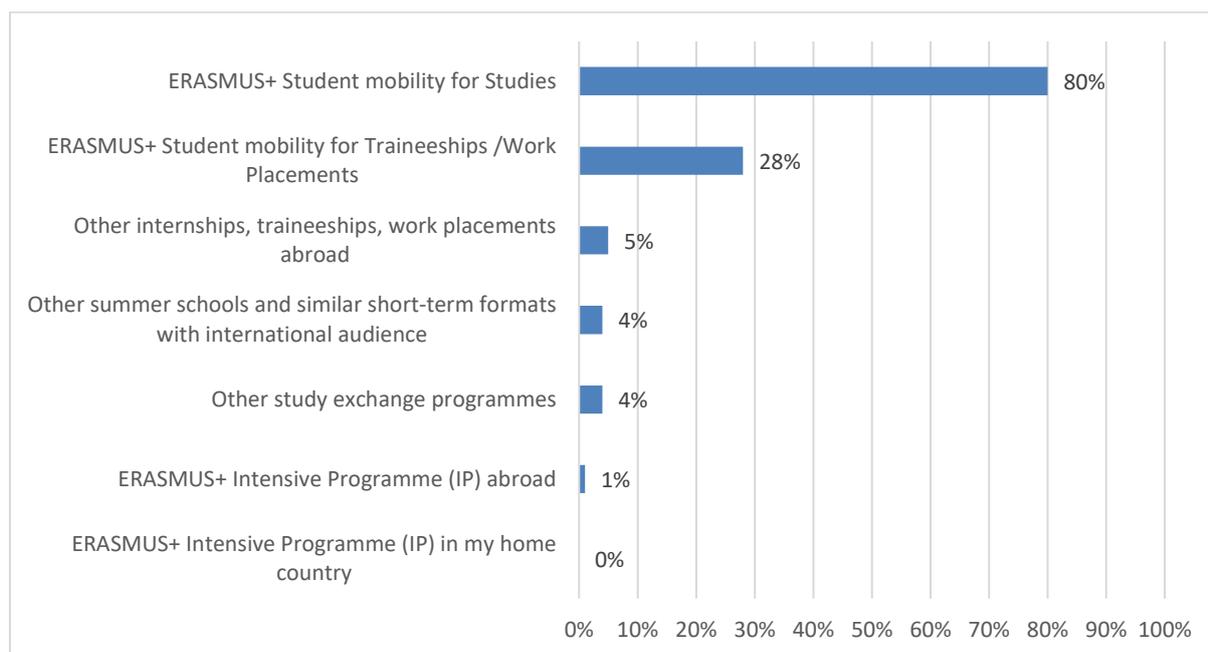
Source: ICF/ CHE student survey, NE+POST= 22,618

⁹² Eurostat 2016

⁹³ UNESCO Institute for Statistics (2015): International Standard Classification of Education. (<http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-fields-of-education-and-training-2013-detailed-field-descriptions-2015-en.pdf>)

Regarding the type of mobility, the vast majority of Erasmus+ POST in our sample reported to have taken part in a study period at a partner institution abroad. Traineeships and work-placements are the second most popular type of mobility, with almost 30% of respondents. 5% of Erasmus+ participants did an internship outside of the Erasmus+ programme and 4% studied abroad also within another mobility scheme. As a person may have participated in more than one mobility, the total amount sums up to more than 100%.

Figure 11. EIS+ survey participants who had completed an Erasmus+ mobility period, by type of mobility

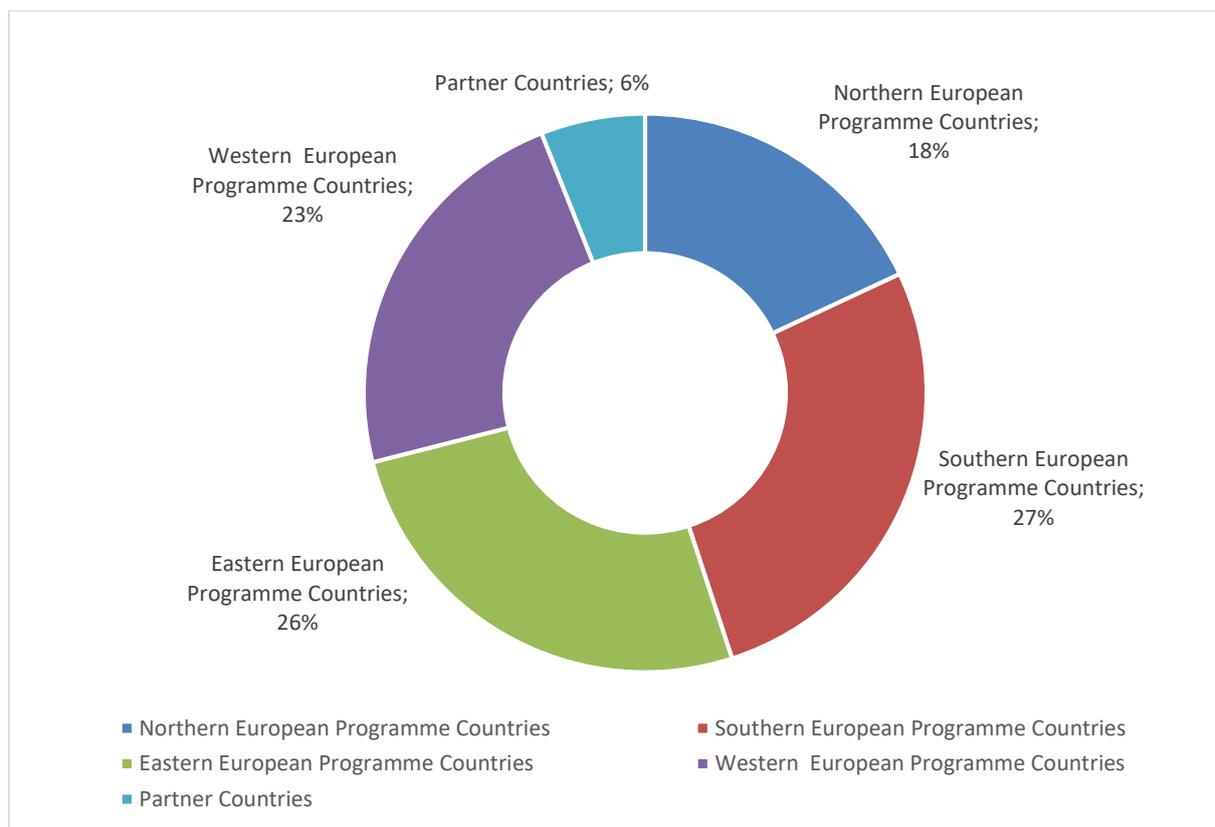


Source: ICF CHE student survey, NE+POST= 22,092

4.2 Characteristics of staff participating in the EIS+ survey

This section explores the composition of participants in the EIS+ staff survey –all of whom had completed an Erasmus+ experience- from multiple perspectives. Southern, Eastern and Western European Programme Countries contribute equally to the body of staff participating in Erasmus+ - by about one quarter of the total number of participants each. Somewhat fewer Erasmus+ participants come from Northern European Programme Countries and about 6% are from Partner Countries (please see the list of Programme and Partner Countries in Annex 2).

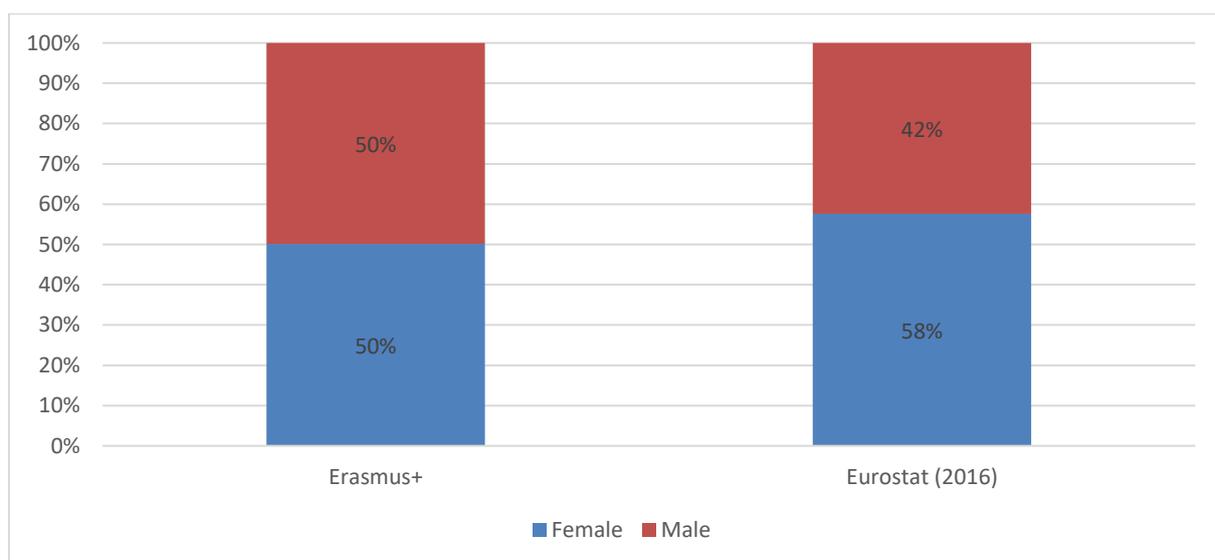
Figure 12. EIS+ survey participants (staff), by home region



Source: ICF CHE staff survey, NE+Staff=9,607

Regarding gender, slightly more female staff than male staff responded to the project survey. When only academic staff is considered, the male/female ratio is 50:50. According to the Eurostat data, 58% of academic staff in European Union are male and 42% female.

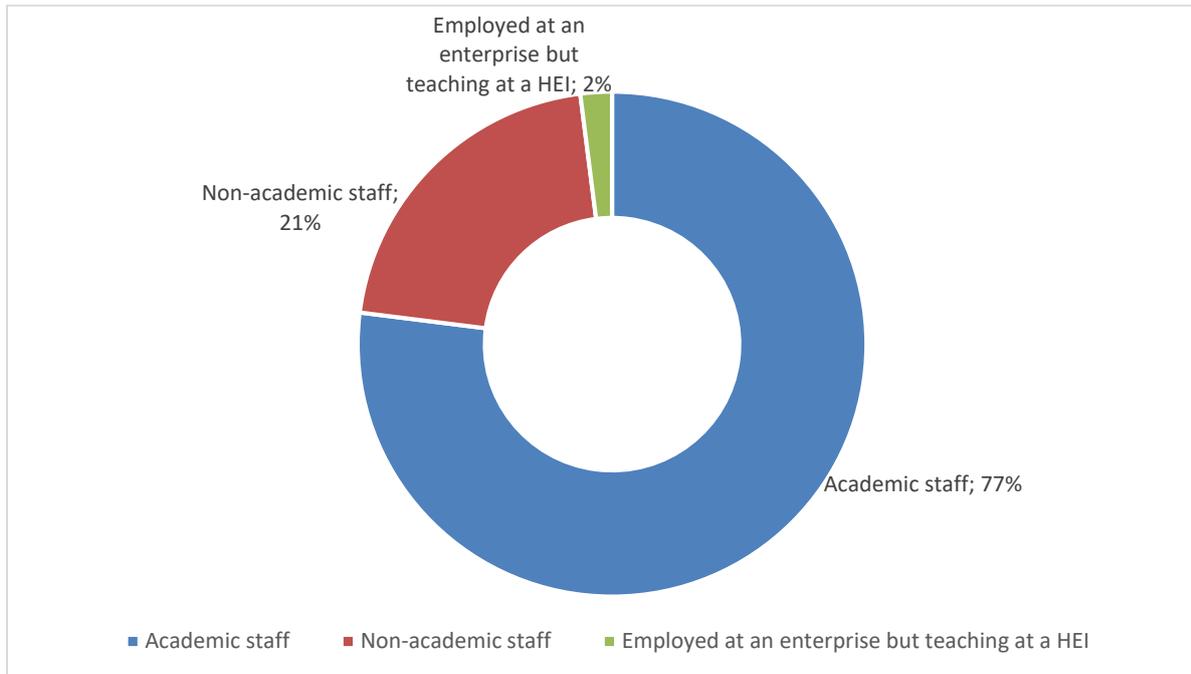
Figure 13. EIS+ survey participants (staff), staff by gender



Source: ICF/ CHE staff survey, NE+Staff =9,985

Looking at their role at the higher education institution where they work, three out of four staff members participating in the EIS+ survey self-identify as academics. Most of them have teaching responsibilities. Non-academic staff represents over 20% of the total and 2% of the participants are external lecturers employed primarily by companies.

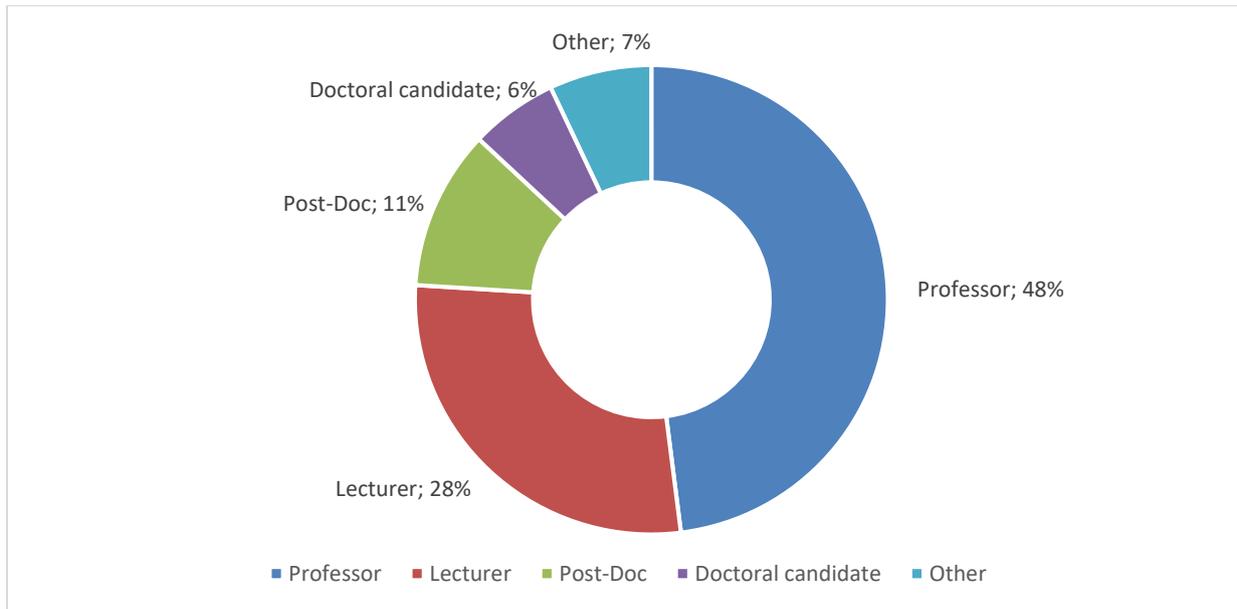
Figure 14. EIS+ survey participants (staff), by type of role at their higher education institution



Source: ICF/ CHE staff survey, NE+Staff =10,021

Almost half of all Erasmus+ staff mobility participants who reported to be academics identify themselves as professors. Junior staff members such as - in some countries - doctoral researchers and post-docs are represented 17% of the sample. In fact, there is a very similar number of doctoral candidates in the student sample (483 E+ POST) and the staff sample (464 E+ staff).

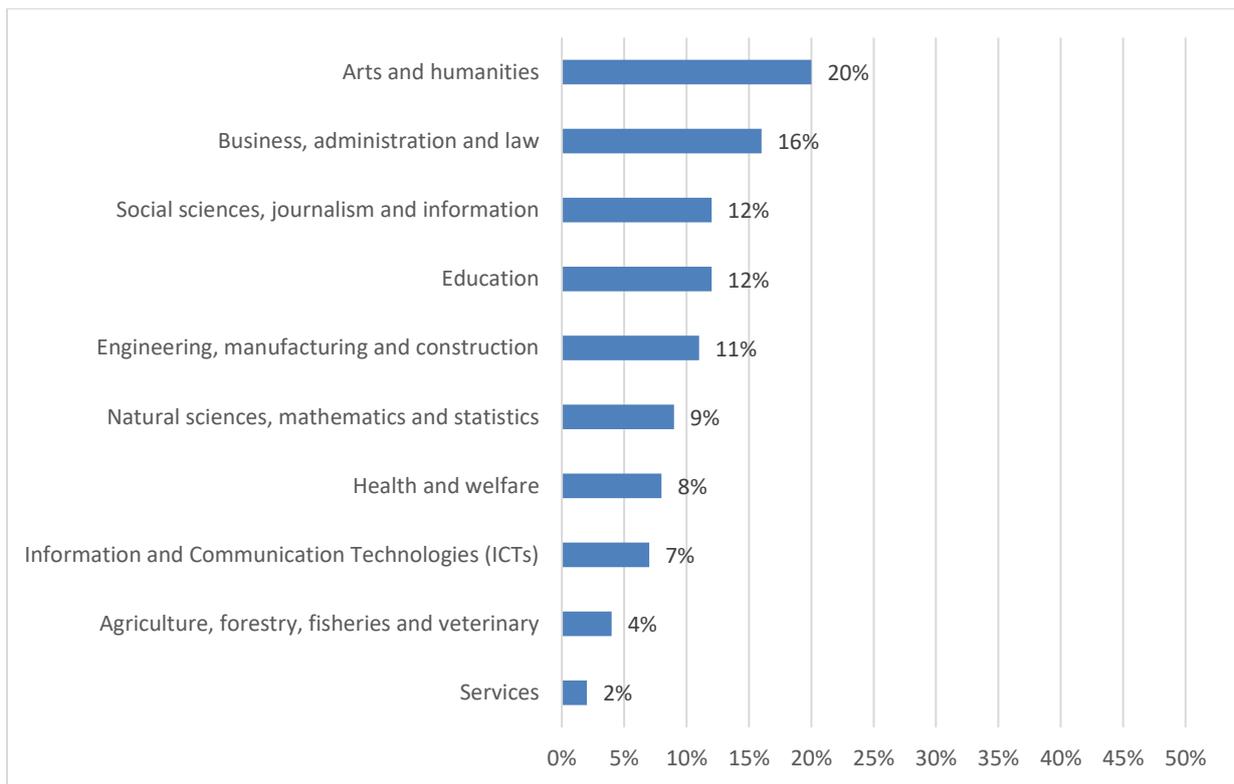
Figure 15. EIS+ survey participants (academic staff), by type of position/ job title



Source: ICF/ CHE staff survey, NE+Staff =7,870

Concerning academic disciplines, Arts and Humanities and Business, Administration and Law are the most common fields for academics taking part in Erasmus+ staff mobility. In contrast, there are relatively few participants from the fields of Agriculture, Forestry, Fisheries and Veterinary or Services. It is worth noting that the ranking of disciplines is different from the results for students – Business is no longer number 1 as it is considerably outnumbered by Humanities, while Engineering falls from the 3rd to 5th place.

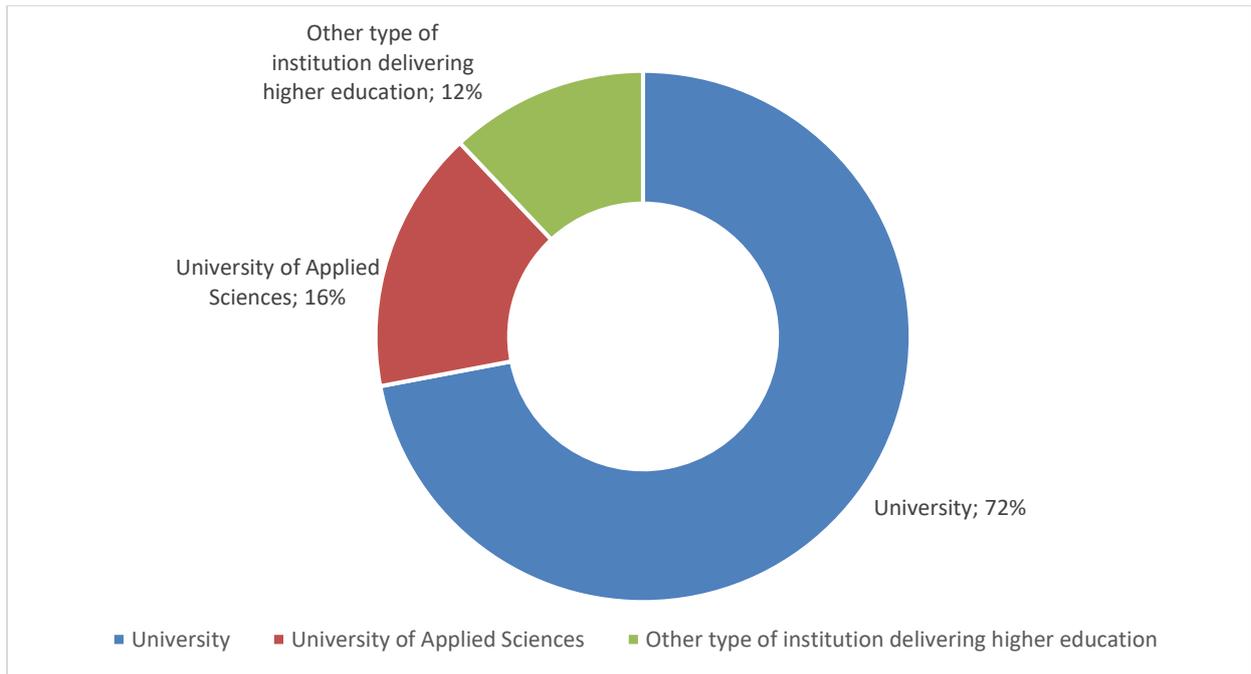
Figure 16. EIS+ survey participants (staff), by subject



Source: ICF/ CHE staff survey, NE+Staff =7,892

Regarding the type of institution, almost three out of four respondents to the staff survey declared to work at a (traditional research) university. Universities of Applied Sciences are represented by 16% of the respondents, whereas 12% reported to come from other types of institution delivering higher education.

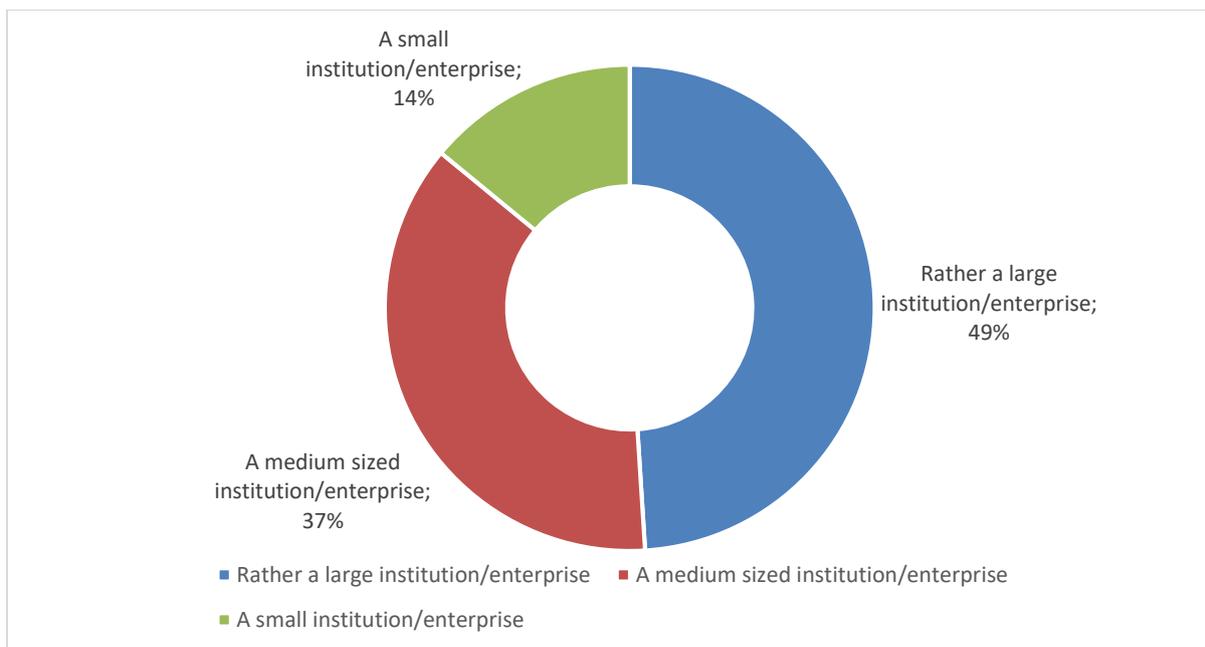
Figure 17. EIS+ survey participants (staff), by types of institution



Source: ICF/ CHE staff survey, NE+Staff =9,990

About half of the staff participating in the EIS+ survey report that the institution where they work is rather large compared to other institutions in their country. Medium-sized institutions are represented by 37% of the participants in the survey and small ones by 14%. It is intuitive that large institutions send out more staff in absolute numbers than small ones.

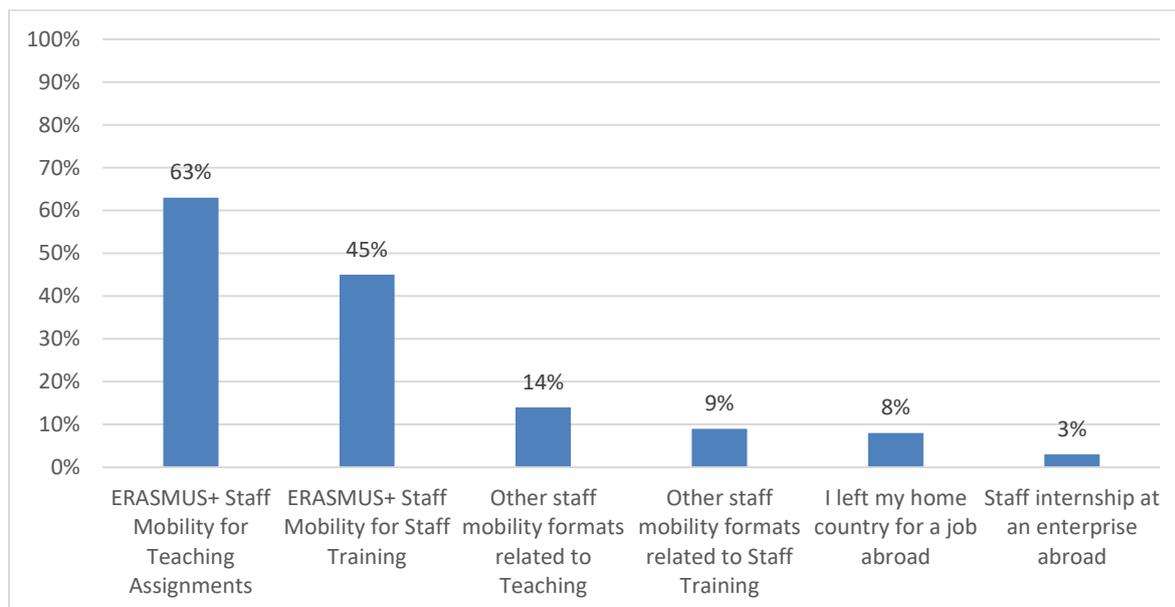
Figure 18. EIS+ survey participants (staff), by size of their institution



Source: ICF/ CHE staff survey, NE+Staff =9,967

Looking at the type of mobility, Erasmus+ Staff Mobility for Teaching Assignments is the most common type among the survey respondents, followed by Erasmus+ Staff Mobility for Staff Training. In addition to that, 14% staff also reported to have experience with other modes of teaching mobility and 9% reported to have experienced other kinds of staff training abroad. As many staff members take part in more than one mobility through their careers, these numbers add to more than 100%.

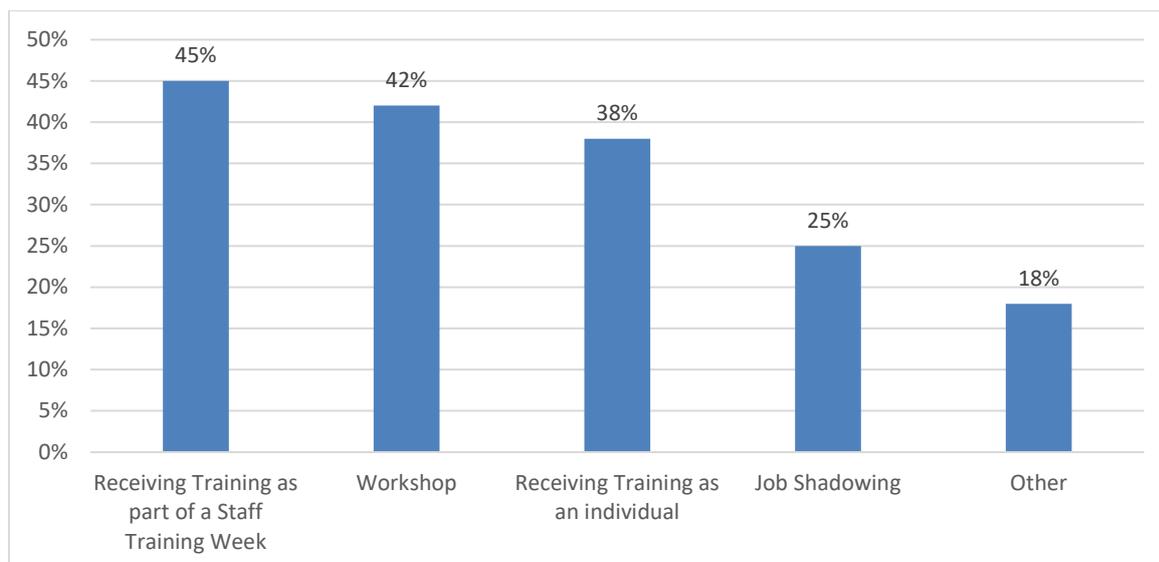
Figure 19. EIS+ survey participants (staff), by type(s) of mobility in which they have participated



Source: ICF/ CHE staff survey, NE+Staff =8,509

For those respondents going abroad for “Erasmus+ Staff Mobility for staff training”, Staff Training Weeks are the most common type of experience, closely followed by workshops and individual training. One quarter of the participants reported to have experience with job shadowing.

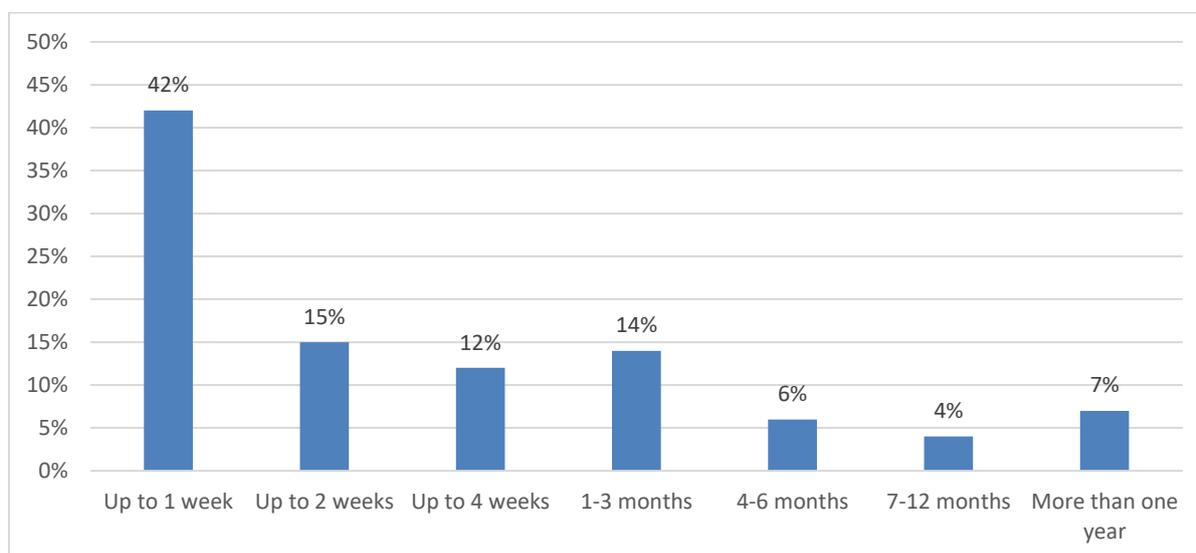
Figure 20. EIS+ survey participants (staff), by type of training undertaken abroad



Source: ICF/ CHE staff survey, NE+Staff =4,091

The overall length of experience is rather short for most mobile staff. Over 40% of staff in our sample have not been abroad for more than a week in their careers, combining all their mobility periods. In contrast, only slightly over 10% staff participating in Erasmus+ have been abroad for more than half a year.

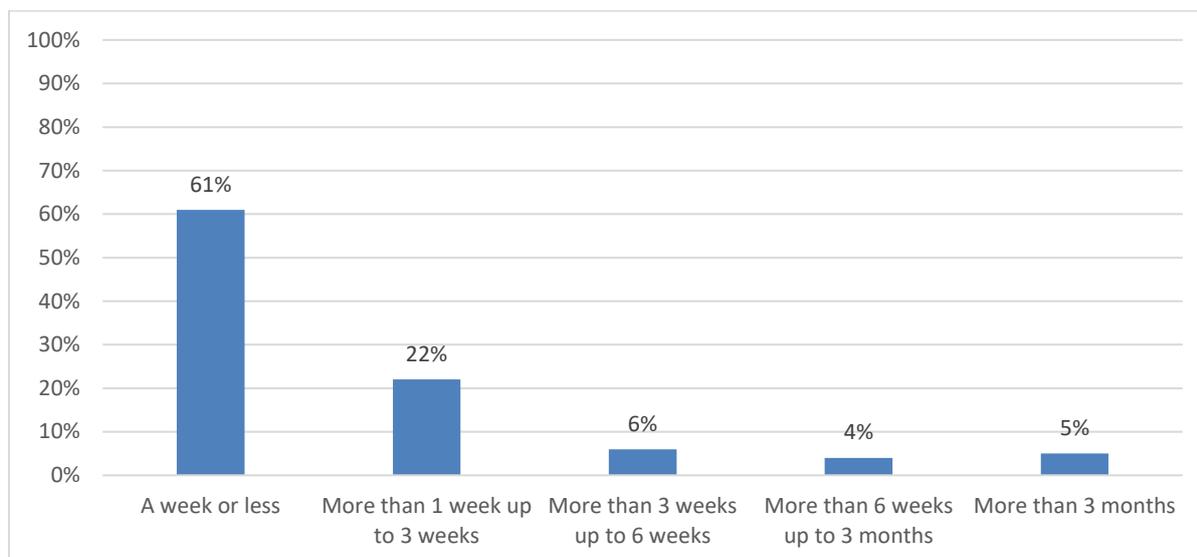
Figure 21. EIS+ survey participants (staff), by overall length of previous mobility periods (combined)



Source: ICF/ CHE staff survey, NE+ staff=8,154

In line with the previous finding, over 60% of respondents to the staff survey have been abroad for a staff mobility only for a week. Only 5% have taken part in a mobility exceeding three months.

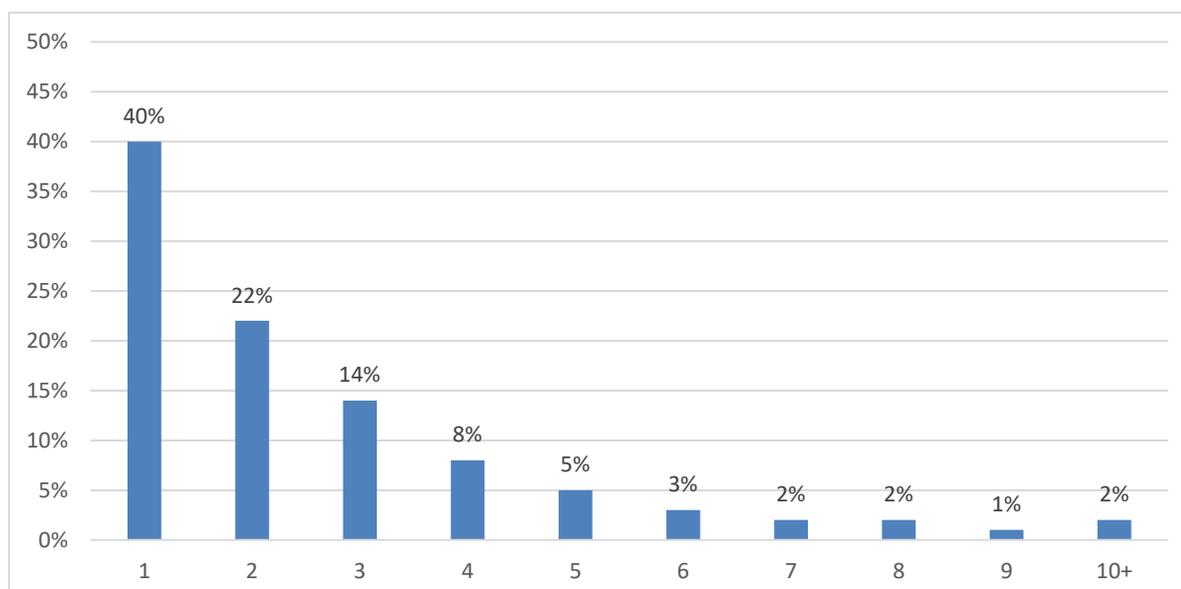
Figure 22. EIS+ survey participants (staff), by length of the longest mobility period (any mobility period)



Source: ICF/ CHE staff survey, NE+ staff =7,584

Two out of five Erasmus+ participants in the survey of staff reported to have visited only one foreign country in their previous mobility periods (all mobility experiences combined, and regardless of the mobility programme, conferences excluded) compared to about 15% who reported to have visited five or more countries.

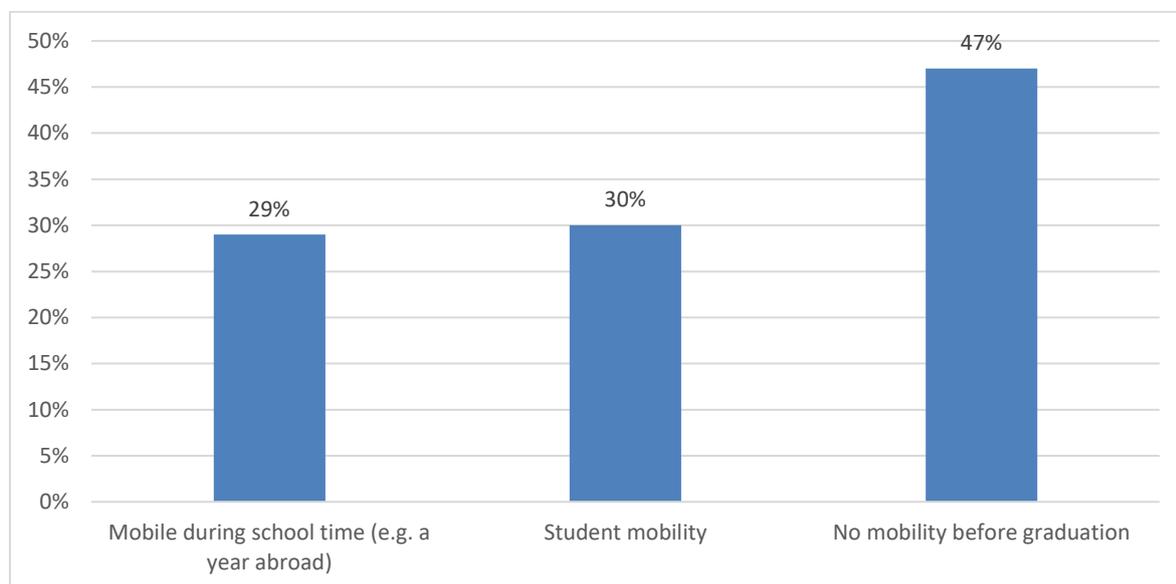
Figure 23. EIS+ survey participants (staff), by number of countries visited during their mobility periods (whether Erasmus+ related or not –excluding conference attendance)



Source: ICF/ CHE E+ staff survey, NE+ staff =7,918

Over half of Erasmus+ staff survey respondents reported that they have been abroad during their studies: during school time (primary and secondary education) or as a student at a higher education institution.

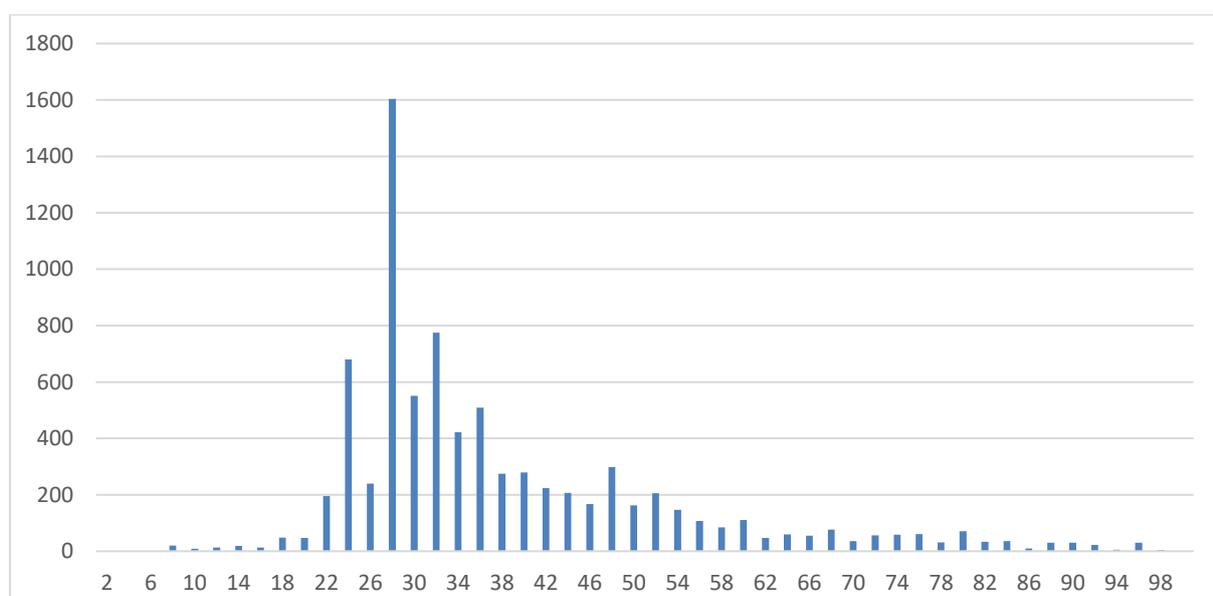
Figure 24. EIS+ survey participants (staff), by mobility experience during their school and university education (multiple response)



Source: ICF/ CHE staff survey, NE+ staff =8,451

The index displayed in the chart below combines all the aspects of mobility discussed above: The more time spent abroad in more countries, the higher the values. Apparently, the majority of Erasmus+ staff survey participants went abroad only once or few times. Typically, they visited only one or few countries and have not spent there more than a week or two. There is only a small group of highly mobile participants with extensive experience with the programme (for the construction of the indices, please see Annex 3).

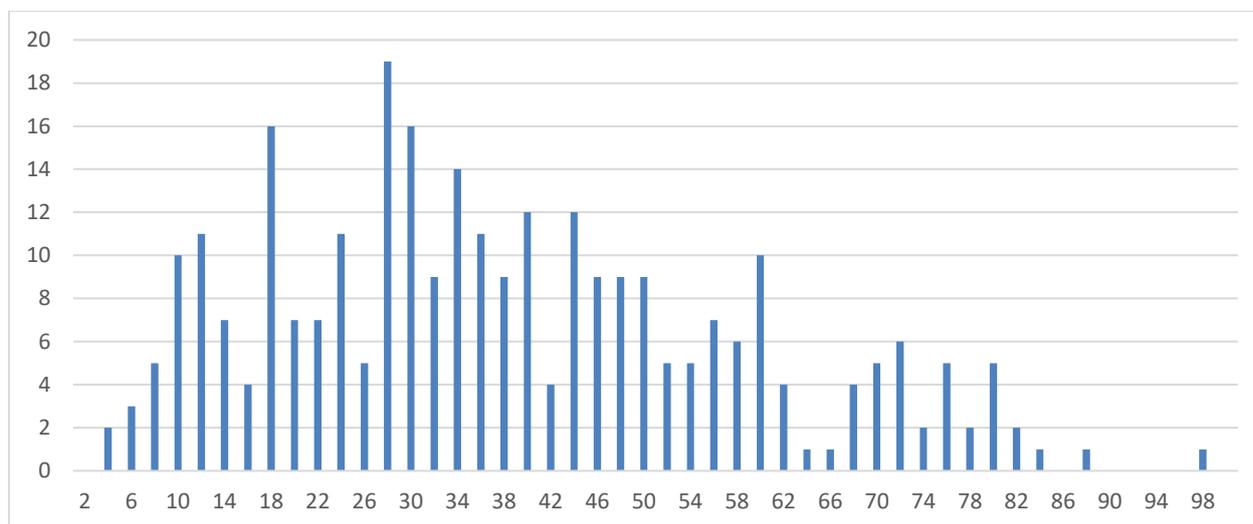
Figure 25. EIS+ survey participants (staff), by distribution in the International Experience Index



Source: ICF/ CHE staff survey, NE+ Staff=8,155

The median value of the International Experience Index for Erasmus+ staff is lower than for the collected sample of Other Mobile staff, who had not taken part in the programme. Although a causality cannot be derived from the data, this can be taken as an indication that Erasmus+ is a low-threshold programme for staff without mobility experience, compared to other mobility programmes, which are enjoyed more frequently by more experienced participants who have previous experiences abroad. In this respect, Erasmus+ might serve as an important doorway to internationalisation.

Figure 26. Distribution of International Experience Index of non-Erasmus(+) mobile staff



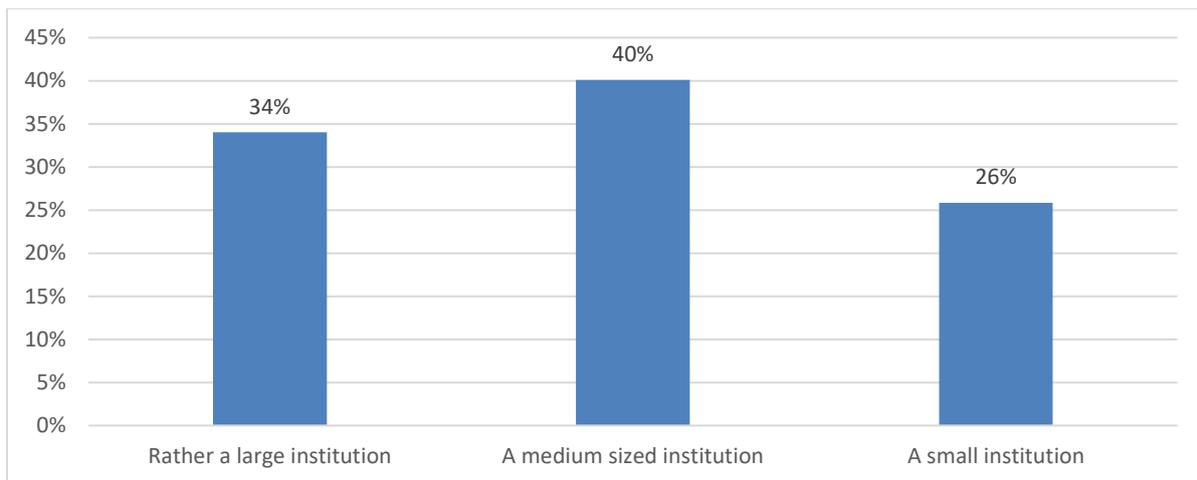
Source: ICF/ CHE E+ staff survey, NNon-Mobile Staff=294

4.3 Characteristics of institutions participating in the EIS+ survey

This section presents information on the institutions that participated in the HEI survey. In total we received 763 valid answers that were used for analysis of the impact of the Erasmus+ on the institutional level, along with the survey of staff and survey of SP coordinators. The relatively high numbers of HEIs that responded to our survey allowed us to perform analysis by sub-categories of respondents. However, the results of the breakdown analysis must be read with caution. The results presented are valid for our sample and cannot be generalised to the whole population of HEIs that take part in Erasmus+. Notwithstanding this limitation, the results show a number of interesting patterns, as presented in Chapter 7.

As Figure 27 shows, in the sample of HEIs around 34% of respondents reported to be large institutions, 40% of medium size and 26% of small HEIs. This pattern is different to the pattern in the staff survey sample, where staff most frequently reported to work at a large HEI -followed by medium size and small HEIs. These differences may be attributed to the fact that in the staff survey staff more than one response could be received from a single institution; as such more responses could be expected from staff working in larger HEIs as they employ more staff than smaller institutions. On the other hand, the survey of HEIs was sent only to the institutional leadership, and we have, thus, one response per institution, regardless of its size.

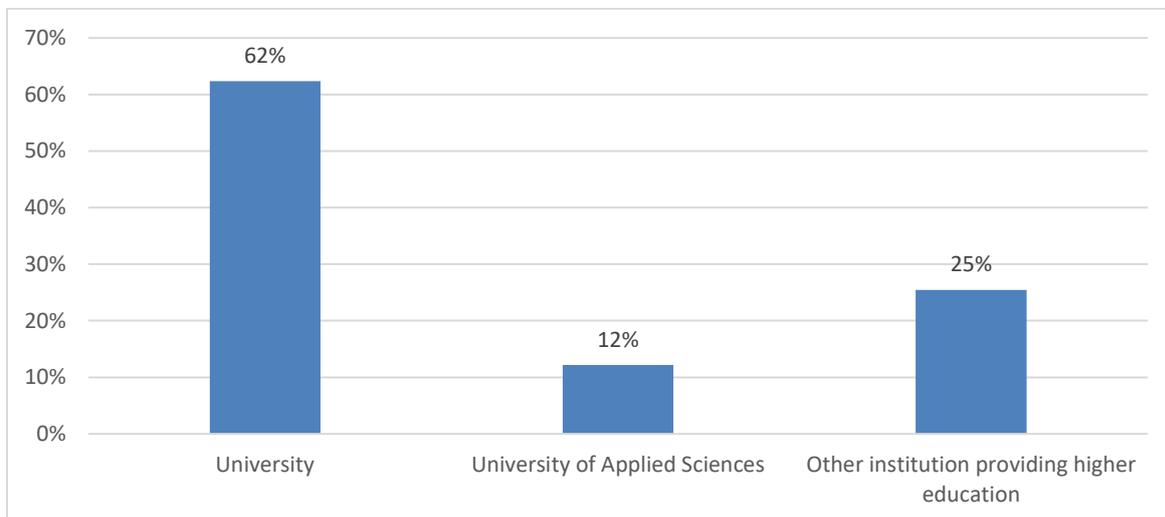
Figure 27. Size of HEIs in the sample (survey of HEIs)



Source: ICF CHE Erasmus+ HEIs survey. N= 708.

The distribution of responses by type of HEI is similar to that of the staff survey, although the survey of HEIs had a lower representation of respondents from universities, because universities tend to be larger than other types of higher education institutions – and as already mentioned more responses to the staff survey could be expected from staff working in larger HEIs because they employ more staff than smaller institutions. As Figure 28 shows, we have 62% of universities on our sample, followed by other types of HEIs (25%) and finally universities of applied sciences (12%).

Figure 28. Type of HEI

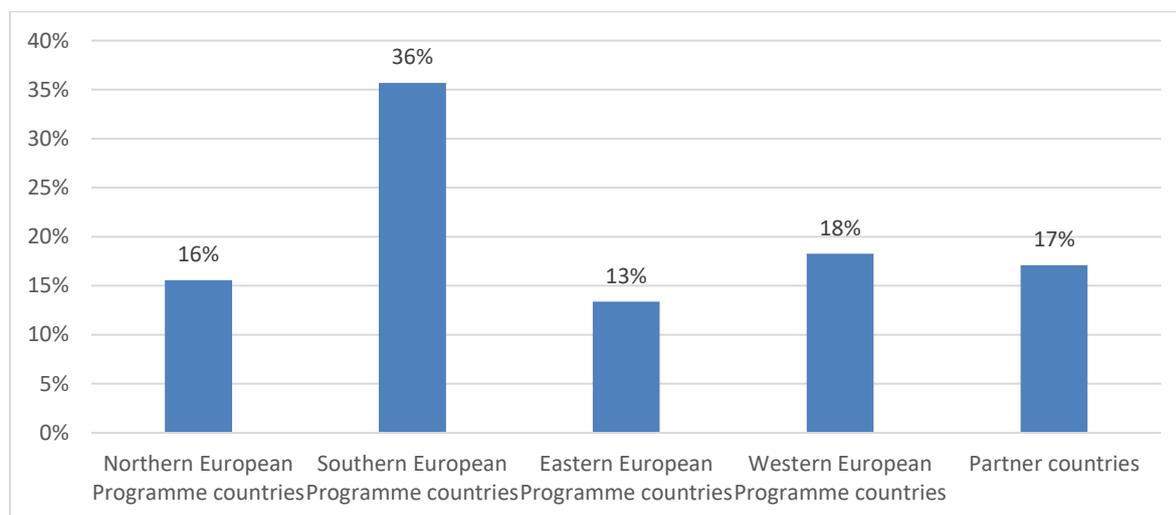


Source: ICF CHE Erasmus+ HEIs survey. N= 699.

Figure 29 shows distribution of respondents by region. The sample is divided as follows: 16% of respondents came from northern European programme countries, 36% from southern European programme countries, 13% from eastern European programme countries, 18% from western European programme countries, and 17% from partner countries. Comparison to the regional division in the staff survey shows that HEIs from southern European programme countries and partner countries are overrepresented in

the HEI sample, which could suggest their higher motivation to participate in this type of survey or better accessibility to recruit HEI leadership in these regions.

Figure 29. Home regions of HEIs



Source: ICF CHE Erasmus+ HEIs survey. N= 591.

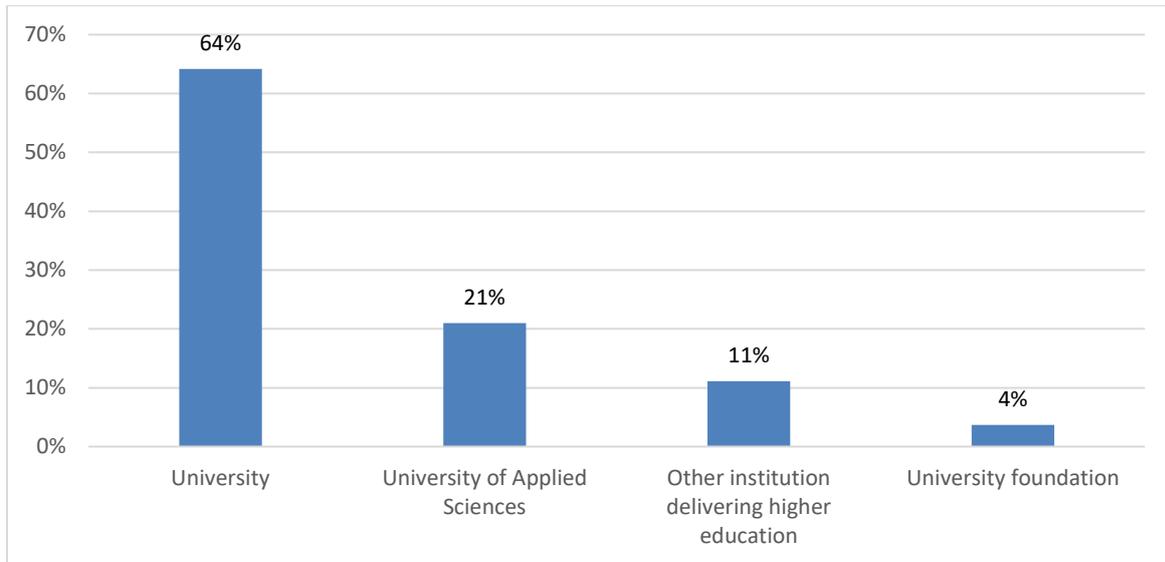
The above figures show the distribution of HEI respondents in our sample. The comparison with the staff survey sample shows some important differences, which can, however, be explained by different target groups in each survey, especially by the different number of respondents per HEI to each survey. Whenever possible, both surveys are used and their results are compared to enrich the analysis. This approach reveals that results and main messages vary little regardless the survey used.

4.4 Characteristics of institutions participating in the EIS+ Strategic Partnerships survey

The survey on Strategic Partnerships coordinators was aimed at Strategic Partnerships projects that started in 2014. This year was selected in order to capture views and perceptions of coordinators that already had initial results of their SP project in the time when the survey took place. Moreover, we also deemed important to survey coordinators that were still pursuing their SP project in order to capture present views, as coordinators that had the project in the past might not have remembered accurately all the nuances of the problems and advantages of the project. Moreover, as the number of projects is relatively low, we decided to extend the questionnaire by open questions that would enable us to understand respondents' perceptions. In total the study team sent the survey to 152 SP coordinators and received 85 responses -a response rate of 56%, the highest of all the surveys in this study. Given the low number of SPs compared to other types of participation in the Programme examined in this report, the analysis does not provide breakdowns by type of institution. However, the basic characteristics of the sample are presented here to give the reader an overview of the types and size of HEIs that took part in the SP coordinators survey.

Figure 30 shows the types of HEIs that took part in the SP coordinators survey. The highest share (64%) is from University, 21% from University of Applied Sciences, 11% from other institution delivering HE, and 4% from University foundation.

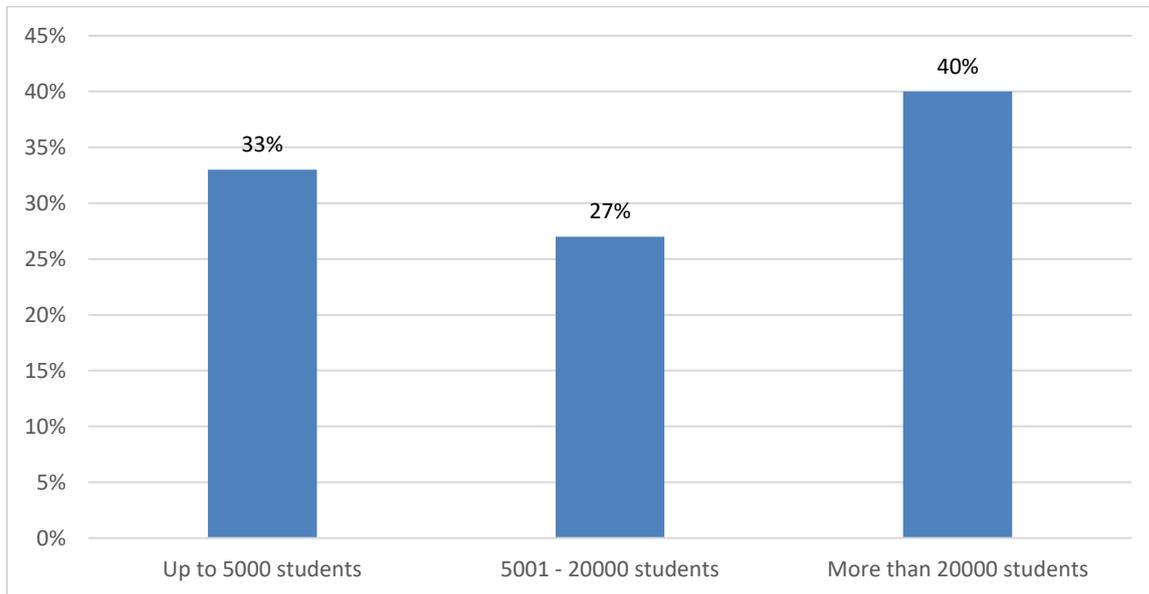
Figure 30. Type of HEI, Survey of SP coordinators



Source: ICF CHE Erasmus+ SP coordinators survey. N= 82

Figure 31 shows the number of students in surveyed HEIs as reported by SP coordinators. Similarly, to the HEI and staff survey, the highest share of HEIs in the SP survey belongs to rather large HEIs – in our case it is 40% of HEIs that have more than 20 000 students, the rest of HEIs are relatively smaller (27% with 5001 to 20000 students and 33% with 5000 or fewer students).

Figure 31. Number of students in HEI, Survey of SP coordinators



Source: ICF CHE Erasmus+ SP coordinators survey. N= 75.

5 Impact on Students

This section presents both empirical evidence for short-term effects of Erasmus + on students and long-term effects of Erasmus+ and predecessor programmes on graduates. The results are based on the analysis of almost 77,000 cases collected in the course of the EIS+ surveys.

5.1 Findings across Impact Areas

Main findings: Impact across areas

- Students who are more satisfied with their experience because of the impact they perceive on their personal development, also report a higher impact on their employability skills. In general, those respondents who report substantial gains in one dimension, are likely to report also substantial gains on other dimensions.
- Students who participated in Erasmus+ during the first cycle of their studies are more likely to be amongst those who report a larger impact –higher than the impact reported by their second cycle peers.
- Students with the most positive results across impact dimensions are found most frequently in Southern Europe and Partner countries, and low GDP per capita countries

Students who report gains in one dimension, are likely to report also substantial gains in other dimensions.

Correlation analysis revealed that the perceived impact of Erasmus+ mobility is related across Impact Areas. A participant who report substantial gains in one dimension is likely to indicate substantial gains also in other areas. All the correlation coefficients are significant and in the range of .5 to .7, indicating a rather strong dependency. The relationship between Intercultural Openness Impact Index and Social Engagement Impact Index is particularly strong. In other words, those who report a high impact on their intercultural openness are also very likely to report a high impact on social engagement. The link between Intercultural Openness Impact Index on one side and Perceived Personality Development Index (attitudes and skills such as tolerance towards different behaviours, decisiveness and ability to assess one's own strengths and weaknesses) and Study Impact Index (progress with studies; development of competences relevant for effective learning; exposure to innovative teaching methods; motivation to complete studies) on the other is weaker compared to other pairs, yet still statistically significant⁹⁴.

Students who are happy about their experience for a particular reason or set of reasons may be inclined to give more positive answers across all impact areas – this is a well-known influence in perception-based research and cannot be ruled out in this context. By contrast, if something 'goes wrong', perceived impact in all dimensions is jeopardized.

⁹⁴ In the following chapters we use the term significant only for statistical significance.

Table 13. Correlation among impact indices for students (E+POST)

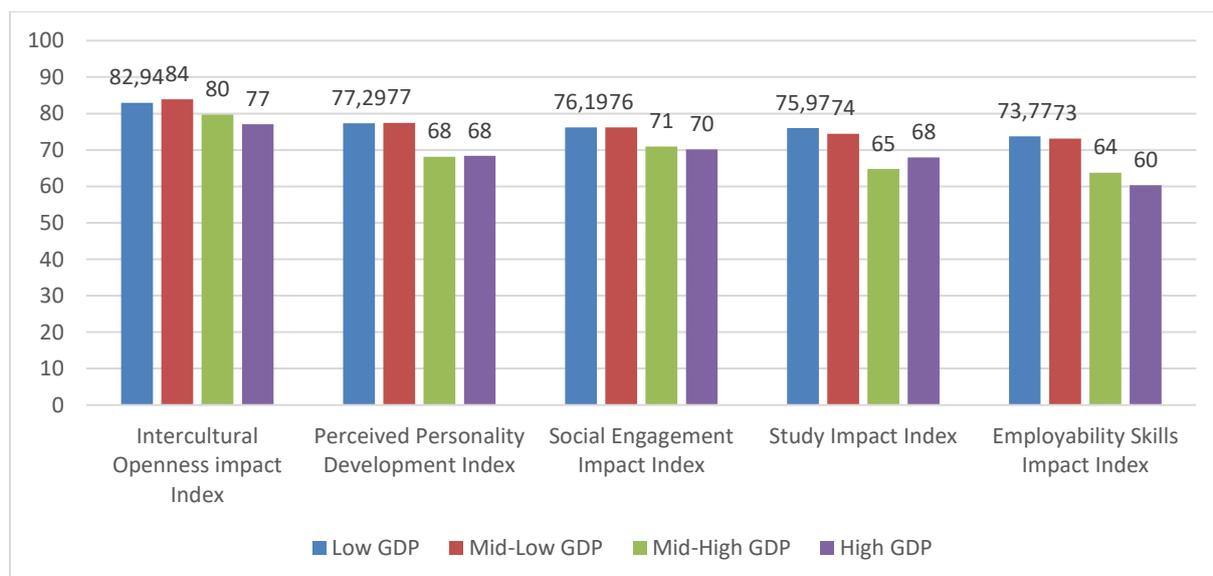
	Study impact index	Intercultural openness impact index	Employability skills impact index	Social engagement impact index
Perceived personality development index	.52	.51	.56	.61
Social engagement impact index	.57	.70	.61	
Employability skills impact index	.64	.60		
Intercultural openness impact index	.50			

Source: ICF CHE Consult student survey, NE+ POST=between 18,034 and 15,812

Participants from countries with below to average GDP per capita report the highest gains.

Across the areas, former Erasmus+ participants from below to average GDP per capita countries perceive substantially greater mobility impact than participants from countries with higher GDP per capita. This holds true regardless of the economic situation in the host country. In other words, students from countries with below-average GDP per capita (typically in East or South) reported higher gains from the mobility whether they went to a richer country, similar or even lower level GDP country compared to their own. In contrast, participants from countries with a higher GDP per capita are more critical about the experience across all dimensions, independently of the GDP status of the host country. Thus, Erasmus+ seems to have a different impact depending on the home country of the students.

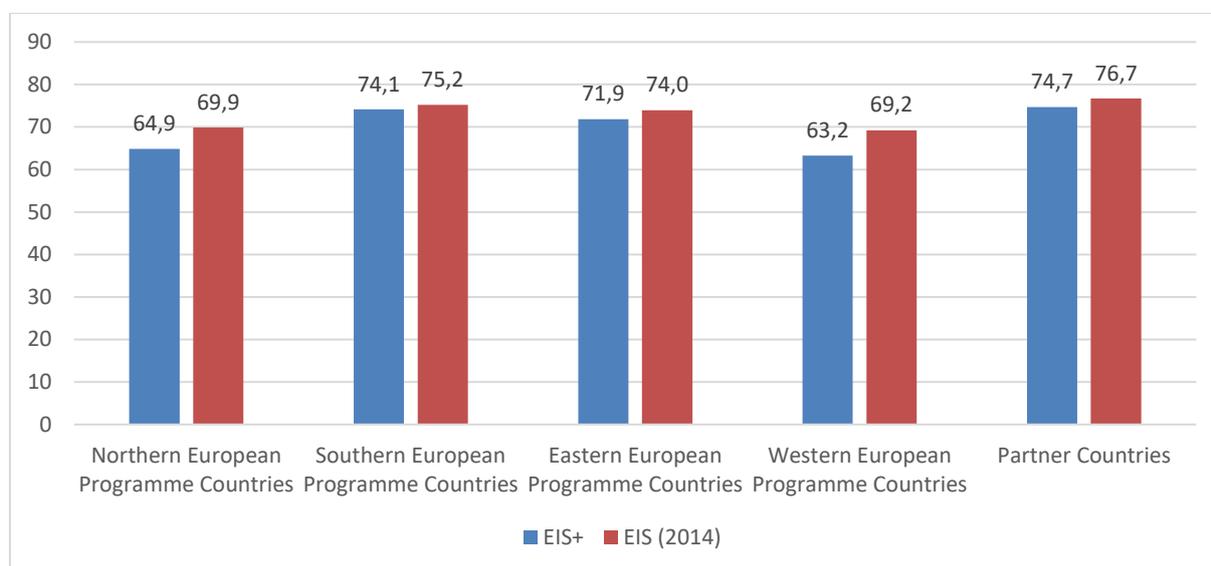
Figure 32. Impact indices by home country income level (students)



Source: ICF CHE Consult student survey, NE+ POST =14,667

Most of the indices cannot be compared directly to the predecessor Erasmus Impact Study (EIS, 2014; see Table 3 above and Annex 1 for more detail on the use of indices in this report). An exception is the Employability Skills Impact Index. As all the items included in that index were part of the questionnaire in both studies, the development of the regional variation over time can be analysed. The higher the value, the more often participants reported an improvement on different skills relevant for employment and career after they took part in an Erasmus(+) mobility. Figure 33 shows that while the relative order of the regions in terms of their Employability Skills Impact Index score remains the same, the differences are larger in the EIS+ sample. On one hand, former Erasmus+ participants from Southern European Programme Countries still perceive high impact of mobility on their skills relevant for employment (for example, 84% report that they improved their analytical and problem-solving skills), and the variation with the 2014 study is not large. On the other hand, respondents from Western and Northern European Programme Countries became more sceptical in this respect in the current survey.

Figure 33. Regional variation in the Employability Impact Index, EIS+ vs. EIS (2014)



Source: ICF CHE Consult student survey, NE+ POST =14,532, NEIS (2014) POST=5,972

Although in some cases also other breakdowns revealed interesting variation (see examples in the following chapters), surprisingly, the home region and the GDP per capita level of a participant's home country revealed to be the only breakdown variables to show substantial and consistent differences across the impact areas.

Students from Southern Europe and Partner Countries) reported higher gains from their mobility experience.

As discussed above, the students experience across individual impact dimensions is closely related: an individual perceiving impact in one area is quite likely to perceive it also in others. This supported the production of an additional type of data analysis by means of a "meta-index" constructed for E+ POST, which is a combination of all five impact indices presented above, indicating the overall perceived development of a student.

Respondents above the 20th percentile of this meta-index, i.e. 20% respondents with the largest perceived gain, were labelled as "Erasmus+ big gain" participants – particularly enthusiastic participants with excellent feeling about their experience. In contrast, 20% respondents with the lowest values were labelled as "Erasmus+ dim gain" participants – particularly critical respondents who reported, comparatively, a less positive experience.

Although this analysis does not reveal what the cause for the variation in the reported levels of gain for either group was, it is interesting to see what demographic characteristics these participants share and what makes them different. In the Figure below, only characteristics that make a substantial difference between "Erasmus+ big" and "Erasmus+ dim" gain participants are displayed. The gender difference is relatively small, although statistically measurable: female respondents are slightly more likely than males to be among "Erasmus+ big" gain groups. There are no significant differences for disadvantaged students in both groups. The same is true for academic family background.

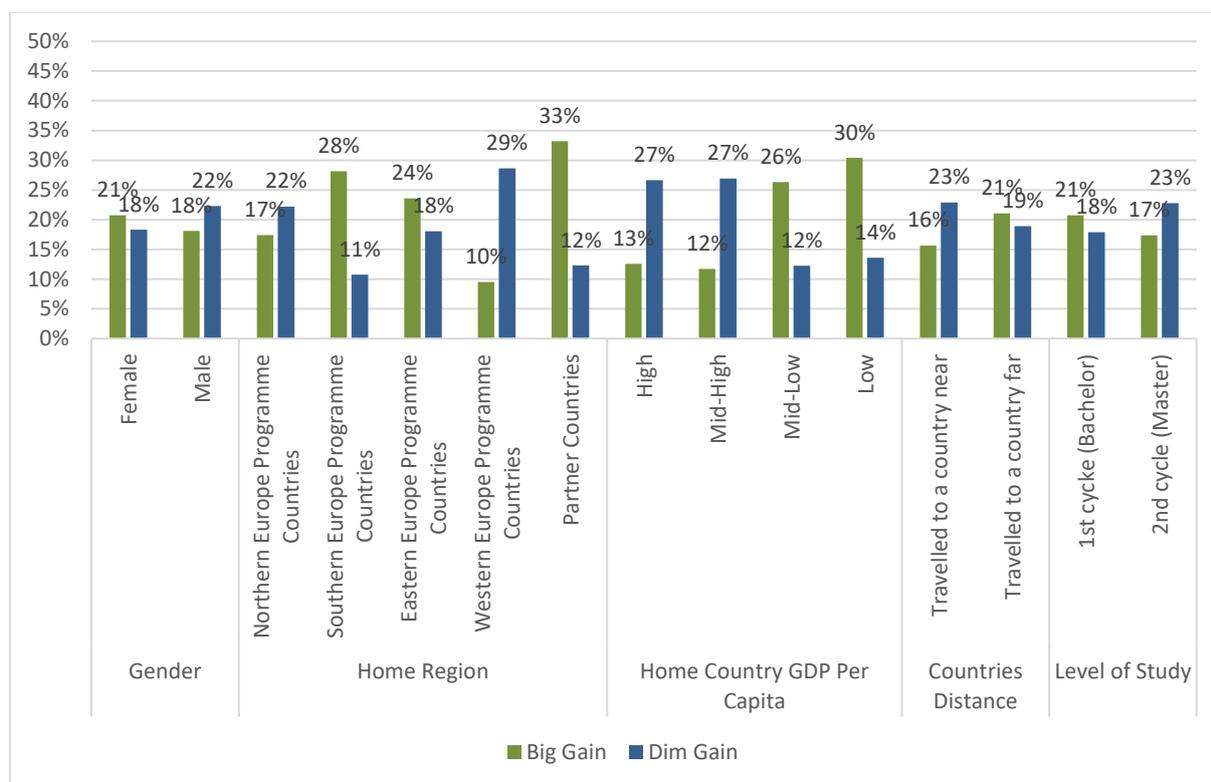
Much more substantial differences occur among home regions. One third of all Partner Country respondents (former Erasmus+ participants) and 28% from Southern Europe Programme Countries are in the "Erasmus+ big" gain group. In contrast, 29 % of the participants coming from Western Europe are "Erasmus+ dim" gain group – actually more than half of all those in this group are from Western Europe.

In line with regional differences, GDP per capita level of the home country reveals to be an important factor. While former Erasmus+ students from mid-high and high-GDP countries are more likely to be in the "Erasmus+ dim" than in the "Erasmus+ big" gain group (27% to 13% respectively for former Erasmus+ participants from countries in the top GDP category), the opposite is true for mid-low and low-GDP countries (30% of former participants from countries in the lowest GDP group were in the "Erasmus+ big" gain group whereas 14% were in the "Erasmus+ dim" gains group).

In contrast, the variation across the GDP level of host countries is much less substantial and virtually non-existent for the top two GDP categories (high and mid-high). However, former participants from countries in the lower two GDP categories are the more likely to be in the "Erasmus+ big" gain group. This observation confirms the general pattern described above and adds more detail by showing that not only the average level of perceived benefits is higher for students coming from some countries but also that the share of former participants who report the highest and lowest benefits is affected by GDP levels in the home country.

Former Erasmus+ participants who visit a neighbouring country perceive in general less impact than those who go farther. Finally, first cycle students (former Erasmus+ participants who participated in the programme during the first cycle of their studies (students in Bachelor programmes) are more likely to be amongst those who report a larger impact than their second cycle peers (students in Master programmes).

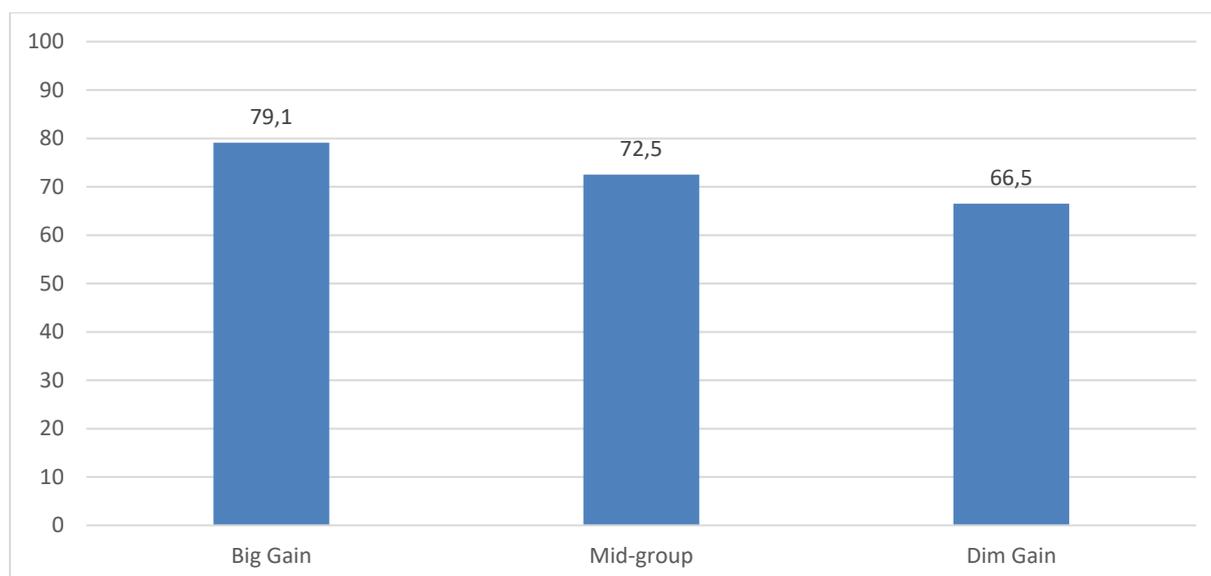
Figure 34. "Erasmus+ big" and "Erasmus+ dim" gain analysis according to gender, home region, home country GDP, geographical neighbourhood between home and host countries and level of study



Source: ICF CHE Consult student survey. NE+ POST =18,516

Those respondents in the "Erasmus+ big gain" group not only perceive greater impact across the Impact Areas (learning experience, improvement of competencies relevant to employment and a cohesive society, development in their personal attitudes and behaviour), they also show a substantially stronger European identity than "Erasmus+ dim" gain as result of the mobility. The average value of European Identity Index for those respondents in the "Erasmus+ big" gain group is considerably above than that of the "Erasmus+ dim" gain group and those in the mid impact group, indicating that they relate more closely to Europe, consider themselves European citizens and feel to share more values with fellow Europeans than the other groups.

Figure 35. European Identity Index according to gain group

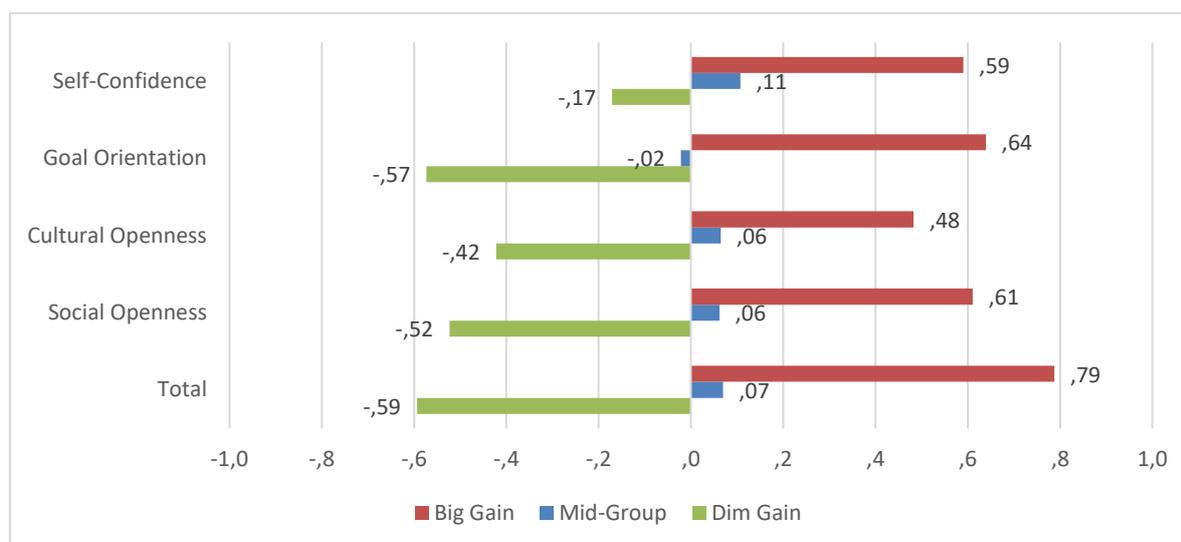


Source: ICF CHE Consult student survey. NE+ POST =18,469

To assess how a mobility experience affects the attitudes and behavioural frameworks of students, the project team employed the **memo**[®] psychometrical tool. Unlike the parts of the survey collecting participant's perceptions on the impact of mobility, the memo[®] tool assesses respondents on selected psychometrical measures prior to and after the mobility, revealing changes in measures between these points. When it comes to those attitudes and personality traits, as measured by memo[®], "Erasmus+ big" gain respondents show significantly higher values than respondents in the "Erasmus+ dim" gain group across all memo[®] factors (Self-Confidence, Goal Orientation, Cultural Openness and Social Openness). The only factor where the difference is relatively smaller, yet still statistically significant, is Self-Confidence. In fact, the average POST memo[®] values for respondents in the "Erasmus+ dim" gain group are below the baseline value of E+ PRE participants in all factors; this means, an average Erasmus+ critical participant shows lower values in the attitudes and personality traits measured after the mobility than the average Erasmus+ participant before departure.

This result confirms that "Erasmus+ dim" gain students are respondents who are rather critical and tend to answer less positive on all types of questions, generally reporting a rather less optimistic worldview than other students. The lower memo[®] scores might also indicate that they might not be as ready as ready as other participants for the mobility in terms of attitudes and behaviour, as they were not –for example- sufficiently open to new experiences.

Figure 36. Memo factors results of "Erasmus+ big" and "Erasmus+ dim" gain participants



Source: ICF CHE Consult student survey. NE+ POST =18,469; baseline = E+ PRE.

5.2 Access to Mobility – Barriers and Motivations

Main findings: Access to mobility

- Institutional support has improved since 2014: students assess the conditions for internationalisation at their home institution remarkably better than they did in 2014.
- Institutional support plays a vital role for the quality of the mobility experience: the better students assess the support and services at their home institution, the larger the gain they report from their mobility experience.
- Family reasons and personal relationship and financial reasons are the main reasons why students are not mobile. 47% of respondents reported family reasons and personal relationships to be one of the main barriers.
- Former Erasmus+ students who reported to have a disadvantaged background consider the opportunity to receive an Erasmus+ grant for their mobility more important for their decision to take part than those who did not report a disadvantage.

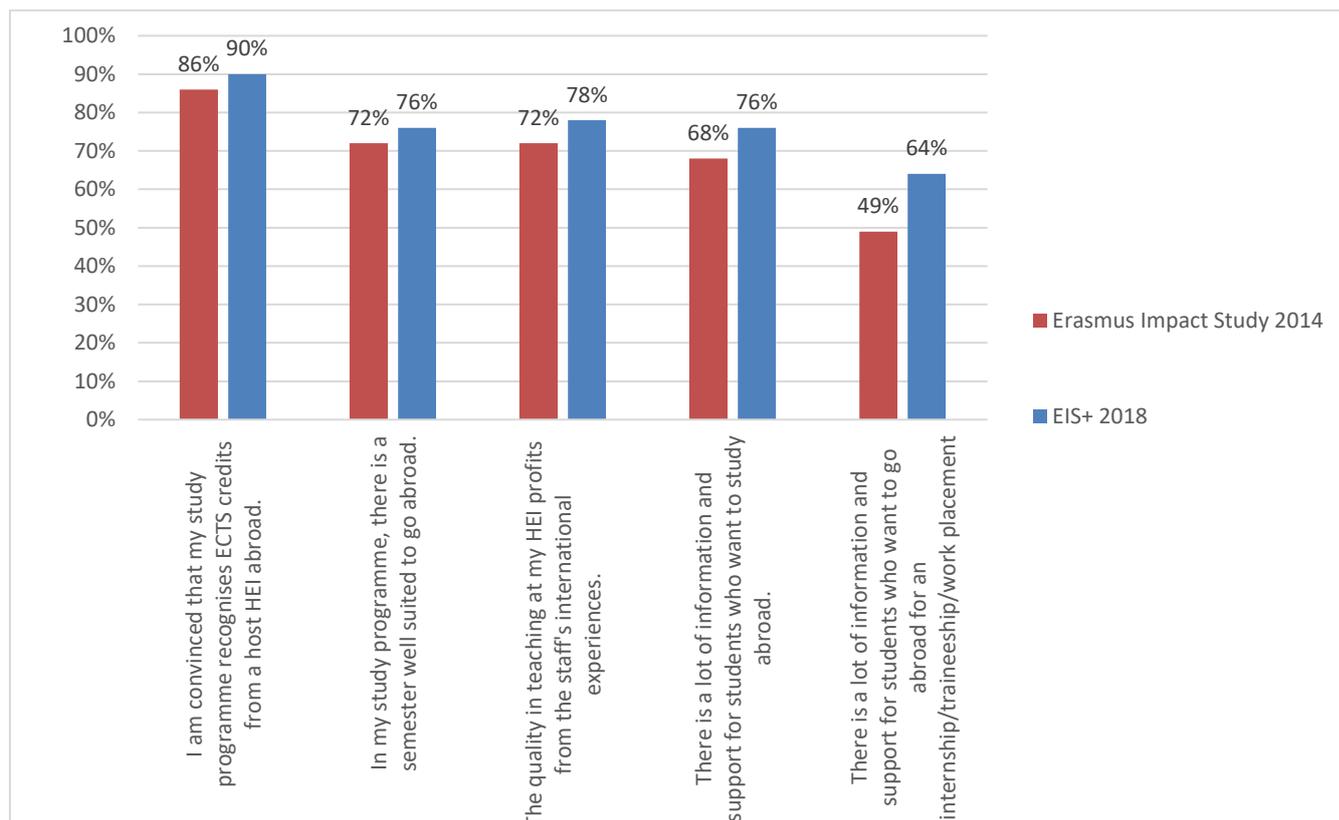
This section summarises findings concerning barriers and motivations for an Erasmus stay abroad including comparisons with non-mobile students and breakdowns for students with disadvantaged backgrounds.

Institutional support has improved since 2014

Comparing the results obtained in the present study with how Erasmus participants in the Erasmus Impact Study (2014) assessed the conditions for internationalisation at their home institution in the Erasmus Impact Study (2014) reveals that former Erasmus+ students assess these conditions remarkably better now than their peers did around five years ago. For example, 76% of former Erasmus+ students state that there is a semester well suited to go abroad, while in 2014 68% agreed on that. The availability of

information has also improved during this period, especially with regards to the information and support for students who want to go abroad for a traineeship. The “Erasmus+ Charta for Higher Education” (2014) contains the quality framework for European and international cooperation activities a higher education institution may carry out within Erasmus+. Higher education institutions that want to carry out such activities are supposed to, for example, ensure full recognition of satisfactorily completed activities within student mobility and respect and follow different principles with respect to inclusion, recognition, preparation of mobile students, provision of guidance and assistance, monitoring and more.⁹⁵ This may have played a role in the improvement of conditions for internationalisation observed in the surveys.

Figure 37. Conditions for internationalisation at home HEI

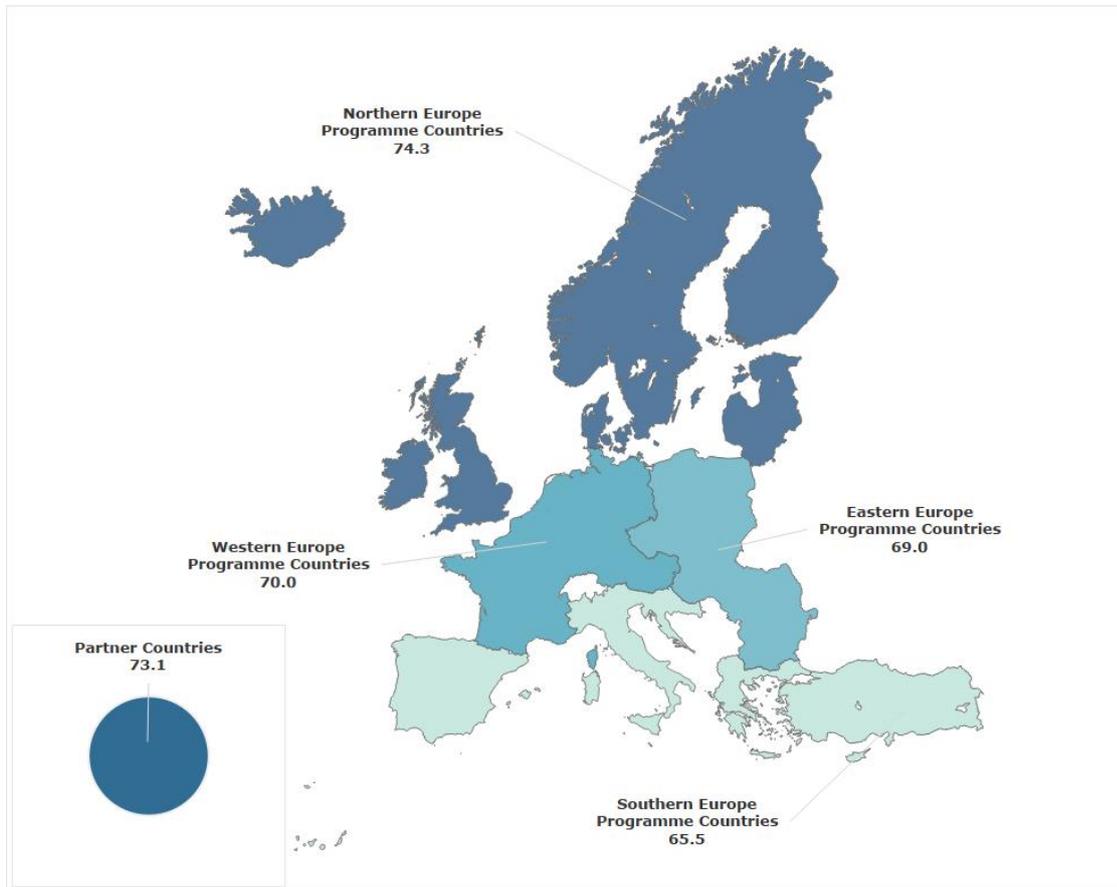


Source: ICF CHE Consult student survey. NE+ POST =16,397

Summarising this information in the Home Institution’s Support for Internationalisation Index and breaking down the results by region, it becomes clear that students from Southern European programme countries are the most critical towards the conditions for internationalisation at their home institution. They are more critical than their peers when it comes to information and support for students who want to study abroad as well as for students who want to go abroad for a traineeship. Students from Northern European programme countries are the most positive about the conditions at their home institutions. A very large majority of students from Northern countries, for example, agree that in their study programme there is a semester well suited to go abroad. The average value for the index for all regions is 70.4

⁹⁵ https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus/files/files/resources/he-charter_en.pdf

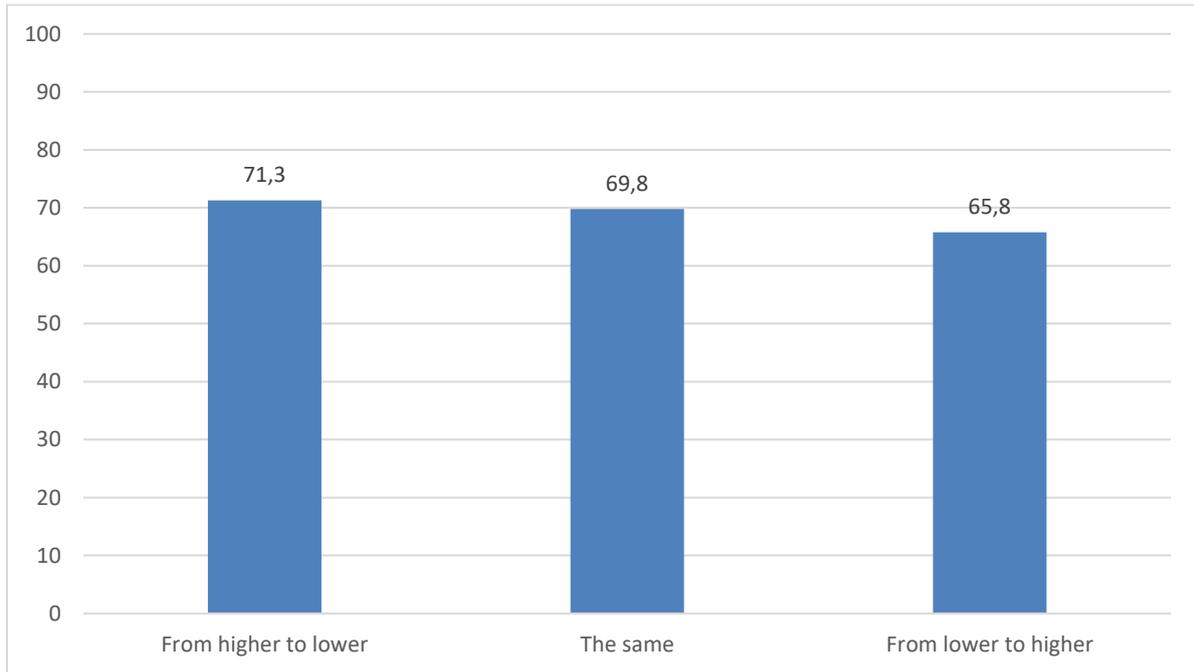
Figure 38. Home Institution's Support for Internationalisation Index, by region



Source: ICF CHE Consult student survey NE+ POST =16,245

An analysis of the results for this index by Gross Domestic Product (GDP) and by distance of the mobility (neighbourhood), shows that respondents from countries with a higher GDP tend to judge the conditions at the home institution more positively. As the following figure reveals, those respondents who went from a country with lower GDP to a country with higher GDP assess the conditions at their home institutions more critically.

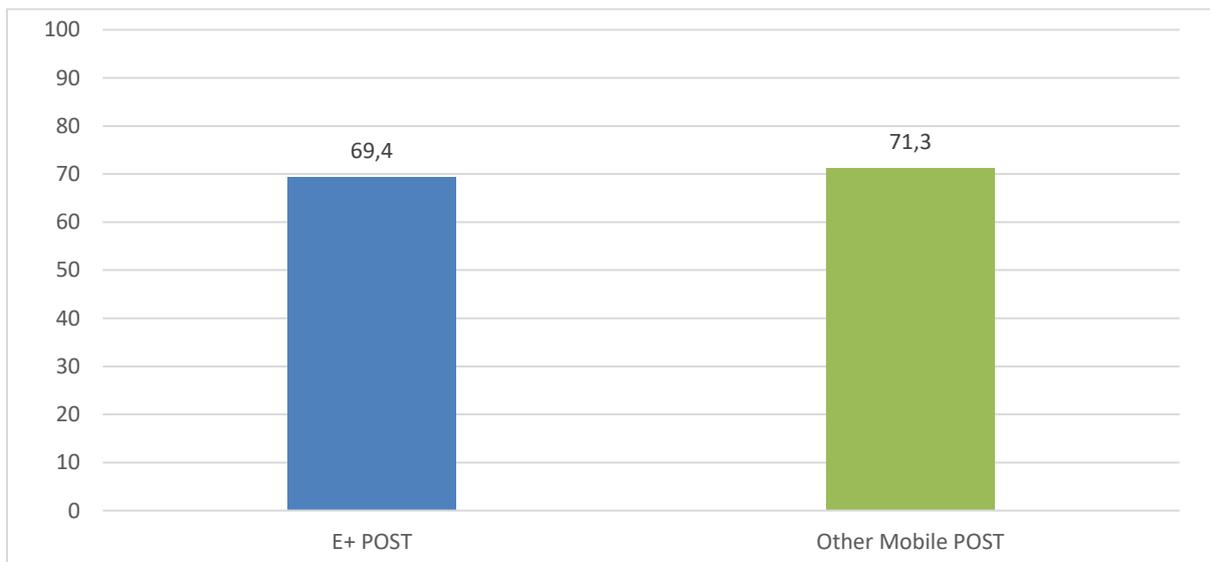
Figure 39. Home Institution's Support for Internationalisation Index, by type of mobility flow according to home/host country GDP



Source: ICF CHE Consult student survey. NE+ POST=18,995

Students who went on a mobility with a programme other than Erasmus+ evaluate the conditions at their home institution slightly better than students who had finished their Erasmus+ mobility (E+ POST) (71.3 vs. 69.4). This can suggest that Erasmus+ opens mobility to a wider set of institutions than other mobility programmes, in which participation may depend on already having sophisticated ways to support mobility. Erasmus+ may also act as a springboard for participation in other mobility programmes, as institutions reported it to help improve their support for international mobility (it is an instrument that contributes to institutional development in this area).

Figure 40. Home Institution's Support for Internationalisation: E+ POST and Other Mobile POST



Source: ICF CHE Consult student survey. N = 19,185

Institutional support plays a vital role for the quality of the experience

There is a positive and significant correlation between the Home Institution's Support for Internationalisation Index and those indices that illustrate perceived gains from mobility. The perceived institutional support for internationalisation in the home institution is positively associated with participants' perceived gains. The highest positive correlation can be seen for the Study Impact Index. The better students assess the conditions at their home institution, the more they gain in the study Impact Index.

Table 14. Correlation between Home Institution's Support for Internationalisation Index and other selected impact indices (E+ POST)

Home institutions Support for internationalisation index	Perceived Personality Development Index	Social Engagement Impact Index	Employability Skills Impact Index	Intercultural Openness Impact Index	Study Impact Index
r	.121	.166	.159	.155	.207
N	17,262	15,787	16,672	16,926	16,815

Source: ICF CHE Consult student survey

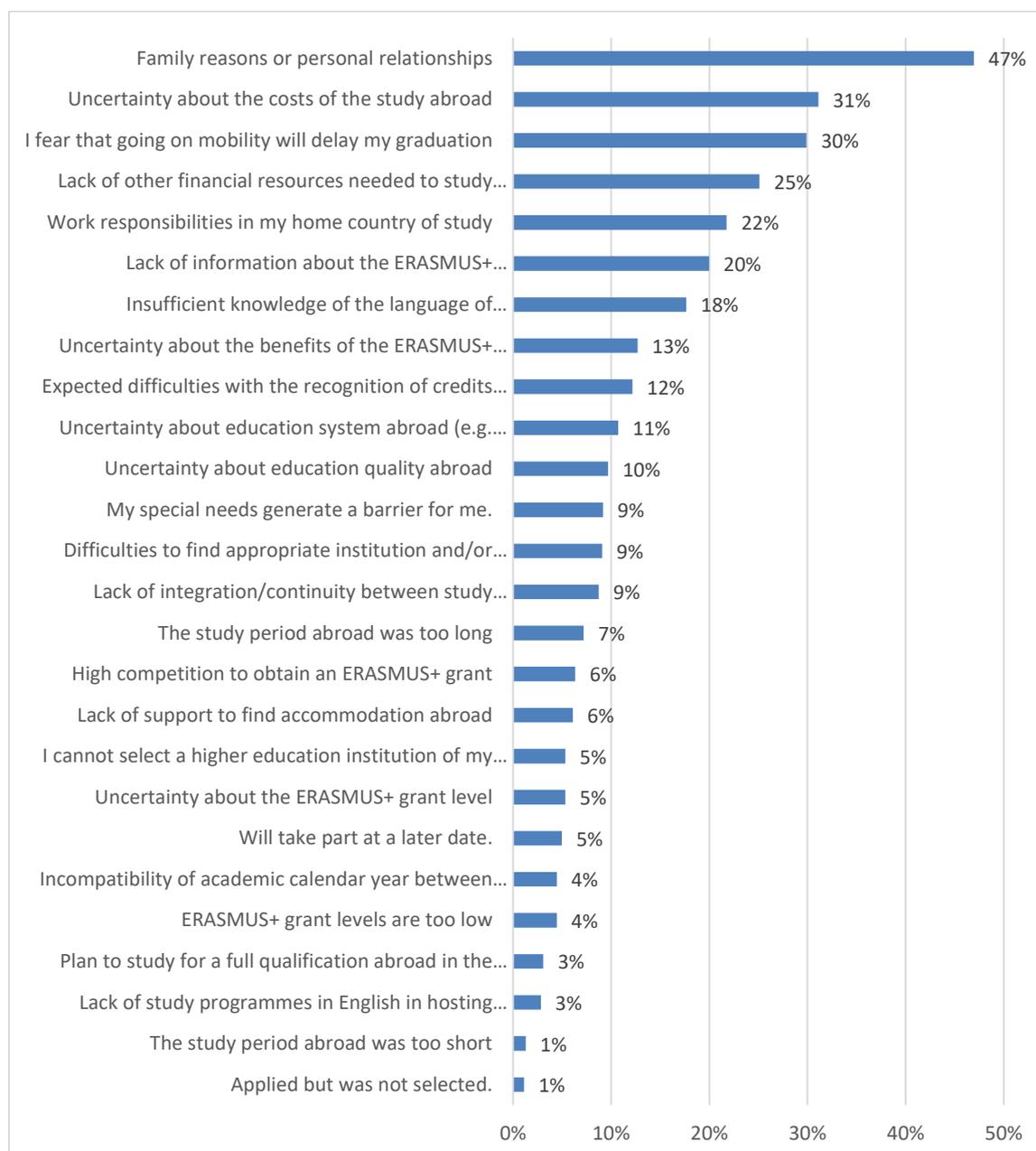
Personal reasons but also organisational and financial reasons hinder further increases in participation

Non-mobile students participating in the survey were asked about their reasons for not taking part in a mobility experience during their studies. The most important reasons reported are family reasons or personal relationships (47%) financial and organisational reasons, like financial insecurity (e.g., uncertainty about the costs of a stay abroad), fear that a stay abroad will lead to a delay in the graduation process as well as lack of information about the Erasmus+ programme and how it works.

Compared to the results from the Erasmus Impact Study (2014) the most frequently reported barrier changed: In 2014, non-mobile students identified uncertainty about the costs as the most important reason for not going abroad (58%, EIS+ 31%) followed by family reasons or personal relationships (57%. EIS+ 47%) and lack of other financial resources (57%. EIS+ 25%). Besides, uncertainty about the ERASMUS grant level (43%, EIS+ 5%) and lack of information about the Erasmus programme and how it works (42%, EIS+20%) were also important reasons. However, taken together all money-related items (e.g. including "Work responsibilities in my home country") financial barriers are still even more prevalent today (for two thirds of respondents). It should be kept in mind that previous studies found that Erasmus participants (like non-participants) also report financial barriers as a barrier to participation, whereas they report family and personal relationships as a barrier much less often than non-participants. This suggests that family and personal relationships are not only amongst the most prominent barriers for non-mobile students, but also the barrier that differentiates non-mobile students from

participants in the programme the most⁹⁶. In general, the more positive results in the current study indicate that financial and organisational barriers are in general lower today than they were before –for example as a result of more and better information on the grant level, conditions, content and mechanisms of the programme provided.

Figure 41. Reasons for not taking part in a mobility for non-mobile students



Source: ICF CHE Consult student survey, NNon-Mobile= 3,701, multiple response up to 5 possible

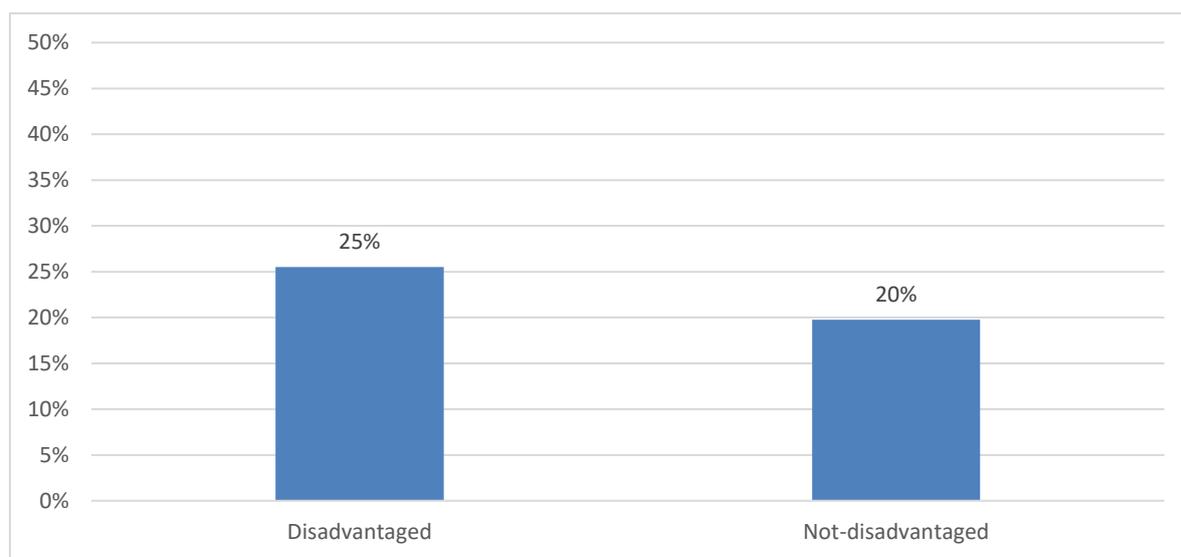
⁹⁶ See Souto-Otero, M., Huisman, J., Beerkens, M., De Wit, H. and Vujic. S. (2013) 'Barriers to international student mobility: Evidence from the Erasmus programme' *Educational Researcher*, 42(2), pp.70-77

The opportunity to live abroad and to learn a foreign language are the main motivations for Erasmus+ participants. Former Erasmus+ students who reported to be disadvantaged consider the opportunity to receive an Erasmus+ grant more important for their decision to take part in the programme than those who did not report a disadvantage

Former Erasmus+ students chose most frequently the following aspects as one of their top five motivations to take part in the programme: the opportunity to live abroad (70% chose this as one of their top five), the opportunity to learn or improve a foreign language (62%), the opportunity to expand the social network by meeting people from different cultures (49%), improvement and widening of career prospects (49%) and the opportunity to develop soft skill, i.e. adaptability⁹⁷, taking initiative or proactivity (49%).

The analysis of different aspects of motivations revealed that, in general, former Erasmus+ students who reported to be disadvantaged consider the opportunity to receive an Erasmus+ grant for their mobility more important for their decision to take part than those who did not report a disadvantage. While 20% non-disadvantaged students select this as one of the five most important factors for them to take part in Erasmus+, 25% disadvantaged students do. For other aspects, no such differences were observed.

Figure 42. Share of former Erasmus+ participants who consider the possibility of receiving an Erasmus+ grant one of the main drivers for participation



Source: ICF CHE Consult student survey, NE+POST=16,898

⁹⁷ Adaptability can be understood as the capacity to adjust to one’s environment and respond adequately to demands for change.

5.3 Academic Path and Learning Experience

Main findings: Academic Path and Learning Experience

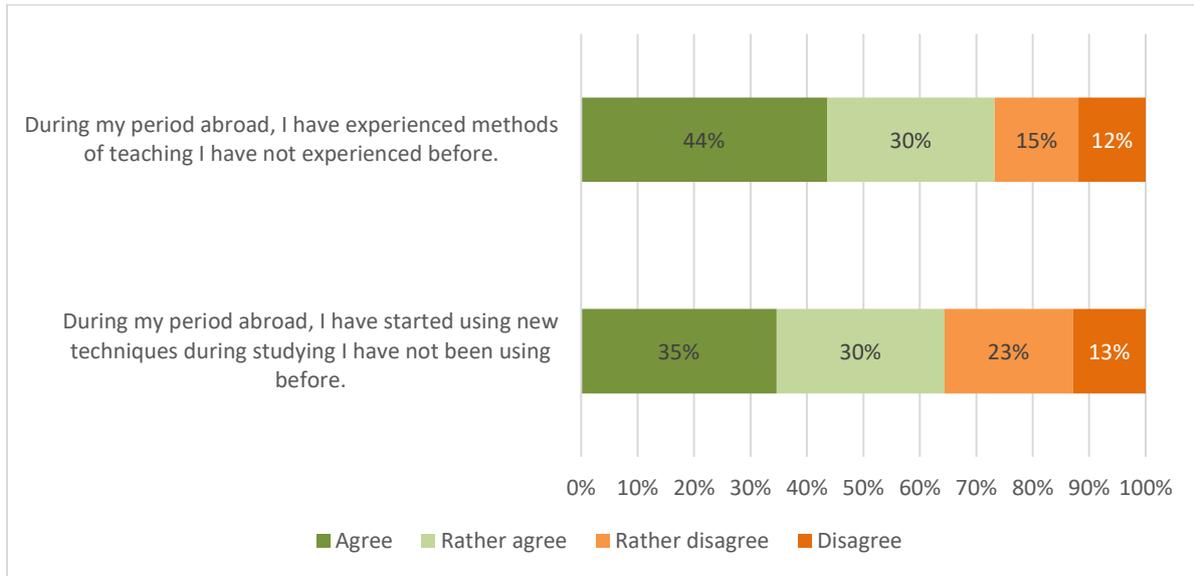
- Erasmus+ participants experience new teaching methods and learning practices while abroad. More than 2/3 report to have started using new learning techniques after their mobility.
- Participants in Erasmus+ are likely to proceed to a higher level of studies. Moreover, around one in four reported to have changed their study plans, and of those more than 80% state that the mobility was helpful to make decisions regarding what they want to study. After their Erasmus+ experience, 72% have a better idea of what they want to do in their future career.
- Students from countries with lower GDP reported the highest levels of impact from mobility on their studies (76 points in the Study Impact Index, compared to 68 points for students from high GDP countries). The highest impact is reported from the low GDP group. By region, participants from Southern European Programme Countries and Partner Countries report the highest impact, while participants from Western European Programme Countries report the lowest.

One of the aims of this study is to analyse the added value of a period abroad with regards to students' academic path and learning experiences, especially with reference to the use of new learning methods. This chapter outlines findings in this area.

Erasmus+ participants experience new teaching methods and learning practices

According to the Erasmus+ programme guide, the programme aims at supporting practice and mutual learning in the field of teaching methods. More than two thirds of former Erasmus+ students agree or rather agree that they started to use new learning techniques while they were abroad within Erasmus+, and 74% of the students experienced new teaching methods.

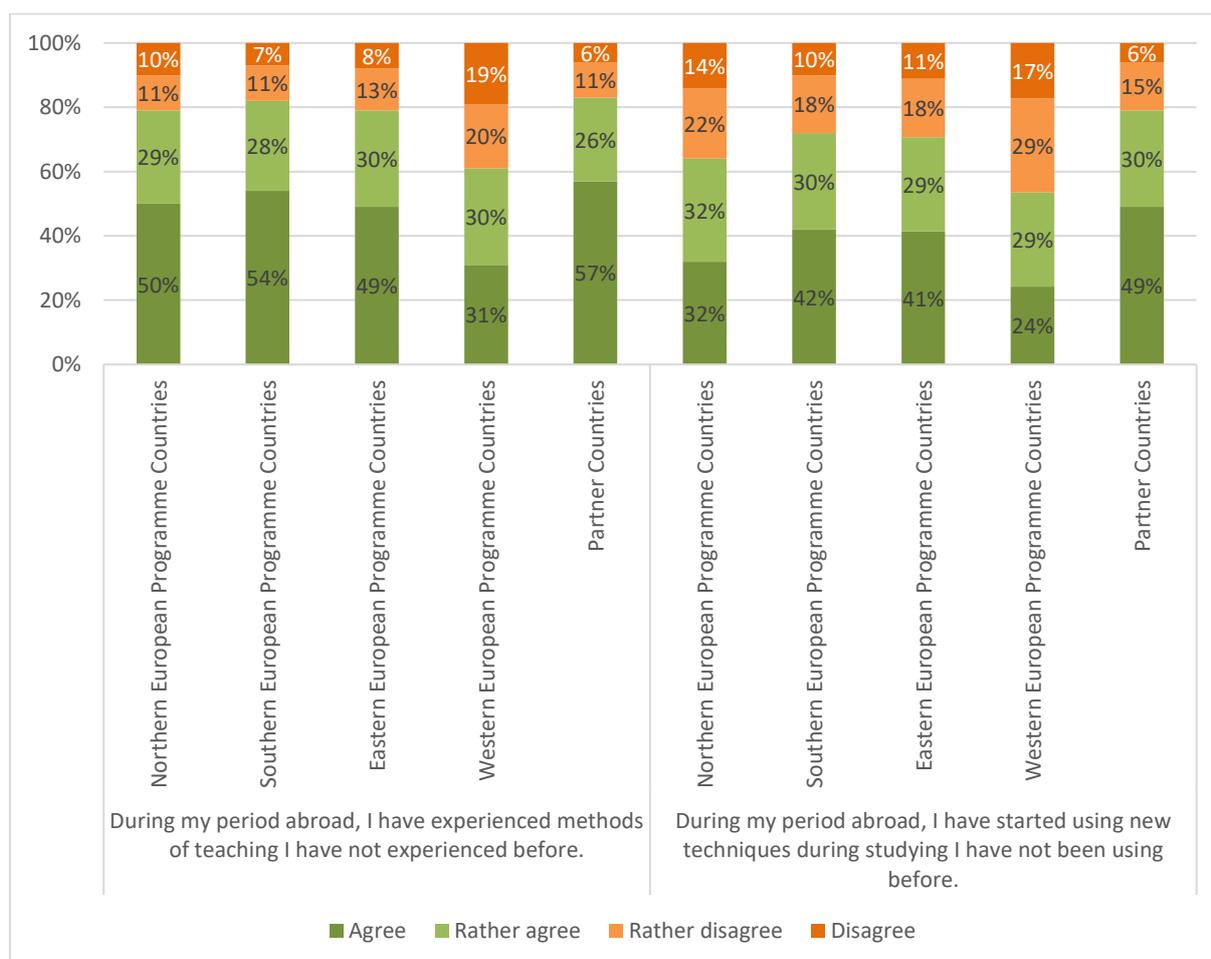
Figure 43. Use of new learning techniques and experience of new teaching methods during the stay abroad



Source: ICF CHE Consult student survey, NE+ POST=17,554

Former Erasmus+ participants from Partner Countries report more often than former participants from Programme Countries that they started using new learning techniques during their Erasmus+ mobility – almost 80% agree or rather agree. They are followed by former Erasmus+ participants from Southern and Eastern European Programme Countries. In contrast, former participants from Western European Programme Countries reported such experiences the least often, but still more than half of them agree or rather agree that they were exposed to new teaching methods and that they started using new learning techniques during their Erasmus+ mobility.

Figure 44. Teaching and learning experience gained during the Erasmus+ mobility, by home region

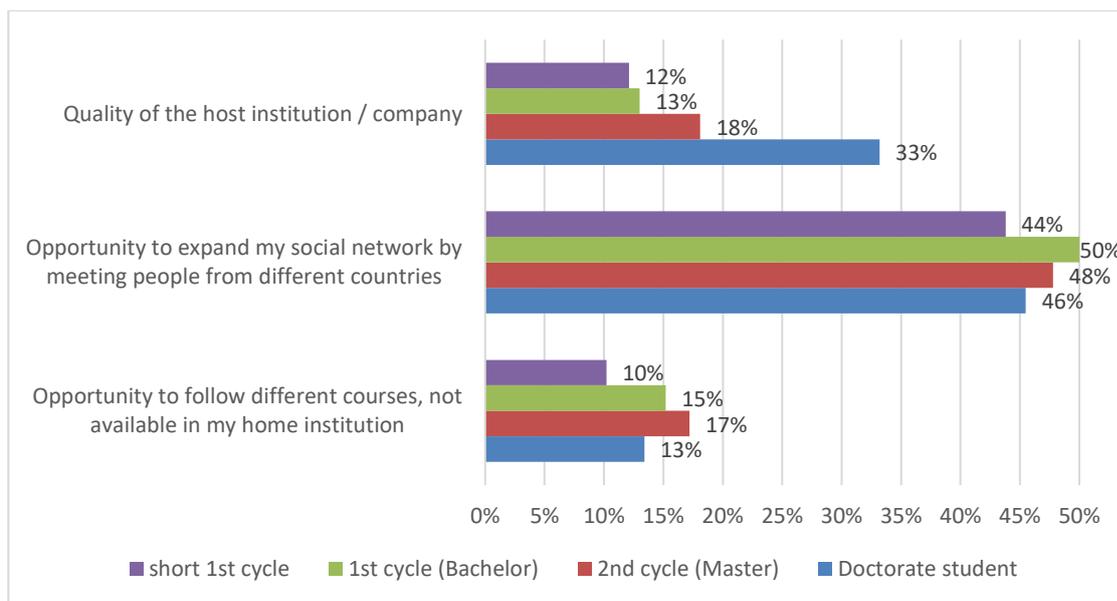


Source: ICF CHE Consult student survey, NE+ POST=14,658

Master's students are more interested in the quality of the host institution and in experiencing different teaching methods and learning practices than Bachelor's students.

When asked about their motivation to take part in an Erasmus+ mobility, second cycle students (meaning respondents who were mobile during their Master's studies) place slightly more importance on the opportunity to choose from courses that are not available in their home institutions than first- and third cycle. On the question "What was your motivation for your stay abroad?" respondents were allowed to select up to five items from a 19-item-list (see Annex 6). 17% of the second cycle students prioritised learning opportunities over other aspects such as meeting new people, learning new languages, enhancing one's career prospects or obtaining financial and non-financial support. Compared to 1st cycle students, they also reported more often that the quality of the host institution was an important reason to take part in an Erasmus+ mobility. Doctorate candidates often do not follow courses in the same way as first and second cycle students and, thus, this item might have felt less relevant to those respondents who were mobile during their doctorate; nevertheless, the share respondents who had been mobile during their doctoral studies who reported to have been motivated by the opportunity to take courses not available at their home institution is not far behind that of respondents who had been mobile during their Master studies. For doctorate students, the quality of the institution abroad was also a main reason for going abroad.

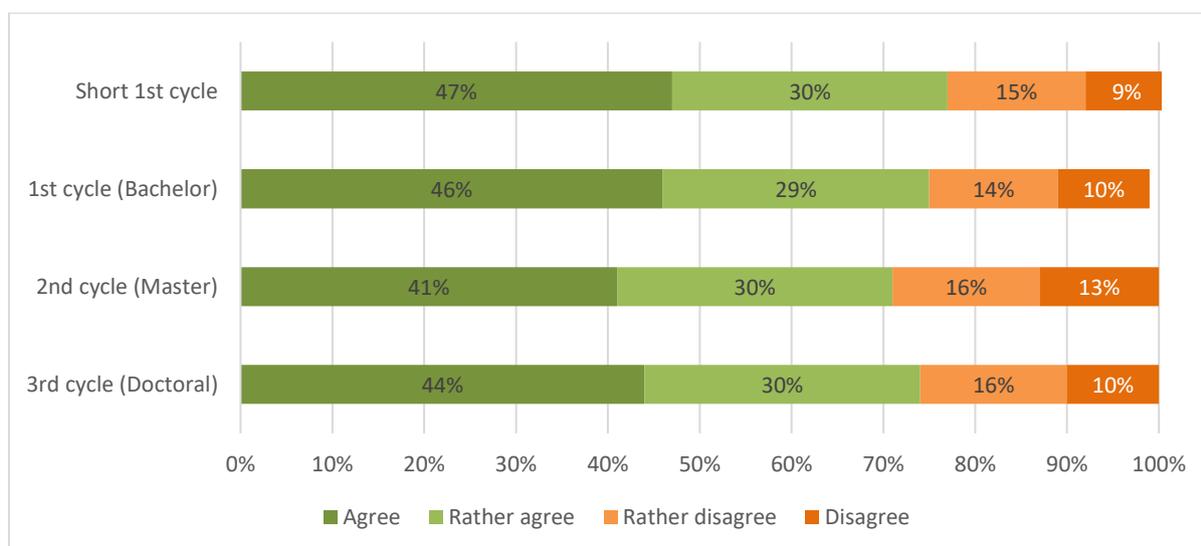
Figure 45. Selected motivations by level of studies



Source: ICF CHE Consult student survey, NE+ POST=20 034.

At the same time, after their stay abroad, 76% of short cycle and 75% of first cycle students agree or rather agree that they experienced methods of teaching that they had not experienced before, while 71% of 2nd cycle students agree or rather agree. This small difference may be related to the fact that students who have been in higher education for longer may have had exposure to a wider range of methods. Still, the rather high values indicate that a stay abroad expands the exposure to different teaching methods and could lead to deeper learning.

Figure 46. Experiencing new teaching methods during the stay abroad by level of study

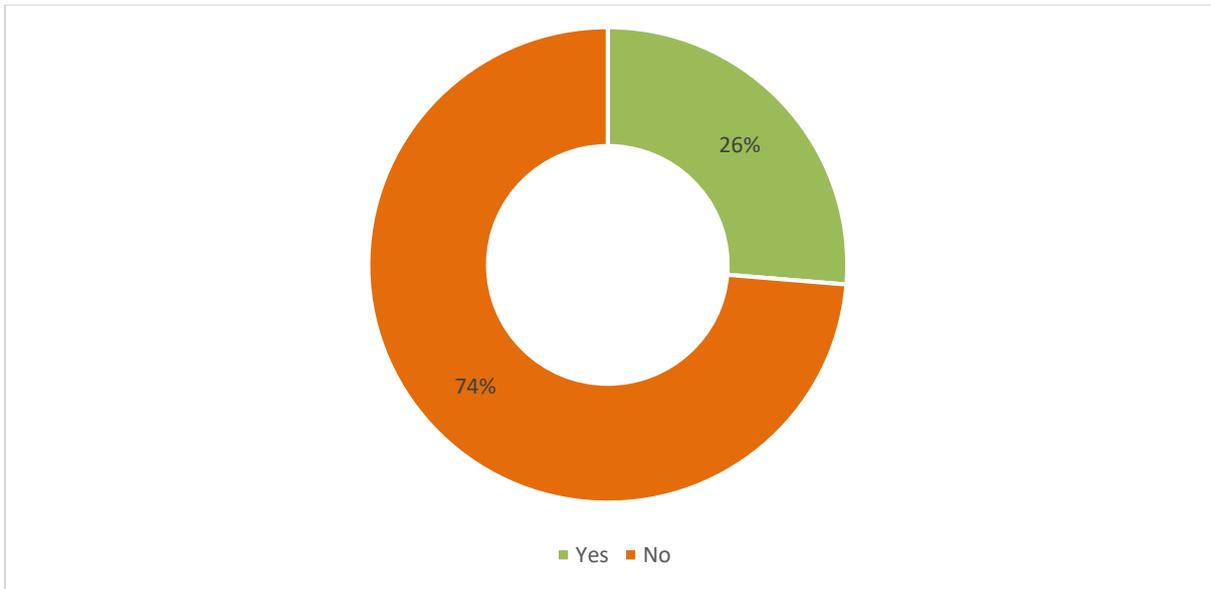


Source: ICF CHE Consult student survey, NE+ POST=17,117.

Erasmus+ participants are likely to proceed to a higher level of studies but also reconsider their study pathways.

Former Erasmus+ participants were asked if they had re-oriented their studies after the mobility period. More than a quarter of them confirmed that they had made changes to their plans. This indicates that Erasmus+ is instrumental in helping students make decisions about their study pathways.

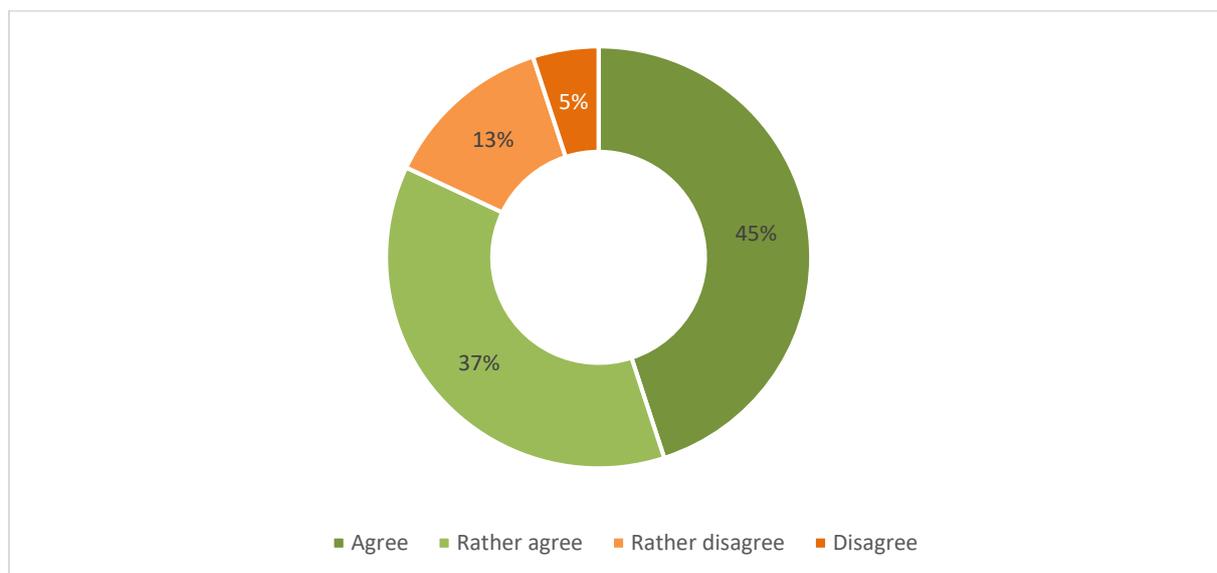
Figure 47. Re-orientation of the studies after the mobility experience



Source: ICF CHE Consult student survey, NE+ POST=18,660.

Those who indicated a re-orientation were asked if they found the mobility useful to make them discover what they want to study. More than 80% agree or rather agree with that statement.

Figure 48. Erasmus+ and choice of academic pathways: usefulness of Erasmus+ in making participants discover what they want to study

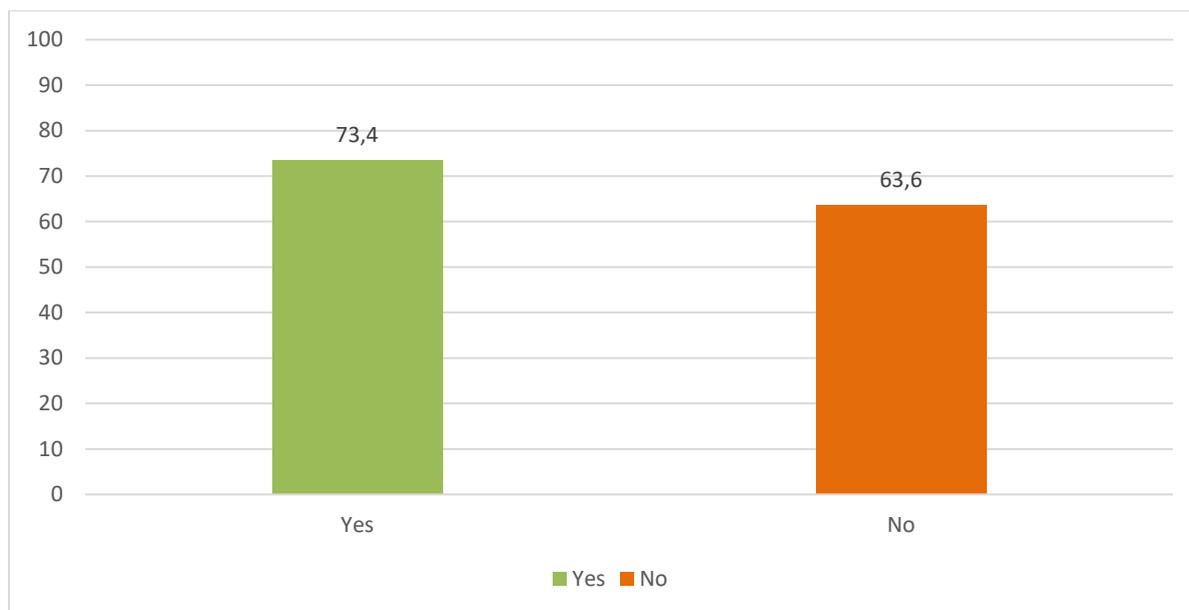


Source: ICF CHE Consult student survey, NE+ POST=4,617

Another aspect of the academic path of students is the continuation to a higher level of study: 80% of the first cycle former Erasmus+ participants (who had taken part in the programme but had not graduated yet) report that they plan to continue their studies to the next level. Among second cycle students this is indicated from 58%. Besides, 74% of those who plan to continue, showed to have made significant progress in their field of study while they were abroad, according to their results on the Study Impact Index.

The Study Impact Index constructed for our analysis combines a number of relevant items regarding the perceived impact of Erasmus+ participation. The higher the value, the higher the effect the mobility on the academic path (i.e. the more likely is the student to plan to continue studies at a higher level). A comparison of first cycle former Erasmus+ participants who plan to continue their studies to a higher level with those who do not, reveals that the first group scored significantly higher on the Study Impact Index.

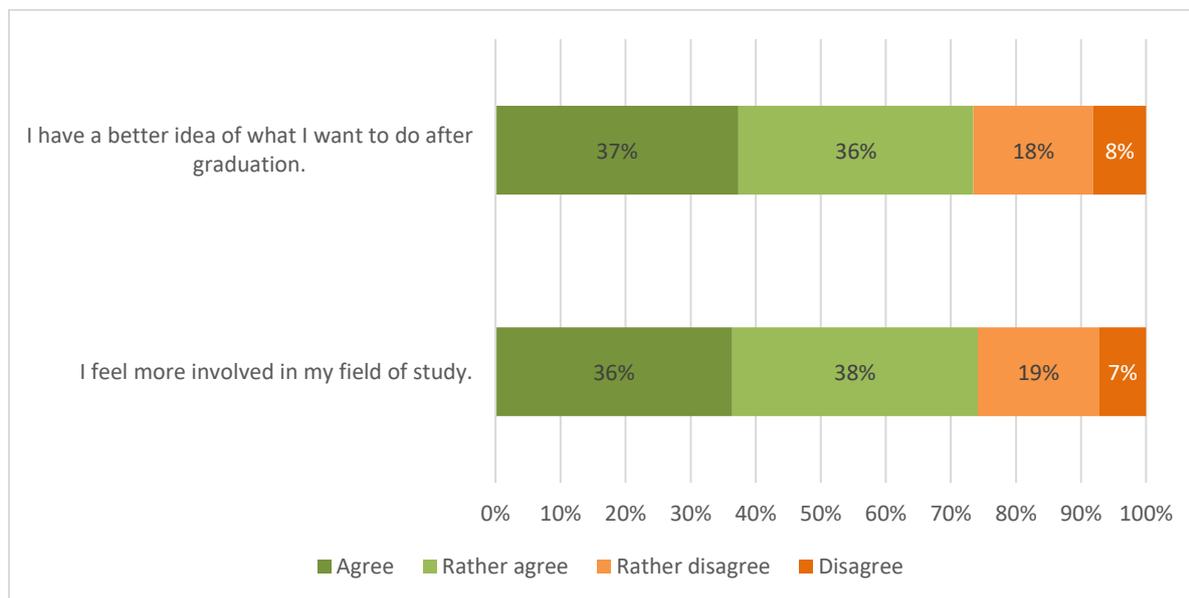
Figure 49. Study Impact Index and willingness to continue to a higher level of study



Source: ICF CHE Consult student survey, NE+ POST=9,515

In addition to this, the majority of former Erasmus+ participants also perceive that after their stay abroad they have a better idea of what they want to do in the future and they feel more involved in their field of study.

Figure 50. Impact on study-related identification of Erasmus+ participants



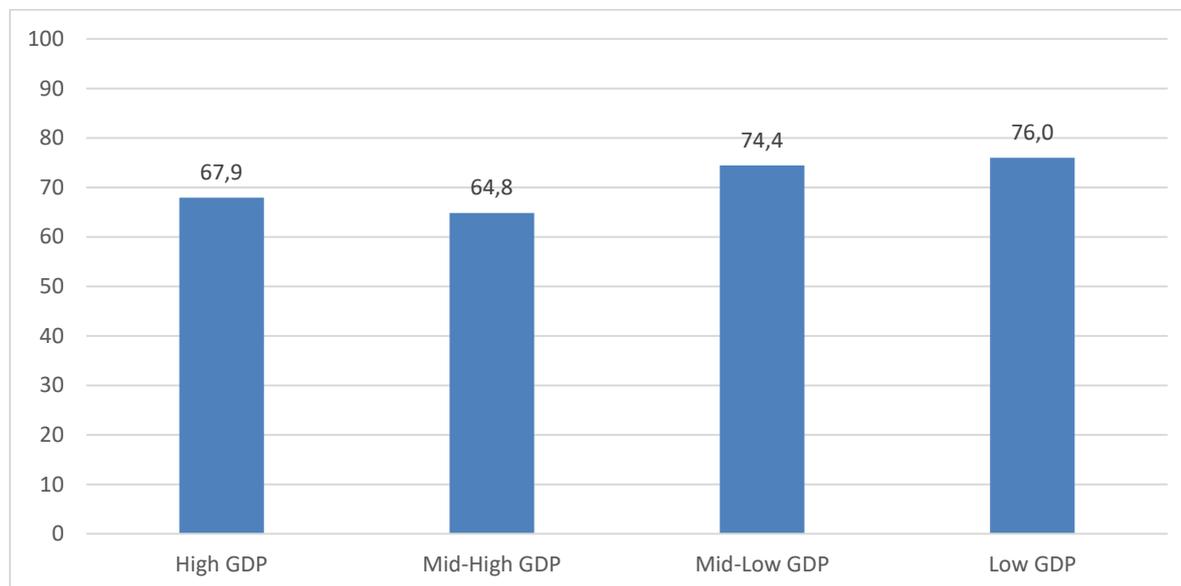
Source: ICF CHE Consult student survey, NE+ POST=17,682

Students from countries with lower levels of GDP per capita perceive the most mobility experience impact on their studies.

The analysis also shows that former Erasmus+ participants from countries with lower levels of GDP per capita perceive a greater influence of participation in the Erasmus+ programme on their academic path. After their mobility experience, they show the

highest value on the Study Impact Index (an index summarising different items regarding the progress within the studies, competences relevant for effective learning, experience with innovative teaching methods and motivation to complete the studies).

Figure 51. Study Impact Index by GDP region



Source: ICF CHE Consult student survey, NE+ POST=between 5,886 and 1,214

An analysis for home regions reveals that former Erasmus+ participants from Southern European Programme Countries (75.5) show the highest value on the Study Impact Index, compared to 73.8 for Eastern European Programme Countries, 71.2 for Northern and 64.2 for Western European Programme Countries.

5.4 Competencies relevant to employment and a cohesive society

Main findings: Competencies relevant to employment and a cohesive society

- Former Erasmus+ participants reported a gain in their knowledge, skills and competencies relevant to employment and to the development of cohesive societies: 9 in 10 participants, for example, reported to have improved their knowledge of the host country, adaptability, interaction with people from other cultures and intercultural competencies.
- Former participants perceived an improvement of skills that help foster social cohesion: 95% reported to get along better with people from other cultural backgrounds and 93% to better take into account cultural perspectives/ differences when others have different ideas/ opinions. They also perceive a higher impact on their personality (e.g. the ability to assess their own strengths and weaknesses), social engagement, intercultural openness and studies than participants in other mobility programmes.
- Former participants from countries with lower GDP travelling to distant countries report higher gains on intercultural openness, social engagement and employability skills.

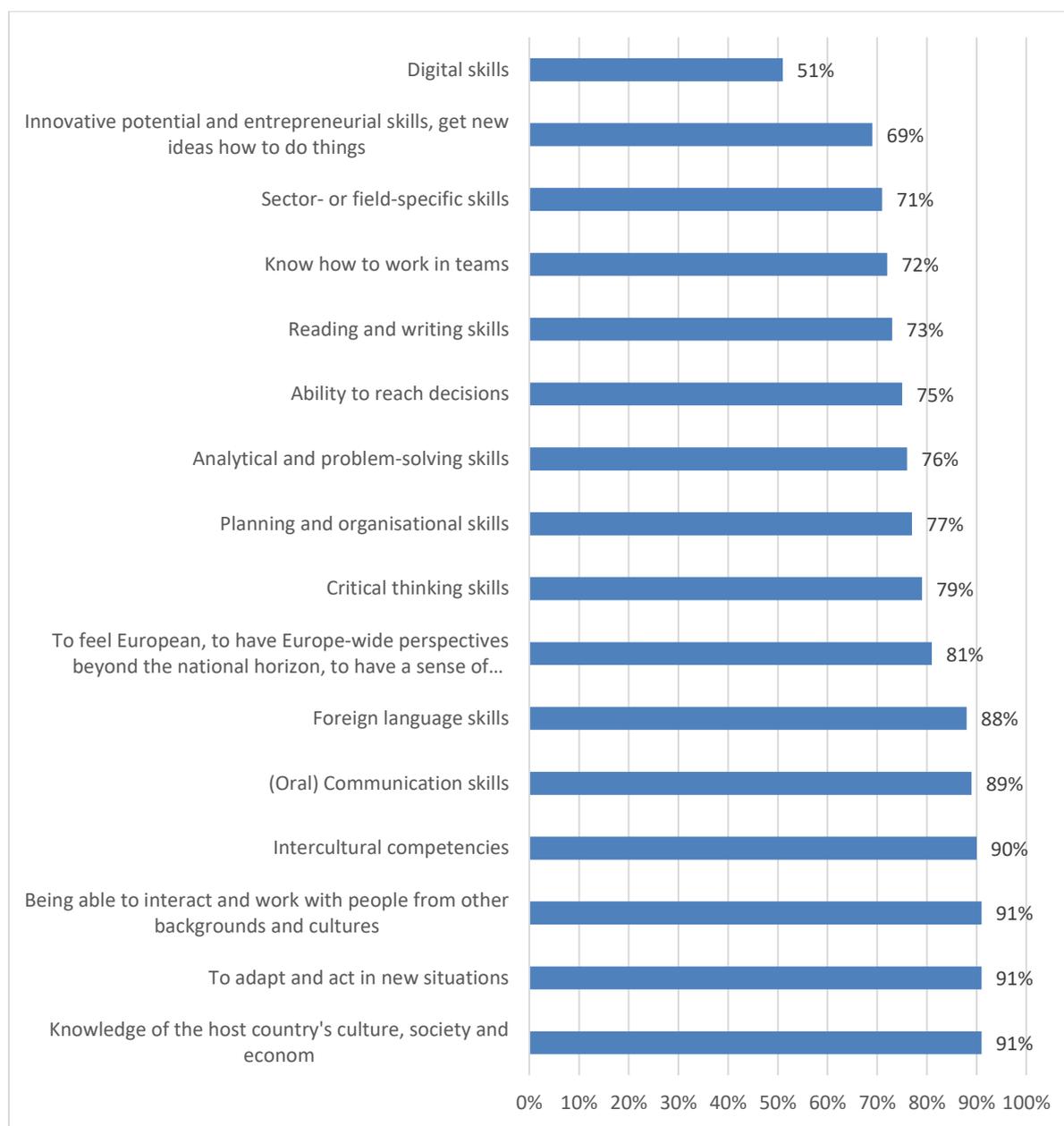
This section describes the impact of Erasmus+ on competencies relevant to employment and to a cohesive society, and includes regional analysis. By skills relevant to employment we refer to skills such as flexibility, creativity, problem-solving, communication or critical thinking, which are competences employers look for⁹⁸. Particular attention is paid to inclusiveness, as one of the aims of the Erasmus programme is to foster inclusive and cohesive societies where citizens are actively engaged.

Students perceive a gain in their knowledge, skills and competencies

Former Erasmus+ students (E+ POST) were asked to rate the improvement in their knowledge, skills and competencies during their (last) mobility: 70% to 90% of them perceived a gain in the different knowledge, skills and competences on which the project gathered information, and nearly all respondents reported to have improved communication skills, intercultural competencies and their ability to act in new situations. While young people are assumed to already have distinct digital skills and most respondents were not studying in core ICT-related areas, more than half of former Erasmus+ students report an improvement. All of those are skills that are demanded in the labour market today.

⁹⁸ https://ec.europa.eu/commission/2014-2019/navracsics/announcements/building-open-cohesive-and-strong-communities-europe_en <https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/>

Figure 52. Former Erasmus+ participants' perceived skills improvement

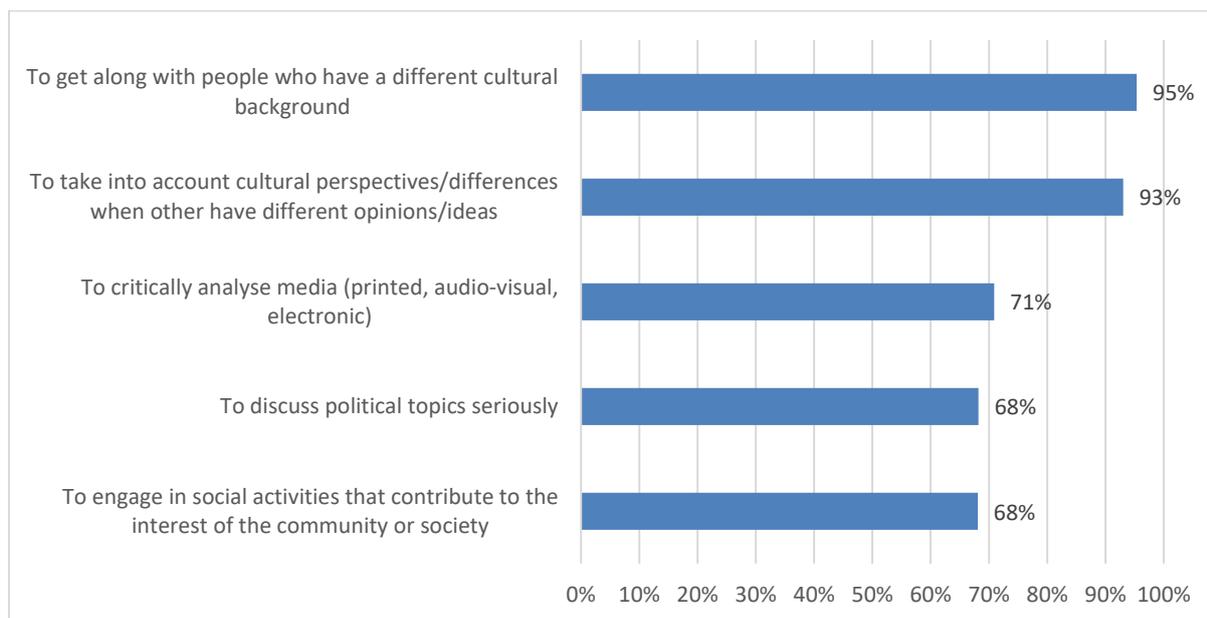


Source: ICF CHE students survey, NE+ POST =17,554

Students perceive the improvement of skills that help foster social cohesion

After returning from their mobility, Erasmus+ participants feel that they improved skills that help foster a cohesive society. A vast majority (95%) say that they learned "to get along with people who have a different cultural background" better and another 93% claim that they improved their ability "to take into account cultural perspectives/ differences when others have different ideas/ opinions". Figure 53 presents the overall value for the answer options "definitely" and "to some extent".

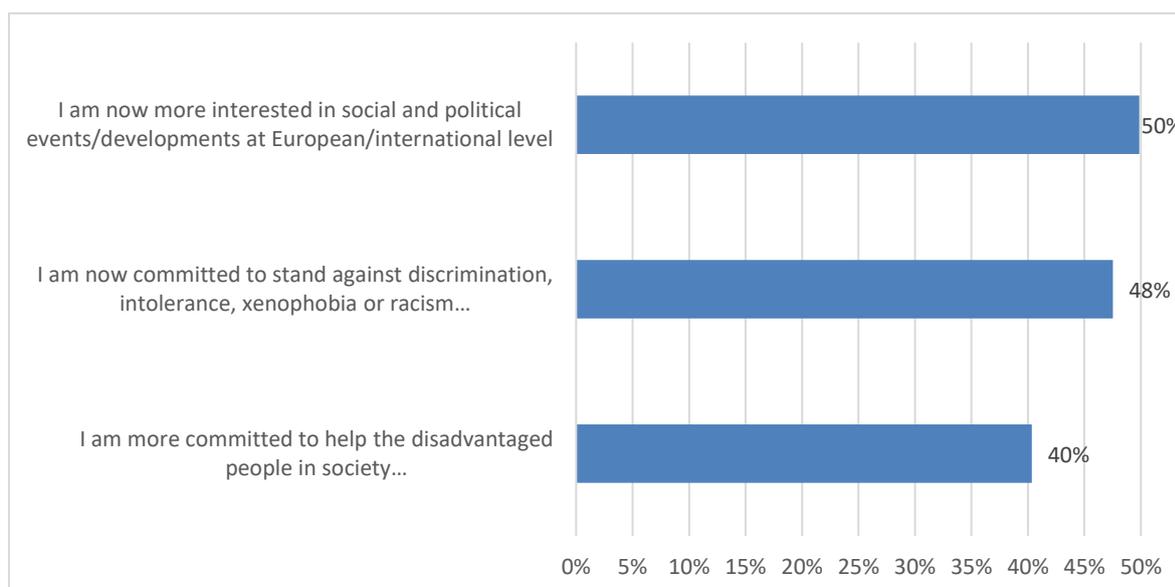
Figure 53. Former Erasmus+ participants' perception of change on skills that foster a cohesive society (definitively or to some extent)



Source: ICF CHE student survey, NE+ POST =7,823

When asked to what extent they are more interested in social and political events/developments at the European/ international level after the Erasmus+ mobility, more than 50% of the former Erasmus+ participants reported to be interested "to a greater extent" than they were before their mobility. 48% confirmed that they are even more committed to stand against discrimination, intolerance, xenophobia or racism and 40% reported to have increased their commitment to help disadvantaged people.

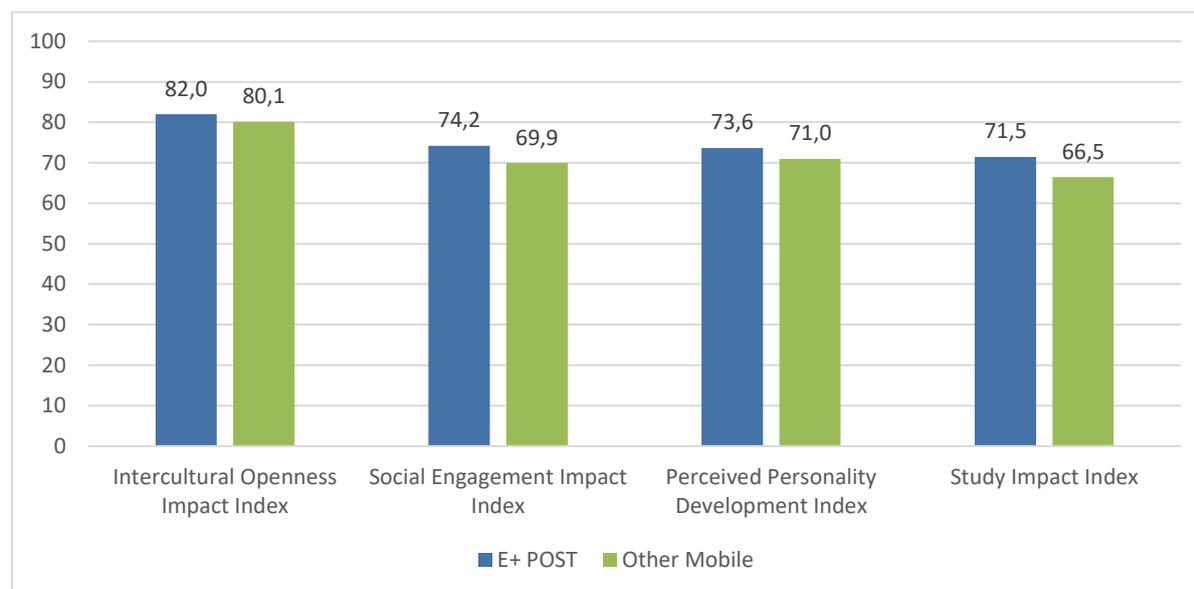
Figure 54. Former Erasmus+ participants' perception of change in selected social skills (percentage of respondents reporting to be interested to a greater extent than before)



Source: ICF CHE student survey, NE+ POST =17,823

Adding to the results above, Erasmus+ students perceive a more significant impact on their personality, social engagement, intercultural openness and their studies through their mobility compared to participants of other mobility programmes. For the analysis relevant items were merged into four comprehensive indices (see graph below, cf. chapter 3 for further information). The comparison of these indices among former Erasmus + participants and former participants in other mobility programmes shows differences across all four indices, with an advantage for Erasmus+ in every case. The disparity between former Erasmus+ and other mobile students on the Study Impact Index is especially remarkable: The value for former Erasmus+ students is 71.5, while former participants in other mobility programmes achieve 66.5 points in the index.

Figure 55. Impact indices differences between former Erasmus+ participants and participants in other mobility programmes



Source: ICF CHE Consult student survey, NE+ POST=18,060, NOther Mobile=368

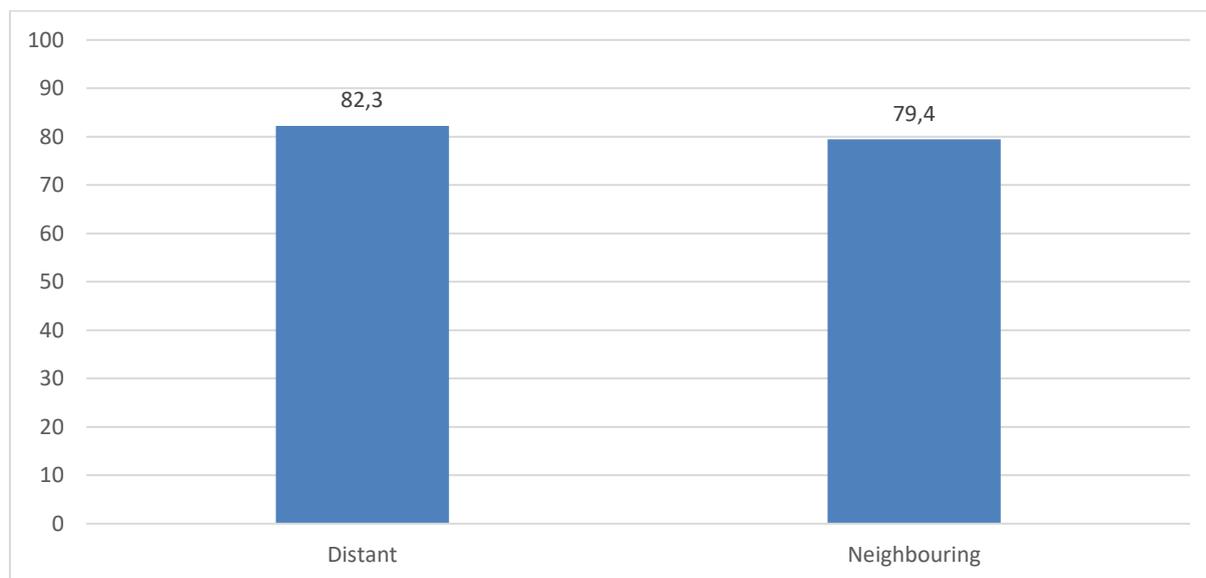
Former Erasmus+ participants from lower GDP countries travelling to distant countries reported the highest gains

For the following analysis, different indices were used:

- Intercultural Openness Impact Index: combining items regarding intercultural competencies, new international perspectives and dimensions in life, understanding of host countries' culture, society and economy
- Social Engagement Impact Index: combining items on social and political engagement, involvement in the local community, critical thinking, commitment to fight discrimination, intolerance, xenophobia or racism
- Employability Skills Impact Index: combining items on skills relevant for employment and careers, including soft-skills, field-specific knowledge and other

Comparing the Intercultural Openness Impact Index for Erasmus+ students, it is shown that going to a non-neighbouring country increases the gain on this index.

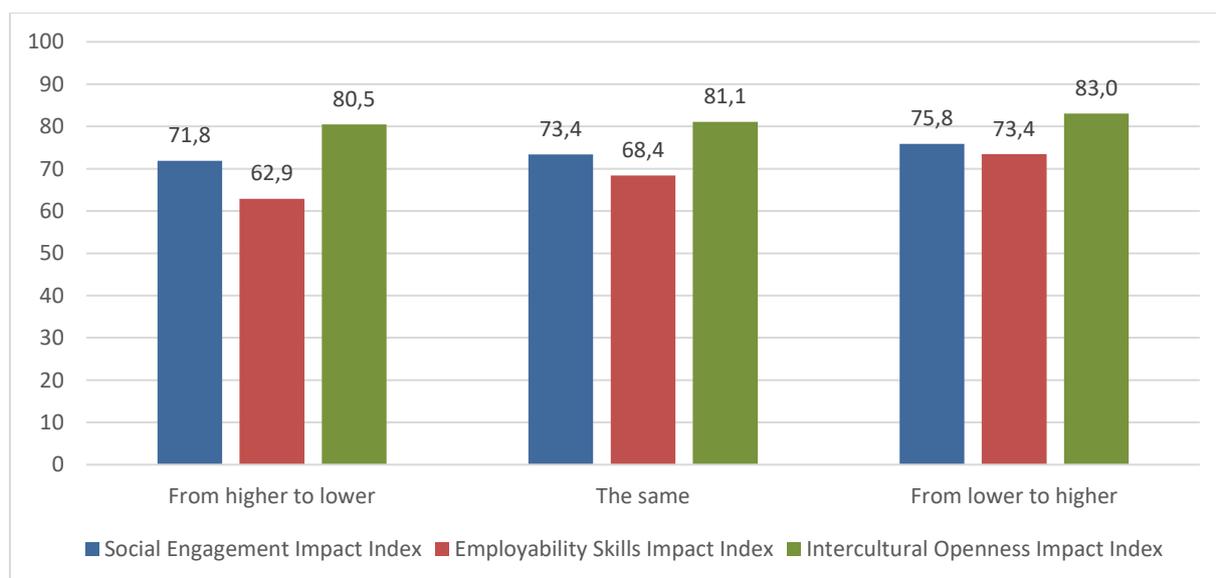
Figure 56. Intercultural Openness Impact Index: Erasmus+ participants going to neighbouring and distant (non-neighbouring) countries



Source: ICF CHE Consult student survey, NE+ POST =17,591

GDP differences between home and host country leads also to differences on the indices. Three groups were compared: first, a group of former Erasmus+ participants that went to a lower GDP country than their home country (for example from Germany to Czech Republic), second, a group where the GDP level is approximately the same in the home and host country (for example Finland and France), and a third group where the host country has a higher GDP than the home country. The comparison between these three types of mobility shows that the Intercultural Openness Impact Index is higher for those students who travel from a country with a lower GDP to a country with a higher GDP. The same pattern applies to the Employability Skills Impact Index and the Social Engagement Impact Index, in all cases the differences being statistically significant.

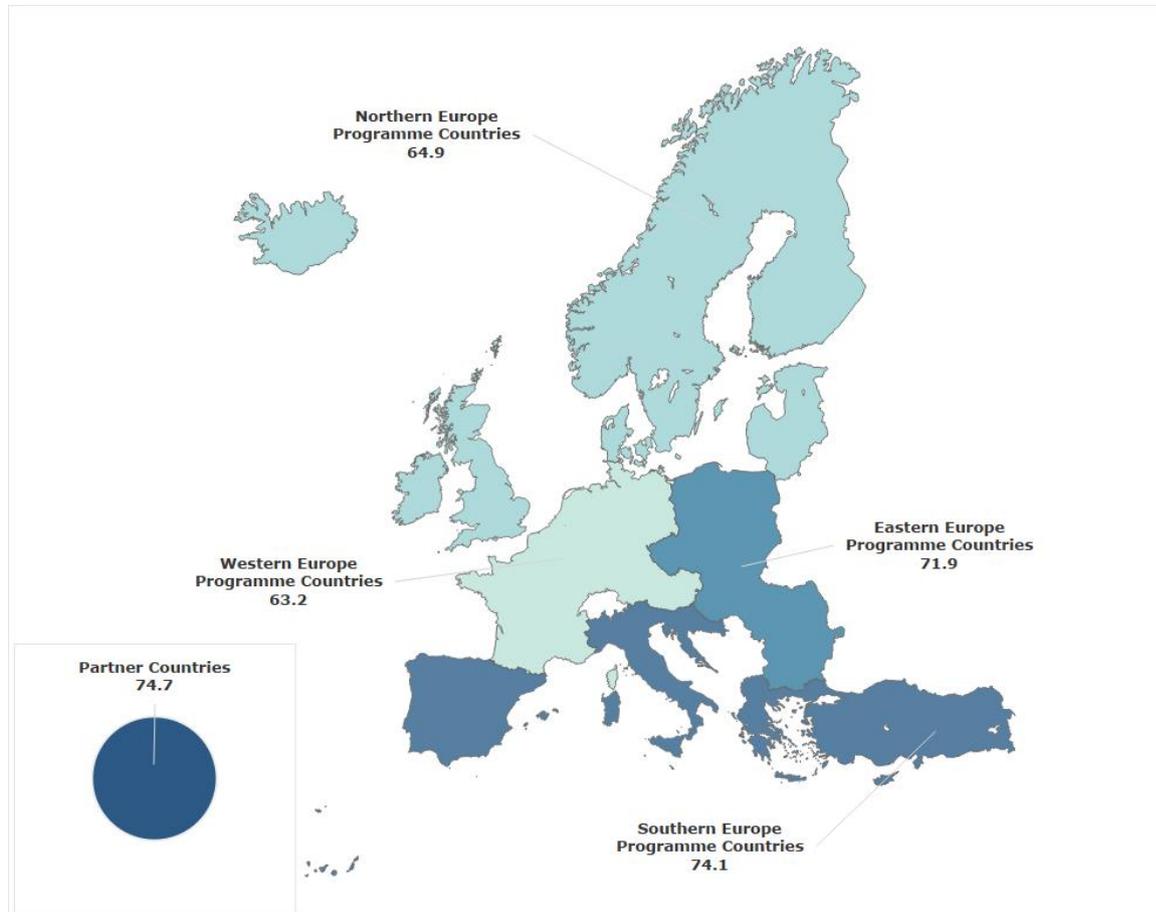
Figure 57. Impact indices by GDP differences in home and host country



Source: ICF CHE Consult student survey, NE+ POST =9,816

Regional differences with regards to the Employability Skills Impact Index are even more pronounced: Compared to their peers from Western and Northern European Programme Countries, former Erasmus+ participants from Southern and Eastern European Programme Countries reported larger benefits from the mobility. This finding is in line with the EIS (2014) data – i.e. the regional pattern in the perceived impact of mobility have not changed since the time of the predeceasing Erasmus Programme.

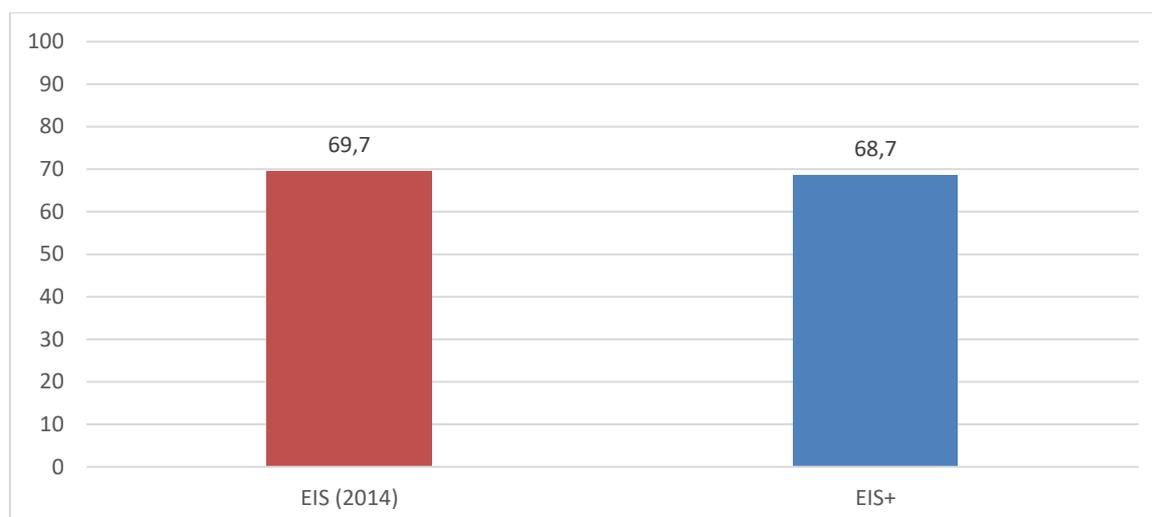
Figure 58. Employability Skills Impact Index by region



Source: ICF CHE Consult student survey, NE+ POST =14,532

On the whole, across regions, and with regards to the relation between Erasmus+ participation and Employability Skills development, we see that the results are almost identical to those reported in the EIS of 2014. These results suggest that the programme continues to develop the employability skills of participants to a similar extent as it did in the past, according to those who have completed their mobility experience.

Figure 59. Employability Skills Impact Index EIS+ vs EIS (2014)



Source: ICF CHE Consult student survey, NEIS (2014)=5,972, NE+ POST =17,367

5.5 Employability

Main findings: Employability

- Erasmus(+) graduates report that mobility helped their careers: 72% of Erasmus+ graduates reported that mobility had been beneficial for their careers. Graduates from Southern and Eastern Programme Countries, as well as those from Partner Countries, reported a benefit to their careers more frequently than those from other regions.
- Erasmus(+) graduates find their first job after graduation quicker than non-mobile students. They are also happier with their jobs than non-mobiles. Erasmus+ graduates report higher values on the Job Quality Index, which measures aspects of the current job such as job security, career prospects.
- Erasmus+ participants (POST group) are very open to international careers - 87% agree or rather agree that they definitely want to work abroad for at least some time. The careers of Erasmus(+) graduates are more international than those of non-mobile students: 23% started their first job abroad
- Erasmus+ graduates from Northern and Western European Programme Countries tend to stay in the same geographical region for their first job –even when they go abroad to work- (46% did in both regions), to a higher extent than those from Eastern (24%) and Southern (28%) European Programme Countries, who tend to change region more often when they go abroad to work.
- Compared to non-mobile graduates, the jobs of Erasmus(+) graduates have significantly more international aspects. Only 20% of Erasmus(+) graduates state that their current job has no international characteristics.
- Graduates in Southern European Programme Countries are those who report a higher level of satisfaction with their jobs, whereas those from Eastern European Programme Countries have the most international careers

- 40% of graduates who undertook an Erasmus+ traineeship were offered a position by the employer that hosted them. In EIS 2014 this share was 33%.

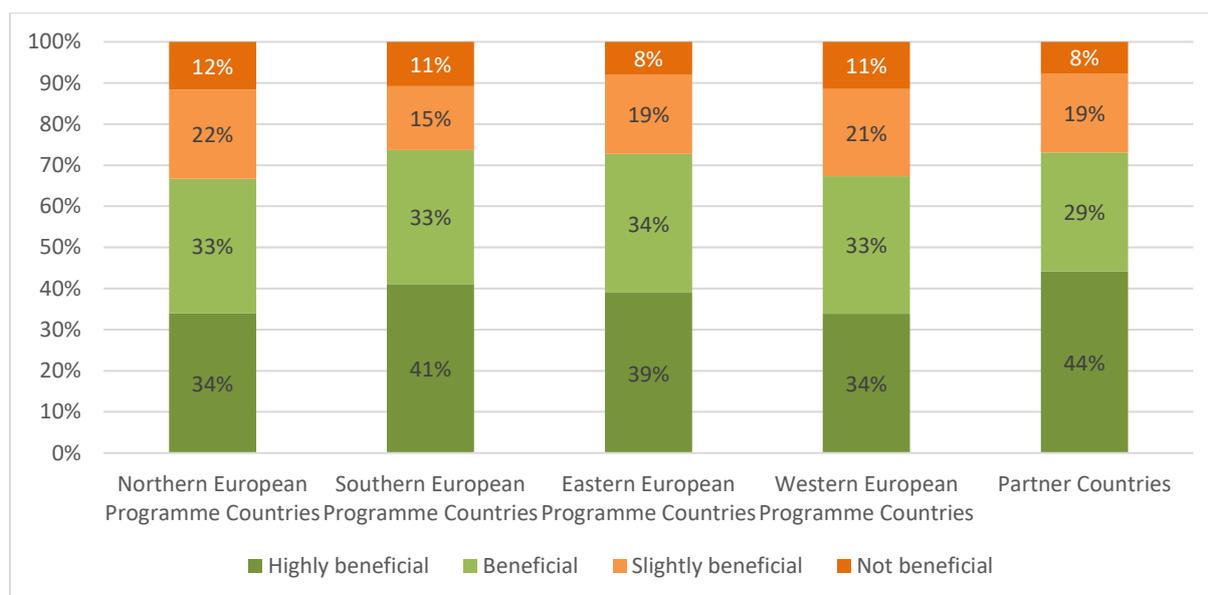
This chapter analyses the careers of graduates with an Erasmus or Erasmus+ experience (labelled as “Erasmus(+)” in the following section) regarding employment situation, job satisfaction as well as degree of international careers. By comparing the outcomes to the employment situation of non-mobile graduates, it tries to separate the effect of international mobility from other factors affecting career success.

As there is no official database for pre-2014 Erasmus participants, the respondents were invited to the survey indirectly. The research team therefore had only limited control over the questionnaire distribution for graduates (cf. chapter 3 for details).

Erasmus(+) graduates report that mobility helped their careers

Overall, 72% respondents consider their Erasmus(+) experience beneficial or highly beneficial for finding their first job. Graduates from Eastern and Southern European Programme Countries and in particular from Partner Countries agree somewhat more frequently than respondents from Western and Northern Europe with this view.

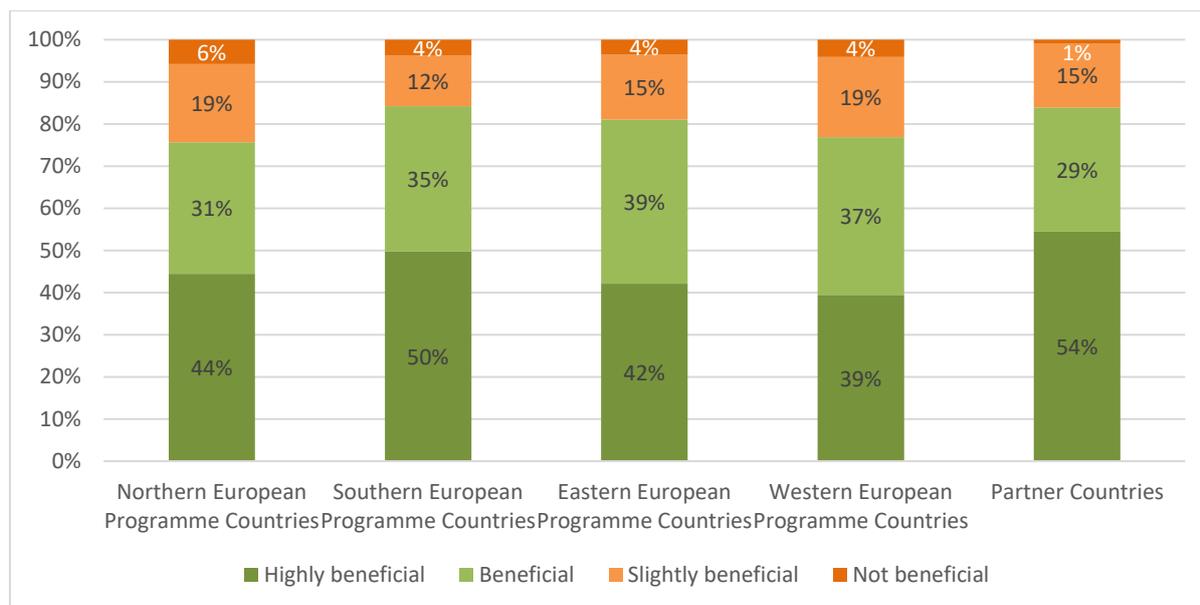
Figure 60. Perceived benefits for finding first job, Erasmus(+) graduates



Source: ICF CHE Consult student survey, N E(+) Graduates=6,542

An even higher share of Erasmus(+) graduates (82%) confirm that mobility was beneficial for their overall career development. The result is particularly strong for Southern European Programme Countries and Partner Countries.

Figure 61. Perceived benefits for career development, Erasmus(+) graduates

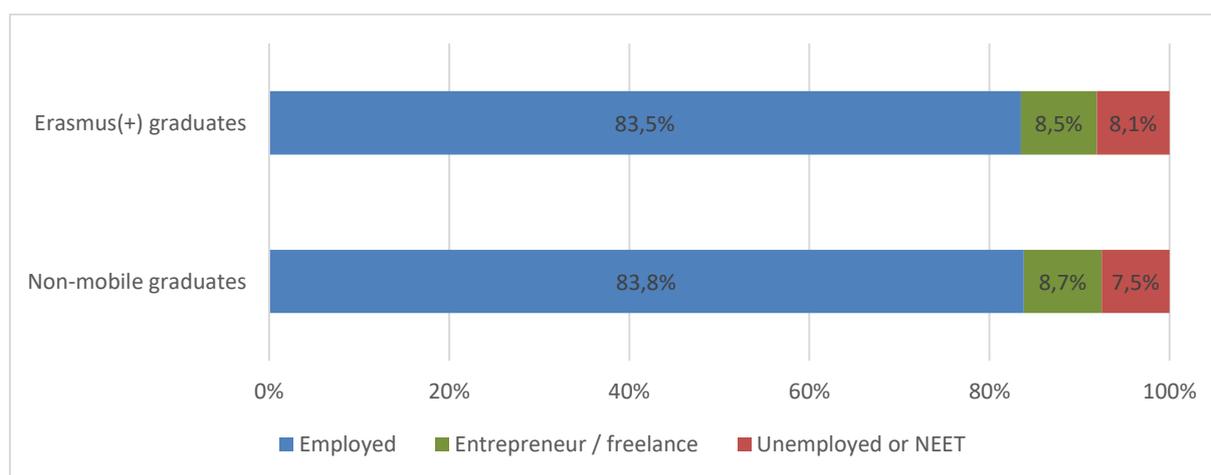


Source: ICF CHE Consult student survey, NE(+) Graduates =6,655

Erasmus(+) graduates are happier with their jobs than non-mobile students

The results (using PSM balancing) reveal that the unemployment rates for Erasmus+ graduates and non-mobile graduates are only slightly different. Graduates with Erasmus(+) experience do neither better nor substantially worse than non-mobile graduates with regards to their employment status (employed/ entrepreneur-freelance/ unemployed or NEET).

Figure 62. Employment status of economically active Erasmus(+) and non-mobile graduates who graduated in 2016 or before, results after Propensity Score Matching⁹⁹



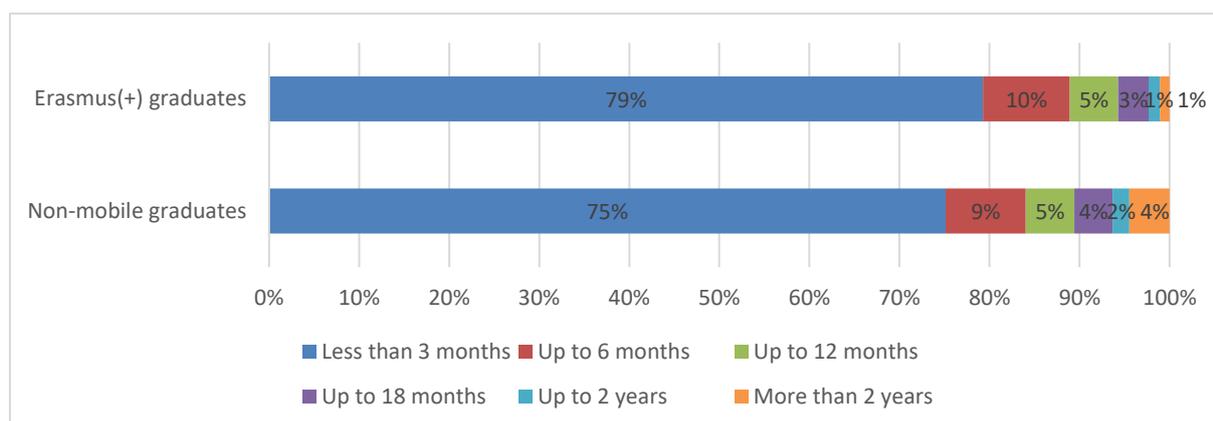
Source: ICF CHE Consult student survey, NE(+) Graduates =757 and NNon-mobile graduates = 784

⁹⁹ In multiple questions in this chapter, only respondents who graduated in 2016 or earlier are taken into account. Respondents who graduated during the survey period in 2017 and 2018 have had only brief labour market experience and, thus, were not considered in the analysis here.

Erasmus(+) graduates appear to be less likely to start their own business: when asked if they want to start their own business or already started, 10% of them declare they established an own company or organisation¹⁰⁰, compared to 14% non-mobiles.

In contrast, Erasmus(+) graduates find their first job after graduation somewhat quicker than others. 79% of Erasmus(+) graduates get their first job in less than three months, compared to 75% of non-mobile graduates. Another 10% of Erasmus(+) graduates find their job within 6 months, compared to 9% of non-mobiles

Figure 63. Time to find first job after graduation for Erasmus(+) and no-mobile graduates who graduated in 2016 or before, results after Propensity Score Matching

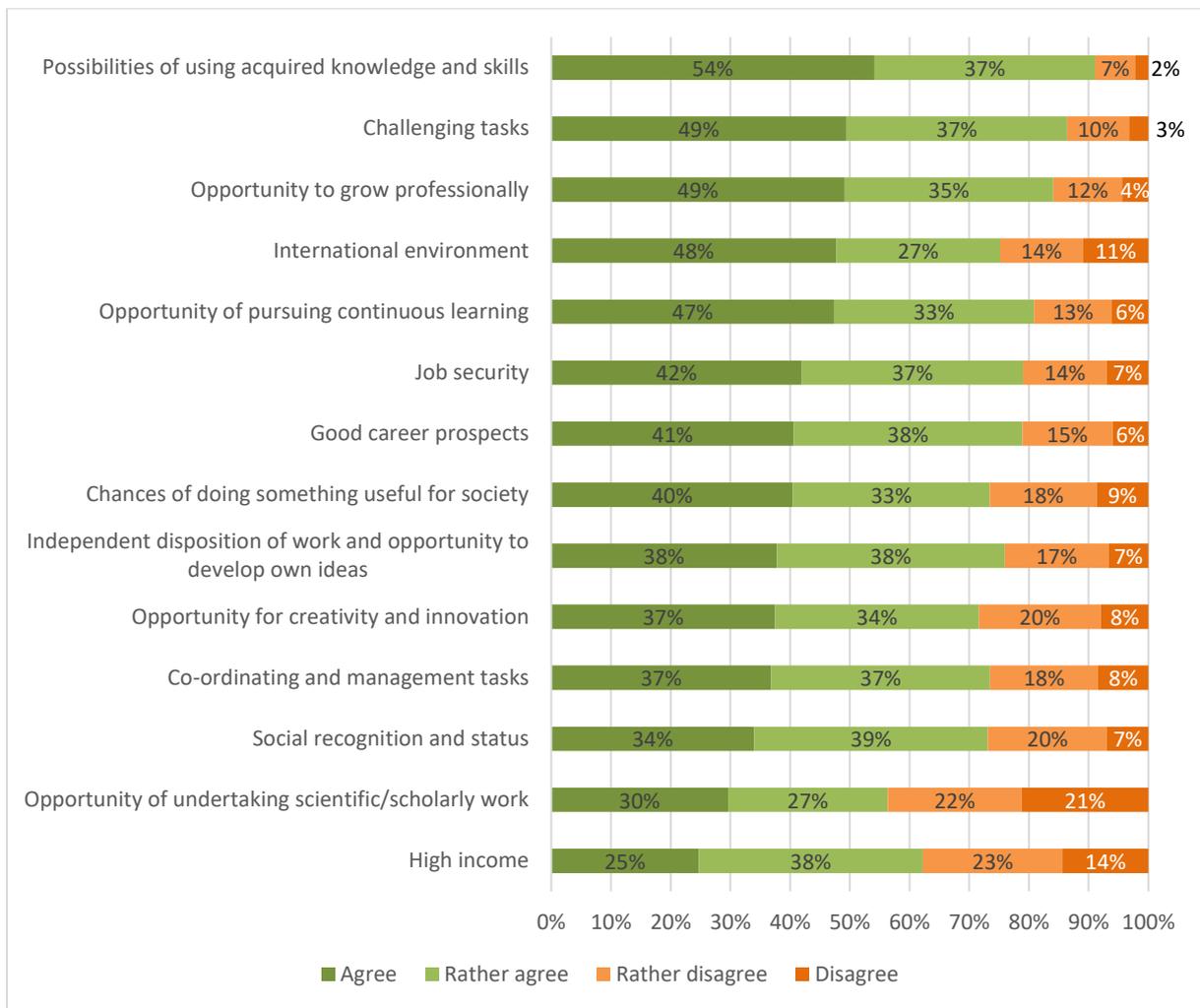


Source: ICF CHE Consult student survey, NE(+) Graduates =560 and NNon-mobile graduates = 539

Moreover, Erasmus(+) graduates are mostly satisfied with their jobs. More than 90% agree or rather agree that they have possibilities to use their knowledge and skills at work and more than 80% confirm that they have challenging tasks and opportunities to grow professionally or pursue continuous learning. Also, other aspects are rated rather well – including job security, career prospects, coordinating and management tasks and social recognition. 57% of Erasmus(+) undertake some scientific or scholarly work, which can be considered a fairly high share. Respondents were also asked whether one of the characteristics of their job is to provide ‘a high income’. Around two thirds of Erasmus(+) graduates consider the level of income provided by their job to be high.

¹⁰⁰ The difference with the preceding figure may be due to some students having set up their own business, but not currently being an entrepreneur/ freelancer and/or some respondents wanting to start a business without having done so yet.

Figure 64. Reported job characteristics of Erasmus(+) graduates

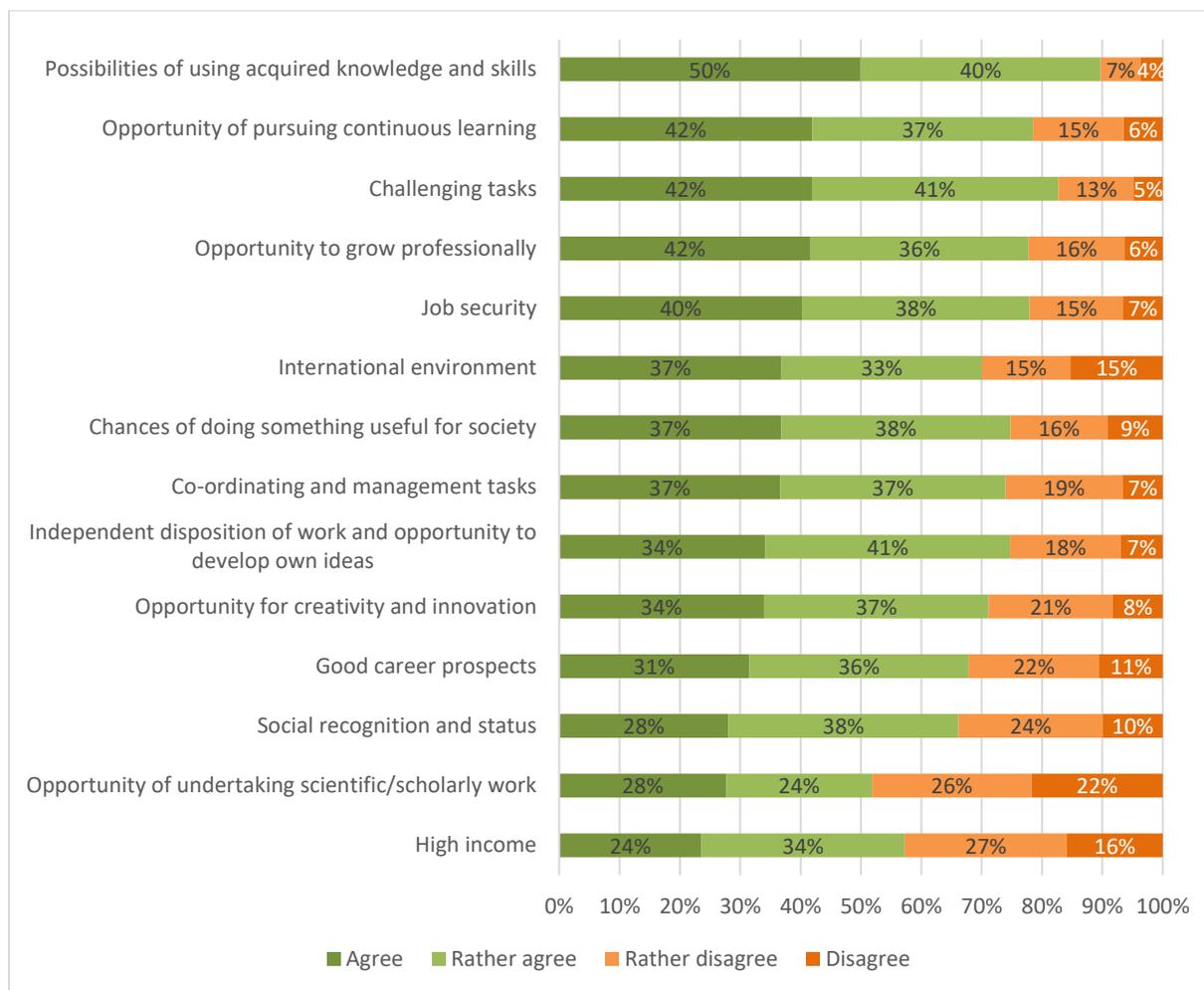


Source: ICF CHE Consult student survey, NE(+) Graduates =5,603

In almost all of the items above, the results of non-mobile graduates are slightly lower than those of comparable Erasmus(+) participants (PSM applied). The difference is close to zero in job security, chances of doing something useful for society and coordinating and management tasks.

However, Erasmus(+) graduates show substantially higher results in international environment, social recognition and status, opportunity to grow professionally and good career prospects compared to non-mobile graduates.

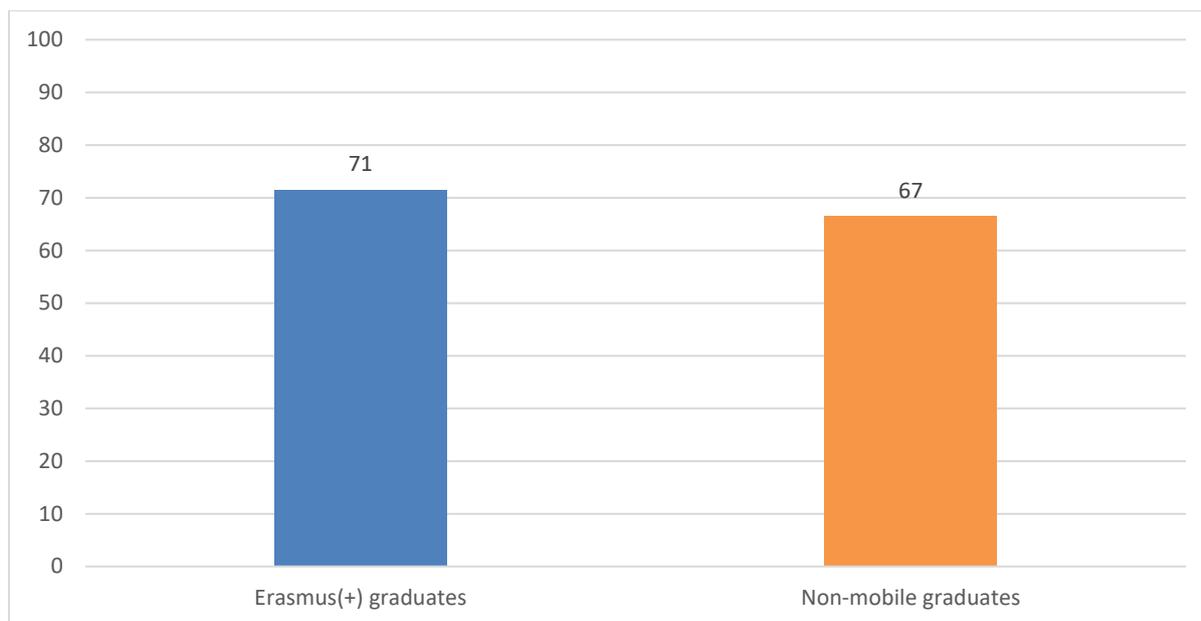
Figure 65. Reported job characteristics of non-mobile graduates



Source: ICF CHE Consult student survey, NNon-Mobile Graduates =598

All job aspects (items) were combined into the Job Quality Index. The result for Erasmus(+) graduates is significantly higher than for non-mobile graduates.

Figure 66. Job Quality Index, results after Propensity Score Matching

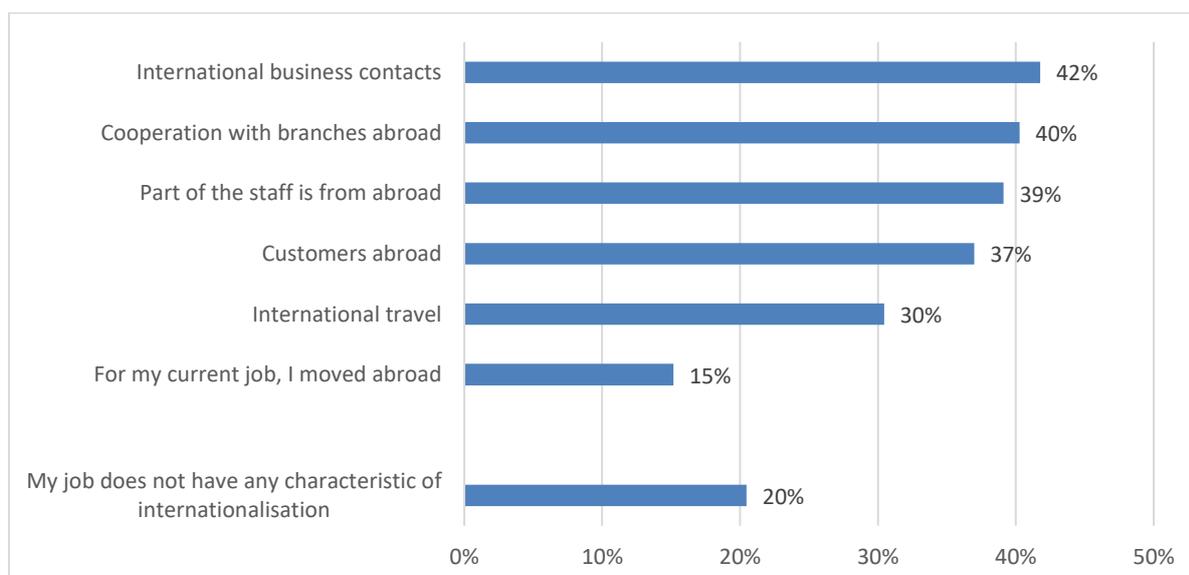


Source: ICF CHE Consult student survey, NE(+) Graduates =617, Non-Mobile Graduates=531

The careers of Erasmus(+) participants are more international

The careers of Erasmus(+) graduates are strongly affected by aspects of internationalisation, as noted in the previous section and further developed in this section. Only around one in five Erasmus(+) graduates reported no international characteristics at all in their job, while a substantial part of the participants who reported some international characteristics in their job confirmed that this entailed international business contacts, cooperation with foreign branches or being part of an international team. In addition, 15% had moved abroad for the current job.

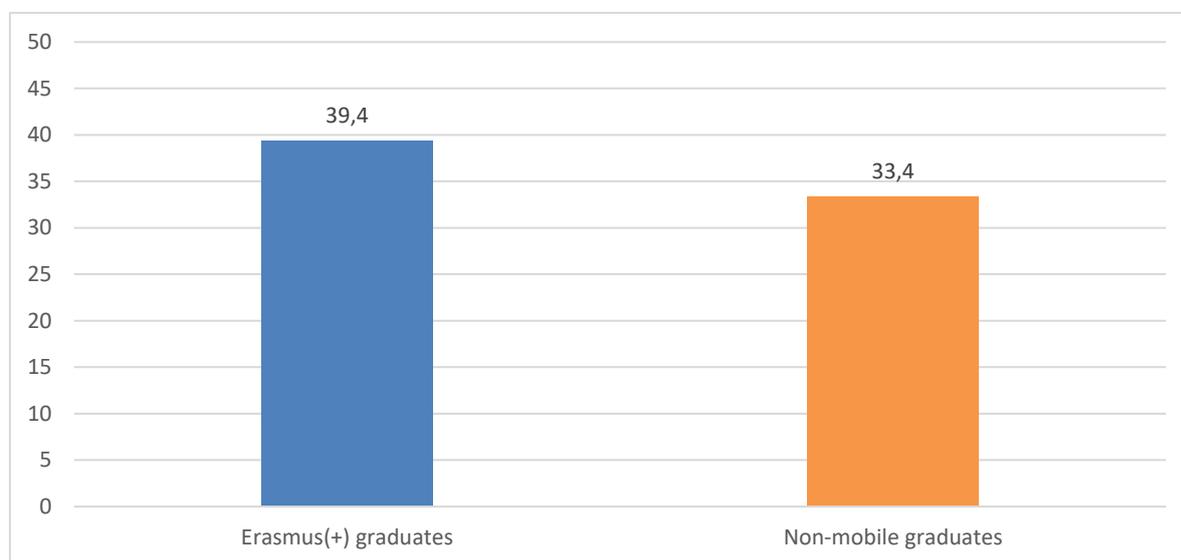
Figure 67. International job characteristics of Erasmus(+) graduates



Source: ICF CHE Consult student survey, NE(+) Graduates =6,310. Multiple response possible.

Overall, the jobs of Erasmus(+) graduates are significantly more international than those of non-mobile graduates, as indicated by the International Job Index derived from the items above.

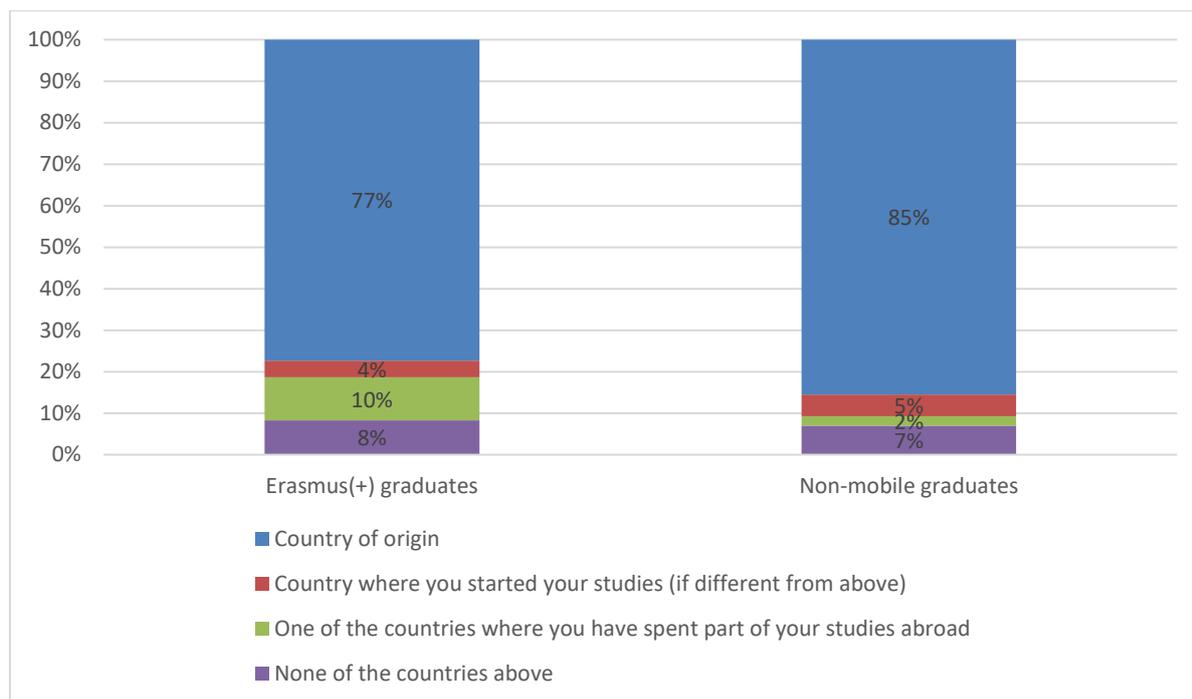
Figure 68. International Job Index comparison between Erasmus(+) graduates and non-mobile graduates, after Propensity Score Matching



Source: ICF CHE Consult student survey, NE(+) Graduates =717 and NNon-Mobile Graduates=691

The vast majority of graduates get their first job in their home country. Still, the share of those who get their first job after graduation abroad is substantially higher for Erasmus(+) graduates than for non-mobile graduates (23% vs. 15%). Moreover, almost half of Erasmus(+) graduates, who got their first job abroad, took up their first job in the country where they stayed during their Erasmus(+) mobility period.

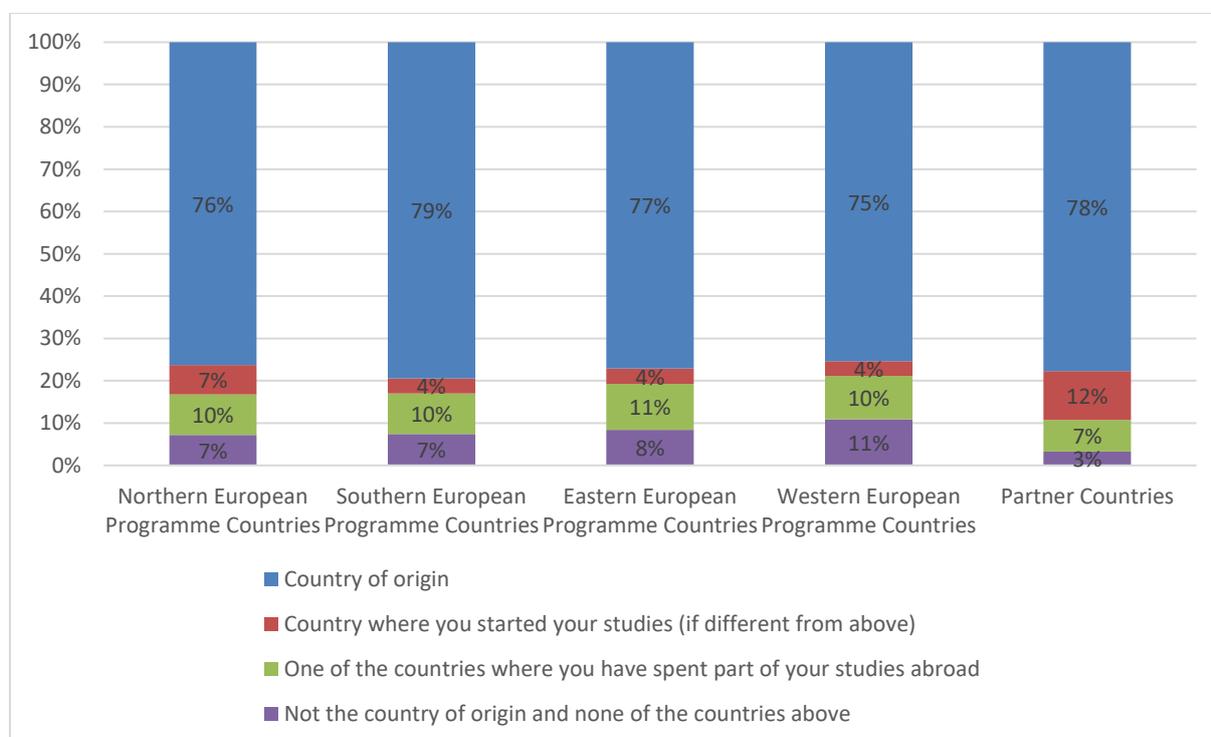
Figure 69. Country of first job for Erasmus(+) and non-mobile graduates



Source: ICF CHE Consult student survey NE(+) Graduates =7,522 and NNon-Mobile Graduates=937

The share of Erasmus(+) graduates who got their first job outside of their home HE country –the country of their higher education institution- is highest amongst those who studied in Western or Northern European Programme Countries.

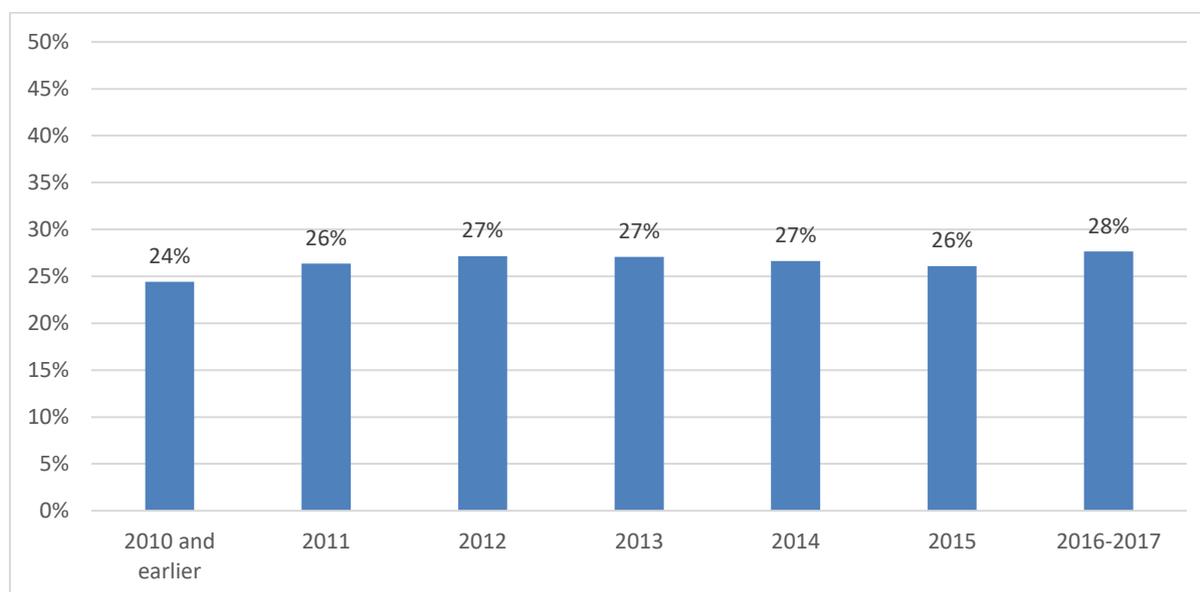
Figure 70. Erasmus(+) graduates reporting that their country of first job is different from the country of origin of the respondent, by region of study



Source: ICF CHE Consult student survey, NE(+) Graduates =7,046

The share of Erasmus(+) graduates working abroad is very similar for all analysed cohorts.

Figure 71. Erasmus(+) graduates currently working in a country different from their country of origin, by the year of graduation

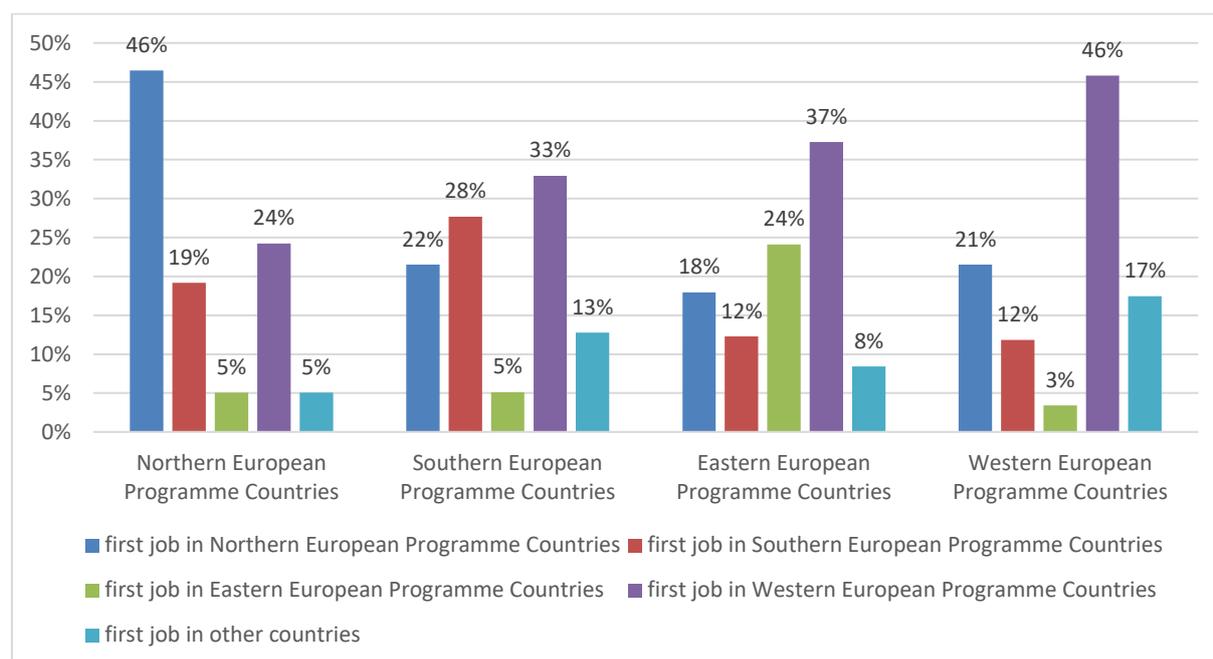


Source: ICF CHE Consult student survey, NE(+) Graduates =7,529

Graduates from Northern and Western European Programme Countries who take-up their first job abroad tend to stay in the same region where they studied, while participants who studied in HEIs in Eastern and Southern European Programme Countries leave their region more often.

The majority of Erasmus(+) graduates who studied in HEIs in Northern and Western European Programme Countries and started their first job in a country different to the country of their studies stayed in the same region. 46% of graduates from Northern European Programme Countries who moved outside of their country of study for their first job started their first job also in this region-even if not in the same country. The same is true for graduates from Western European Programme Countries. In comparison, the largest share (37%) of those graduates from Eastern European Countries who moved outside of their country of study for their first job started that job in Western Europe. For Southern European Programme Countries this share is 33% - also the largest share. As reported, the majority of respondents started their first job in the country of origin, but among those who start somewhere else, Eastern and Southern European Programme Countries seem to lose a substantial amount of Erasmus+ graduates to other regions.

Figure 72. Regions of the first job of Erasmus(+) graduates who moved outside their study country, by home region

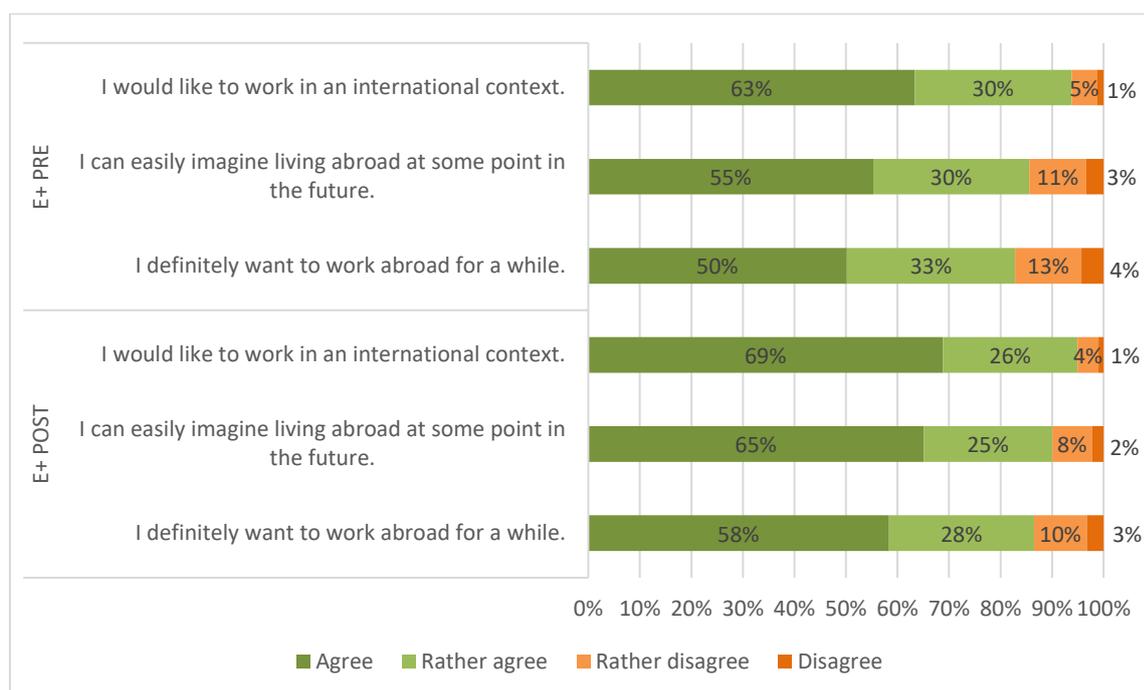


Source: ICF CHE Consult student survey, NE(+) Graduates =1,552

Former Erasmus+ participants are very open to international careers

Former Erasmus+ participants show in general a high openness towards international careers – almost all of them agree or rather agree they would like to work in an international context and they can easily imagine living abroad in the future. The vast majority also declares they would like to work abroad for a period of time. The agreement with these statements is very high already prior to mobility and was even higher for those who took the survey upon returning from their period abroad.

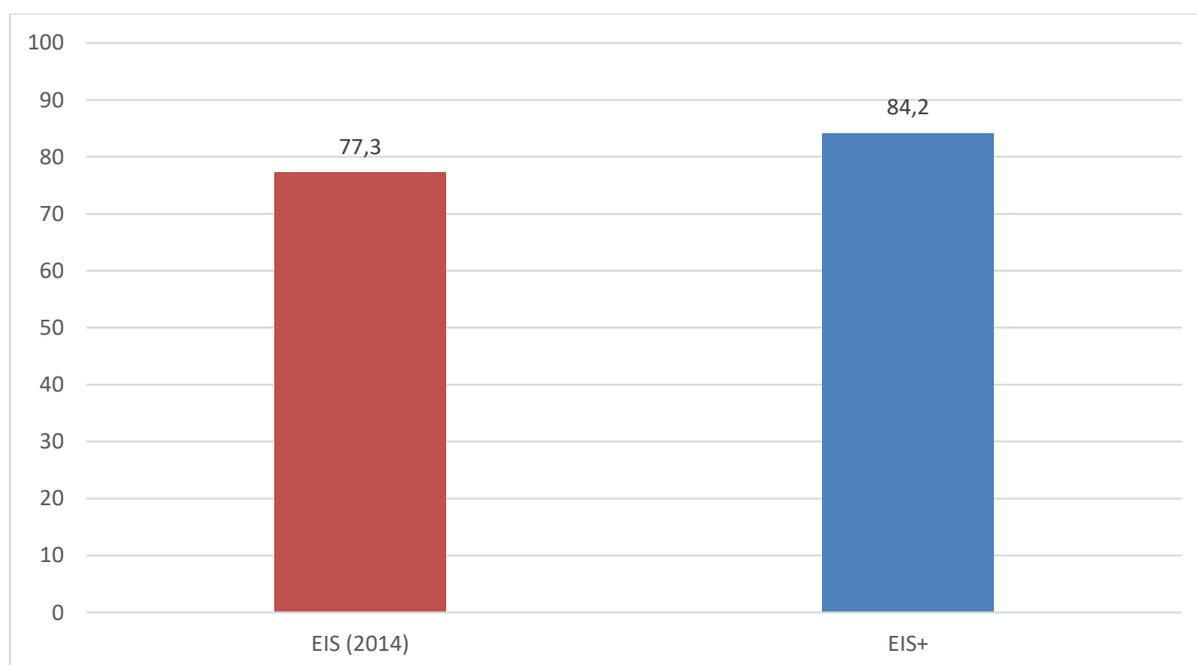
Figure 73. Openness towards international careers, Erasmus(+) participants prior to and after the mobility



Source: ICF CHE Consult student survey, NE+PRE=11,486, NE+POST=19,078

Combining the items above into an index, we can compare former Erasmus+ participants to the respondents of the previous Erasmus Impact Study (EIS, 2014), where the same questions were included. The results suggest that Erasmus+ mobile students have become even more open to working in an international context than those in the preceding programme.

Figure 74. International Career Openness Index after the mobility, EIS+ vs. EIS (2014)

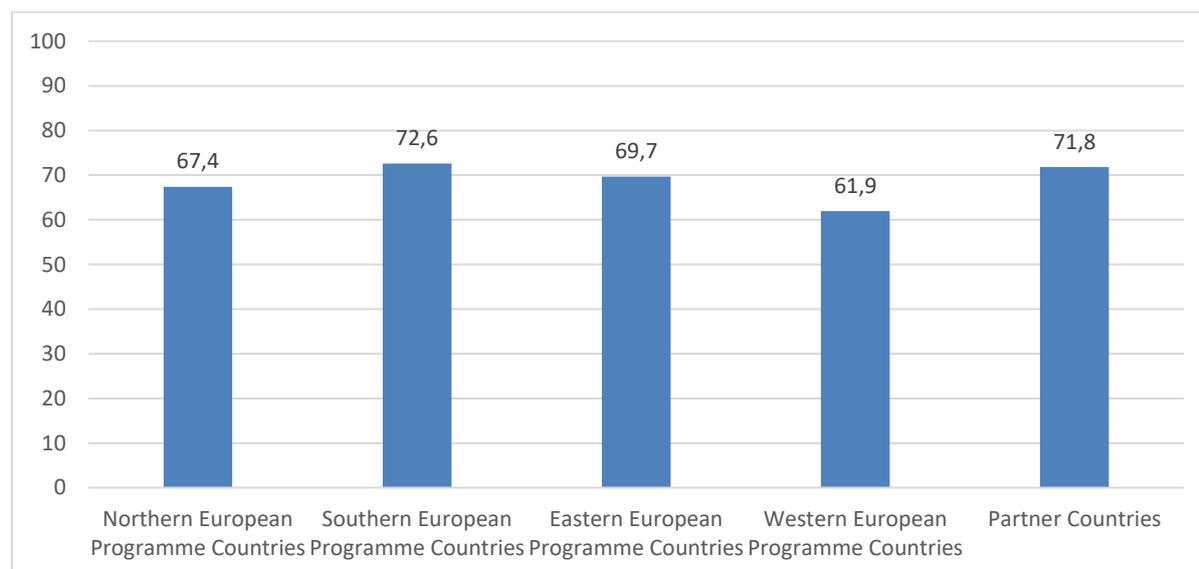


Source: ICF CHE Consult student survey, NEIS (2014) POST=11,486, NE+POST=19,078

Graduates in Southern European Programme Countries are most satisfied with their jobs, whereas those from Eastern European Programme Countries have the most international careers

Erasmus(+) graduates who studied in Southern European Programme Countries and Partner Countries rate their job quality the highest, whereas those from Western European Programme Countries rate it the lowest.

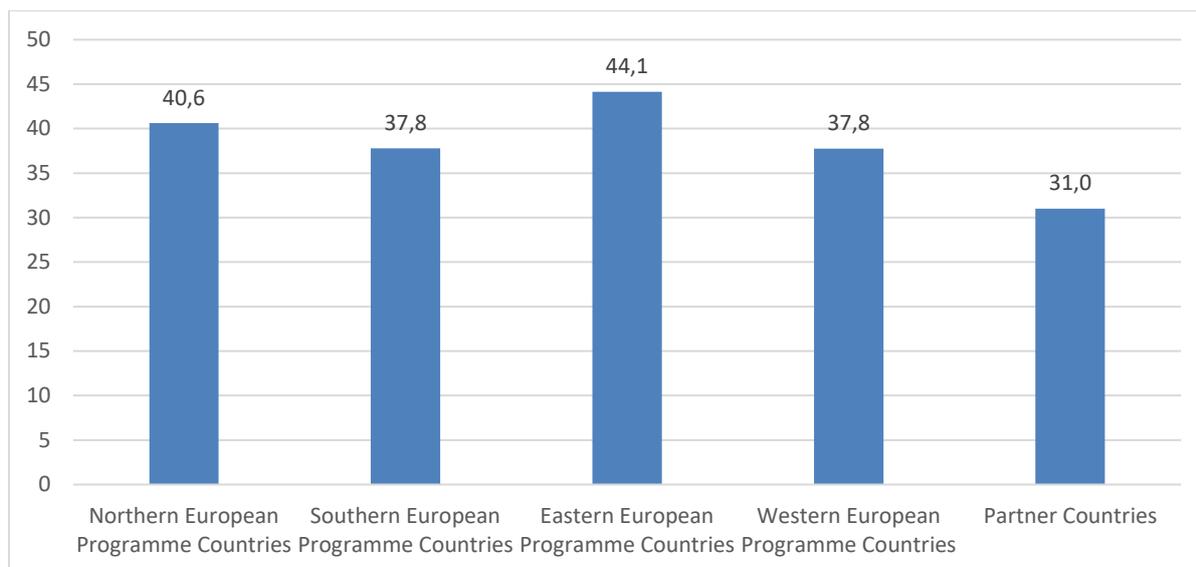
Figure 75. Job Quality Index, Erasmus(+) graduates by region of studies



Source: ICF CHE Consult student survey, NE(+) Graduates = 5,237

The jobs of Erasmus(+) graduates from Eastern European Programme Countries are the most international (see also results for country of first job above). This might indicate that while business in the region is getting more and more international, labour with relevant competence (including language skills) and experience is scarce so Erasmus(+) graduates are sought after.

Figure 76. International Job Index, Erasmus(+) graduates by region of studies

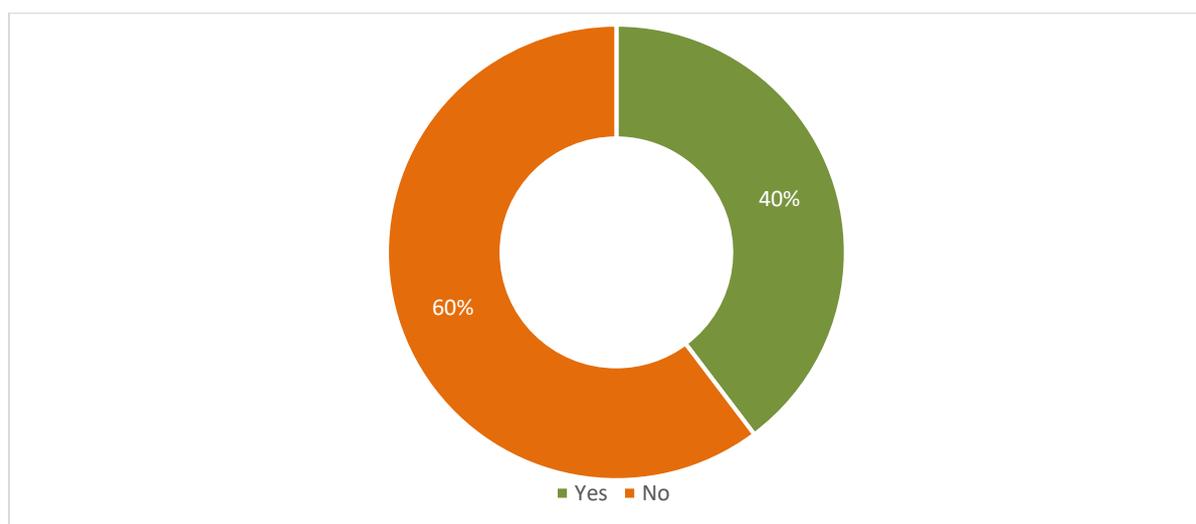


Source: ICF CHE Consult student survey, NE(+) Graduates= 6,137

Employers offer jobs to Erasmus(+) trainees

Erasmus(+) traineeships were reported to be a rather effective opportunity for accessing an international career: 40% of Erasmus(+) traineeship participants reported to have been offered a position by the company where they did their traineeship. In 2014, this share was 33%.

Figure 77. Share of graduates who participated in an Erasmus(+) traineeship who were offered a position by the host company/organisation upon completion of the traineeship



Source: ICF CHE Consult student survey NE(+) Graduates = 4,399

5.6 European identity

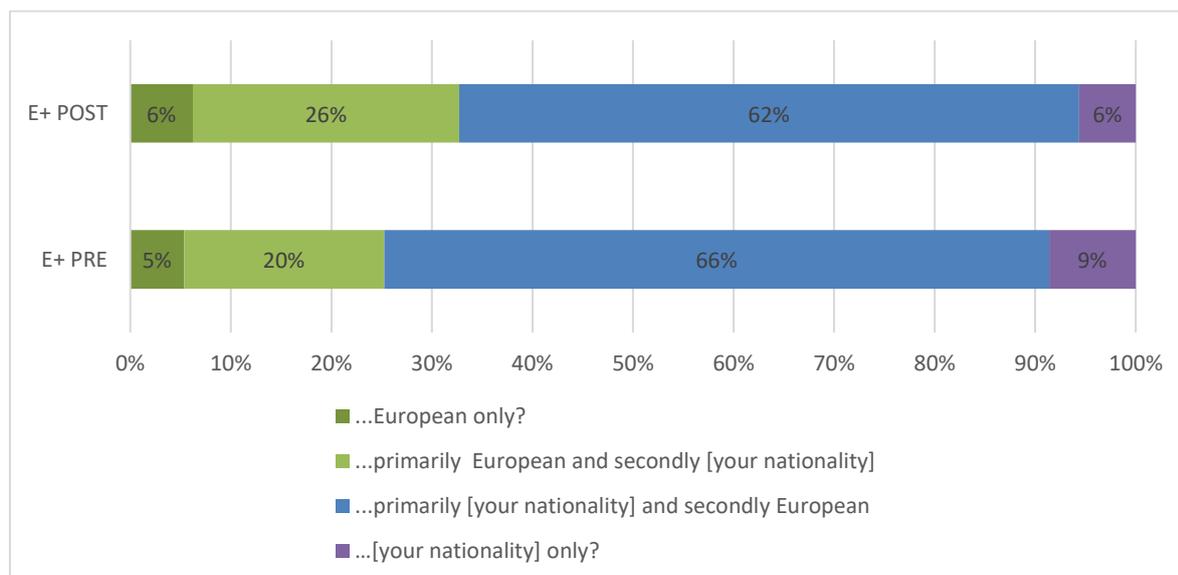
Main findings: European identity

- An Erasmus+ mobility contributes to create a stronger European identity: Erasmus(+) participants are mainly pro-European and become even more so during their mobility
- The highest gains in European Identity through mobility are reported from participants from Eastern and Southern European Programme Countries.
- European identity increases with mobility to non-neighbouring countries and countries with different GDP levels
- The weaker the European identity prior to mobility, the larger gain results from the mobility period with Erasmus+
- There are love stories in Erasmus(+): Among respondents who already graduated and who live with a life partner, around one in four maintain an international relationship, and half of them met their current partner during a mobility period. In addition to that, 9% of those who share nationality with their partner met during a stay abroad.

Erasmus(+) participants are mainly pro-European before they start their mobility period and become even more so during their mobility.

Erasmus+ participants in general show a rather strong European identity before they start their mobility period: only 9% declare they do not share a European identity at all and perceive themselves as members of their nation only. After their mobility, this is down to 6%. In comparison, prior to mobility, two thirds consider their national identity to be more important than the European one, and 62% after the mobility. Prior to mobility, one fifth feel more European than national, after the mobility it is over one quarter. Finally, 5% and 6% respectively do not consider the national identity relevant for them at all and feel European only.

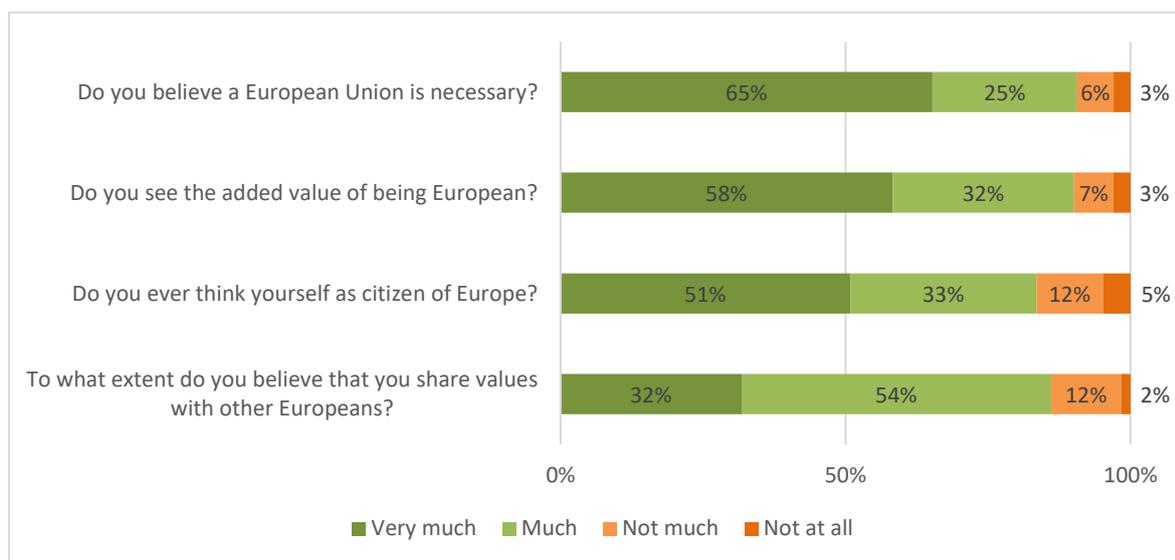
Figure 78. Identity of Erasmus+ participants



Source: ICF CHE Consult student survey, NE+ PRE = 16,349, NE+ POST = 17,940

When asked additional questions regarding their feelings about Europe and the European Union, most former Erasmus+ participants answer positively. Two thirds are very convinced that the European Union is necessary and 25% rather agree that it is. A similar share sees an added value in being European. By contrast, only 5% of former Erasmus+ participants say they never think about themselves as citizens of Europe. The large majority of former Erasmus+ participants (89%) feel they share some values with other Europeans – although only one third shares them “very much”. This seems to reflect the political diversity in European population, as not all people in Europe share the same values.

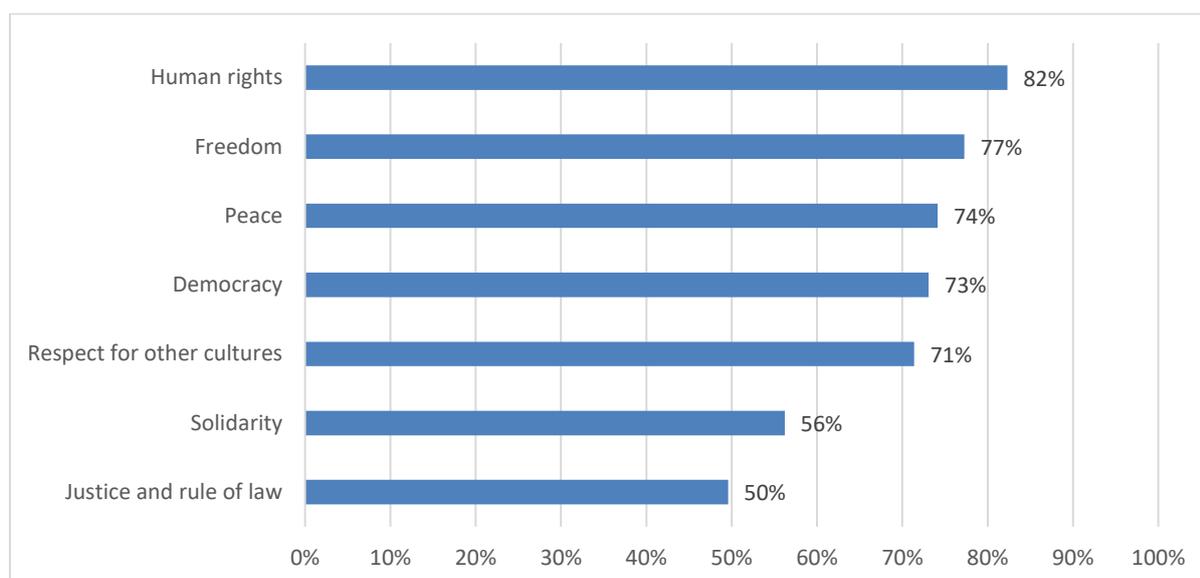
Figure 79. Perspectives of Erasmus+ participants (E+ POST) on Europe and the EU



Source: ICF CHE Consult student survey, NE+ POST =16,413

When asked what these shared values are, Erasmus+ students after their mobility most often mentioned respect for human rights (82%), closely followed by freedom (77%), peace (74%), democracy (73%) and respect for other cultures (71%). Only slightly more than half of them feel that they share solidarity (56%) and rule of law (50%) values with other Europeans.

Figure 80. Values Erasmus+ participants (E+ POST) believe to share with other Europeans

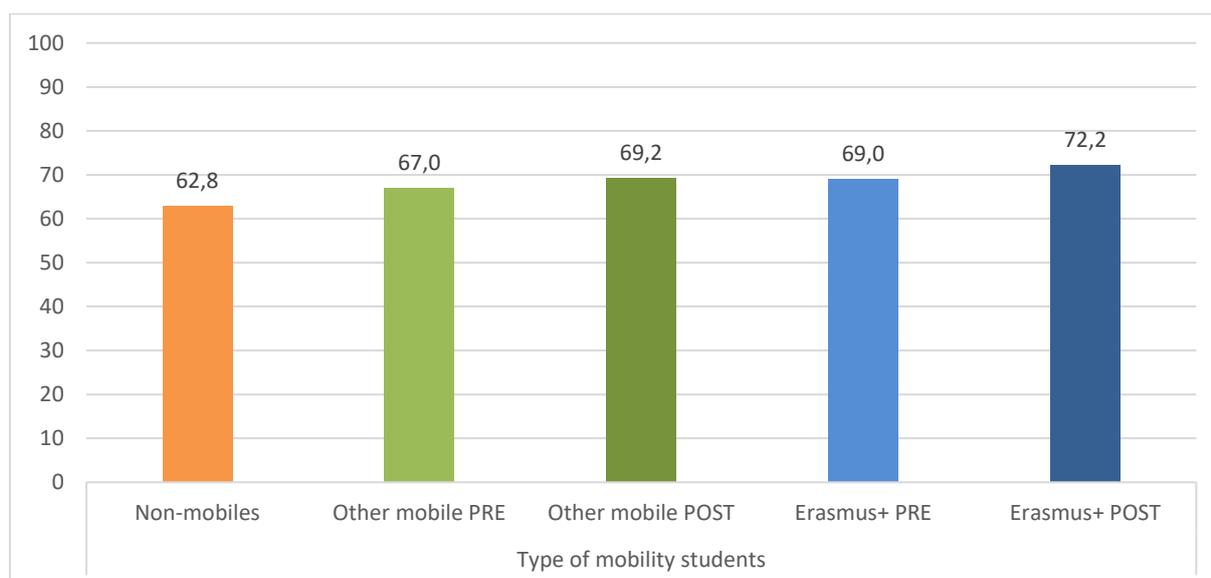


Source: ICF CHE Consult student survey, NE+ POST = 11,604

In a further analysis, we combined the above-mentioned questions into a European Identity Index to compare Erasmus+ students to non-mobile students and other mobile students before and after mobility. The results for Erasmus+ participants are higher than those for other groups both prior to and after the mobility. In other words, students who are more pro-European than others opt to take part in the Erasmus programme, and they return from their mobility even more pro-European. An additional result using paired data (measuring the same people prior to and after the mobility) further confirms the positive development of the European identity of Erasmus+ participants, with a significant difference of 2.34 points in the index (N = 2,547) on average.

Participants of other mobility programmes show more pro-European attitudes than non-mobile students, showing higher results after return than before departure – both, nevertheless, to a lower degree than Erasmus+ participants.

Figure 81. European Identity Index for non-mobiles, former participants of other mobility schemes and former Erasmus+ participants

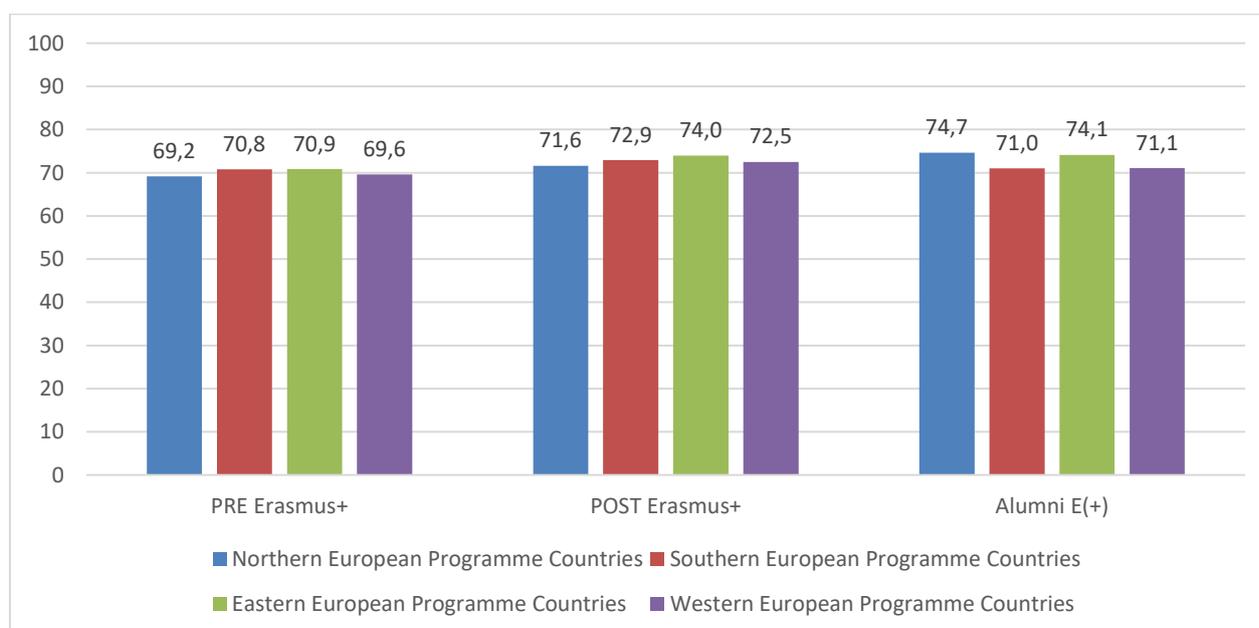


Source: ICF CHE Consult student survey. NNon-Mobile=1119, NOther Mobile=351, NE=17,968

The highest gains in European Identity through mobility are reported from participants from Eastern and Southern European Programme Countries

Participants from Eastern European Programme Countries show the strongest European identity among Erasmus+ students prior to and after the mobility. However, when it comes to Erasmus+ graduates, it is those who Northern European Programme countries who show the highest levels of European identity, followed by Erasmus+ graduates from Eastern European countries and Western European countries. Although the differences are small in size, they are statistically significant.

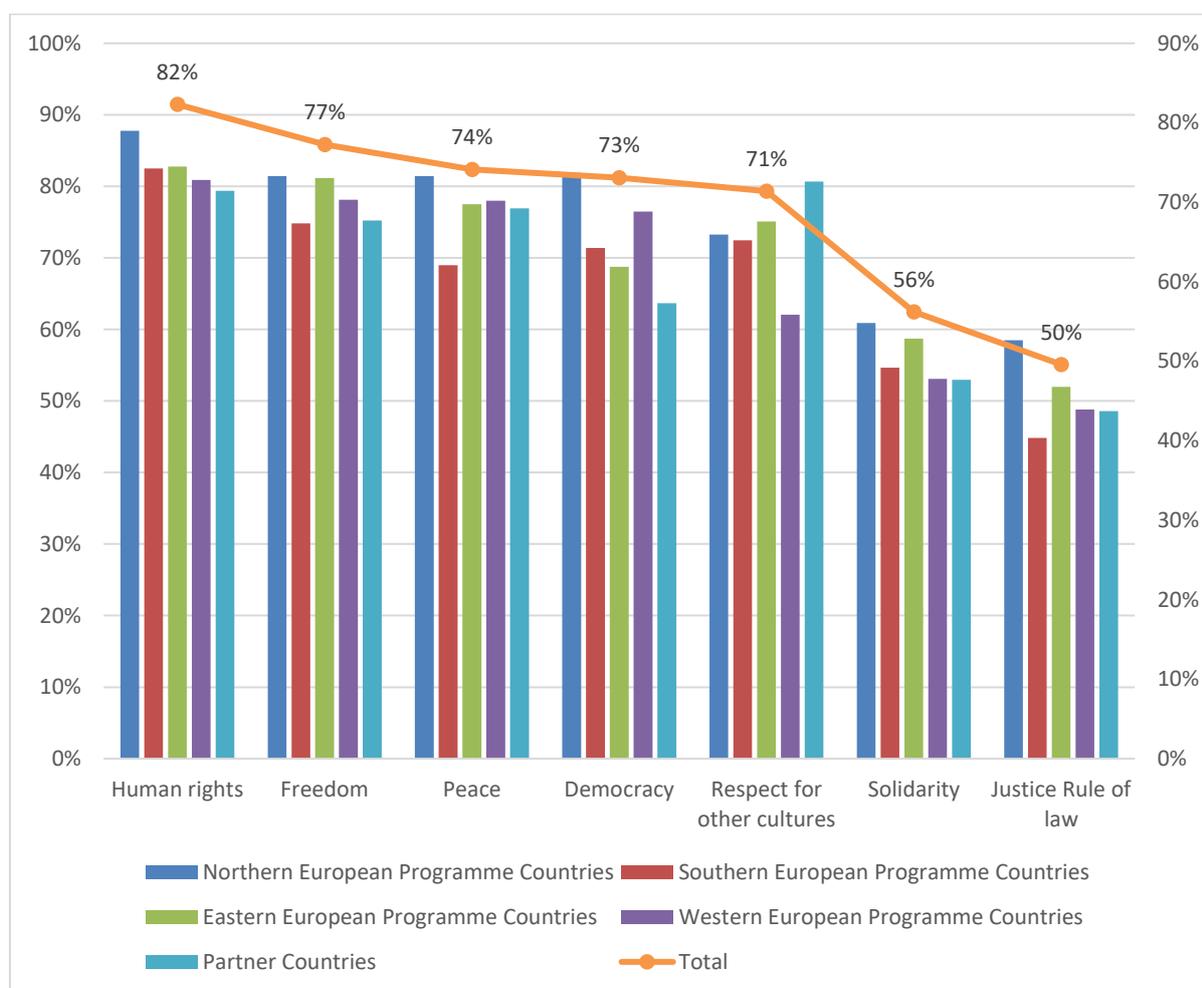
Figure 82. European Identity Index according to regions



Source: ICF CHE Consult student survey. NE+ PRE=15,063, NE+ POST=17,726, NE(+) Graduates=5,567

Former Erasmus+ participants from Northern European Programme Countries tend to select the values of human rights, peace, democracy, and rule of law as shared European values slightly more frequently than those from other regions. Respondents from Western European Programme Countries perceive “respect for other cultures” less as a shared value. In general, agreement over shared European values tends to be high, regardless of the region (over 50% of respondents for the 7 values explored in the survey, and for 5 out of 7 values over 70% of respondents).

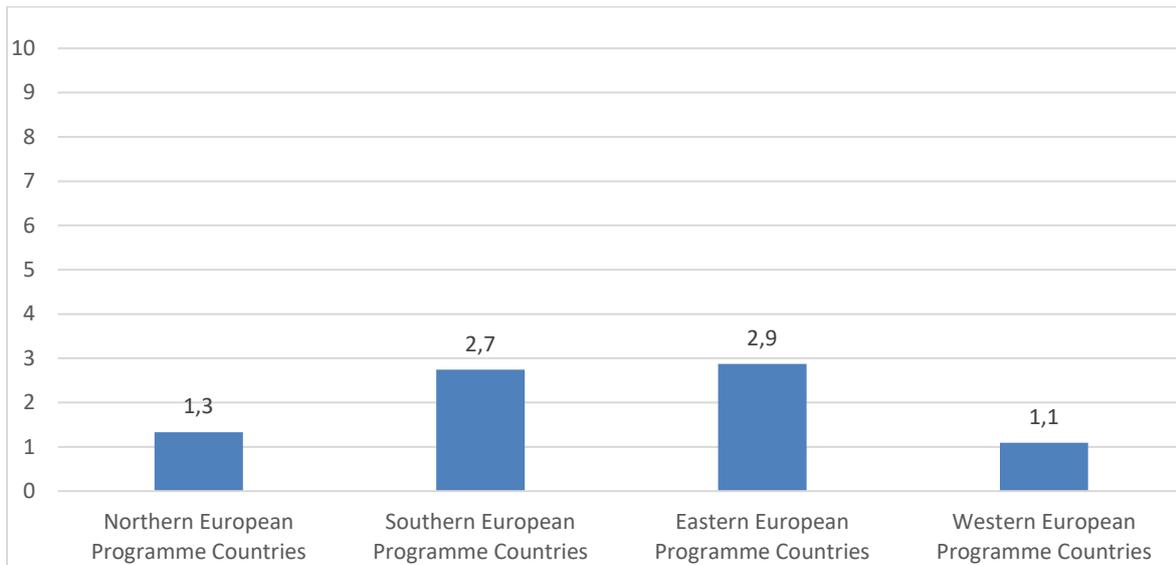
Figure 83. Values selected that are shared with other Europeans for all POST students



Source: ICF CHE Consult student survey, NE+POST, Total=11,701, NE+POST, regions=9,628

The paired data analysis reveals that students from Southern and Eastern European Programme Countries, who show higher European Identity Index values even before departure, increase their values during the mobility more than those from other regions: the size of the impact measured over their stay abroad is almost three times higher than for participants from Western European Programme Countries. A positive impact of mobility on the European identity of participants is, however, present in all regions.

Figure 84. European Identity Index differences between PRE and POST according to home region

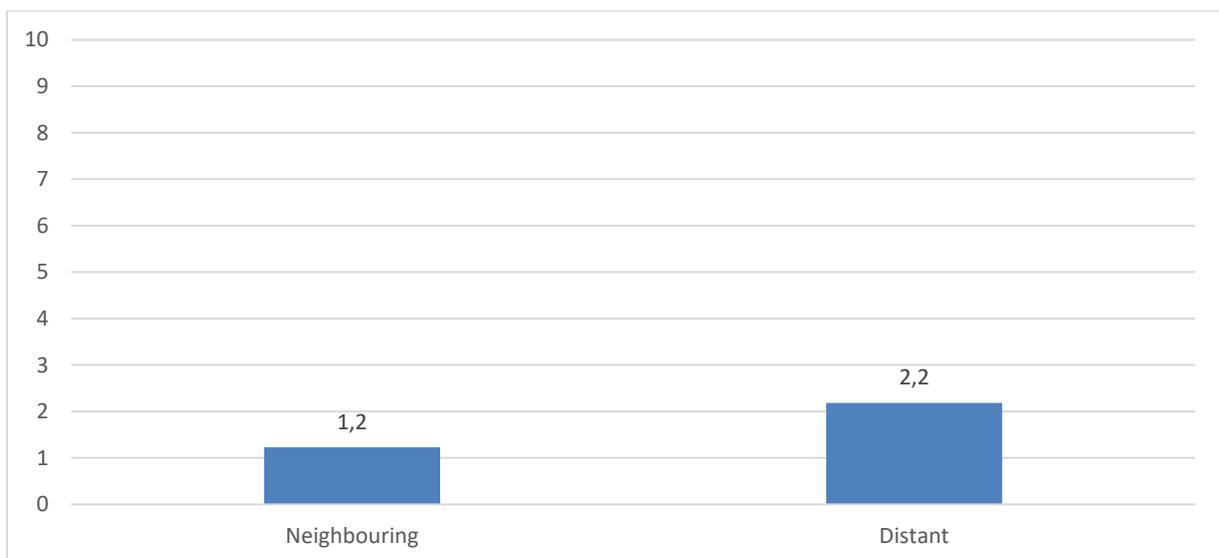


Source: ICF CHE Consult student survey. NPaired Data=1,781.

European identity increases with mobility to non-neighbouring countries and countries with different GDP levels

The results reporting a higher general impact from mobility to non-neighbouring countries is reiterated with regards to European identity. The analyses reveal a small but significant positive relationship between travelling to a non-neighbouring country for the mobility experience and the change of the European Identity Index. As we assume that going to a non-neighbouring country is related to being exposed to a “cultural difference”, this finding might indicate that exposure to greater diversity helps strengthen the feeling of a shared European identity.

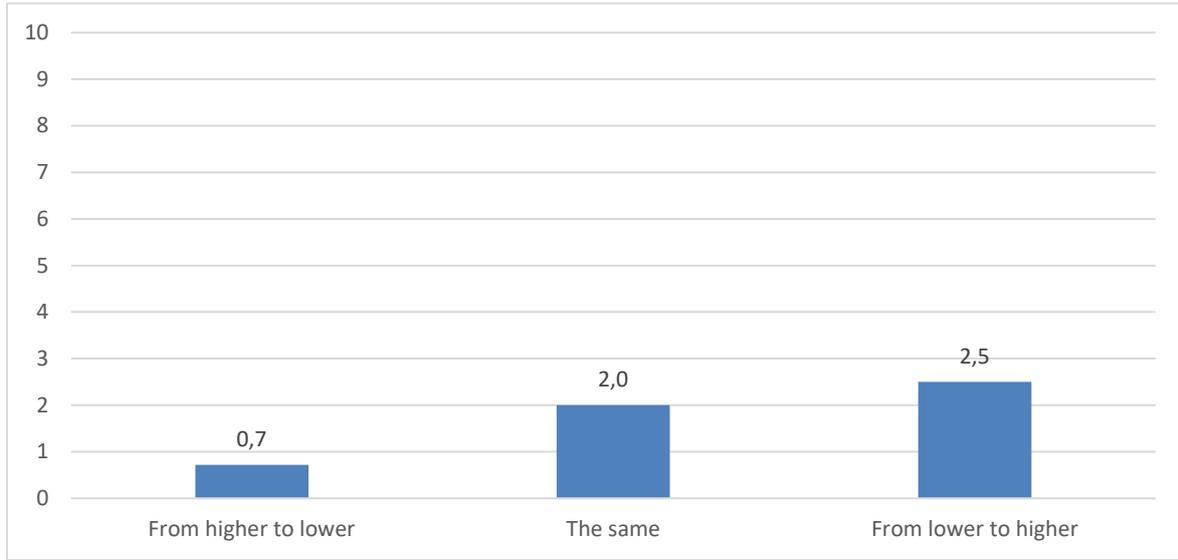
Figure 85. European Identity Index differences between PRE and POST Erasmus+ participants, according to the location of the country of destination



Source: ICF CHE Consult student survey. NPaired Data=2,547

Examining the European Identity Index with respect to the difference in GDP between home and host country, the PRE to POST change was largest for those who went to a country with a higher level of GDP per capita (according to the GDP country groups presented in Annex 1) than their home country (2.5), while those going to a country in a group with a lower GDP than one's own GDP group strengthened their European identity the least (0.7).

Figure 86. European Identity Index differences between PRE and POST according to whether the participants travelled to a country from a group with a GDP level lower, higher, or equal to their home country



Source: ICF CHE Consult student survey, NPaired Data=2,380

However, a closer look reveals that the relationship is more complicated. The Erasmus+ participants from countries in the lower GDP group also experience large gains when they undertake their mobility in a country with a similar GDP level. Besides, respondents from the mid-low GDP group seem to gain the most when they visit another mid-low country. In contrast, European identity of students from the top GDP group decreases somewhat when they visit another high GDP country, but the reduction is even greater when they visit one of the countries in the lower GDP group.

Table 15. European Identity Index differences between PRE and POST according to the home and host country GDP per capita

Change of European Identity Index values			GDP level for host countries			
			High GDP	Mid-High GDP	Mid-Low GDP	Low GDP
GDP level for sending countries	High GDP	Change European Identity Index Value	-1.82	1.28	1.52	-3.26
	Mid-High GDP	Change European Identity Index Value	2.07	1.18	0.99	-0.28
	Mid-Low GDP	Change European Identity Index Value	0.52	2.27	3.85	1.95
	Low GDP	Change European Identity Index Value	6.76	3.76	2.31	4.45

Source: ICF CHE Consult student survey, NPaired Data =2,380.

GDP per capita is closely related to the region. As shown in chapter 3 on Methodology, mostly Western and Northern European Programme Countries belong to the top two categories, and Eastern and Southern European countries to the two bottom categories. In this respect, these results are aligned to the impact findings for the geographical regional analysis above.

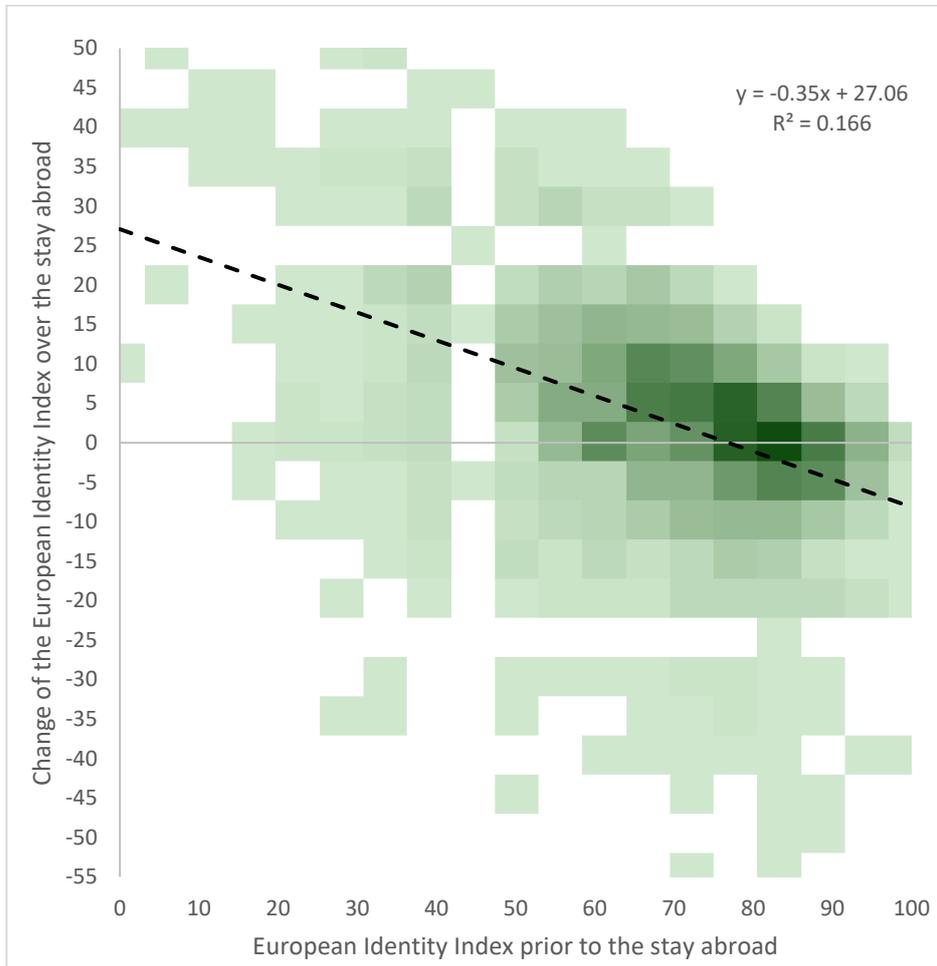
The weaker the European identity prior to mobility, the larger the gain experienced during mobility

The positive effect of mobility on the European identity occurs in particular for those who were rather sceptical prior to departure. A linear regression model shows that the lower the pre-departure values, the higher the average gain.

The relationship is rather weak, yet strongly significant. In Figure 87 the darker the colour, the greater the concentration of respondents in the respective area of the chart, while pale colours represent rather rare cases. This reveals that the majority of respondents is mostly homogeneous in their opinions towards Europe, being concentrated in the range from 60 to 90 in pre-departure values. However, there is a huge variation amongst the remaining minority, with some individuals expressing highly negative attitudes towards European identity and shared values. The same is true for the size of change – the majority of respondents experience moderate increases (up to 15 points), remain close to no change or decrease slightly (not more than -10 points), although some outlying cases seem to change their view of Europe completely, either in a positive or in a negative way. The relationship between the attitudes to Europe prior to mobility and their change over the stay is rather weak, yet strongly significant. The pre-departure value itself explains over 15% of the variance in the change, even without taking into account any other characteristics, with $p < .001$.

In this respect, the mobility helps to stimulate the European identity for those who do not exhibit high European identity prior to mobility. In contrast, according to the model, those who are strongly pro-European already before taking part (pre-departure index value above 77, i.e. high above the average), are likely to become slightly more critical over the stay.

Figure 87. Relationship between pre-departure values and change in the European Identity Index over the mobility period*

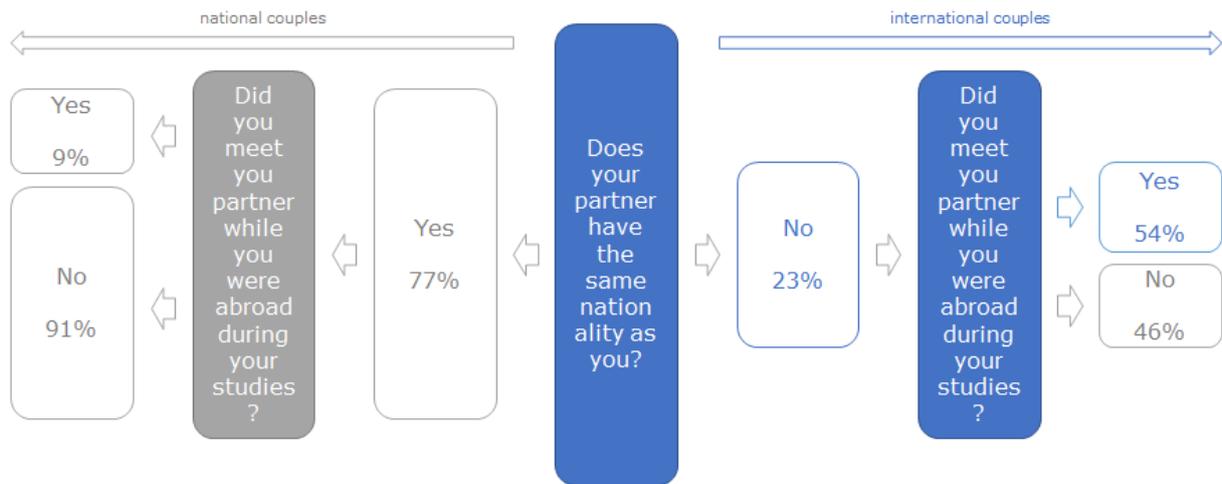


Source: ICF CHE Consult student survey, NPaired Data =2,590 / *the darker the green, the greater the concentration of respondents, pale colours represent rather rare cases

There are love stories in Erasmus(+)

Erasmus(+) helps to build links between nations not only on the abstract level of identity and politics but also on the concrete level of personal relationships. Among Erasmus+ graduates who live with a life partner, 23% maintain an international relationship – compared to 13% of non-mobile graduates. Moreover, half of them met their current partner during a Erasmus(+) mobility. In addition to that, 9% of those who share the same nationality with their partner met their life partner during a Erasmus(+) stay abroad.

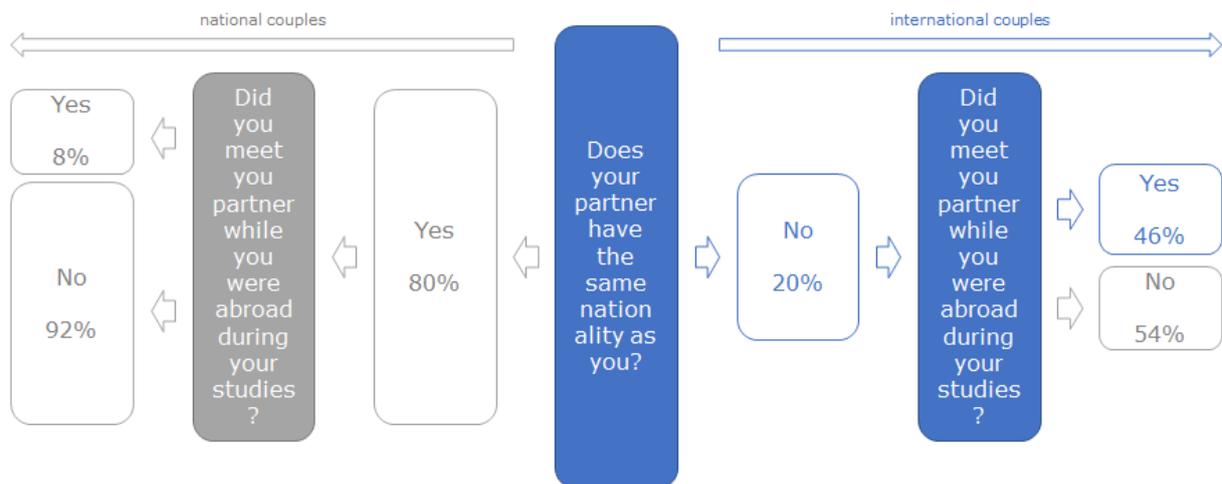
Figure 88. Personal relationships of Erasmus(+) graduates



Source: ICF CHE Consult student survey, NE(+) Graduates=4,262.

Taking a look specifically on Erasmus(+) graduates who are 27 or older, the results remain similar: 20% of those who live with a partner are in an international relationship and close to half of these couples met during a Erasmus(+) mobility. What is more, 16% of the international "Erasmus couples" have children.

Figure 89. Personal relationships of 27+ years old Erasmus(+) graduates



Source: ICF CHE Consult student survey, NE(+) Graduates =2,607

5.7 Personality, Attitudes and Behaviour

Main findings: Personality, Attitudes and Behaviour

- Memo© values correlate with career success and European identity. Those who record high results on the personality, behaviours and attitudes scales employed in this study also show high values when it comes to career success and European Identity.
- Memo© personality values increase during mobility and because of it: analysis of the same individuals before and after mobility shows that there is a significant gain while being abroad, while there is virtually no development during an equivalent period of time for non-mobiles.
- Compared to EIS (2014), students start with slightly lower values but experience larger improvements.
- Erasmus+ participants show much higher scores than non-mobile students, especially in Cultural and Social Openness even prior to departure. These scores improve over the mobility period. However, larger increases occur with regards to Self-Confidence.

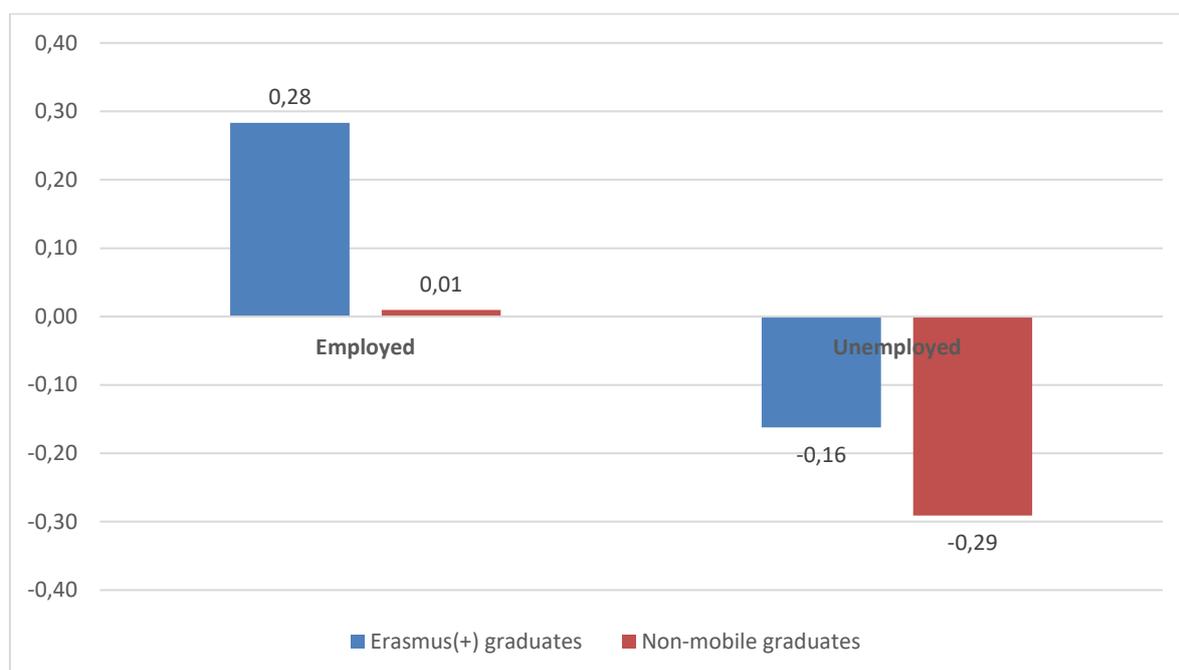
Memo© is a psychometric tool used to measure personality dispositions, attitudes and behaviours such as self-confidence and openness to new experiences (see chapter 3 for more details). Memo© values higher than 0 indicate a factor stronger than an average Erasmus+ participants before the mobility.

Memo© correlates with career success and European identity

The aspects of personality, attitudes and behavioural patterns measured by memo© prove to be strongly related to career success and employability. Among Erasmus(+) graduates, there is a relatively strong correlation of $r = .35$ ($p < .001$) between the memo© Total and the Job Quality Index. In other words, the higher the memo© value, the more satisfied the graduates are with their jobs in aspects such as income, job security, career perspective and meaningful tasks.

At the same time, the average memo© of unemployed Erasmus(+) graduates is significantly lower than among those who have a job, indicating that graduates with lower memo© scores are more likely to be unemployed. Erasmus(+) graduates in employment presented distinctively higher values on their memo© scores compared to other groups. Unemployed Erasmus(+) graduates show higher scores than employed non-mobiles, while unemployed non-mobiles registered substantially lower scores than respondents in the other groups.

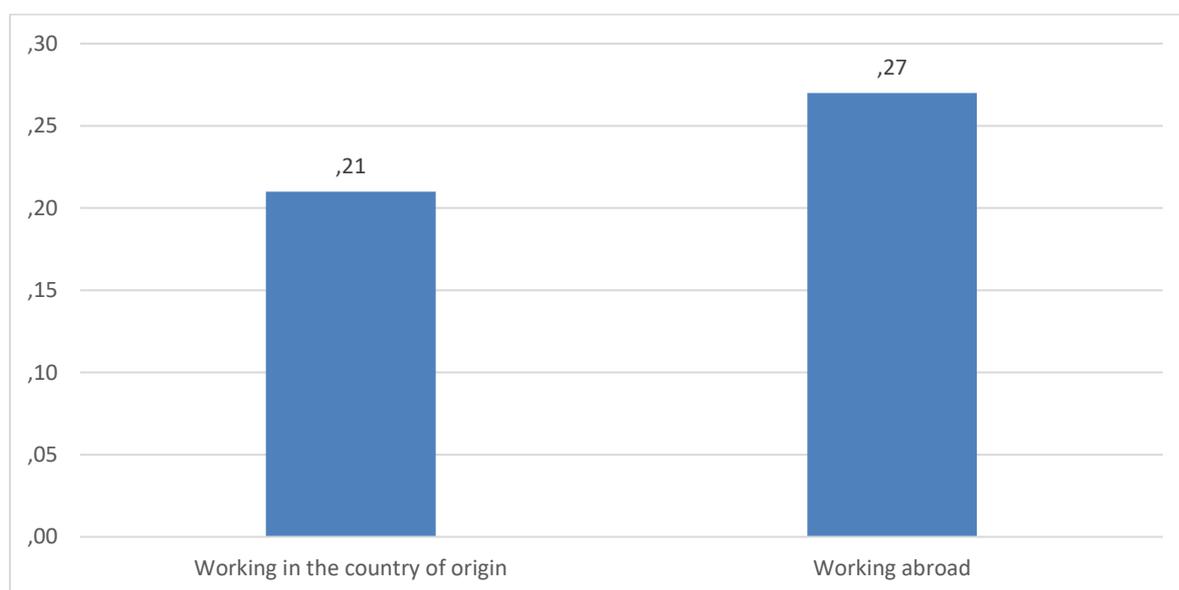
Figure 90. Memo© Total values of employed and unemployed Erasmus(+) graduates and non-mobile graduates



Source: ICF CHE Consult student survey, NE(+) Graduates =843, NNon-mobile graduates = 806

Also, Erasmus(+) graduates who work abroad have on average a higher memo© Total values than those who stay to work in their country of origin.

Figure 91. Memo© Total values of Erasmus(+) graduates based on their current country of work



Source: ICF CHE Consult student survey, NE(+) Graduates =7,368

Moreover, students with strong memo© results consider themselves more European and relate more positively to the European Union. There is a correlation of $r = .19$ ($p < .001$) between the European Identity Index and memo© Total, indicating a slight but significant relationship.

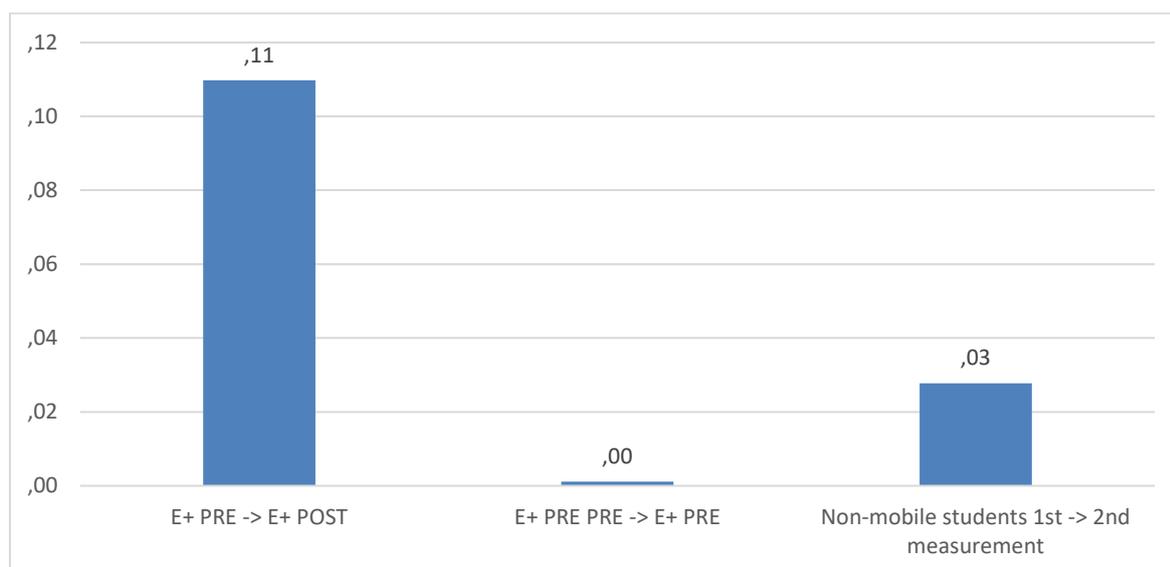
Memo[®] values increase during mobility and because of it.

Analysis of the paired data of Erasmus+ participants shows a substantial increase in the memo[®] values during the mobility period. Surveying the same participants before and after the mobility reveals the traits measured increase by .11 on average, a statistically significant gain.

Longitudinal data were collected also from two control groups. First, a panel of non-mobile students was assessed twice, the second assessment taking place 6 months after the first one (i.e. a period which is roughly equivalent to the mean length of a mobility period abroad under Erasmus+). Students who graduated in the meantime were not included. This group shows minor increase in their memo[®] Total on average, but substantially smaller than the increase of mobile students.

Second, a sample of students set up to take part in the mobility was surveyed after registering for their stay abroad (3-6 months before departure) and then again about two weeks before departure. This group is fully comparable to mobile students as they are technically the same group. This group shows virtually no development in the memo[®] Total on average, i.e. the behavioural patterns of these students do not change while they are not on the mobility.

Figure 92. Memo[®] Total difference between first and second measurement, paired data

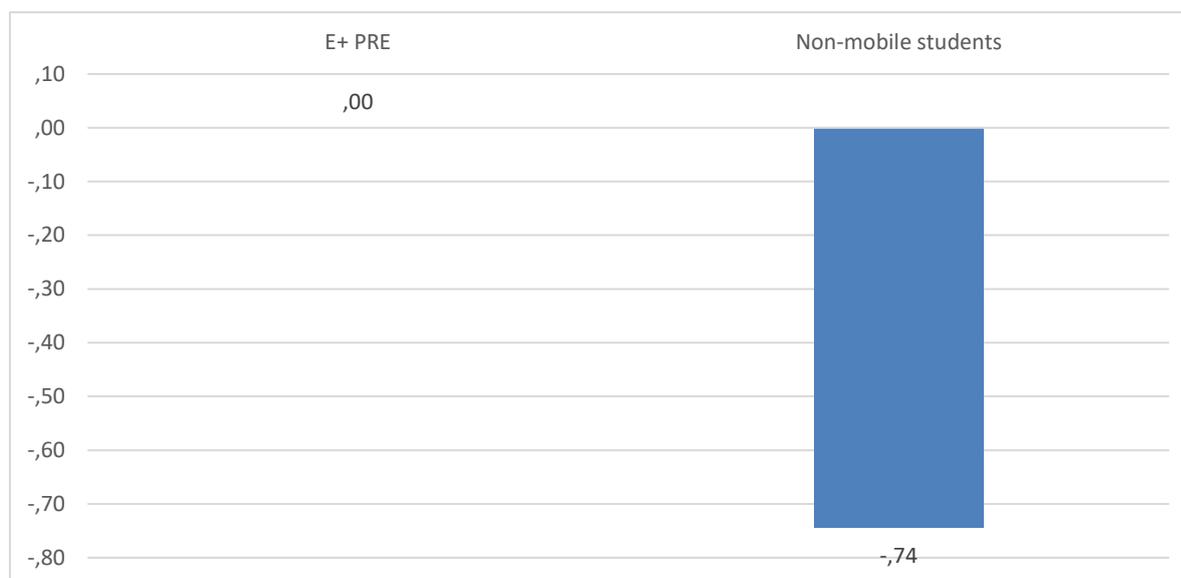


Source: ICF CHE Consult student survey, NE+PRE->E+POST=2,318, NE+PRE PRE->E+PRE=1,144, NNon-Mobiles=163

Erasmus+ participants score better than non-mobiles in Memo[®] even before their mobility starts.

In many impact areas across the report it is revealed that the population of Erasmus+ participants is different from non-mobile students in many aspects, from demographics to opinions. Memo[®] is another such area. The average pre-departure memo[®] Total value of Erasmus+ participants is much higher than of non-mobile students. The difference is even substantially larger than the increase gained during the mobility. In that sense, the stay abroad brings benefits to the participants but their advantage prior to mobility is already large.

Figure 93. Memo[©] Total values of non-mobile students and Erasmus+ participants prior to mobility¹⁰¹



Source: ICF CHE Consult student survey, NE+ PRE=17,837, NNon-Mobiles=1,618

Compared to EIS (2014), students start with slightly lower memo[©] values but improve these scores more during their mobility period, achieving higher scores at the end of their mobility –in particular on items related to self-confidence and goal orientation

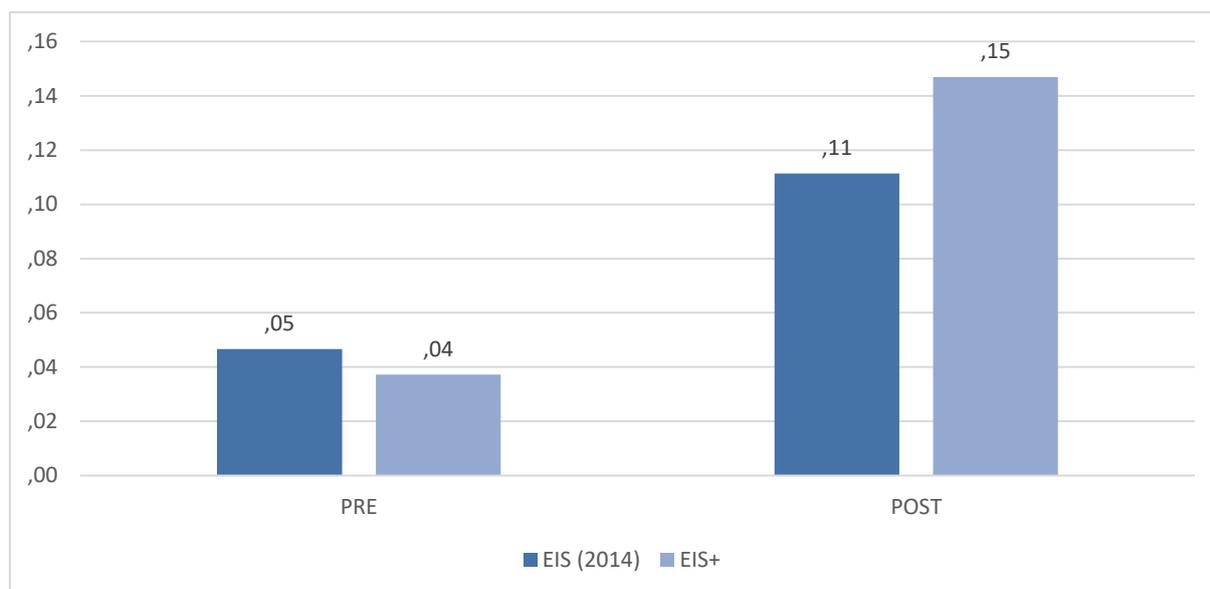
Although the memo[©] method applied in this study is different from the EIS (2014), it was possible to re-calculate the results of 2014 according to a methodology that is very similar to that employed in the present report.¹⁰² Thanks to that, it is possible to compare the memo[©] values of Erasmus/Erasmus+ participants in 2013 and those in 2017-18 - when the data collection for this study took place.

The analysis reveals that the results of EIS respondents were slightly higher, compared to the current EIS+ participants. This indicates that the Erasmus programme was in some respects more selective than Erasmus+, which encourages broader participation. At the same time, the respondents in the current study show greater added value of the mobility, scoring higher than EIS participants, especially on Self-Confidence and Goal Orientation, in the post-return assessment. While in the EIS the gain for Erasmus students during the mobility period in Self-confidence scores was 0.04, this was 0.19 for EIS+ participants.

¹⁰¹ The fact that the value of E+ PRE equals to zero is result of the standardisation method applied. Cf. Methodology chapter for more details.

¹⁰² Three items (out of the total of 15) used for this report were not included in the EIS (2014) questionnaires. For that reason, a reduced set of items is applied for the comparison between the two studies. Post-hoc analysis revealed that the effect of excluding three items from the analysis is very small and the main results remain almost the same.

Figure 94. Memo[©] Total values of Erasmus+ participants prior to mobility and after their return¹⁰³ (2014 and 2018)



Source: ICF CHE Consult student survey, NEIS (2014)=11,637, NE+=2,318

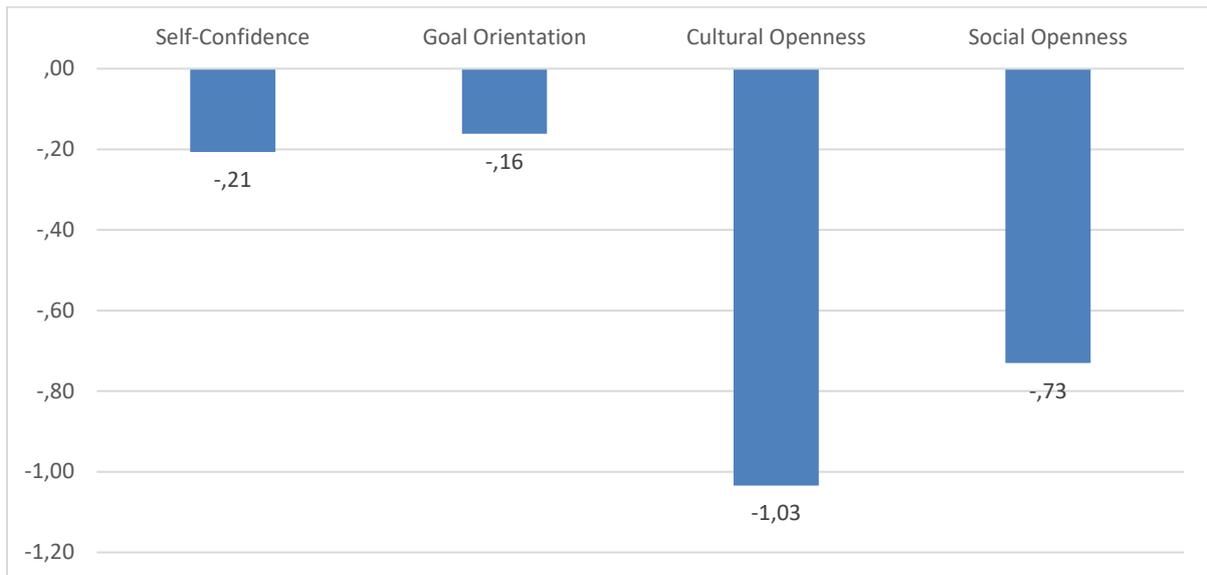
Erasmus+ participants show much more Cultural and Social Openness than non-mobile students and they improve, in particular, in Self-Confidence

Four factors reflecting various aspects of personality, attitudes and behaviour were measured by the memo[©] method: Self-Confidence, Goal Orientation, Cultural Openness and Social Openness.

Comparison of non-mobile students and Erasmus+ students prior to mobility shows that while non-mobile students achieve somewhat lower values in Self-Confidence and Goal Orientation, the main difference between the two groups is related to Social and, in particular, Cultural Openness. In other words, students who decide to go abroad with Erasmus+ are exceptional in their openness towards new ideas, show more tolerance towards other cultures and more willingness to meet new people and establish new friendships.

¹⁰³ The paired sample results are used in this comparison for EIS+ respondents as these data indicate the size of change between PRE and POST better. The non-paired sample results are slightly smaller (PRE=.00, POST=.10) but the size of change is very similar.

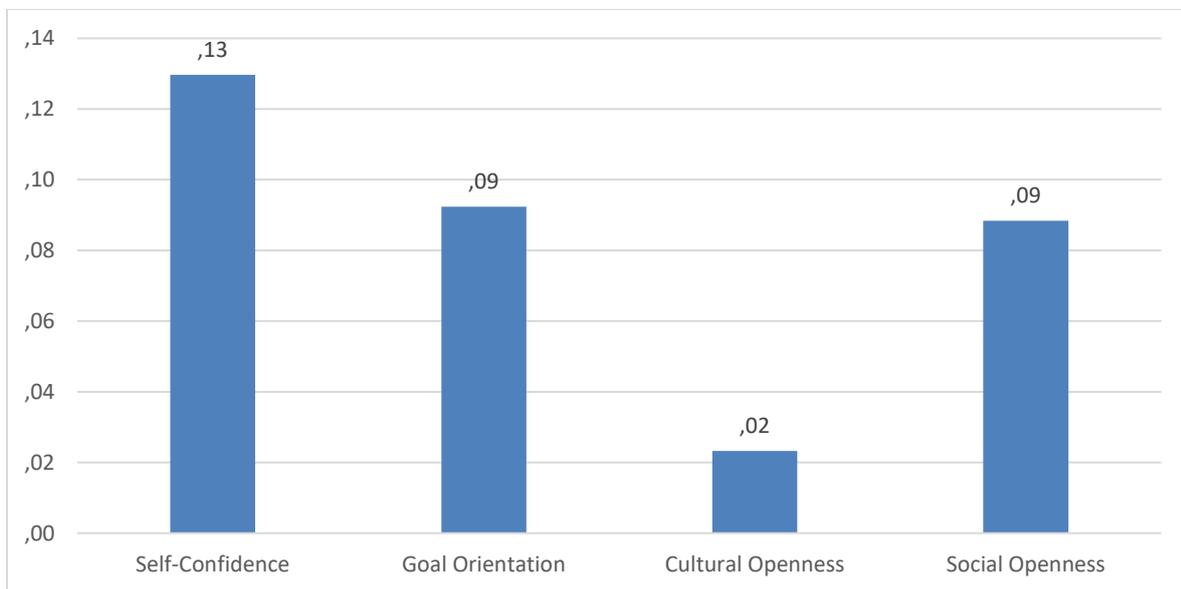
Figure 95. Memo[®] factors of non-mobile students, compared to E+ PRE¹⁰⁴



Source: ICF CHE Consult student survey, NNon-Mobile=1,618

During their stay abroad, Cultural Openness of Erasmus+ participants does not increase much further – perhaps there is not much space for further growth. However, the participants’ gain is pronounced in other factors and, in particular, in Self-Confidence.

Figure 96. Size of change in memo[®] factors from E+ PRE to E+ POST, paired data



Source: ICF CHE Consult student survey, NPaired Data=2,318

¹⁰⁴ E+ PRE results are always equal to zero, as a result of the standardisation method. Cf. the methodology chapter for more details.

6 Impact on HEI staff

6.1 Access to Mobility - Barriers and Motivations

Main findings: Access to mobility: barriers and motivations

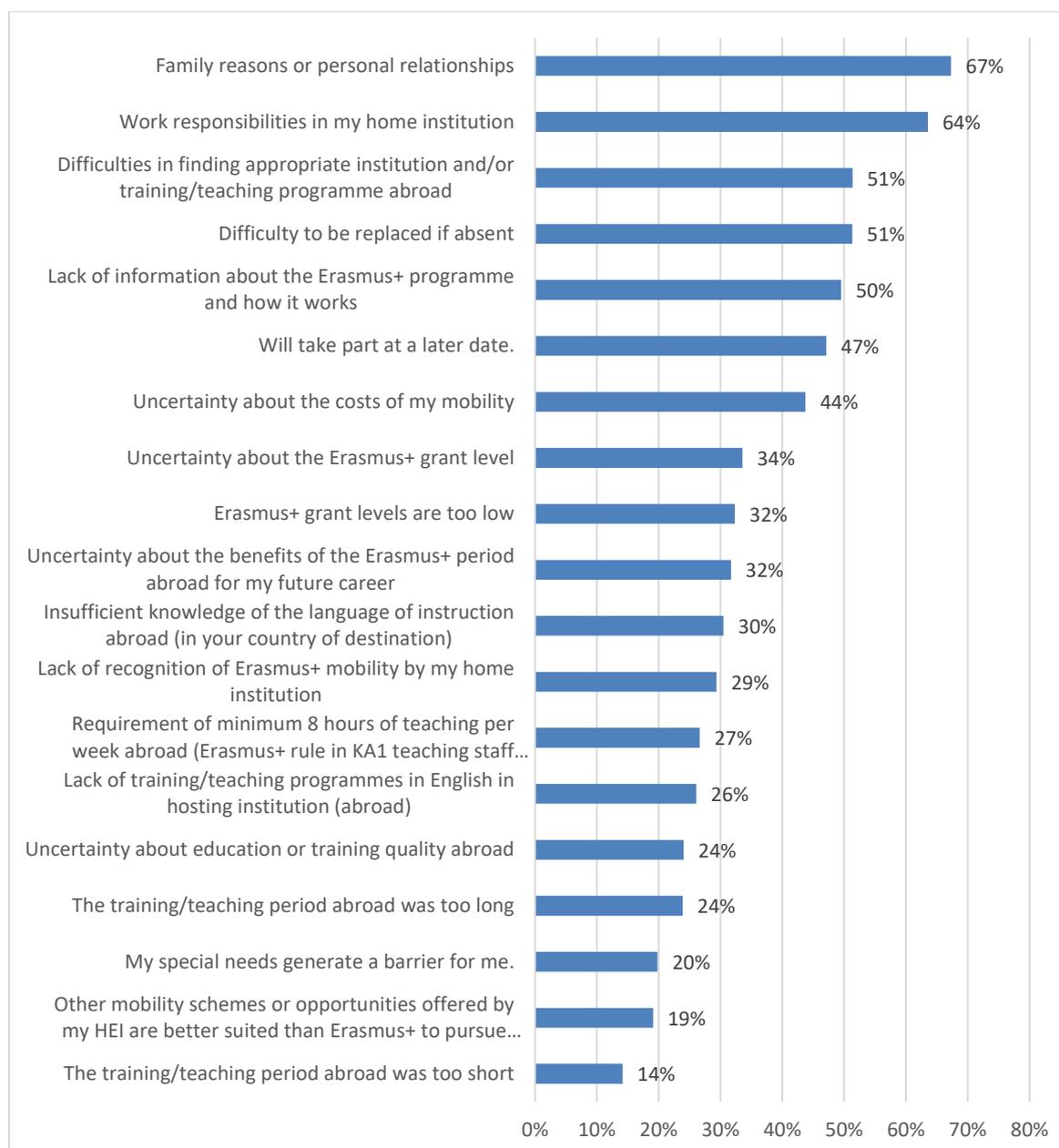
- Personal reasons and work responsibilities hinder staff participation in Erasmus+: the most frequent barriers are family reasons and personal relationships (67%), followed by working responsibilities (64%).
- 84% of staff participants find that the duration of stays abroad is adequate
- Financial support provided by the programme is an important factor stimulating mobility according to 85% of staff
- Professional and institutional advancement are important motivations for participants: over 90% of respondents reported the opportunity to establish new collaborations, to improve their competences in their field, to reinforce collaboration with a partner institution abroad or to internationalise their professional networks as reasons to take part in the programme.

This section summarises findings concerning barriers and motivations for Erasmus+ staff mobility including aspects such as programme duration and expected institutional advancement. The group is comprised of both teaching and non-teaching individuals; staff reported to have either academic, administrative or technical responsibilities. A differentiation between the subgroups is made where relevant.

Personal reasons and work responsibilities hinder participation in Erasmus+ staff mobility

The most frequent barrier for staff not taking part in an Erasmus+ mobility are family reasons and personal relationships (67%), followed by working responsibilities in the home institution (64%). Besides, difficulties to find an appropriate institution abroad and a lack of information about the Erasmus+ programme and how it works are also among the top five reasons for not taking part in an Erasmus+ mobility period.

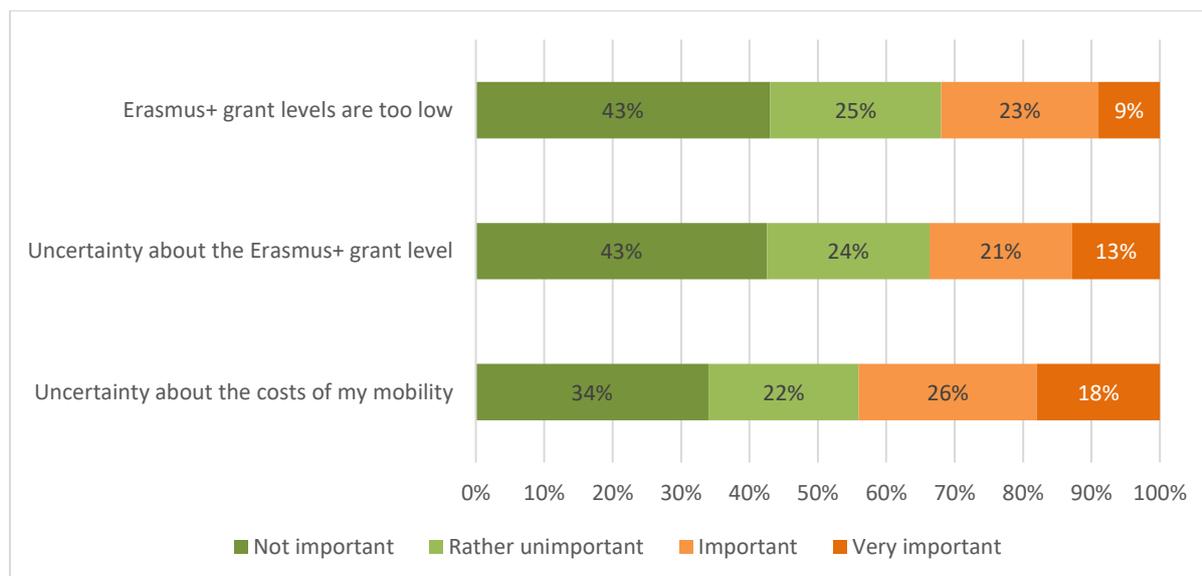
Figure 97. Reasons for not taking part in ERASMUS+ for non-mobile staff



Source: ICF CHE Consult staff survey, NNon-Mobile Staff=872Sum of answers "important" + "very important" displayed.

When asking non-mobile staff about the reasons for their decision not to undertake a staff mobility period, financial reasons featured as follows: 56% consider uncertainty about the costs of a mobility rather unimportant or completely unimportant; uncertainty about the Erasmus+ grant level was (rather) unimportant for 67% when they decided not to undertake an Erasmus+ mobility period and 68% reported that Erasmus+ grant levels being too low was not an important aspect for their decision.

Figure 98. Financial barriers for non-mobile staff



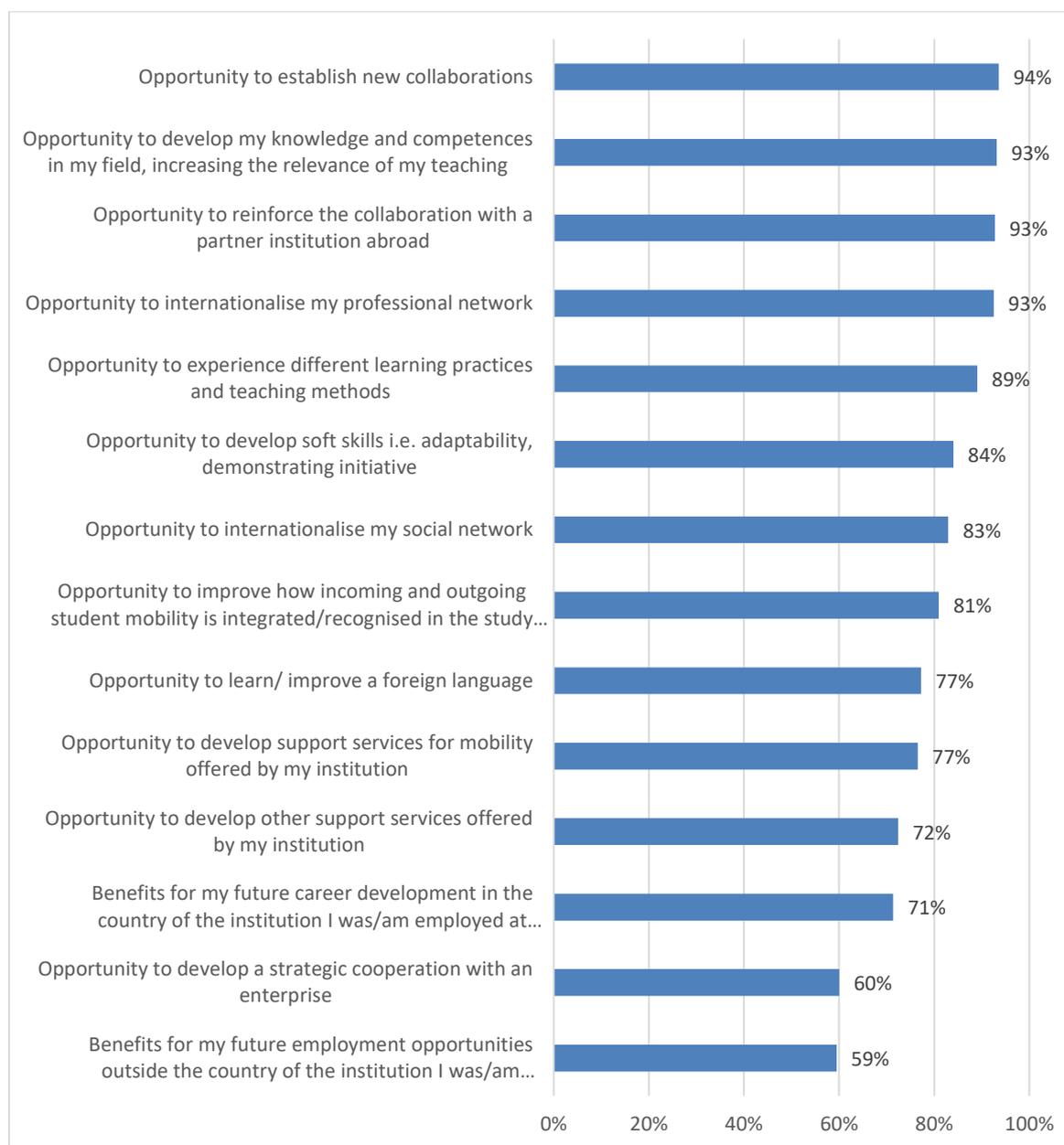
Source: ICF CHE Consult staff survey, N Non-Mobile Staff=376

Professional and institutional advancement are important motivations for participants

The motivations for Erasmus+ staff taking part in a mobility period are clearly related to collaboration and networking, the development of field knowledge and the opportunity to experience different learning and teaching methods. Although the questions and items in the first EIS Study (2014) were slightly different, they are comparable: As the order of the different reasons for taking part in a staff mobility reported by staff did not change, Erasmus+ staff seem to remain motivated by the same reasons as in the previous study.

In most items, the difference between teaching and non-teaching staff is rather small, including the development of support services for mobility (75% vs 77% resp.). There is an expected difference in "Opportunity to develop other support services offered by my institution" – 71% vs 79% respectively.

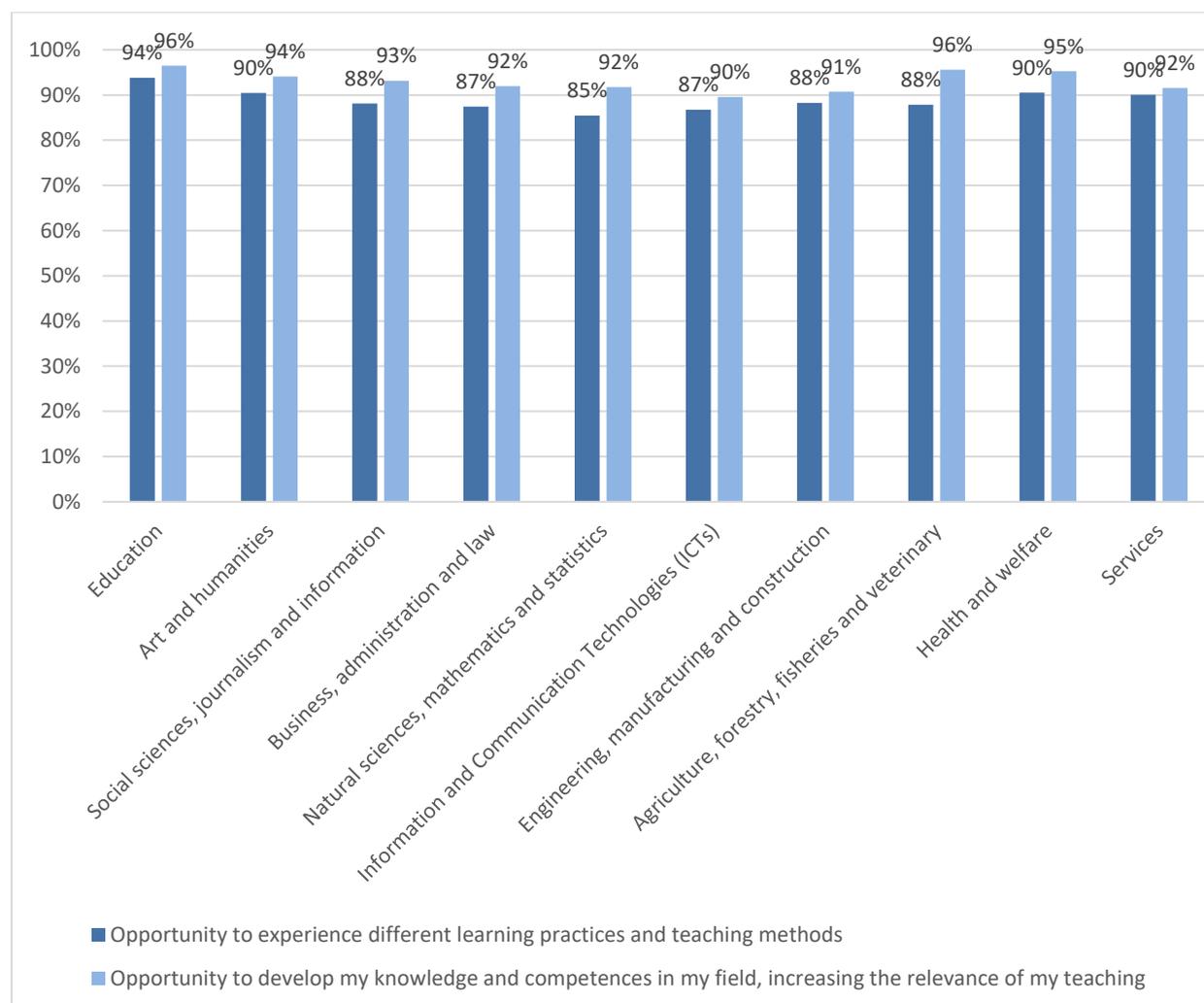
Figure 99. Reasons for being interested in / for undertaking staff mobility abroad



Source: ICF CHE Consult staff survey, N E+ Staff=7,654. Sum of answers "important" + "very important" displayed.

Figure 100 shows subject variations in the two most important teaching-related motivations for being interested in staff mobility (the opportunity to develop their knowledge in their field increasing the relevance of their teaching and the opportunity to experience different learning practices and teaching methods). Although the differences are rather small staff from Education, Agriculture, forestry, fisheries and veterinary, Health and Welfare as well as Arts and Humanities are stronger motivated by the development of knowledge in their fields. The experience of different learning practices and teaching methods was comparatively (very) important for staff from Education, Arts and Humanities as well as Health and Welfare and Services.

Figure 100. Mobile staff's professional motivations by fields of study

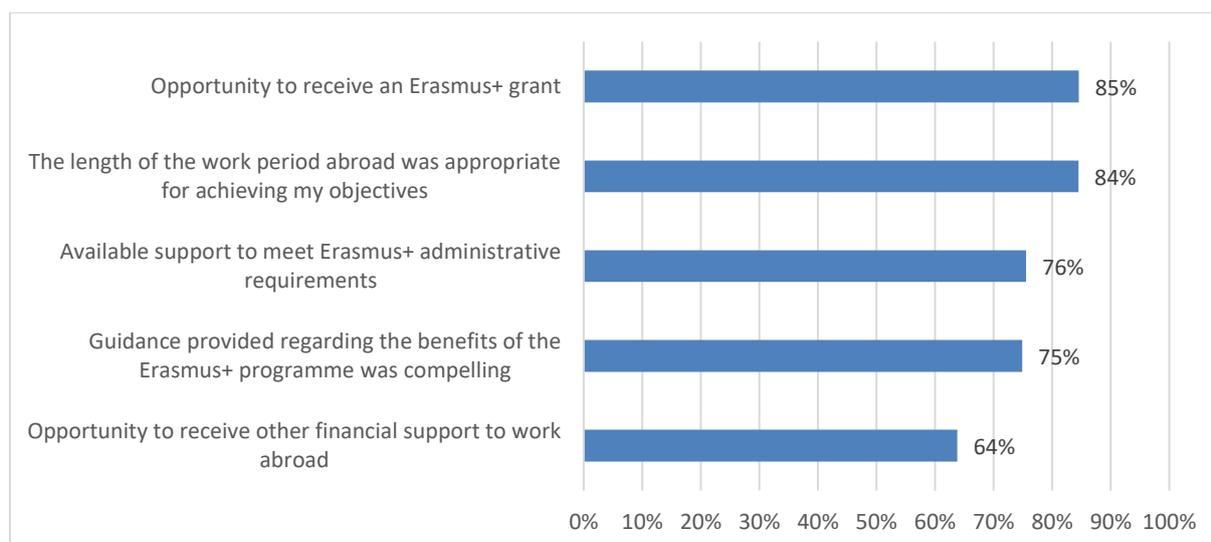


Source: ICF CHE Consult staff survey, N E+ Staff=1,200. Sum of answers "important" + "very important" displayed.

The programmed duration of stay abroad under Erasmus+ and the financial support offered by the programme are important stimulating factors for participation

The opportunity to receive an Erasmus+ grant was as important as the length of the stay abroad as a stimulating factor for undertaking an Erasmus+ staff mobility. Guidance and support are not as important as financial support but are also of relevance during the decision process for a staff mobility abroad.

Figure 101. Important aspects for undertaking a staff mobility period



Source: ICF CHE Consult staff survey, NE+ Staff=7,483. Sum of answers "important" + "very important" displayed.

6.2 Innovative Teaching Methods

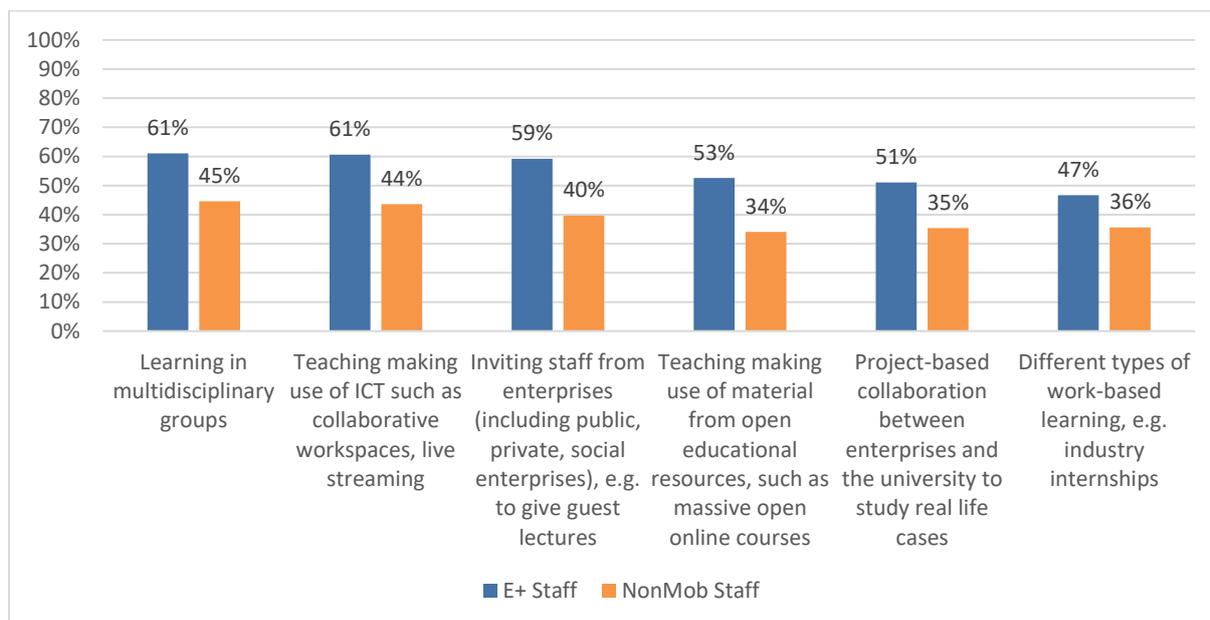
Main findings: Innovative teaching methods

- Erasmus(+) teaching staff use innovative teaching methods more often than non-mobile teaching staff: 59% of Erasmus+ participants make use of ICTs in their teaching, compared to 44% of non-mobile staff; 53% of Erasmus+ staff make use of material from open educational resources in their teaching, compared to 34% of non-mobile teaching staff.
- Erasmus(+) experience helps staff to use more innovative teaching methods: 43% stated that they started to use at least one innovative teaching method after their mobility.
- Participants from Eastern Europe and Partner Countries reported to learn most from mobility when it comes to innovative teaching methods.

Erasmus(+) teaching staff use innovative teaching methods more often than non-mobile staff

Mobile teaching staff, in particular participants in the Erasmus+ programme, use innovative teaching methods substantially more often than non-mobile teaching staff. Especially the use of material from open educational resources, such as massive open online courses and the invitation of staff from enterprises is markedly more common among mobile teaching staff.

Figure 102. Use of innovative teaching methods for Erasmus+ teaching staff and non-mobile staff

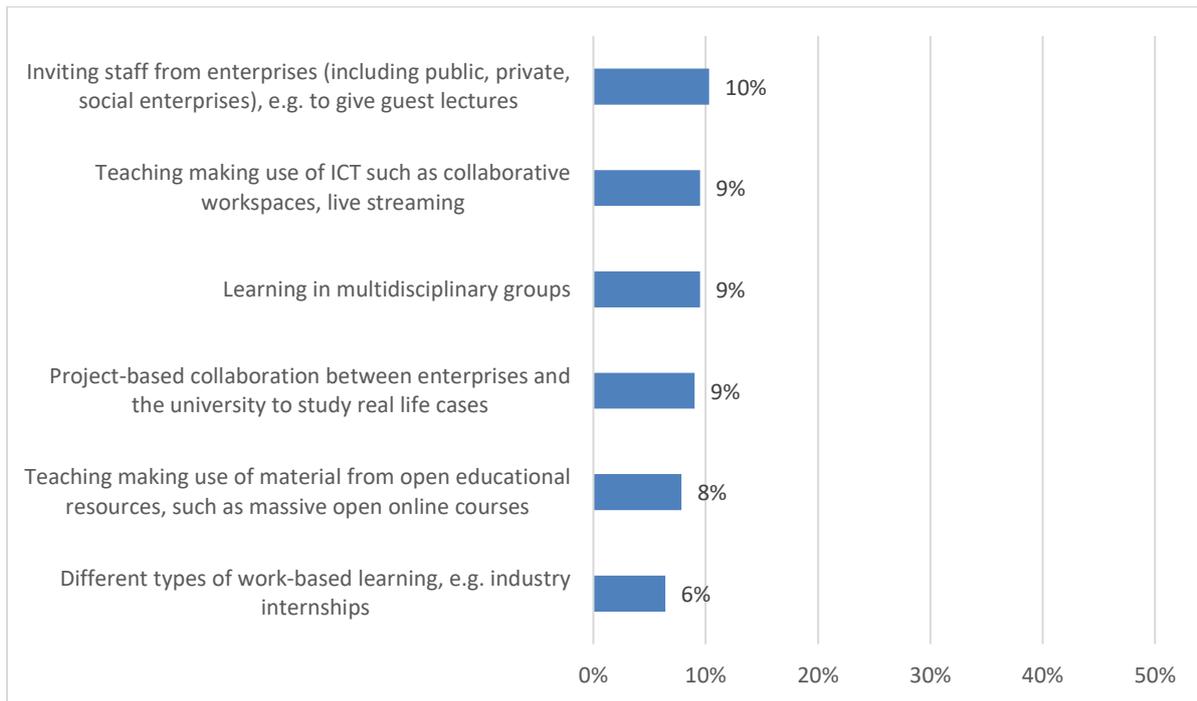


Source: ICF CHE Consult staff survey, NE+ Staff=7,556, NNon-Mobile Staff=576

Erasmus(+) experience helps staff to use more innovative teaching methods

Staff, who participated in Erasmus+ were asked whether they had started to use different innovative teaching methods after their mobility experience. Values here are expected to be rather small because it is about change and the implementation of new practices. Nevertheless, the impact reported is sizeable: 10% started to invite staff from enterprises and 9% began to use multidisciplinary group learning, project based collaborations between enterprises and university and use of ICT. Moreover, around 43% of staff members stated that they started using at least one of those teaching methods.

Figure 103. Share of Erasmus+ staff that started to use innovative teaching methods after their stay abroad

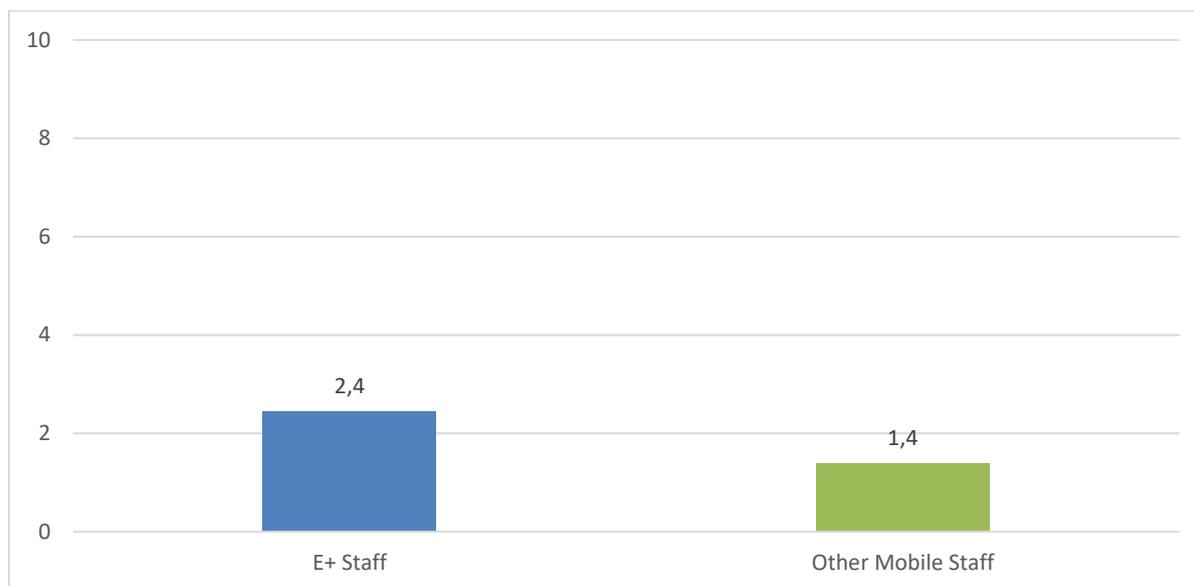


Source: ICF CHE Consult staff survey, NE+ Staff=10,021

The Impact on Teaching Methods Index summarises the perceived improvement of the above presented teaching methods into one value. An Index value of 1 would indicate that the participants reported they learned to use on average one of the listed methods anew/better. A value of 0 would occur only if no participant would perceive impact on the use of any methods at all.

Figure 104 shows, that there is a substantial and significant difference between former Erasmus+ participants and staff who took part in another mobility: Former Erasmus+ participants perceive a much higher impact of their mobility on their teaching practices.

Figure 104. Impact On Teaching Methods Index for Erasmus+ participants and other mobile staff

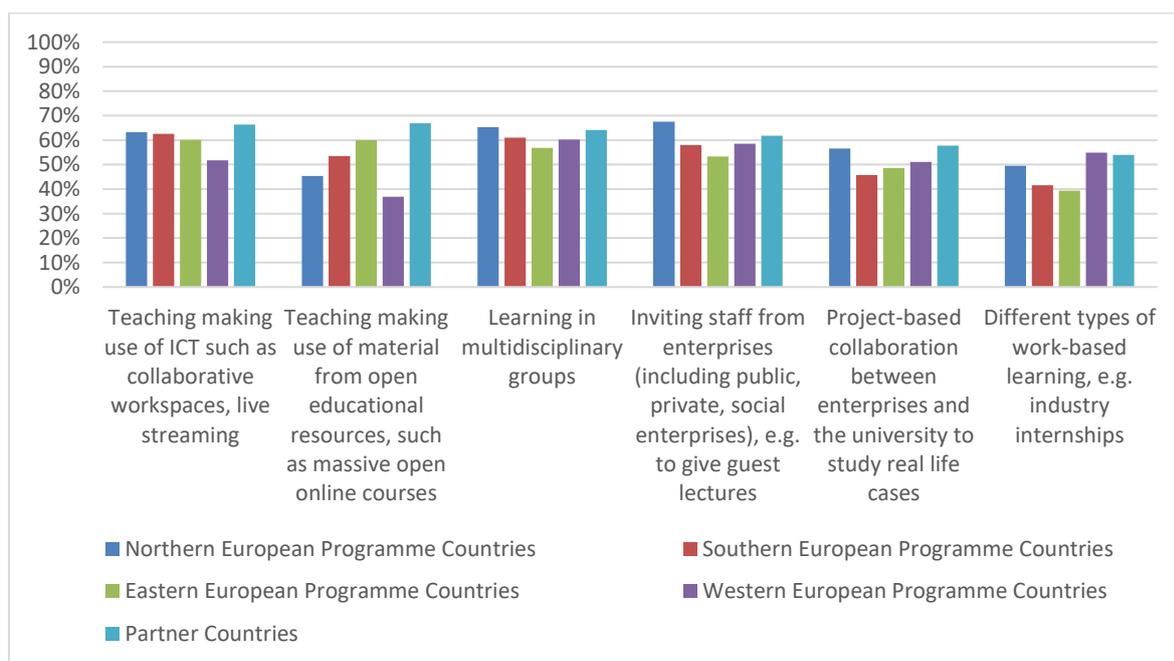


Source: ICF CHE Consult staff survey, NE+ Staff=7,664, NOther Mobile STaff=356

Regional differences in the use of innovative teaching methods by Erasmus+ participants

There are substantial regional differences in the use of innovative teaching methods. While Northern European Programme Countries are the leaders in collaborations with industry and teaching in multidisciplinary groups, other methods, such as the use open educational resources are not that common in that region. Staff from Partner Countries, conversely, show above average use of methods across all items.

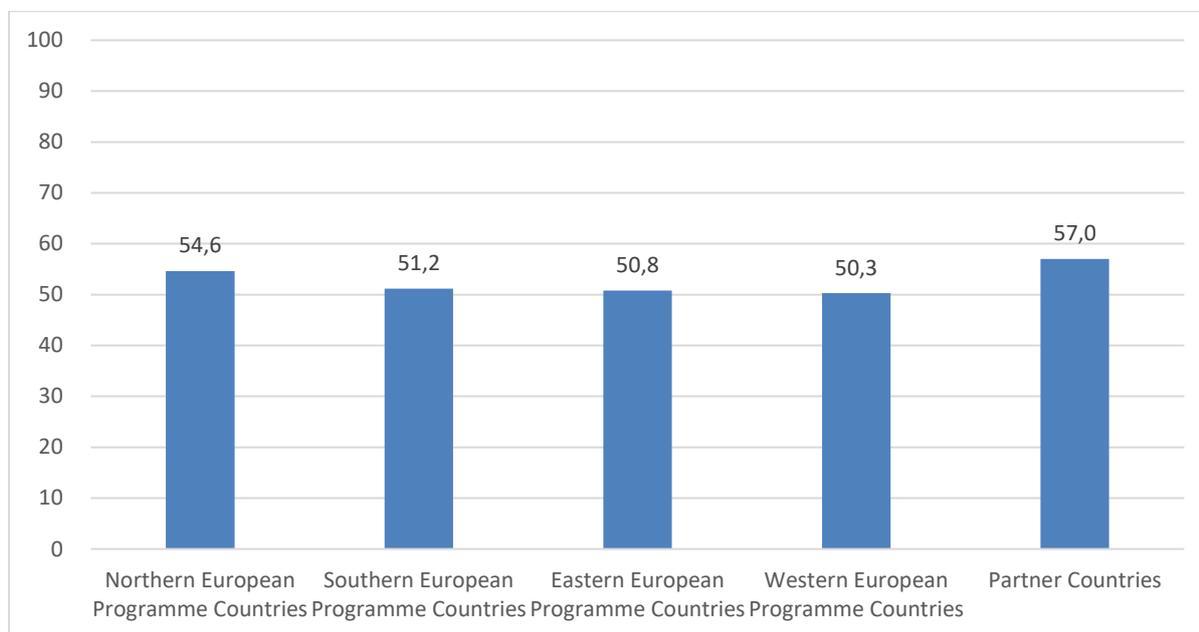
Figure 105. Usage of innovative teaching methods, as reported by staff's own use of the method, by regions



Source: ICF CHE Consult staff survey, N E+ Staff=7,262

All items combined to an index, teaching staff from Eastern and Western European Programme Countries report to use innovative teaching methods in general less often than staff from the other programme regions. Teaching staff from Northern European Programme Countries and from Partner Countries use these methods the most.

Figure 106. Innovative Teaching Methods Index by region

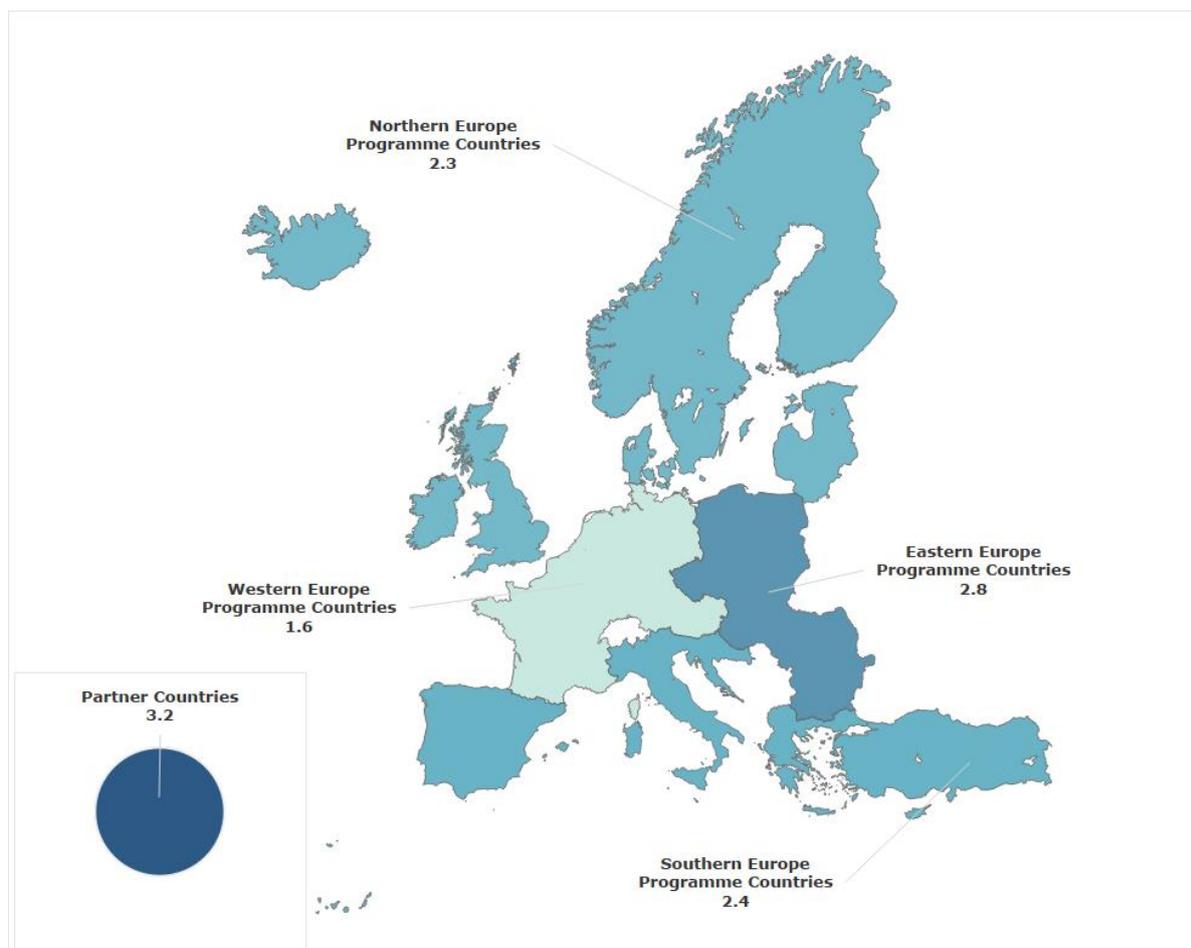


Source: ICF CHE Consult staff survey, NE+ Staff=7,252

Participants from Eastern Europe and Partner Countries feel to learn most from Erasmus+ mobility

The perceived gain on the use of innovative teaching methods, measured with the Impact on Teaching Methods Index, is the highest for Erasmus+ participants from Eastern European Programme Countries and Partner Countries. Since teaching staff from Northern European Programme Countries already use these methods more often, it could be expected that gains through a mobility in this respect are more modest. However, the high value on this Index for Partner Countries shows that staff in this group benefits substantially with regards to the introduction of new teaching methods in their practice, even though they showed the highest regional level of use of innovative methods.

Figure 107. Impact on Teaching Methods Index by region



Source: ICF CHE Consult student survey, NE+ Staff=7,364

6.3 Competencies

Main findings: Competencies

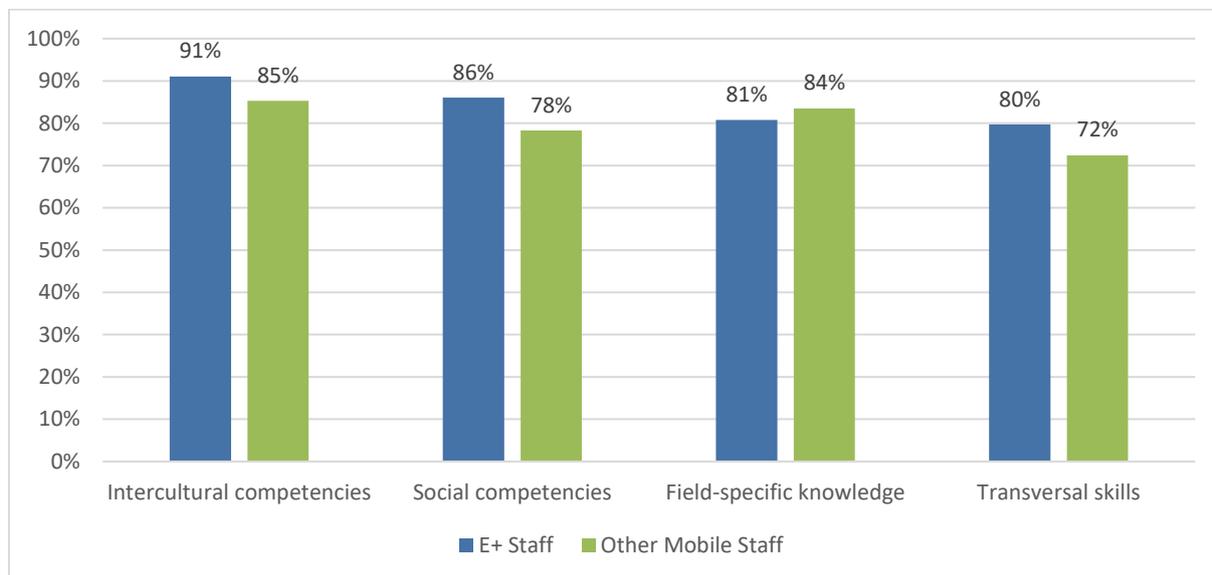
- Erasmus+ staff participants perceive greater benefits for their transversal and social skills than participants from other mobility programmes: 91% reported a gain in intercultural competencies and 86% in their social competencies, compared to 85% and 78% respectively from other mobility programmes.
- The perceived impact on competencies is higher for Erasmus+ participants from Southern and Eastern Europe and from Partner Countries than for those from other regions

This section deals with the competencies gain as perceived by the Erasmus+ staff participants including comparisons with staff who has participated in other mobility programmes.

Erasmus+ staff participants reported greater benefits in terms of transversal and social skills development than participants from other mobility programmes

Erasmus+ participants reported a greater impact on their transversal skills, social competencies and intercultural competencies than staff who participated in other mobility programmes (Figure 108). The difference between both groups is greatest for transversal skills and social competencies. While the impact on field-specific knowledge is slightly lower for Erasmus+ participants compared to other mobile staff, it is still considerable.

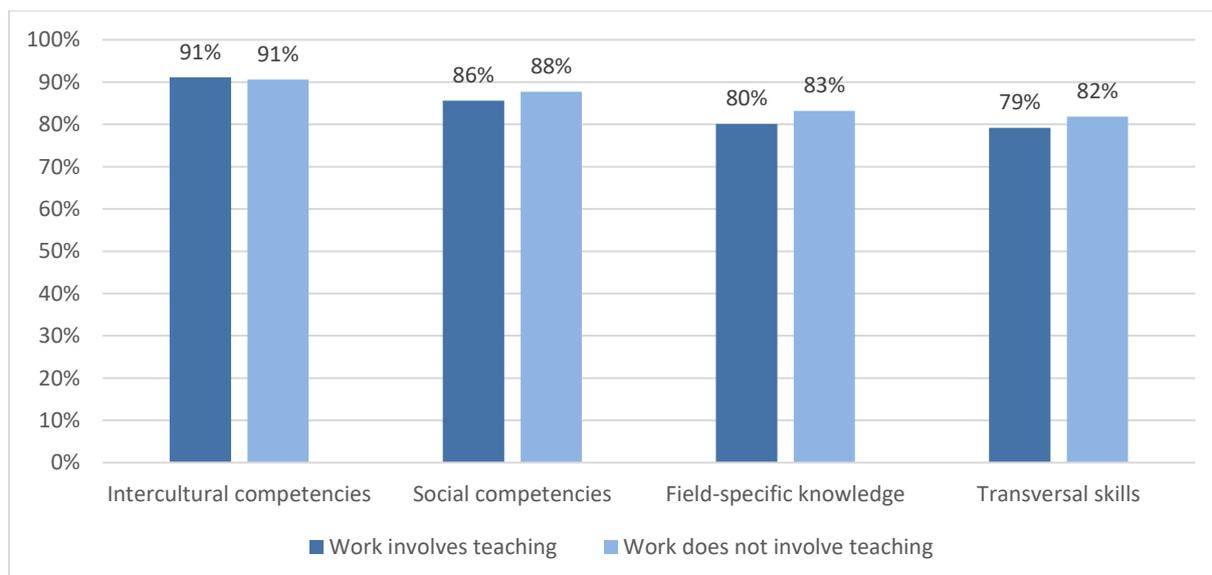
Figure 108. Reported gain in competencies among Erasmus+ staff and other mobile staff



Source: ICF CHE Consult staff survey, NE+ Staff=7,931, NOther Mobile Staff=286

Differences between Erasmus+ teaching and non-teaching staff are smaller. Non-teaching staff perceive a slightly higher impact on field-specific knowledge, transversal skills and social competencies (Figure 109). Non-teaching staff are academic personnel and faculty without teaching assignments (at time of filling in the questionnaire) who may participate for instance in staff weeks (seminars) or engage in job shadowing.

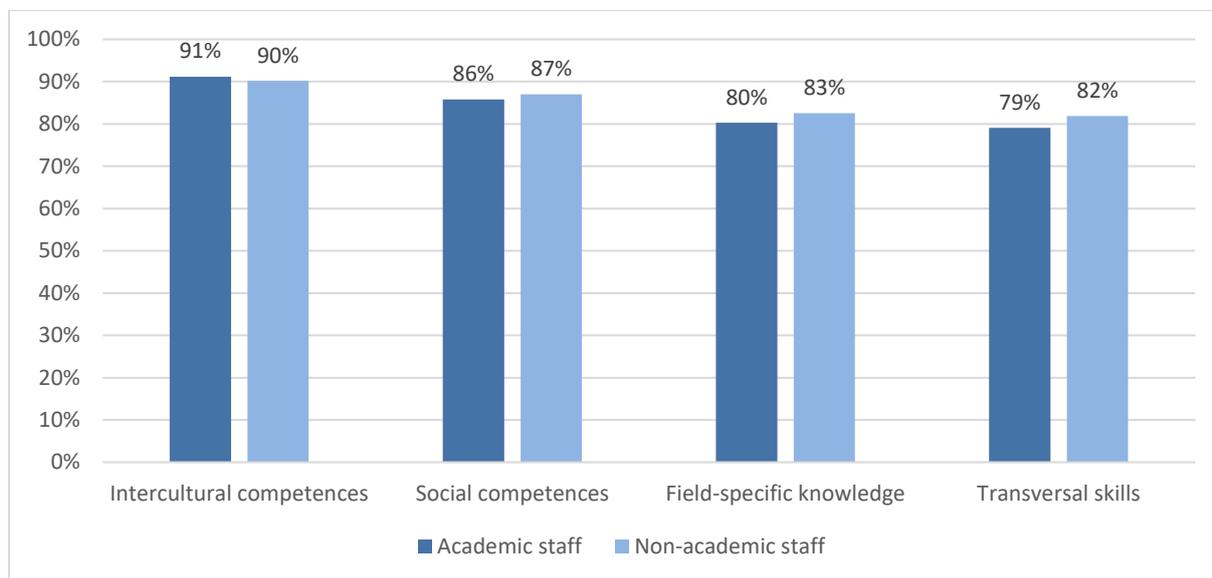
Figure 109. Reported gain in competencies among E+ teaching and non-teaching staff



Source: ICF CHE Consult staff survey, N E+ Staff=7,931

Erasmus+ non-academic staff report slightly higher gains than Erasmus+ academic staff, in the areas of field specific knowledge, transversal skills and social competences, but the difference between both groups are also very small in this case (Figure 110).

Figure 110. Reported gain in competencies among academic and non-academic staff

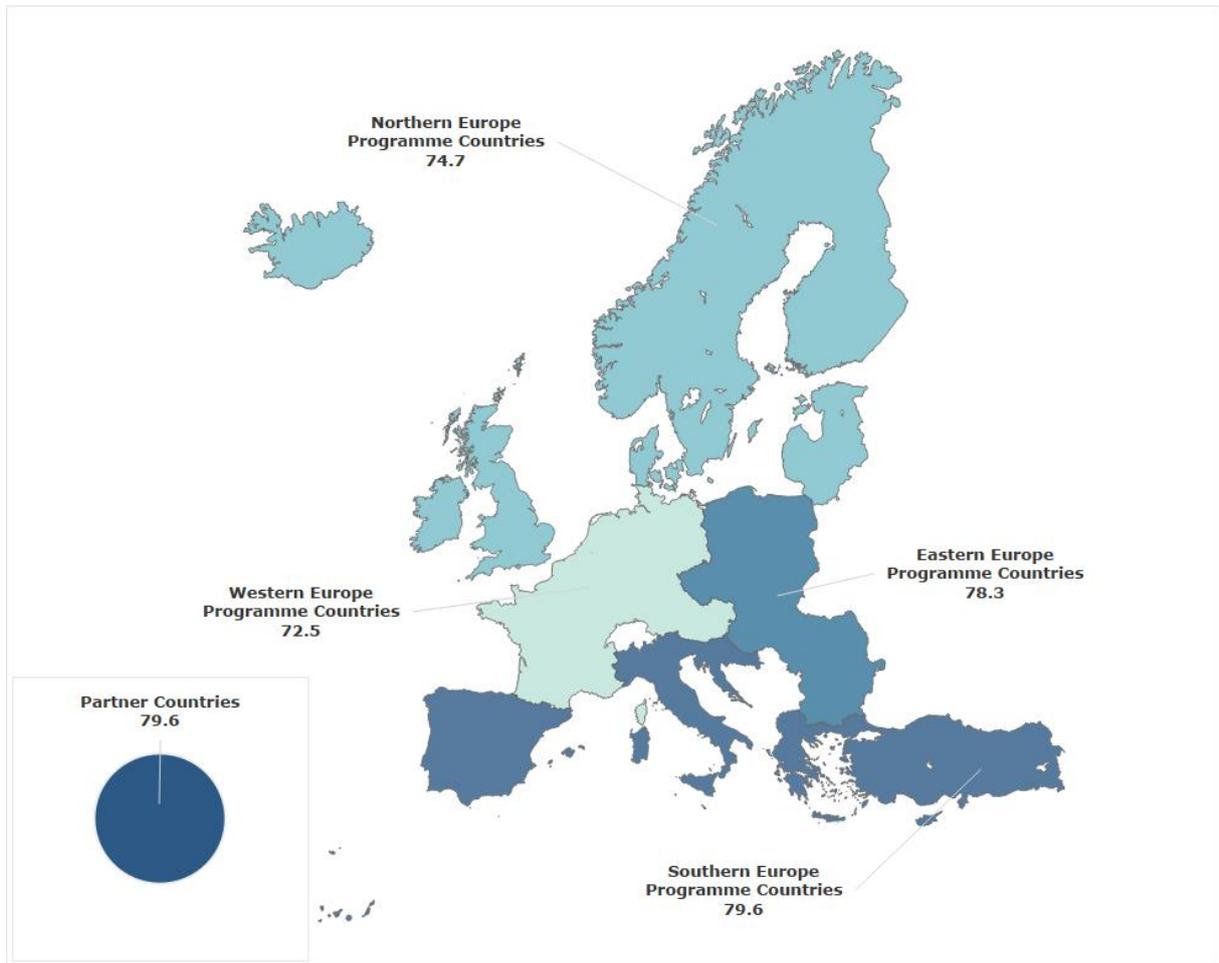


Source: ICF CHE Consult staff survey, N E+Staff=7,237

The perceived impact on competencies is highest for Erasmus+ participants from Southern and Eastern Europe and from partner countries

The Competence Impact Index is higher for Eastern and Southern European Programme countries and Partner Countries than for other regions. The lowest impact on competencies was reported by Erasmus+ staff in Western European Programme Countries (Figure 111).

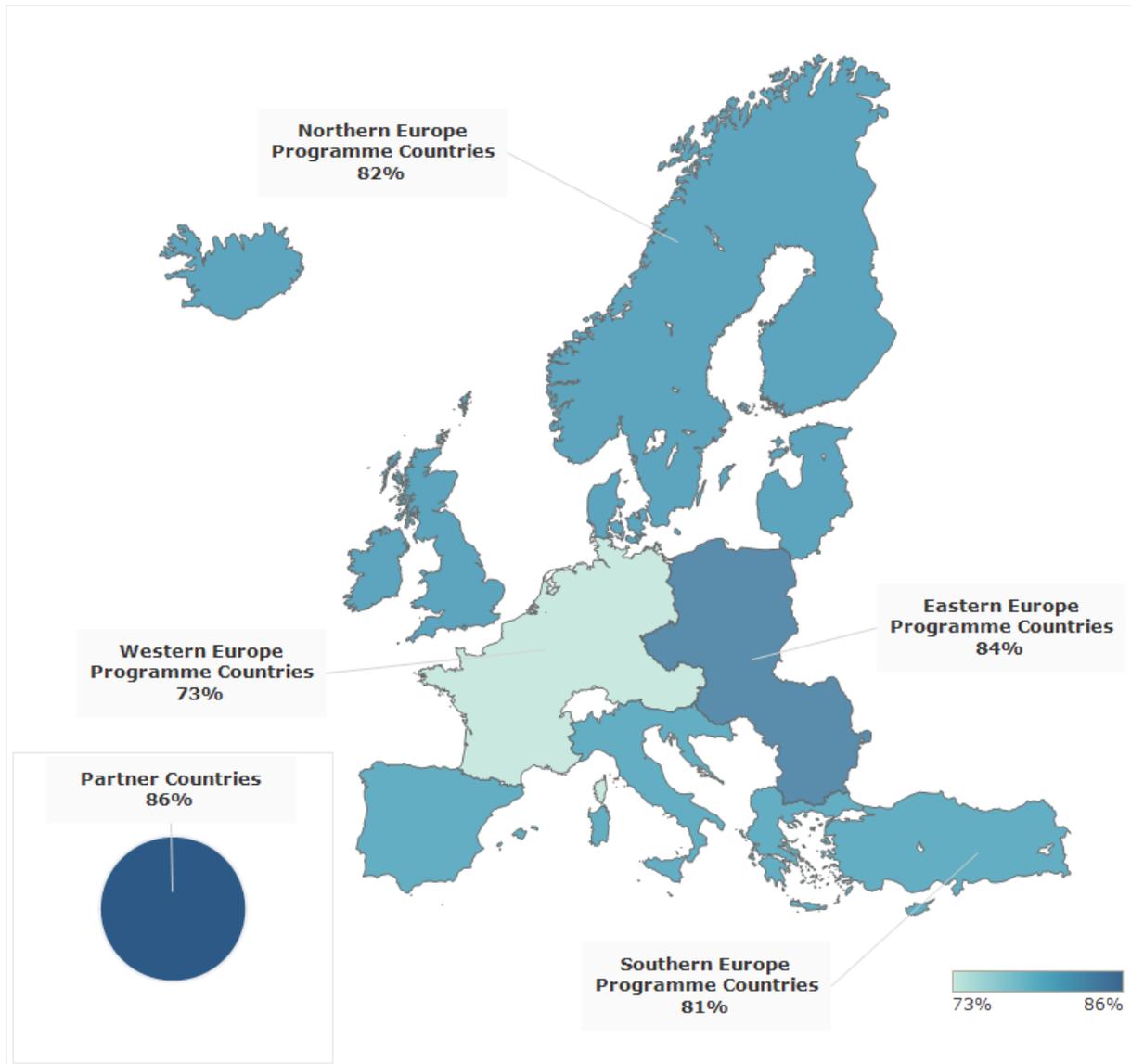
Figure 111. Competence Impact Index, by region



Source: ICF CHE Consult staff survey. N E+Staff=7,564

Besides, looking at field-specific knowledge in particular, again, Western European Programme Countries report the lowest impact. Partner Countries reported the highest impact level (Figure 112).

Figure 112. Impact on the development of field-specific knowledge, by region



Source: ICF CHE Consult staff survey. N E+Staff=7,636

6.4 European Identity

Main findings: European identity

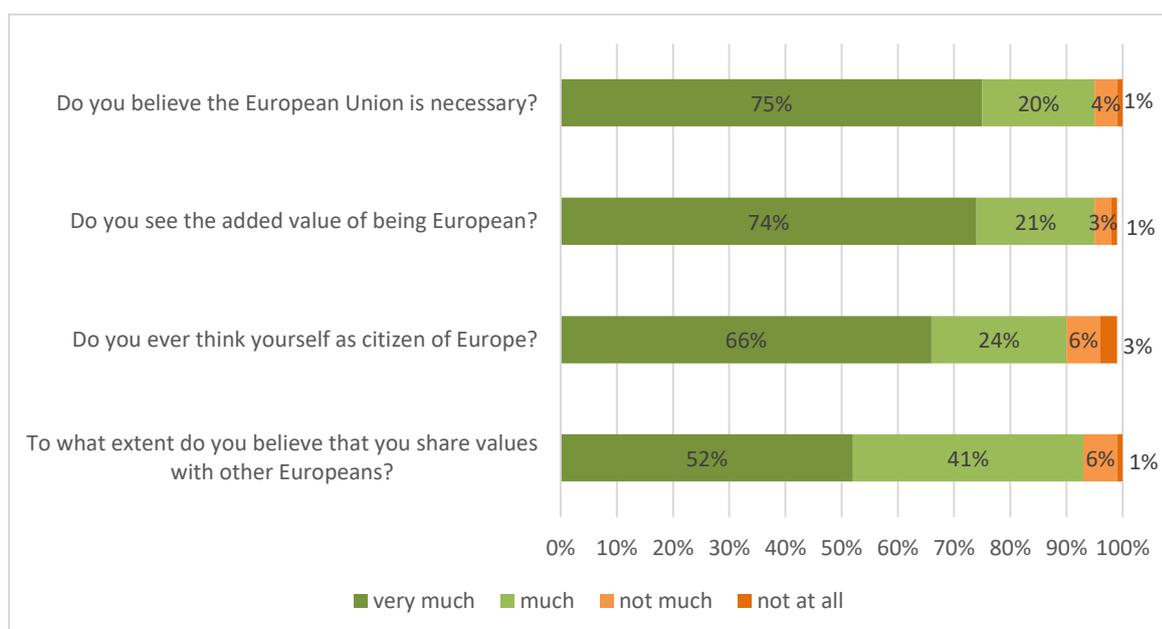
- Nearly all Erasmus+ staff (95%) believe the European Union is necessary and see an added value in being European; they hold even more positive views of the EU than Erasmus+ students
- Erasmus+ participants, reported a stronger identification with Europe than non-mobile staff (over 6 points difference in the European Identity Index that we explored)
- The more mobile, the stronger the identification with Europe: staff with former mobility experience as a student show a stronger European Identity

This section shows the results concerning European identity and views of the European Union including breakdowns for the regions.

Erasmus+ staff believes the European Union is necessary

The vast majority of participant report a strong European identity. Three out of four Erasmus+ staff participants are strongly convinced the European Union is necessary and a further 20% rather agree. In contrast, there are only 5% who doubt the need for the European Union. Among non-mobile staff, 67% agree and 23% rather agree that the European Union is necessary. In addition, 95% of Erasmus+ staff participants agree or rather agree that they see an added value in being European, while 85% of non-mobile staff does. Over 90% of Erasmus+ staff participants think about themselves as citizens of Europe at least occasionally, and 93% feel to share values with fellow Europeans to a great or at least some extent. Overall, the results for Erasmus+ staff are even more positive than those for Erasmus+ students (cf. chapter 5.6).

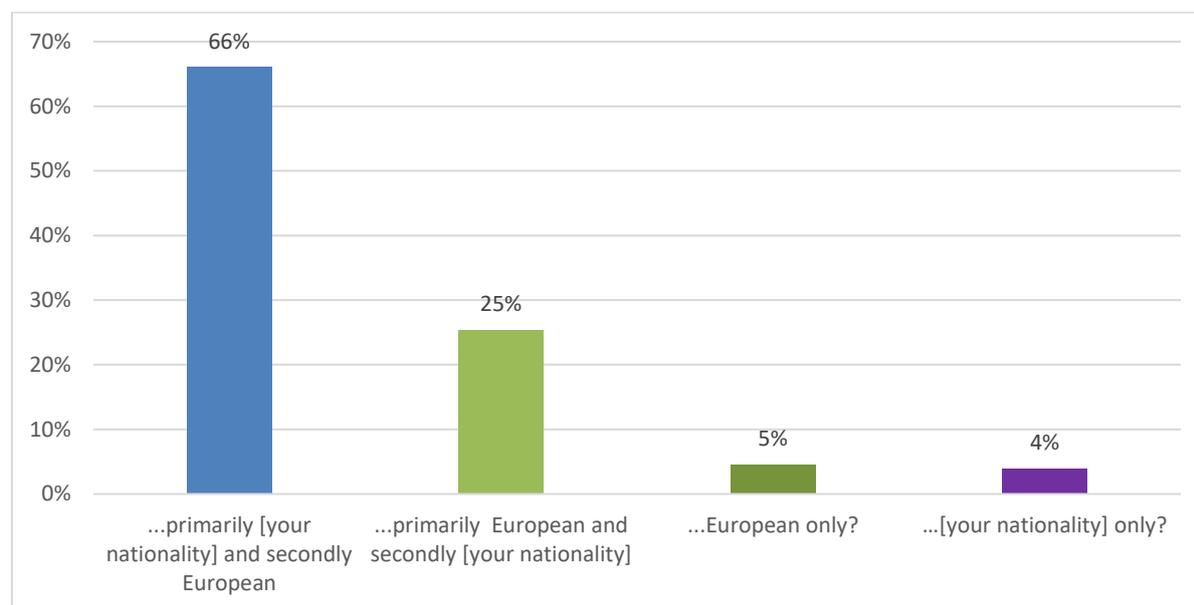
Figure 113. Perspectives of Erasmus+ participants on Europe and the EU



Source: ICF CHE Consult staff survey, NE+Staff=8,125.

Two thirds of staff members who took part in Erasmus+ put their national identity before their European identity. In fact, 25% of them feel more European than their nationality and 5% even say they have no national identity apart from the European one. At the same time, only 4% reported not to feel European at all. Comparing these results to students (cf. chapter 5.6), European identity among staff is somewhat stronger.

Figure 114. Identity of Erasmus+ participants

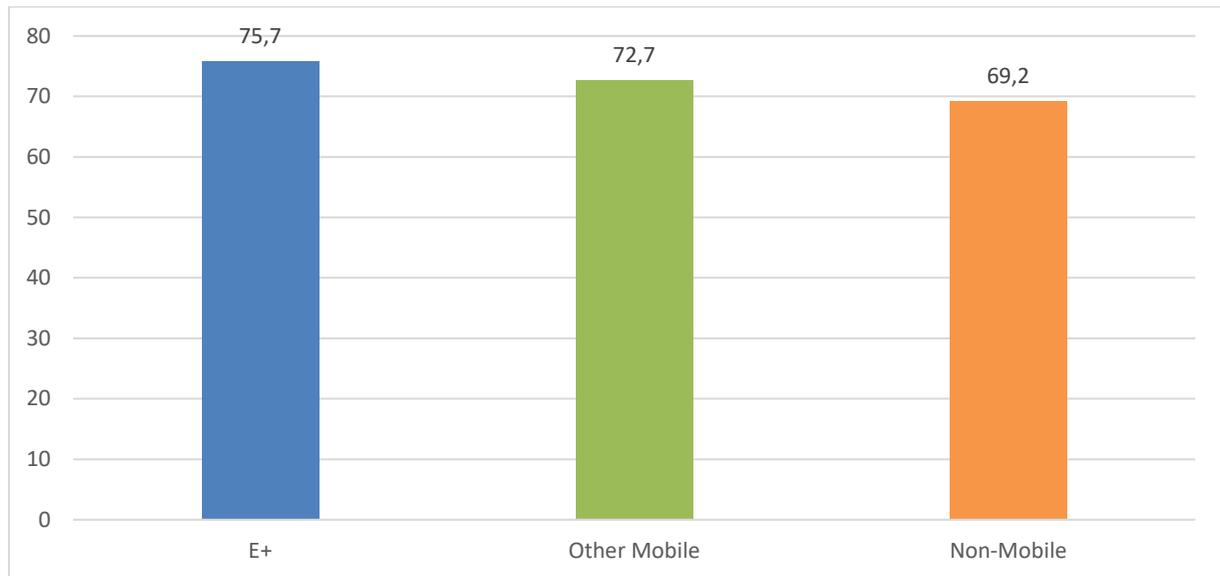


Source: ICF CHE Consult staff survey, NE+Staff =8,058.

Erasmus+ participants (staff), in particular from Eastern Europe, relate to Europe stronger than non-mobile staff

European identity, as measured by the European Identity Index (cf. chapter 3), is stronger for Erasmus+ participants than it is for participants of other mobility programmes, even though the results for Partner Countries are included in the results for Erasmus+ participants. Conversely, staff that do not participate in any type of mobility show the lowest level on the European Identity Index (Figure 115) This result is in line with the students' results where the Erasmus+ participants showed the highest scores.

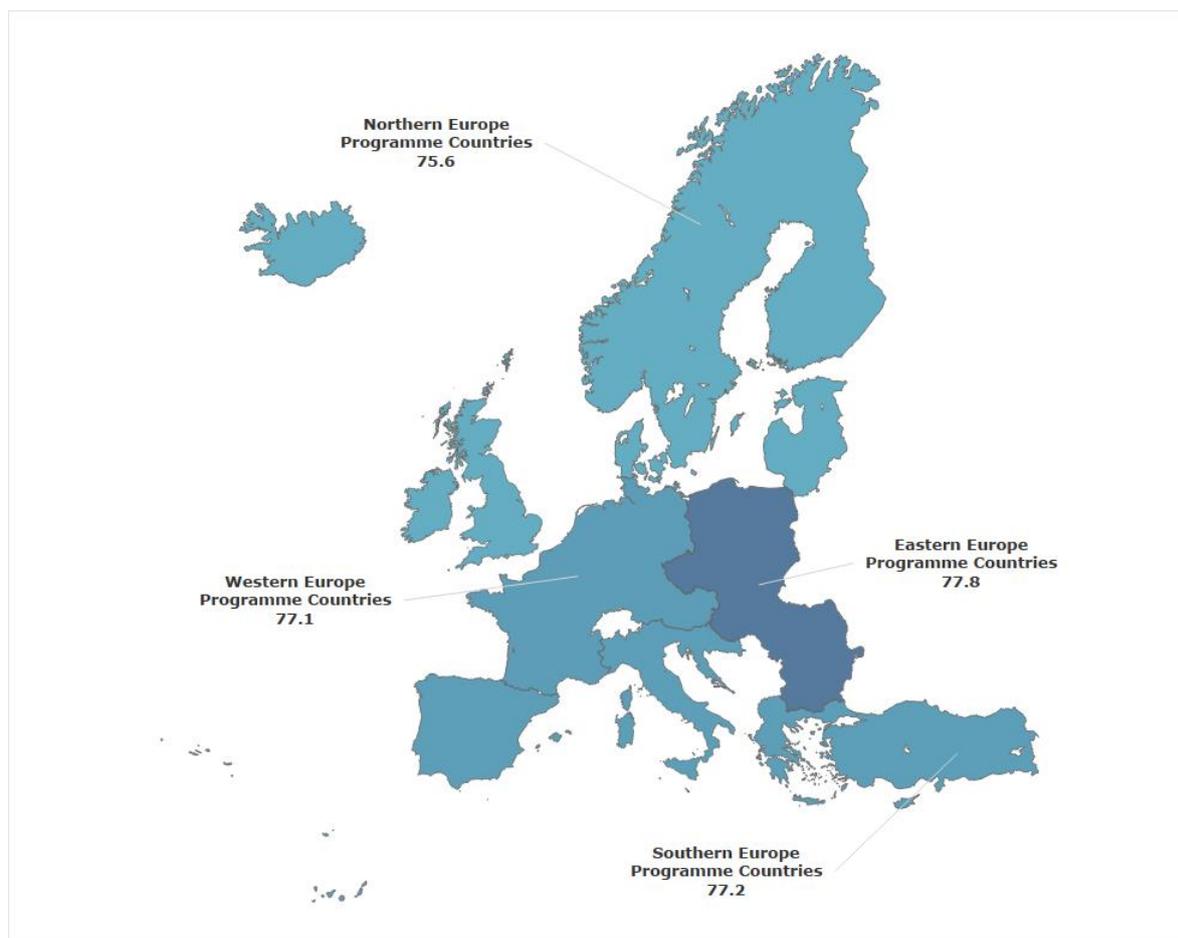
Figure 115. Staff European Identity Index for participants of other mobility schemes, non-mobiles and Erasmus+ participants



Source: ICF CHE Consult staff survey, NOther Mobile Staff = 374, NNon-Mobile Staff = 999, NE+ Staff = 8,048

A breakdown by European region shows that Eastern European Programme Countries score highest on the European Identity Index while the Northern European Programme Countries display the lowest scores (Figure 116). This result, again, is consistent with the findings for students' European identity (cf. chapter 5.6).

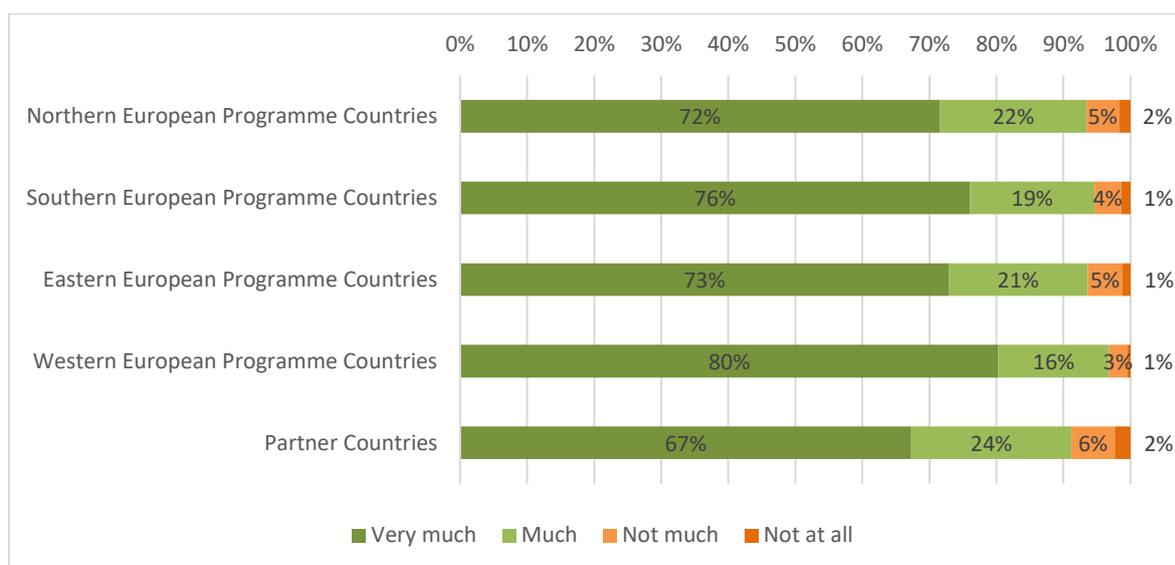
Figure 116. Staff European Identity Index according to regions (without Partner Countries)



Source: ICF CHE Consult staff survey, NE+ Staff =7,406

The results for individual regions are rather similar also on the item level. Still, there are some differences. When asked whether they believe the European Union is necessary, staff from Western Europe agrees the most (unlike in some other items, e.g. sharing values with other Europeans): 96% of respondents from this region reported to be (very) much convinced that the EU is necessary. Figures for other regions were also very high (around 95%). In this case, respondents from Partner Countries are included as well – and although they are not residents of the EU themselves, the vast majority of them (over 90%) consider the Union necessary too.

Figure 117. Share of Erasmus+ staff participants who are convinced the European Union is necessary, by region

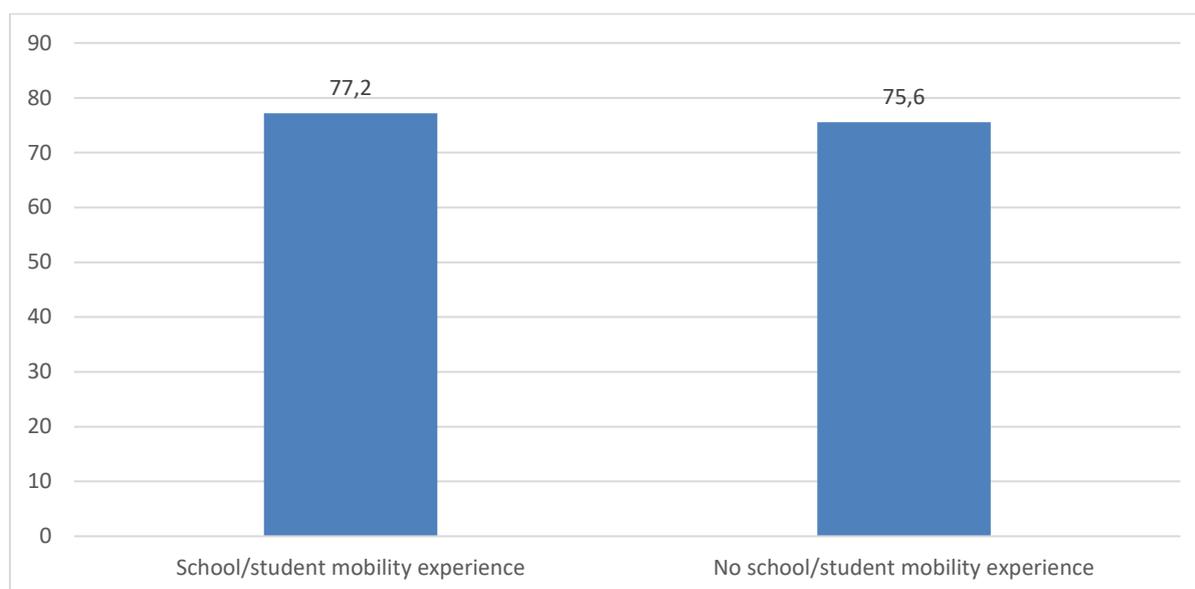


Source: ICF CHE Consult staff survey, NE+ Staff =7,784

The more mobile, the stronger the identification with Europe

The correlation between the International Experience Index and the Staff European Identity Index is 0.096 (N = 7,844). That is not a particularly strong correlation, but suggests that European identity – which could be understood as feeling part of a greater European community – is not independent from international exchange. Results also indicate that those staff with a former mobility experience as a student (Erasmus+ or other) display stronger European identity, although the difference between the two groups is very small (Figure 118). As mentioned previously in this report, the majority of staff respondents possess rather limited mobility experience while there are only few participants who have been abroad multiple times, in multiple countries, for a period longer than one or two weeks. A stronger relationship might be expected if there were more participants with more international experience.

Figure 118. Staff European Identity Index according to whether they participated in a mobility period as students or not



Source: ICF CHE Consult staff survey, NE+ Staff =8,038

6.5 Social Engagement

Main findings: Social engagement

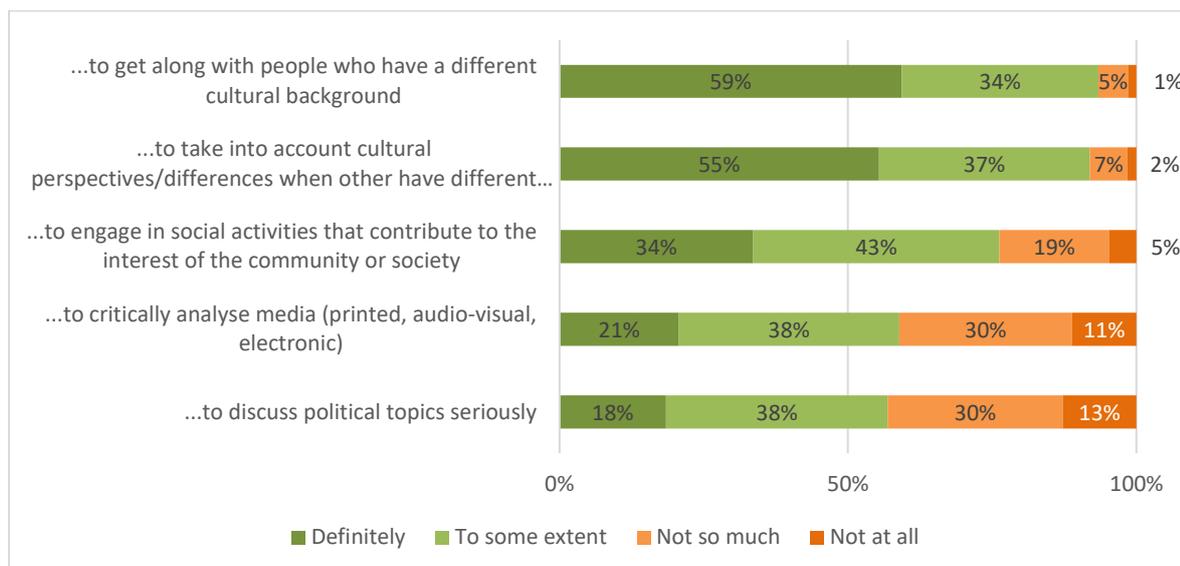
- Mobility experience is felt to improve intercultural understanding of staff: 9 in 10 reported that they learned to better get along with people from different backgrounds through the mobility and to consider cultural differences.
- Erasmus+ participation was also reported to impact on the social engagement of staff. More than half of staff reported to have become more interested in social and political issues on the European/ international level as a result of their mobility.

This section summarises how and to what extent staff who have participated in Erasmus+ reported improvements in their social skills, like intercultural understanding and social engagement, as a result of participation in the programme. The analysis includes breakdowns by region.

Mobility experience is felt to improve intercultural understanding

Among the list of items related to social engagement, Erasmus+ participants reported most often an impact with regards to intercultural understanding, e.g. to get along with people of different cultural backgrounds, to consider cultural differences. Over 90% of respondents reported that their mobility experience abroad helped them in this respect at least to some extent. Besides, three out of four participants perceive an added value with regards to engagement in socially beneficial activities. The share of those who feel that mobility helped them to analyse media critically and to discuss political topics seriously is substantially lower, although still more than half of respondents reported at least some impact.

Figure 119. Items for the question "Through my transnational mobility, I learned better..."

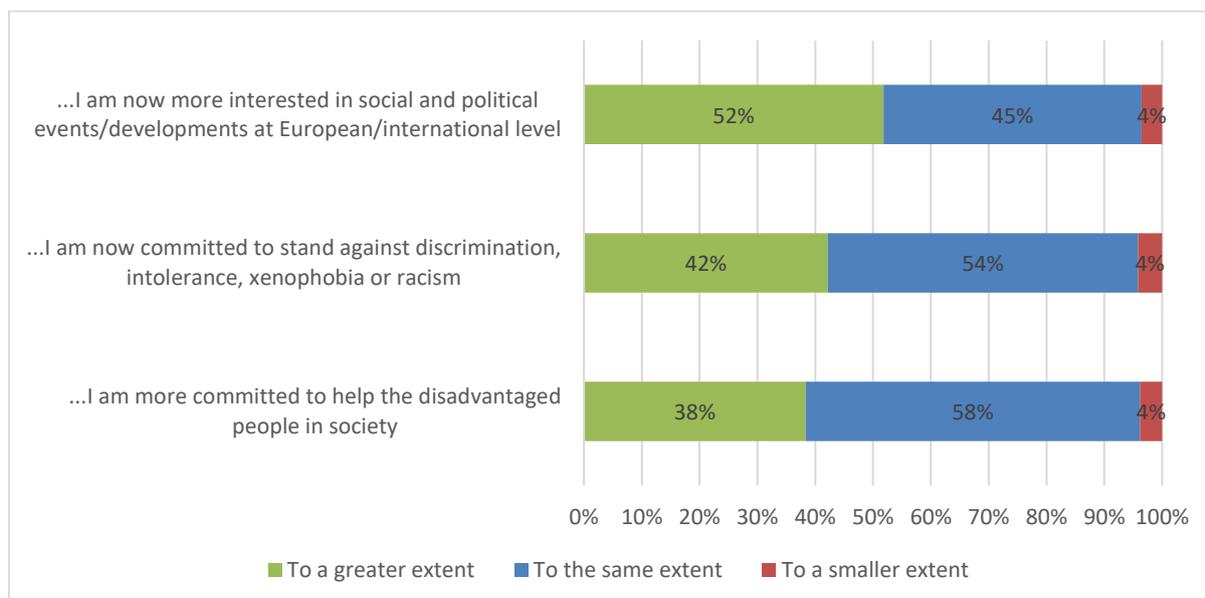


Source: ICF CHE Consult staff survey. NE+ Staff=7,934

Erasmus+ was also reported to impact on staff’s social engagement

Slightly over one half of Erasmus+ staff say they have become more interested in social and political issues on European level and around two out of five reported to feel that they have become more committed to fight intolerance and support the disadvantaged (Figure 120). Between 40% and 58% of respondents, depending on the item, reported that they perceived no substantial development in this perspective. About 4% of respondents indicated that they care less.

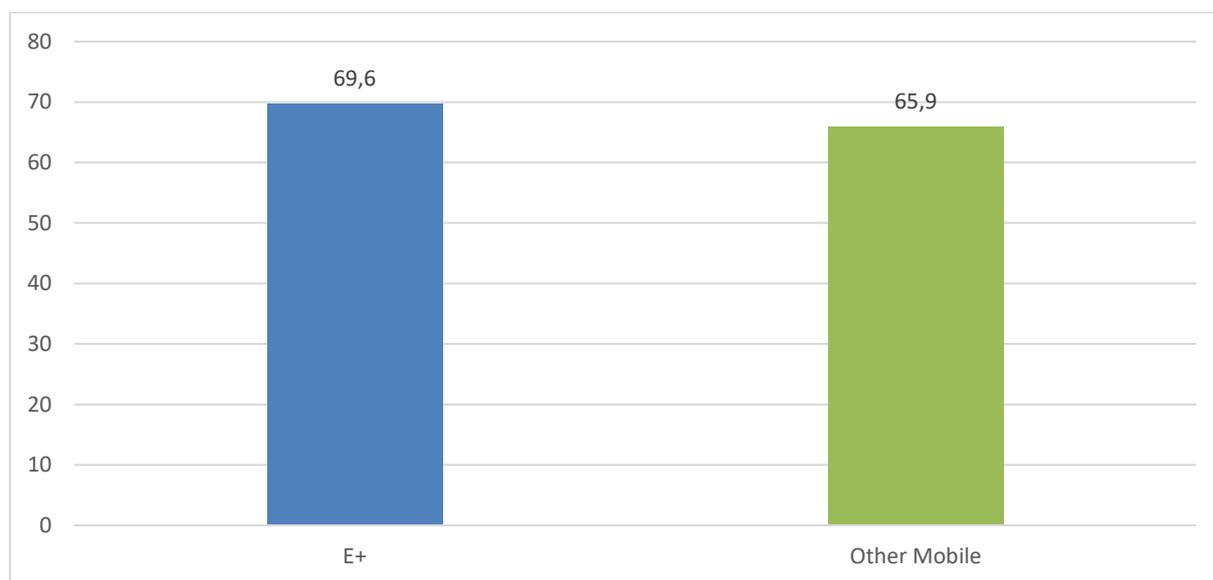
Figure 120. After the stay abroad...



Source: ICF CHE Consult staff survey. NE+ Staff=7,934

Staff participating in Erasmus+ score considerably higher on the Social Engagement Impact Index than participants of other mobility programmes (Figure 121) (see chapter 3 for details on indices). As staff were not surveyed before their mobility, a pre/post assessment is not available.

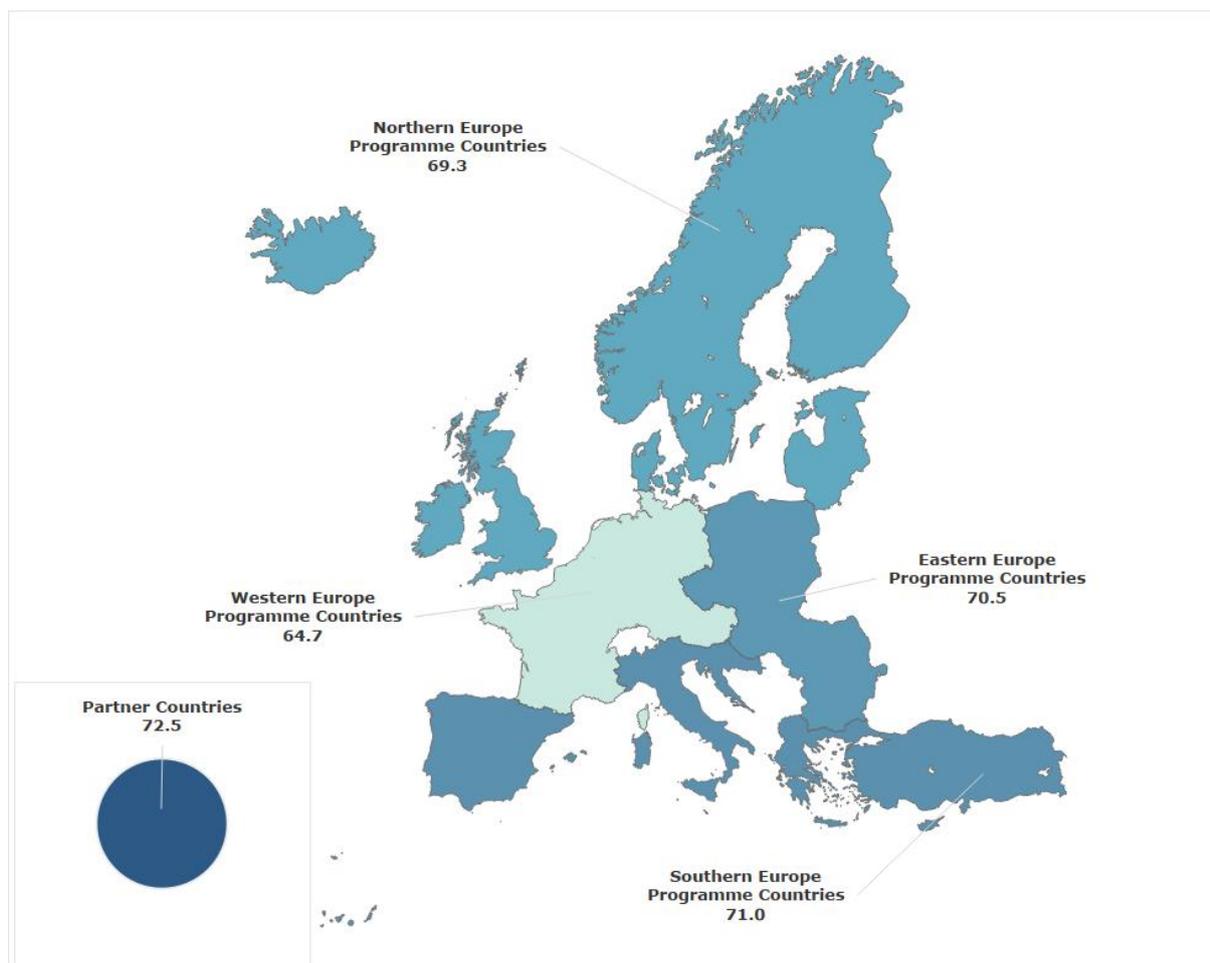
Figure 121. Social Engagement Impact Index for staff taking part in Erasmus+ and in other mobility programmes



Source: ICF CHE Consult staff survey. NE+ Staff=7,920, NOther Mobile Staff=281

Erasmus+ participants from Partner Countries reported the greatest impact from mobility on their social engagement; staff from Western European Programme Countries reported the lowest impact.

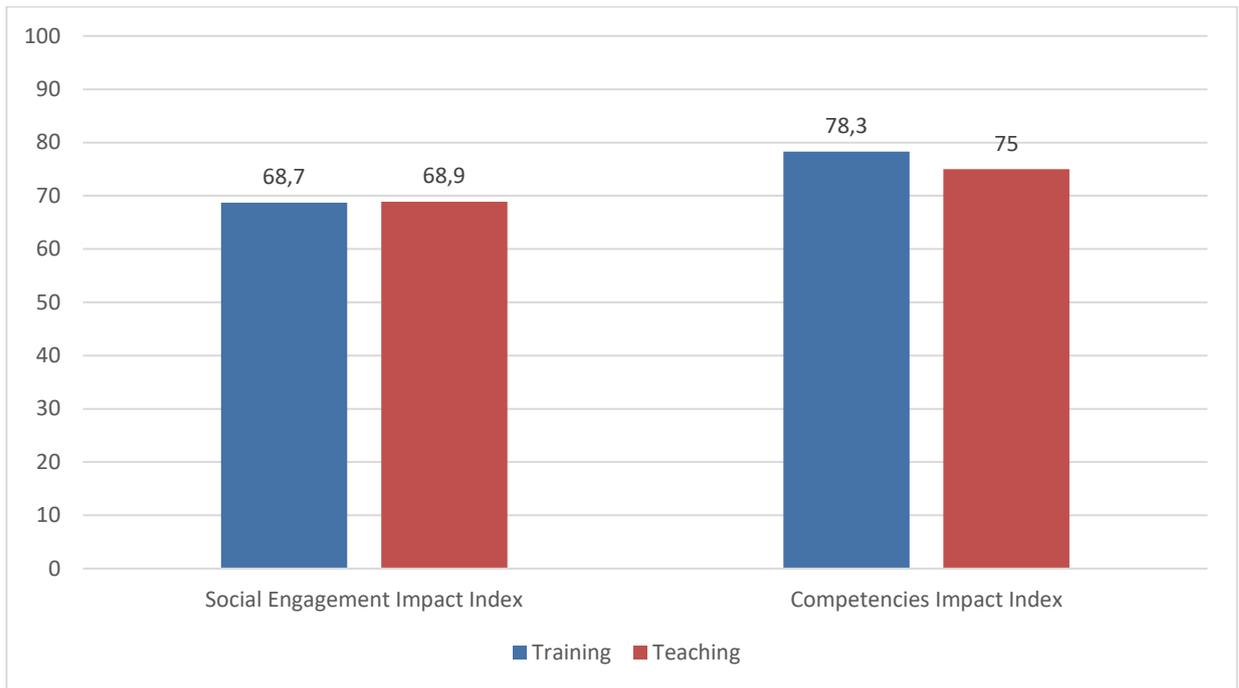
Figure 122. Social Engagement Impact Index for staff according to regions



Source: ICF CHE Consult staff survey. NE+ Staff=7,680

Comparing staff going to teach at a partner institution abroad to those participating in a training (both as part of Erasmus+), there is no significant difference between the two groups in terms of how they perceive the impact on their social engagement. Those going on training, however, report a higher impact on their own competencies than those who went abroad to teach. This is in line with the respective goals of the programme.

Figure 123. Social Engagement Impact Index and Competencies Impact Index for teaching and training staff



Source: ICF CHE Consult staff survey. NE+ Staff=4,804

7 Impact on Institutions

Main findings

- Continuation of Erasmus+ was reported to be very important or absolutely essential by 95 % of HEIs
- There are marked imbalances between the demand and supply for places across participating countries. In a considerable share of HEIs the demand for mobility is higher than the number of available places, both for students (24%) and staff (28%). In 21% of institutions there is a lower demand than student mobility places available, and in 19% this is the case for staff. Demand for mobility is higher than supply especially in Partner countries (where more than 50% of respondents reported higher demand than supply in the case of student and staff mobility).
- Institutions expect mobility to add value compared to their other activities: almost 80% of institutions expect student mobility to enable students to acquire new competences, and over 50% (63% in the case of small HEIs) expect staff mobility to provide inspiration for new teaching methods.
- The benefits of Erasmus+ participation spread beyond individual participants. The majority (54%-83% depending on the method) of mobile staff report an impact on the use of teaching methods in their home and in their host department as a result of participation in the programme. Similarly, a large share of staff report impact on curriculum development and teaching activities (72%-85% depending on the type of activity). Staff from Southern, Eastern European and Partner countries report the highest impact at departmental level
- A large majority of respondents attribute improvements in student mobility management and student support at least to some extent to participation in Erasmus+. Around a quarter of respondents reported that Erasmus+ had impacted support services to a high degree.
- The vast majority of HEIs reported having an internationalisation strategy (almost 90%). Such strategies tend to be strongly student-centred and refer to international student mobility.
- 50% of the HEIs reported that cooperation with institutions from partner countries had taken place as part of Erasmus+ international credit mobility (ICM). Erasmus+ and its predecessor programmes have been instrumental in putting ICM arrangements in place.
- Inviting staff from enterprises generates positive impacts on curriculum development and teaching activities. According to staff, the impact of inviting staff from enterprises is highest with regards to helping students to gain a better understanding of entrepreneurship, the application of knowledge to real life cases and employers' skill demands (around 90% of respondents reported at least some impact in these areas).
- Erasmus+ cooperation projects contribute to the development and strengthening of cooperation between HEIs and enterprises as well as other actors outside the HE sector. Cooperation between HEIs and enterprises most often pertains to knowledge sharing and research cooperation and is reported to have important positive impacts on curriculum and teaching activities.

This section presents findings on the impact of Erasmus+ at the institutional level based on two surveys: a survey of staff (asking staff about the impacts of staff mobility at the department –rather than the individual- level), and a survey of higher education

institutions' leadership (HEIs). The structure of this section follows the topics outlined in the research questions.

The first section presents the objectives of student and staff mobility from the viewpoint of institutions. This is followed by an assessment of the balance between demand for and supply of mobility places according to region (Western, Eastern, Southern, Northern European Programme countries, and Partner countries as explained in the method section), size (small/medium/large compared to other institutions in the country) and type (University of Applied Sciences, University, or other type of HEI). These variables may be important in driving HEIs' specific needs, objectives, and impacts of mobility. Geographical location could be expected to influence the impact of mobility as different regions may vary regarding the resources and opportunities for mobility that they offer, within and outside of European programmes. Smaller institutions could be expected to benefit more from mobility in regard to teaching methods than larger institutions, as the former may have fewer resources for exploring new teaching methods and fewer staff to acquire expertise/ experience on a variety of teaching methods. The analysis tests these hypotheses.

The section presents the survey results, including relevant analyses by region, size and type of institution, in each of the following areas:

- Main objectives of international mobility and the Erasmus+ contribution to those;
- Balance between supply and demand for mobility;
- Teaching methods, curriculum development and teaching activities;
- Support services of institutions;
- Internationalisation of institutions;
- International Credit Mobility; and
- Invited staff from enterprises and cooperation between HEIs and enterprises.

The staff survey results show stark differences by region. The highest impact is reported in the case of Eastern, Southern Programme countries and Partner countries. The lowest levels of impact are reported by institutions in Northern and Western Programme countries. Various factors may explain these regional differences. The level of mobility or, for example, usage of various teaching methods differs by regions to start with, and, thus, staff have a different 'starting point' depending on the country where they are based. Taking the example of teaching methods, if in one country the use of a wide range of teaching methods is widespread, Erasmus+ mobility might have a less visible impact on the introduction or spread of those methods than in a country where their use is less widespread (decreasing returns). The data indeed point to these tendencies. The survey also allows an analysis of the impact of Erasmus+ on the receiving institution. The results are consistent with those reported above: respondents that have been mobile to Northern European Programme countries or to Western HEIs report significantly lower impact on the teaching methods used in the receiving institution, compared to those that went to Southern European, Eastern European or Partner countries. The highest impact is reported by staff that went to Eastern European Programme countries. Similar findings are reported also in the case of impact of Erasmus+ on support services – highest impact is found in the case of Partner countries.

7.1 Main objectives of international mobility and the Erasmus+ contribution to those

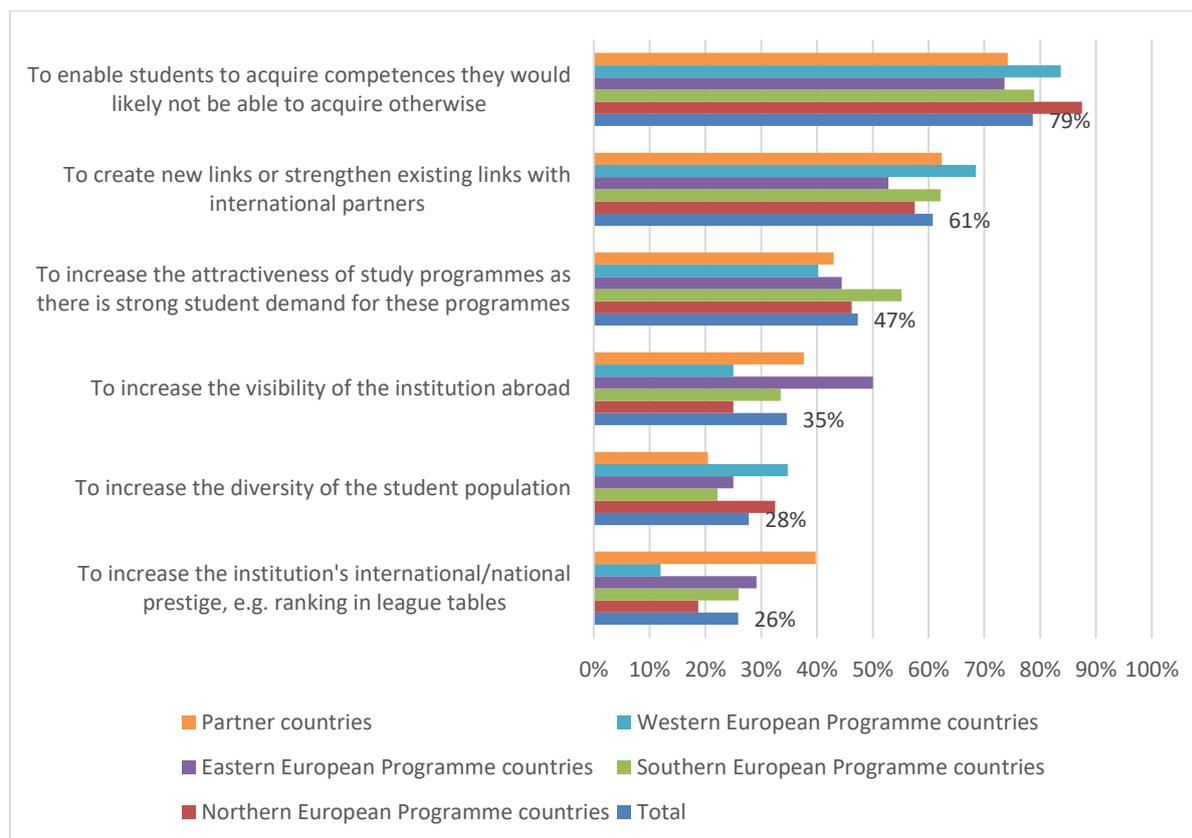
Institutions expect mobility to add value compared to their other activities: almost 80% of institutions expect student mobility to enable students to acquire new competences and over 50% (63% in the case of small HEIs) expect staff mobility to provide inspiration for new teaching methods.

The survey of HEIs asked HEIs' leadership to report on the three main objectives that they sought to achieve through the participation of their institutions in international student mobility. The most cited objective in the case of student mobility is to enable students to acquire competences they would otherwise be unlikely to acquire. Almost 80% of respondents to the survey of HEIs quoted this objective -see Figure 124. This shows that student mobility adds value compared to other forms of education provided by HEIs, in HEIs' own view. The second most frequently reported objective is the creation or enhancement of links with international partners (61% of HEIs). Almost half of the respondents (47%) reported that one of the three main objectives of their institutions' participation relates to increasing the attractiveness of their study programmes, holding the view that there is strong demand for international mobility.

The relative importance of these different objectives was largely consistent across HEIs of different sizes. Differences by type of institution are limited to universities wishing to increase the visibility and prestige of the institution abroad through student mobility more often than universities of applied sciences (35% vs 28% for visibility, and 30% vs 16% for prestige respectively, with other types of HEI being in the middle). Universities of applied sciences along with other types of HEI, on the other hand, seek more often that students acquire competences compared to universities (81% and 85% for universities of applied sciences and other types of HEI respectively, versus 75% in the case of universities).

The objectives associated with student mobility vary more strongly by region, suggesting that HEIs in different areas are strategic in the use of the programme to achieve different objectives, according to their needs and institutional aims. Institutions from Northern and Western European Programme countries give greater priority, compared to other regions, to the development of students' competences and to the creation or strengthening of links with international partners, as well as to increasing the diversity of the student population –although the priority they attached to diversity was much lower than the priority they gave to the development of competences and international links.

Figure 124. Objectives of student mobility

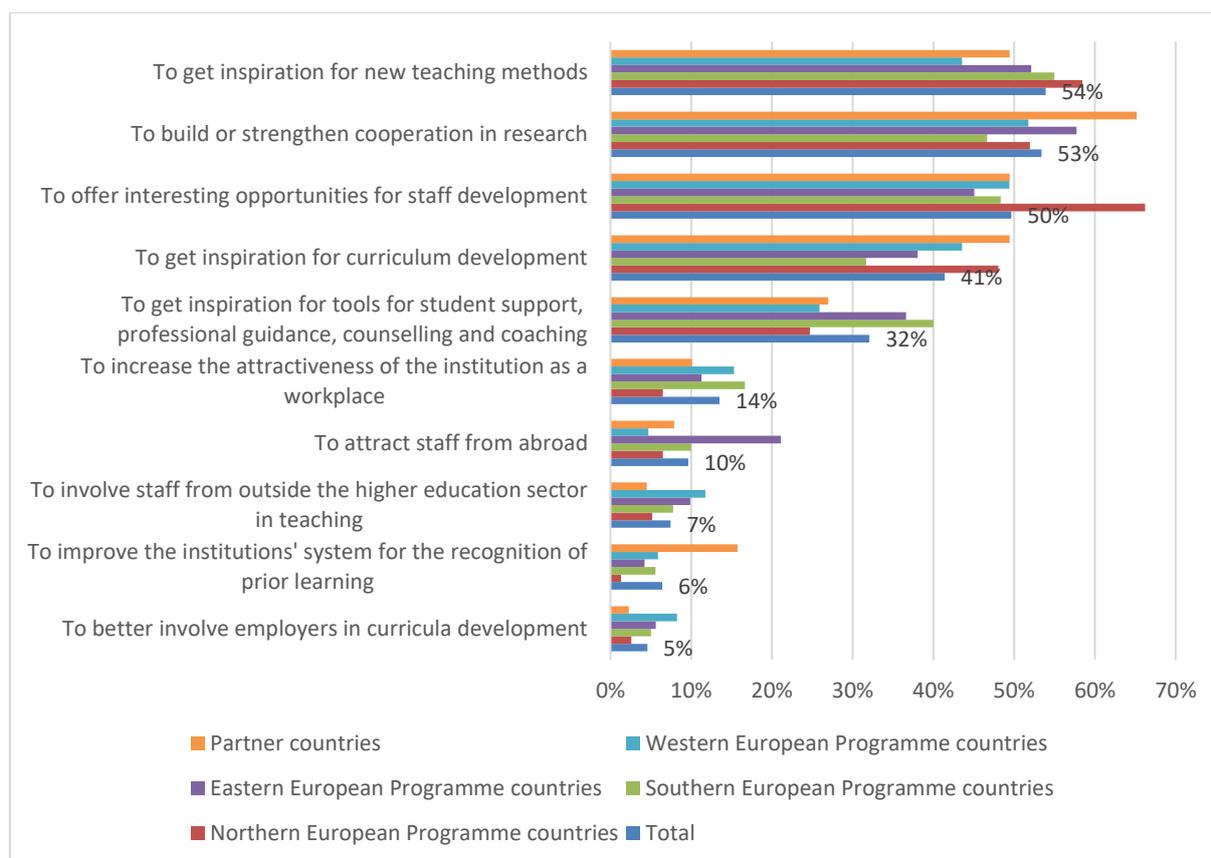


Source: ICF CHE Consult HEI survey. Respondents could choose maximum of 3 main objectives. N=619

By contrast, institutions from Eastern European Programme countries reported much more often than those from other regions that one of the main objectives of their student mobility activities is to increase the visibility of their institution abroad, followed by institutions from Partner countries and Southern European Programme countries.

Figure 125 shows that the objectives associated with staff mobility are more frequently related to getting inspiration for new teaching methods, strengthening research cooperation and opportunities for staff development than to other aspects (50% or more respondents reported to prioritise each of these objectives). The main objectives, as such, tend to refer to the core activities of HEIs (teaching and research). Objectives related to the involvement of external stakeholders (for example employers for curricula development or teaching), improving systems for the recognition of prior learning, or attracting (as opposed to developing) staff featured less prominently in the responses.

Figure 125. Objectives of staff mobility



Source: ICF CHE Consult HEI survey. Respondents could choose maximum of 3 main objectives. N=592. Figures are lower for staff objectives compared to student objectives as respondents had more options for staff objectives to choose from, therefore the answers are more spread.

The importance given to getting inspiration for new teaching methods –overall the most common objective for staff mobility- clearly differs between institutions according to size, as expected: 46% of large HEIs reported this to be one of the main objectives of staff mobility compared to 54% of medium-sized institutions and 63% of small institutions.

Universities of applied sciences and other types of HEIs are more often interested in benefiting from staff mobility to get inspiration for the introduction of new teaching methods than universities (61% and 64% versus 48% respectively).

Regarding differences by type of institution with regards to other objectives, universities and universities of applied sciences more frequently report higher importance of curricula development than other types of HEIs (and 44% and 43% versus 35% respectively), whereas universities put a strong emphasis on building or strengthening research cooperation more often than other types of institutions (62% of universities quote this as an objective versus 43% of universities of applied sciences and 39% of other types of HEIs). This is consistent with the results previously reported for student mobility: while universities aim to increase their prestige and research cooperation activities through the programme, universities of applied science place greater emphasis on teaching-related matters: increasing the attractiveness of study programmes and students' competences and inspiration for the introduction of new teaching methods.

Certain significant differences can be also found between regions in Europe, suggesting that Erasmus+ is used in different strategic ways in different parts of Europe. A pronounced difference by region in relative terms, for example, concerns the objective of "attracting staff from abroad": whereas only about 5% of institutions from Northern and Western European Programme countries quote this objective, in the case of Partner

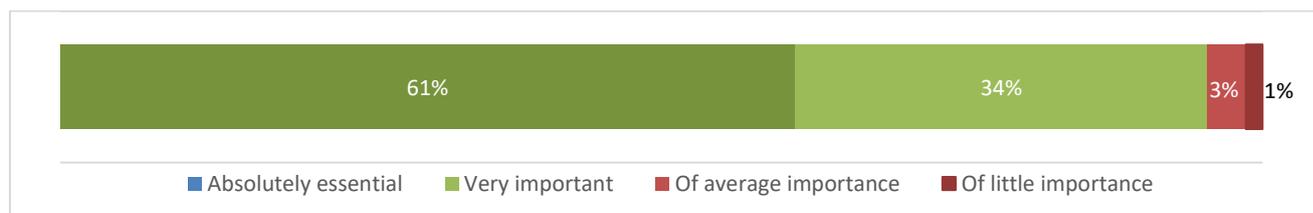
countries it was 8%, in case of Southern European Programme countries institutions this was 10% and in the case of institutions from Eastern European Programme countries it was as high as 21%. Around 45-50% of HEIs in Western and Northern countries (and Partner countries), on the other hand, underline the objective of curriculum development; which is substantially more often than their Southern and Eastern neighbours (32% and 38% respectively). In the case of teaching methods and curriculum development the differences are more subtle, as HEIs across all regions (with the exception of Partner countries, where the importance of this aspect was somewhat lower) emphasise these objectives.

On the whole, and taking the relative (rather than absolute) emphasis on different objectives by HEIs in different regions, it can be observed that institutions in:

- Western Europe place a particular emphasis on the involvement of employers and staff outside of the HE sector (12% of respondents, compared to 7% average across the sample).
- Nordic countries place a strong emphasis on staff development opportunities (66% compared to an average of 50% across the sample).
- Southern countries seek peer-learning opportunities in support services (student support and guidance) (40% compared to an average of 32% across the sample)
- Eastern European countries place substantial emphasis on attracting staff from abroad (21% compared to an average of 10% across the sample).
- Partner countries emphasise the improvement of their systems for the recognition of prior learning (16% compared to an average of 6% across the sample), building on Europe's leading initiatives in this area, and to enhance cooperation opportunities in research (65%, compared to an average of 53% across the sample).

Finally, even though different institutions have different motivations to participate in the programme, Erasmus+ is seen as highly beneficial by almost all of them for the achievement of their objectives: more than 60% of the HEIs that answered the survey reported that the continuation of the programme is absolutely essential for them and for about a third of the HEIs continuation is very important.

Figure 126. Importance of continuation of Erasmus+



Source: ICF CHE Consult HEI survey. N=437

Breakdown analysis shows that all sizes and types of HEIs in all regions believe that continuation of Erasmus+ is extremely important. Larger HEIs, however, perceived Erasmus+ as absolutely essential in higher shares than medium or smaller HEIs (70% of large HEIs believe that Erasmus+ is absolutely essential and 27% believe it is very important, whereas for medium and smaller HEIs around 60% reported it to be absolutely essential and around 40% very important). Regarding the types of institutions universities of applied sciences stressed the importance of continuation of Erasmus+ compared to a somewhat greater extent than universities and other types of HEIs (70% reported it to be essential and 28% very important compared to 60% vs 30% in the case of universities and 50% vs. 46% in the case of other types of HEIs). Regional analysis shows that whereas HEIs in Northern and Southern European Programme countries

reported findings similar to the overall average, HEIs in Western European Programme countries reported higher importance of continuation of Erasmus+ (70% vs 25%), and Eastern European HEIs reported lower importance of continuation of Erasmus+ (50% vs 40%).

7.2 Balance between demand and supply for mobility

There are marked imbalances between the demand and supply for place across participating countries. Demand for mobility is higher than supply especially in Partner countries

Table 16 provides insights into the balance between supply and demand for student and staff mobility at the HEIs surveyed. In a considerable share of HEIs the demand for mobility is higher than the number of available places, both for students (24%) and staff (28%). In 21% of institutions there is a lower demand than student mobility places available, and in 19% this is the case for staff. As such, and assuming that the volume of imbalances is similar in those institutions that report over and under supply of places, there would be an undersupply of mobility places in the programme as a whole. However, the more salient message from the data is the existence of important imbalances between demand and supply: only around a third of institutions report a balance between their demand and supply for places. Around 20% of respondents did not know the balance between supply and demand at their institution.

Table 16. Demand for and supply of places for student and staff mobility

What is the situation at your institution concerning student/staff mobility?	quoted
Student mobility	
Demand is more or less equal to the number of available places for mobility	38%
There is a higher demand than the number of available places for mobility	24%
There is a lower demand than the number of available places for mobility	21%
Staff mobility	
Demand is more or less equal to the number of available places for staff mobility	31%
There is a higher demand than the number of available places for staff mobility	28%
There is a lower demand than the number of available places for staff mobility	19%

Source: ICF CHE Consult HEI survey. N=592-618 depending on item. Note: Responses do not add up to 100% as a "don't know" option was included.

Student mobility appears to be more often selective in universities: 28% of universities reported that demand for student mobility is higher than places available, compared to 21% of other types of HEIs and 14% of universities of applied sciences. There are also variations by size: whereas 31% of large HEIs report that there is higher demand than the number of available places for mobility, 25% of medium HEIs and only 16% of small HEIs reported this to be the case.

There are substantial differences between regions regarding the balance between supply and demand. In Southern European Programme countries and Partner countries, opportunities to go on a student mobility programme are often more limited than in other countries: 28% of institutions in the Southern region and 51% in Partner countries state that the demand for mobility is higher than the number of available places, compared to

only 6% in Northern European Programme countries, 12% in Western European Programme countries, and 17% in Eastern European Programme countries. By contrast, about 43% of HEIs in Northern European Programme countries and 29% of HEIs in Western European Programme countries stated that demand for student mobility is lower than supply, compared to only 14% in Southern European Programme countries, 25% in Eastern European Programme countries, and about 7% in Partner countries.

Similarly to student mobility, staff mobility is more selective in universities than in universities of applied sciences: 33% of universities stated that demand for staff mobility is higher than places available, compared to 29% of other types of HEIs and 18% of universities of applied sciences. Staff mobility is, like student mobility, less constrained in smaller institutions than in medium-sized and large institutions, with 16% of small, 27% of medium, and 39% of larger institutions reporting higher demand than supply. It is also more selective in Partner countries and Southern and Eastern European Programme countries compared to Northern and Western European Programme countries.

Table 17. Supply and demand of student and staff mobility, breakdowns

	Student			Staff		
	Higher demand than supply	Lower demand than supply	Balance of demand and supply	Higher demand than supply	Lower demand than supply	Balance of demand and supply
Large	31%	19%	36%	39%	17%	26%
Medium	25%	22%	39%	27%	20%	33%
Small	16%	22%	41%	16%	21%	35%
University	28%	21%	37%	33%	18%	29%
Uni of applied sciences	14%	22%	38%	16%	23%	24%
Other type of HEIs	21%	21%	42%	23%	20%	39%
North	6%	43%	35%	16%	25%	41%
East	17%	25%	42%	31%	10%	38%
South	28%	14%	45%	29%	21%	32%
West	12%	29%	33%	10%	31%	30%
Partner countries	51%	7%	27%	52%	9%	21%

Source: ICF CHE Consult HEI survey. N=592-618 depending on item. Note: Responses do not add up to 100% as a "don't know" option was included.

In summary, the breakdowns indicate that the balance between supply and demand for mobility for both student and staff differ according to institutional characteristics: the type and size of institutions and the region. They suggest that there is substantial scope to better match the demand and supply of mobility for both students and staff across participating institutions and countries.

These imbalances may have an influence on the mobility choices made, as well as on the impact experienced at the institutional level. For example higher demand than supply in Eastern and Southern European Programme countries might cause only the most

motivated staff and students to go for mobility, potentially increasing the impact of the mobility experience. The following sections present the overall impacts of Erasmus+ at institutional level and explore differences in impact by type, size and region of the institution. The results in fact support at least partly the above hypothesis, as HEIs that have higher demand than supply (larger HEIs, Universities and HEIs in Eastern and Southern European Programme countries) report higher impacts in many of the analysed areas.

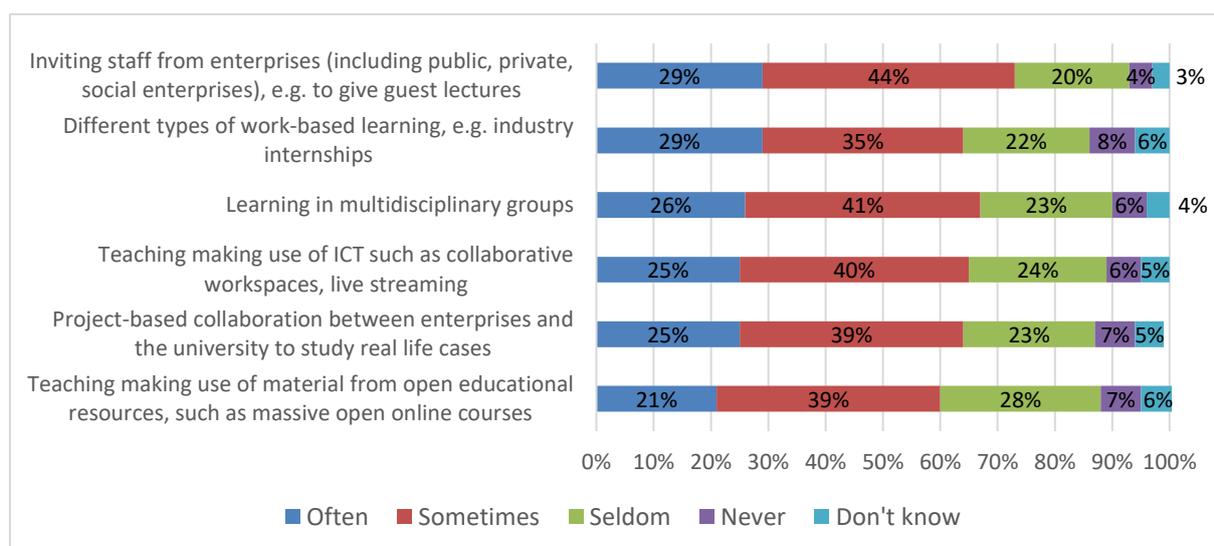
7.3 The impact of Erasmus+ on the use of teaching methods, and on curriculum development and teaching activities at departmental level

The impact of Erasmus+ on teaching methods spreads beyond participants. The highest multiplier effects were reported by staff in HEIs in Eastern European Programme countries and in Partner countries.

Over thirty years after the introduction of the programme in higher education, Erasmus+ continues to help its participants in the innovation of teaching methods, as shown previously in this report. But looking at effects at the individual level may underestimate the impact of the programme, if there are multiplier effects whereby the take-up of innovative methods is spread beyond participants. This section examines whether Erasmus+ impact on teaching stays with individual participants or whether it has a more systemic effect, through its spread to the departments where participants work.

In order to shed light over this issue, a two-step approach was followed. In the first step, baseline data was collected on the use of different teaching methods in the department where respondents worked. Surveyed staff were shown a list of teaching methods and were asked to indicate the frequency with which these are used in their department. This data provides a 'state of play' on the use of various teaching methods in the departments where mobile staff work. For example, inviting staff from enterprises seems to be more common than teaching making use of open educational resources, as shown in Figure 127.

Figure 127. Frequency of use of alternative teaching methods



Source: ICF CHE Consult staff survey, filter: only mobile teaching staff. N=5,797-5,809

In the second step, mobile staff were asked to report whether participation in Erasmus+ or predecessor programmes in their department had led to changes in the use of teaching methods in it, as shown in Table 18. The question asked specifically about five types of impact on the department:

- teaching method has been introduced,
- more frequently used,
- used in a wider range of contexts,
- used by more staff, and
- used more effectively.

Table 18. Impact of staff participation in Erasmus+ or predecessor programme on the use of teaching methods at their home department

Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following teaching methods in your department? (multiple options)	Yes (has been introduced)	Yes (more frequently used)	Yes (in a wider range of contexts)	Yes (used by more staff members)	Yes (used more effectively)	No (no changes)	Too early to tell	Don't know	N	At least one impact reported
Teaching making use of ICT such as collaborative workspaces, live streaming	12%	20%	13%	7%	9%	23%	6%	13%	5,105	58%
Learning in multidisciplinary groups	11%	19%	14%	9%	12%	20%	5%	12%	5,060	63%
Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures	11%	19%	14%	11%	11%	20%	5%	12%	5,139	63%
Teaching making use of material from open educational resources, such as massive open online courses	11%	19%	13%	8%	10%	22%	6%	14%	5,042	58%
Project-based collaboration between enterprises and the university to study real life cases	10%	19%	13%	9%	11%	21%	6%	14%	4,990	60%
Different types of work-based learning, e.g. industry internships	10%	16%	13%	8%	10%	24%	6%	15%	4,899	54%
Other	11%	17%	11%	7%	5%	14%	5%	32%	814	48%
Specific impact reported in at least one method	22%	39%	33%	25%	29%					

Source: ICF CHE Consult staff survey, filter: only mobile teaching staff.

Table 18 shows that Erasmus+ staff mobility frequently impacts on the use of teaching methods, with over half of all mobile staff reporting at least one impact (with the exception of 'other methods', where the share is 48%). The impact of staff mobility does not differ substantially across teaching methods, which suggests that the programme is having an effect across a broad range of methods.

The last row in Table 18 shows the share of staff who report the respective impact to have occurred at least once. This suggests that a quarter of respondents reported the introduction of at least one teaching method in their department as a result of participation in Erasmus+ -or predecessor programmes. On the whole, the programme was reported to have a particularly strong impact in terms of increasing the frequency in the use of the teaching methods examined.

To get a more nuanced assessment of the overall impact of staff mobility on teaching methods, a variable reporting the share of respondents who indicated at least one impact was constructed – presented in the last column in Table 18. The variable "At least one impact reported" refers to the share of respondents who indicated at least one change (teaching method being introduction, being more frequently used, etc.) stemming from Erasmus+ or predecessor programme participation, among those who had previously reported at least some use of the teaching method in their department.

Measures of association suggest that there are no differences in the impact of Erasmus+ on the use of teaching methods at department level according to institution size. However, as Table 19 shows, there are some differences in the impact of staff mobility on teaching methods at department level between types of institution. Universities and other types of HEIs report the introduction of specific methods more frequently than universities of applied sciences: teaching making use of ICT, learning in multidisciplinary groups and different types of work-based learning. This finding could be partly explained by catch-up effect as learning in multidisciplinary groups is less common in universities and other types of HEIs compared to universities of applied sciences (30% and 27% versus 25% reported not using or seldom using this method). A similar explanation could be found in the case of the introduction of different types of work-based learning, as only around 61% of universities and 66% of other types of institutions have different types of work-based learning compared to 76% of universities of applied sciences (share refers to those that use it often or sometimes).

On the other hand, in the case of teaching making use of ICT, project based collaboration between university and enterprises, and learning in multidisciplinary groups, universities of applied sciences report more frequently other impacts, such as using the method more frequently or in wider contexts. In those cases where HEIs already use the specific method Erasmus+ seems to be able to widen the impact in various other ways.

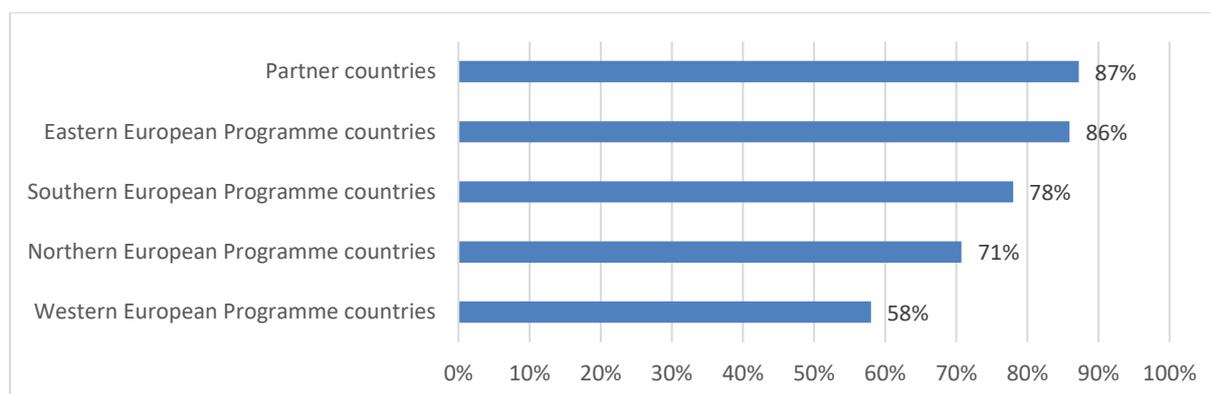
Table 19. Impacts of teaching methods, type of HEI

Method	Type of impact	University	University of Applied Science	Other types of HEIs	Sign.
Teaching making use of ICT such as collaborative workspaces, live streaming	Introduced	14%	11%	13%	*
	Used in a wider range of contexts	13%	17%	12%	**
Teaching making use of material from open educational resources, such as massive open online courses	Introduced	13%	9%	12%	*
Learning in multidisciplinary groups	Introduced	13%	9%	14%	**
	More frequently used	20%	21%	16%	*
Project-based collaboration between enterprises and the university to study real life cases	Used in a wider range of contexts	13%	16%	15%	*
	Used by more staff members	10%	9%	6%	*
Different types of work-based learning, e.g. industry internships	Introduced	11%	8%	14%	**

Source: ICF CHE Consult staff survey. Only areas where difference in impact is found are presented. P-values: *** 0.001 ** 0.01 * 0.05

Figure 128 shows that there are important regional differences with regards to the reporting of at least one impact on the teaching aspects previously mentioned. 58% of staff from Western European Programme countries reported at least one impact on the teaching methods presented in Table 18, compared to 71% of staff from Northern European Programme countries, 78% from Southern European Programme countries, 86% from Eastern European Programme countries, and 87% of staff from Partner countries.

Figure 128. At least one impact on teaching methods reported, by regions



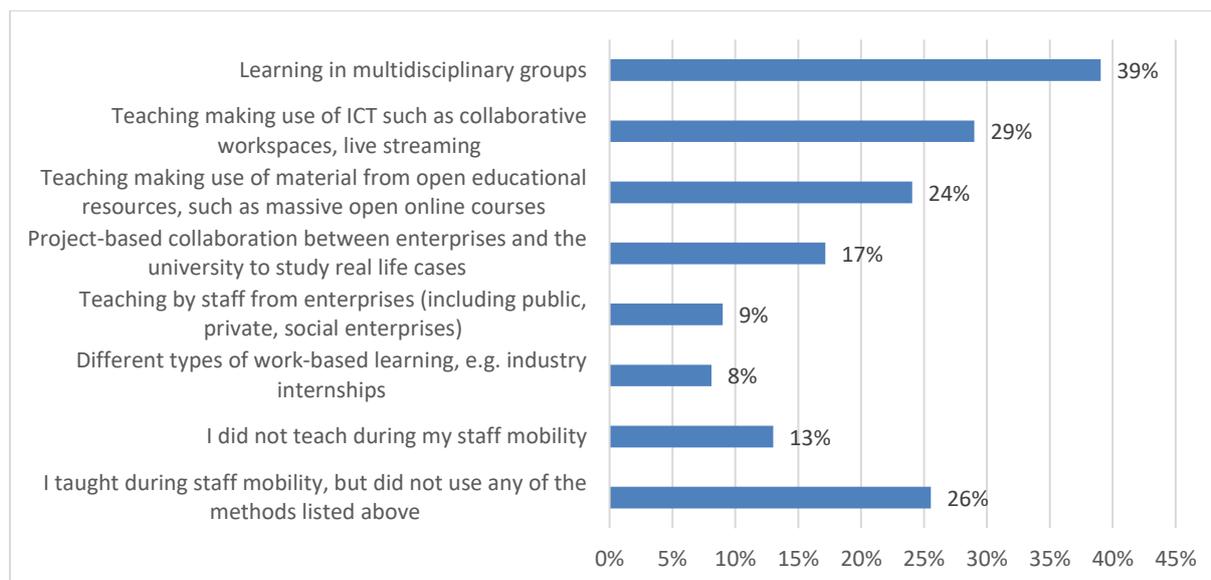
Source: ICF CHE Consult staff survey. N=5,459

If we explore the catch up hypothesis we find very interesting results: even though Western European Programme countries report the lowest impact on the teaching methods, it is not the case that this region has the most widespread usage of such methods and, thus, no room for improvement compared to other regions. In fact, in the case of learning in multidisciplinary groups, inviting staff from enterprises, project-based collaboration between enterprises and the university, and different types of work-based learning HEIs in Western Europe do report comparatively high use –although to a similar extent as in the case of staff working in institutions from Nordic countries. However, in the case of teaching making use of ICT and teaching making use of material from open educational resources, HEIs in Western Europe do not show high use of these methods - there is therefore no catch up effect. This might mean that staff in Western Europe does not share their Erasmus+ experience in the same way as staff in other regions.

Impact on the introduction of new teaching practices also spreads to hosts institutions, although to a lower extent than in sending institutions: around one in five (20%) staff said that their mobility had led to the introduction of new teaching practices in their host institutions. Learning in multidisciplinary groups was particularly used in Erasmus+ supported teaching.

The data presented above concerned the impact of Erasmus+ staff mobility on the sending institution. The staff survey also explores the impact of staff mobility on teaching methods used at the receiving institutions. Figure 129 shows the share of staff that used different teaching methods at the receiving institution. Almost 40% of staff indicated that they were teaching in multidisciplinary groups and 29% reported using ICT such as collaborative workspaces or live streaming. About quarter of mobile staff reported not having used any of the teaching methods from the list and 13% did not teach during their mobility experience, which implies that around 61% had used at least one of the methods listed in the figure below.

Figure 129. Used teaching and training methods at the receiving institution



Source: ICF CHE Consult staff survey, N=5,989. Filter: only mobile teaching staff.

Table 20 indicates that between 72% and 83% of teaching staff who used a certain teaching method at the receiving institution during their last teaching assignment abroad reported an impact on the use of this method at the receiving institution. Between a quarter and a fifth of respondents for each item noted that their mobility had led to the introduction of that practice in their host institutions. This would suggest a strong impact of Erasmus+ in terms of stimulating innovation in the use of teaching approaches in host institutions.

Table 20. Impact of Erasmus+ and predecessor programme staff mobility on use of teaching methods at host institution

In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad? (multiple options)	Yes (has been introduced)	Yes (more frequently used)	Yes (used in a wider range of contexts)	Yes (used by more staff members)	Yes (used more effectively)	No (no changes)	Too early to tell	Don't know	N	At least one impact reported
Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures	22%	30%	17%	8%	9%	7%	6%	9%	548	77%
Different types of work-based learning, e.g. industry internships	21%	29%	18%	9%	12%	6%	5%	6%	434	83%
Teaching making use of ICT such as collaborative workspaces, live streaming	23%	26%	14%	5%	9%	9%	7%	11%	1,613	73%

In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad? (multiple options)	Yes (has been introduced)	Yes (more frequently used)	Yes (used in a wider range of contexts)	Yes (used by more staff members)	Yes (used more effectively)	No (no changes)	Too early to tell	Don't know	N	At least one impact reported
Project-based collaboration between enterprises and the university to study real life cases	20%	28%	18%	8%	11%	8%	4%	9%	930	78%
Teaching making use of material from open educational resources, such as massive open online courses	20%	27%	16%	6%	10%	8%	7%	12%	1,329	73%
Learning in multidisciplinary groups	18%	23%	18%	7%	11%	9%	7%	12%	2,150	72%
Specific impact reported in at least one teaching method	23%	30%	21%	10%	13%					

Source: ICF CHE Consult staff survey, Filter: only mobile staff who used specific methods was asked this question.

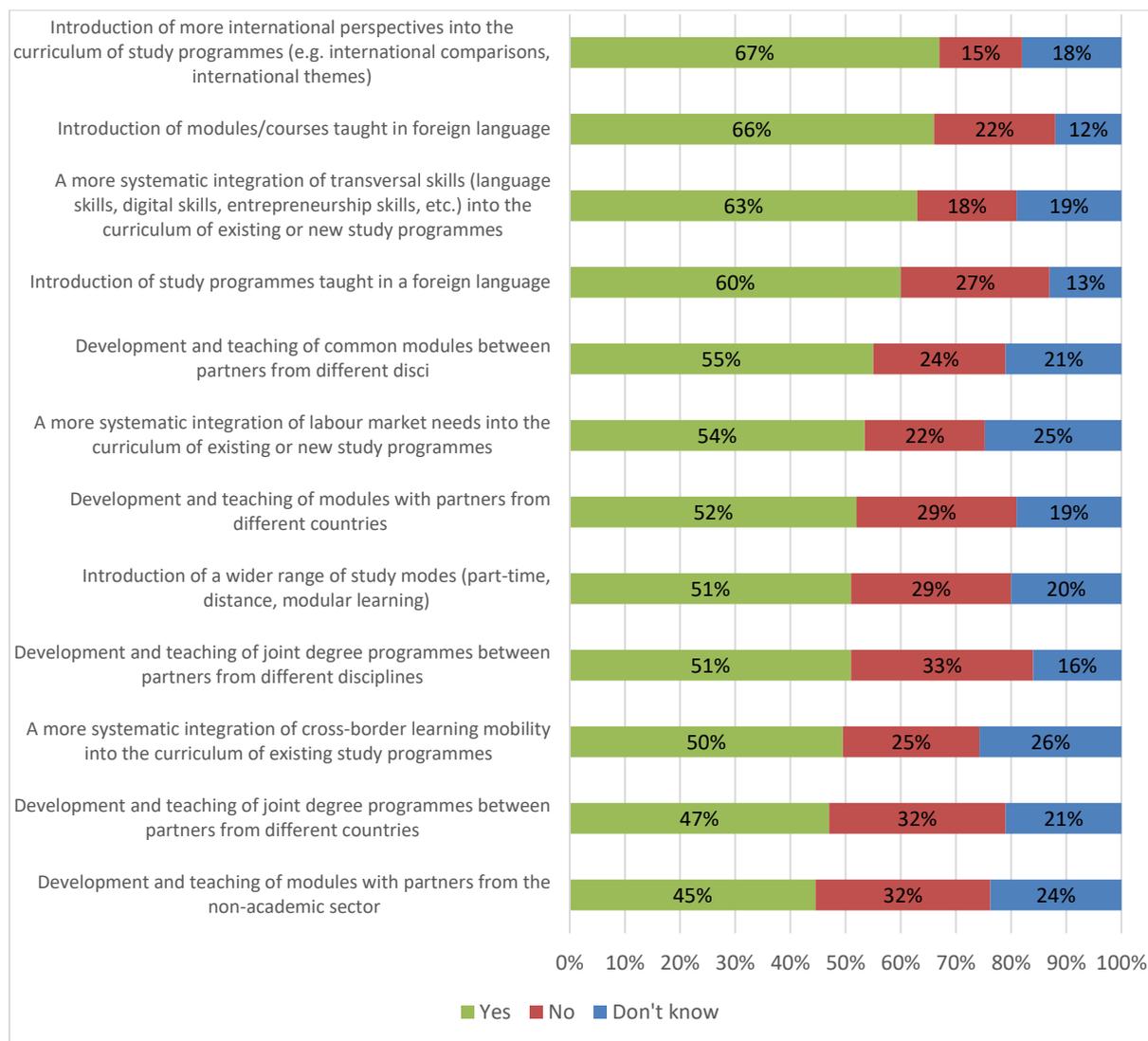
Respondents that have been mobile to Northern European Programme countries or to other regions report significantly lower impact on the teaching methods in the receiving institution, when compared to southern or western HEIs. The highest impact is reported by staff that have been mobile to Eastern European Programme countries.

The impact of Erasmus+ on curriculum development and teaching activities spreads beyond participants. More than 80% of staff report that Erasmus+ has led to improvements in these areas in the home departments.

The impact on curriculum development and teaching activities was captured using a two-step approach, similarly to that used with regards to teaching methods. In the first step, staff were presented with a list of curriculum development and teaching activities and were asked to indicate whether these have taken place or are taking place in their department (see Figure 130). In most cases over half of the respondents provided a positive response. Exceptions are the development and teaching of joint degree programmes between partners from different countries (47%) and development and teaching of modules with partners from the non-academic sector (45%). These are areas that require intensive cooperation outside of one's department.

Those aspects in which a greater proportion of positive responses were received tended to relate to internationalisation at home, such as internationalisation of the curriculum and modules –and to a somewhat lesser extent study programmes– taught in English. Around two thirds of respondents reported that these activities have taken place or are taking place in their department (see also Figure 130).

Figure 130. Curriculum developments and teaching activities in the home department



Source: ICF CHE Consult staff survey. Filter: only mobile teaching staff. N= 4,973-5,368

In the second step staff indicated whether there had been improvements in the area in their home department as a result of participation in Erasmus+. Table 21 shows that more than 80% of those respondents who indicated that a type of activity has taken or is taking place in their home department report that Erasmus+ has led to improvements¹⁰⁵ in that activity; again, a very high figure.

¹⁰⁵ Sum of very much, to a considerable extent and to some extent

Table 21. Impact of Erasmus+ and predecessor programmes on curriculum development and teaching activities

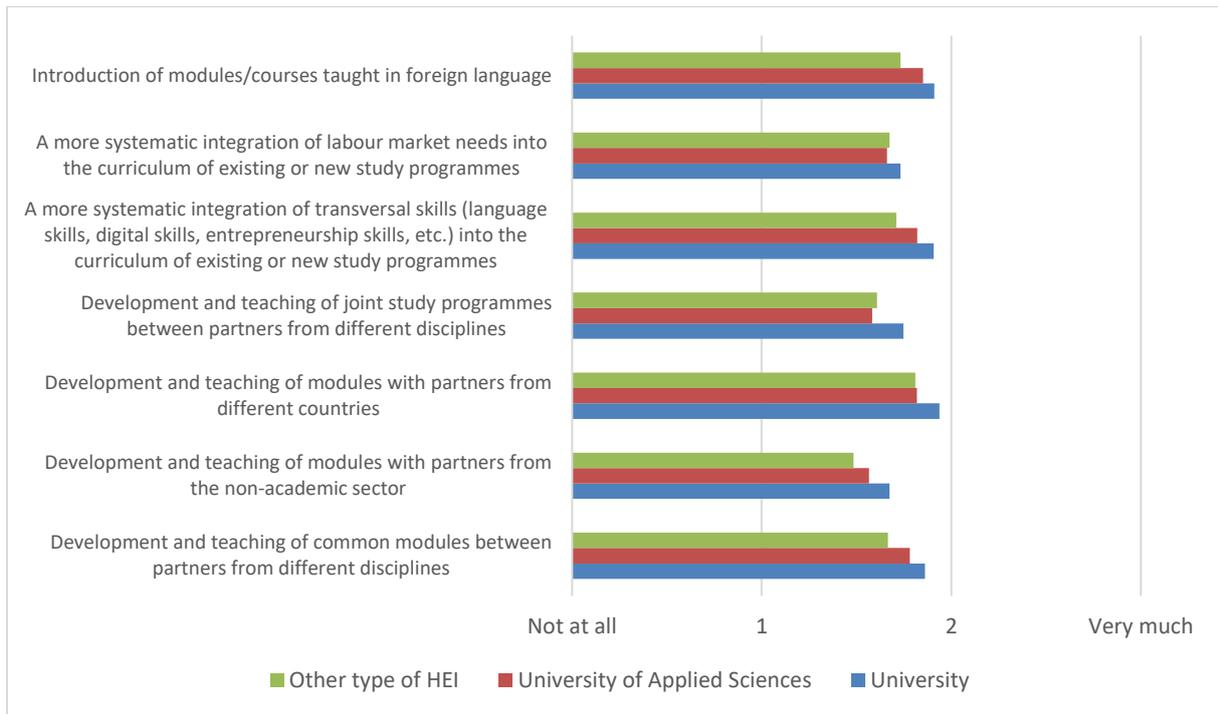
Have the knowledge, competences or contacts acquired by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to improvements in the development and implementation of the following activities in your department?	Very much	To a considerable extent	To some extent	Not at all	Too early to tell	Don't know	N
Development and teaching of common modules between partners from different disciplines	23%	29%	28%	6%	5%	9%	2,812
Development and teaching of modules with partners from the non-academic sector	18%	26%	31%	10%	6%	10%	2,255
Development and teaching of modules with partners from different countries	25%	32%	28%	3%	5%	6%	2,650
Development and teaching of joint study programmes between partners from different disciplines	19%	28%	30%	8%	6%	9%	2,861
Development and teaching of joint study programmes between partners from different countries	25%	29%	28%	5%	6%	8%	2,670
A more systematic integration of cross-border learning mobility into the curriculum of existing study programmes	24%	32%	27%	4%	5%	8%	2,512
A more systematic integration of transversal skills (language skills, digital skills, entrepreneurship skills, etc.) into the curriculum of existing or new study programmes	22%	34%	28%	4%	4%	8%	3,202
A more systematic integration of labour market needs into the curriculum of existing or new study programmes	19%	30%	28%	8%	6%	9%	2,723
Introduction of more international perspectives into the curriculum of study programmes (e.g. international case studies or international comparative analysis)	27%	32%	27%	3%	5%	7%	3,408
Introduction of a wider range of study modes (part-time, distance, modular learning)	20%	27%	28%	11%	5%	9%	2,561
Introduction of study programmes taught in a foreign language	28%	30%	24%	7%	4%	8%	3,064
Introduction of modules/courses taught in foreign language	27%	29%	26%	6%	4%	8%	3,346

Source: ICF CHE Consult staff survey. Filter: only teaching staff that responded that a particular activity is taking or has taken place in the department.

The breakdown analysis points to significant differences by region, smaller differences by type of HEIs, and again, no differences by size of HEI. Universities tend to report higher impacts than universities of applied sciences and other types of HEIs –see Figure 131. In

this case, the 'catching up' explanation does not apply, as universities reported a similar usage of these activities as universities of applied sciences and other types of HEIs.

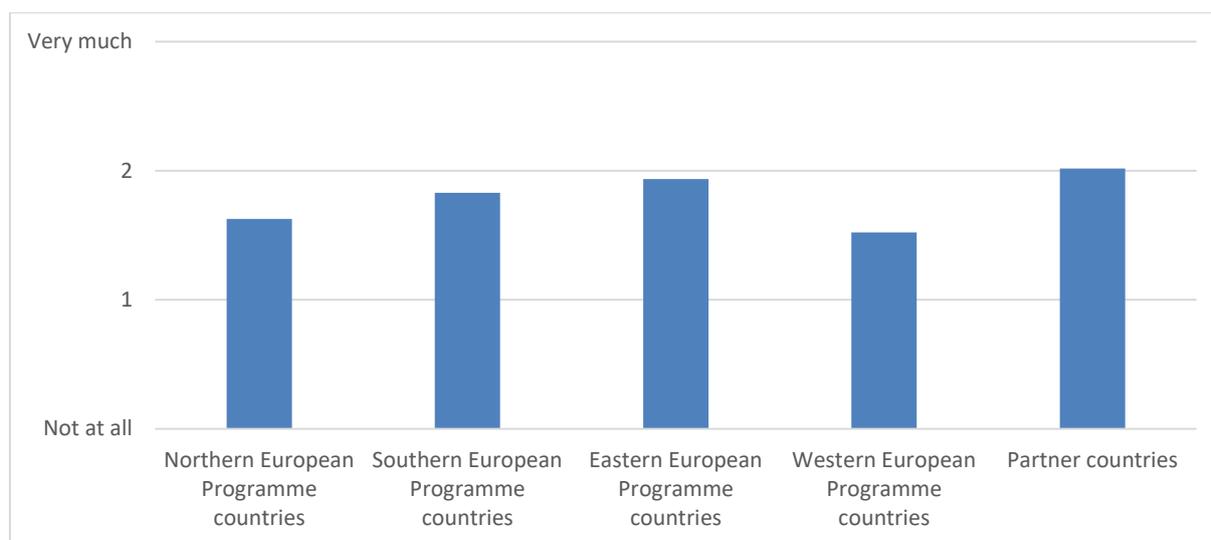
Figure 131. Degree of impact on curriculum development and teaching activities, by type of HEI



Source: ICF CHE consult staff survey. Filter: only mobile teaching staff that responded that a particular activity is taking or has taken place in the department. Note: Graph presents average of strength of impact by type of institution, 0=Not at all, 1=To some extent, 2=To a considerable extent, 3=Very much.

Regional analysis shows that staff from HEIs in Southern, Eastern European Programme countries and Partner countries reported higher levels of impact on curriculum development and teaching activities compared to HEIs in Northern and Western Europe. This effect is visible in all curricula development and teaching activities researched and the directions and sizes of the effects are similar. Figure 132 presents the average differences among regions across all the different activities. Interestingly, further analysis shows that the comparatively lower impact on curriculum development and teaching activities in Western Europe cannot be explained by a catch up effect, as staff in this region does not report higher prevalence of these activities in their institutions.

Figure 132. Curriculum development and teaching activities, by region



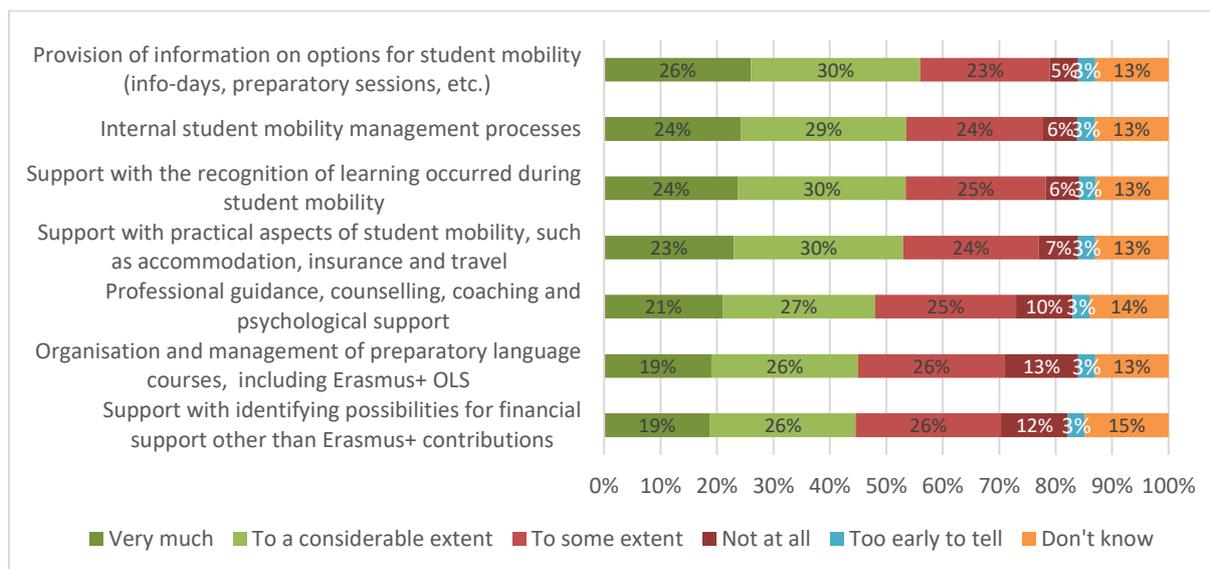
Source: ICF CHE Consult staff survey. Filter: only mobile teaching staff that responded that a particular activity is taking or has taken place in the department. Note: Graph presents average of strength of impact by type of institution, 0=Not at all, 1=To some extent, 2=To a considerable extent, 3=Very much.

7.4 The Impact of Erasmus+ on support services

A large majority of staff attribute improvements in student mobility management and student support at least to some extent to participation in Erasmus+. The highest impact was reported by institutions in Eastern and Southern European countries and Partner countries.

The staff and HEI representatives' questionnaire measures the impact of Erasmus+ on the management of student mobility and support for mobile students. The contribution of Erasmus+ or predecessor programmes in these areas was measured by asking staff to rate the extent to which the knowledge, competences or contacts acquired or developed during staff mobility had led to improvements in a range of aspects. A large majority of respondents attribute improvements in student mobility management and student support to participation in Erasmus+ or predecessor programmes, as shown in Figure 133.

Figure 133. Impact of Erasmus+ and predecessor programme staff mobility on student mobility management and support

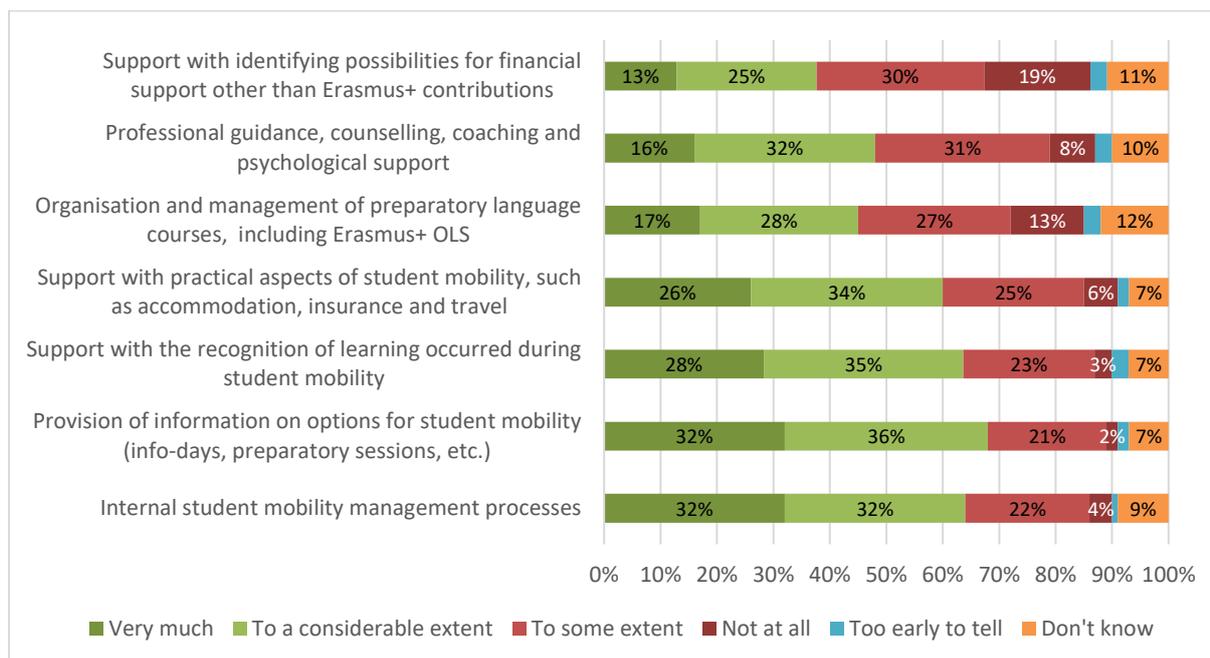


Source: ICF CHE Consult staff survey, Filter: only mobile staff. N= 4,805-5,831

The results suggest that Erasmus+ contributes to the development of institutions. Those areas more frequently reported to have improved as a result of staff mobility related to the provision of information on student mobility, internal management processes and the recognition of learning acquired abroad.

The same question was asked to representatives of HEIs, which allows for the triangulation of results. While the precise shares differ between the two groups (see Figure 133 and Figure 134), the responses are similarly positive. 'Internal student mobility management processes', 'the provision of information on options for student mobility' and 'support with the recognition of learning occurred during student mobility' are areas where both HEIs and staff report the largest impact. The identification of financial support other than Erasmus+ contributions and the organisation and management of preparatory language courses including the OLS are the two areas where both types of respondents report the smallest impact (in terms of the lowest share stating "very much" and the highest share stating "not at all"). However, considerable improvement was also reported in relation to those areas, which are important practical concerns for students. Given the importance of these factors as barriers to international student mobility, this is a positive indication of the satisfactory evolution of the programme.

Figure 134. The impact of participation in Erasmus+ and predecessor programmes on student mobility management and support



Source: ICF CHE Consult HEI survey. N=485-495

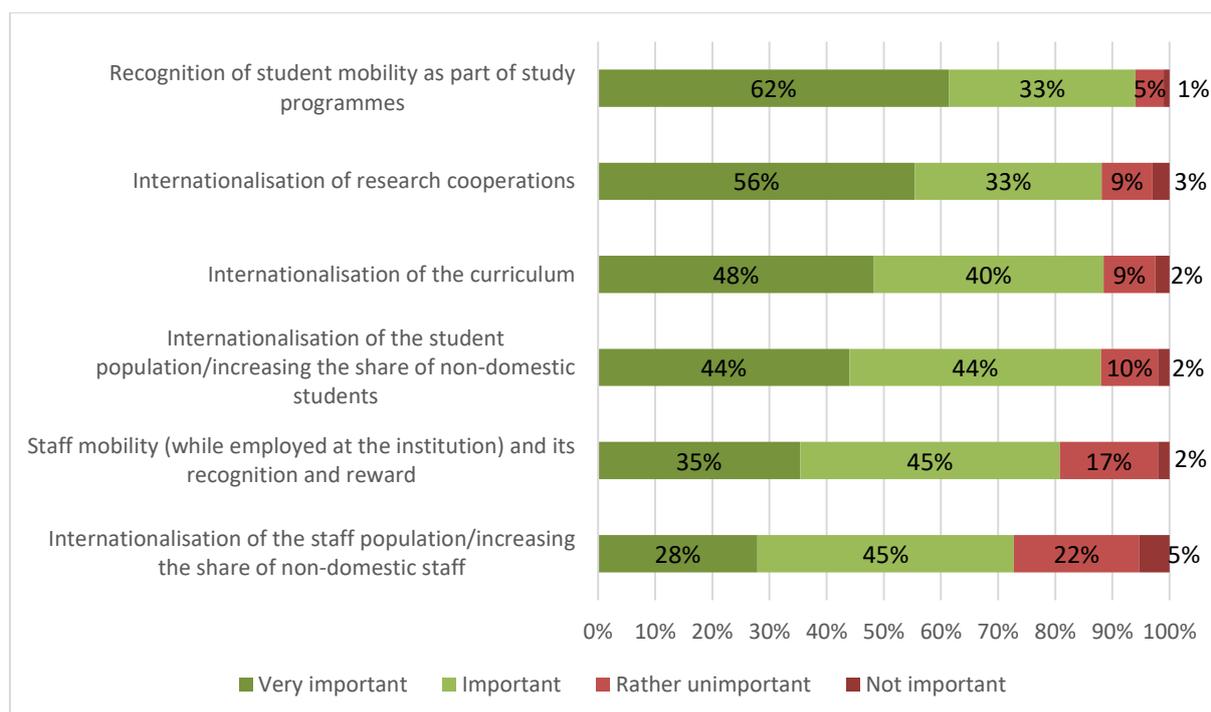
Breakdowns by institution type and size do not show distinct patterns according to those characteristics. Regional differences show that, institutions from Eastern and Southern European Programme countries, along with Partner countries, report a higher impact of participation in Erasmus+ on student support systems.

7.5 Impact of Erasmus+ on the internationalisation of institution

Internationalisation strategies are student centred: around 90% of institutions reported that their institution has an internationalisation strategy, and 95% of those reported recognition of student mobility as part of study programmes as an important or very important part of their strategy.

The survey of HEIs explored how student and staff mobility are integrated in the internationalisation strategy of sending institutions, and how it is recognised. Almost 9 in 10 (87%) HEIs that responded to the survey have an internationalisation strategy. Figure 135 reports how institutions evaluate the importance of various aspects of internationalisation in their strategy.

Figure 135. Importance of various aspects of the internationalisation strategy



Source: ICF CHE Consult HEI survey. Filter: only if internationalisation strategy exists. N=557-561 depending on item.

All the aspects of internationalisation listed in the survey question were deemed (very) important by a majority of respondents, but the highest importance is attached to the recognition of student mobility as part of study programmes: almost all respondents (95%) report it to be (very) important.

Breakdowns show stark differences by institution type, except in the case of recognition of periods abroad for students, which importance is shared across types of HEIs. The share of universities assessing all other aspects of internationalisation as very important is higher than for universities of applied sciences and for other types of HEIs, this difference is most evident in the case of internationalisation of research cooperation, probably due to the different character and mission of universities of applied sciences.

Some important differences can be also found by region. HEIs in Eastern European Programme countries assign particular importance to establishing research cooperation arrangements.

The survey gathered information on the share of programmes with embedded mobility as an indication of the level of internationalisation of HEIs. For many students, mobility is mandatory or an option explicitly integrated in the curriculum (embedded mobility). Between about half and one third of HEIs, depending on the field of study, report that mobility is mandatory or an option in at least in some of their study programmes, as shown in Table 22.

Table 22. Share of programmes with mandatory/optional mobility

At your institution, what is the share of study programmes where a mobility period abroad is mandatory for students because it is part of the programme structure, or where mobility is an option explicitly integrated in the curriculum (embedded mobility)?	None	Up to 10%	Between 10% and 25%	Between 26% and 50%	More than 50% (but not all)	All	N
Education	60%	11%	10%	7%	5%	7%	296
Arts and humanities	54%	14%	11%	7%	8%	6%	310
Social sciences, journalism	59%	17%	10%	5%	4%	5%	289
Business, administration and law	47%	17%	10%	8%	10%	8%	324
Natural sciences, mathematics	62%	16%	5%	6%	6%	4%	279
Information and Communication	59%	14%	9%	5%	8%	5%	301
Engineering, manufacturing	60%	12%	7%	5%	8%	7%	287
Agriculture, forestry	70%	13%	6%	2%	4%	5%	243
Health and welfare	64%	11%	6%	7%	4%	8%	272
Services	69%	13%	7%	2%	4%	6%	229

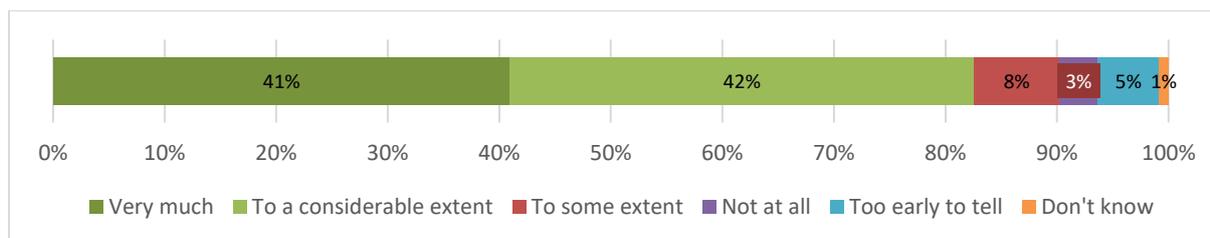
Source: ICF CHE Consult HEI survey. Around quarter of respondents did not know what share of study programme has embedded mobility. Only respondents that had information about the share of programmes with embedded mobility are included in this table.

According to the results, business, administration and law, are the most internationalised field, as 53% of the respondents reported that their HEI has embedded mobility in at least some of the study programmes in that area. This is followed by arts and humanities with 46% of study programmes with embedded mobility. High internationalisation of these fields is in line with the fact that most mobile Erasmus+ students study business, administration and law or arts and humanities. On the other hand, agriculture, forestry and services are among the least internationalised study fields. Table 22 shows that even though large numbers of students already benefit from embedded mobility, there is still room for improvement in this aspect of internationalisation, as a large share of HEIs report not having mobility embedded in their curriculum.

Erasmus+ helps to facilitate mobility outside of the programme

The survey results indicate that participation in Erasmus+ and predecessor programmes has led to improvements in the recognition of mobility *outside* of embedded mobility. This suggests that the programmes have helped to facilitate mobility outside of its direct beneficiaries.

Figure 136. Improvement in recognition of mobility outside of embedded mobility



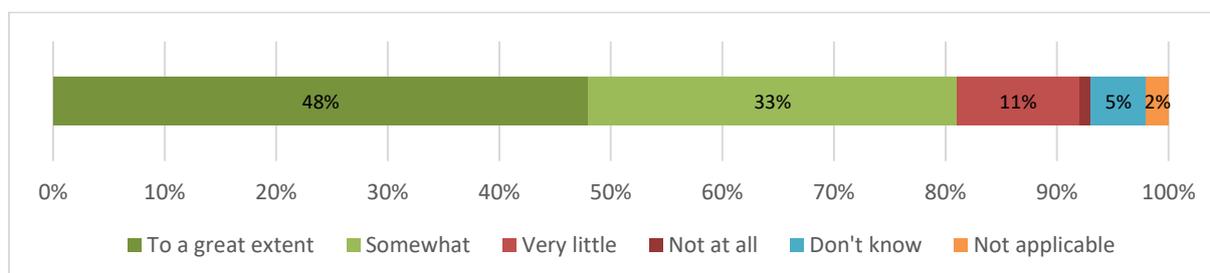
Source: ICF CHE Consult HEI survey. N=459.

The lowest share of respondents reporting high impact (answers 'very much') in this area can be found in Northern European Programme countries (around 30%). By contrast, institutions from Partner countries reported the highest level of impact (more than 50% of institutions reporting 'very much'). HEIs report higher impact compared to medium and smaller HEIs, while there is no difference by type of institution.

Almost 50% of HEIs report that Erasmus+ has had a great impact on the internationalisation of the student population

As could be expected, the reported impact on the internationalisation of the student population is somewhat larger than the facilitation of mobility outside of the direct beneficiaries of the programme. Around half of the HEIs reported that participation in Erasmus+ or predecessor programmes has contributed to a great extent to the internationalisation of the student population –an aspect related to internationalisation at home- within their respective institution over the past 10 years, as shows Figure 137. Virtually no HEIs reported that it has had no effect.

Figure 137. Impact of participation in Erasmus+ or predecessor programmes on the internationalisation of the student population in the HEI over the past 10 years



Source: ICF CHE Consult HEI survey. Filter: If participation in E+ or predecessor programmes. N=450.

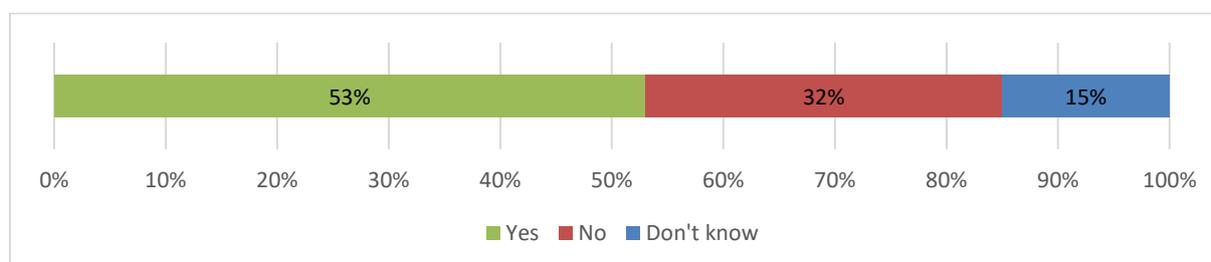
Answers vary according to the size of the institution. Smaller institutions are less likely to indicate that Erasmus+ participation contributes greatly to the internationalisation of the student population than medium and large sized institutions. There is no difference in effect by type of institution. The impact is also relatively homogeneous across regions, with the exception of Partner countries, where 29% of respondents reported an impact of great extent of Erasmus+ on the internationalisation of student population. While this may seem low, it should be kept in mind that the number of mobile students between partner and programme countries is small, and therefore the possible impact on those countries is more limited than in programme countries.

7.6 International Credit Mobility (ICM) and its impact on institutions

Half of the HEIs report to be cooperating with institutions from partner countries as part of Erasmus+ ICM

As Figure 138 shows, over half of HEIs report to be cooperating with institutions from partner countries as part of Erasmus+ ICM, i.e. enabling students to study abroad (or receiving students) for which they obtain credits towards completing their programmes. There are some differences in the cooperation with HEIs from partner countries according to size. Smaller HEIs cooperate less often with institutions from partner countries compared to larger HEIs (39% of small HEIs, 55% of middle sized and 65% of larger HEIs report such cooperation). Important differences can also be found with regard to the regions. HEIs from Southern European Programme countries reported the lowest levels of cooperation under Erasmus+ ICM (47%). Institutions from Northern, Western, and Eastern European Programme countries report such cooperation much more often (63% in the case of Eastern and Northern European Programme countries, and 61% in the case of Western European Programme countries).

Figure 138. Share of HEIs cooperating with institutions from partner countries as part of Erasmus+ ICM

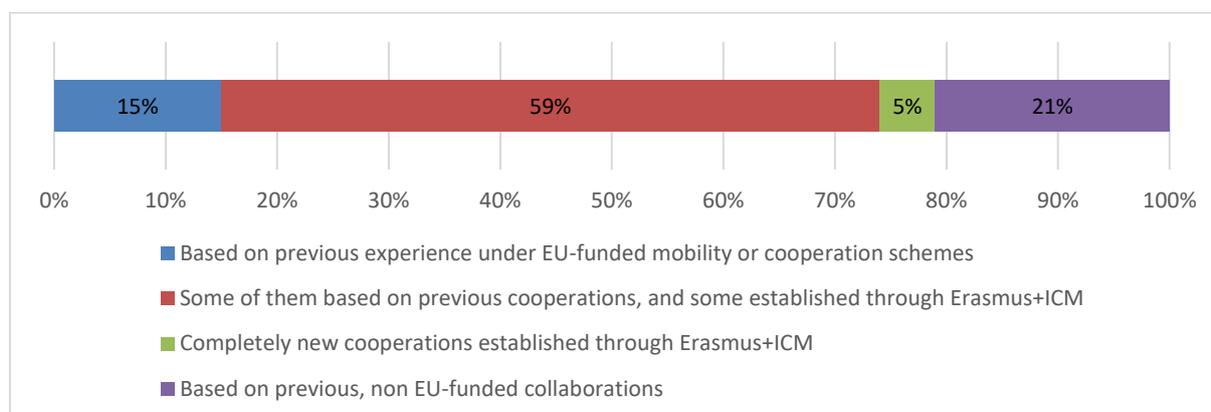


Source: ICF CHE Consult HEI survey. N=489

EU funded collaborations are crucial for establishing ICM cooperations

As can be seen in Figure 139, most HEIs report their ICM cooperation to be based on a combination of previous cooperations and partly new ones (59%). About 36% of HEIs have ICM cooperations that are entirely based on previous cooperation (16% EU and 21% non-EU funded). 5% of HEIs report that all of their ICM exchanges are based on completely new cooperation.

Figure 139. The basis of international credit mobility



Source: ICF CHE Consult HEI survey. Filter: Only HEI that is involved in ICM. N=203

The data shows much reliance on EU programmes in the establishment of international credit mobility arrangements. Only 21% of HEIs reported that these arrangements were based on previous non EU-funded collaborations, contrasting with the 79% of institutions that reported reliance on EU-funded programmes for the establishment of those arrangements.

The figure also shows that it is relatively uncommon to establish completely new cooperations as part of Erasmus+. This could be expected given that international cooperation has been stimulated for a long period of time in Europe. However, there are segments of HE where the programme has contributed to the establishment of new cooperations significantly more often than for the overall sample. The breakdown analysis shows that smaller institutions reported to have established new collaborations much more frequently than larger institutions (12% versus 5% in the case of medium and large institutions). The results also show a higher use of the programme to establish new partnerships with partner countries thanks to ICM among Universities of Applied Sciences: about 13% of Universities of Applied Sciences, compared to 4-7% of universities and other HEIs, stated that ICM partnerships are completely a result of E+ participation.

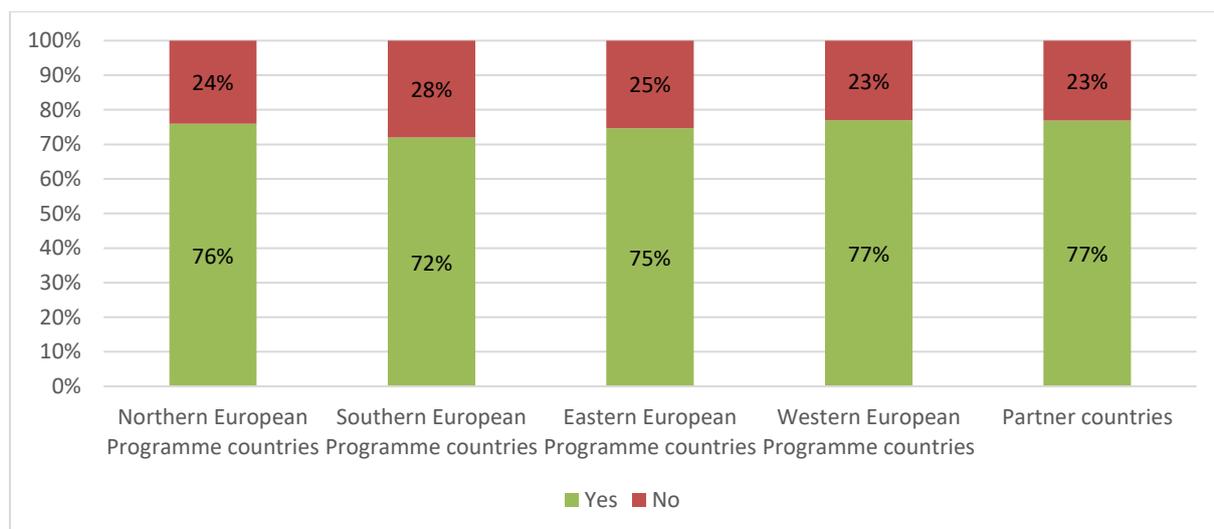
Regarding regional differences with regards to the reliance on the Erasmus+ programme to establish ICM arrangements, almost 45% of HEIs in Western European Programme countries report that ICM is for the main part based on previous, non-EU-funded collaboration; but the figure decreases to 25% for institutions in Northern European Programme countries; 20% of those in Eastern European Programme countries and only 8% for institutions in Southern European Programme countries HEIs. This reveals important regional variations and the extent to which EU funded collaborations are crucial for establishing ICM cooperation for HEIs in Southern European Programme countries.

7.7 The impact of Erasmus+ on cooperation between HEIs and enterprises

Eastern and Southern European Programme countries report more often impact of invited staff from enterprises

Staff were asked about the added value of teaching assignments from invited staff from enterprises. A large majority of staff (around three quarters) indicated that their department in general invites staff from enterprises to contribute to teaching.

Figure 140. Inviting staff from enterprises



Source: ICF CHE Consult staff survey. Filter: only mobile teaching staff. N=7,349

There are small differences by region as shown in Figure 140. Regarding university type, Universities of Applied sciences invite staff from enterprises more frequently than Universities and other types of HEIs (82% vs 72% and 76% respectively), as could be expected. There are, on the other hand, no differences by HEI's size.

When asked about the impact of cooperation with enterprises as part of Erasmus+ and predecessor programmes on teaching and learning, HEIs reported that the highest impact was on possibilities for internships and job placements, and on providing students with useful insights on the world of enterprises. The survey responses also suggest that the use of cutting-edge technology in teaching and the systematic involvement of enterprises in the curriculum is more difficult to achieve, at least in the framework of Erasmus+, than other aspects of HEI enterprise cooperation.

Table 23. Positive impacts of collaboration with enterprises as part of Erasmus+ and predecessor programmes on teaching and learning

Thinking of the collaboration with enterprises as part of participation in Erasmus+ or predecessor programmes, to what extent did this collaboration positively impact on the following aspects?	Very much	To a considerable extent	To some extent	Not at all	Don't know	N
Possibilities for internships/job placements	23%	25%	22%	4%	26%	439
Providing useful insights to students on the world of enterprise	18%	26%	25%	3%	28%	434
Better understanding of students of entrepreneurship and the application of knowledge in real life cases	18%	26%	22%	4%	31%	440
Greater emphasis in curriculum on international perspectives/international content	14%	24%	26%	6%	30%	437
Motivation of non-mobile students to go abroad for studies or training	15%	26%	24%	5%	29%	442
Better understanding of students of employers' mind-set	13%	29%	24%	5%	30%	438
Greater emphasis in curriculum on labour market needs	13%	22%	27%	7%	31%	438
Building links to more systematically involve enterprises in curricula development	9%	15%	29%	13%	33%	438
Use of cutting edge technology in teaching	7%	20%	26%	11%	36%	436

Source: ICF CHE Consult HEI survey.

Respondents were asked about the extent to which inviting staff from enterprises for teaching assignments has positive impacts on a range of positive outcomes, and these varied somehow compared to other forms of collaboration with enterprises. As indicated in Table 24, staff perceive the impact of inviting staff from enterprises to be highest with regard to helping students to gain a better understanding of entrepreneurship and the application of knowledge in real life cases, and of employers' skill demands. Staff report the lowest (but still considerable) impact of inviting staff from enterprises on the use of cutting edge technology in teaching, as in the case of collaboration with enterprises.

Table 24. Impact of invited staff from enterprises, staff perspective

To what extent does inviting staff from enterprises for teaching assignments positively impact the following aspects?	Very much	To a considerable extent	To some extent	Not at all	Don't know	N
Better understanding among students of entrepreneurship and the application of knowledge in real life cases	36%	35%	16%	2%	12%	4,956
Better understanding among students of employers' skill demands	36%	35%	16%	1%	11%	4,970
Possibilities for internships/job placements	34%	33%	19%	2%	12%	4,978
Greater emphasis in curriculum on labour market needs	28%	34%	21%	3%	13%	4,965
Building links to more systematically involve enterprises in curricula development	26%	34%	23%	4%	14%	4,953
Greater emphasis in curriculum on international perspectives/international content	24%	31%	24%	5%	15%	4,963
Motivation of non-mobile students to go abroad for studies or training	23%	28%	25%	6%	18%	4,942
Use of cutting edge technology in teaching	19%	28%	27%	10%	17%	4,960

Source: ICF CHE Consult staff survey, filter: only if yes to question "Does your department invite staff from enterprises (including public, private, social enterprises) to contribute to teaching?"

The results do not substantially differ according to type and size of institution. Differences exist, however, between subjects. Staff from business administration and law, ICT, Engineering, manufacturing and construction as well as Agriculture most often report that inviting staff from enterprises has a very positive impact on various aspects of the curriculum and teaching. Those subjects where greatest use is made of staff from enterprises in teaching tend to be amongst those who report greatest benefits from such practice, but there are also subject (like ICT and Agriculture) where a perception of high benefits are not matched with similarly high levels of use of this activity.

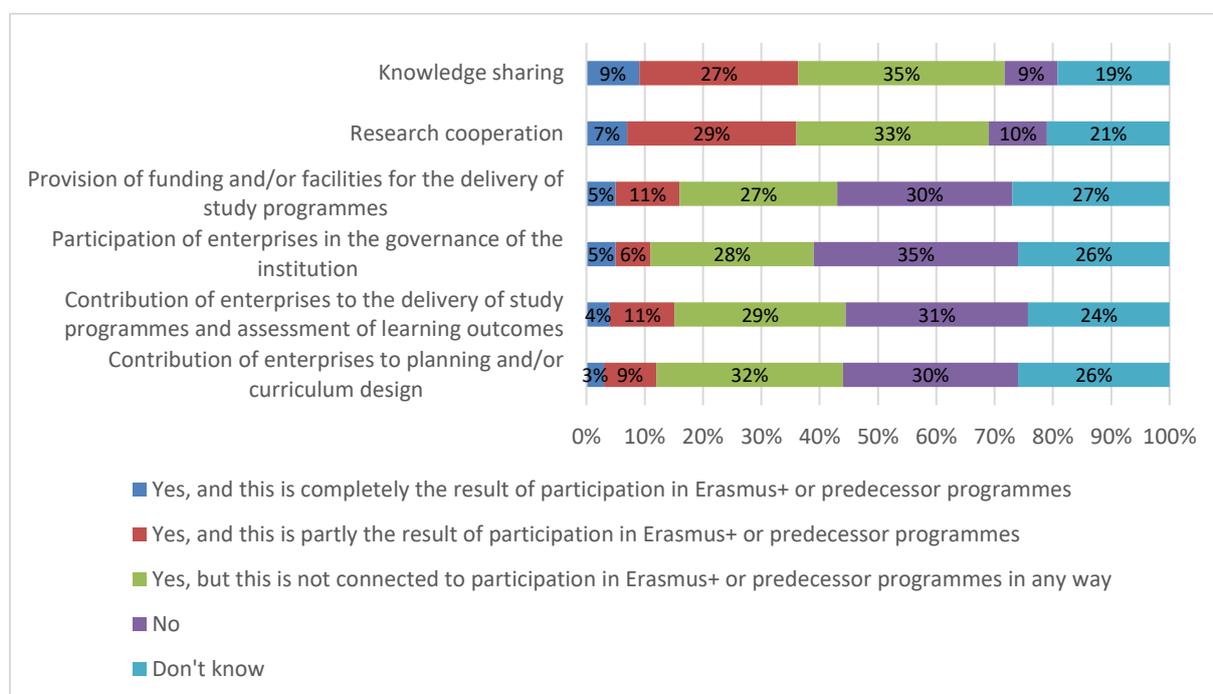
While the perception of benefits with regards to 'Better understanding among students of entrepreneurship and the application of knowledge in real life cases' and 'Better understanding among students of employers' skill demands' is evenly spread across regions, there are important differences by regions with regards to the perception of other benefits: staff from HEIs in Eastern and Southern European Programme countries report more often impact on the analysed outcomes than staff from Northern and, especially, Western European Programme countries.

Cooperation between HEI and enterprises has important positive impacts, above all, on the development of research cooperation and knowledge sharing activities – although there are very marked differences by region. Cooperation with enterprises in teaching and curriculum matters as part of the programme is more limited.

The HEI questionnaire explored the degree of HEIs’ cooperation with enterprises and how cooperation with enterprises as part of Erasmus+ and predecessor programmes impacts on various aspects of higher education. Overall, the results suggest that the Erasmus+ contribution to HEIs’ cooperation with enterprises is relatively limited and programme activity in this area could be improved further.

Figure 141 indicates that HEIs’ level of cooperation with enterprises strongly depends on the kind of cooperation and its purpose. The most widespread types of cooperation with enterprises is knowledge sharing and research cooperation (only around 10% of respondents reported no cooperation in this area; a further 19% of respondents did not know whether cooperation in the area was taking place at their HEI). Moreover, knowledge sharing and research cooperation emerge as the types of cooperation with enterprises where participation in Erasmus+ and predecessor programmes has more often led to cooperation: 7-9% of respondents reported that these collaborations were completely the result of participation and almost a further 33-35% reported that it was partly the result of participation in the Erasmus+ or predecessor programmes. Other types of cooperation –mostly associated with teaching-related and curriculum matters– are usually not related to Erasmus+ participation: fewer than one in five respondents reported that cooperation with enterprises outside of knowledge sharing or research was connected to some extent to Erasmus or predecessor programmes. This could suggest that enterprises tend to be more interested in Erasmus+ cooperation that leads to product or process development than in cooperation that leads to the development of human capital. This is logical since enterprises may be more interested in cooperating with local HEIs in the development of human capital.

Figure 141. Existing types of cooperation with enterprises



Source: ICF CHE Consult HEI survey. N= 450 – 461.

The breakdown analysis suggests that there are important differences between regions and types of universities in this area; by contrast, no substantial differences were found in the case of institution size.

Universities of applied sciences in our sample unsurprisingly cooperate with enterprises more frequently than other types of HEIs and universities. However, the difference resides mostly in their capacity to establish cooperations outside of Erasmus+, as there is no major difference among different types of HEIs in the amount of cooperation stemming from Erasmus+.

Institutions from Eastern and Southern European Programme countries report a much higher impact of Erasmus+ on the development of their cooperation with enterprises than Northern and Western European Programme countries. This underlines the strong impact of the programme in this respect in Southern and Eastern European Programme countries.

8 The impact of Erasmus+ Strategic Partnerships

Main findings

- Strategic Partnerships help institutions to increase their cooperation with actors outside of HE. Over a third of coordinators of Strategic Partnerships state that they cooperate with enterprises as part of their SP.
- Strategic Partnerships also help institutions to establish new cooperations outside of HE. The highest share of new cooperations established as part of the SPs is with public authorities and enterprises (both 36%)
- SP coordinators report important impacts in the areas of teaching methods and curricula development. The most frequently reported impacts are in the introduction of more international perspectives into the curriculum, the development and teaching of modules with partners from other countries, the use of learning in multidisciplinary groups and teaching making use of material from open educational resources, such as massive open online courses –all mentioned by more than 80% of respondents.
- 90% of SP's objectives included the development or improvement of teaching methods, while 50% included curriculum development in their objectives.

This chapter presents the results of the survey of Strategic Partnerships coordinators, which was sent to 152 coordinators of SP projects that ended in 2014. This approach was taken in order to allow sufficient time for the impacts and effects of the programme to be known by the time of the survey, as explained in the methodology chapter. Out of the 152 coordinators contacted, 85 responded to the survey. Even though the return rate is relatively high, breakdowns by regions, types of institution and size of institutions are not presented in this chapter due to the limited number of projects targeted and responses received.

This chapter, on Strategic Partnership, explores the following areas:

- The impact of SP on cooperation with enterprises and other types of partners
- The impact of SP on teaching methods, activities, and curriculum development
- The impact of SP on the internationalisation of HEIs

8.1 The impact of Strategic Partnerships on cooperation with enterprises and other types of partners

Strategic Partnerships open doors for cooperation with new entities, especially in the case of enterprises and public authorities

The survey of coordinators of SPs show that SP cooperation projects are important in increasing cooperation with actors outside of individual HEIs. Nearly all respondents agreed that their SPs involved cooperation with other HEIs (99%), more than third (36%) reported cooperation with enterprises, and relatively frequent cooperation was also reported with providers of education other than HEIs (23%) and with research centres (26%).

With reference to new cooperation projects (projects with partners the HEI has never cooperated before), the data indicate that the most frequent new collaborations involved providers of education outside higher education (i.e. 32%), enterprises (i.e. 36% - showing a high level of impact in this area), chambers of commerce (i.e. 33%), public

authorities (i.e. 36%) in relatively equal measure, as well as a range of other organisations (i.e. 50%). These projects, as such, have helped HEIs to strengthen their links with both traditional partners such as education providers and enterprises as well as non-traditional partners such as public institutions or chambers of commerce (Table 25).

Table 25. Type of partners in Strategic Partnerships

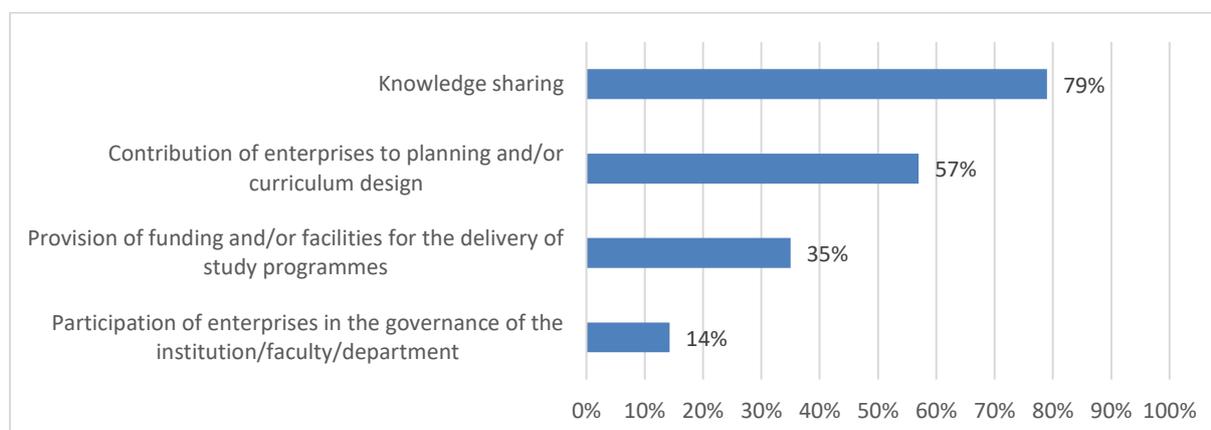
As part of your Strategic Partnership were you cooperating with the followings: (multiple option)	No	Yes	N	Share of new cooperations
Other higher education institutions	1%	99%	81	19%
Providers of education and training outside higher education (schools, vocational education and training providers, etc.)	77%	23%	81	32%
Public authorities	86%	14%	81	36%
Civil society organisations	94%	6%	81	17%
Enterprises (including public, private, social enterprises)	64%	36%	81	36%
International organisations	85%	15%	81	0%
Research centres	74%	26%	81	10%
Social partners	95%	5%	81	25%
Chambers of commerce	96%	4%	81	33%
Others	89%	11%	81	50%

Source: ICF CHE Consult SP survey.

SP coordinators report most frequently cooperation with enterprises in the area of knowledge sharing (79%)

As shown above in Table 25, 36% of coordinators reported cooperation with enterprises as part of their Strategic Partnership. The results indicate that SPs cooperate with enterprises most frequently in the area of knowledge sharing (79%). Cooperation was less frequent with regards to planning and/or curriculum design (57%), the provision of funding/ facilities for the delivery of study programmes and participation in the governance of the institution.

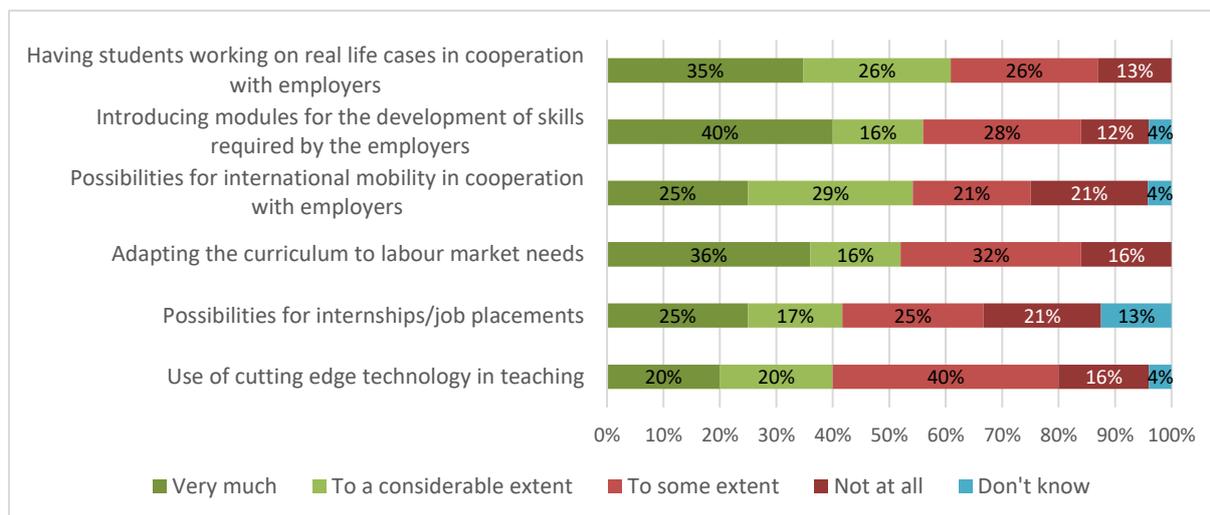
Figure 142. Types of cooperation with enterprises in SP



Source: ICF CHE Consult survey SP survey, N=28. Filter: only respondents that cooperate with enterprises.

More than half of the SP coordinators¹⁰⁶ reported that cooperation with enterprises on teaching and learning matters led to improvements ('very much' or 'to a considerable extent') specifically in providing students with experience working on real-life cases, in introducing modules for the development of skills required by the employers, possibilities for international mobility in cooperation with employers and adapting curriculum to market needs. Impacts were, nevertheless, found in all the aspects of teaching and learning. Only between 13% and 21% of SP's coordinators reported that the cooperation had not led to any improvements in each of the specific areas covered by the survey.

Figure 143. Impact of cooperation with enterprises on teaching and learning



Source: ICF CHE Consult survey SP survey, N=25. Filter: only respondents that cooperate with enterprises.

8.2 The impact of SP on teaching methods, activities, and curriculum development

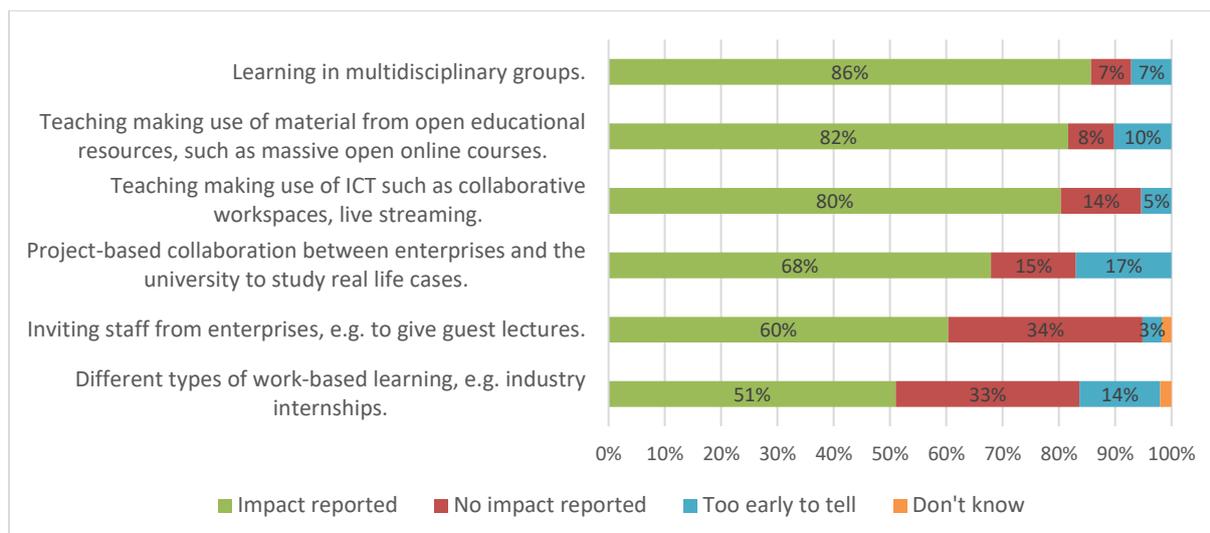
SPs can answer specific needs of the institution by supporting the introduction of new teaching methods

More than 90% of respondents reported that the development of new teaching methods or the improvement of existing methods was part of the aims of the Strategic Partnerships they coordinated, compared to about 50% who reported that curriculum development was part of the objectives of their SPs.

SP coordinators also reported whether participation in Strategic Partnerships had led to changes in the use of teaching methods in the institution/ faculty or department where they work.

¹⁰⁶ Sum of "very much" and "to a considerable extent"

Figure 144. Impact of participation in SPs on the use of teaching methods

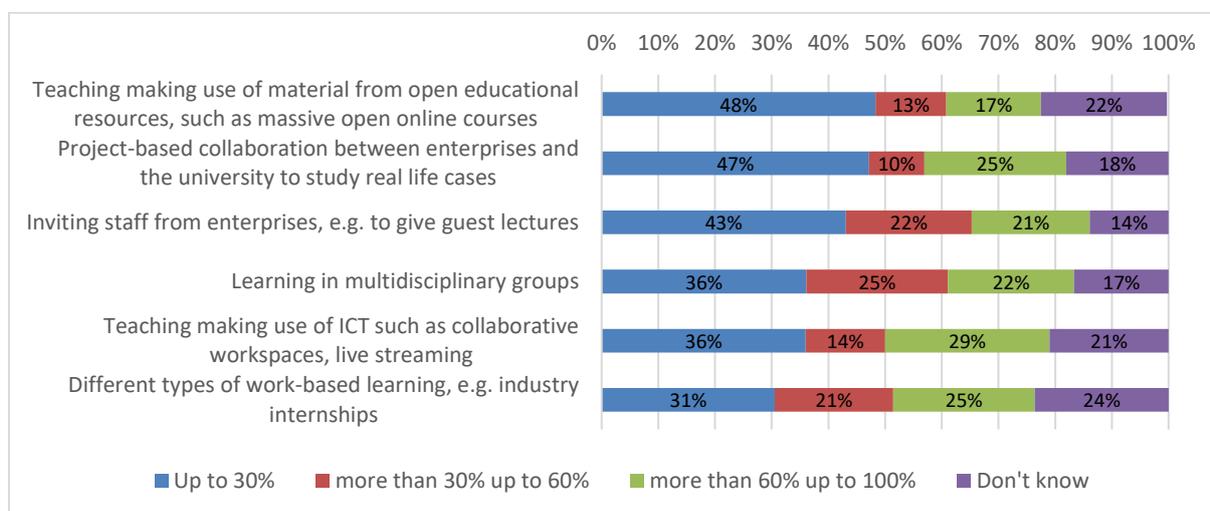


Source: ICF CHE Consult SP survey. N= 56. The answer categories to this question contained six different types of impact (teaching method has been introduced, more frequently used, used in a wider range of contexts, used by more staff, used more effectively and improved/ developed further), the same format as in the case of staff survey, however, due to the limited sample size, we have developed binary variable showing whether coordinators of SPs have reported an impact or not, regardless the type of impact.

While respondents report benefits for all teaching methods, as shown in Figure 144, the impact of SP seems to be particularly pronounced for ICT-facilitated teaching and multidisciplinary group-work. More concretely, for teaching making use of ICTs, learning in multidisciplinary groups and teaching making use of open educational resources respondents perceived at least one impact in more than 80% of cases. SP coordinators also frequently mentioned impact of 'other' teaching methods, which included for example organising competition in cooperation with enterprises, service learning, or visits to enterprises or partner institutions (as reported in the open questions in the questionnaire).

The data shows that the methods most commonly introduced thanks to the SP (e.g. teaching making use of material from open educational resources) are those that are less prevalently used across study programmes as visible from Figure 145. This indicates that SP can answer specific needs of the institution by enabling them to introduce new teaching methods.

Figure 145. Share of study programmes in which the following teaching methods are used



Source: ICF CHE Consult SP survey. N= 72

Virtually all SP coordinators report impact on curriculum development and teaching activities

SP coordinators were asked to report whether participation in Strategic Partnerships had led to changes in curriculum development and teaching activities in the institution/ faculty or department where they work. Coordinators of SPs report very frequently impacts of Erasmus+ on curriculum development and teaching activities, as shown in Figure 146.

Figure 146. Impact of Strategic Partnership on curriculum development and teaching activities



Source: ICF CHE Consult SP survey, N=40. Filter: only if curriculum development was part of the Strategic Partnership. The answer categories to this question contained five different types of impact (activity has been introduced, more frequently being done, being done in a wider range of contexts, being done by more staff and being done more effectively), coherently with the approach in the case of teaching methods, we have developed variable showing whether SP coordinator indicated impact or not.

Coordinators of SPs report very frequently impacts of Erasmus+ on curriculum development and teaching activities. In most of the activities, 9 out of 10 coordinators reported some impact. Lower impact was reported regarding the development and teaching of modules with partners from different countries and the development and teaching of joint study programmes between partners from different disciplines and different countries, despite the fact that about 80% of the respondents reported at least one impact resulting from SPs.

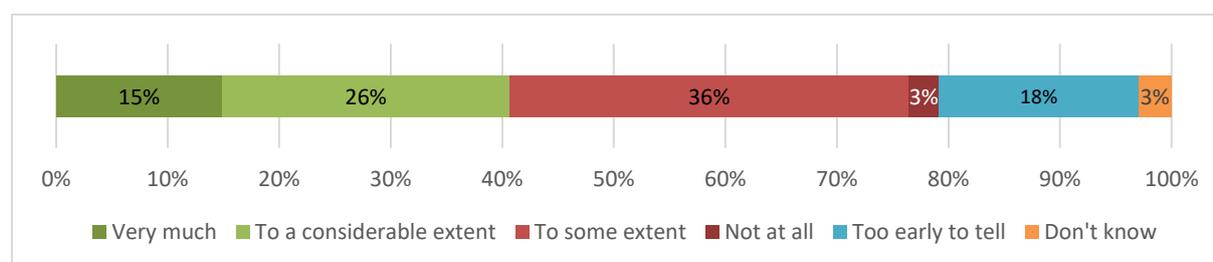
In response to the open questions in the SP questionnaire most of the respondents reported concrete examples of positive impact of the SP on curriculum development. For example, one of the respondents explained that the SP has led to the development of a new module that meets the competencies and skills needs of companies and that had never offered before at the institution. Other respondents reported an impact of SPs on the development of courses in English language that aim to increase student employability, the involvement of professors from the partner HEI in both curriculum development and teaching activities, or the introduction of a cross-disciplinary approach in curriculum development.

8.3 The impact of SP on internationalisation

80% of SP coordinators reported positive impact stemming from curriculum development and teaching activities on the internationalisation of the student population

Survey respondents were asked to report on the impact of SPs' curriculum development and teaching activities on the internationalisation of the student population at their institution.

Figure 147. *Impact of curriculum development and teaching activities on the internationalisation of the student population*



Source: ICF CHE Consult SP survey, N=39, filter: only if curriculum development was part of the Strategic Partnership

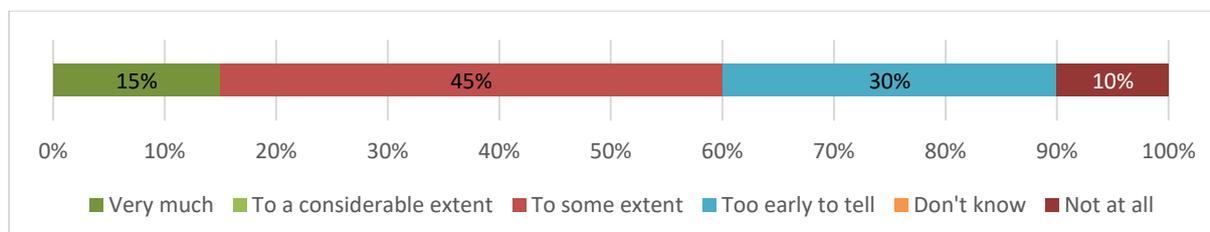
Most respondents (around 80%) agreed that their institution/ faculty or department experienced a positive impact stemming from SP curriculum development and teaching activities on the internationalisation of their student population. This suggests that in many institutions SPs have both a direct and an indirect effect on "internationalisation at home": directly through curriculum development that enhances the presence of international perspectives and indirectly through the impact of such curriculum development on the internationalisation of the student population. Only 3% of survey respondents perceived no impact of SPs in terms of the internationalisation of the student population.

Open questions in the SP surveys provide further evidence on the positive impact of SPs on the internationalisation of the student population. According to several respondents, thanks to SPs and the enhanced experience with international projects that they provide, their HEIs had experienced an increase in international activities: joint courses between universities are now offered at the institution; increased cooperation between teachers has led to additional student exchanges; courses from different HEIs are formally recognised which leads to higher student motivation for mobility. Moreover, some respondents reported an increase in the number of foreign students at the HEI and in the number of courses offered in English. Finally, these effects spill onto other parts of the HEI: several respondents mentioned that thanks to the SP the HEI had extended the Erasmus+ agreements to other fields of study than the major field of the SP.

Internationalisation of the student body is according to the SP coordinators amplified thanks to the development of flexible learning pathways, which also contribute to widening access.

SP coordinators also reported on the level of impact of flexible learning pathways on the increase in the enrolment of students from abroad.

Figure 148. Impact of flexible learning pathways on increase in the enrolment of students from abroad

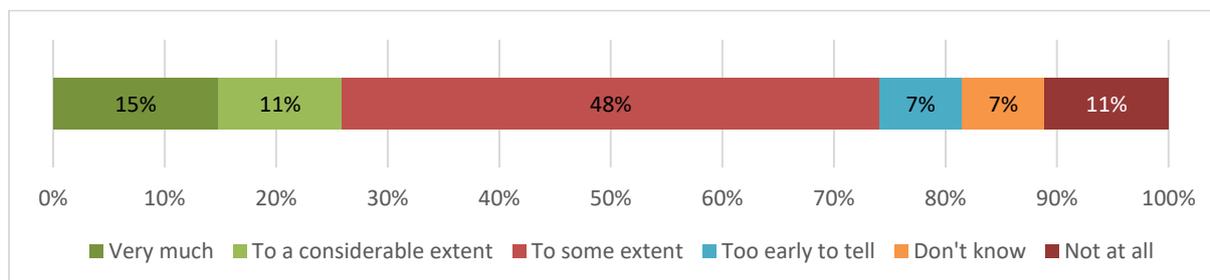


Source: ICF CHE Consult SP survey, N=20, filter: only if development/ improvement of flexible learning pathways was part of the Strategic Partnership. DK and to the considerable extent is missing as none of the respondents chose this option

Flexible learning pathways (e.g. part-time studies/ modular learning/ distance learning/ etc.) also contribute to the enhancement of the internationalisation of the student body, with 60% of coordinators reporting some impact on the enrolment of students from abroad –compared to 10% of respondents reporting no changes in this respect.

Flexible pathways for study were reported to play an important role, moreover, in widening access to respondents' institution/faculty or department (Figure 149).

Figure 149. Impact of flexible learning pathways on widening access to institution/faculty/department



Source: ICF CHE Consult SP survey, N=27, filter: only if development/ improvement of flexible learning pathways was part of the Strategic Partnership

Flexible learning pathways were reported to have at least some impact on widening access to HEIs by a vast majority of respondents (i.e. 74%), which confirms that flexible learning pathways primarily impact positively on widening access to higher education – more than on the internationalisation of the student body.

The increased use of Open Education Resources and MOOCs were reported to considerably facilitate access to learning material and internationalisation at home. For example, blended mobility offers the possibility to participate in international and intercultural study exchanges whilst minimising/eliminating obstacles (including financial-, time-, travel-related). This is of particular value for students who could otherwise not benefit from such opportunities due to economic, social or financial reasons.

9 Conclusions

Established in 1987 the Erasmus+ programme, together with its predecessor programmes, is one of the longest running and the largest higher education international mobility programme in the world. It supports the mobility of students and staff, as well as international cooperation. This report has made use of a large volume of data collected from participants in the Erasmus+ programme (students, staff and leadership of higher education institutions, and coordinators of Strategic Partnership projects), as well as comparison groups over the course of the course of a year, to explore the impact of Erasmus+ on a range of key areas. The study adopted a design that enables a range of comparisons between groups of students and staff as well as comparisons over time in a way that make it a unique resource about the programme. In total over 75,000 valid responses were analysed for the production of this report. This chapter presents the main findings and conclusions from the study. This is organised by target group: students, staff and higher education institutions –including Strategic Partnerships.

9.1 Conclusions for students

Erasmus+ participation was reported as enriching academically, socially, personally, and in terms of the development of employability. Over thirty years after its inception, Erasmus+ continues to generate significant impacts for students across a wide range of areas related to the programme objectives, according to the views of students, and to direct measures of change undertaken during the data collection process. These areas are key for economic development and social inclusion and encompass employability skills development, motivation for further study, intercultural openness, tolerance and engagement with social and political issues. The results of the programme on these “impact areas” are high across the board. They are particularly high with regards to intercultural openness, which is a matter of high priority in the current political climate. The impact of the programme on the development of employability skills, on the other hand, seems to have experienced a slight decrease since 2014.

In terms of their academic pathways and learning experiences, more than two thirds of participants (up to 80% in the case of students from Partner countries and around 70% for participants from Southern and Eastern European programme countries) reported to have started using new learning techniques while they were abroad and 74% that they had experienced new teaching methods. In addition, around 80% of participants in their first cycle reported that they plan to continue their studies to the next level –in particular those students who experienced greater impact of mobility on their studies (acquisition of competences relevant to study, experience of new teaching methods, etc.) were more likely to want to continue to a higher educational level. The mobility period also helped a substantial proportion of Erasmus+ students to re-orient their studies, as more than one quarter of student reported to have made changes to their study plans after their Erasmus+ mobility.

The data also reveals substantial impact with regards to competence development, both in terms of competences relevant to employment such as adaptability, critical thinking, communication skills or foreign language skills (most often, between 70% and 80% of participants reported improvements depending on the skill) and those relevant to social cohesion, such as intercultural understanding or critical analysis of the media (with large majorities of respondents reporting improvements on these). Erasmus+ students are also more engaged with social issues: around 50% reported to be more engaged in social and political events at international level and to have increased their commitment to stand up against discrimination as a result of their Erasmus+ period. On the whole the results in terms of the development of employability skills are in line with those of the EIS of 2014. Students from Southern and Eastern European programme countries and Partner countries recorded higher impact on the development of their employability skills than those from other areas.

Associated with the above, Erasmus+ graduates report that mobility helped their careers in a number of ways. Contrary to the situation in 2014 we did not find that they experienced lower levels of unemployment than non-Erasmus(+) graduates –although this may be due at least in part to changes in the methodology used to assess these differences in the two studies. However, Erasmus(+) graduates found their first job quicker after graduation (79% did within three months from graduation, compared to 75% of non-mobile graduates), were happier with their jobs than non-mobiles and worked abroad more often. They ranked their jobs well in terms of valuable aspects such as job security and career prospects. They reported significantly higher levels of social recognition in their jobs than non-mobile graduates and around two thirds (rather) agreed that their job was characterised by a high income. 72% of Erasmus+ graduates considered that their Erasmus+ experience had been beneficial or highly beneficial for them in finding their first job and 82% for their overall career development –the results being even stronger for Southern European and Partner countries. 40% of graduates who undertook an Erasmus+ traineeship reported to have been offered a position in the company where they did their traineeship, suggesting a strong contribution to their labour market integration.

Memo values measure a range of personality, attitudes and behavioural patterns of individuals. Comparisons with 2014 on these values show that Erasmus+ students start with slightly lower values but experience larger improvements, suggesting greater added value of mobility in these areas in the more recent period.

As it could be expected, students with fewer opportunities considered the possibility to receive an Erasmus+ grant as one of their main drivers for participation more often than other students (25% compared to 20%). The results also provide support to the hypothesis “travel far to go far” with regards to programme outcomes: those students who travelled to a non-neighbouring country were around 25% more likely to be in the 20% of students reporting a higher impact from participation in Erasmus+. While 16% of students who travelled to a neighbouring country were in this group, 21% of those who travelled to a non-neighbouring country did. The impact resulting from Erasmus+ participation was stronger than that experienced by students participating in other mobility programmes in the areas measured in this report.

Erasmus+ participants are different from non-participants on a variety of aspects, even before they start their mobility experience. One of those aspects is their attitudes towards Europe: students who want to participate in Erasmus+ are more pro-European than their peers, and their pro-European views are even more marked after they complete their mobility period. Only 9% of participants reported not to share a European identity before their mobility, and this was reduced to 6% after the mobility experience (a reduction by one third). Around a third feel only or primarily European after their mobility. Erasmus+ students from Eastern European countries show the strongest levels of European identity prior to and after the mobility, although in the case of Erasmus(+) graduates those from Northern European Programme Countries reported the highest levels of European identity. Erasmus also seems to be highly consequential in terms of personal relationships: almost a quarter of those Erasmus+ graduates who live with a life partner maintain an international relationship, and more than half of these reported to have met their current partner during their Erasmus+ mobility.

The analysis also revealed consistent variations with regards to the impact reported by home region and the GDP per capita level of a participant’s country of study. In particular, participants studying in below average GDP countries (which tend to be in Partner Countries, Eastern and Southern Europe) tend to report a greater impact from mobility than participants studying in countries with higher levels of GDP per capita. In this regard, Erasmus+ can be considered a contributor to cohesion within Europe and as an “equaliser”.

The results also show that taking part in the programme is becoming easier, as the quality and coverage of support for mobility continues to increase: students reported to have more information about mobility and students reported to be more confident about the recognition for their period abroad than in 2014. The difference with regards to information on internships/traineeships and work placements abroad from 2014 is particularly striking: the results show an improvement of equivalent to almost 40%, with a jump from 49% to 64% in the respondents that provided a positive assessment. These improvements are particularly encouraging given that there is positive relationship between the reported level of support for mobility at the home institution and reported gains from mobility. Regional analyses, however, show that institutions from Southern Europe and Eastern Europe are seen to lag behind in terms of the support for mobility that they offer.

Financial concerns and personal reasons remain the most frequent barriers to study abroad: around two thirds of non-mobile students reported some type of financial concern and around one in two reported family reasons and personal relationships as main barriers to mobility. Fears of delay in graduate and lack of information about how the programme works also remain frequent barriers.

The Erasmus+ programme has been contributing to the realisation of EHEA by the free movement of students and staff through the provision of an organisational, administrative and financial framework for it. The results of the study, in terms of the regional variations reported, show that some students still face greater institutional obstacles, e.g. recognition of credits, than others. Financial hurdles also prevent many students from participation. As the EHEA still pursues its objective to send abroad 20% of all higher education students, additional ways to support students should be explored and adopted.

9.2 Conclusions for staff

Staff often embark in international mobility to establish new or enhance existing collaborations and networks, for reasons associated with knowledge acquisition and exposure to new learning and teaching methods. These motivations have changed little since 2014. The availability of financial support and the length of Erasmus+ were underlined by staff as particularly important factors motivating them to undertake international mobility periods.

Erasmus+ brings positive impacts to both teaching and to non-teaching staff. The impact on teaching staff is particularly notable as participation in Erasmus+ advances their knowledge and use of teaching skills. Erasmus+ staff are different from non-mobile staff in the use of innovative teaching methods even before they start their Erasmus+ mobility: they use innovative teaching methods such as Open Educational Resources MOOCs and collaboration with staff from enterprises for teaching much more often than non-mobile staff. Differences in the use of these approaches are around 20 percentage points: around 40% of non-mobile staff reported to make use of each of the innovative approaches the project explored compared to 60% in the case of Erasmus+ participants. What is more, Erasmus+ teaching staff enlarge this gap by using innovative teaching methods even more after their mobility: over 40% of Erasmus+ staff reported to have started using at least one innovative method based on their mobility experience.

Importantly, Erasmus+ participants perceive a much higher impact on their teaching practice than participants in other mobility programmes. This indicates that the programme is a vehicle to spread knowledge and innovation between participants. This may be particularly beneficial for staff working in institutions in Eastern and Western Europe, the regions where the lowest use of innovative methods was reported. Erasmus+ staff working in Eastern European programme countries were in fact those who reported a highest impact of participation on their use of innovative methods –together with Partner countries. By increasing the exposure of students to innovative teaching methods, staff who participate in Erasmus+ contribute to the modernisation and quality

development of European higher education. Erasmus+ staff participants -in particular those working in Southern and Eastern Europe- also report greater improvement in their transversal and social skills than participants in other mobility programmes. The gains are slightly higher for non-teaching than for teaching staff.

Staff who take part in the programme relate more strongly to Europe than non-mobile staff, and hold an even more positive views of the EU than Erasmus+ students. Around 95% of Erasmus+ mobile staff believe that the European Union is necessary and see added value in the European Union, over 90% think of themselves as citizens of the European Union at least some times, and 30% feel only or primarily European. Those staff who had been mobile as students reported even higher levels of attachment to the EU. Erasmus+ mobile staff also experience an impact on the critical assessment of social and political matters, and in their understanding and acceptance of different cultures. Given the programme's mission this can be considered a success for the programme.

Like in the case of students, the result uncovered differences in the impact reported by geographical area: staff participants working in Eastern European programme countries generally reported to benefit the most from their mobility periods in terms of their professional competencies, and also their social skills. Distinctions between different types of staff (e.g. teaching/ non-teaching) did not generally produce marked differences.

The most common barriers to participation in Erasmus+ for non-mobile staff were reported to be personal relationships and family and work responsibilities. Child-care responsibilities, for example, are likely to be among the most frequent obstacles for staff in certain age groups. Difficulties in finding appropriate institutions and/or teaching/training programme abroad and lack of information about how the Erasmus+ programme works also featured prominently. Financial barriers featured less prominently than in the case of students. Taking into account the lack of information about the programme reported by staff and their uncertainties about the operation of the programme, it seems that there is a certain lack of institutional support for staff mobility, in particular when compared to students' assessment of the support they receive for mobility. This may show that a stay abroad for teaching or training purposes has not yet become a "normal" way of development, compared to the situation with students.

9.3 Conclusions for institutions

International mobility remains very popular among higher education institutions (HEIs), students and staff. The results of the project point to a number of imbalances between demand and supply across geographical areas. In a considerable share of HEIs the demand for mobility is higher than the number of available places, both for students (24% of HEIs reported this to be the case) and staff (28% did). Demand for mobility is higher than supply particularly in universities (as opposed to other types of higher education institutions, including universities of applied science) 28% of which reported demand for student mobility to exceed supply, in large HEIs (31% of which did) and in Southern European programme countries (28% of institutions reported such imbalance between demand and supply) and Partner countries (51%). However, there are also HEIs that report demand to be lower than supply: 21% of institutions reported to have lower demand than the number of student mobility places available-reaching 43% of HEIs in Northern European programme countries- and 19% did in the case of staff. This would point to the need to further stimulate demand in some geographical areas and/ or the benefits of looking at the reallocation of mobility opportunities between them to better match demand and supply. Higher levels of demand compared to supply are likely to be associated with greater selectivity for mobility in Southern European programme countries in terms of students' motivation and performance, and this may help to explain some of the differences in impact from mobility across regions presented in this report.

Erasmus+ is, in fact, considered vital by higher education institutions. The vast majority of them (around 90%) have an internationalisation strategy, and Erasmus+, with its

associated aims of international mobility and cooperation, is undoubtedly central to those, as noted below. While there was agreement on that aspect, other objectives of participation in the programme differ by region: for example, while HEIs in Western Europe place a particular emphasis on the involvement of employers through Erasmus+, those in Northern countries do it on the staff development opportunities the programme offers, and those in Eastern European programme countries on opportunities to attract staff from abroad. Institutions in Southern countries placed a particular emphasis on peer-learning opportunities in support services. Around 95% of those HEIs that have an internationalisation strategy reported that student mobility is a (very) important part of it (80% in the case of staff mobility) and almost 50% reported that Erasmus+ has had a great impact on the internationalisation of their student population over the past 10 years –an impact which was evenly reported across regions. By contrast, only between half and a third of HEIs (depending on the field of study) reported that student mobility is mandatory or an option explicitly integrated in the curriculum (embedded mobility) for their students –the frontrunners in this respect are business, administration and law studies, as 53% of HEI representatives reported that their HEI has embedded mobility in at least some study programmes in this field. While this highlights that there is still scope to further embed mobility into the curriculum, it should also be noted that over 80% of HEIs reported that Erasmus+ had already led to improvements in the recognition of mobility outside of embedded mobility very much or to a considerable extent.

With reference to the development of students' skills and competences, around 80% of HEIs reported to expect mobility to endow their students with new skills and competences. This is indicative of the degree to which educational institutions consider Erasmus+ to add value compared to their other activities and provision. The findings with regards to impact on students' employability skills, study paths, social engagement, personality development and intercultural openness are consistent with these expectations. Over half expect staff mobility to provide inspiration for the use of new teaching methods –which underlines the role of Erasmus+ in spreading new approaches and in educational innovation. These expectations are also consistent with the project findings regarding the take-up of new teaching methods by staff participating in Erasmus+ and the spread of impact on the use of teaching methods and on curriculum development and teaching activities in the home and host departments of Erasmus+ staff.

Looking at regional differences, on the whole, the highest impact on institutions in most areas of Erasmus+ was reported in the case of Eastern and Southern programme countries and Partner countries, whereas institutions in Northern and Western programme countries reported lower impact levels. The high impact reported by Partner countries suggests that further support to international credit mobility –which around half of HEIs reported to have in place- would contribute to further develop the impact of the programme. Smaller HEIs, in particular, would seem to require additional support as they reported to cooperate less often with Partner countries (39% compared to 65% of larger HEIs reporting such cooperation), as did universities from Southern European programme countries (47% compared to 63% of HEIs in Eastern and Northern European programme countries). Traditionally, European programmes have been instrumental in the creation of this type of cooperation: almost 80% of HEIs reported reliance on EU-funded programmes for the establishment of such arrangements, although the establishment of such new collaborations within Erasmus+ is rare.

A key question is whether Erasmus+ staff mobility generates benefits that go beyond programme participants. If it does, looking at the individual level impact on mobile staff would underestimate the overall impact of the programme. The conclusion in this respect is that it indeed does: staff who replied to the project survey often reported that the impact of their participation on the use of new teaching methods and on curriculum development and teaching activities spreads in both their home and host departments. Such impacts refer to aspects such as the introduction of new practices, their spread in

use amongst colleagues or teaching situations or to improvements in effectiveness in their use. For example, around 60% of staff (for each method) reported at least one of those impacts in their home department on the use of teaching methods such as the take-up of learning in multidisciplinary groups, the invitation of staff from enterprises, the use of project-based collaboration, and teaching making use of ICT such as collaborative workspaces and live streaming. Multiplier effects were reported to be much more prevalent in Southern and Eastern European programme countries and Partner countries than in other areas, in particular Western European programme countries, which further analysis revealed, cannot be explained by a catch-up effect derived from differences in the levels of use of the methods mentioned between regions.

As a result of the impetus that Erasmus+ and its predecessor programmes have provided to mobility, a large majority of staff and HE institutional leaders reported, the management of student mobility and student support services has improved in HEIs – benefitting also mobile students outside of the programme. The highest impact of Erasmus+ on the support services of institutions was reported in the provision of information on options for student mobility (info days, etc.) (79% of staff and 89% of HEI representatives believe that Erasmus+ has had at least some impact), followed by support with the recognition of learning occurred during student mobility (79% of staff and 86% of HEIs representatives), internal student mobility management process (77% of staff and 86% of HEI representatives), and support with practical aspects of mobility such as accommodation, insurance and travel (77% of staff and 85% of HEI representatives). Similarly, HEIs reported that the programme and its predecessors had been instrumental in putting ICM arrangements in place, as already mentioned.

Looking beyond the impact of the programme on higher education institutions themselves, cooperation projects within Erasmus+ were seen to help to facilitate the enhancement of links with stakeholders outside of the HE sector, including enterprises. Collaboration with them was reported to generate impact in terms of the creation of new possibilities for internships/ job placements, curriculum development and teaching, but also knowledge sharing (including around employers' skills demands and the meaning of entrepreneurship), research cooperation, the development of students' understanding of entrepreneurship, of employers' skills demands and the application of knowledge in real life cases. These benefits are evenly spread across type and size of institution, but tend to be larger in Eastern and Southern Europe. However, the analysis found that there is some scope to further develop cooperation with enterprises within the remit of the programme, especially in the area of curriculum development and participation in the governance of the HEI. These are aspects in which Strategic Partnerships reported substantial added value.

The results suggest that the impact of Strategic Partnerships has been widespread. Strategic Partnerships have helped HEIs to establish collaborations with new partners, in particular public authorities and enterprises –public, private, social-, as cooperation with these stakeholders under Strategic Partnerships were new collaborations in over one third of cases. They have also helped to enhance HEIs' cooperation with organisations in the private sector: over a third of coordinators of Strategic Partnerships reported that their project had entailed cooperation with enterprises. This cooperation often entailed knowledge sharing (79% of coordinators reported collaboration with enterprises in this area), the adaptation of curricula to market needs (57%), the provision of funding/ facilities for the delivery of study programmes (35%) and participation in the governance of the institution, faculty or department. These kinds of collaborations resulted in a strong impact on linking students' work to real life cases (87% of coordinators reported at least some impact in this area), the introduction of modules for the development of the skills required by employers (84%), adaptations of the curriculum to labour market needs (84%), or the use of cutting edge technology in teaching (80%), amongst other aspects which can facilitate the integration of graduates in the labour market.

In terms of curriculum and pedagogy, Strategic Partnerships often focus their objectives on the development of teaching methods, and less frequently on curriculum development. However, they were reported to generate substantial impacts in terms of both teaching methods and curriculum development, in the large majority of cases. Much of this impact related to aspects closely linked to internationalisation (including internationalisation at home), but also to the use of Open Educational Resources (such as MOOCs) and multidisciplinary approaches. Internationalisation of the student body is, according to Strategic Partnership coordinators, amplified indirectly thanks to the impact of their projects on the development of curricula and teaching activities, and the establishment of flexible learning pathways: around 80% of coordinators reported positive impact stemming from the development of curricula and teaching activities and 90% in the case of flexible learning pathways on the internationalisation of the student population in their department, faculty or institution. Strategic Partnerships, as such, are spreading openness and innovation in teaching and learning amongst participant organisations.

ANNEXES

Annex 1 Characteristics of the sample, sampling, weighting and country groupings

A1.1 Target and comparison groups

Target groups list and definition:

- 1) **Learners** (students and graduates) participating in the Erasmus(+) programme. Mobility Tool+ Database of programme participants run by the European Commission served as a basis for invitations of Erasmus+ participants. The project team was provided with an updated version of the database on regular basis during the data collection period, from April 2017 to March 2018.
 - a. **E+ PRE¹⁰⁷*** – students who were registered in the Mobility Tool Database (DB) and were two weeks or less before departure. However, this does not ensure that none of them had ever experienced any mobility before.
 - b. **E+ POST* and Erasmus¹⁰⁸(+) graduates** – learners registered in the Mobility Tool Database surveyed after they mobility experience. This group was further split to respondents still studying (E+ POST) and Erasmus(+) graduates based on the information they provided in the questionnaire.
- 2) **E+ Staff*** – staff members registered for an Erasmus+ mobility, who had returned from that mobility. Further differentiation among academic/non-academic and teaching/non-teaching staff was made based on their answers in the survey.
- 3) **Higher education institutions** involved in Erasmus+.
- 4) **Coordinators of Erasmus+ Strategic Partnership***

Control groups list and definition:

- 1) **Learners** (students and graduates).
 - a. **E+ PRE PRE*** – students registered in the Mobility Tool Database (DB) departing in three months or more. However not many people were registered in the DB with this much time before their departure which resulted into smaller sample.
 - b. **Other mobile students and graduates** – participants who took part in a mobility program different from Erasmus(+). As there is no database of all mobile participants, subgroups were further identified based on their survey answers where we asked about their mobility programme (Erasmus(+) programme/other mobility programme) and mobility status (PRE, POST). Similarly, we further identified graduates asking them the same question we asked E(+) participants.

¹⁰⁷ Asterisk indicates representative sample

¹⁰⁸ At later stage of the analysis we merged identified Erasmus+ graduates invited using the contacts from the Mobility Tool Database and Erasmus(+) graduates identified from the anonymous survey. The reason for this was the fact that among anonymous respondents there was substantially higher number of graduates who graduated longer time ago and as such they were expected to be more experienced in the labour market than fresh graduates.

- c. **Non-mobile students and graduates** – survey participants who stated that they had never been on a mobility nor they planned to in the upcoming six months.

2) Staff members

- a. **Other mobile Staff** – staff members who took part in a mobility programme different from Erasmus(+).
- b. **Non-mobile Staff** – staff members who stated that they had never gone abroad as a staff member of a higher education institution.

A1.2 Sampling

As the research team was provided with the Mobility Tool+ Database containing e-mail addresses of registered Erasmus+ participants, we were able to randomly select survey participants. In the copy of the data base provided at the start of the data collection period, there were 281 thousand staff members, 236 thousands students identified as E+ POST / Graduates, 7,679 E+ PRE and 139 E+ PRE PRE registered for the mobility, together with 152 Strategic Partnerships project coordinators. Therefore, it was decided to apply random sampling on the first two groups and conduct a census – i.e. inviting the entire population – of the latter three. The population and sample size of E+ PRE and E+ PRE PRE increased at later stages of the project, as new students registered for the mobility.

A random sampling conducted separately for students and staff members ensured that every participant had an equal probability to be selected, which is an important condition for representative samples. With respect to the population size, the expected response rate and the fact that the E+ POST group includes both students as well as former participants who already graduated, it was decided to invite 20% registered staff members and 40% learners identified as **E+ POST**. The resulting number of students invited to the survey is more than **170,000**. However this number includes e-mail addresses that could not be reached or were anyhow invalid.

There are some participant characteristics included in the database, including sending and receiving country, age and gender. Thanks to that, the demography of the population and the randomly selected sample may be compared, as in the following figures:

Response rate

Table A1: Response rates per target groups (Erasmus+ and Other Mobile students).

	Erasmus +					Other Mobile ¹⁰⁹		
	PRE PRE	PRE	POST	Graduates	Staff	Students	Graduates	Staff
Number of invited participants	14 229	78 515	173 298		56 200	.	.	.
"Cannot be reached" participants	585	3 231	7 079		3 279	.	.	.
Collected cases	4 716	21 400	23 398	8 334	11 704	10 546	8 964	655
Response rate	34,56%	28,43%	19,09%		22,12%	.	.	.
Valid cases	4 375	19 725	22 769	7 826	10 021	1 433	614	441
Percentage of valid cases	92,77%	92,17%	97,31%	93,90%	85,62%	13,59%	6,85%	67,33%

109 The substantial loss of valid cases of Students and Graduates was caused by the fact that the we filtered out all who indicates Erasmus(+) experience along with any other Mobility programme.

Table A2: Response rates per target groups (Non-mobile students, Higher Education Institutions and Strategic Partnerships).

	Non Mobile				
	Students	Graduates	Staff	Institutions	Strategic partnerships
Number of invited participants	.	.	.	.	153
"Cannot be reached" participants	.	.	.	.	3
Collected cases	1 870	1 518	1 058	1 659	96
Response rate	.	.	.	.	64,00%
Valid cases	1 860	1 441	1 055	763	85
Percentage of valid cases	99,47%	94,93%	99,72%	45,99%	88,54%

Figure A1: Characteristics of Erasmus+ Students

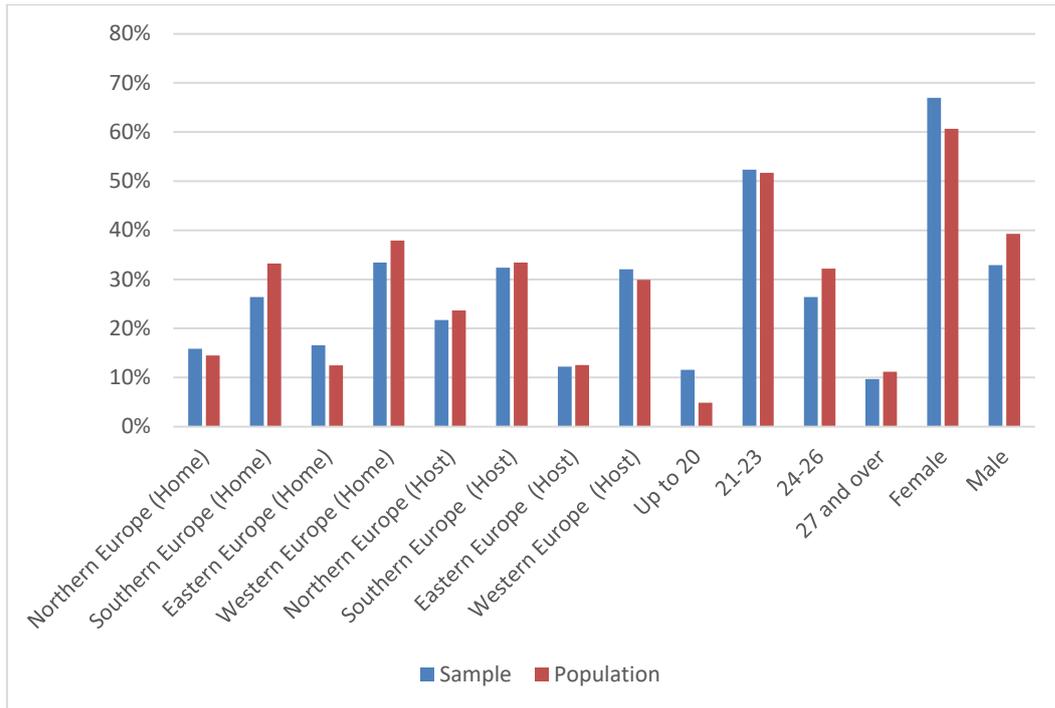
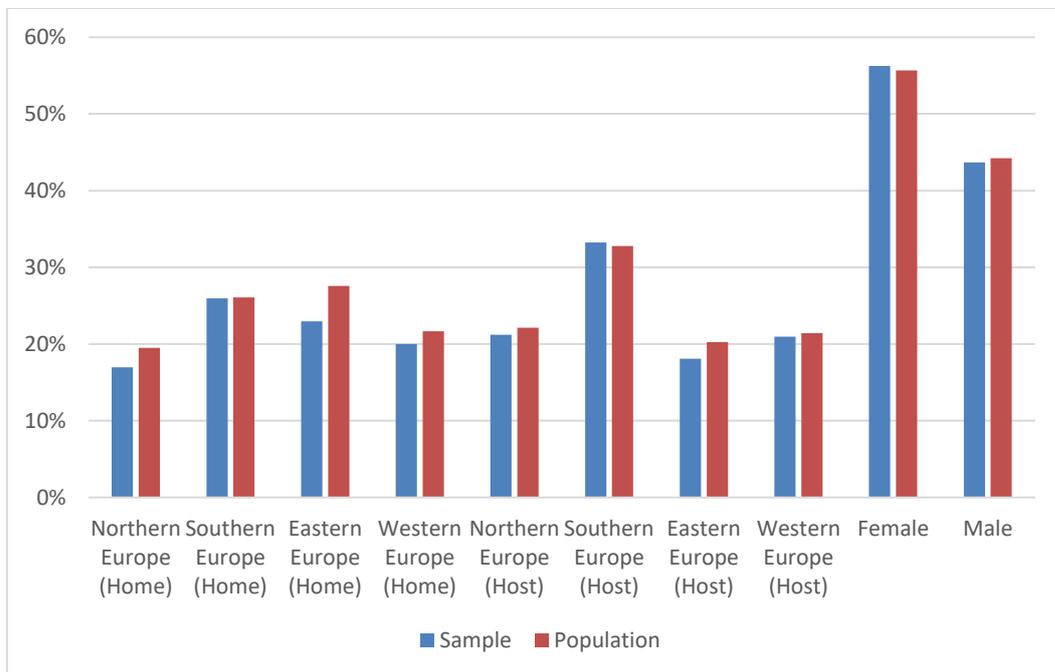


Figure A2: Characteristics of Erasmus+ Staff members.



A1.3 Weighting

Collected data for E+ PRE, E+ POST and E+ Staff were subjected to weighting as described in chapter 3 of the report. To further estimate to what extent our weighted sample differs from the unweighted sample (i.e. to what extent application of weights skewed the responses) we calculated relative errors for each question from weighted

and unweighted responses and computed their mean separately for the three target groups. The average relative differences are shown in the following table.

Table A3: Average relative difference between weighted and unweighted data.

	E+ PRE	E+ POST	E+ Staff
average relative difference	4,21%	2,30%	1,71%

A1.4 Country grouping

Countries were grouped as detailed in the following tables:

A1.4.1 Grouping countries by geographical regions.

Table 4: Grouping countries into Europe regions.

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	Lichtenstein
Latvia	Malta	Slovakia	Luxembourg
Lithuania	Portugal		Nederland
Norway	Slovenia		
Sweden	Spain		
United Kingdom	Turkey		

A1.4.2 Grouping countries by GDP per capita.

Table 5: Grouping countries by GDP per capita.

Low GDP	Mid-low GDP	Mid-high GDP	High GDP
Bulgaria	Cyprus	Austria	Denmark
Croatia	Czech Republic	Belgium	Iceland
FYROM	Estonia	Finland	Ireland
Hungary	Greece	France	Lichtenstein
Latvia	Italy	Germany	Luxembourg
Lithuania	Malta	United Kingdom	Netherland

Poland	Portugal	Norway
Romania	Slovakia	Sweden
Turkey	Slovenia	
	Spain	

A1.5 Indices

In order to compress the information from the surveys, we decided to create indices – variables combining content-wise related questions or question items – to quantify respondent’s attitude or opinion by a single number. Later tests of reliability confirmed that the variables included in particular indices are also well inter-correlated. For this purpose, we used Cronbach’s Alpha statistics. Mean of Cronbach’s Alphas across all indices is 0.82, with a minimum equal to 0.66 and a maximum equal to 0.95.

During an index construction, all included variables are recoded to share the scale and then a mean is calculated to represent the index value. In this case, In our case, a scale of 0 to 100 was applied to all indices. The table of all indices and their respective variables can be found in Annex03. Distributions together with basic statistics for the Indices can be found in Annex08.

Not all respondents answered all questionnaire items relevant for index construction. In order to deal with missing values, first cases with more than one third of missing values in a particular index were excluded from the calculation. Second, for the remaining cases, missing values were replaced by “typical” answers, i.e. average values of other respondents in the same survey. This way we ensured the sample size for index calculation remained reasonable while preserving most of the variance.

A1.6 MEMO[©]

To assess how mobility experience affects the attitudes and behavioural frameworks of students, the project team employed the memo[©] psychometrical tool. For this purpose we used a unique set of questions almost identical to the set used in the previous Erasmus Impact Study (2014).

During the data processing, the research team conducted explanatory factor analysis to identify clusters of personality aspects closely related to each other. We used Principal Axis Factoring and Promax rotation and accepted all factors with an eigenvalue larger than 1. Inspecting the pattern matrix and the item-intercorrelation matrix, we iteratively eliminated the items that did not work. As a results, four unique memo[©] factors were identified, together with memo[©] Total which aggregates them. The complete list of all factors and items they combine can be found in Annex04. Distributions together with basic statistics for the MEMO[©] factors can be found in Annex09.

Each item offers a scale from 0 – 100 (with step equal to 10) to a respondent. The values of individual factors were calculated as an average of the items they combine (all of them share the scale of 0% to 100%) and standardised in order to allow for their mutual comparison. The mean and standard deviation of the results of Erasmus+ students prior to mobility (E+ PRE) were used as a basis for standardisation for each factor, including the memo[©] Total.

A1.7 Propensity Score Matching

To provide the best possible results within Employability chapter which aims for comparing of Erasmus(+) and Non-Mobile graduates we introduced Propensity Score Matching. The purpose is to reduce the bias due to confounding variables that could be

found in an estimate of the treatment¹¹⁰ effect obtained from simply comparing outcomes among units that received the treatment versus those that did not. The matching was conducted based on propensity scores which were calculated using the model of logistic regression. Afterwards the cases were matched either using a fuzzy method with match tolerance = 0.00005 or exact matches were identified. The list of variables used as input for the logistic regression together with their distributions for both groups can be found in Annex05. The matching results are shown in the following table:

Table A6: Case-Control Matching.

Case Control Matching Statistics	
Match Type	Count
Exact Matches	563
Fuzzy Matches	687
Unmatched Including Missing Keys	317
Unmatched with Valid Keys	209
Sampling	without replacement

¹¹⁰ in this study by treatment is meant Erasmus(+) experience

ANNEX 2: Detailed sample overview

		E+ Students and Graduates			
		PRE PRE	PRE	POST	Graduates
		Count	Count	Count	Count
Mobility Type**	Student mobility for traineeships	997	4863	5853	3355
	Student mobility for studies	2246	11887	14620	3848
	Students mobility for studies between partner countries	461	1599	2190	540
Sending region**	Northern European Programme Countries	591	3126	3358	744
	Southern European Programme Countries	887	4615	5724	3021
	Eastern European Programme Countries	412	3171	3384	1289
	Western European Programme Countries	1472	6105	8375	2208
	Partner Countries	342	1332	1829	534
Receiving region**	Northern European Programme Countries	1041	3875	5795	1913
	Southern European Programme Countries	1087	6066	6731	2339
	Eastern European Programme Countries	382	2572	2436	920
	Western European Programme Countries	1073	5570	7333	2514
	Partner Countries	121	266	375	110
Fields of study***	Education	273	1280	1307	592
	Arts and Humanities	744	3490	4000	1551
	Social sciences, Journalism and Information	513	2034	2480	951

	Business, Administration and Law	953	4950	5676	1820
	Natural sciences, Mathematics and Statistics	368	1411	1774	941
	Information and Communication Technologies (ICTs)	145	951	1032	443
	Engineering, Manufacturing and Construction	511	2543	3288	1400
	Agriculture, Forestry, Fisheries and Veterinary	133	460	524	265
	Health and Welfare	575	1810	1983	721
	Services	123	601	524	265
Level of study	Short 1st cycle	401	1753	1056	283
	1st cycle (Bachelor)	2574	11232	12883	3393
	2nd cycle (Master)	1142	5832	7835	3874
	Other	126	461	350	119
	3rd cycle (Doctoral)	123	394	597	135
Mobility duration**	Short term (2 months or less)	301	1025	1292	566
	Mid-term (between 2-6 months)	2817	14129	15400	4955
	Long term (longer than 6 months)	586	3195	5978	2275
Gender	Female	2955	13163	15041	4178
	Male	1404	6481	7574	3535
Family background	Yes.	2459	11001	13251	4931
	No.	1911	8684	9456	2844
People with fewer opportunities	One or more types of disadvantage	817	3651	4202	1409
	No disadvantage	3503	15735	18044	4961
Time of graduation	Recent (2013-2017)	.	.	.	7180
	5-10 years ago (2008-2012)	.	.	.	167
	10+ years ago (before 2008)	.	.	.	53

Age groups	Up to 20	963	3427	1655	95
	21-23	2248	10814	12985	2531
	24-26	817	3920	6130	3666
	27 and over	347	1564	1999	1534
Total		4375	19725	22769	7826

		E+ Staff
		Count
Mobility Type**	Staff mobility for teaching (Programme countries)	4292
	Staff mobility for teaching (Partner countries)	1159
	Staff mobility for training (Programme countries)	3331
	Staff mobility for training (Partner countries)	825
Sending region **	Northern European Programme Countries	1628
	Southern European Programme Countries	2495
	Eastern European Programme Countries	2204
	Western European Programme Countries	1923
	Partner Countries	1357
Receiving region **	Northern European Programme Countries	2037
	Southern European Programme Countries	3194

	Eastern European Programme Countries	1736
	Western European Programme Countries	2013
	Partner Countries	627
Current position	Doctoral candidate	491
	Post-Doc	828
	Professor	3883
	Lecturer	2139
	Other	526
Fields of teaching	Education	983
	Arts and Humanities	1548
	Social sciences, Journalism and Information	909
	Business, Administration and Law	1234
	Natural sciences, Mathematics and Statistics	704
	Information and Communication Technologies (ICTs)	529
	Engineering, Manufacturing and Construction	862
	Agriculture, Forestry, Fisheries and Veterinary	339
	Health and Welfare	627
	Services	127
Size of your institution	Rather a large institution/enterprise	4958
	A medium sized institution/enterprise	3637
	A small institution/enterprise	1371

Type of your institution	University	7368
	University of Applied Sciences	1500
	Other type of institution delivering higher education	1120
Gender	Female	5619
	Male	4367
Does your work involve teaching?	Yes	7932
	No	2089
Total		10021

		Other Mobile Staff	Non-Mobile Staff
		Count	Count
Home region	Northern European Programme Countries	43	56
	Southern European Programme Countries	137	303
	Eastern European Programme Countries	33	57
	Western European Programme Countries	90	349
	Partner Countries	30	53
Host region	Northern European Programme Countries	48	.
	Southern European Programme Countries	43	.
	Eastern European Programme Countries	24	.
	Western European Programme Countries	121	.

Current position	Doctoral candidate	17	104
	Post-Doc	39	57
	Professor	189	217
	Lecturer	98	143
	Other	25	126
Fields of teaching	Education	27	50
	Arts and Humanities	66	100
	Social sciences, Journalism and Information	41	66
	Business, Administration and Law	22	54
	Natural sciences, Mathematics and Statistics	77	109
	Information and Communication Technologies (ICTs)	26	46
	Engineering, Manufacturing and Construction	44	65
	Agriculture, Forestry, Fisheries and Veterinary	18	20
	Health and Welfare	35	68
	Services	3	6
Size of your institution	Rather a large institution/enterprise	217	436
	A medium sized institution/enterprise	163	405
	A small institution/enterprise	61	208
Type of your institution	University	348	754
	University of Applied Sciences	59	160
	Other type of institution delivering higher education	33	134

Gender	Female	226	675
	Male	214	374
Does your work involve teaching?	Yes	359	588
	No	82	467
Total		441	1055

		Other Mobile Students and Graduates			
		PRE PRE OtherMob	PRE OtherMob	POST OtherMob	Alumni OtherMob
		Count	Count	Count	Count
Home region*	Northern European Programme Countries	33	5	38	23
	Southern European Programme Countries	194	18	137	152
	Eastern European Programme Countries	209	22	44	93
	Western European Programme Countries	294	42	195	302
	Partner Countries	11	3	19	26
Host region	Northern European Programme Countries	141	8	61	11
	Southern European Programme Countries	106	17	91	7
	Eastern European Programme Countries	71	15	32	5
	Western European Programme Countries	93	24	106	18
	Partner Countries	114	31	141	119
Fields of study***	Education	72	10	26	44
	Arts and Humanities	127	12	62	68

	Social sciences, Journalism and Information	60	9	54	55
	Business, Administration and Law	120	20	115	157
	Natural sciences, Mathematics and Statistics	139	13	50	64
	Information and Communication Technologies (ICTs)	53	5	18	41
	Engineering, Manufacturing and Construction	99	20	64	114
	Agriculture, Forestry, Fisheries and Veterinary	49	6	47	105
	Health and Welfare	104	9	37	21
	Services	9	2	10	27
	Level of study	Short 1st cycle	150	9	31	15
1st cycle (Bachelor)		552	68	218	171
2nd cycle (Master)		86	23	196	365
Other		28	2	17	46
3rd cycle (Doctoral)		23	4	23	14
Gender	Female	552	67	316	357
	Male	282	39	168	251
Family background	Yes	454	48	296	284
	No	385	58	189	320
People with fewer opportunities	One or more types of disadvantage	197	18	94	142
	No disadvantage	612	73	346	472
Time of graduation	Recent (2013-2017)	.	.	.	411
	5-10 years ago (2008-2012)	.	.	.	107
	10+ years ago (before 2008)	.	.	.	74
Age groups	Up to 20	364	30	70	4
	21-23	294	47	222	67

	24-26	80	15	126	197
	27 and over	103	14	68	346
Total		841	106	486	614

		Non-Mobile Students and Graduates	
		Alumni	Students
		Count	Count
Home region*	Northern European Programme Countries	110	122
	Southern European Programme Countries	656	482
	Eastern European Programme Countries	246	436
	Western European Programme Countries	339	495
	Partner Countries	41	50
Fields of study***	Education	188	238
	Arts and Humanities	218	237
	Social sciences, Journalism and Information	165	171
	Business, Administration and Law	274	306
	Natural sciences, Mathematics and Statistics	158	236
	Information and Communication Technologies (ICTs)	126	145
	Engineering, Manufacturing and Construction	281	193
	Agriculture, Forestry, Fisheries and Veterinary	71	56

	Health and Welfare	109	230
	Services	36	17
Level of study	Short 1st cycle	64	300
	1st cycle (Bachelor)	624	1091
	2nd cycle (Master)	50	331
	3rd cycle (Doctoral)	91	81
	Other	67	45
Gender	Female	795	1109
	Male	636	740
Family background	Yes	515	775
	No	910	1082
People with fewer opportunities	One or more types of disadvantage	387	394
	No disadvantage	1021	752
Time of graduation	Recent (2013-2017)	871	.
	5-10 years ago (2008-2012)	290	.
	10+ years ago (before 2008)	228	.
Age groups	Up to 20	27	450
	21-23	153	693
	24-26	338	308
	27 and over	923	409
Total		1441	1860

*Alumni were asked for their country of study instead of home country

** As in the Mobility Tool+ Database

*** For graduates, this was a multiple response question

ANNEX 3 Indices

ANNEX 3.1 Learners Indices

Non-impact indices					
Index name	Question	Items included	Scale	Recoding	
International career openness index	How do you see your future?	I can easily imagine living abroad at some point in the future.	Agree	100	
			Rather agree	66,67	
			Rather disagree	33,33	
			Disagree	0	
		I definitely want to work abroad for a while.	Agree	100	
			Rather agree	66,67	
			Rather disagree	33,33	
			Disagree	0	
		I would like to work in an international context.	Agree	100	
			Rather agree	66,67	
			Rather disagree	33,33	
			Disagree	0	
European Identity index	Do you feel...	Do you feel...	Primarily "your nationality" and secondly European?	33,33	
			Primarily European and secondly "your nationality"?	66,67	
			European only?	100	
			"Your nationality" only?	0	
	How much do you feel you have in common with	Commonalities	Commonalities	Everything in common	100
				-	66,67
				-	33,33
				-	

	other Europeans?		Nothing in common	0
	Please answer the questions below	Do you see the added value of being European?	Very much	100
			-	66,67
			-	33,33
			Not at all	0
		Do you believe a European Union is necessary?	Very much	100
			-	66,67
			-	33,33
			Not at all	0
		Do you ever think yourself as citizen of Europe?	Very much	100
			-	66,67
			-	33,33
			Not at all	0
		To what extent do you believe that you share values with other Europeans?	Very much	100
			-	66,67
-	33,33			
Not at all	0			
Home institutions support for internationalisation index	Please assess the following statements concerning the conditions for internationalisation at your current (home) institution.	In my study programme, there is a semester well suited to go abroad.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		I am convinced that my study programme recognises ECTS credits from a host institution abroad.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		The quality in teaching at my institution profits from the staff's international experiences.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		There is a lot of information and support	Agree	100
			Rather agree	66,67

		for students who want to study abroad.	Rather disagree	33,33
			Disagree	0
		There is a lot of information and support for students who want to go abroad for an internship / traineeship / work placement.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		There is a lot of information and support for students who want to learn/improve a foreign language.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0

Impact indices				
Index name	Question	Items included	Scale	Recoding
Perceived personality development	How would you assess the change of these aspects during your stay abroad?	To gain in confidence and have a stronger conviction of my own abilities. (actual improvement)	Highly improved	100
			-	66,67
			-	33,33
			Not improved at all	0
		To learn to be more tolerant towards other person's values and behavior. (actual improvement)	Highly improved	100
			-	66,67
			-	33,33
			Not improved at all	0
		To be more open and more curious about new challenges. (actual improvement)	Highly improved	100
			-	66,67
			-	33,33
			Not improved at all	0
To be more aware of my own strengths and	Highly improved	100		

		weaknesses. (actual improvement)	-	66,67
			-	33,33
			Not improved at all	0
			Highly improved	100
		To know better what I want and reach decisions more easily. (actual improvement)	-	66,67
			-	33,33
		Not improved at all	0	
Social engagement impact index	Through my transnational mobility, I learned better:	To take into account cultural perspectives/differences when others have different opinions/ideas	Definitely	100
			To some extent	66,67
			Not so much	33,33
			Not at all	0
		To engage in social activities that contribute to the interest of the community or society	Definitely	100
			To some extent	66,67
			Not so much	33,33
			Not at all	0
		To critically analyse media (printed, audio-visual, electronic)	Definitely	100
			To some extent	66,67
			Not so much	33,33
			Not at all	0
	To discuss political topics seriously	Definitely	100	
		To some extent	66,67	
		Not so much	33,33	
		Not at all	0	
	To get along with people who have a different cultural background	Definitely	100	
		To some extent	66,67	
		Not so much	33,33	
		Not at all	0	
	After my mobility, ...	I am now more interested in social and political events/developments at	To a greater extent	100
			To the same extent	50

		European/international level	To a smaller extent	0
		I am now committed to stand against discrimination, intolerance, xenophobia or racism...	To a greater extent	100
			To the same extent	50
		I am more committed to help the disadvantaged people in society...	To a smaller extent	0
	To a greater extent		100	
	What kind of advantages did you experience from your (last) stay abroad?	I improved my critical thinking skills	To the same extent	50
			Agree	100
			Rather agree	66,67
			Rather disagree	33,33
	How would you assess the change of these aspects during your stay abroad?	To learn to be more tolerant towards other person's values and behavior. (actual improvement)	Disagree	0
			Highly improved	100
			-	66,67
-			33,33	
To be actively involved in the life of the local community (through participation in cultural, social or political activities, volunteering etc.) (actual improvement)		Not improved at all	0	
		Highly improved	100	
		-	66,67	
		-	33,33	
Employability skills impact index	Please rate the following skills, competencies and areas of knowledge, as to how you feel that they improved by your (last) mobility experience.	Not improved at all	0	
		Know how to work in teams	Highly improved	100
		-	66,67	
		-	33,33	
	Sector- or field-specific skills	Not improved at all	0	
		Highly improved	100	
			-	66,67

		-	33,33
		Not improved at all	0
	(Oral) Communication skills	Highly improved	100
		-	66,67
		-	33,33
		Not improved at all	0
	Reading and writing skills	Highly improved	100
		-	66,67
		-	33,33
		Not improved at all	0
	To adapt and act in new situations	Highly improved	100
		-	66,67
		-	33,33
		Not improved at all	0
	Digital skills	Highly improved	100
		-	66,67
		-	33,33
		Not improved at all	0
	Analytical and problem-solving skills	Highly improved	100
		-	66,67
		-	33,33
		Not improved at all	0
	Planning and organisational skills	Highly improved	100
		-	66,67
		-	33,33

			Not improved at all	0
			Highly improved	100
		Ability to reach decisions	-	66,67
			-	33,33
			Not improved at all	0
			Highly improved	100
		Innovative potential and entrepreneurial skills, get new ideas how to do things	-	66,67
			-	33,33
			Not improved at all	0
			Highly improved	100
		Foreign language skills	-	66,67
			-	33,33
Not improved at all	0			
Highly improved	100			
Intercultural openness impact index	Please rate the following skills, competencies and areas of knowledge, as to how you feel that they improved by your (last) mobility experience.	Being able to interact and work with people from other backgrounds and cultures	Highly improved	100
			-	66,67
			-	33,33
			Not improved at all	0
		Intercultural competencies	Highly improved	100
			-	66,67
			-	33,33
			Not improved at all	0
		Knowledge of the host country's culture, society and econom	Highly improved	100
			-	66,67
			-	33,33

			Not improved at all	0
			Highly improved	100
			-	66,67
			-	33,33
	To feel European, to have Europe-wide perspectives beyond the national horizon, to have a sense of European citizenship		Not improved at all	0
			Agree	100
			Rather agree	66,67
			Rather disagree	33,33
	I have new friends who live abroad.		Disagree	0
			Agree	100
			Rather agree	66,67
			Rather disagree	33,33
	I appreciate more multicultural environments		Disagree	0
			Agree	100
			Rather agree	66,67
			Rather disagree	33,33
	I feel the need for an international dimension in my everyday life		Disagree	0
			Agree	100
			Rather agree	66,67
			Rather disagree	33,33
Please rate the following skills, competencies and areas of knowledge, as to how you feel that they improved by your (last) mobility experience.		Disagree	0	
		Highly improved	100	
		-	66,67	
		-	33,33	
To establish long-lasting relationships with people from different countries. (actual improvement)		Not improved at all	0	
		Definitely	100	
		To some extent	66,67	
		Not so much	33,33	
Through my transnational mobility, I learned better:		Not at all	0	
		To take into account cultural perspectives/differences when other have different opinions/ideas	33,33	
		Not so much	33,33	
		Not at all	0	

Study impact index		To get along with people who have a different cultural background	Definitely	100	
			To some extent	66,67	
			Not so much	33,33	
			Not at all	0	
	What kind of advantages did you experience from your (last) stay abroad?	I feel more involved in my field of study.		Agree	100
				Rather agree	66,67
				Rather disagree	33,33
				Disagree	0
		I have a better idea of what I want to do after graduation.		Agree	100
				Rather agree	66,67
				Rather disagree	33,33
				Disagree	0
		I have a better outside perspective, international outlook, critical eye towards my home institution and home country.		Agree	100
				Rather agree	66,67
				Rather disagree	33,33
				Disagree	0
		I am highly motivated to continue and complete my studies		Agree	100
				Rather agree	66,67
				Rather disagree	33,33
Disagree	0				
To what extent do you agree with the following statements?	After spending my period abroad, I am now more aware of my responsibilities as a student.		Agree	100	
			Rather agree	66,67	
			Rather disagree	33,33	
			Disagree	0	
	During my period abroad, I have started using new techniques during studying I have not been using before.		Agree	100	
			Rather agree	66,67	
			Rather disagree	33,33	
			Disagree	0	
			Agree	100	

		During my period abroad, I have experienced methods of teaching I have not experienced before.	Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
	Please rate the following skills, competencies and areas of knowledge, as to how you feel that they improved by your (last) mobility experience.	To be more independent in my studies and less in need of orientation. (actual improvement) (actual improvement)	Highly improved	100
			-	66,67
			-	33,33
Not improved at all			0	

A3.2 Graduate Indices

Non-impact indices				
Index name	Question	Items included	Scale	Recording
International job index	What characteristics of internationalisation does your job today have?	International business contacts	Quoted	100
			Not quoted	0
		Cooperation with branches abroad	Quoted	100
			Not quoted	0
		International travel	Quoted	100
			Not quoted	0
		Customers abroad	Quoted	100
			Not quoted	0
		Part of the staff is from abroad	Quoted	100
			Not quoted	0
		For my current job, I moved abroad.	Quoted	100
			Not quoted	0
		My job does not have any characteristic of internationalisation	Quoted	0
			Not quoted	100
		Agree	100	

Job quality index	To what extent do you agree that following characteristics apply to your current professional situation?	Possibilities of using acquired knowledge and skills	Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		Independent disposition of work and opportunity to develop own ideas	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
		Opportunity of pursuing continuous learning	Disagree	0
			Agree	100
			Rather agree	66,67
		Challenging tasks	Rather disagree	33,33
			Rather agree	66,67
			Disagree	0
		Job security	Disagree	0
			Rather agree	66,67
			Agree	100
		Opportunity to grow professionally	Disagree	0
			Rather agree	66,67
			Rather disagree	33,33
		Opportunity for creativity and innovation	Disagree	0
			Rather disagree	33,33
			Rather agree	66,67
		International environment	Disagree	0
			Rather disagree	33,33
			Rather agree	66,67
		Disagree	0	
		Agree	100	

		Social recognition and status	Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		Good career prospects	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
		Chances of doing something useful for society	Disagree	0
			Agree	100
			Rather agree	66,67
		Co-ordinating and management tasks	Rather disagree	33,33
			Rather agree	66,67
			Agree	100
		Opportunity of undertaking scientific/scholarly work	Disagree	0
			Rather disagree	33,33
			Rather agree	66,67
		High income	Disagree	0
			Rather disagree	33,33
			Rather agree	66,67

A3.3 Staff Indices

Non-impact indices

Index name	Question	Items included	Scale	Recoding	Additional information
Use of innovative teaching methods index	How frequently are you using the following teaching methods?	Teaching making use of ICT such as collaborative workspaces, live streaming	Often	100	
			Sometimes	66,67	
			Seldom	33,33	
			Never	0	
			Often	100	

		Teaching making use of material from open educational resources, such as massive open online courses	Sometimes	66,67
			Seldom	33,33
			Never	0
		Learning in multidisciplinary groups	Often	100
			Sometimes	66,67
			Seldom	33,33
		Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures	Never	0
			Seldom	33,33
			Sometimes	66,67
		Project-based collaboration between enterprises and the university to study real life cases	Often	100
			Seldom	33,33
			Sometimes	66,67
Different types of work-based learning, e.g. industry internships	Never	0		
	Seldom	33,33		
	Sometimes	66,67		
International experience index	How long have you been mobile in the context of staff mobility (i.e. working at a host institution while remaining employed at the sending institution) since the start of your career in the higher	How long have you been mobile (altogether) in the context of staff mobility?	Up to 1 week	1,92
			Up to 2 weeks	2,88
			Up to 4 weeks	6,03
			1-3 months	16,44
			4-6 months	41,1
			7-12 months	74,66
			More than one year	100

	education sector, aggregated ?			
	How long was the longest period of time you spent abroad in the context of staff mobility?	How long was the longest period of time you spent abroad in the context of staff mobility?	A week or less	7,78
			More than 1 week up to 3 weeks	15,56
			More than 3 weeks up to 6 weeks	35
			More than 6 weeks up to 3 months	73,33
			More than 3 months	100
	When was your last stay abroad in the context of staff mobility?	When was your last stay abroad in the context of staff mobility?	2010/11 and earlier	10
			2011/12	23
			2012/13	36
			2013/14	49
			2014/15	62
			2015/16	75
			2016/17	88
		I am abroad at the moment	100	
	In which countries have you been abroad in the context of staff mobility (conferences excluded)? *	Austria	Quoted/Not quoted	
Belgium		Quoted/Not quoted		
Bulgaria		Quoted/Not quoted		
Croatia		Quoted/Not quoted		
Cyprus		Quoted/Not quoted		
Czech Republic		Quoted/Not quoted		
Denmark		Quoted/Not quoted		

	Estonia	Quoted/Not quoted
	Finland	Quoted/Not quoted
	France	Quoted/Not quoted
	FYROM	Quoted/Not quoted
	Germany	Quoted/Not quoted
	Greece	Quoted/Not quoted
	Hungary	Quoted/Not quoted
	Iceland	Quoted/Not quoted
	Ireland	Quoted/Not quoted
	Italy	Quoted/Not quoted
	Latvia	Quoted/Not quoted
	Liechtenstein	Quoted/Not quoted
	Lithuania	Quoted/Not quoted
	Luxembourg	Quoted/Not quoted
	Malta	Quoted/Not quoted
	Netherlands	Quoted/Not quoted
	Norway	Quoted/Not quoted
	Poland	Quoted/Not quoted
	Portugal	Quoted/Not quoted
	Romania	Quoted/Not quoted
	Slovakia	Quoted/Not quoted
	Slovenia	Quoted/Not quoted

		Spain	Quoted/Not quoted
		Sweden	Quoted/Not quoted
		Switzerland	Quoted/Not quoted
		Turkey	Quoted/Not quoted
		United Kingdom	Quoted/Not quoted
European Identity index	Do you feel...		Primarily "your nationality" and secondly European? 33,33
		Do you feel...	Primarily European and secondly "your nationality"? 66,67
			European only? 100
			"Your nationality" only? 0
	How much do you feel you have in common with other Europeans?		Everything in common 100
		Commonalities	- 66,67
			- 33,33
			Nothing in common 0
	Please answer the questions below	Do you see the added value of being European?	Very much 100
			- 66,67
			- 33,33
			Not at all 0
		Do you believe a European Union is necessary?	Very much 100
			- 66,67
- 33,33			
Not at all 0			
		Very much 100	
		- 66,67	

		Do you ever think yourself as citizen of Europe?	-	33,33
			Not at all	0
		To what extent do you believe that you share values with other Europeans?	Very much	100
			-	66,67
			-	33,33
			Not at all	0

Impact indices

Index name	Question	Items included	Scale	Recoding	Additional information
Impact on teaching methods	Have the competences you gained during staff mobility led to changes in the way you use the following teaching methods?	Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (I have started using this teaching method))	Quoted/Not quoted		
		Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (I have learned to use this teaching method more effectively))	Quoted/Not quoted		Starting at 0 and increasing by one if at least one positive change was quoted in using of respective t. method
		Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (I have learned to use this teaching method in a wider range of contexts))	Quoted/Not quoted		
		Teaching making use of material from open educational resources, such as massive open online courses (Yes (I have started using this teaching method))	Quoted/Not quoted		

		<p>Teaching making use of material from open educational resources, such as massive open online courses (Yes (I have learned to use this teaching method more effectively))</p>	<p>Quoted/Not quoted</p>
		<p>Teaching making use of material from open educational resources, such as massive open online courses (Yes (I have learned to use this teaching method in a wider range of contexts))</p>	<p>Quoted/Not quoted</p>
		<p>Learning in multidisciplinary groups (Yes (I have started using this teaching method))</p>	<p>Quoted/Not quoted</p>
		<p>Learning in multidisciplinary groups (Yes (I have learned to use this teaching method more effectively))</p>	<p>Quoted/Not quoted</p>
		<p>Learning in multidisciplinary groups (Yes (I have learned to use this teaching method in a wider range of contexts))</p>	<p>Quoted/Not quoted</p>
		<p>Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (I have started</p>	<p>Quoted/Not quoted</p>

		<p>using this teaching method))</p>
		<p>Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (I have learned to use this teaching method more effectively))</p> <p>Quoted/Not quoted</p>
		<p>Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (I have learned to use this teaching method in a wider range of contexts))</p> <p>Quoted/Not quoted</p>
		<p>Project-based collaboration between enterprises and the university to study real life cases (Yes (I have started using this teaching method))</p> <p>Quoted/Not quoted</p>
		<p>Project-based collaboration between enterprises and the university to study real life cases (Yes (I have learned to use this teaching method more effectively))</p> <p>Quoted/Not quoted</p>

		<p>Project-based collaboration between enterprises and the university to study real life cases (Yes (I have learned to use this teaching method in a wider range of contexts))</p>	<p>Different types of work-based learning, e.g. industry internships (Yes (I have started using this teaching method))</p>	<p>Different types of work-based learning, e.g. industry internships (Yes (I have learned to use this teaching method more effectively))</p>	<p>Different types of work-based learning, e.g. industry internships (Yes (I have learned to use this teaching method in a wider range of contexts))</p>
<p>Competence impact index</p>	<p>To which extent did you gain competences during your own staff mobility experience?</p>	<p>Significant gain 100</p>	<p>Field-specific knowledge - 66,67</p>	<p>- 33,33</p>	<p>No gain 0</p>
		<p>Significant gain 100</p>	<p>Transversal skills - 66,67</p>	<p>- 33,33</p>	<p>No gain 0</p>

		Social competences	Significant gain	100		
			-	66,67		
			-	33,33		
			No gain	0		
		Intercultural competences	Significant gain	100		
			-	66,67		
			-	33,33		
			No gain	0		
				...to take into account cultural perspectives/differences when other have different opinions/ideas	Definitely	100
					To some extent	66,67
					Not so much	33,33
					Not at all	0
...to engage in social activities that contribute to the interest of the community or society	Definitely			100		
	To some extent			66,67		
	Not so much			33,33		
	Not at all			0		
...to critically analyse media (printed, audio-visual, electronic)	Definitely			100		
	To some extent			66,67		
	Not so much			33,33		
	Not at all			0		
Social engagement impact index	Through my transnational mobility, I learned better...	100				
	To some extent	66,67				
	Not so much	33,33				
	Not at all	0				
...to get along with people who have a different	Definitely	100				
	To some extent	66,67				

		cultural background	Not so much	33,33			
			Not at all	0			
	After my mobility, ...	...I am now more interested in social and political events/developments at European/international level		To a greater extent	100	
				To the same extent	50		
				To a smaller extent	0		
				...I am now committed to stand against discrimination, intolerance, xenophobia or racism		To a greater extent	100
						To the same extent	50
						To a smaller extent	0
		...I am more committed to help the disadvantaged people in society		To a greater extent	100		
				To the same extent	50		
				To a smaller extent	0		
		Impact on student's competence index	How does a stay abroad change student's attitudes and abilities?	Students gain in confidence and have a stronger conviction of their own abilities.	Agree	100	
					Rather agree	66,67	
					Rather disagree	33,33	
Disagree	0						
Students learn to be more tolerant towards other person's values and behaviour.				Agree	100		
				Rather agree	66,67		
				Rather disagree	33,33		
				Disagree	0		
Students are more focussed on their studies and				Agree	100		
				Rather agree	66,67		

		less in need of orientation.	Rather disagree	33,33
			Disagree	0
		Students are more open and more curious about new challenges.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		Students are more aware of their own strengths and weaknesses.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		Students know better what they want and reach decisions more easily.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0
		Student adapt more easily and accept more easily changing circumstances and new environment/new realities.	Agree	100
			Rather agree	66,67
			Rather disagree	33,33
			Disagree	0

**If no country was selected the share for this variable equals to 0. The more countries were selected the higher was the share of this variable up to 6 (and more) countries selected which equals to 100%*

ANNEX 4. Memo© items and factors

MEMO Factor	Items
Self confidence	I can usually cope with everything somehow.
	I am very confident that I am coping well with the requirements of my studies/work.
	I am aware of my own needs.
	I make my decisions independently and autonomously.
	If I have any questions about my study/work programme, I know whom to ask.
	I am an inquisitive person.
Goal orientation	I have a number of clearly defined goals and work towards them systematically.
	I regard my studies/work as an opportunity to further develop my personality.
	To date, the expectations I had for my study programme at this university / my work at this organisation/company have been met.
	My life has a purpose.
Cultural openness	When decisions have to be made, I quickly know what I want.
	I travel to get to know other cultures.
	I like to travel to countries I do not yet know.
Social openness	I like to make use of cultural attractions, such as theatres or museums.
	I am an outgoing person.
	I can easily engage in conversations with strangers.
	I like to meet new people at occasions such as parties or other events.

ANNEX 5. Overview of sample distribution of Non- Mobile Graduates and Erasmus(+) Graduates after applying Propensity Score Matching

		Non-Mobile Graduates		Erasmus(+) Graduates	
		Count	Column Valid N %	Count	Column Valid N %
Regions of study	Northern European Programme Countries	98	7,84%	68	5,44%
	Southern European Programme Countries	603	48,24%	633	50,64%
	Eastern European Programme Countries	229	18,32%	268	21,44%
	Western European Programme Countries	283	22,64%	241	19,28%
	Partner Countries	37	2,96%	40	3,20%
Age groups	Up to 20	18	1,44%	11	0,88%

	21-23	133	10,64%	160	12,80%
	24-26	308	24,64%	340	27,20%
	27 and over	791	63,28%	739	59,12%
Year of graduation	2018	212	16,96%	217	17,36%
	2017	159	12,72%	203	16,24%
	2016	151	12,08%	108	8,64%
	2015	158	12,64%	182	14,56%
	2014	122	9,76%	73	5,84%
	2013	92	7,36%	78	6,24%
	2012	68	5,44%	74	5,92%
	2011	50	4,00%	53	4,24%
	2010	37	2,96%	42	3,36%
	2009	24	1,92%	47	3,76%
	2008	24	1,92%	13	1,04%
	2007	130	10,40%	75	6,00%
	Earlier than 2017	23	1,84%	85	6,80%
Gender	Female	715	57,20%	666	53,28%
	Male	535	42,80%	584	46,72%
Family background	Yes	470	37,60%	501	40,08%
	No	780	62,40%	749	59,92%
Fields of study	Education	107	8,56%	102	8,16%
	Arts and Humanities	149	11,92%	137	10,96%

	Social sciences, Journalism and Information	111	8,88%	115	9,20%
	Business, Administration and Law	188	15,04%	218	17,44%
	Natural sciences, Mathematics and Statistics	107	8,56%	103	8,24%
	Information and Communication Technologies (ICTs)	76	6,08%	65	5,20%
	Engineering, Manufacturing and Construction	202	16,16%	195	15,60%
	Agriculture, Forestry, Fisheries and Veterinary	51	4,08%	49	3,92%
	Health and Welfare	88	7,04%	83	6,64%
	Services	18	1,44%	18	1,44%

	Multiple fields	153	12,24%	165	13,20%
Graduates with fewer opportunities	One or more types of disadvantage	345	27,60%	393	31,44%
	No disadvantage	905	72,40%	857	68,56%

"Mean difference in the representation of individual subgroups between Non-Mobile Graduates and Erasmus(+) Graduates after Propensity Score Matching"

Absolute error \approx 1,96%

Annex 6. Overview on unweighted and weighted frequencies

Erasmus+ PRE Learners:

Erasmus		Unweighted frequencies	Weighted frequencies
Please choose your home country:	- please choose -	0	,0
	Austria	0,01	0,02
	Belgium	0,03	0,03
	Bulgaria	0,01	0,01
	Croatia	0,02	0,03
	Cyprus	0,00	0,00
	Czech Republic	0,03	0,03
	Denmark	0,02	0,03
	Estonia	0,00	0,00
	Finland	0,03	0,02
	France	0,08	0,07
	FYROM	0,00	0,00
	Germany	0,16	0,22
	Greece	0,02	0,02
	Hungary	0,01	0,01
	Iceland	0,00	0,00
	Ireland	0,01	0,01
	Italy	0,11	0,14
	Latvia	0,02	0,01
	Liechtenstein	0,00	0,00
	Lithuania	0,01	0,01
	Luxembourg	0,00	0,00
	Malta	0,00	0,00
	Netherlands	0,02	0,02
	Norway	0,01	0,01
	Poland	0,07	0,05
	Portugal	0,03	0,04

	Romania	0,03	0,02	
	Slovakia	0,02	0,02	
	Slovenia	0,01	0,02	
	Spain	0,05	0,06	
	Sweden	0,01	0,01	
	Switzerland	0,00	0,00	
	Turkey	0,03	0,03	
	United Kingdom	0,03	0,02	
	Other	0,08	0,04	
Which field do you study?	Education	0,07	0,06	
	Arts and humanities	0,18	0,17	
	Social sciences, journalism and information	0,10	0,10	
	Business, administration and law	0,25	0,23	
	Natural sciences, mathematics and statistics	0,07	0,08	
	Information and Communication Technologies (ICTs)	0,05	0,05	
	Engineering, manufacturing and construction	0,13	0,15	
	Agriculture, forestry, fisheries and veterinary	0,02	0,02	
	Health and welfare	0,09	0,11	
	Services	0,03	0,03	
	What is your current status in your course of study?	Undergraduate student (short cycle of one or two years)	0,09	0,06
		Undergraduate student (Bachelor degree or equivalent)	0,57	0,48

	Graduate student (Master degree or equivalent)	0,30	0,40
	Other	0,02	0,03
	Doctorate student	0,02	0,03
Please indicate your gender	Female	0,67	0,61
	Male	0,33	0,39
	Other	0,00	0,00
Did your parents (father and/or mother) also attend university?	Yes	0,56	0,52
	No	0,44	0,48
Please state your age (in years)	Up to 20	0,17	0,06
	21	0,23	0,16
	22	0,17	0,12
	23	0,15	0,14
	24	0,10	0,18
	25	0,06	0,11
	26	0,03	0,07
	27 and over	0,08	0,17
Does at least one of the following characteristics apply to you?	Disability (i.e. participants with special needs): (people with mental (intellectual, cognitive, learning), physical, sensory or other disabilities)	0,01	0,01
	Educational difficulties (young people with learning difficulties; early school-leavers; low qualified adults; young people with poor school performance)	0,01	0,01

<p>Economic obstacles (people with a low standard of living, low income, dependence on social welfare system or homeless; young people in long-term unemployment or poverty; people in debt or with financial problems)</p>	<p>0,08</p>	<p>0,09</p>
<p>Cultural differences (immigrants or refugees or descendants from immigrant or refugee families; people belonging to a national or ethnic minority; people with linguistic adaptation and cultural inclusion difficulties)</p>	<p>0,05</p>	<p>0,05</p>
<p>Health problems (people with chronic health problems, severe illnesses or psychiatric conditions)</p>	<p>0,04</p>	<p>0,04</p>
<p>Social obstacles (people facing discrimination because of gender, age, ethnicity, religion, sexual orientation, disability, etc.; people with limited social skills or anti-social or risky behaviours; people in a precarious situation; (ex-)offenders, (ex-)</p>	<p>0,03</p>	<p>0,03</p>

	Geographical obstacles (people from remote or rural areas; people living in small islands or in peripheral regions; people from urban problem zones; people from less serviced areas (limited public transport, poor facilities))	0,03	0,03
	No	0,75	0,74
	Don't know	0,06	0,06
People with fewer opportunities	PWFO	0,19	0,20
	non-PWFO	0,81	0,80
home_gdp	High GDP	0,09	0,08
	Mid-High GDP	0,38	0,39
	Mid-Low GDP	0,31	0,35
	Low GDP	0,22	0,18
Did you travel to country with higher GDP per capita?	The same	0,57	0,55
	From higher to lower	0,22	0,22
	From lower to higher	0,21	0,23
Distance between sending and receiving country	Near	0,24	0,27
	Far	0,76	0,73
What was the motivation for your current/upcoming study period / work placement / traineeship abroad?	Possibility to choose a study programme in a foreign language	0,13	0,12
	Opportunity to experience different learning practices and teaching methods	0,36	0,35
	Opportunity to follow different courses, not	0,16	0,15

available in my home institution		
Improve and widen my career prospects in the future	0,55	0,56
Enhance my future employability in my home country	0,26	0,27
Enhance my future employability abroad	0,31	0,33
Opportunity to learn/ improve a foreign language	0,63	0,61
Opportunity to live abroad	0,63	0,62
Opportunity to expand my social network by meeting people from different countries	0,52	0,50
Opportunity to develop soft skills i.e. adaptability, taking initiative, proactivity	0,48	0,47
Possibility to receive ERASMUS+ grant	0,16	0,16
Possibility to receive other financial support to study abroad	0,05	0,05
Guidance provided regarding the benefits of the ERASMUS+ programme was compelling	0,03	0,03
Available support in finding accommodation	0,02	0,02

	Quality of the host institution / company	0,14	0,16
	Opportunity to choose the institution / company	0,05	0,06
	Good alignment of the courses abroad with the curriculum at home institution	0,05	0,05
	OLS (Online Linguistic Support) training available before departure	0,02	0,02
	Courses and credit obtained abroad are recognised at my home institution	0,12	0,12
In my study programme, there is a semester well suited to go abroad.	agree	0,51	0,49
	rather agree	0,28	0,28
	rather disagree	0,11	0,11
	disagree	0,10	0,12
	no opinion	0,00	0,00
I am convinced that my study programme recognises ECTS credits from a host institution abroad.	agree	0,67	0,66
	rather agree	0,24	0,24
	rather disagree	0,05	0,05
	disagree	0,04	0,04
	no opinion	0,00	0,00
The quality in teaching at my institution profits from the staff's international experiences.	agree	0,42	0,42
	rather agree	0,40	0,40
	rather disagree	0,12	0,12
	disagree	0,06	0,07
	no opinion	0,00	0,00
There is a lot of information and support for students who	agree	0,37	0,37
	rather agree	0,40	0,41
	rather disagree	0,15	0,15

want to study abroad.	disagree	0,07	0,07
	no opinion	0,00	0,00
There is a lot of information and support for students who want to go abroad for an internship / traineeship / work placement.	agree	0,30	0,30
	rather agree	0,37	0,38
	rather disagree	0,21	0,21
	disagree	0,12	0,12
	no opinion	0,00	0,00
There is a lot of information and support for students who want to learn/improve a foreign language.	agree	0,33	0,32
	rather agree	0,41	0,41
	rather disagree	0,18	0,18
	disagree	0,08	0,09
	no opinion	0,00	0,00
...I am very interested in it.	agree	0,74	0,75
	rather agree	0,23	0,23
	rather disagree	0,02	0,02
	disagree	0,01	0,01
	n/a	0,00	0,00
...the field offers many career options.	agree	0,46	0,45
	rather agree	0,37	0,37
	rather disagree	0,12	0,13
	disagree	0,05	0,05
	n/a	0,00	0,00
...the field offers career options also abroad.	agree	0,51	0,50
	rather agree	0,34	0,35
	rather disagree	0,10	0,10
	disagree	0,04	0,05
	n/a	0,00	0,00
...I expected a higher than average income with my degree.	agree	0,35	0,34
	rather agree	0,34	0,34
	rather disagree	0,18	0,19
	disagree	0,12	0,13

	n/a	0,00	0,00
I can easily imagine living abroad at some point in the future.	agree	0,56	0,55
	rather agree	0,30	0,30
	rather disagree	0,11	0,11
	disagree	0,03	0,03
	n/a	0,00	0,00
I definitely want to work abroad for a while.	agree	0,51	0,50
	rather agree	0,32	0,33
	rather disagree	0,12	0,13
	disagree	0,04	0,04
	n/a	0,00	0,00
I would like to work in an international context.	agree	0,63	0,63
	rather agree	0,31	0,30
	rather disagree	0,05	0,05
	disagree	0,01	0,01
	n/a	0,00	0,00
I would like to live and work in my home country.	agree	0,27	0,27
	rather agree	0,42	0,43
	rather disagree	0,22	0,21
	disagree	0,09	0,09
	n/a	0,00	0,00
...your home institution?	strongly	0,24	0,24
	moderately	0,51	0,50
	slightly	0,18	0,18
	weakly	0,07	0,08
	n/a	0,00	0,00
To gain in confidence and have a stronger conviction of my own abilities.	highly expected	0,68	0,65
	2	0,26	0,28
	3	0,05	0,05
	not expected at all	0,01	0,02

	n/a	0,00	0,00
To learn to be more tolerant towards other person's values and behavior.	highly expected	0,46	0,44
	2	0,35	0,36
	3	0,13	0,14
	not expected at all	0,05	0,06
	n/a	0,00	0,00
To be more focused on my studies and less in need of orientation.	highly expected	0,36	0,35
	2	0,35	0,35
	3	0,20	0,20
	not expected at all	0,09	0,10
	n/a	0,00	0,00
To be more open and more curious about new challenges.	highly expected	0,65	0,62
	2	0,29	0,30
	3	0,05	0,05
	not expected at all	0,02	0,02
	n/a	0,00	0,00
To be more aware of my own strengths and weaknesses.	highly expected	0,59	0,56
	2	0,32	0,34
	3	0,07	0,07
	not expected at all	0,02	0,03
	n/a	0,00	0,00
To know better what I want and reach decisions more easily.	highly expected	0,54	0,52
	2	0,33	0,34
	3	0,10	0,11
	not expected at all	0,03	0,04
	n/a	0,00	0,00
know how to work in teams	highly expected	0,39	0,38
	2	0,39	0,39

	3	0,17	0,17
	not expected at all	0,05	0,05
	n/a	0,00	0,00
sector- or field-specific skills	highly expected	0,45	0,46
	2	0,35	0,34
	3	0,16	0,16
	not expected at all	0,04	0,04
	n/a	0,00	0,00
(oral) communication skills	highly expected	0,70	0,67
	2	0,24	0,26
	3	0,05	0,05
	not expected at all	0,01	0,01
	n/a	0,00	0,00
reading and writing skills	highly expected	0,44	0,42
	2	0,32	0,33
	3	0,16	0,17
	not expected at all	0,08	0,08
	n/a	0,00	0,00
to adapt and act in new situations	highly expected	0,65	0,63
	2	0,30	0,31
	3	0,05	0,05
	not expected at all	0,01	0,01
	n/a	0,00	0,00
computer skills	highly expected	0,19	0,19
	2	0,21	0,21
	3	0,29	0,28
	not expected at all	0,31	0,31
	n/a	0,00	0,00

analytical and problem-solving skills	highly expected	0,42	0,41
	2	0,39	0,39
	3	0,15	0,16
	not expected at all	0,04	0,04
	n/a	0,00	0,00
planning and organisational skills	highly expected	0,45	0,43
	2	0,38	0,39
	3	0,14	0,14
	not expected at all	0,04	0,05
	n/a	0,00	0,00
ability to reach decisions	highly expected	0,44	0,42
	2	0,39	0,40
	3	0,13	0,14
	not expected at all	0,03	0,04
	n/a	0,00	0,00
innovative potential and entrepreneurial skills, get new ideas how to do things	highly expected	0,44	0,43
	2	0,35	0,35
	3	0,16	0,16
	not expected at all	0,05	0,05
	n/a	0,00	0,00
foreign language skills	highly expected	0,72	0,69
	2	0,20	0,21
	3	0,06	0,07
	not expected at all	0,03	0,03
	n/a	0,00	0,00
being able to interact and work with people from other	highly expected	0,66	0,63
	2	0,28	0,30
	3	0,05	0,06

backgrounds and cultures	not expected at all	0,01	0,01
	n/a	0,00	0,00
intercultural competencies	highly expected	0,58	0,56
	2	0,33	0,35
	3	0,07	0,07
	not expected at all	0,02	0,02
	n/a	0,00	0,00
knowledge of the host country's culture, society and economy	highly expected	0,61	0,59
	2	0,30	0,31
	3	0,08	0,08
	not expected at all	0,02	0,02
	n/a	0,00	0,00
to feel European, to have Europe-wide perspectives beyond the national horizon, to have a sense of European citizenship	highly expected	0,43	0,42
	2	0,30	0,31
	3	0,16	0,16
	not expected at all	0,11	0,11
	n/a	0,00	0,00
Do you feel	primarily ^your nationality"" and secondly European?	0,67	0,66
	primarily European and secondly ^your nationality"" ?	0,18	0,20
	European only?	0,05	0,05
	^Your nationality"" only?	0,10	0,09
	Commonalities (eng only)	Everything in common	0,13
	2	0,52	0,51
	3	0,31	0,33

	Nothing in common	0,04	0,04
Do you see the added value of being European? (eng only)	Very much	0,43	0,42
	2	0,27	0,25
	3	0,14	0,14
	Not at all	0,16	0,19
Do you believe a European Union is necessary? (eng only)	Very much	0,47	0,45
	2	0,22	0,20
	3	0,12	0,11
	Not at all	0,20	0,23
Do you ever think yourself as citizen of Europe? (eng only)	Very much	0,37	0,36
	2	0,27	0,26
	3	0,18	0,18
	Not at all	0,18	0,20
To what extent do you believe that you share values with other Europeans? (eng only)	Very much	0,26	0,25
	2	0,42	0,41
	3	0,24	0,26
	Not at all	0,08	0,09
Which of the following values do you believe to share with other Europeans? (please tick)	Peace	0,74	0,74
	Democracy	0,69	0,70
	Human rights	0,81	0,80
	Justice and Rule of law	0,54	0,54
	Respect for other cultures	0,74	0,73
	Solidarity	0,56	0,57
	Freedom	0,76	0,76
In which field(s) is your host / receiving enterprise or organisation active? (multiple response)	Mining and quarrying	0,01	0,01
	Manufacturing	0,10	0,09
	Electricity, gas, steam and air conditioning supply	0,04	0,03

Water supply; sewerage, waste management and remediation activities	0,04	0,04
Construction	0,05	0,06
Distributive trades	0,06	0,05
Transportation and storage services	0,05	0,04
Accommodation and food service activities	0,16	0,12
Information and communication services	0,27	0,25
Real estate activities	0,04	0,03
Professional, scientific and technical activities	0,48	0,53
Administrative and support service activities	0,25	0,25
Repair of computers and personal and household goods	0,02	0,02

Erasmus+ POST Learners

		Unweighted frequencies	Weighted frequencies
Please choose your home country:	- please choose -	0,00	0,00
	Austria	0,02	0,02
	Belgium	0,03	0,03
	Bulgaria	0,01	0,01
	Croatia	0,01	0,01

Cyprus	0,00	0,00
Czech Republic	0,02	0,02
Denmark	0,02	0,02
Estonia	0,00	0,01
Finland	0,02	0,02
France	0,09	0,08
FYROM	0,00	0,00
Germany	0,18	0,21
Greece	0,02	0,02
Hungary	0,01	0,01
Iceland	0,00	0,00
Ireland	0,01	0,01
Italy	0,09	0,13
Latvia	0,01	0,01
Liechtenstein	0,00	0,00
Lithuania	0,02	0,01
Luxembourg	0,00	0,00
Malta	0,00	0,00
Netherlands	0,04	0,04
Norway	0,01	0,01
Poland	0,06	0,05
Portugal	0,02	0,03
Romania	0,03	0,03
Slovakia	0,02	0,02
Slovenia	0,01	0,02
Spain	0,07	0,08
Sweden	0,01	0,01
Switzerland	0,00	0,00
Turkey	0,03	0,04
United Kingdom	0,03	0,03
Other	0,09	0,03

Which field do you study?	Education	0,06	0,06
	Arts and humanities	0,18	0,17
	Social sciences, journalism and information	0,11	0,11
	Business, administration and law	0,25	0,24
	Natural sciences, mathematics and statistics	0,08	0,08
	Information and Communication Technologies (ICTs)	0,05	0,05
	Engineering, manufacturing and construction	0,15	0,16
	Agriculture, forestry, fisheries and veterinary	0,02	0,03
	Health and welfare	0,09	0,10
	Services	0,02	0,02
What is your current status in your course of study?	Undergraduate student (short cycle of one or two years)	0,05	0,04
	Undergraduate student (Bachelor degree or equivalent)	0,57	0,51
	Graduate student (Master degree or equivalent)	0,34	0,40
	Other	0,02	0,02
	Doctorate student	0,03	0,03
Please indicate your gender	Female	0,67	0,61
	Male	0,33	0,39

	Other	0,00	0,00
Did your parents (father and/or mother) also attend university?	Yes	0,58	0,56
	No	0,42	0,44
Please state your age (in years)	Up to 20	0,07	0,05
	21	0,19	0,13
	22	0,20	0,15
	23	0,18	0,17
	24	0,13	0,17
	25	0,08	0,11
	26	0,05	0,08
	27 and over	0,09	0,14
Did at least one of the following characteristics apply to you prior to your stay abroad?	Disability (i.e. participants with special needs): (people with mental (intellectual, cognitive, learning), physical, sensory or other disabilities)	0,01	0,01
	Educational difficulties (young people with learning difficulties; early school-leavers; low qualified adults; young people with poor school performance)	0,02	0,02
	Economic obstacles (people with a low standard of living, low income, dependence on social welfare system or homeless; young people in long-term unemployment or poverty; people in debt)	0,09	0,09

or with financial problems)		
Cultural differences (immigrants or refugees or descendants from immigrant or refugee families; people belonging to a national or ethnic minority; people with linguistic adaptation and cultural inclusion difficulties)	0,05	0,05
Health problems (people with chronic health problems, severe illnesses or psychiatric conditions)	0,03	0,03
Social obstacles (people facing discrimination because of gender, age, ethnicity, religion, sexual orientation, disability, etc.; people with limited social skills or anti-social or risky behaviours; people in a precarious situation; (ex-)offenders, (ex-)	0,03	0,04

	Geographical obstacles (people from remote or rural areas; people living in small islands or in peripheral regions; people from urban problem zones; people from less serviced areas (limited public transport, poor facilities))	0,03	0,03
	No	0,73	0,73
	Don't know	0,08	0,07
People with fewer opportunities	PWFO	0,19	0,19
	non-PWFO	0,81	0,81
home_gdp	High GDP	0,09	0,09
	Mid-High GDP	0,42	0,40
	Mid-Low GDP	0,28	0,33
	Low GDP	0,20	0,18
Did you travel to country with higher GDP per capita?	The same	0,59	0,58
	From higher to lower	0,18	0,18
	From lower to higher	0,23	0,25
Distance between sending and receiving country	Near	0,24	0,26
	Far	0,76	0,74
Please specify under which mobility programme/scheme you have been abroad / taken part in an Intensive Programme.	ERASMUS+ Student mobility for Studies	0,82	0,80
	Other study exchange programmes	0,04	0,04
	ERASMUS+ Student mobility for Traineeships /Work Placements	0,25	0,28

What was the motivation for your stay abroad?	Other internships, traineeships, work placements abroad	0,04	0,05
	ERASMUS+ Intensive Programme (IP) abroad	0,01	0,01
	ERASMUS+ Intensive Programme (IP) in my home country	0,00	0,00
	Other summer schools and similar short-term formats with international audience	0,04	0,04
	Possibility to choose a study programme in a foreign language	0,16	0,16
	Opportunity to experience different learning practices and teaching methods	0,34	0,33
	Opportunity to follow different courses, not available in my home institution	0,16	0,16
	Improve and widen my career prospects in the future	0,49	0,49
	Enhance my future employability in my home country	0,24	0,24
	Enhance my future employability abroad	0,30	0,31

Opportunity to learn/ improve a foreign language	0,62	0,62
Opportunity to live abroad	0,70	0,70
Opportunity to expand my social network by meeting people from different countries	0,49	0,49
Opportunity to develop soft skills i.e. adaptability, taking initiative, proactivity	0,47	0,47
Possibility to receive ERASMUS+ grant	0,22	0,21
Possibility to receive other financial support to study abroad	0,06	0,06
Guidance provided regarding the benefits of the ERASMUS+ programme was very motivating	0,03	0,03
Available support in finding accommodation	0,02	0,02
Quality of the host institution / company	0,15	0,16
Opportunity to choose the institution / company	0,05	0,06
Good alignment of the courses abroad with the curriculum at home institution	0,05	0,05

	OLS (Online Linguistic Support) training available before departure	0,02	0,02
	Courses and credit obtained abroad are recognised at my home institution	0,14	0,14
In my study programme, there is a semester well suited to go abroad.	agree	0,51	0,50
	rather agree	0,26	0,26
	rather disagree	0,11	0,11
	disagree	0,12	0,13
	no opinion	0,00	0,00
I am convinced that my study programme recognises ECTS credits from a host institution abroad.	agree	0,66	0,66
	rather agree	0,23	0,23
	rather disagree	0,06	0,06
	disagree	0,05	0,05
	no opinion	0,00	0,00
The quality in teaching at my institution profits from the staff's international experiences.	agree	0,39	0,38
	rather agree	0,39	0,39
	rather disagree	0,14	0,15
	disagree	0,07	0,08
	no opinion	0,00	0,00
There is a lot of information and support for students who want to study abroad.	agree	0,36	0,35
	rather agree	0,40	0,41
	rather disagree	0,16	0,16
	disagree	0,08	0,08
	no opinion	0,00	0,00
There is a lot of information and support for students who want	agree	0,28	0,27
	rather agree	0,36	0,37

to go abroad for an internship / traineeship / work placement.	rather disagree	0,22	0,22
	disagree	0,14	0,14
	no opinion	0,00	0,00
There is a lot of information and support for students who want to learn/improve a foreign language.	agree	0,31	0,30
	rather agree	0,40	0,40
	rather disagree	0,19	0,19
	disagree	0,10	0,10
	no opinion	0,00	0,00
...I am very interested in it.	agree	0,71	0,71
	rather agree	0,25	0,25
	rather disagree	0,03	0,03
	disagree	0,01	0,01
	n/a	0,00	0,00
...the field offers many career options.	agree	0,45	0,44
	rather agree	0,36	0,36
	rather disagree	0,14	0,15
	disagree	0,06	0,06
	n/a	0,00	0,00
...the field offers career options also abroad.	agree	0,50	0,49
	rather agree	0,34	0,34
	rather disagree	0,11	0,12
	disagree	0,05	0,05
	n/a	0,00	0,00
...I expected a higher than average income with my degree.	agree	0,34	0,33
	rather agree	0,33	0,33
	rather disagree	0,20	0,20
	disagree	0,14	0,14
	n/a	0,00	0,00
I can easily imagine living abroad at some point in the future.	agree	0,66	0,65
	rather agree	0,24	0,25
	rather disagree	0,08	0,08

	disagree	0,02	0,02
	n/a	0,00	0,00
I definitely want to work abroad for a while.	agree	0,59	0,58
	rather agree	0,28	0,28
	rather disagree	0,10	0,10
	disagree	0,03	0,03
	n/a	0,00	0,00
I would like to work in an international context.	agree	0,70	0,69
	rather agree	0,25	0,26
	rather disagree	0,04	0,04
	disagree	0,01	0,01
	n/a	0,00	0,00
I would like to live and work in my home country.	agree	0,24	0,24
	rather agree	0,41	0,42
	rather disagree	0,24	0,24
	disagree	0,11	0,11
	n/a	0,00	0,00
...your home institution?	strongly	0,21	0,21
	moderately	0,49	0,49
	slightly	0,20	0,20
	weakly	0,10	0,10
	n/a	0,00	0,00
To gain in confidence and have a stronger conviction of my own abilities. (expected change)	highly expected	0,47	0,45
	2	0,30	0,31
	3	0,14	0,15
	not expected at all	0,08	0,09
	- please choose -	0,00	0,00
To gain in confidence and have a stronger conviction of my own	highly improved	0,49	0,48
	2	0,34	0,35

abilities. (actual improvement)	3	0,13	0,13
	not improved at all	0,04	0,04
	- please choose	0,00	0,00
	-		
To learn to be more tolerant towards other person's values and behavior. (expected change)	highly expected	0,38	0,38
	2	0,29	0,28
	3	0,17	0,17
	not expected at all	0,16	0,17
	- please choose	0,00	0,00
	-		
To learn to be more tolerant towards other person's values and behavior. (actual improvement)	highly improved	0,49	0,48
	2	0,31	0,31
	3	0,14	0,14
	not improved at all	0,07	0,07
	- please choose	0,00	0,00
	-		
To be more independent in my studies and less in need of orientation. (actual improvement) (expected change)	highly expected	0,36	0,34
	2	0,28	0,28
	3	0,17	0,17
	not expected at all	0,19	0,21
	- please choose	0,00	0,00
	-		
To be more independent in my studies and less in need of orientation. (actual improvement) (actual improvement)	highly improved	0,38	0,37
	2	0,33	0,33
	3	0,18	0,18
	not improved at all	0,11	0,12
	- please choose	0,00	0,00
	-		
To be more open and more curious about new challenges. (expected change)	highly expected	0,51	0,49
	2	0,28	0,29
	3	0,13	0,14

	not expected at all	0,08	0,08
	- please choose -	0,00	0,00
To be more open and more curious about new challenges. (actual improvement)	highly improved	0,52	0,51
	2	0,31	0,32
	3	0,12	0,13
	not improved at all	0,04	0,04
	- please choose -	0,00	0,00
To be more aware of my own strengths and weaknesses. (expected change)	highly expected	0,41	0,40
	2	0,30	0,30
	3	0,17	0,17
	not expected at all	0,13	0,13
	- please choose -	0,00	0,00
To be more aware of my own strengths and weaknesses. (actual improvement)	highly improved	0,47	0,46
	2	0,34	0,35
	3	0,15	0,15
	not improved at all	0,04	0,04
	- please choose -	0,00	0,00
To know better what I want and reach decisions more easily. (expected change)	highly expected	0,37	0,36
	2	0,30	0,30
	3	0,18	0,18
	not expected at all	0,15	0,16
	- please choose -	0,00	0,00
To know better what I want and reach decisions more easily. (actual improvement)	highly improved	0,36	0,35
	2	0,36	0,36
	3	0,20	0,20
	not improved at all	0,08	0,09

	- please choose	0,00	0,00
	-		
To be actively involved in the life of the local community (through participation in cultural, social or political activities, volunteering etc.) (expected change)	highly expected	0,29	0,28
	2	0,25	0,25
	3	0,18	0,19
	not expected at all	0,27	0,28
	- please choose	0,00	0,00
	-		
To be actively involved in the life of the local community (through participation in cultural, social or political activities, volunteering etc.) (actual improvement)	highly improved	0,23	0,23
	2	0,30	0,29
	3	0,26	0,26
	not improved at all	0,21	0,22
	- please choose	0,00	0,00
	-		
To establish long-lasting relationships with people from different countries. (expected change)	highly expected	0,49	0,48
	2	0,27	0,27
	3	0,15	0,15
	not expected at all	0,10	0,10
	- please choose	0,00	0,00
	-		
To establish long-lasting relationships with people from different countries. (actual improvement)	highly improved	0,47	0,46
	2	0,28	0,29
	3	0,18	0,18
	not improved at all	0,07	0,07
	- please choose	0,00	0,00
	-		
I feel more involved in my field of study.	agree	0,37	0,36
	rather agree	0,38	0,38
	rather disagree	0,18	0,19
	disagree	0,07	0,07
	n/a	0,00	0,00
	agree	0,71	0,71

	rather agree	0,21	0,22
I have new friends who live abroad.	rather disagree	0,05	0,05
	disagree	0,03	0,03
	n/a	0,00	0,00
I have a better idea of what I want to do after graduation.	agree	0,38	0,37
	rather agree	0,36	0,36
	rather disagree	0,18	0,18
	disagree	0,08	0,08
	n/a	0,00	0,00
I have better opportunities for internships or student jobs in my home country.	agree	0,36	0,35
	rather agree	0,38	0,37
	rather disagree	0,18	0,18
	disagree	0,09	0,09
	n/a	0,00	0,00
I appreciate my home institution now more than before.	agree	0,26	0,26
	rather agree	0,31	0,31
	rather disagree	0,25	0,26
	disagree	0,17	0,17
	n/a	0,00	0,00
I improved my critical thinking skills	agree	0,46	0,46
	rather agree	0,43	0,43
	rather disagree	0,09	0,09
	disagree	0,02	0,02
	n/a	0,00	0,00
I have a better outside perspective, international outlook, critical eye towards my home institution and home country.	agree	0,60	0,59
	rather agree	0,33	0,34
	rather disagree	0,06	0,06
	disagree	0,02	0,02
	n/a	0,00	0,00
I am highly motivated to continue and complete my studies	agree	0,60	0,59
	rather agree	0,30	0,31

I appreciate more multicultural environments	rather disagree	0,07	0,08
	disagree	0,03	0,03
	n/a	0,00	0,00
	agree	0,68	0,67
	rather agree	0,27	0,28
	rather disagree	0,04	0,04
	disagree	0,01	0,01
I feel the need for an international dimension in my everyday life	n/a	0,00	0,00
	agree	0,58	0,57
	rather agree	0,32	0,33
	rather disagree	0,08	0,08
	disagree	0,02	0,02
Have you re-oriented your studies after mobility?	n/a	0,00	0,00
	Yes	0,27	0,26
	No	0,73	0,74
Will you continue to a higher level of study?	Yes	0,74	0,70
	No	0,26	0,30
Mobility was useful because it made me discover what I really want to study.	agree	0,47	0,45
	rather agree	0,36	0,37
	rather disagree	0,12	0,13
	disagree	0,05	0,05
	n/a	0,00	0,00
Mobility was useful because I made significant progress in the field of study during mobility	agree	0,36	0,35
	rather agree	0,37	0,37
	rather disagree	0,19	0,19
	disagree	0,08	0,08
	n/a	0,00	0,00
After spending my period abroad, I am now more aware of my responsibilities as a student.	agree	0,38	0,36
	rather agree	0,40	0,40
	rather disagree	0,17	0,18
	disagree	0,06	0,06

	n/a	0,00	0,00
During my period abroad, I have started using new techniques during studying I have not been using before.	agree	0,35	0,35
	rather agree	0,30	0,30
	rather disagree	0,22	0,23
	disagree	0,13	0,13
	n/a	0,00	0,00
During my period abroad, I have experienced methods of teaching I have not experienced before.	agree	0,45	0,44
	rather agree	0,29	0,30
	rather disagree	0,15	0,15
	disagree	0,11	0,11
	n/a	0,00	0,00
My mobility experience motivated me to continue my studies to a higher level	agree	0,50	0,49
	rather agree	0,34	0,35
	rather disagree	0,11	0,11
	disagree	0,05	0,06
	n/a	0,00	0,00
Know how to work in teams	highly improved	0,35	0,33
	2	0,38	0,39
	3	0,18	0,19
	not improved at all	0,09	0,09
	n/a	0,00	0,00
Sector- or field-specific skills	highly improved	0,32	0,32
	2	0,40	0,40
	3	0,21	0,21
	not improved at all	0,07	0,07
	n/a	0,00	0,00
(Oral) Communication skills	highly improved	0,52	0,50
	2	0,37	0,38
	3	0,09	0,09

	not improved at all	0,02	0,02
	n/a	0,00	0,00
Reading and writing skills	highly improved	0,36	0,36
	2	0,38	0,38
	3	0,17	0,17
	not improved at all	0,09	0,09
	n/a	0,00	0,00
To adapt and act in new situations	highly improved	0,54	0,53
	2	0,38	0,39
	3	0,07	0,07
	not improved at all	0,01	0,01
	n/a	0,00	0,00
Digital skills	highly improved	0,21	0,21
	2	0,31	0,31
	3	0,27	0,27
	not improved at all	0,21	0,22
	n/a	0,00	0,00
Analytical and problem-solving skills	highly improved	0,33	0,32
	2	0,44	0,45
	3	0,18	0,19
	not improved at all	0,05	0,05
	n/a	0,00	0,00
Planning and organisational skills	highly improved	0,37	0,36
	2	0,41	0,41
	3	0,17	0,17
	not improved at all	0,05	0,05
	n/a	0,00	0,00
	highly improved	0,31	0,30

Ability to reach decisions	2	0,44	0,44
	3	0,20	0,20
	not improved at all	0,05	0,05
	n/a	0,00	0,00
Innovative potential and entrepreneurial skills, get new ideas how to do things	highly improved	0,31	0,31
	2	0,39	0,39
	3	0,22	0,22
	not improved at all	0,09	0,09
	n/a	0,00	0,00
Foreign language skills	highly improved	0,57	0,56
	2	0,31	0,32
	3	0,09	0,09
	not improved at all	0,03	0,03
	n/a	0,00	0,00
Being able to interact and work with people from other backgrounds and cultures	highly improved	0,57	0,56
	2	0,34	0,35
	3	0,07	0,07
	not improved at all	0,02	0,02
	n/a	0,00	0,00
Intercultural competencies	highly improved	0,52	0,51
	2	0,38	0,39
	3	0,08	0,08
	not improved at all	0,02	0,02
	n/a	0,00	0,00
Knowledge of the host country's culture, society and econom	highly improved	0,57	0,56
	2	0,35	0,35
	3	0,07	0,07
	not improved at all	0,01	0,01

	n/a	0,00	0,00
To feel European, to have Europe-wide perspectives beyond the national horizon, to have a sense of European citizenship	highly improved	0,51	0,51
	2	0,31	0,30
	3	0,12	0,12
	not improved at all	0,07	0,07
	n/a	0,00	0,00
Critical thinking skills	highly improved	0,36	0,35
	2	0,44	0,44
	3	0,16	0,16
	not improved at all	0,04	0,04
	n/a	0,00	0,00
To take into account cultural perspectives/differences when other have different opinions/ideas	Definitely	0,56	0,55
	To some extent	0,37	0,38
	Not so much	0,05	0,05
	Not at all	0,01	0,02
To engage in social activities that contribute to the interest of the community or society	Definitely	0,30	0,29
	To some extent	0,39	0,39
	Not so much	0,24	0,25
	Not at all	0,07	0,07
To critically analyse media (printed, audio-visual, electronic)	Definitely	0,30	0,30
	To some extent	0,41	0,41
	Not so much	0,22	0,22
	Not at all	0,07	0,07
To discuss political topics seriously	Definitely	0,30	0,29
	To some extent	0,38	0,39
	Not so much	0,23	0,23
	Not at all	0,09	0,09
To get along with people who have a different cultural background	Definitely	0,68	0,66
	To some extent	0,28	0,29
	Not so much	0,03	0,03

	Not at all	0,01	0,01
I am now more interested in social and political events/developments at European/international level	to a greater extent	0,51	0,50
	to the same extent	0,45	0,46
	to a smaller extent	0,04	0,04
I am now committed to stand against discrimination, intolerance, xenophobia or racism...	to a greater extent	0,49	0,48
	to the same extent	0,47	0,48
	to a smaller extent	0,04	0,04
I am more committed to help the disadvantaged people in society...	to a greater extent	0,42	0,40
	to the same extent	0,54	0,56
	to a smaller extent	0,04	0,04
Do you feel	...primarily ^your nationality"" and secondly European?	0,62	0,62
	...primarily European and secondly ^your nationality"" ?	0,26	0,26
	...European only?	0,06	0,06
	...^Your nationality"" only?	0,06	0,06
Commonalities (eng only)	Everything in common	0,13	0,13
	2	0,50	0,49
	3	0,33	0,34
	Nothing in common	0,04	0,04
Do you see the added value of being European? (eng only)	Very much	0,45	0,45
	2	0,22	0,21
	3	0,13	0,13

	Not at all	0,20	0,21
Do you believe the European Union is necessary? (eng only)	Very much	0,46	0,46
	2	0,19	0,18
	3	0,11	0,11
Do you ever think yourself as citizen of Europe? (eng only)	Not at all	0,24	0,25
	Very much	0,40	0,41
	2	0,22	0,22
To what extent do you believe that you share values with other Europeans? (eng only)	3	0,16	0,15
	Not at all	0,22	0,22
	Very much	0,30	0,30
Which of the following values do you believe to share with other Europeans? (please tick)	2	0,36	0,36
	3	0,23	0,24
	Not at all	0,11	0,11
Peace	Peace	0,75	0,74
	Democracy	0,72	0,73
	Human rights	0,82	0,82
	Justice Rule of law	0,49	0,50
	Respect for other cultures	0,73	0,71
	Solidarity	0,57	0,56
	Freedom	0,78	0,77
Have you been recruited or offered a position by the company/organisation or a branch of the company/organisation where you did your traineeship abroad?	Yes	0,39	0,40
	No	0,61	0,60
	n/a	0,00	0,00
In which field(s) was your host / receiving enterprise or organisation active?	Mining and quarrying	0,02	0,02
	Manufacturing	0,09	0,10
	Electricity, gas, steam and air conditioning supply	0,02	0,02

Water supply; sewerage, waste management and remediation activities	0,02	0,02
Construction	0,05	0,06
Distributive trades	0,06	0,05
Transportation and storage services	0,04	0,04
Accommodation and food service activities	0,12	0,11
Information and communication services	0,21	0,20
Real estate activities	0,03	0,02
Professional, scientific and technical activities	0,43	0,45
Administrative and support service activities	0,19	0,19
Repair of computers and personal and household goods	0,01	0,01

Erasmus+ Staff members

		Unweighted frequencies	Weighted frequencies
B.1. Please choose your home country:	Austria	0,02	0,02
	Belgium	0,02	0,02
	Bulgaria	0,03	0,04
	Croatia	0,01	0,01
	Cyprus	0,00	0,00

Czech Republic	0,02	0,03
Denmark	0,01	0,01
Estonia	0,01	0,01
Finland	0,02	0,03
France	0,05	0,05
FYROM	0,00	0,00
Germany	0,10	0,10
Greece	0,02	0,02
Hungary	0,02	0,02
Iceland	0,00	0,00
Ireland	0,00	0,01
Italy	0,06	0,06
Latvia	0,01	0,01
Liechtenstein	0,00	0,00
Lithuania	0,02	0,03
Luxembourg	0,00	0,00
Malta	0,00	0,00
Netherlands	0,02	0,02
Norway	0,01	0,01
Poland	0,08	0,09
Portugal	0,04	0,04
Romania	0,05	0,06
Slovakia	0,02	0,02
Slovenia	0,01	0,01
Spain	0,10	0,10
Sweden	0,02	0,02
Switzerland	0,00	0,00
Turkey	0,02	0,02
United Kingdom	0,05	0,06
Other	0,14	0,06
-please choose-	0,00	0,00

B.2 Do you belong to the academic or non-academic staff of your HEI?	Non-academic staff	0,21	0,21
	Academic staff	0,77	0,77
	Employed at an enterprise abroad but teaching at a HEI	0,00	0,00
	Employed at a domestic enterprise but teaching at a HEI	0,01	0,01
Does your work involve teaching?	Yes	0,79	0,79
	No	0,21	0,21
Compared to other higher education institutions/enterprises in your country, is yours	Rather a large institution/enterprise	0,50	0,49
	A medium sized institution/enterprise	0,36	0,37
	A small institution/enterprise	0,14	0,14
What type of higher education institution are you employed at? (if you are employed at an enterprise, please indicate the type of higher education institution you are teaching at)	University	0,74	0,72
	University of Applied Sciences	0,15	0,16
	Other type of institution delivering higher education	0,11	0,12
A.2 Please indicate your gender	Female	0,56	0,56
	Male	0,44	0,44
	Other	0,00	0,00
Do you consider yourself to have a disability	Yes	0,04	0,04
	No	0,96	0,96
Which country is the higher education institution you are employed at located in?	Same as my home country	1,00	1,00
	Other, please specify	0,00	0,00
Please specify if and in which context you have been abroad as staff member of a higher education institution	ERASMUS+ Staff Mobility for Teaching Assignments	0,62	0,63
	ERASMUS+ Staff Mobility for Staff Training	0,45	0,45

	Other staff mobility formats related to Teaching	0,14	0,14
	Other staff mobility formats related to Staff Training	0,09	0,09
	Staff internship at an enterprise abroad	0,03	0,03
	I left my home country for a job abroad	0,08	0,08
	No, when I have been abroad on a business trip, it was only to conferences, workshops or other events, not in the form of (Erasmus/Erasmus+) staff mobility	0,02	0,02
	No, I have never gone abroad as a staff member of a higher education institution	0,01	0,01
home_euregion	Northern Europe	0,16	0,18
	Southern Europe	0,27	0,27
	Eastern Europe	0,22	0,26
	Western Europe	0,21	0,23
	Other	0,14	0,06
Which of these categories best reflects your current position?	Doctoral candidate	0,06	0,06
	Post-Doc	0,11	0,11
	Professor	0,49	0,48
	Lecturer	0,27	0,28
	Other	0,07	0,07
B.6 In which field are you teaching?	Education	0,12	0,12
	Art and humanities	0,20	0,20
	Social sciences, journalism and information	0,12	0,12

	Business, administration and law	0,16	0,16
	Natural sciences, mathematics and statistics	0,09	0,09
	Information and Communication Technologies (ICTs)	0,07	0,07
	Engineering, manufacturing and construction	0,11	0,11
	Agriculture, forestry, fisheries and veterinary	0,04	0,04
	Health and welfare	0,08	0,08
	Services	0,02	0,02
Teaching making use of ICT such as collaborative workspaces, live streaming	Often	0,28	0,27
	Sometimes	0,33	0,33
	Seldom	0,22	0,22
	Never	0,17	0,18
Teaching making use of material from open educational resources, such as massive open online courses	Often	0,20	0,19
	Sometimes	0,33	0,32
	Seldom	0,27	0,28
	Never	0,20	0,21
Learning in multidisciplinary groups	Often	0,24	0,24
	Sometimes	0,37	0,37
	Seldom	0,25	0,25
	Never	0,14	0,14
Inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures	Often	0,20	0,19
	Sometimes	0,40	0,40
	Seldom	0,27	0,27
	Never	0,14	0,14
Project-based collaboration between enterprises and the university to study real life cases	Often	0,19	0,19
	Sometimes	0,32	0,32
	Seldom	0,27	0,27

Different types of work-based learning, e.g. industry internships	Never	0,22	0,23
	Often	0,18	0,18
	Sometimes	0,28	0,28
	Seldom	0,26	0,26
In which language(s) are you teaching?	Never	0,27	0,28
	(one of) The official national language(s), which is also my mother tongue	0,73	0,74
	(one of) The official national language(s), which is not my mother tongue	0,11	0,11
	The language of my field (e.g in language or cultural studies)	0,07	0,07
	English, as a secondary language	0,49	0,50
Have you been abroad during school time or as a student?	Other	0,04	0,04
	Yes, during school time (e.g. school year abroad).	0,30	0,29
	Yes, as a student (e.g. ERASMUS Student mobility for Studies).	0,30	0,30
Please specify in which kind of staff training you participated.	No.	0,48	0,47
	Workshop	0,41	0,42
	Receiving Training as part of a Staff Training Week	0,47	0,45
	Receiving Training as an individual	0,37	0,38
	Job Shadowing	0,24	0,25
	Other	0,18	0,18
In which field(s) was the hosting enterprise active?	Mining and quarrying	0,04	0,04
	Manufacturing	0,09	0,08

	Electricity, gas, steam and air conditioning supply	0,04	0,03
	Water supply; sewerage, waste management and remediation activities	0,03	0,03
	Construction	0,03	0,03
	Distributive trades	0,04	0,04
	Transportation and storage services	0,05	0,04
	Accommodation and food service activities	0,09	0,08
	Information and communication services	0,23	0,23
	Real estate activities	0,02	0,02
	Professional, scientific and technical activities	0,67	0,68
	Administrative and support service activities	0,21	0,20
	Repair of computers and personal and household goods	0,02	0,02
Staff mobility encouraged me to teach in a foreign language at my home institution.	Agree	0,68	0,67
	Disagree	0,18	0,18
	I don't know	0,14	0,14
C.5. How long have you been mobile (altogether) in the context of staff mobility?	Up to 1 week	0,42	0,42
	Up to 2 weeks	0,15	0,15
	Up to 4 weeks	0,12	0,12
	1-3 months	0,14	0,14
	4-6 months	0,06	0,06
	7-12 months	0,04	0,04
	More than one year	0,07	0,07
	A week or less	0,60	0,61

	More than 1 week up to 3 weeks	0,23	0,22
C.6. How long was the longest period of time you spent abroad in the context of staff mobility?	More than 3 weeks up to 6 weeks	0,07	0,06
	More than 6 weeks up to 3 months	0,05	0,04
	More than 3 months	0,05	0,05
C.7. When was your last stay abroad in the context of staff mobility?	2010/11 and earlier	0,01	0,01
	2011/12	0,00	0,00
	2012/13	0,01	0,01
	2013/14	0,01	0,01
	2014/15	0,05	0,06
	2015/16	0,22	0,21
	2016/17	0,65	0,65
	I am abroad at the moment	0,04	0,04
In which countries have you been abroad in the context of staff mobility (conferences excluded)?	Austria	0,08	0,09
	Belgium	0,09	0,09
	Bulgaria	0,04	0,04
	Croatia	0,04	0,04
	Cyprus	0,02	0,02
	Czech Republic	0,09	0,10
	Denmark	0,05	0,05
	Estonia	0,04	0,04
	Finland	0,10	0,11
	France	0,15	0,15
	FYROM	0,00	0,00
	Germany	0,20	0,20
	Greece	0,07	0,07
	Hungary	0,07	0,08
	Iceland	0,02	0,02
	Ireland	0,04	0,04
Italy	0,18	0,19	

	Latvia	0,04	0,04
	Liechtenstein	0,00	0,00
	Lithuania	0,05	0,06
	Luxembourg	0,01	0,01
	Malta	0,02	0,02
	Netherlands	0,08	0,09
	Norway	0,05	0,05
	Poland	0,14	0,13
	Portugal	0,14	0,14
	Romania	0,08	0,07
	Slovakia	0,05	0,05
	Slovenia	0,04	0,04
	Spain	0,22	0,23
	Sweden	0,07	0,07
	Switzerland	0,02	0,02
	Turkey	0,08	0,08
	United Kingdom	0,17	0,17
Field-specific knowledge	Significant gain	0,48	0,47
	2	0,33	0,34
	3	0,14	0,15
	no gain	0,05	0,05
	n/a	0,00	0,00
Transversal skills	Significant gain	0,41	0,40
	2	0,39	0,40
	3	0,16	0,16
	no gain	0,04	0,04
	n/a	0,00	0,00
Social competences	Significant gain	0,51	0,50
	2	0,35	0,36
	3	0,11	0,11
	no gain	0,03	0,03

	n/a	0,00	0,00
Intercultural competences	Significant gain	0,61	0,60
	2	0,30	0,31
	3	0,07	0,07
	no gain	0,02	0,02
	n/a	0,00	0,00
...to take into account cultural perspectives/differences when other have different opinions/ideas	Definitely	0,56	0,55
	To some extent	0,36	0,37
	Not so much	0,06	0,07
	Not at all	0,02	0,02
...to engage in social activities that contribute to the interest of the community or society	Definitely	0,34	0,34
	To some extent	0,43	0,43
	Not so much	0,19	0,19
	Not at all	0,05	0,05
...to critically analyse media (printed, audio-visual, electronic)	Definitely	0,21	0,21
	To some extent	0,38	0,38
	Not so much	0,29	0,30
	Not at all	0,11	0,11
...to discuss political topics seriously	Definitely	0,18	0,18
	To some extent	0,38	0,38
	Not so much	0,30	0,30
	Not at all	0,13	0,13
...to get along with people who have a different cultural background	Definitely	0,60	0,59
	To some extent	0,34	0,34
	Not so much	0,05	0,05
	Not at all	0,01	0,01
...I am now more interested in social and political events/developments at European/international level	To a greater extent	0,52	0,52
	To the same extent	0,44	0,45
	To a smaller extent	0,04	0,04
	To a greater extent	0,43	0,42

...I am now committed to stand against discrimination, intolerance, xenophobia or racism	To the same extent	0,53	0,54
	To a smaller extent	0,04	0,04
...I am more committed to help the disadvantaged people in society	To a greater extent	0,40	0,38
	To the same extent	0,57	0,58
	To a smaller extent	0,04	0,04
Students gain in confidence and have a stronger conviction of their own abilities.	Agree	0,66	0,66
	Rather agree	0,31	0,31
	Rather disagree	0,03	0,03
	Disagree	0,00	0,00
Students learn to be more tolerant towards other person's values and behaviour.	Agree	0,61	0,61
	Rather agree	0,35	0,35
	Rather disagree	0,03	0,03
	Disagree	0,01	0,01
Students are more focussed on their studies and less in need of orientation.	Agree	0,33	0,33
	Rather agree	0,47	0,47
	Rather disagree	0,16	0,17
	Disagree	0,03	0,03
Students are more open and more curious about new challenges.	Agree	0,68	0,68
	Rather agree	0,29	0,30
	Rather disagree	0,02	0,02
	Disagree	0,00	0,00
Students are more aware of their own strengths and weaknesses.	Agree	0,55	0,54
	Rather agree	0,39	0,39
	Rather disagree	0,05	0,05
	Disagree	0,01	0,01
Students know better what they want and reach decisions more easily.	Agree	0,47	0,46
	Rather agree	0,45	0,46
	Rather disagree	0,07	0,07
	Disagree	0,01	0,01
	Agree	0,64	0,64

Student adapt more easily and accept more easily changing circumstances and new environment/new realities.	Rather agree	0,32	0,33
	Rather disagree	0,03	0,03
	Disagree	0,00	0,00
...your institution	Very strongly	0,52	0,51
	2	0,34	0,35
	3	0,10	0,10
	Less strongly	0,04	0,04
...the European Union	Very strongly	0,47	0,48
	2	0,33	0,33
	3	0,13	0,13
	Less strongly	0,07	0,06
Do you feel...	... primarily ^your nationality"" and secondly European?	0,65	0,66
	... primarily European and secondly ^your nationality"" ?	0,25	0,25
	... European only?	0,04	0,05
	... ^your nationality"" only?	0,06	0,04
Do you see the added value of being European?	Very much	0,73	0,74
	2	0,22	0,21
	3	0,04	0,03
	Not at all	0,02	0,01
Do you believe the European Union is necessary?	Very much	0,74	0,75
	2	0,20	0,20
	3	0,04	0,04
	Not at all	0,01	0,01
Do you ever think yourself as citizen of Europe?	Very much	0,64	0,66
	2	0,24	0,24
	3	0,07	0,06
	Not at all	0,05	0,03

To what extent do you believe that you share values with other Europeans?	Very much	0,52	0,52
	2	0,40	0,41
	3	0,06	0,06
	Not at all	0,01	0,01
How many things do you feel you have in common with other Europeans?	Everything in common	0,20	0,20
	2	0,70	0,71
	3	0,09	0,09
	Nothing in common	0,00	0,00
Which of the following values do you believe to share with other Europeans?	Peace	0,85	0,85
	Democracy	0,86	0,87
	Human rights	0,86	0,87
	Justice and Rule of law	0,72	0,72
	Respect for other cultures	0,84	0,83
	Solidarity	0,70	0,70
	Freedom	0,86	0,87
My special needs generate a barrier for me.	Very important	0,04	0,04
	Important	0,07	0,07
	Rather unimportant	0,17	0,16
	Not important	0,72	0,72
Will take part at a later date.	Very important	0,28	0,27
	Important	0,25	0,26
	Rather unimportant	0,14	0,15
	Not important	0,33	0,33
Uncertainty about the benefits of the Erasmus+ period abroad for my future career	Very important	0,09	0,08
	Important	0,16	0,15
	Rather unimportant	0,27	0,28
	Not important	0,48	0,49
Lack of information about the Erasmus+	Very important	0,16	0,16
	Important	0,25	0,25

programme and how it works	Rather unimportant	0,22	0,22
	Not important	0,37	0,37
Uncertainty about the costs of my mobility	Very important	0,15	0,15
	Important	0,25	0,25
	Rather unimportant	0,22	0,23
Uncertainty about the Erasmus+ grant level	Not important	0,38	0,38
	Very important	0,11	0,10
	Important	0,24	0,25
Erasmus+ grant levels are too low	Rather unimportant	0,20	0,20
	Not important	0,44	0,45
	Very important	0,13	0,13
	Important	0,25	0,24
Difficulties in finding appropriate institution and/or training/teaching programme abroad	Rather unimportant	0,28	0,28
	Not important	0,35	0,34
	Very important	0,17	0,16
	Important	0,29	0,29
Uncertainty about education or training quality abroad	Rather unimportant	0,22	0,23
	Not important	0,33	0,33
	Very important	0,06	0,06
	Important	0,18	0,18
The training/teaching period abroad was too long	Rather unimportant	0,25	0,25
	Not important	0,51	0,51
	Very important	0,04	0,04
	Important	0,14	0,14
The training/teaching period abroad was too short	Rather unimportant	0,26	0,26
	Not important	0,57	0,56
	Very important	0,11	0,10
	Important	0,15	0,16
	Rather unimportant	0,25	0,25
	Not important	0,49	0,49

Insufficient knowledge of the language of instruction abroad (in your country of destination)	Very important	0,10	0,10
	Important	0,17	0,17
	Rather unimportant	0,19	0,19
	Not important	0,54	0,55
Lack of training/teaching programmes in English in hosting institution (abroad)	Very important	0,10	0,09
	Important	0,25	0,25
	Rather unimportant	0,19	0,19
	Not important	0,46	0,46
Family reasons or personal relationships	Very important	0,22	0,21
	Important	0,27	0,27
	Rather unimportant	0,19	0,19
	Not important	0,32	0,33
Work responsibilities in my home institution	Very important	0,33	0,33
	Important	0,35	0,36
	Rather unimportant	0,14	0,14
	Not important	0,18	0,18
Lack of recognition of Erasmus+ mobility by my home institution	Very important	0,14	0,14
	Important	0,18	0,19
	Rather unimportant	0,24	0,24
	Not important	0,44	0,44
Difficulty to be replaced if absent	Very important	0,24	0,24
	Important	0,31	0,31
	Rather unimportant	0,21	0,21
	Not important	0,24	0,24
Requirement of minimum 8 hours of teaching per week abroad (Erasmus+ rule in KA1 teaching staff mobility)	Very important	0,10	0,10
	Important	0,19	0,18
	Rather unimportant	0,23	0,24
	Not important	0,49	0,49
Other mobility schemes or opportunities offered by my HEI are better	Very important	0,09	0,09
	Important	0,14	0,15

suited than Erasmus+ to pursue my professional objectives	Rather unimportant	0,25	0,25
	Not important	0,52	0,52
Opportunity to experience different learning practices and teaching methods	Very important	0,56	0,54
	Important	0,34	0,35
	Rather unimportant	0,08	0,09
	Not important	0,02	0,02
Opportunity to develop my knowledge and competences in my field, increasing the relevance of my teaching	Very important	0,61	0,59
	Important	0,33	0,34
	Rather unimportant	0,05	0,05
	Not important	0,01	0,01
Opportunity to develop support services for mobility offered by my institution	Very important	0,43	0,41
	Important	0,35	0,35
	Rather unimportant	0,16	0,17
	Not important	0,06	0,07
Opportunity to develop other support services offered by my institution	Very important	0,34	0,33
	Important	0,40	0,40
	Rather unimportant	0,19	0,19
	Not important	0,08	0,08
Opportunity to establish new collaborations	Very important	0,64	0,63
	Important	0,29	0,30
	Rather unimportant	0,05	0,05
	Not important	0,01	0,02
Opportunity to reinforce the collaboration with a partner institution abroad	Very important	0,63	0,62
	Important	0,30	0,31
	Rather unimportant	0,05	0,05
	Not important	0,02	0,02
Opportunity to develop a strategic cooperation with an enterprise	Very important	0,30	0,28
	Important	0,32	0,32
	Rather unimportant	0,22	0,23
	Not important	0,16	0,17

Opportunity to improve how incoming and outgoing student mobility is integrated/recognised in the study programmes offered by my institution	Very important	0,44	0,43
	Important	0,38	0,38
	Rather unimportant	0,13	0,13
	Not important	0,05	0,06
Benefits for my future career development in the country of the institution I was/am employed at (sending institution)	Very important	0,39	0,37
	Important	0,34	0,34
	Rather unimportant	0,18	0,19
	Not important	0,09	0,10
Benefits for my future employment opportunities outside the country of the institution I was/am employed at, including the country where my host-institution is located	Very important	0,30	0,29
	Important	0,30	0,30
	Rather unimportant	0,23	0,24
	Not important	0,16	0,16
Opportunity to learn/improve a foreign language	Very important	0,48	0,47
	Important	0,30	0,30
	Rather unimportant	0,14	0,14
	Not important	0,08	0,09
Opportunity to internationalise my professional network	Very important	0,60	0,59
	Important	0,33	0,33
	Rather unimportant	0,06	0,06
	Not important	0,01	0,01
Opportunity to internationalise my social network	Very important	0,46	0,45
	Important	0,37	0,38
	Rather unimportant	0,13	0,13
	Not important	0,04	0,04
Opportunity to develop soft skills i.e. adaptability, demonstrating initiative	Very important	0,44	0,43
	Important	0,40	0,41
	Rather unimportant	0,12	0,12
	Not important	0,04	0,04
The length of the work period abroad was	Very important	0,37	0,36
	Important	0,48	0,49

appropriate for achieving my objectives	Rather unimportant	0,12	0,12
	Not important	0,03	0,03
	n/a	0,00	0,00
Opportunity to receive an Erasmus+ grant	Very important	0,48	0,48
	Important	0,37	0,37
	Rather unimportant	0,11	0,11
	Not important	0,04	0,04
	n/a	0,00	0,00
Opportunity to receive other financial support to work abroad	Very important	0,32	0,31
	Important	0,33	0,33
	Rather unimportant	0,22	0,23
	Not important	0,13	0,14
	n/a	0,00	0,00
Guidance provided regarding the benefits of the Erasmus+ programme was compelling	Very important	0,33	0,31
	Important	0,44	0,44
	Rather unimportant	0,17	0,18
	Not important	0,07	0,07
	n/a	0,00	0,00
Available support to meet Erasmus+ administrative requirements	Very important	0,35	0,33
	Important	0,42	0,42
	Rather unimportant	0,17	0,18
	Not important	0,06	0,07
	n/a	0,00	0,00
What are the main objectives of staff mobility from the perspective of your department?	To get inspiration for new teaching methods	0,45	0,45
	To get inspiration for curriculum development	0,29	0,29
	To get inspiration for tools for student support, professional guidance, counselling and coaching	0,28	0,28

	To increase the attractiveness of the institution as a workplace	0,23	0,24
	To attract staff from abroad	0,15	0,16
	To offer interesting opportunities for staff development	0,38	0,38
	To better involve employers in curricula development	0,09	0,08
	To improve the institutions' system for the recognition of prior learning)	0,11	0,10
	To involve staff from outside the higher education sector in teaching	0,13	0,12
	To build or strengthen cooperation in research	0,64	0,64
	Other (Please specify)	0,04	0,04
Learning about new teaching methods	Very much	0,30	0,29
	To a considerable extent	0,36	0,36
	To some extent	0,29	0,30
	Not at all	0,06	0,06
	n/a	0,00	0,00
Gaining new perspectives on teaching methods already used	Very much	0,28	0,27
	To a considerable extent	0,41	0,41
	To some extent	0,26	0,27
	Not at all	0,05	0,05
	n/a	0,00	0,00
Improving quality standards for our teaching	Very much	0,31	0,30
	To a considerable extent	0,38	0,39

Improving student support	To some extent	0,26	0,26
	Not at all	0,05	0,05
	n/a	0,00	0,00
	Very much	0,29	0,28
	To a considerable extent	0,38	0,38
	To some extent	0,26	0,27
	Not at all	0,06	0,07
Raising awareness among staff about the advantages of internationalisation	n/a	0,00	0,00
	Very much	0,47	0,46
	To a considerable extent	0,36	0,36
	To some extent	0,15	0,16
	Not at all	0,02	0,02
	n/a	0,00	0,00
	Teaching making use of ICT such as collaborative workspaces, live streaming	Often	0,26	0,25
Sometimes		0,39	0,40
Seldom		0,24	0,24
Never		0,06	0,06
Don't know		0,05	0,05
Teaching making use of material from open educational resources, such as massive open online courses		Often	0,22	0,21
	Sometimes	0,39	0,39
	Seldom	0,27	0,28
	Never	0,07	0,07
	Don't know	0,05	0,06
	Learning in multidisciplinary groups	Often	0,26	0,26
Sometimes		0,41	0,41
Seldom		0,23	0,23
Never		0,06	0,06
Don't know		0,04	0,04
Inviting staff from enterprises (including public, private, social		Often	0,29	0,29
	Sometimes	0,44	0,44

enterprises), e.g. to give guest lectures	Seldom	0,20	0,20
	Never	0,04	0,04
	Don't know	0,03	0,03
Project-based collaboration between enterprises and the university to study real life cases	Often	0,25	0,25
	Sometimes	0,39	0,39
	Seldom	0,23	0,23
	Never	0,07	0,07
Different types of work-based learning, e.g. industry internships	Don't know	0,05	0,05
	Often	0,29	0,29
	Sometimes	0,35	0,35
	Seldom	0,22	0,22
Other (please specify)	Never	0,08	0,08
	Don't know	0,06	0,06
	Often	0,13	0,12
	Sometimes	0,19	0,18
	Seldom	0,08	0,07
Other (please specify)	Never	0,04	0,04
	Don't know	0,57	0,58
	study tour	0,00	0,00
	-66	0,38	0,37
	-99	0,62	0,62
	APP	0,00	0,00
	blended learning	0,00	0,00
	Case studies as examples of being different, but all equal	0,00	0,00
	case study	0,00	0,00
	clinical training - placements.	0,00	0,00
Co-creation of education with students and workfield	0,00	0,00	

collaboration dans d'autres domaines non scientifiques	0,00	0,00
Collaboration with prisons	0,00	0,00
Cooperation with enterprises in counseling student's diploma theses	0,00	0,00
distance learning	0,00	0,00
Distance-based learning	0,00	0,00
educational groups on social networks	0,00	0,00
Einrichtung von Netzwerken	0,00	0,00
Field experience placements for pre-service teacher candidates in public schools.	0,00	0,00
Field Work	0,00	0,00
Group work	0,00	0,00
interdisciplinary projects	0,00	0,00
international workshops; scientific research; competitions of different types	0,00	0,00
Je travaillé dans un établissement d'enseignement supérieur o? la collaboration entre professeurs est quasi inexistante . Nous n'avons pas non plus de coordinateurs pédagogiques donc aucun politique commune en mati?re de pédagogie !	0,00	0,00

Learning in English	0,00	0,00
Lectures	0,00	0,00
lectures, group work, case study	0,00	0,00
n/a	0,00	0,00
notre unité de travail est le service des relations internationales qui n'est pas un service de formation	0,00	0,00
online and distance learning	0,00	0,00
Only used be a small number of professors	0,00	0,00
Participation in skills competitions	0,00	0,00
participatory discussions, intercultural groups sharing experiences, EU students used art exhibition to introduce themes - was innovative for our students, use of autoethnography to understand theory, social issues	0,00	0,00
pédagogie active et par projet	0,00	0,00
Pédagogie par projets en cycle ingénieur	0,00	0,00
practical laboratories	0,00	0,00
Practice Placements for those undertaking post graduate training.	0,00	0,00
practice-based teaching	0,00	0,00

Praktika in Verwaltung und Planungsbüros	0,00	0,00
Problem-based learning, active development of professional skills, etc.	0,00	0,00
PROJECT BASED LEARNING. ASSIGNMENTS	0,00	0,00
project-based learning (group work)	0,00	0,00
Projektarbeit	0,00	0,00
Promoting innovation and creativity, developing the ability to transform ideas into products and services	0,00	0,00
Selbststudium	0,00	0,00
Seminars, Conferences, Symposiums, Concerts, Art Visits	0,00	0,00
simulation, drama/ activating methods	0,00	0,00
stages	0,00	0,00
student practice in companies	0,00	0,00
Studio based group learning	0,00	0,00
Teaching content in English	0,00	0,00
Teambuilding	0,00	0,00
TESOL	0,00	0,00
There is invited guest lectures, to share good experience	0,00	0,00
This stage was very important to me.	0,00	0,00

	translators workshops	0,00	0,00
	We are a music conservatory and these fields do not match our working profile	0,00	0,00
	workshops	0,00	0,00
	Workshops	0,00	0,00
	Yet, we have not worked with Erasmus.	0,00	0,00
	Your question is unintelligible, sorry.	0,00	0,00
Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following	teaching making use of ICT such as collaborative workspaces, live streaming (Yes (has been introduced))	0,53	0,52
	teaching making use of material from open educational resources, such as massive open online courses (Yes (has been introduced))	0,46	0,45
	learning in multidisciplinary groups (Yes (has been introduced))	0,48	0,47
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (has been introduced))	0,47	0,46
	project-based collaboration between enterprises and the university to study real life cases (Yes (has been introduced))	0,44	0,43

Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following	different types of work-based learning, e.g. industry internships (Yes (has been introduced))	0,40	0,40
	(Yes (has been introduced))	0,07	0,07
	teaching making use of ICT such as collaborative workspaces, live streaming (Yes (more frequently used))	0,48	0,49
	teaching making use of material from open educational resources, such as massive open online courses (Yes (more frequently used))	0,47	0,45
	learning in multidisciplinary groups (Yes (more frequently used))	0,45	0,46
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (more frequently used))	0,46	0,45
	project-based collaboration between enterprises and the university to study real life cases (Yes (more frequently used))	0,44	0,44
	different types of work-based learning, e.g. industry internships (Yes (more frequently used))	0,38	0,37

	(Yes (more frequently used))	0,07	0,06
Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following	teaching making use of ICT such as collaborative workspaces, live streaming (Yes (used in a wider range of contexts))	0,36	0,37
	teaching making use of material from open educational resources, such as massive open online courses (Yes (used in a wider range of contexts))	0,36	0,37
	learning in multidisciplinary groups (Yes (used in a wider range of contexts))	0,39	0,39
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (used in a wider range of contexts))	0,40	0,41
	project-based collaboration between enterprises and the university to study real life cases (Yes (used in a wider range of contexts))	0,36	0,37
	different types of work-based learning, e.g. industry internships (Yes (used in a wider range of contexts))	0,34	0,34
		0,05	0,05
	(Yes (used in a wider range of contexts))	0,05	0,05

Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the follow	teaching making use of ICT such as collaborative workspaces, live streaming (Yes (used by more staff members))	0,28	0,28
	teaching making use of material from open educational resources, such as massive open online courses (Yes (used by more staff members))	0,30	0,30
	learning in multidisciplinary groups (Yes (used by more staff members))	0,32	0,33
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (used by more staff members))	0,40	0,40
	project-based collaboration between enterprises and the university to study real life cases (Yes (used by more staff members))	0,34	0,33
	different types of work-based learning, e.g. industry internships (Yes (used by more staff members))	0,29	0,29
	(Yes (used by more staff members))	0,04	0,04
Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to	teaching making use of ICT such as collaborative workspaces, live streaming (Yes (used more effectively))	0,29	0,28

changes in the use of the follow	teaching making use of material from open educational resources, such as massive open online courses (Yes (used more effectively))	0,33	0,32
	learning in multidisciplinary groups (Yes (used more effectively))	0,38	0,39
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Yes (used more effectively))	0,37	0,37
	project-based collaboration between enterprises and the university to study real life cases (Yes (used more effectively))	0,35	0,35
	different types of work-based learning, e.g. industry internships (Yes (used more effectively))	0,31	0,31
	(Yes (used more effectively))	0,02	0,02
Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following	teaching making use of ICT such as collaborative workspaces, live streaming (No (no changes))	0,53	0,53
	teaching making use of material from open educational resources, such as massive open online courses (No (no changes))	0,49	0,50

	learning in multidisciplinary groups (No (no changes))	0,45	0,46
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (No (no changes))	0,47	0,47
	project-based collaboration between enterprises and the university to study real life cases (No (no changes))	0,46	0,46
	different types of work-based learning, e.g. industry internships (No (no changes))	0,53	0,53
	(No (no changes))	0,05	0,05
Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following	teaching making use of ICT such as collaborative workspaces, live streaming (Too early to tell)	0,43	0,44
	teaching making use of material from open educational resources, such as massive open online courses (Too early to tell)	0,45	0,46
	learning in multidisciplinary groups (Too early to tell)	0,39	0,38
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Too early to tell)	0,36	0,36

Have the competences gained by you or other staff during mobility supported by Erasmus+ or predecessor programmes led to changes in the use of the following	project-based collaboration between enterprises and the university to study real life cases (Too early to tell)	0,43	0,43
	different types of work-based learning, e.g. industry internships (Too early to tell)	0,46	0,46
	(Too early to tell)	0,06	0,06
	teaching making use of ICT such as collaborative workspaces, live streaming (Don't know)	0,58	0,58
	teaching making use of material from open educational resources, such as massive open online courses (Don't know)	0,58	0,59
	learning in multidisciplinary groups (Don't know)	0,53	0,53
	inviting staff from enterprises (including public, private, social enterprises), e.g. to give guest lectures (Don't know)	0,52	0,53
	project-based collaboration between enterprises and the university to study real life cases (Don't know)	0,58	0,59
	different types of work-based learning, e.g. industry internships (Don't know)	0,64	0,64
	(Don't know)	0,22	0,22

Which of the following teaching methods have you used during your last staff mobility abroad?	Teaching making use of ICT such as collaborative workspaces, live streaming	0,29	0,29
	Teaching making use of material from open educational resources, such as massive open online courses	0,24	0,24
	Learning in multidisciplinary groups	0,39	0,40
	Teaching by staff from enterprises (including public, private, social enterprises)	0,10	0,09
	Project-based collaboration between enterprises and the university to study real life cases	0,17	0,17
	Different types of work-based learning, e.g. industry internships	0,08	0,08
	I taught during staff mobility, but did not use any of the methods listed above	0,26	0,26
	I did not teach during my staff mobility	0,14	0,13
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad? (Yes (has been introduced))	Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (has been introduced))	0,48	0,48
	Teaching making use of material from open educational resources, such as massive open online courses (Yes (has been introduced))	0,35	0,34

	Learning in multidisciplinary groups (Yes (has been introduced))	0,51	0,52
	Teaching by staff from enterprises (including public, private, social enterprises) (Yes (has been introduced))	0,15	0,14
	Project-based collaboration between enterprises and the university to study real life cases (Yes (has been introduced))	0,25	0,24
	Different types of work-based learning, e.g. industry internships (Yes (has been introduced))	0,13	0,12
	I taught during staff mobility, but did not use any of the methods listed above (Yes (has been introduced))	0,00	0,00
	I did not teach during my staff mobility (Yes (has been introduced))	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad? (Yes (more frequently used))	Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (more frequently used))	0,42	0,42
	Teaching making use of material from open educational resources, such as massive open online courses (Yes (more frequently used))	0,35	0,35

	Learning in multidisciplinary groups (Yes (more frequently used))	0,49	0,51
	Teaching by staff from enterprises (including public, private, social enterprises) (Yes (more frequently used))	0,15	0,15
	Project-based collaboration between enterprises and the university to study real life cases (Yes (more frequently used))	0,25	0,25
	Different types of work-based learning, e.g. industry internships (Yes (more frequently used))	0,12	0,12
	I taught during staff mobility, but did not use any of the methods listed above (Yes (more frequently used))	0,00	0,00
	I did not teach during my staff mobility (Yes (more frequently used))	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad?	Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (used in a wider range of contexts))	0,32	0,31
	Teaching making use of material from open educational resources, such as massive open online courses (Yes (used in a wider range of contexts))	0,29	0,28

	Learning in multidisciplinary groups (Yes (used in a wider range of contexts))	0,52	0,53
	Teaching by staff from enterprises (including public, private, social enterprises) (Yes (used in a wider range of contexts))	0,12	0,12
	Project-based collaboration between enterprises and the university to study real life cases (Yes (used in a wider range of contexts))	0,22	0,22
	Different types of work-based learning, e.g. industry internships (Yes (used in a wider range of contexts))	0,11	0,10
	I taught during staff mobility, but did not use any of the methods listed above (Yes (used in a wider range of contexts))	0,00	0,00
	I did not teach during my staff mobility (Yes (used in a wider range of contexts))	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment	Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (used by more staff members))	0,26	0,26

abroad? (Yes (used by more staff members))	Teaching making use of material from open educational resources, such as massive open online courses (Yes (used by more staff members))	0,24	0,24
	Learning in multidisciplinary groups (Yes (used by more staff members))	0,44	0,45
	Teaching by staff from enterprises (including public, private, social enterprises) (Yes (used by more staff members))	0,12	0,12
	Project-based collaboration between enterprises and the university to study real life cases (Yes (used by more staff members))	0,23	0,22
	Different types of work-based learning, e.g. industry internships (Yes (used by more staff members))	0,12	0,12
	I taught during staff mobility, but did not use any of the methods listed above (Yes (used by more staff members))	0,00	0,00
	I did not teach during my staff mobility (Yes (used by more staff members))	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment	Teaching making use of ICT such as collaborative workspaces, live streaming (Yes (used more effectively))	0,33	0,33

abroad? (Yes (used more effectively))	Teaching making use of material from open educational resources, such as massive open online courses (Yes (used more effectively))	0,30	0,29
	Learning in multidisciplinary groups (Yes (used more effectively))	0,54	0,55
	Teaching by staff from enterprises (including public, private, social enterprises) (Yes (used more effectively))	0,11	0,10
	Project-based collaboration between enterprises and the university to study real life cases (Yes (used more effectively))	0,22	0,22
	Different types of work-based learning, e.g. industry internships (Yes (used more effectively))	0,11	0,11
	I taught during staff mobility, but did not use any of the methods listed above (Yes (used more effectively))	0,00	0,00
	I did not teach during my staff mobility (Yes (used more effectively))	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your	Teaching making use of ICT such as collaborative workspaces, live streaming (No (no changes))	0,38	0,38

last teaching assignment abroad?	Teaching making use of material from open educational resources, such as massive open online courses (No (no changes))	0,26	0,26
	Learning in multidisciplinary groups (No (no changes))	0,49	0,50
	Teaching by staff from enterprises (including public, private, social enterprises) (No (no changes))	0,09	0,09
	Project-based collaboration between enterprises and the university to study real life cases (No (no changes))	0,19	0,19
	Different types of work-based learning, e.g. industry internships (No (no changes))	0,07	0,07
	I taught during staff mobility, but did not use any of the methods listed above (No (no changes))	0,00	0,00
	I did not teach during my staff mobility (No (no changes))	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad?	Teaching making use of ICT such as collaborative workspaces, live streaming (Too early to tell)	0,38	0,39
	Teaching making use of material from open educational resources, such as massive open online courses (Too early to tell)	0,33	0,33

	Learning in multidisciplinary groups (Too early to tell)	0,52	0,51
	Teaching by staff from enterprises (including public, private, social enterprises) (Too early to tell)	0,11	0,11
	Project-based collaboration between enterprises and the university to study real life cases (Too early to tell)	0,14	0,14
	Different types of work-based learning, e.g. industry internships (Too early to tell)	0,07	0,07
	I taught during staff mobility, but did not use any of the methods listed above (Too early to tell)	0,00	0,00
	I did not teach during my staff mobility (Too early to tell)	0,00	0,00
In your view, has your competence in using these teaching methods led to changes in their use at the institution where you spent your last teaching assignment abroad? (Don't know)	Teaching making use of ICT such as collaborative workspaces, live streaming (Don't know)	0,39	0,39
	Teaching making use of material from open educational resources, such as massive open online courses (Don't know)	0,35	0,34
	Learning in multidisciplinary groups (Don't know)	0,57	0,58

	Teaching by staff from enterprises (including public, private, social enterprises) (Don't know)	0,11	0,10
	Project-based collaboration between enterprises and the university to study real life cases (Don't know)	0,19	0,19
	Different types of work-based learning, e.g. industry internships (Don't know)	0,07	0,06
	I taught during staff mobility, but did not use any of the methods listed above (Don't know)	0,00	0,00
	I did not teach during my staff mobility (Don't know)	0,00	0,00
Development and teaching of common modules between partners from different disciplines	Yes	0,56	0,55
	No	0,24	0,24
	Don't know	0,20	0,21
Development and teaching of modules with partners from the non-academic sector	Yes	0,45	0,45
	No	0,32	0,32
	Don't know	0,23	0,24
Development and teaching of modules with partners from different countries	Yes	0,54	0,53
	No	0,28	0,28
	Don't know	0,18	0,19
Development and teaching of joint study programmes between partners from different disciplines	Yes	0,57	0,57
	No	0,23	0,23
	Don't know	0,20	0,21
Development and teaching of joint study programmes between partners from different countries	Yes	0,54	0,53
	No	0,27	0,28
	Don't know	0,19	0,20

A more systematic integration of cross-border learning mobility into the curriculum of existing study programmes	Yes	0,51	0,50
	No	0,25	0,25
	Don't know	0,25	0,26
A more systematic integration of transversal skills (language skills, digital skills, entrepreneurship skills, etc.) into the curriculum of existing or new study programmes	Yes	0,64	0,63
	No	0,17	0,18
	Don't know	0,19	0,19
A more systematic integration of labour market needs into the curriculum of existing or new study programmes	Yes	0,54	0,54
	No	0,22	0,22
	Don't know	0,24	0,25
Introduction of more international perspectives into the curriculum of study programmes (e.g. international comparisons, international themes)	Yes	0,67	0,67
	No	0,15	0,15
	Don't know	0,17	0,18
Introduction of a wider range of study modes (part-time, distance, modular learning)	Yes	0,51	0,51
	No	0,29	0,29
	Don't know	0,19	0,20
Introduction of study programmes taught in a foreign language	Yes	0,60	0,60
	No	0,27	0,27
	Don't know	0,12	0,13
Introduction of modules/courses taught in foreign language	Yes	0,66	0,66
	No	0,22	0,22
	Don't know	0,12	0,12
Development and teaching of common modules between partners from different disciplines	Very much	0,24	0,23
	To a considerable extent	0,29	0,29
	To some extent	0,28	0,28
	Not at all	0,06	0,06
	Too early to tell	0,05	0,05
	Don't know	0,08	0,09
	Very much	0,19	0,18

	To a considerable extent	0,27	0,26
Development and teaching of modules with partners from the non-academic sector	To some extent	0,30	0,31
	Not at all	0,10	0,10
	Too early to tell	0,06	0,06
	Don't know	0,10	0,10
Development and teaching of modules with partners from different countries	Very much	0,26	0,25
	To a considerable extent	0,32	0,32
	To some extent	0,27	0,28
	Not at all	0,03	0,04
Development and teaching of joint study programmes between partners from different disciplines	Too early to tell	0,05	0,05
	Don't know	0,06	0,06
	Very much	0,21	0,19
	To a considerable extent	0,28	0,28
	To some extent	0,30	0,30
Development and teaching of joint study programmes between partners from different countries	Not at all	0,08	0,08
	Too early to tell	0,06	0,06
	Don't know	0,08	0,09
	Very much	0,26	0,25
	To a considerable extent	0,29	0,29
A more systematic integration of cross-border learning mobility into the curriculum of existing study programmes	To some extent	0,27	0,28
	Not at all	0,05	0,05
	Too early to tell	0,06	0,05
	Don't know	0,07	0,08
	Very much	0,25	0,24
A more systematic integration of cross-border learning mobility into the curriculum of existing study programmes	To a considerable extent	0,32	0,32
	To some extent	0,27	0,27
	Not at all	0,04	0,04
	Too early to tell	0,05	0,05

	Don't know	0,07	0,08
A more systematic integration of transversal skills (language skills, digital skills, entrepreneurship skills, etc.) into the curriculum of existing or new study programmes	Very much	0,23	0,22
	To a considerable extent	0,34	0,34
	To some extent	0,27	0,28
	Not at all	0,04	0,04
	Too early to tell	0,04	0,04
A more systematic integration of labour market needs into the curriculum of existing or new study programmes	Don't know	0,07	0,08
	Very much	0,19	0,19
	To a considerable extent	0,31	0,30
	To some extent	0,28	0,28
	Not at all	0,08	0,08
Introduction of more international perspectives into the curriculum of study programmes (e.g. international comparisons, international themes)	Too early to tell	0,06	0,06
	Don't know	0,09	0,09
	Very much	0,27	0,27
	To a considerable extent	0,33	0,32
	To some extent	0,26	0,27
Introduction of a wider range of study modes (part-time, distance, modular learning)	Not at all	0,03	0,03
	Too early to tell	0,04	0,05
	Don't know	0,06	0,07
	Very much	0,21	0,20
	To a considerable extent	0,28	0,27
Introduction of study programmes taught in a foreign language	To some extent	0,27	0,28
	Not at all	0,11	0,11
	Too early to tell	0,05	0,05
	Don't know	0,08	0,09
	Very much	0,29	0,28
Introduction of study programmes taught in a foreign language	To a considerable extent	0,30	0,30
	To some extent	0,24	0,24

Introduction of modules/courses taught in foreign language	Not at all	0,06	0,07
	Too early to tell	0,04	0,04
	Don't know	0,07	0,08
	Very much	0,27	0,27
	To a considerable extent	0,29	0,29
	To some extent	0,26	0,26
Provision of information on options for student mobility, such as info-days before the call for student applications is launched, preparatory sessions with nominated students before departure etc.	Not at all	0,06	0,06
	Too early to tell	0,04	0,04
	Don't know	0,08	0,08
	Very good	0,36	0,36
	Good	0,35	0,35
	Acceptable	0,13	0,12
	Poor	0,03	0,02
	Very poor	0,01	0,01
Support with practical aspects of student mobility, such as accommodation, insurance and travel	Don't know	0,13	0,13
	Very good	0,29	0,29
	Good	0,34	0,34
	Acceptable	0,16	0,16
	Poor	0,05	0,04
	Very poor	0,01	0,01
	Don't know	0,15	0,15
Support with identifying possibilities for financial support other than Erasmus+ contributions	Very good	0,25	0,24
	Good	0,30	0,30
	Acceptable	0,18	0,17
	Poor	0,08	0,08
	Very poor	0,02	0,02
	Don't know	0,18	0,18
Support with the recognition of learning occurred during student mobility	Very good	0,29	0,29
	Good	0,34	0,34
	Acceptable	0,16	0,16

	Poor	0,04	0,04
	Very poor	0,01	0,01
	Don't know	0,16	0,17
Professional guidance, counselling, coaching and psychological support	Very good	0,23	0,22
	Good	0,30	0,30
	Acceptable	0,20	0,20
	Poor	0,06	0,06
	Very poor	0,02	0,02
	Don't know	0,19	0,19
Organisation and management of preparatory language courses, including Erasmus+ Online Linguistic Support (OLS)	Very good	0,20	0,19
	Good	0,27	0,27
	Acceptable	0,17	0,17
	Poor	0,07	0,07
	Very poor	0,03	0,03
	Don't know	0,27	0,27
Internal student mobility management processes (management of Inter-institutional Agreements, management of the Erasmus+ call, coordination with other institutional services/offices involved (i.e. financial office, student secretary's office, international)	Very good	0,29	0,28
	Good	0,32	0,32
	Acceptable	0,15	0,15
	Poor	0,03	0,03
	Very poor	0,01	0,01
	Don't know	0,20	0,20
Provision of information on options for student mobility, such as info-days before the call for student applications is launched, preparatory sessions with nominated students before departure etc.	Very much	0,27	0,26
	To a considerable extent	0,30	0,30
	To some extent	0,23	0,23
	Not at all	0,05	0,05
	Too early to tell	0,03	0,03
	Don't know	0,13	0,13
Support with practical aspects of student mobility, such as accommodation, insurance and travel	Very much	0,24	0,23
	To a considerable extent	0,30	0,30
	To some extent	0,24	0,24

Support with identifying possibilities for financial support other than Erasmus+ contributions	Not at all	0,07	0,07
	Too early to tell	0,03	0,03
	Don't know	0,13	0,13
	Very much	0,20	0,19
	To a considerable extent	0,26	0,26
	To some extent	0,25	0,26
Support with the recognition of learning occurred during student mobility	Not at all	0,11	0,12
	Too early to tell	0,03	0,03
	Don't know	0,14	0,15
	Very much	0,25	0,24
	To a considerable extent	0,30	0,30
	To some extent	0,25	0,25
Professional guidance, counselling, coaching and psychological support	Not at all	0,06	0,06
	Too early to tell	0,03	0,03
	Don't know	0,12	0,13
	Very much	0,22	0,21
	To a considerable extent	0,27	0,27
	To some extent	0,25	0,25
Organisation and management of preparatory language courses, including Erasmus+ Online Linguistic Support (OLS)	Not at all	0,09	0,10
	Too early to tell	0,03	0,03
	Don't know	0,13	0,14
	Very much	0,20	0,19
	To a considerable extent	0,27	0,26
	To some extent	0,26	0,26
	Not at all	0,12	0,13
	Too early to tell	0,03	0,03
	Don't know	0,12	0,13
	Very much	0,25	0,24

Internal student mobility management processes (management of Inter-institutional Agreements, management of the Erasmus+ call, coordination with other institutional services/offices involved (i.e. financial office, student secretary's office, international)	To a considerable extent	0,30	0,29
	To some extent	0,24	0,24
	Not at all	0,06	0,06
	Too early to tell	0,03	0,03
	Don't know	0,12	0,13
Does your department invite staff from enterprises (including public, private, social enterprises) to contribute to teaching?	Yes	0,74	0,74
	No	0,26	0,26
Greater emphasis in curriculum on labour market needs	Very much	0,29	0,28
	To a considerable extent	0,35	0,34
	To some extent	0,21	0,21
	Not at all	0,03	0,03
	Don't know	0,13	0,13
Greater emphasis in curriculum on international perspectives/international content	Very much	0,25	0,24
	To a considerable extent	0,32	0,32
	To some extent	0,24	0,24
	Not at all	0,05	0,05
	Don't know	0,14	0,15
Building links to more systematically involve enterprises in curricula development	Very much	0,26	0,26
	To a considerable extent	0,34	0,34
	To some extent	0,23	0,23
	Not at all	0,04	0,04
	Don't know	0,13	0,14
Use of cutting edge technology in teaching	Very much	0,20	0,19
	To a considerable extent	0,28	0,28
	To some extent	0,27	0,27
	Not at all	0,10	0,10

	Don't know	0,16	0,17
Motivation of non-mobile students to go abroad for studies or training	Very much	0,25	0,24
	To a considerable extent	0,28	0,28
	To some extent	0,25	0,25
	Not at all	0,06	0,06
Better understanding among students of entrepreneurship and the application of knowledge in real life cases	Don't know	0,17	0,18
	Very much	0,37	0,36
	To a considerable extent	0,35	0,35
	To some extent	0,15	0,16
	Not at all	0,02	0,02
Better understanding among students of employers' skill demands	Don't know	0,11	0,12
	Very much	0,37	0,36
	To a considerable extent	0,35	0,35
	To some extent	0,16	0,16
	Not at all	0,01	0,01
Possibilities for internships/job placements	Don't know	0,11	0,11
	Very much	0,34	0,34
	To a considerable extent	0,33	0,33
	To some extent	0,19	0,19
	Not at all	0,02	0,02
	Don't know	0,11	0,12

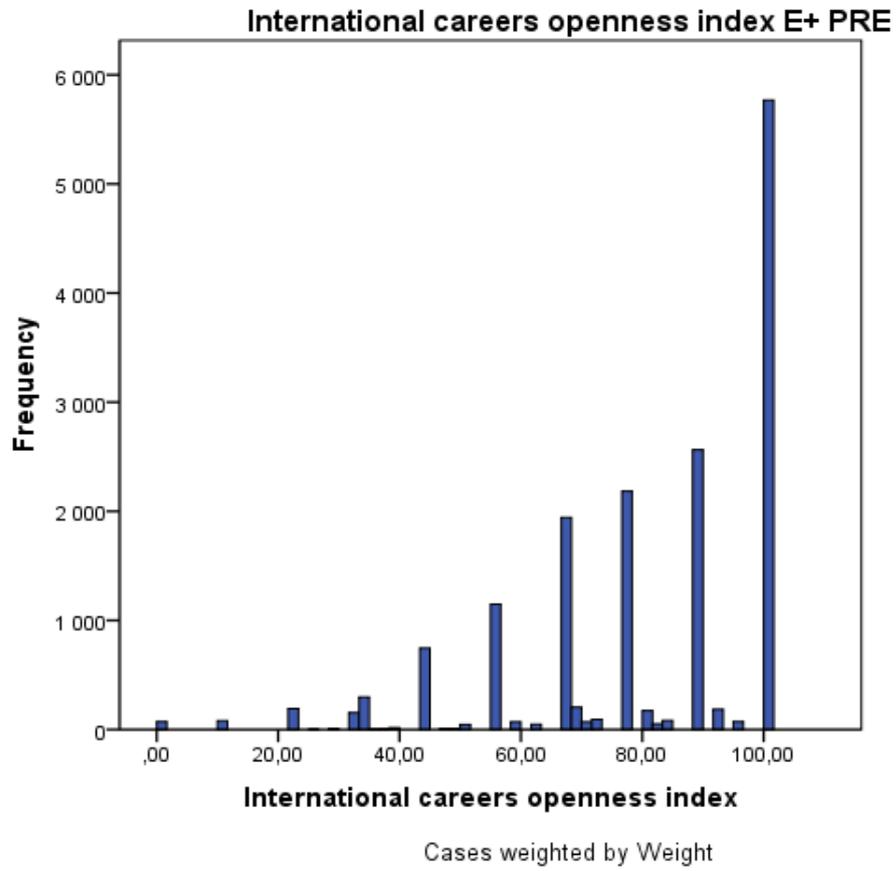
ANNEX 7 Overview Indices results

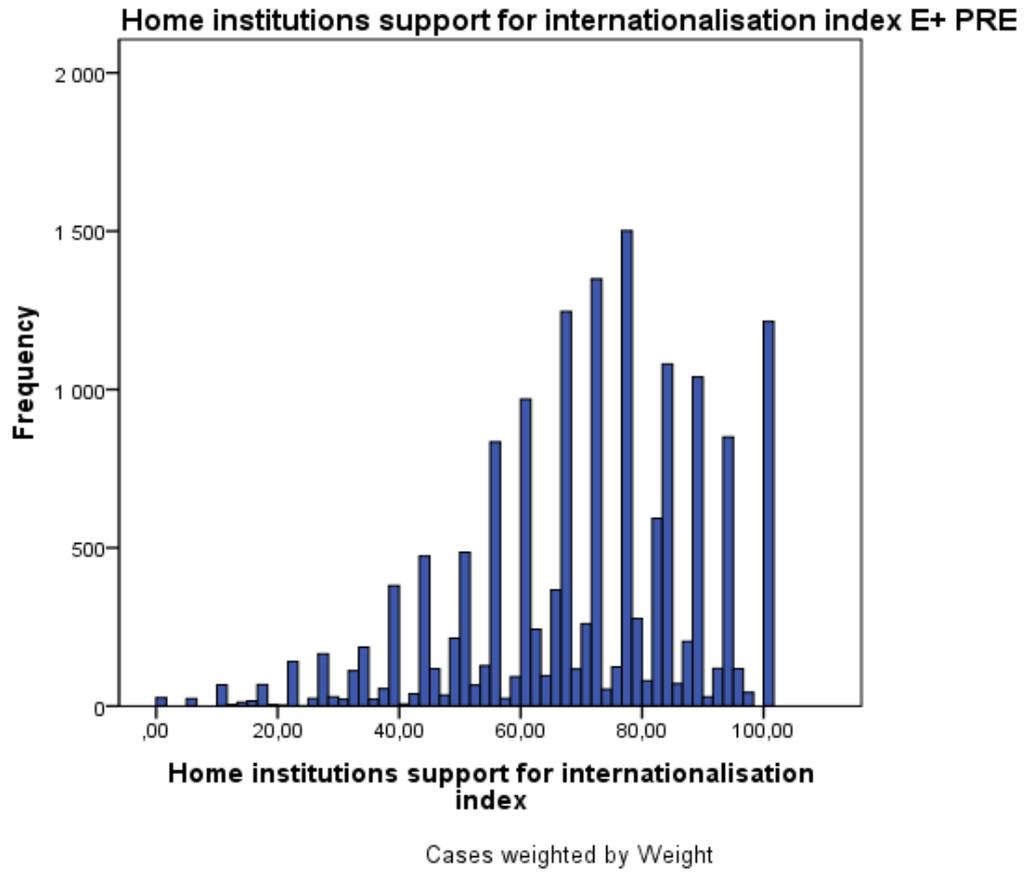
Index name	Group	N	Mean	Standard Error of Mean	Median	Standard deviation	Skewness	Kurtosis*
International career openness index	E+ PRE	16291	80,2698	,16472	88,8900	21,02465	-1,083	,779
	E+ POST	19078	84,2055	,14276	88,8900	19,71858	-1,395	1,756
European Identity index	E+ PRE	16431	69,9578	,12618	72,2233	16,17409	-,857	,895
	E+ POST	18031	72,6092	,12101	77,7783	16,24861	-1,124	1,636
	E(+) Graduates	10844	72,0299	-	77,7783	18,32307	-1,102	1,267
	E+ Staff	8088	76,4589	,16310	79,4779	14,66851	-1,241	1,830
Home institutions support for internationalisation index	E+ PRE	15928	70,6934	,15505	72,2250	19,56867	-,661	,215
	E+ POST	18828	69,1172	,14801	72,2217	20,31001	-,586	,007
Perceived personality development	E+ POST	18034	73,0488	,15333	73,3360	20,59063	-,731	,285
Social engagement impact index	E+ POST	16408	73,8403	,09884	73,8677	12,66088	-,571	,358
Employability skills impact index	E+ POST	17367	68,6762	,14172	69,6964	18,67667	-,371	-,021
Intercultural openness impact index	E+ POST	17663	81,5392	,11137	83,3350	14,80076	-1,056	1,432
Study impact index	E+ POST	17481	70,7175	,13852	70,8363	18,31471	-,474	-,160
International job index	E(+) Graduates	6556	39,4818	-	28,5714	27,97515	,212	-,845

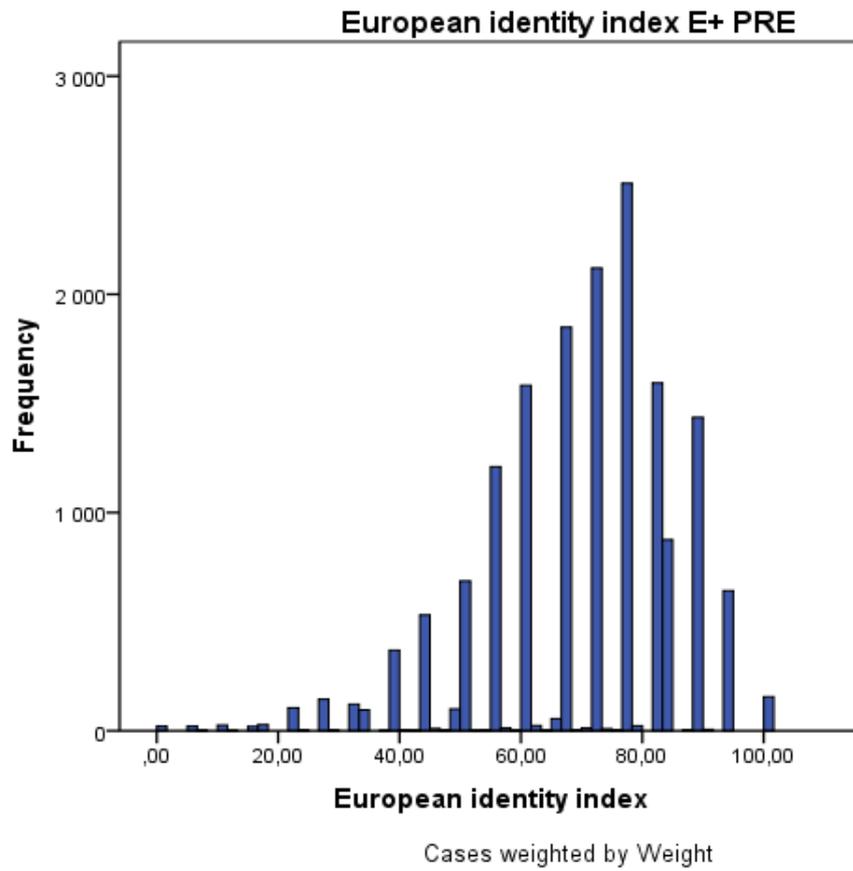
Job quality index	E(+) Graduates	5579	69,4682	-	71,4286	19,63259	-,542	,137
Use of innovative teaching methods index	E+ Staff	7546	51,9195	,25818	55,5550	22,42835	-,161	-,480
International experience index	E+ Staff	8162	39,1822	,17134	33,6750	15,48033	1,465	1,939
Impact on theaching methods	E+ Staff	7663	2,3832	,02522	2,0000	2,20739	,371	-1,309
Competence impact index	E+ Staff	7812	76,8193	,22363	76,3298	19,76521	-,687	,150
Social engagement impact index	E+ Staff	7929	69,3563	,20400	68,8030	18,16481	-,309	-,246
Impact on student's competence index	E+ Staff	7493	82,9085	,17059	85,7157	14,76725	-,883	1,006

**Statistic adjusted. Kurtosis of normally distributed data is equal to 0*

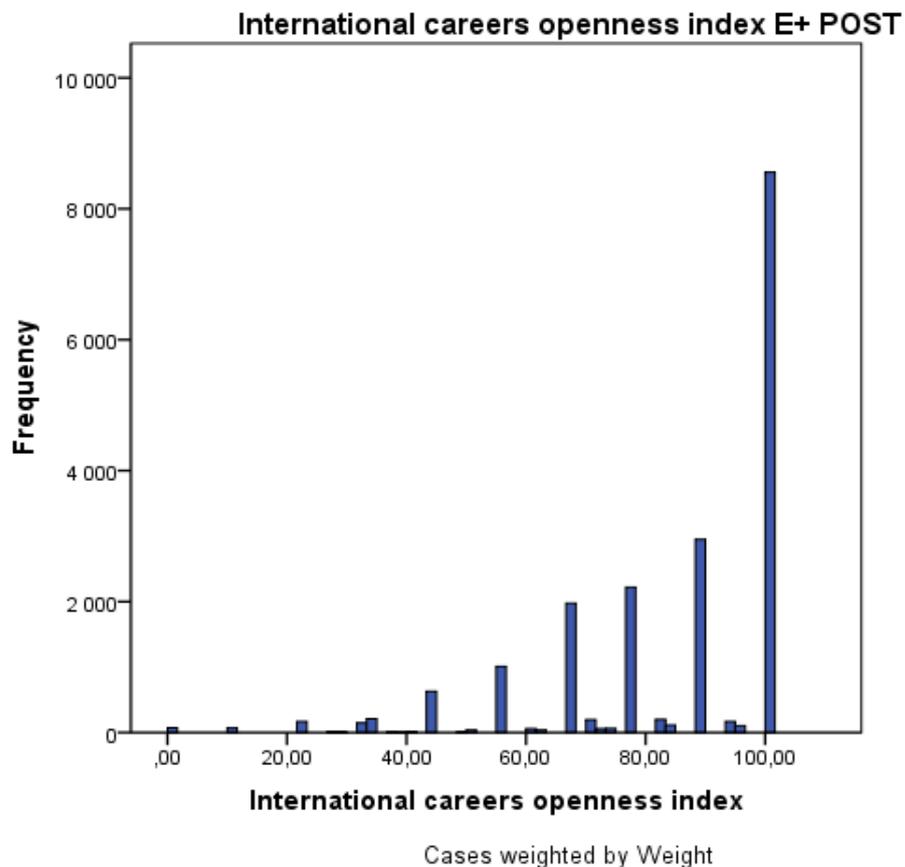
Indices Erasmus+ PRE

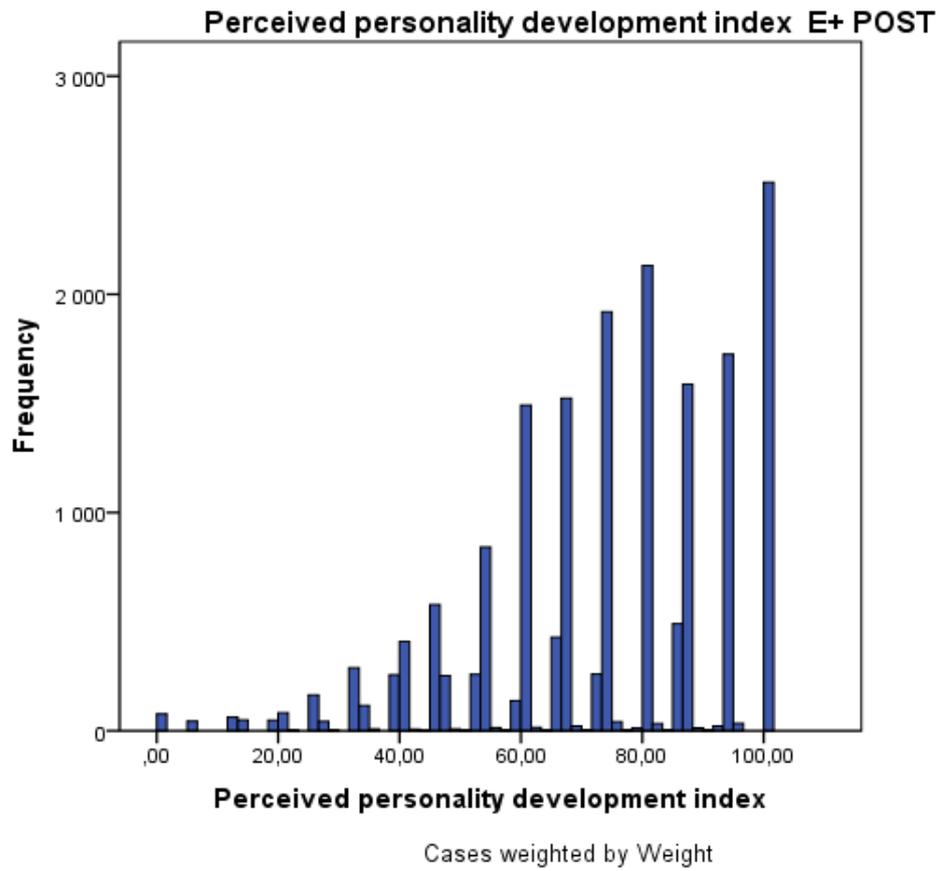


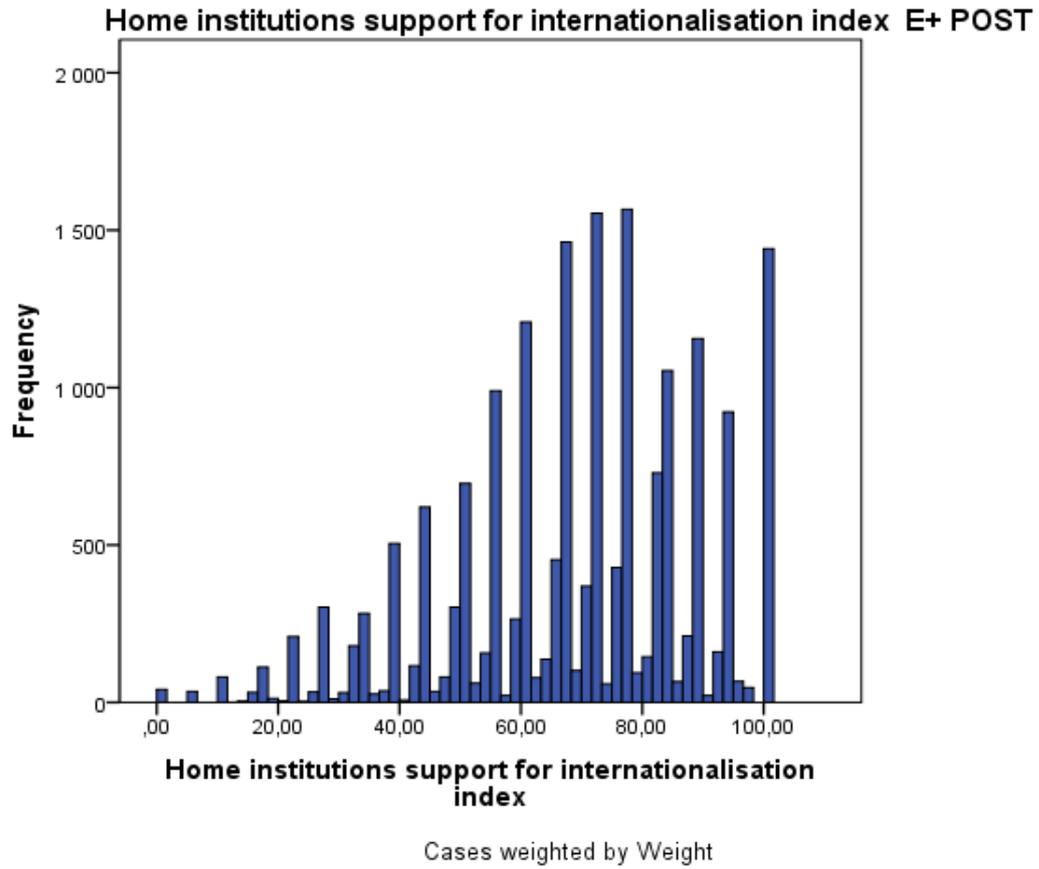


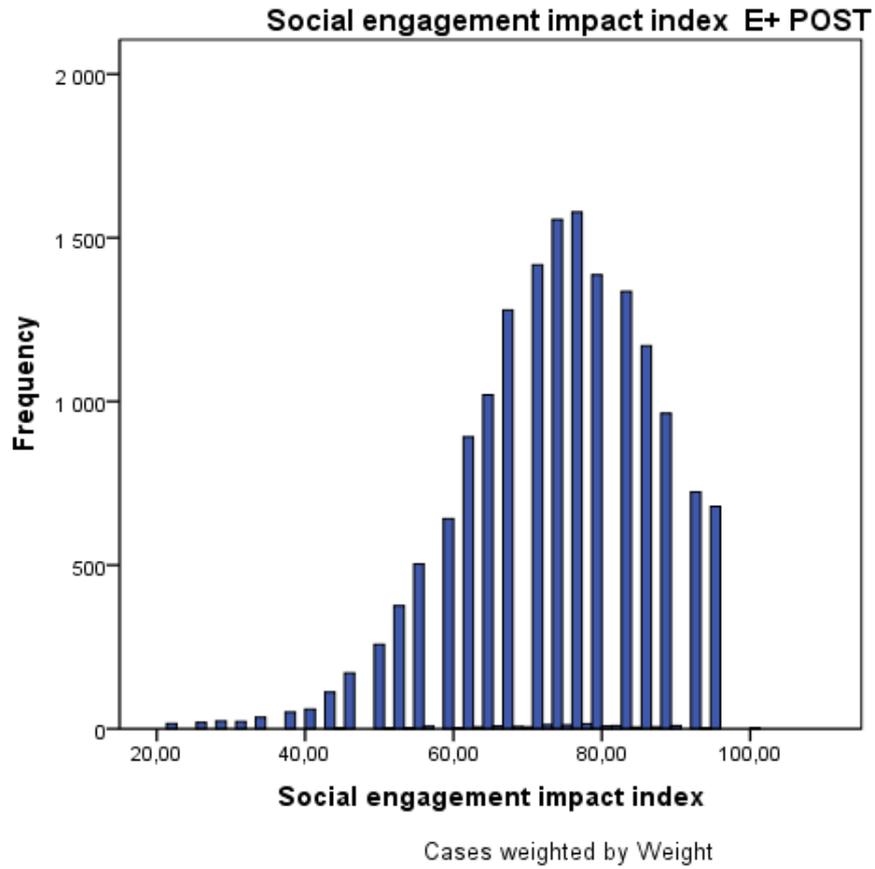


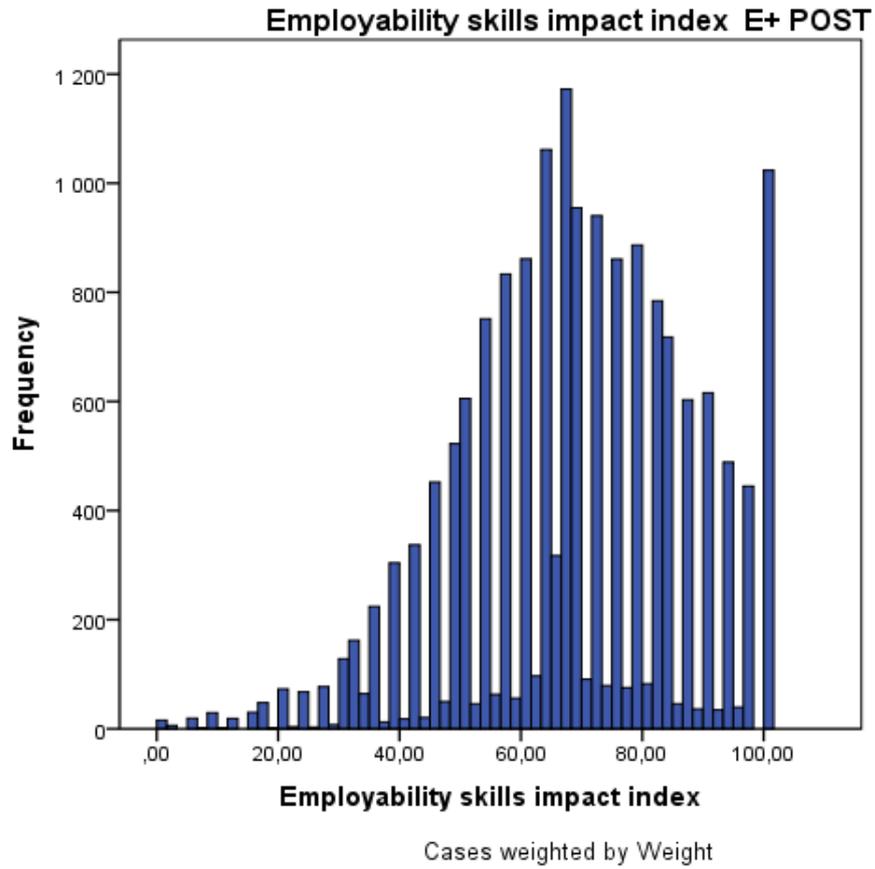
Indices Erasmus+ POST

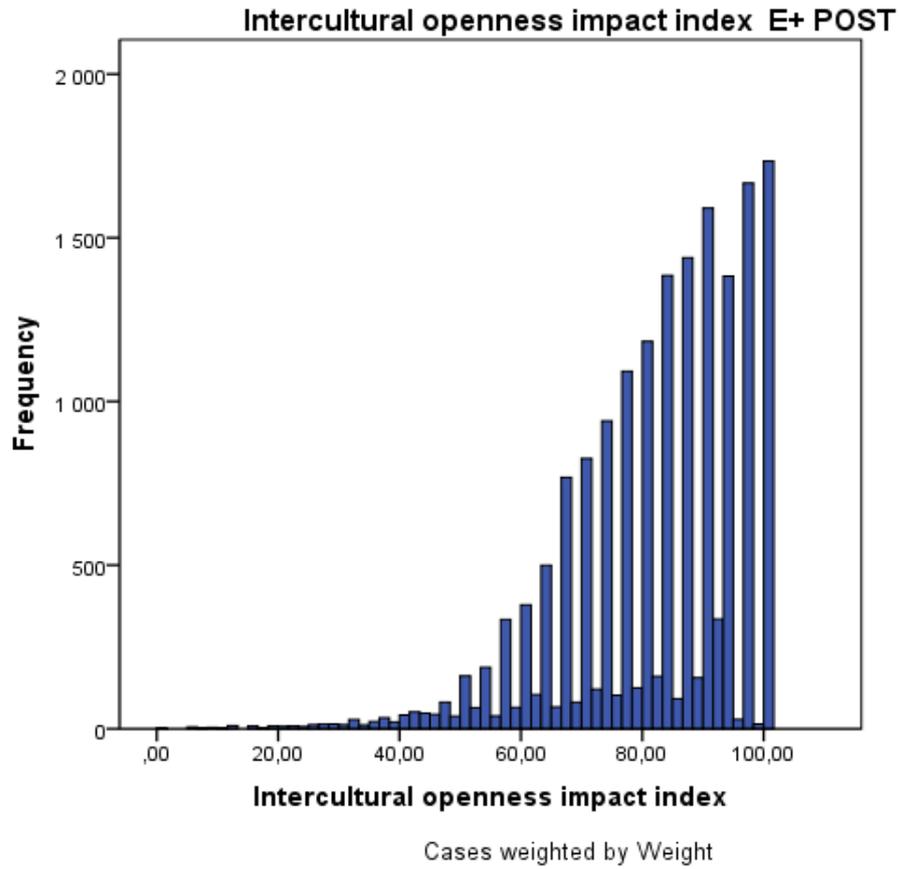


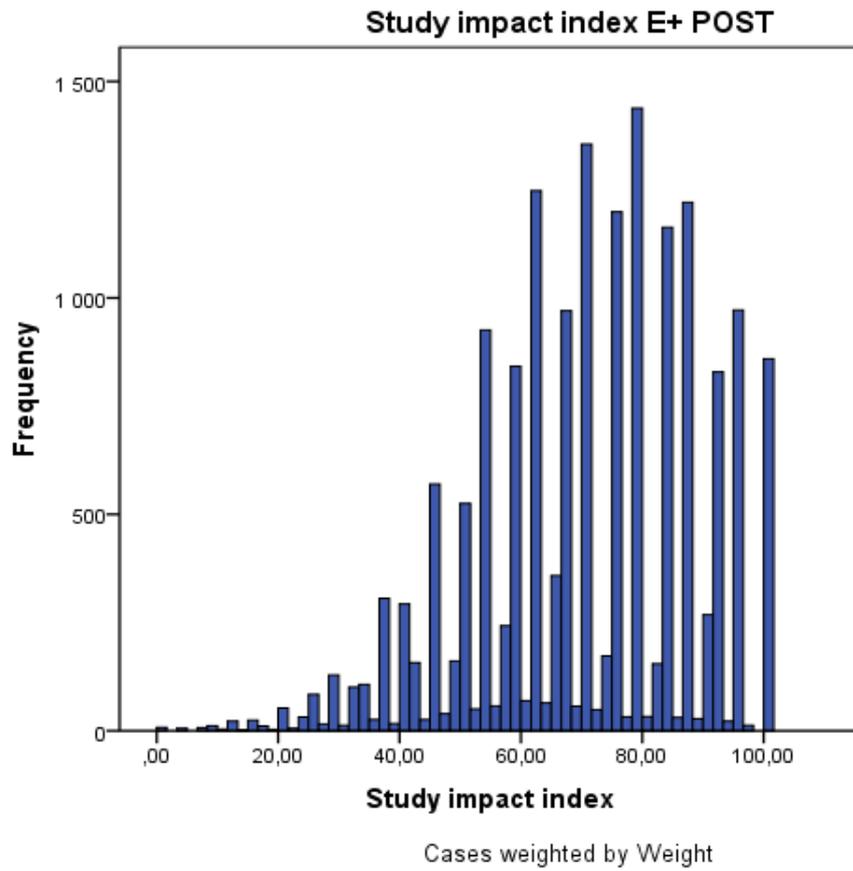


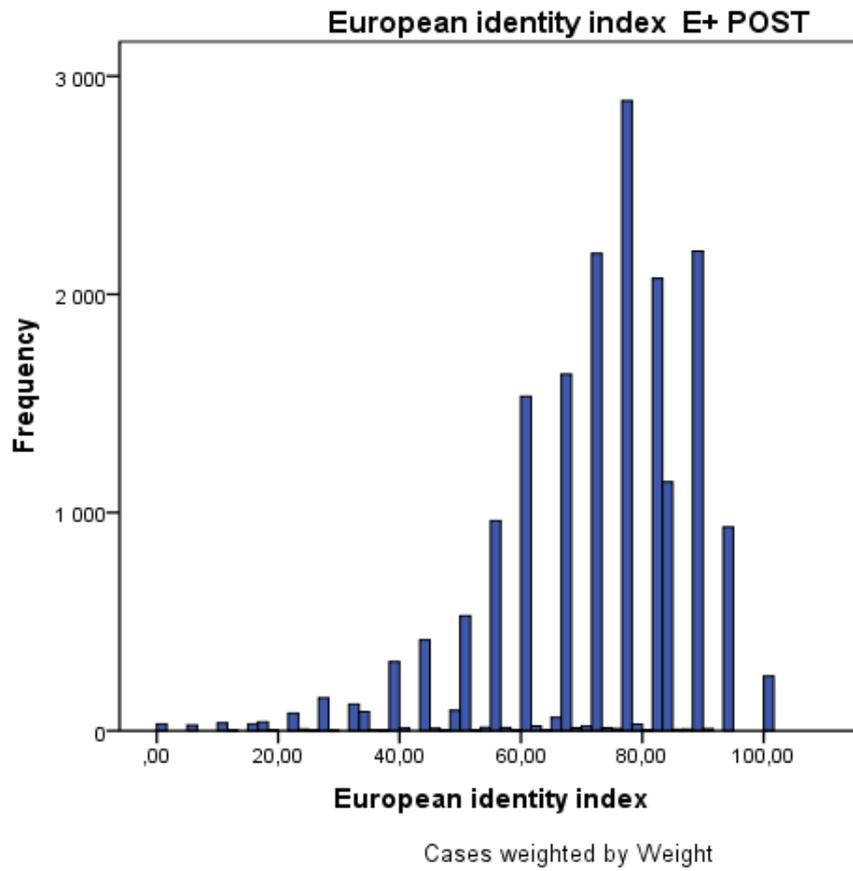




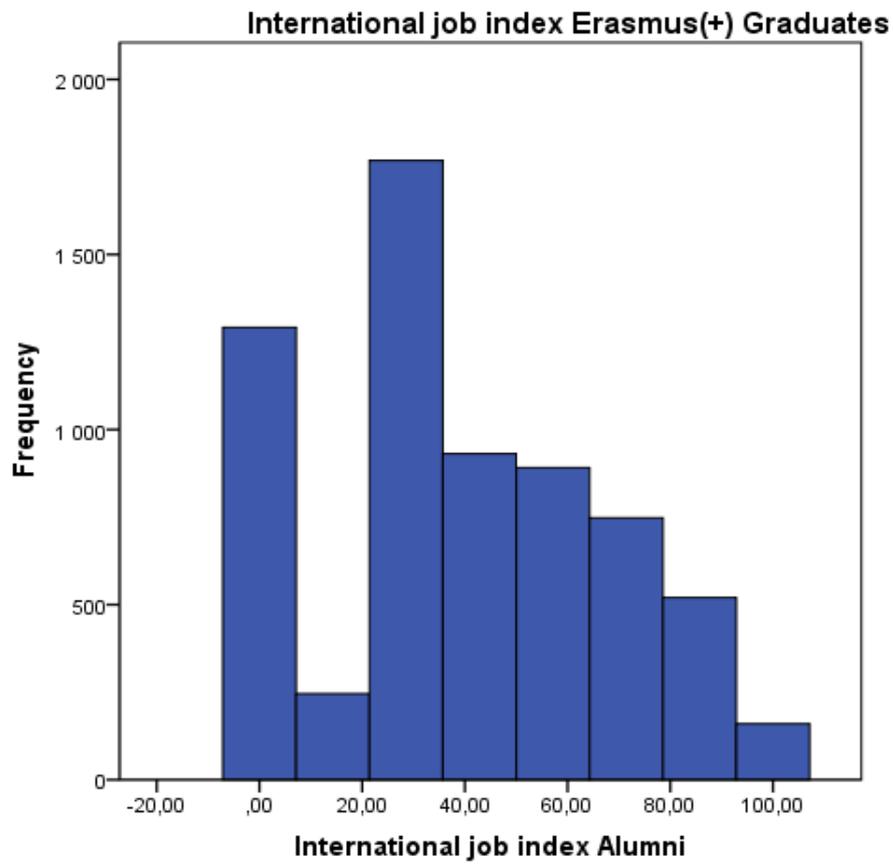


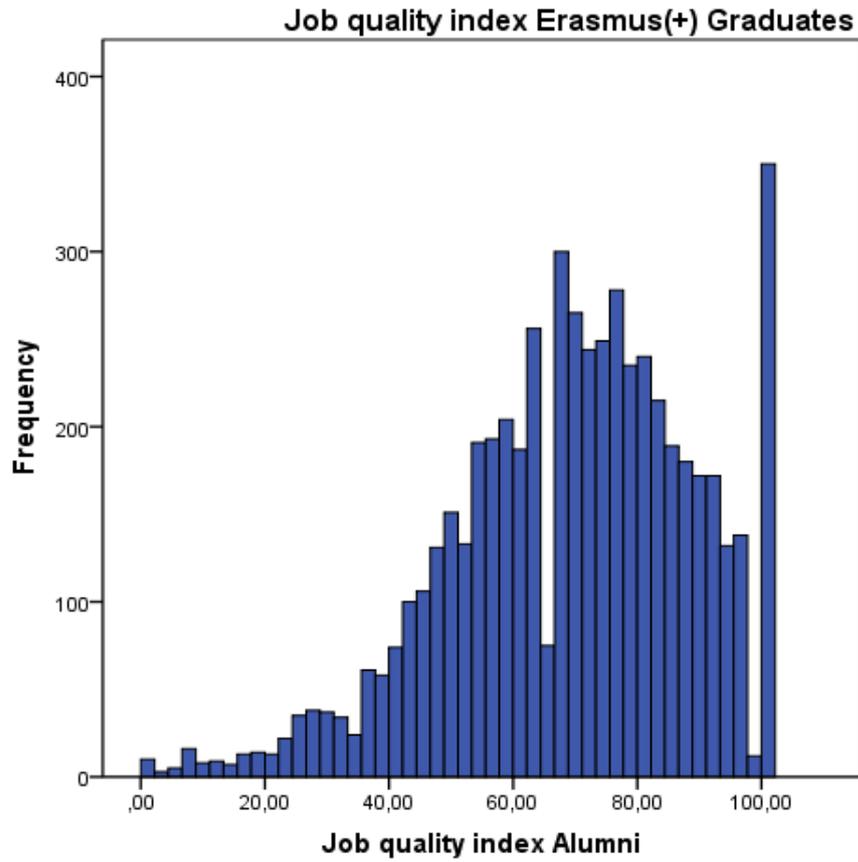


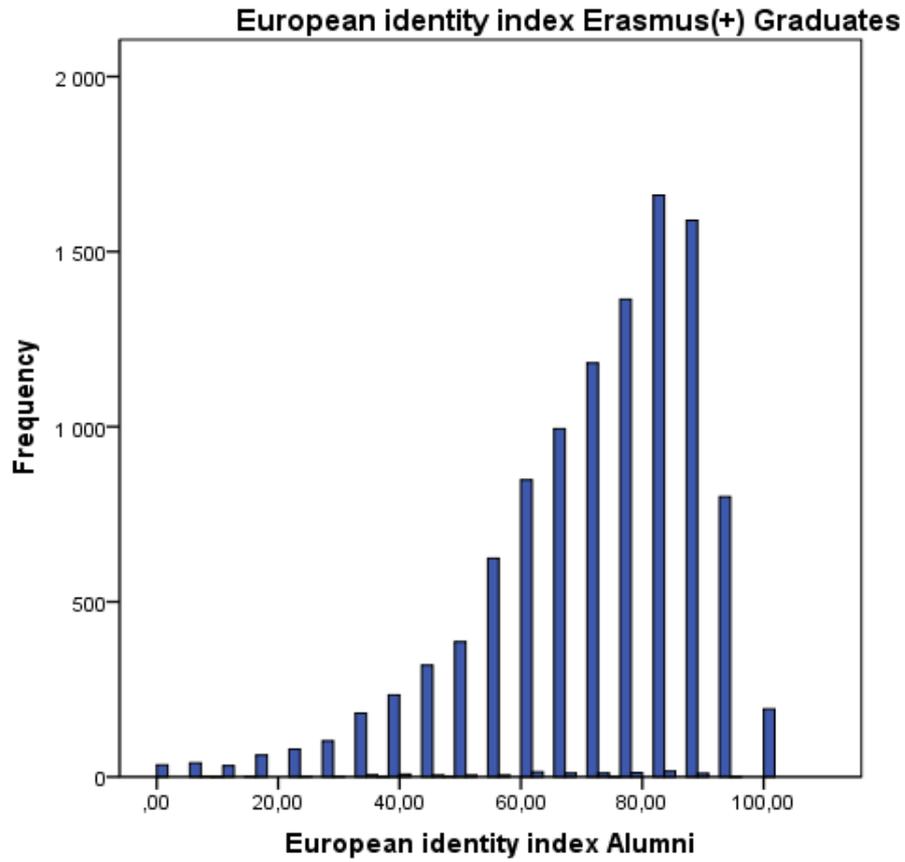




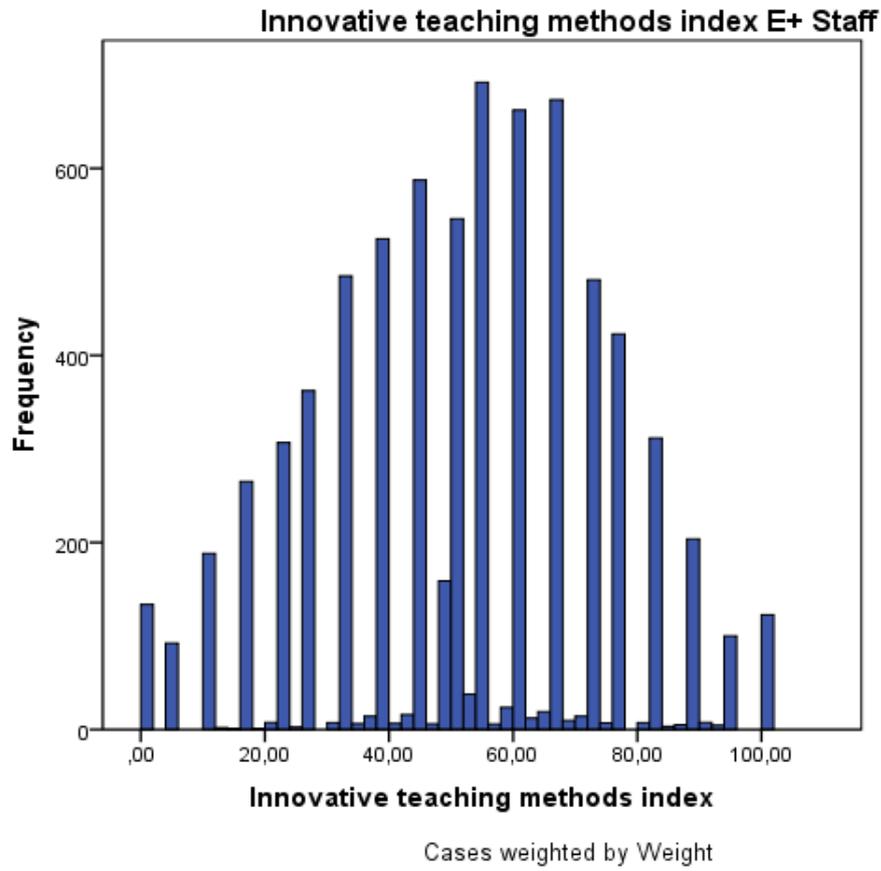
Indices Erasmus+ Graduates

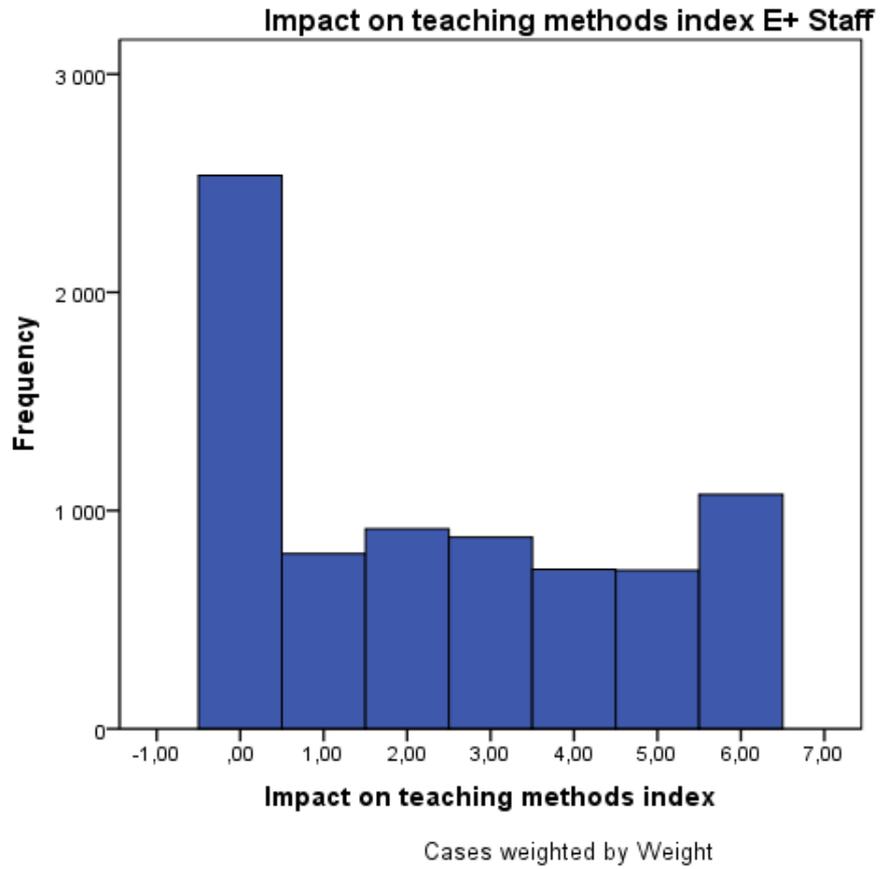




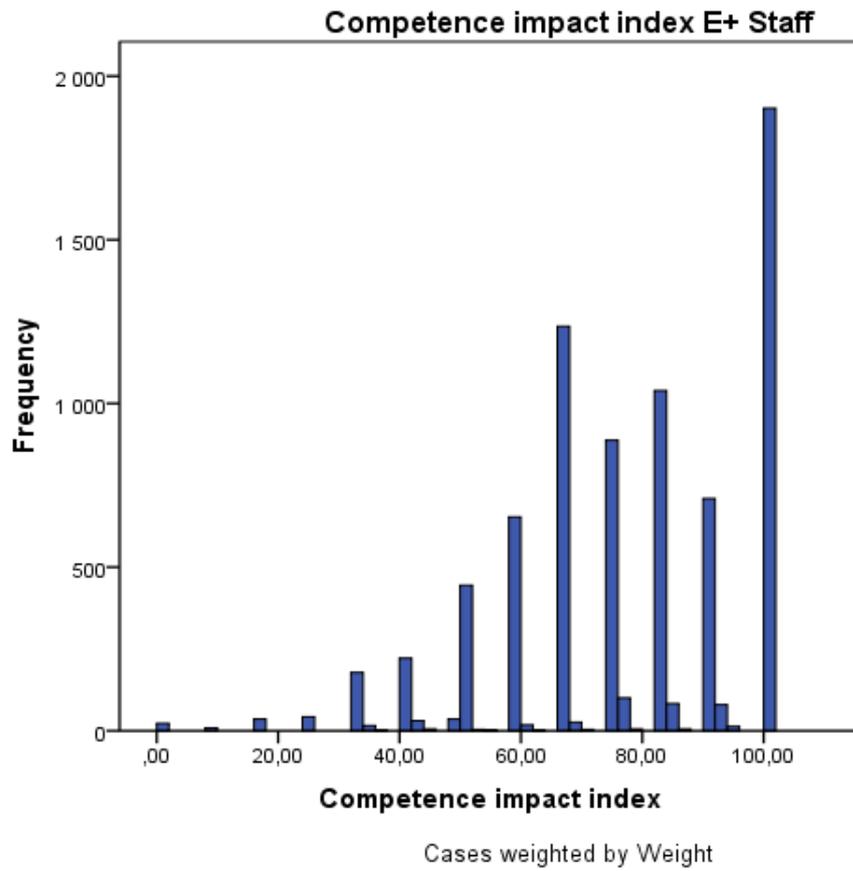


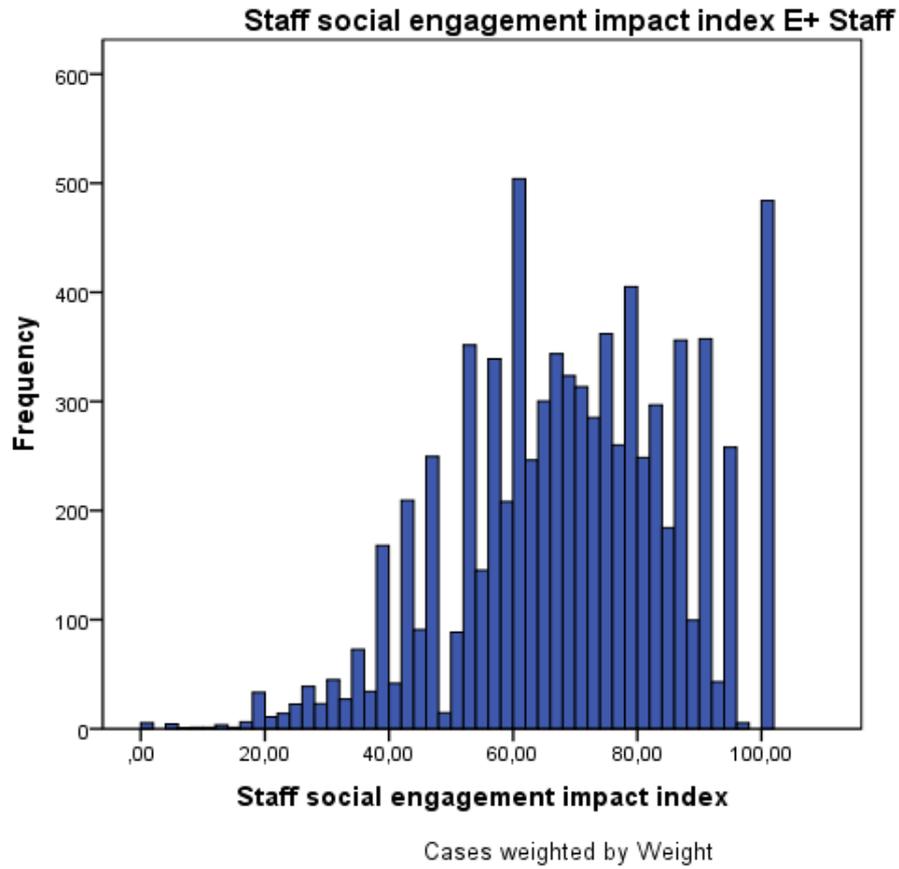
Indices Erasmus+ staff

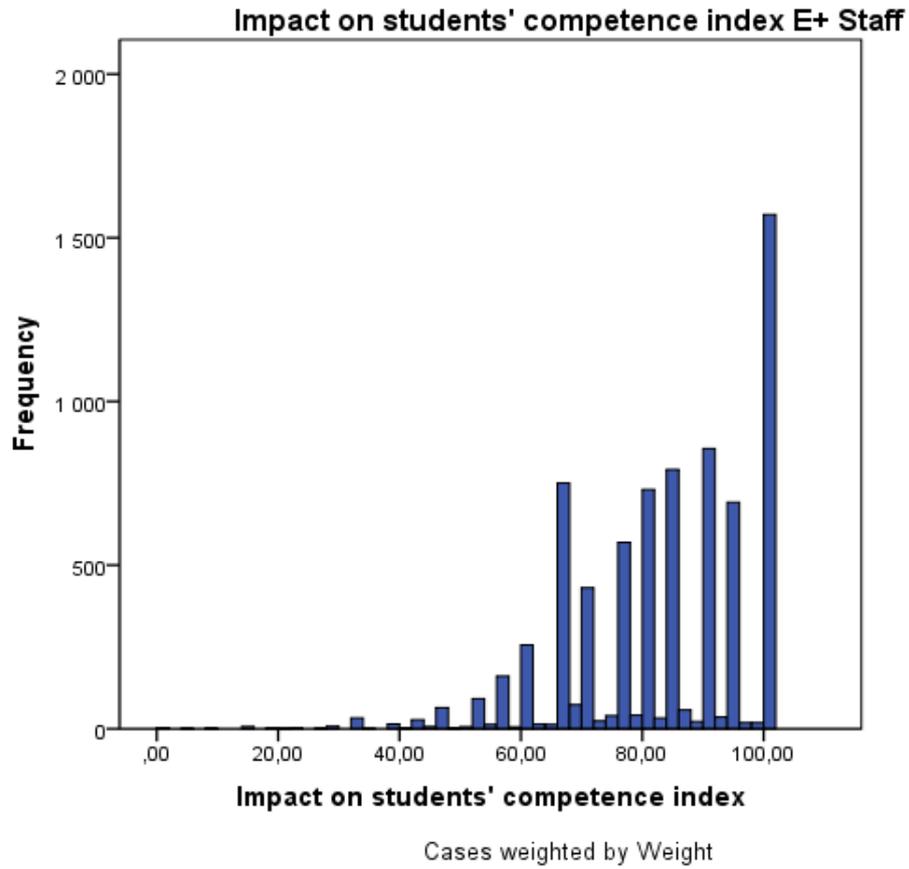


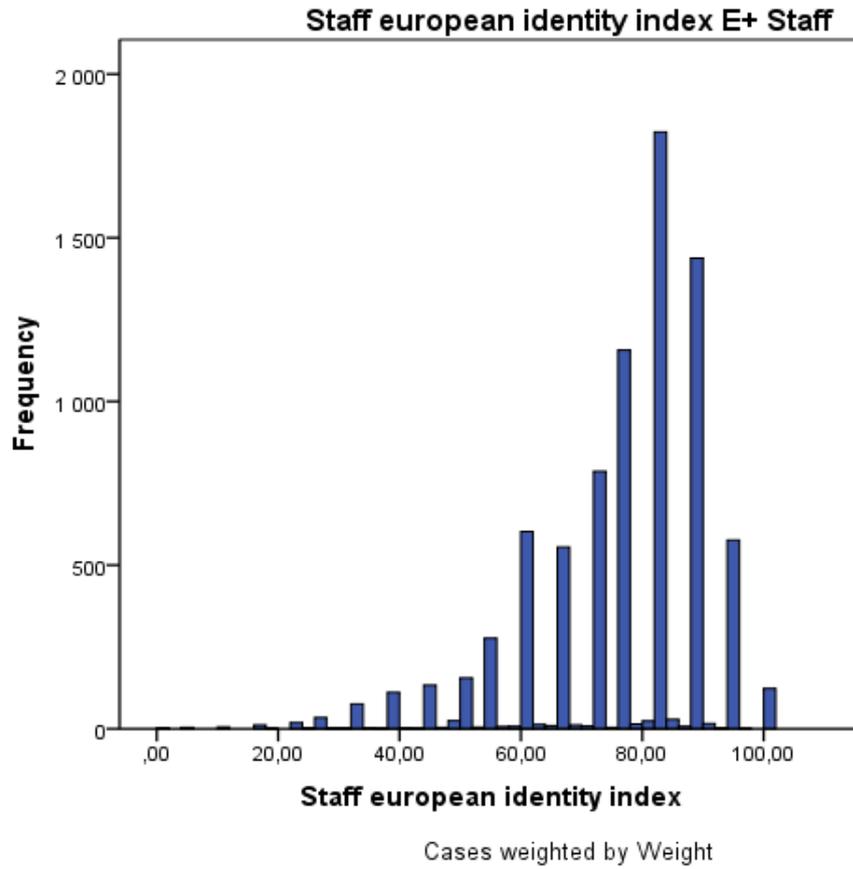












ANNEX 8. Detailed overview memo© results

Erasmus+ POST Learners

Factor name	N	Mean	Standard Error of Mean	Median	Mode	Standard deviation	Skewness	Kurtosis*
Self Confidence	20796	,1226	,00684	,2089	,21	,98600	-,730	1,060
Goal Orientation	19848	-,0063	,00724	,1138	,51	1,01999	-,590	,401
Cultural Openness	20356	,0391	,00686	,2724	1,13	,97848	-1,254	2,113
Social Openness	20359	,0557	,00709	,1365	,49	1,01232	-,729	,258
Total MEMO	20814	,0706	,00683	,1420	,38	,98552	-,566	,775

*Statistic adjusted. Kurtosis of normally distributed data is equal to 0

Erasmus(+) graduates

Factor name	N	Mean	Standard Error of Mean	Median	Mode	Standard deviation	Skewness	Kurtosis*
Self Confidence	12010	,2359	,00863	,3460	,21	,94525	-,743	1,040
Goal Orientation	11895	,1500	,00928	,2451	,51	1,01245	-,692	,517
Cultural Openness	11983	,1201	,00892	,2724	1,13	,97634	-1,360	2,334
Social Openness	11984	,1351	,00917	,3121	,49	1,00361	-,835	,492
Total MEMO	12032	,2082	,00899	,3096	2,12	,98563	-,699	1,130

*Statistic adjusted. Kurtosis of normally distributed data is equal to 0

Non-mobile learners

Factor name	N	Mean	Standard Error of Mean	Median	Mode	Standard deviation	Skewness	Kurtosis*
Self Confidence	1616	-,2064	,02894	-,0653	,07	1,16343	-,770	1,132
Goal Orientation	1440	-,1615	,02956	-,0175	,51	1,12185	-,700	,671
Cultural Openness	1531	-1,0341	,03854	-,8044	1,13	1,50793	-,626	-,160
Social Openness	1531	-,7305	,03237	-,7417	-1,09	1,26652	-,207	-,719
Total MEMO	1618	-,7443	,03208	-,6449	-1,08	1,29052	-,455	,417

*Statistic adjusted. Kurtosis of normally distributed data is equal to 0

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