

EUT⁺

EUROPEAN UNIVERSITY OF TECHNOLOGY

Deliverable D21

Policy report: “Optimising university staff mobility - obstacles and solutions”

Del. Rel. No D7.3

WPX7

Comments: For “historical” reasons in the design of this project, WP (and deliverables) 7 are sometimes numbered 1. However, there is no possible confusion when reading the text.

Dissemination level: **PU**-Public

<https://www.univ-tech.eu/creating-commons-eut-extras>

The content of this deliverable represents the views of the authors only and is their sole responsibility. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.

This initiative has received funding from the European Union’s Erasmus+ programme under grant agreement 101035812 — EUT EXTRAS — H2020-IBA-SwafS-Support-2-2020.

Foreword

A comprehensive and participatory study to analyse the institutional barriers and levers to mobility programmes for researchers has allowed to identify four main hurdles to academic staff mobility: i) Funding, ii) Teaching load, iii) Administrative bureaucracy, iv) Family situation. The focus of Dx 1.3 being on institutional aspects, the co-design of solutions has focused on the first three, and informed the recommendations presented in this deliverable.

The main (generalizable) recommendations to facilitate academic staff mobility are:

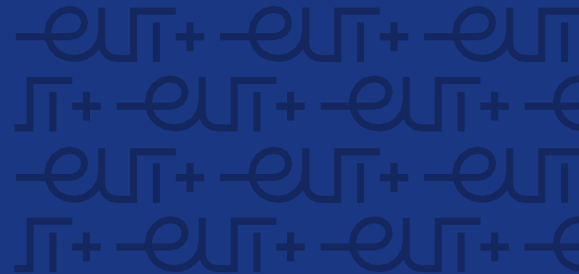
1. Make mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence”, in line with creating commons, whether human capital or sharing infrastructure, and around the EUT+ Research Institutes
2. Adopt a centralized-standardized approach, in line with national regulations and ensuring purpose and usefulness, to manage mobility at EUT+ level
3. Align regulations (and/or identify national legal barriers) between partner universities to allow teaching hours recognition
4. Design and develop a web portal tool to facilitate mobility, linked to Tx4.1 and Tx4.2 mapping tools of research domains and Tx5.2 of the same project¹
5. Envisage new forms of mobility – blended, soft – as part of a sustainable model to European mobility

¹ Of the three deliverables, only Tx4.2 is a public deliverable

Institutional levers to academic mobility as part of a common strategy of creating commons has the potential to be a quick-win and a first triggering step. The best tool for internal engagement and demonstration of EUT+ achieving its goals, is to see concrete real people moving around the campuses and working.

Table of contents

Introduction	7
1 Academic staff mobility: aiming at excellence while examining constraints	8
1.1 WPx1/7: developing human capital	8
1.1.1 Dx1.1 recommendation: promoting collaboration	9
1.1.2 Dx1.2 recommendation: guide the development of policy for the future	10
1.1.3 EUT EXTRAS’s global objectives	11
1.2 EUT+ staff’s interest for mobility	11
1.3 Deliverable plan and impact	20
2 Recommendations	21
2.1 Recommendation 1:	23
Make mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence”	23
2.2 Recommendation 2:	25
Adopt a centralized-standardized approach, ensuring purpose and usefulness, to manage mobility at EUT+ level	25
2.3 Recommendation 3:	28
Align regulations between partner universities to allow teaching hours recognition	28
2.4 Recommendation 4:	30
Design and develop a web portal tool to facilitate mobility, linked to Tx4.1 and Tx4.2 mapping tools of research domains and Tx5.2	30
2.5 Recommendation 5:	33
Envisage new forms of mobility – blended, soft – as part of a sustainable model to European mobility	33
3 Methodology	37
3.1 Empirically-informed and co-designed recommendations.....	37
3.2 Mixed methods approach	38
3.2.1 Questionnaire	39
3.2.2 Semi-structured interviews.....	43
3.2.3 Personas	44



3.2.4	Focus Group	45
3.3	Thematic analysis	46
4	<i>State-of-the-art: academic staff mobility</i>	47
4.1	European context	47
4.1.1	Existing EU initiatives	48
4.2	Academic mobility: a complex phenomenon	49
4.2.1	Student mobility: a comparison	51
4.3	Universities' attractiveness and internationalisation	52
4.4	Academic career development.....	54
4.4.1	EU career stage	55
4.5	Demographic reality of academic mobility	57
4.6	Mobility trends, motivations and benefits.....	59
4.6.1	Gender issues.....	62
4.6.2	Work-life balance	63
4.6.3	'Ideal type' v/s family-constrained academics	65
5	<i>Hurdles to mobility</i>	67
5.1	Funding.....	71
5.1.1	Grants.....	72
5.1.1.1	Erasmus grants.....	72
5.1.1.2	MSCA Staff Exchanges	77
5.1.1.3	Specific to countries and universities	80
5.1.2	Individual costs.....	82
5.1.3	Universities' funds: Replacement, salary	85
5.2	Teaching load.....	89
5.3	Administrative bureaucracy.....	90
6	<i>Identification of the needs</i>	93
6.1	Purpose: thinking and monitoring mobilities.....	93
6.2	The "must-haves" for mobility.....	97
6.3	Common framework for recognition of mobility.....	102
6.4	Common procedure and centralisation of knowledge tool.....	106

6.4.1	Conceptualizing the Web Portal.....	109
6.5	Clear strategy towards creating commons around mobility	113
6.6	Ecological considerations.....	117
7	<i>Facilitators to mobility</i>	127
7.1	Persona.....	128
7.1.1	Dana – 2-months mobility on a another EUT+ campus	129
7.1.2	Oscar – 1-3 months mobility each year for 20 years.....	132
7.1.3	Angela and Federico – 1-year mobility in Austin	134
8	<i>Conclusion</i>	137
	<i>Annexes</i>	139
	<i>Bibliography</i>	140

Introduction

The situation of academic researcher international mobility is marked by various trends and factors. Over the years, there has been a notable increase in the mobility of academic researchers worldwide. This mobility involves scholars moving across borders to pursue higher education, conduct research, or collaborate with international peers and institutions. Key factors contributing to this trend include opportunities for enhanced research collaborations, access to better resources and facilities, and the global dissemination of knowledge.

However, international mobility among academic researchers is not uniform. It varies significantly by region, discipline, and career stage. Some regions, particularly Europe, have seen a high degree of researcher mobility facilitated by programs like Erasmus and Horizon 2020. In contrast, mobility may be more challenging in certain disciplines, such as the social sciences and humanities, due to the nature of research and funding availability.

Additionally, the COVID-19 pandemic has had a profound impact on international researcher mobility or more recently the war in Ukraine. Travel restrictions, border closures, and health concerns have disrupted academic collaborations and hindered the movement of scholars. Virtual collaboration and remote work have become more common, but the pandemic has highlighted the importance of physical presence for certain aspects of research and academic life.

Efforts are being made to address the challenges and promote international researcher mobility. Initiatives like the Bologna Process and international research networks aim to facilitate collaboration and streamline academic qualifications. Moreover, governments and institutions are working to create supportive policies and funding opportunities for researchers to engage in international exchanges and projects.

1 Academic staff mobility: aiming at excellence while examining constraints

This deliverable focuses on mobility programmes for academic research staff (as opposed to undergraduate student level or higher education staff). Student mobility has always been seen as important and has been promoted whereas not so much for HE staff [Mit14] even though this is of prime importance as highlighted in another report from the EUT+ initiative [EUT22]. This is clearly one of the main aims of the Erasmus+ programme [Era21] but as it will be seen in this deliverable. Academic research mobility encompasses yet other difficulties and challenges.

The objective of this deliverable is to analyse the institutional barriers and levers to mobility programmes for researchers, and to formulate a series of recommendations that can be translated into policy at the EUT+ level. The first main recommendation that empirically emerges from the insights and co-construction process is to: Make mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence”. Tx1.3 reveals the utmost importance of mobility as part of a global and coherent strategy of creating commons, whether putting together human capital or sharing research infrastructure.

1.1 WPx1/7: developing human capital

Together with developing HRS4R from the angle of technological universities (Dx7.1) or change management to spread and promote EUT+ culture (Dx7.2), facilitating staff mobility (this Dx7.3) is another crucial aspect to develop human capital towards excellence.

WPX1/7: Develop human capital to steer Europe towards a new path of excellence

T7.1: Develop HRS4R from the angle of technological universities and identify the hurdles

T7.2: Establish a change management squad responsible for spreading and promoting the EUT+ culture at all levels of the alliance's member institutions

T7.3: Explore institutional levers to facilitate and accelerate staff mobility programmes within EUT+

T7.4: Reaching and sustaining critical mass on a decentralized structure while avoiding brain drain at the research level

The object of this Tx7.3 is “Optimising university staff mobility – obstacles and solutions”. This report must be taken within the wide view of the whole work package as the development of the HRS4R label, the promotion of the EUT+ culture and the avoidance of the brain drain are all related to research staff mobility within the EUT+ and within the EU in general.

1.1.1 Dx1.1 recommendation: promoting collaboration

The Deliverable x1.1 recommends consolidating the alliance, by promoting a less competitive academic environment with a renewed focus on collaboration. This collaboration rests on research activities or outputs that include, amongst other wide aspects, mobilities. The ambition formulated by Dx1.1 is that at least 20% of EUT+ researchers should have at least one research activity or output resulted from a collaboration within EUT+ partners by 2025 and 40% by 2027.

Possible measures comprise:

- + Promoting mobilities – for PhD students, within ERIs
- + Favouring mobilities within the alliance, in link with career paths
- + Supporting and promoting diversity experience outside institution, e.g mobilities, postdocs, secondments
- + Recognising forms of mobility as a means for enhancing the professional development of researchers.

1.1.2 Dx1.2 recommendation: guide the development of policy for the future

Dx1.2 makes the observation of “inbreeding”. The practice of academic inbreeding is a phenomenon observed in HEIs as a result of which so-called ‘homegrown academics’ are produced; namely, “academics” lacking institutional mobility, possessing strong alma mater identity, and reliant on institutional networks and localised knowledge’ (Altbach et al, 2021).

Among the recommendations linked to mobility are to:

- + EUT+ should use the advantages of having a close-knit network spanning across 9 countries to facilitate the mobility of academic staff, which can also contribute to decreasing the scale of academic inbreeding with more mobile staff members also being more valiant with their research programs.
- + EUT+ should consider linking staff appraisal with promoting mobility, ensuring that the time spent on a teaching or research mobility is properly recognized and motivates the staff member to continue using mobility opportunities in the future.

1.1.3 EUT EXTRAS's global objectives

Finally, considering staff mobility as part of the global picture of EUT EXTRAS which aims at “creating commons” and achieving “collective excellence” (presented in detail in section 6 and summarised below), the mobility of academic staff - who move to one campus to another, achieving concrete work and actions - appears as a key enabler, whether to:

- + develop human capital
 - o which is the objective of WPx1
 - o supported by the mapping tools for research topics and actors of Tx4.1 and Tx4.2
- + create a common infrastructure pool, the objective of Tx5.2

1.2 EUT+ staff's interest for mobility

Apart from the objectives as written in EXTRAS's bid, the main actors' interest for mobility has been examined through a large-scale questionnaire with 500+ responses (see Methodology section 2, Annex1 a,b for questionnaire and complete results). In line with EUT+ co-construction and participative approach, trying to implement measures about mobility that are generic and de-correlated from actors' needs would not be efficient or impactful.

From this understanding of EUT+ academics experience, needs and expectations for mobility, four issues emerge as requiring further examination:

- + the duration of the stays
- + the specific constraints to mobility
- + the demographic realities and profiles
- + the perceived benefits of mobility

They are presented below and have served as guidelines for the comprehensive and incremental study presented in this deliverable.

I) SHORT-TERM OR LONG-TERM MOBILITIES

The questionnaire reveals interesting insights into the preferences of researchers regarding mobility to a EUT+ member university. A small majority (52.9% of the respondents) expressed interest in both types of mobility periods:

- + short (less than 2 weeks)
- and
- + long (more than 1 month)

Short mobility periods were the second most popular choice, with 36.3% of researchers indicating a preference for stays less than 2 weeks. Long mobility periods were less popular, with only 3.2% of researchers expressing a preference for stays longer than 1 month.

When looking at the data by university, some variations in these trends appear. For instance, the Technological University Dublin had the highest percentage (66.7%) of researchers interested in both short and long mobilities, while the Darmstadt University of Applied Sciences had the lowest percentage (23.1%) for short period mobilities. The Technical University of Sofia and Universitatea Tehnică din Cluj-Napoca both had no researcher interested in long period mobilities.

In terms of categories in career advancement, long-term mobility is less appealing to all research categories, with R1 researchers showing the least interest (1.7%). Both short and long mobilities are evenly distributed among the research categories.

The intersection of gender and research categories presents a complex picture. For instance, men in the R3 - Established Researcher category have the highest preference for short-term mobility (38.0%), while women in the same category show the lowest interest (26.7%). Moreover, women in the R4 - Leading Researcher category have the highest preference for having no mobility at all (33.3%), whereas no men in the same category share that preference (0.0%).

Indeed, as will be confirmed by the persona (see section 7), long-term mobilities implies constraints, across the 3 main hurdles identified for EUT+, that is, in terms of funding, teaching load and family situation.

II) MAIN CONSTRAINTS TO MOBILITY

Based on the most common constraints identified in the state-of-the-art, the large-scale questionnaire has identified how these were rated by EUT+ academic personnel. On a scale from 1 to 5, the main obstacles or difficulties the researchers have encountered in their experience with mobility for a short period (< 2 weeks), with 1 being not significant and 5 being highly significant. Figure 1 provides the results.

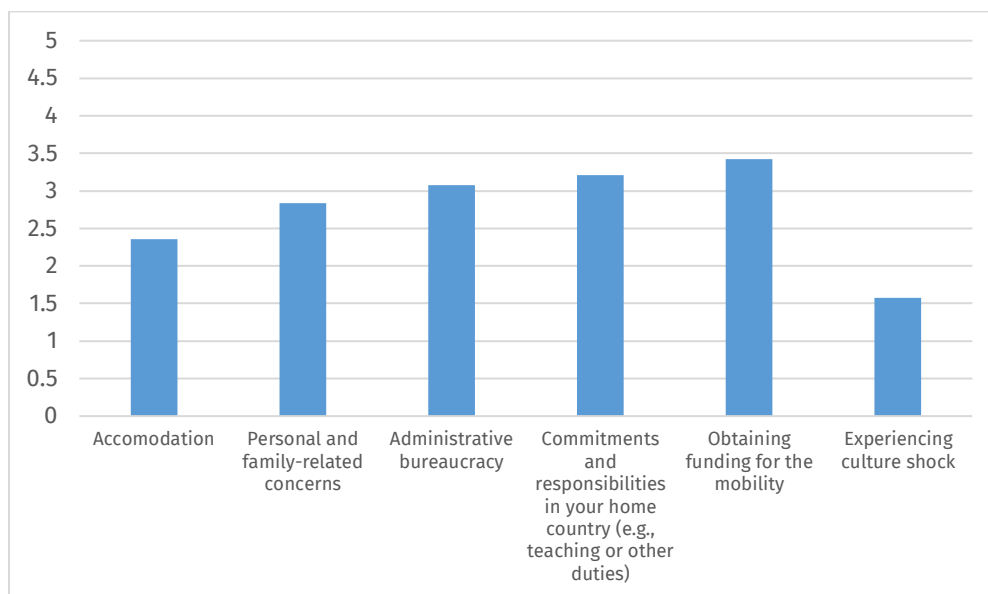


Figure 1: Answers to the question “On a scale from 1 to 5, please rate the following obstacles or difficulties you have encountered in your experience with mobility, with 1 being not significant and 5 being highly significant” for a short period (< 2 weeks)

The constraints are revealed to be in this order of importance from the questionnaire results and are confirmed by the interviews and the focus group (see detailed analysis in Section 4 – Hurdles to mobility).

1. **Obtaining funding for the mobility**
2. **Commitments and responsibilities in your home country**
3. **Administrative bureaucracy**
4. **Personal and family-related concerns**
5. **Accommodation (including housing and health insurance)**
6. **Experiencing culture shock**

It was found that the highest-rated obstacle was **obtaining funding for the mobility**, with an average score of **3.42** and a standard deviation of **1.39**. Second, participants rated their **commitments and responsibilities in their home country**, such as teaching or other duties, at an average of **3.21**, with a standard deviation of **1.33**. **Administrative bureaucracy** was rated third, with an average score of **3.08** and a standard deviation of **1.23**, followed by **Personal and family-related concerns** with an average rating of **2.83**, with a standard deviation of **1.47**. **Accommodation**, including housing and health insurance, was rated by 339 participants with an average score of **2.35**. The scores varied widely, with a standard deviation of **1.42**, and ranged from a minimum of 1 to a maximum of 5. Finally, the lowest-rated obstacle was **experiencing culture shock**, with an average score of only **1.45** and a standard deviation of **0.89**. This suggests that culture shock was not a significant concern for most participants in short-term mobility experiences.

III) EUT+ MOBILITY DEMOGRAPHIC REALITY

For a university outside the EUT+, the majority of respondents, 48.2%, were open to both short and long mobilities. Short periods of less than 2 weeks were preferred by 38.2% of respondents, while long periods of more than 1 month were less popular, with only 5.7% considering this option. A small percentage, 7.9%, indicated they would not consider any mobility to a university outside of EUT+.

When looking at individual universities, TUS and UTCN had the highest percentage of researchers considering short periods (57.1% and 55.1% respectively), while the UTT had the lowest at 15.8%. For long periods, UPCT had the highest percentage at 12.5%, with several universities reporting no researchers considering this option. TU Dublin and h_da had the highest percentage of researchers considering both

short and long mobilities (60.2% and 63.7% respectively). The UTT had the highest percentage of researchers not considering any mobility at 31.6%.

The data categorized by gender reveals some differences in preferences. Women are more open to short periods of mobility (42.6%) compared to men (36.2%), while a higher percentage of men (7.2%) are willing to consider long periods of mobility compared to women (3.6%).

Finally, the data categorized by research stages (R1 - R4) demonstrates that R3 - Established Researchers show the highest willingness (44.3%) to engage in short periods of mobility, while R4 - Leading Researchers are more inclined (10.6%) to consider long periods of mobility. This might suggest that more experienced researchers are more willing to invest in longer-term international collaborations, while early-stage researchers are focused on shorter-term opportunities.

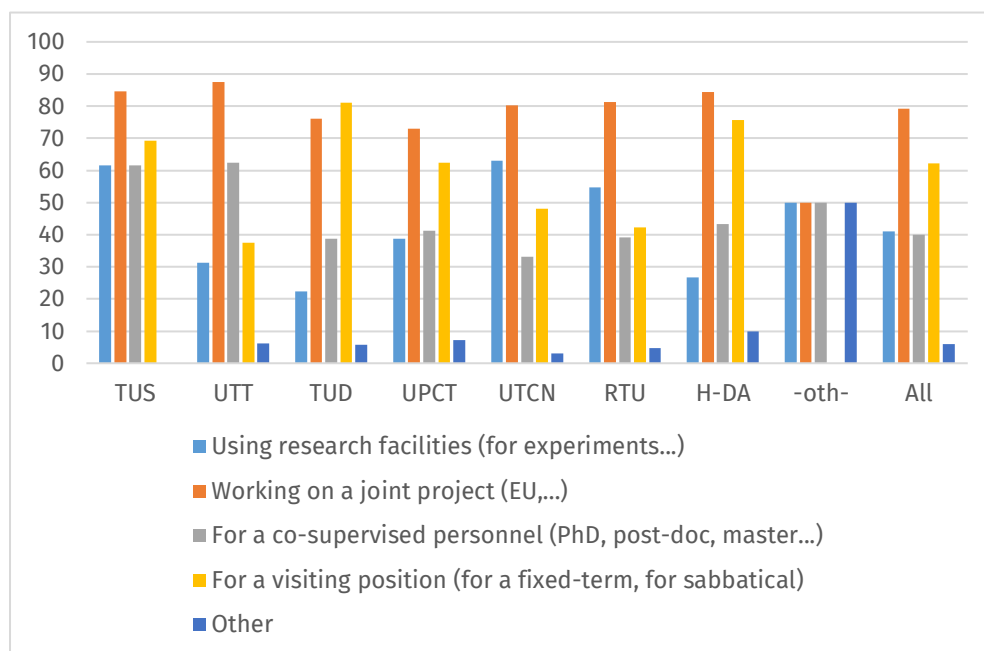


Figure 2: Answers to the question "What could be the reason for your mobility with a research context?"

Figure 2 is about what type of mobility one would envisage in the future, what would be the reason for their future mobility.

The reasons appear in that order of importance:

1. **Working on a joint project**
2. **For a visiting position**
3. **Using research facilities**
4. **For a co-supervised personnel**
5. **Other**

By far, the most popular reason, with 79.2% of respondents, was working on a joint project, such as an EU project. This was followed by visiting positions, either for a fixed-term or for sabbatical, which accounted for 62.2%. Using research facilities for experiments was another significant reason, with 41.1% of respondents selecting this option. Meanwhile, 40.0% of respondents reported mobility for co-supervised personnel, such as PhD, post-doc, or master students. The category labeled “Other” was the least selected option, with only 6.0% of respondents choosing it.

There are variations from partner to partner and for instance, the highest percentage of respondents from the TUS reported using research facilities for experiments (61.5%) and working on a joint project (84.6%). At the UTT, the majority of respondents also reported working on a joint project (87.5%), but fewer reported using research facilities for experiments (31.2%). A correlation can probably be made between the needs of a given partner to another: such as not enough research facilities, or not enough funding, or the will to work on a different project.

Thus, the relevance of considering academic staff mobility as part of a global ambition of creating commons, in order to achieve “collective excellence”, where “EUT+ is more than the sum of its parts”.

IV) BENEFITS OF MOBILITY FOR ONE’S CAREER

Figure 3 asked the following question whether, on a scale of 1 (not significant) to 5 (highly significant), for which categories they see mobilities as a good thing for their career.

The reasons appear in that order of importance:

1. **Expanding international networks**
2. **Research opportunities**
3. **Career growth and skill development**
4. **Gaining recognition within the research community**
5. **Teaching opportunities**

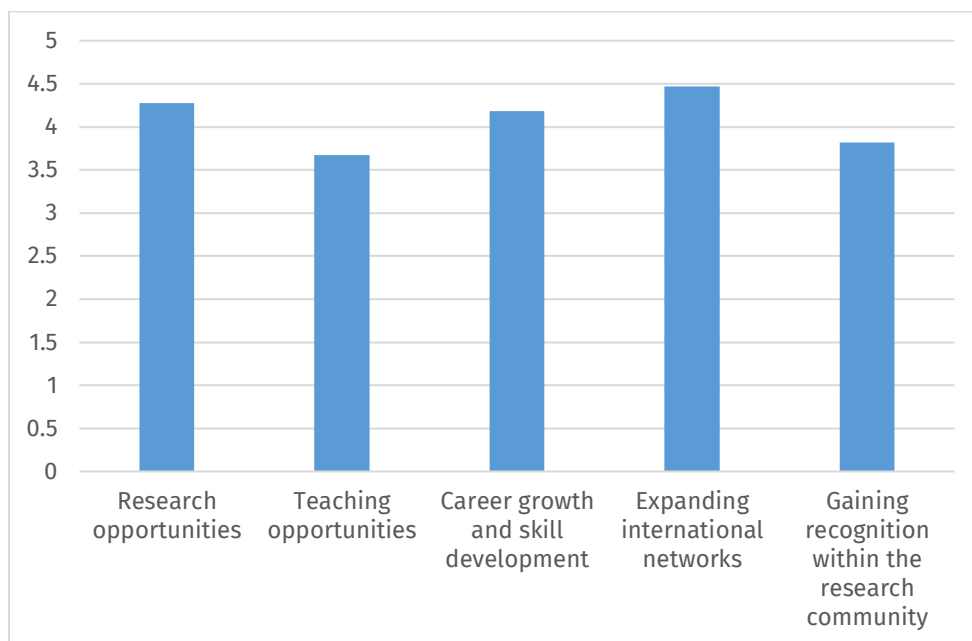


Figure 3: Answers to the question “On a scale of 1 (not significant) to 5 (highly significant), for which categories you see mobilities as a good thing for your career?”

Expanding international networks garnered the highest mean score among all categories, with a mean of 4.47 and a relatively low standard deviation of 0.88. This indicates that respondents overwhelmingly view mobility as crucial for building international networks, and the data is clustered around the higher end of the scale. In terms of research opportunities, the data reveals that a substantial proportion of the 529 participants find mobility to be highly significant, with a mean score of 4.27 and a standard deviation of 1.05. The majority of respondents (75%) rated research opportunities related to mobility as a 5, indicating a strong belief in the positive impact of mobility on their research careers.

Teaching opportunities, on the other hand (4th position v/s 2nd for research opportunities), received a slightly lower mean score of 3.67, with a higher standard deviation of 1.22. While a significant portion still considered teaching opportunities abroad important, the distribution of responses was more dispersed, as indicated

by the higher standard deviation. Career growth and skill development scored a mean of 4.18 (3rd position), suggesting that mobility is seen as highly significant in this regard. Again, 75% of respondents rated it as a 5, demonstrating a strong consensus on its importance for career development. Lastly, gaining recognition within the research community received a mean score of 3.82, with a standard deviation of 1.18. While the majority still considered this aspect significant, there was more variation in responses compared to research opportunities and international networks.

Again, results vary between universities (see Annex 1b for detailed analysis). This difference will be useful for further personalized development. However, being given the focus in this deliverable, the analysis will stick to a global level of analysis in order to formulate generalizable recommendations.

1.3 Deliverable plan and impact

In line with these objectives, this deliverable presents a series of recommendations that can be translated into policy at the EUT+ level. These recommendations are presented as Section 2.

In a retrospective mode, the deliverable presents how the recommendations were arrived at, with the methodology, the state-of-the art, and then organized in a thematic way: the main hurdles to mobility, the needs identification, the facilitators, and finally the relevance of academic staff mobility in the context of the EUT EXTRAS objectives and more globally the consolidation of the European Research Area.

Thus, the hurdles and barriers analysis (Section 5) have given rise to the identification of the needs (Section 6) and the facilitators section complements the

analysis to formulate the recommendations that are put forward at the very beginning of this deliverable (Section 2).

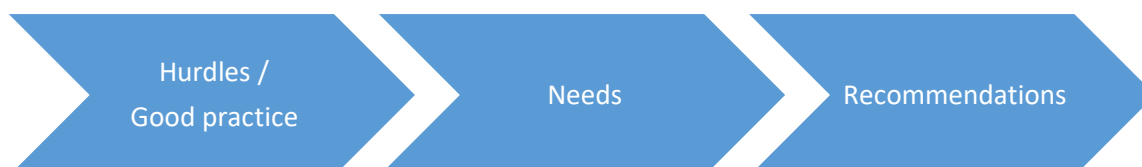


Figure 4: Empirically-informed and co-designed recommendations process

2 Recommendations

The recommendations presented in this section have empirically emerged from the comprehensive and co-construction approach (Section 4 Methodology), which has allowed to identify the needs (Section 6), based on an analysis of hurdles (Section 5) and inspired by the favourable conditions to mobility as embodied by the 3 persona (Section 7).

For the sake of clarity and attractiveness of these outputs, the order of presentation in the deliverable is the inverse of the analysis process. To ensure maximum readability and empirical rigour, the sections are constantly cross-referenced.

In formulating these recommendations, the hypothesis is that answering these identified needs (Section 6) has the potential to:

- + Ensure that mobilities are useful and impactful
- + Structure mobility in both an efficient and easy way
- + Make mobility a structuring element of a common EUT+ strategy

The main recommendations to facilitate academic staff mobility are to:

1. Make mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence”, in line with creating commons, whether human capital or sharing infrastructure, and around the EUT+ Research Institutes
2. Adopt a centralized-standardized approach, in line with national regulations and ensuring purpose and usefulness, to manage mobility at EUT+ level
3. Align regulations between partner universities to allow teaching hours recognition
4. Design and develop a web portal tool to facilitate mobility, linked to Tx4.1 and Tx4.2 mapping tools of research domains and Tx5.2
5. Envisage new forms of mobility – virtual, soft – as part of a sustainable model to European mobility

2.1 Recommendation 1:

Make mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence”

All the insights gained by this study of Tx 1.3 concerning the needs identified (see Section 6.5 for details) concur towards the **potential for mobility to contribute to**

- + achieving ambitious strategic objectives of institutions
- + supporting career development of academic staff

Tx1.1 and Tx1.2 focusing more on the second aspect (individual career development), Tx1.3 focuses on the first potential – achieving ambitious strategic objectives of institutions – in line with the global ambition of EUT EXTRAS: **creating collective excellence.**

Therefore, it is recommended that EUT+ adopts a clear position for mobility to support EUT+’s joint research and innovation strategy that will foster the opportunities and excellence of EUT+. Excellence in EUT EXTRAS is about “collective excellence”, relying on the creation of commons, whether shared human capital or pooled resources, that are mutualised with academics travelling from one research platform to the other, or as part of the emerging structuration of European Research Institutes (ERIs).

As will be explicit in the description of other achievements in EUT EXTRAS below, these envisaged collaborations can only be made effective if people actually work together. As an informant explains very clearly:

“If we’re trying to do things across the network that are operational, you need to meet teams on the ground.”

In line with creating commons and ambitious strategic objectives, mobility must become a compulsory part of EUT+ strategy.

Making mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence” integrates coherently within the broader objectives of EUT EXTRAS, in line with:

- + the objectives of WPx1 to
 - + develop human capital, with the objective to steer Europe towards a new path of excellence
 - + establish the solid foundations of a diverse, mobile body of staff who will lead institutions towards their ambitious strategic objectives
- + the tools developed for collaboration as part of WPx4 to
 - + analyse the content of Calls for Proposals and EUT+ community to find appropriate partners
 - + mine all EU funded projects to find partners with experience in securing research grants
 - + record publication performance of EUT+ alliance, for decision-making within EUT+, for forming new post-graduate study programmes, for creating new ERIs, etc.
- + the inventory and methodology of WPx5 to
 - + identify infrastructure that can be shared by all alliance partners
 - + put forth a strategy of resources and infrastructure pooling for developing a programme of co-investments to fill gaps.

This way, by pooling human resources and research infrastructures, and allowing academic staff to move freely from one campus to the other, it will be possible to achieve collective excellence and allow that EUT+ becomes more than the sum of its parts.

2.2 Recommendation 2:

Adopt a centralized-standardized approach, ensuring purpose and usefulness, to manage mobility at EUT+ level

The needs analysis presented in Section 6 discusses in detail the limits concerning mobilities. They are currently managed on a case-by-case basis, with limited resources and competence, no capitalisation of knowledge, sometimes no visibility at institutional level about mobilities if academics benefit from private funding.

Based on the observation of the limits, informants themselves have expressed the need for:

- + A clear, standardized process
- + A centralised single point of contact where one could receive help and information
- +

In order to facilitate mobility within EUT+, it is recommended to have a **process**

that is:

- + **Clear:** what to do, whom to contact
- + **Standardized:** independent of the type of mobility (except funding) and that applies for all
- + **Centralized:** with dedicated, competent people who can provide the right information
- + **Easy:** to avoid the “administrative bureaucracy” that has been identified as hurdle, e.g in the form of a tool.

This process can be supported by an online tool (see Recommendation N° 4, Section 2.4 below).

USEFULNESS AND IMPACT

The second aspect that emerged as being essential, and that this process should cater for the guarantee of the **usefulness and impact of the mobilities**.

Indeed, the usefulness of the mobilities is a crucial point for all the informants, who unanimously agree on the importance of a purpose to mobility. As an illustrative summary, a colleague uses in the same sentence the terms “tourism”, “go there and do nothing”, “it’s senseless”. Two HR Managers use the terms “*holidays for 2 weeks paid by EUT*” or “*visit places you can't afford on your own*”.

The example taken in this Dx1.3 is the secondment **evaluation process** for the EpisTeaM MSCA Staff Exchange project, with a **research proposal**. It is this very same principle of having a purpose – that is transversal to the different stages of the mobility – that has emerged as being crucial (see Section 6.1).

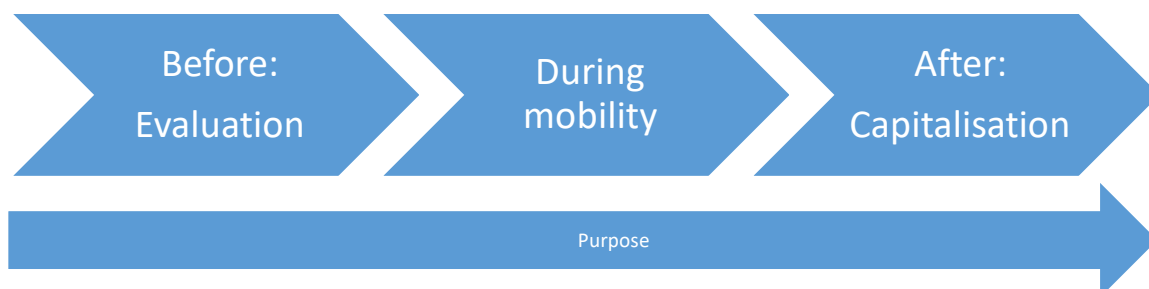


Figure 5: Proper planning (“before”) and monitoring (“after”) of mobility around a purpose

Third, the **capitalisation of knowledge** gained out of the mobility, that is linked to the issue of purpose, will ensure both transfer and sustainability.

There should also be a **mechanism for the centralization of knowledge**. The contours of a **space for exchange** must be co-designed, as our informant says, “so that we can say to each other what we’ve been enriched by, what we’d like to do more of and do better.”

Finally, the **complement of this usefulness is its openness**, so as to exploit the potential of mobility for staff engagement, and thus enlarge the number of participants to EUT+.

This mobility that “needs to be for everybody, not only for the people who had the opportunity to go (for physical meetings)” has the potential to counteract the current limit where EUT+ is perceived as being reserved to a happy few.

Also, in the same way as mobility is needed for concrete operational actions on the ground (see Recommendation N°1, section 2.1), mobility is needed as a visible proof

that these actions are taking place: *“The key here is to see people on the campuses working, without any doubt. That would be the sign that EUT is really achieving their goals. If we don't see students from Riga from Troyes here, it will be difficult to engage people in knowing that EUT can be a great success. The best tool for engagement is seeing concrete real people.*

2.3 Recommendation 3:

Align regulations between partner universities to allow teaching hours recognition

A need that strongly emerges is the official recognition of mobilities within a common EUT+ framework for both:

- + Research stays
- + Teaching hours on other EUT+ campuses

The analysis of practices shows that, despite consensus about the benefits of mobility experiences, disparities in their formal recognition remain between countries or universities.

It also shows that the **second main hurdle to mobility is the teaching load**, which requires time and organisation for the replacement of the teaching hours. The three methods used converge towards that same observation, and the Focus group has allowed to both deepen the understanding of this hurdle in a collective way, and to co-design relevant solutions.

The main recommendation is design a common EUT+ framework and align regulations between EUT+ partner universities, in order to allow for the recognition of the teaching hours on other EUT+ campuses.

Currently, if teachings (still in limited number) are done as part of Erasmus mobilities on another EUT+ campus than one's university, it is not counted in one's teaching load in home university. Depending on universities, and on the status of academics, the teaching load can be quite important.

Therefore, in line with:

- + EUT EXTRAS objectives of creating commons
And most of all
- + EUT+ ambition towards merging into one university

A form of common regulatory framework across the nine EUT+ campuses to recognise the teaching hours must be co-designed. It is only with this type of incentives and structural recognition that it will be possible to:

- + Increase the number of mobilities
- + Actually achieve concrete actions, like sharing teachers and proposing open courses and seminars

The teaching mobilities has the potential of being a quick-win: i) rapidly increasing the number of mobilities, ii) demonstrating actual achievements towards staff engagement (see Recommendation N°2, 4th aspect).

2.4 Recommendation 4:

Design and develop a web portal tool to facilitate mobility, linked to Tx4.1 and Tx4.2 mapping tools of research domains and Tx5.2

In response to the identified need for enhanced mobility support within EUT+, a proposal for a comprehensive web portal emerges as a pivotal solution, connecting seamlessly to Tx4.1, Tx4.2 mapping tools of research domains, and Tx5.2 initiatives.

A fundamental objective of the web portal is to **surmount the challenges hindering mobility within the EUT+ alliance.**

Recognizing the impediments such as

- + heavy teaching loads
- + financial constraints
- + administrative complexities,

the portal incorporates **strategic solutions within its framework.** These include:

- + facilitating colleague replacements
- + synchronizing regulations
- + identifying funding sources
- + motivating senior staff
- + streamlining administrative processes.

In line with EUT+'s primary goals, this online portal aims to represent the EUT+ alliance's dedication to:

- + fostering effortless collaboration
- + sharing knowledge
- + advancing careers

By tackling mobility obstacles via a **centralized and user-friendly platform**, the portal accelerates the creation of a dynamic and interconnected academic community within EUT+.

The envisioned web portal aims for user-friendly accessibility and integration across all EUT+ campuses.

This system aims to:

- + streamline mobility processes
- + mitigate barriers

by offering:

- + comprehensive support
- + standardized procedures

(see Section 6.4.1 for details about key functionalities, key attributes, technical aspects and current tool from RTU that its co-design draws inspiration from)

The proposed web portal geared towards enhancing mobility support within EUT+ can be executed through two primary approaches:

- + **building the platform from scratch**, leveraging modern web development frameworks and technologies and allowing for tailoring the portal to meet

the alliance's specific needs while ensuring scalability and flexibility in accommodating future enhancements

- + **leveraging existing websites within the EUT+ alliance**, such as the one from RTU (scientificservices.eu, see Figure 17 from Section 6.4), presents an opportunity to integrate and expand upon established frameworks. Utilizing an already operational platform enables faster deployment, potentially reducing development time and costs.

Whatever the approach, the technical implementation of this web portal holds promise in

- + facilitating seamless connectivity
- + fostering collaboration
- + addressing mobility barriers within the EUT+ alliance.

THE PLATFORM - CORE VALUES

- + emphasizes the pivotal role of mobility in career progression, fostering research collaborations, and nurturing skill development
- + champions values of cultural exchange, linguistic diversity, and research advancements, positioning mobility as a catalyst for professional growth
- + emphasises ecological impact and virtual/blended mobility underscores its commitment to sustainable practices, aligning seamlessly with EUT+'s overarching goals.

2.5 Recommendation 5:

Envisage new forms of mobility – blended, soft – as part of a sustainable model to European mobility

Though (still) a minority phenomenon as part of EUT+, the question of more sustainable forms of travel – i.e. low-emission forms of transport like the train rather than the plane – has been raised in an exploratory mode, with interesting **preliminary insights**:

- + The main mode of transport remains the plane, for any type of business travel or for EUT+ physical meetings (Figure 18, Section 6.6)
- + The main hurdle to taking the train is that it is time-consuming, followed by security reasons of travelling alone – especially as a woman – in night trains (Figure 19)
- + The main reason put forward for not adopting solutions like sailing for EUT+ destinations like Cyprus or Ireland: the trip is too long (Figure 20)
- + The main lever to adopting these soft mobility solutions would be to travel in group (Figure 21).

Despite an initiative from UTT Alumni for fund soft mobility with an “interrail pass”², soft mobility as part of EUT+ is still very tentative, mainly because

- + mobilities are done as part of physical meeting weeks (3-5 days travel)

² <https://www.utt-alumni.fr/fr/pass-interrail/>

- + long mobilities, staff exchange and secondments are just starting and are still in limited number

As EUT+ progresses from a project-based pilot experimentation (Phase 1) to structuration towards one organisation based on concrete actions on the ground (Phase 2), the number of mobilities will grow exponentially.

When looking at the current trends at European level from the European Commission, whether Marie Skłodowska-Curie Actions or Erasmus+ programmes, sustainable thinking in research management including low-emission forms of transport, is not an option. Also, in line with WPA 2 of EUT Accelerate (Phase 2) on “Transitions and society”, where there is a strong focus on green transition,

a strong reflection and concrete measures to support soft mobility, i.e low-emission forms of transport, within EUT+ is a must.

While Erasmus programmes appear ambivalent in their approach (advocating that HEIs promote environmentally friendly practices like the use of sustainable means of transport for mobility without considering travel time in the mobility duration), MSCA seems to have a more coherent and supportive approach.

As part of its Green Charter, among the measures that individuals and institutions are invited to consider, figures “**use low-emission forms of transport**”. In order to encourage soft mobility, MSCA secondments start at the moment one leaves home. Since a secondment lasts a month minimum (unless split), even if the travel by train takes 2 or 3 days, this travel time is counted as part of the secondment: in terms of *per diem* allowance, insurance, work time.

On the same model as MSCA secondments³, for “long” mobilities³ as part of EUT+, soft mobilities can totally be considered. On the model of UTT Alumni interrail pass, financial support obtained from Alumis, companies or public subventions, as well as practical information and support, can help promote these soft forms of mobilities.

Therefore, it is recommended that:

1. Long mobilities promote soft mobilities by considering the travel time as part of the secondment
2. Financial and practical support is proposed to those who choose low-emission modes of transport.

EUT EXTRAS – with sharing human capital through mobility, or the objectives of student mobility as part of EUT+ (Phase 1) or EUT Accelerate (Phase 2) – share with MSCA that “Physical mobility (of researchers) remains a key feature of the programme.”

Thus, in order to trigger a more sustainable model of university of the future, for its common strategy for mobility (see Recommendation N°1, Section 2.1), EUT+ could draw inspiration from the evaluation model of MSCA projects. Indeed, “at final reporting stage, all MSCA projects will be asked to report on the ways they have

³ This Dx1.3 study considers “short mobilities” as less than 2 weeks and “long mobilities” as from one month)

sought to minimise the environmental impact of their research activities and how they applied the principles of the Green Charter.”

ERASMUS+ MOBILITY PROJECTS: PHYSICAL AND BLENDED

Like MSCA, Erasmus+ programmes⁴ also considers Environmental sustainability and green practices in higher education mobility. As such, HEIs must promote environmentally friendly practices in all activities related to the Programme. This means promoting the use of sustainable means of transport for mobility, taking active steps when organising events, conferences and meetings related to Erasmus+ mobility in a more environmentally friendly manner.

Contrary to MSCA, Erasmus programmes specify clearly that the durations of any time of mobility, whether for student or staff, is “excluding travel time”, which makes the choice of sustainable means of transport automatically more difficult.

Apart from greener means of transport, Erasmus programmes also consider other forms than the classical physical mobility: blended mobility. While long term physical mobility is strongly encouraged, this action recognises the need to offer more flexible physical mobility duration to ensure the Programme is accessible to students from all backgrounds, circumstances and study fields.

Blended mobility is a combination of physical mobility with a virtual component facilitating a collaborative online learning exchange and teamwork.

⁴ <https://erasmus-plus.ec.europa.eu/programme-guide/part-b/key-action-1/mobility-projects-for-higher-education-students-and-staff>

Blended intensive programmes allow for groups of higher education institutions to jointly develop blended mobility curricula and activities for students as well as academic and administrative staff. Any study period or traineeship abroad of any duration, including doctoral mobility, may be carried out as a blended mobility. Any teaching or training period abroad for academic staff may be carried out as a blended mobility.

3 Methodology

3.1 Empirically-informed and co-designed recommendations

The recommendations for facilitators to academic mobility formulated in this Dx1.3 result from a rigorous study to understand both the institutional and the individual constraints to mobility. The study has been designed in an **incremental** way (cf. Figure 6 below), adopting a mixed methods approach, structured around a research protocol that combines comprehensive (questionnaire and interview) and co-design (Focus group) methods.



Figure 6: Incremental approach combining comprehensive and co-design methods

First, a rigorous state-of-the art (cf. Section 3) has allowed to identify the relevant phenomena and benchmark the good practices. These insights have informed the

design of a large-scale questionnaire addressing the academic community of the EUT+ campuses (cf. Annex 1a for the questionnaire; Annex 1b for complete analysis presentation) and semi-structured interviews (cf. Annex 2a-c for interview grids). The questionnaire and the interviews have allowed to examine the phenomena in detail and understand the specificities of EUT+. While questionnaires can provide evidence of patterns amongst large populations, qualitative interview data often gather more in-depth insights on participant attitudes, thoughts, and actions. Finally, based on the complementary empirical insights, the Focus Group has allowed to co-design the relevant solutions.

The three methods are succinctly described below, as part of a coherent comprehensive, co-design and mixed methods approach. The insights have been grouped in relevant categories, independently of the methods used, following a thematic analysis.

3.2 Mixed methods approach

Mixed methods or multimethod research holds potential for rigorous, methodologically sound studies. Mixed methods research is increasingly recognized as the third major research approach or research paradigm, along with qualitative research and quantitative research. Generally speaking, Mixed methods research is an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints - always including the standpoints of qualitative and quantitative research [Joh07]. The aim is to produce results that combine 'credibility and meaning' [Gue16], or said differently 'validity and relevance' [May00].

First, aiming at credibility, the practice of using multiple research methods is tied with the idea of triangulation (used as far as 1959 in [Cam59]). More than verifying

the validity of the quantitative results, the aim of triangulation was to strengthen the insights, by making the most of both approaches in both a very pragmatic [Joh07] and intuitive way, in order to relevantly address the research questions. Indeed, the underlying logic of mixing is that neither quantitative nor qualitative methods are sufficient in themselves to capture the trends and details of the situation.

Indeed, mixed methods studies can access knowledge or insights unavailable to a qualitative study and a quantitative study undertaken independently [OCa07]. Thus, when used in combination, both quantitative and qualitative data yield a more complete analysis, and they complement each other [CFI04]. The complementary detailed and in-depth insights gained by the questionnaire (quantitative) and the semi-structured interviews (qualitative) has led to a validation process (co-construction) to formulate the recommendations.

3.2.1 Questionnaire

The large-scale questionnaire addressed the academic staff community of the (then) 8 member universities of EUT+. It has sought to make an inventory of EUT+ academic staff experience of mobility, and to understand their perception of the benefits of mobility, their motivation in envisaging mobility, the constraints they anticipated or have experienced. The complete analysis of the questionnaire is presented in Annex1b. It comprises 23 questions spread amongst 3 pages.

This questionnaire is based on the insights from the state-of-the-art for relevant phenomena and sought to gain an understanding of eventual specificities of the constraints for EUT+. It is also informed by the insights of a survey done as part of T5.2 of EUT+”Staff mobility (academic and non-academic), and a test survey with UTT academic personnels which has allowed to arrive at the final version that has been widely distributed.

In order to augment the response rate and in line with the empowerment principle of EUT EXTRAS, the questionnaire has been designed around both information *seeking* and information *sharing*. The questionnaire aimed at being instructive with factual information shared in the form of “Did you know that...” in between a bunch of questions. The number of responses (529 complete questionnaires, while another 300 ones have been left aside as they were not complete) allows a representativeness of the profiles and universities to identify the relevant phenomena as regards mobility for EUT+.

Figure 7 gives the repartition of the partners regarding the answers of the poll.

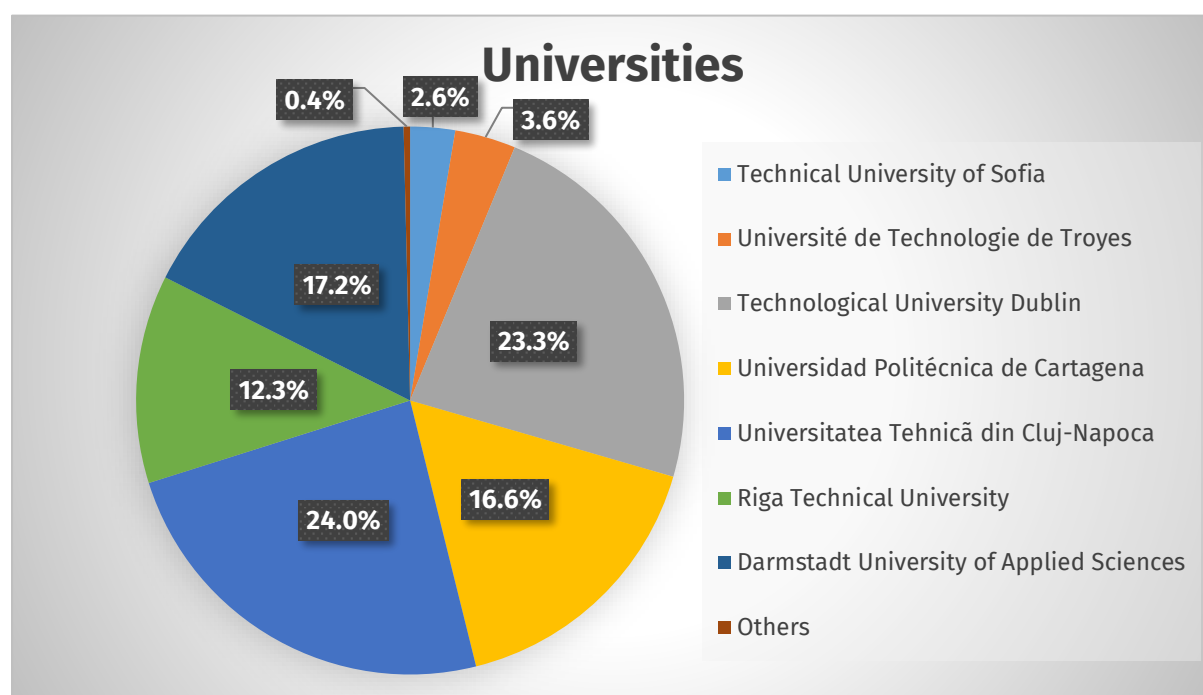


Figure 7: Percentage of responses per member university ('others' are visiting staff who answered the questionnaire)

Concerning demographic data, Figure 8 provides the repartition by gender, Figure 9 by age groups, and Figure 10 by career advancement level.

Even though there is not an exact 50/50 for the man/woman repartition, there is a significant percentage of responses from the woman side considering we are dealing with technological universities where a usual bias towards men is usually found. There is also a good spread in terms of age groups and we can correlate it to the EU researcher maturity level going from R1 to R4 with the categories being R1+R2 ~ age groups 25-34 + 35-44, while R3 ~ age group 45-54 and R4 ~ age groups 55-64 and more. The R1 to R4 categories are the following:

R1 - First Stage Researcher (Up to the PhD)

R2 - Recognised Researcher (Ph.D. or equivalent who is not yet independent)

R3 - Established Researcher (PhD research staff who already have a high level of independence)

R4 - Leading Researcher (Research staff leading their line or field of research)

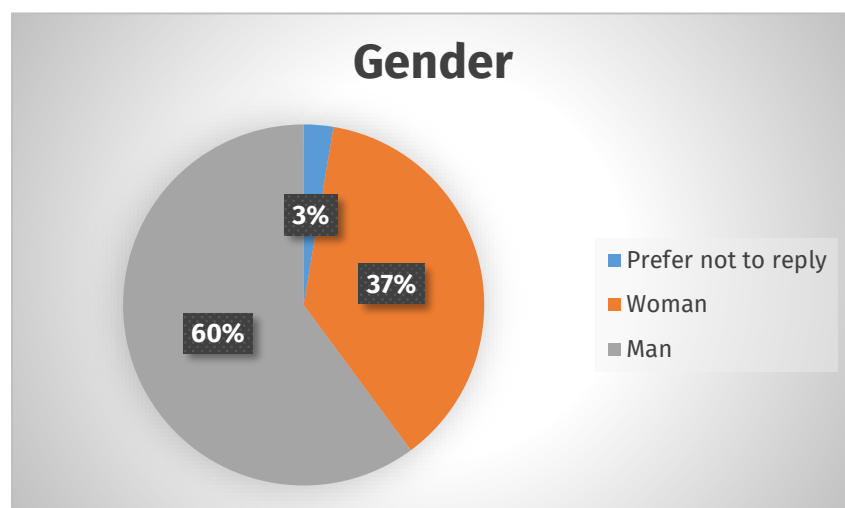


Figure 8: Genre repartition for the answers of the survey

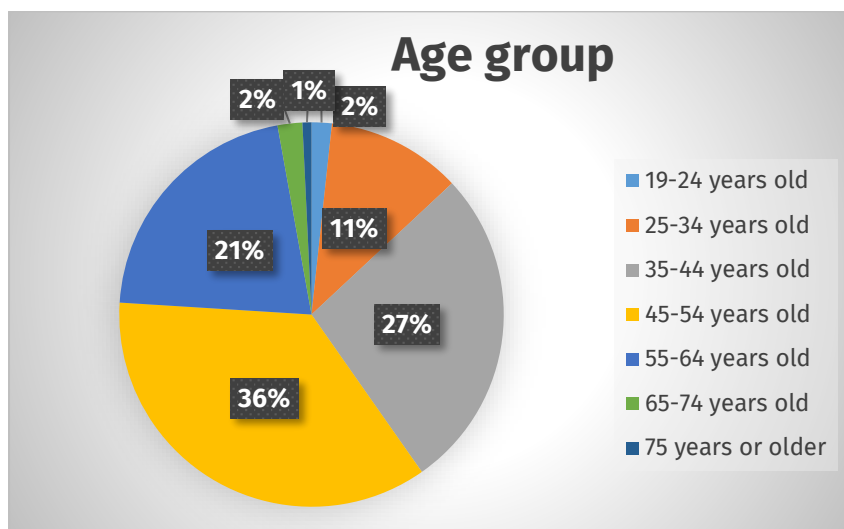


Figure 9: Age group repartition for the answers of the survey

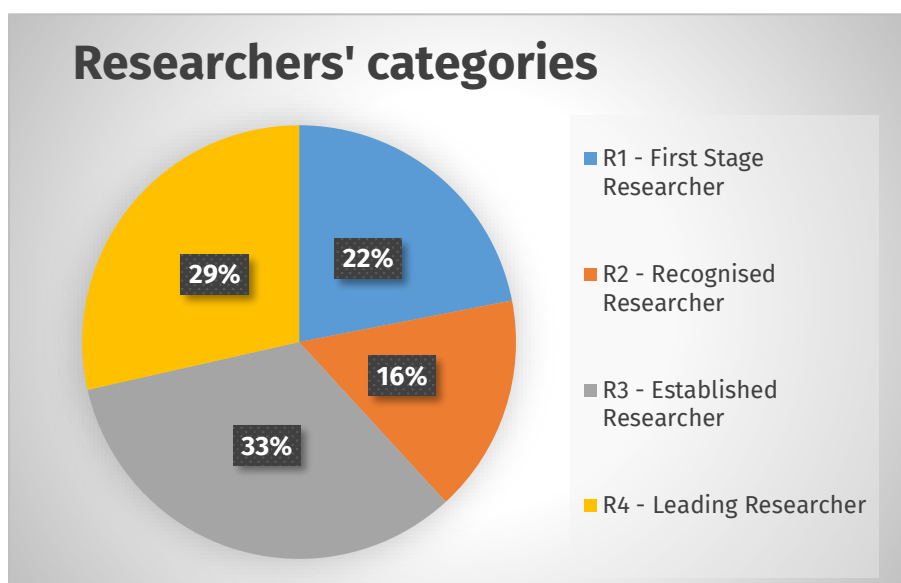


Figure 10: Research maturity level repartition for the answers of the survey

3.2.2 Semi-structured interviews

The quantitative questionnaire has been complemented by qualitative insights gained through semi-structured interviews (see Annexes 2a, 2b and 2c for interview grids). The objective was to consider different perspectives within the university – Vice-rectorship for education, Vice-rectorship for research, Human resources department – so as to understand the different aspects that need to be catered for when academic staff go on mobility. The main relevant phenomena are: replacement of teaching hours, authorisation to go on mobility, as well as the required administrative support.

Date	University	Name	Role
02/10/2023	h_da	Anonymised	HR Manager
03/10/2023	CUT	Anonymised	HR Manager
03/10/2023	UTT	Anonymised	HR Manager
03/10/2023	TUS	Anonymised	Associate Professor, WP5
05/10/2023	UPCT	Anonymised	Vice Rector for Faculty
		Anonymised	General director of services
05/10/2023	TU Dublin	Anonymised	WP2 leader
06/10/2023	UTCN	Anonymised	Director of Research
10/10/2023	RTU	Anonymised	Head of Int. projects unit
		Anonymised	Project Manager
10/10/2023	UC3M	Anonymised	Associate Professor

		Anonymised	Associate Professor
--	--	------------	---------------------

Figure 11: Interview participants' affiliation and function

The other respondents to the interviews are academics who have experienced mobility, whether as part of EUT+ (from TU Dublin to UTT), on a yearly basis (from UTCN to a university in Toulouse, France), or from another university in Europe (UC3M, Madrid) to USA. The necessary conditions for these mobilities are formalised in the form of personas in Section 7, allowing an understanding of the extent to which family situations impact mobility.

3.2.3 Personas

The persona method has developed from being a method for IT system development to being used in many other contexts [Nie14]. A persona is a hypothetical archetype of an actual user (or academic in our case), describing that person's goals, aptitudes, and interests. A persona is not the same as an archetype or a person. The special aspect of a persona description is that you do not look at the entire person, but use the area of focus or domain you are working within as a lens to highlight the relevant attitudes and the specific context associated with the area of work.

Adopting the engaging perspective, which emphasizes how the story can engage the reader, our personas are based on qualitative data from the interviews. The objective is to understand the actual characteristics of colleagues, focusing on their mobility experiences and family conditions, that have allowed their mobility experience.

3.2.4 Focus Group

A Focus Group is a method of participatory design. The difference with "group interviews", which are often used simply as a quick and convenient way of collecting data from several people simultaneously, is that Focus Groups use group interaction as part of the method. What sets it apart from other methods is that the interaction between research participants is explicitly used as a source of research data.

The method is particularly useful for exploring participants' knowledge and experience, and can be used to examine not only *what* participants think, but also *how* they think and *why* they think the way they do. So, like other qualitative methods, Focus Groups answer the "how" and "why" questions, whereas quantitative methods aim to identify and measure a given phenomenon ("What is X?" - [Pop95]). It is also in exploring survey results.

This is because of this complementarity that the Focus group has been organised following the questionnaires and interviews, as a final step to "nail" the insights and co-design the recommendations (see Annex 3a and 3B for methodological document and facilitating slides). The objective of this focus group has been to co-design relevant institutional levers to identified hurdles (that emerged from the questionnaire and interviews), around the general instruction "Imagine the ideal staff mobility path".

The research questions that drive the content of the focus group (cf. section 5 below), that correspond to two successive phases are:

- + What are the respective needs of the participants? **[Co-analysis phase]**
- + How implement relevant co-designed solutions by confronting perspectives through collective intelligence? **[Co-design phase]**

3.3 Thematic analysis

The goal of a thematic analysis is to identify themes, i.e. patterns in the data that are important or interesting, and use these themes to address the research or say something about an issue. This is much more than simply summarising the data; a good thematic analysis interprets and makes sense of it. A common pitfall is to use the main interview questions as the themes. Typically, this reflects the fact that the data have been summarised and organised, rather than analysed.

One of the advantages of thematic analysis is that it is a method rather than a methodology. This means that, unlike many qualitative methodologies, it is not tied to a particular epistemological or theoretical perspective. This makes it a very flexible method [THC17]. The flexibility of thematic analysis means that it is suitable to analyse a wide range of data types: ‘traditional’ face-to-face data collection methods like interviews and focus groups. It can also be used with textual data from qualitative surveys. The most important aspect of data type or mode of collection is quality of the data. Quantity (e.g sample size) is also a consideration, producing accounts of patterns across the dataset.

It is precisely this complementarity, coherence and rigour which has guided the research protocol for this deliverable. Before mobilising the methods described above to examine potential specificities of EUT+, the relevant phenomena regarding mobility in general have been identified thanks to an extensive state-of-the-art, that is presented in the next section.

4 State-of-the-art: academic staff mobility

4.1 European context

The European Research Area (ERA) is a concept and initiative developed by the European Union (EU) to create a unified and open European space for research and innovation. The primary goal of the ERA is to promote cooperation and coordination among European countries in the field of research and innovation to enhance Europe's competitiveness on the global stage [ERA05].

In 2005 was voted a European Charter for Researchers which led to a set of principles and guidelines established by the European Commission to support the career development and working conditions of researchers in Europe [Eur05]. It aims to create a more attractive and competitive research environment in Europe. Amongst the main key points of this charter, one concerns the mobility of researchers as researchers are encouraged to pursue international and interdisciplinary mobility to enhance their skills and experience. The Charter promotes the removal of barriers to mobility. This European Charter for Researchers, along with the Code of Conduct for the Recruitment of Researchers, collectively known as the "Charter & Code," serves as a framework to improve the quality of research and innovation in Europe while enhancing the career prospects and well-being of researchers. It has been adopted by many European institutions and organizations to promote a more conducive research environment. All forms of mobility to enhance the development of researchers skills in the broad sense. However, in practice, there are many challenges and hurdles as many studies demonstrated. A lot of work exists but a lot of work needs to be done still as transnational academic mobility is a complex phenomenon.

Within all the studies, there are some general trends such that some countries have more international inbound students and staff than outbound ones, such as the USA, Australia, the UK, and Canada whereas some countries have a higher number of outbound students and staff than inbound ones, such as China, India, Vietnam, Kazakhstan, Brazil, and Colombia [UNE21]. For many European countries the inbound and outbound mobility within the region is dominant [UNE21].

4.1.1 Existing EU initiatives

There have been EU initiatives existing such as the Erasmus and then the Erasmus+ programmes, but also the Marie Skłodowska-Curie Actions (started in 1996), have aided to facilitate incoming mobility in Europe and in CEE countries. The fairly recent Erasmus+ program facilitates short-term academic staff mobility, while the Marie Skłodowska-Curie Actions encourage the international, inter-sectorial, and interdisciplinary mobility of academic staff in the region. Euraxess - Researchers in Motion, which provides academic staff with information and practical support, is also widely believed to be a key tool in supporting academic staff mobility in Europe [Eur04].

From 1987 to 2020, more than 9 million individuals participated in various type of mobility to study, volunteer, for training, and for professional experience programs abroad under the EU Erasmus framework. The upcoming Erasmus program for 2021-2027, known as Erasmus+, is even more ambitious, with a budget nearly doubling to approximately €30 billion. Research conducted by the European Commission indicates that students who have experienced mobility are at a lower risk of unemployment compared to those who have not. Additionally, mobility experiences promote an entrepreneurial mindset, leading to a higher likelihood of Erasmus+ alumni holding managerial positions [Bra16]. These characteristics are also more or

less found for PhD students, post-doctorate fellows and academics. A report done by Lam and Ferencz from 2021 demonstrated that in the period from 2014 to 2019, about 63% of mobility instances were reported by participants who had received Erasmus+ Program funding before, while 38% were from first-time participants. Some countries like Cyprus and Croatia had more first-time participants, while others like the Czech Republic, Greece, Hungary, and Slovenia had more recurrent participants. Staff mobility instances were primarily under the Key Action 103 (for staff mobility, KA103), with the Key Action 107 (for mobility between program countries and partner countries, KA107) receiving a smaller budget. However, KA107's share of mobility instances increased over the years, particularly in Austria, Cyprus, and Italy [Lam21]. The ratio of staff mobility for teaching to staff mobility for training was 3:2 on average across the sampled countries. Some countries like Iceland, Croatia, and Cyprus had a larger share of training instances, while Italy, Austria, the Czech Republic, and Hungary had a higher share of teaching instances. Lectures were the most common activity related to staff mobility for teaching, while "Job-shadowing" was more related to training. The top destinations for KA103 mobility included Spain, Germany, Poland, the UK, and others, with geographical proximity often influencing mobility patterns. For instance, Austria sent the most mobility instances to Germany. The top destinations for KA107 mobility included Serbia, the Russian Federation, Israel, China, Ukraine, and others, with some countries like Italy and Hungary sending substantial mobility instances to Georgia and Armenia [Lam21].

4.2 Academic mobility: a complex phenomenon

As already mentioned, academic mobility can be quite a complex phenomenon to study. In [She22], the authors have been studying the literature from the journal

Higher Education to come up with some trends and definitions linked to the cross-border movement of people in higher education. For a start, they define 9 types of mobility :

- + A short/medium/long-term linear mobility (internship, degree mobility, career migration),
- + short/medium/long-term circular mobility (academic travel, credit mobility, return migration)
- + short/medium/long-term reciprocal mobility (commuting, transnationalism, diaspora).

They use the five types of activities defined by [Sme05] to measure international academic mobility as in the participation in international conferences, guest lecturing abroad, international visits for study and research, international peer review work, and research collaboration. For Shen et al. [She22], it is pretty clear that international mobility applies to postgraduate students, especially doctoral students, as well as academic faculty and research staff. This is a more recent view on the various 'groups' to be studied for transnational research mobility. It also clearly appears that international research mobility is an increasing phenomenon as amongst 140 articles published in the journal Higher Education between 1981 and 2021 on the subject, 56% of these articles were published between 2015 and 2021 [She22]. In terms of duration of the mobility, we can classify it into 3 groups with short-term mobility, which includes internship, exchange programmes, and international sojourns; medium-term mobility, such as that associated with degree programs and long-term mobility, which involves return and migration concerns. In terms of geography, [She22] finds that the biggest outflow is from Europe (38%), East Asia (20%), and Africa (12%) while Europe (38%), North America (18%), and East Asia (16%) have more inflow with the UK and USA being the first hosting countries.

However, China is the largest sending country in the world for international students while the USA, Australia, and the UK are the top destinations.

4.2.1 Student mobility: a comparison

It is fair to say that international student mobility (but also postgraduate and staff/faculty) is a global phenomenon that is influenced by many factors: economic, educational, and political ones. Shen et al. introduce the broad notion of ‘knowledge agents’ with the sub-notions of knowledge transfer, knowledge circulation, knowledge production and knowledge network for a sending or a receiving region/country/institution [She22]. In the 1990’s, with the end of the Cold War, international mobility has increased greatly to the point where we can talk about a ‘knowledge economy’. As of 2009, if we take the example of the UK, its economy gains nearly £11 billion directly and approximately an additional £12 billion indirectly each year from exports related to education. These statistics position the education sector on par with other significant exports like oil and financial services, which generated £14.3 billion and £13.6 billion for the UK economy, respectively, in 2002 [Kim09]. One can speak of an academic ‘marketplace’, becoming increasingly transnational under the influence of economic globalisation. In general, it is fair to say that the global scientific system is largely shaped by highly resourced nations. From 2000 to 2019, global student enrollment more than doubled, increasing by 235%. Simultaneously, the number of international students experienced a threefold surge, rising from 2.088 million to 6.064 million. In established regions, foreign student numbers grew by 2-2.5 times, with Europe seeing a 246% increase and North America a 221% rise. Rapidly developing regions, on the other hand, witnessed even more substantial growth, with Asia experiencing a 440% increase, South America an 828% increase, and Oceania a 481% increase in the number of

foreign students [Kal22]. Perhaps one key aspect for a researcher doing a mobility is to use the knowledge acquired abroad to advance their home country. Some other phenomenon have appeared in studies such that international academic mobility can lead to international research collaboration, but not the other way around [Kat17] and that international academic mobility contributes in general to the development of national research systems [Cao20].

4.3 Universities' attractiveness and internationalisation

The success of universities depends on attracting top academic staff who excel in teaching, research, and securing research funding. In order to be present and competitive, the notion of 'internationalisation at home' strategies, which involve relations and interactions between international students and local institution staff and students is very important. In a globally competitive landscape, the ability to recruit talents is crucial for universities and economies worldwide [Lei17]. Several European countries, including Austria, the United Kingdom (with 25% foreign academic staff), Denmark, Ireland, the Netherlands, Norway (with 30% foreign staff), Luxembourg, and Switzerland (with over 50% foreign staff), have been successful in attracting foreign academic talent. In the United States, the 2016 Science and Engineering Indicators report indicates that over 50% of the post-doctoral workforce is comprised of individuals born in other countries [Lei17]. According to the OECD, Switzerland boasts the highest percentage of foreign doctoral students in Europe, standing at 44%. The doctoral student population from outside Switzerland varies from 50% to 70% in fields like science, engineering, and economics, while it ranges from 30% to 40% in social sciences and humanities [Lee10]. Furthermore, as of 2008, foreign academics constituted 45% of all professors, with some universities having proportions as high as 60% to 70%. One consequence is that countries in

Central and Eastern Europe, Southern Europe, Latin America, parts of Asia, and various developing nations typically experience negative effects in the brain-gain and brain-drain dynamics of international academic staff mobility [Lei17]. Specific local barriers can also complicate matters with the example of Latvia, where there are language requirements for foreign academic staff. Other barriers can inhibit academic staff mobility in Central and Eastern European (CEE) countries including low salary levels, a lack of transparency and openness in recruitment and promotion procedures, bureaucracy, and language barriers. Additionally, for foreign academic staff, language barriers and dissatisfaction with the lack of institutional support in dealing with legal and administrative issues play an important role. For citizens of non-EU countries, visa policies, health care, and social security benefits are among the greatest obstacles preventing moving to CEE countries [Lee16].

Likewise, past and ongoing political changes marked by a rise in populism, nationalist inclinations, and intensified anti-immigration rhetoric could potentially bring about significant changes in the established patterns of international academic staff mobility (Brexit, the Trump era, the COVID crisis or more recently the war in Ukraine). These turbulences means a decrease in the number of children which results in fewer students, which, in turn, leads to a reduced pool of scholars in the global market [Kal22]. The current stage of internationalization in higher education is marked by dynamic changes, leading to a new paradigm. This shift involves redefining the roles of teachers and students, making academic mobility an integral part of the system. Opportunities for international education have expanded significantly, leading to a rise in foreign students and research internships. The scale of higher education is growing both in terms of geography and diverse forms.

Recent events like the COVID-19 pandemic and Russian aggression in Ukraine have further accelerated internationalisation. The pandemic prompted the adoption of "internationalisation at home" and "internationalisation abroad" concepts in response to travel restrictions, leading to increased integration of ICT in education. Russian aggression is expected to result in dynamic changes in academic mobility, with a significant influx of students and scholars into European and other countries. Western nations have taken unprecedented measures to support them. As of the summer of 2022, more than 80 percent of Ukrainians studying abroad plan to return home, but this could change depending on the duration of hostilities and continued threats from the aggressor. If we add the global warming issue, we can foresee a near future with virtual mobility and 'internationalisation at a distance' to be the new trends to come [Kal22].

4.4 Academic career development

Although, it is pretty clear that the topic of researcher mobility is of sustained scholarly and policy interest, it is also seen as an obligatory 'rite of passage' for early career researchers. Again, this statement is more complex than it appears and various terms and concepts have been defined such as 'extended apprenticeships', 'pracademics' or 'interstitial intellectuals'. Iversen et al. demonstrated that overall mobility appears to have a positive effect on competence acquisition and career progress. But this finding can vary according to the academic discipline or depending on other factors such as the institution/national system and the gender [Ive23]. In [Ive23], 3 questions are addressed :

- + whether there is a difference in research career progression based on the incidence of mobility
- + whether mobile and non-mobile researchers differ in career progress

- + whether all mobile researchers benefit uniformly in terms of progression to research independence, with the sub-question whether it does exist a 'fast' and a 'slow' career track

One consequence of having to have a complex transnational career can be the 'the casualisation of academic labour' and academic 'proletarianisation' has been suggested [Kim09].

An OECD analysis from 2015 found that in general, emigrant researchers are more productive and have higher citation impact than other groups and that migrant scientists are more strongly represented in top quartile journals in terms of impact factor [Ste15]. Several studies demonstrated that researchers do perceive mobility to be important for their professional and career development. Specific projects analysed these effects through surveys, there are the Mobility Patterns and Career Paths of EU Researchers MORE3 in 2016 [MOR16] and MORE4 in 2019 [MOR19] projects.

4.4.1 EU career stage

For these surveys, the EU career stage description categories are used, namely:

- + Early Career Researcher (R1): up to the point of PhD award
- + Recognised Researcher (R2): PhD holders or equivalent who are not yet fully independent
- + Established Researcher (R3): researchers who have developed a level of independence
- + Leading Researcher (R4): researchers leading their research area or field

[Ive23] studied the MORE reports and could extract some trends with the following relations between the career stage of a researcher and her/his age :

- + Average start at R2 in late 20s
- + Average transition to R2 at 33
- + Average transition to R3 at 38
- + Average transition to R4 at 43

with many differences between countries and within and between regions. In terms of duration of each stage, we can find that on average the first stage R1 lasts for 4.91 years in Europe, the second R2 lasts for 4.92 years, and the third R3 for 7.2 years before reaching the R4 level. Other findings demonstrate that 'long term' mobility is important in reducing the duration of both R2 and R3 career stages, although, once again, there can be strong differences across regions. As an example, UK and southern EU countries have the longest R3 stages (> 9 years) whereas the baltic countries have the shortest (around 6 years) which highlights the notion of slow and fast tracks. As another typical statistics on the extend of the duration of the R3 stage, Iversen et al. found that [Ive23] :

- + 25 % transition to R3 at 7 years after PhD start
- + 50 % transition to R3 at 10 years
- + 75 % transition to R3 at 15 years

As already said, these are trends but one has to look more closely into specific factors such as the field of science effects can see the international mobility making the crossing of the 'occupational threshold' (going to a more permanent job) more quickly but also gender where female researchers in general have longer stages than male researchers.

4.5 Demographic reality of academic mobility

The MORE4 report also presents general trends and tendencies [MOR19]. The number of researchers in the European Union (EU28) has been increasing, with 8.9 researchers (FTE) per 1,000 employees in 2017. There is a notable variation across countries, with Denmark having the highest relative number (16.2) and Romania the lowest (2.2). The EU28 had a higher number of researchers per 1,000 employees compared to the US and China but lower than Japan and South Korea. Approximately 51% of EU researchers work in the private sector, with significant variation between member states. Countries like Sweden, the Netherlands, and Austria have high shares of researchers in the private sector, while countries like Latvia, Croatia, Slovakia, and Romania have lower shares. Some Eastern European countries have seen significant increases in private-sector researchers. The number of young PhD graduates per 1,000 population aged 25-29 increased by 6% between 2014-2017. In 2017, the EU average was 1.35 young PhD graduates per 1,000 population aged 25-29. The UK, France, and Slovakia had the highest numbers, while countries like Bulgaria, Croatia, Cyprus, Finland, Latvia, Malta, Poland, and Romania had fewer than 0.5 young PhD graduates per thousand population in 2017. The relative number of female researchers per 1,000 female employees in the EU in 2017 was 5.5, considerably lower than the overall figure of 8.9. Denmark had the highest relative number of female researchers, while Cyprus, Romania, and Malta had the lowest. However, the representation of female PhD graduates among the young population (25-29) was more balanced, with a slight increase between 2014 and 2017. Although there is an overall improvement in the representation of women in grade A positions in all Member States, women remain underrepresented. In 2017, 26% of all grade A positions were occupied by women, and women constituted 31% of members on scientific boards.

Still from the MORE4 report it was found that about 8% of PhD candidates in the EU28 countries were mobile from other EU28 countries in 2017. This rate remained fairly stable over time. PhD degree mobility seems to have converged for male and female researchers. Researchers with children engage less in PhD degree mobility (13%) than those without children (18%). The difference is smaller for during-PhD mobility (26% with children and 24% without children). The largest shares of PhD degree mobility are found among researchers who are citizens of Greece, Italy, Bulgaria, the Netherlands, and Denmark (each 25% or more). Finnish, Slovenian, and UK citizens are the least mobile for PhD degrees (less than 6%). Researchers who obtain(ed) their PhD in Spain, Italy, Denmark, Hungary, and Slovenia are considerably more mobile during their PhD to another country than the EU average. The main motives for both PhD degree mobility and during-PhD mobility include international networking, working with leading scientists, research autonomy, and quality of education and training. Funding availability is more important for PhD degree mobility, while career progression and access to research facilities are more important for during-PhD mobility. The main barriers to PhD mobility include personal or family-related reasons, obtaining funding for mobility, logistics, and finding suitable positions. Female researchers tend to face more barriers related to personal and family reasons and logistics, while male researchers face more barriers related to access to research facilities, transferring social security entitlements, and culture [MOR19].

The MORE4 text provides data on the international mobility of researchers over a 10-year period. It shows that about 31% of researchers had more than 3 months of international mobility experience in 2012, with similar percentages for different career stages, fields of study, and gender. However, this percentage decreased to 27.4% in 2016 and 26.5% in 2019, indicating a decline in mobility. The report highlights variations in international mobility at the country level. Some countries

like Luxembourg, Switzerland, Belgium, and Austria consistently had higher proportions of mobile researchers than the EU average, while Eastern and Southern European countries like Poland, Malta, the Czech Republic, Latvia, and Portugal had lower percentages of mobile researchers.

4.6 Mobility trends, motivations and benefits

The report also compares mobility trends within the EU with global trends. It notes that long-term international mobility was less common in 2020 compared to 2017, aligning more closely with EU levels. Researchers' motivations for mobility remained stable over time, with common reasons including international networking, career progression, research autonomy, and working with leading scientists.

Main barriers to mobility included:

- + funding issues,
- + lack of positions, and
- + personal/family reasons.

There is a distinction between:

- + escape mobility (forced),
- + expected mobility (chosen), and
- + exchange mobility (chosen).

Escape mobility occurs when researchers feel compelled to move due to a lack of options, while expected and exchange mobility are driven by personal preferences and career development. Researchers generally perceive international mobility as having positive effects on their careers. These positive effects include:

- + expanding international networks,

- + acquiring advanced research skills,
- + gaining recognition within the research community.

However, the text notes that mobility does not consistently lead to immediate increases in salary or job options outside academia [MOR19]. For other types of mobility, the report shows a declining trend in short-term international mobility among researchers over the last decade. In 2012, 41% of researchers had engaged in short-term mobility, which decreased to 32% in 2019. This trend was more stable for researchers working outside Europe. Researchers who had engaged in long-term international mobility (more than three months) were more likely to also participate in short-term mobility. This suggests that some researchers are generally more mobile than others. The identified most common reasons for short-term international travel among researchers are, in order

- + conferences,
- + meetings with supervisors, partners, or collaborators,
- + study or research visits,
- + fieldwork.

The MORE4 text highlights that international collaboration remained stable over time. In 2019, 65% of EU researchers collaborated with other EU researchers, while 49% collaborated with non-EU researchers. Collaboration was more frequent among researchers in later career stages, in the Natural Sciences, and among male researchers. There were significant variations in collaboration patterns between countries. For example, Nordic countries had higher levels of collaboration with other EU countries, while some countries like Luxembourg and Switzerland had lower levels of collaboration.

Virtual mobility, or the use of web-based or virtual technology, has had a significant impact on reducing both short-term and long-term international mobility.

Approximately 57% of respondents indicated that virtual mobility reduced short-term mobility, and 21% said it reduced long-term visits in 2019 [MOR19].

In terms of interdisciplinary mobility and collaboration, the text focuses on the share of researchers who have switched to another (sub)field during their academic careers. In 2016, 34.3% of all EU28 researchers reported switching to another field, but this percentage decreased significantly to 18.9% in 2019. There are variations in these percentages by career stage, with R4 (more experienced) researchers being more likely to switch fields. There are also differences by field of study, with Agricultural Sciences and Social Sciences having higher percentages of researchers who switched fields. The report notes variations between countries, with shares ranging from 13% to 32% [MOR19].

In terms of the perceptions of interdisciplinary mobility, interdisciplinary mobility is viewed positively, with 75% of researchers believing it has a positive effect on recruitment, and 76% thinking it benefits career progression. This positive perception is consistent regardless of whether researchers themselves have engaged in interdisciplinary mobility.

The report also touches on interdisciplinary collaboration among researchers. Nearly 80% of researchers have collaborated with researchers from other fields, marking a 6% increase from 2016. Collaboration within academic institutions is more common (68% within the same institute and 63% with researchers in other institutes) compared to collaboration with the non-academic sector (26%). There are significant variations between countries in terms of interdisciplinary collaboration, with some countries having higher rates of collaboration within academia. Agricultural Sciences have the highest share of interdisciplinary collaboration, while Social Sciences and Humanities have lower rates.

4.6.1 Gender issues

On the differences in careers and in mobility depending on the gender, academia does not differ from most other areas and women are, in general, at a disadvantage. The study by Zhao et al. [Zha23] examined how the globalisation of scientific knowledge, the internationalisation of academia, and gender disparities in the academic job market interact. Typically, female researchers are less inclined to relocate than their male counterparts, but they found that the gender gap in mobility has significantly decreased. The data reveals a significant increase in the number of female published researchers from approximately 0.7 million in the early 1998 to 2002 period to nearly 1.7 million in the 2013 to 2017 period, nearly tripling. Likewise, the number of male published researchers also saw substantial growth, doubling from 1.5 million to 3 million over the same period [Zha23]. The authors also find that there has been a wider shift towards greater female participation in international migration, even in the realm of highly skilled mobility represented by global scholarly migration. However, substantial variations across countries persisted. Some countries, like Serbia, Argentina, and Portugal, achieved almost equal gender representation among migrant researchers with a female-to-male ratio of one, while others, such as Japan and South Korea, maintained significant gender disparities in favour of men, with a ratio of approximately 0.25.

In the study by [Lee10], the author investigates individual and institutional factors that affect transnational academic mobility in the post-doctorate period. Complicated dynamics surrounding gender, relationships, parenthood, dual-career scenarios, social class, and academic integration are giving rise to disparities in the acquisition of global cultural and social assets [Lee10].

Even though the EU has set a series of good practice to avoid gender balance issues such as:

- + open recruitment and portability of grants;
- + meeting the social security and supplementary pension needs of mobile researchers;
- + attractive employment and working conditions; and
- + enhancing the training, skills and experience of European researchers,

there are still many obstacles for female academics.

4.6.2 Work-life balance

In general, in order to understand why there are gender-balance issues with mobility, one has to see that this is due mostly to the full complexity of life courses. Understanding career paths involves considering the simultaneous engagement of individuals in both family and work life, rather than a linear life course of education, work, and retirement. This perspective recognizes the importance of balancing family and career responsibilities. It is crucial for comprehending gender-specific academic trajectories and mobility patterns. Family life is interconnected with individual life courses, involving partners with their professional goals, children with their social connections, and other relatives like grandparents who may require care or provide assistance. These life courses are not isolated; they are intertwined among family members and partners. Adjacent institutionalisation, represented by various organisations and institutions in modern societies, also plays a role in shaping life courses. These institutions impose constraints and structure how families divide labor and make career decisions. For example, childcare facilities at universities, school systems, and research funding institutions impact individuals' choices.

Gender is a significant factor that shapes life courses differently for men and women. The concept of male and female master status involves the idea of "doing

gender" through cultural practices on the micro-level and social institutionalisation on the meso-level. Gender, as a central aspect of the social structure, influences how academic pathways and mobility patterns are constructed in gender-specific and interdependent ways [Lee10].

In a dual-science career, where two academics need to align their career plans, male scientists often report that their wives followed them when changing jobs, while this is less frequently the case for female academics. Female academics' mobility tends to be more closely linked to that of their male partners, according to Ackers [Ask04]. Furthermore, women often have older partners who are likely more advanced in their careers [Sha96]. The higher job security and income associated with the more advanced career of the male partner may partly explain this gendered migration pattern in couples. It can be assumed that, in the absence of planned children, it is easier for a dual-career couple to find ways of managing their partnership from a distance [Lee10]. The decision to have children and establish a stable partnership after completing a doctorate can hinder international mobility. Planning a period abroad when children and a partner are involved becomes a complex task. It involves organising childcare, finding suitable employment for the partner, ensuring both partners have viable options upon their return home, and having sufficient financial resources for the entire mobility arrangement.

Female academics tend to be less internationally mobile than their male colleagues, particularly in the natural sciences. However, at earlier career stages and a younger age, female students and researchers tend to be equally and sometimes more internationally mobile than male students and researchers. At advanced career stages and beyond the average age of 35, women researchers' flexibility to relocate internationally for more than one month decreases much more than that of their male colleagues [Jon11]. These considerations often lead individuals to delay the

decision to start a family. One key conclusion from Leeman et al. is that the ideal profile for a highly mobile researcher is

- + a young foreign scientist with prior mobility experience in their career.

They typically have

- + an academic family background,
- + no children or partner,
- + received career-oriented support during their doctoral studies, and
- + secured funding from research institutions (such as the SNSF in the case of the study of [Lee10]).

4.6.3 'Ideal type' v/s family-constrained academics

To delve deeper into this ideal type, it represents an independent, socially privileged, academically supported cosmopolitan academic. This individual can easily engage in international mobility for career advancement, settling into new living situations without significant challenges or obstacles. Needless to say that this 'ideal type' does not represent the majority of the academics, far from it, and as such difficulties do rise.

It is reasonable to assume that academic mothers face greater pressure when it comes to planning and arranging options and finding compromises that work for the entire family. The other trend for scientists is to either plan to delay starting a family, choose not to have children, currently do not have partners, or their family/partner remains in a situation of 'living apart together,' where the concerned academic does not have family responsibilities. Thus, for transnational academic mobility, inequalities in the acquisition of international cultural and social capital within the academic community stem from complex factors tied to

- + parenting,
- + partnering,
- + gender and social class,
- + one's integration into the scientific field [Jon11].

These disparities are particularly pronounced among academics who do not align with the ideal image of an academic entrepreneur. This group includes

- + female and older academics,
- + those lacking an academic family background,
- + individuals in partnerships,
- + dual-career arrangements,
- + those with children.

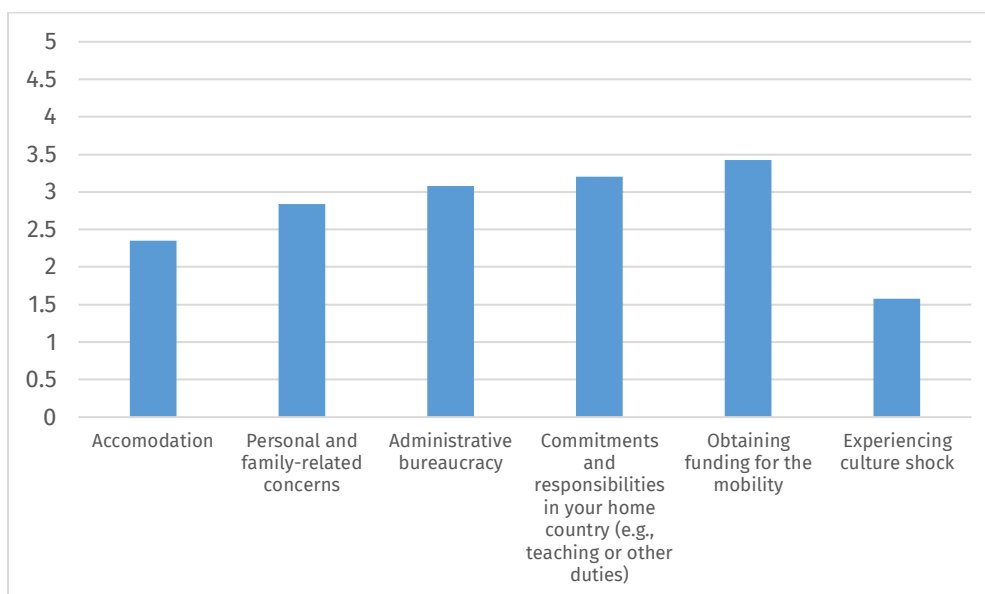
They are less likely to receive mentorship and funding support, putting them at a disadvantage in the competition for recognition within the academic sphere.

5 Hurdles to mobility

Basing our investigation on the insights gained from the state-of-the-art presented above, the different methods used (see Methodology, section 3) have complementarily allowed to identify the constraints and difficulties that are specific to EUT+.

The large-scale questionnaire has allowed to:

- + organise the constraints by level of importance as perceived by the respondents
- + confirm general trends by a representative and large-enough panel
- + understand certain specificities by university



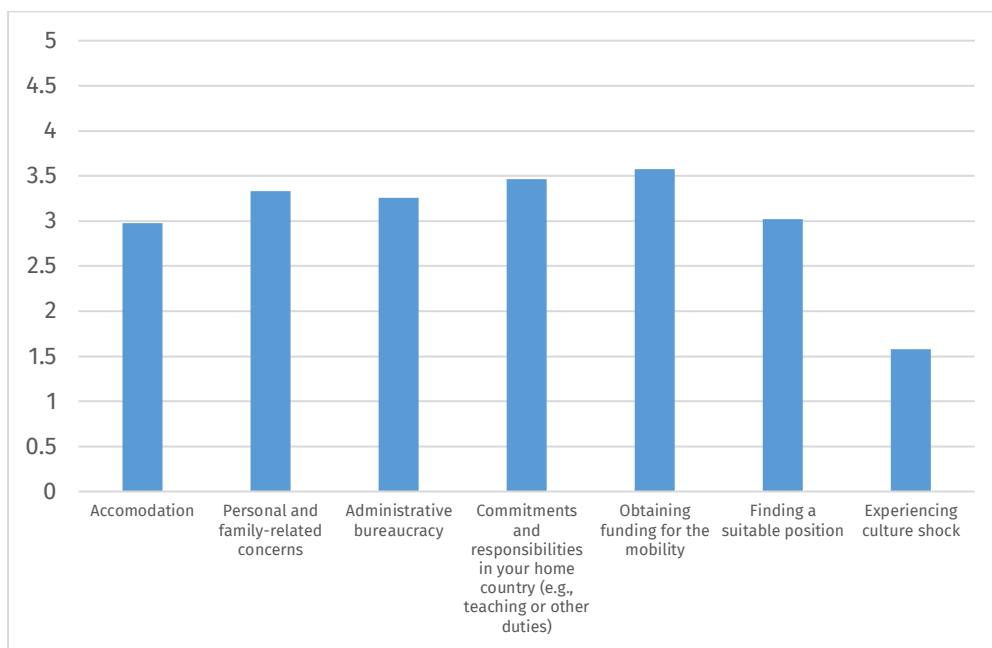


Figure 12: Answers to the question “On a scale from 1 to 5, please rate the following obstacles or difficulties you have encountered in your experience with mobility, with 1 being not significant and 5 being highly significant”, a- for a short period (< 2 weeks) and b- for a longer mobility (> 1 month)

Below is a detailed analysis of the results for each category of hurdle, in order of importance:

1. **Obtaining funding for the mobility:** The mean ratings for obtaining funding ranged from 2.20 to 3.70 across universities. Universidad Politécnica de Cartagena had the highest mean rating, indicating that academics there found funding to be more challenging to secure. The overall mean score across all universities was 3.42, suggesting that obtaining funding for mobility was a relatively significant obstacle for participants.
2. **Commitments and responsibilities in your home country:** Mean ratings for commitments and responsibilities in the home country ranged from 2.77 to 3.43 across universities. Universidad Politécnica de Cartagena had the highest

mean rating, suggesting that academics from that university perceived this obstacle as more significant. The overall mean across all universities was 3.21, indicating that this obstacle was moderately significant for most participants.

3. **Administrative bureaucracy:** The mean ratings for administrative bureaucracy ranged from 2.81 to 3.52 across universities. Technological University Dublin had the highest mean rating, indicating that academics there found administrative bureaucracy to be more significant. The overall mean score across all universities was 3.08, indicating that this obstacle was moderately significant for most participants.
4. **Personal and family-related concerns:** The mean ratings for personal and family-related concerns ranged from 2.54 to 3.45 across universities. Universidad Politécnica de Cartagena had the highest mean rating, indicating that academics there considered these concerns to be more significant. Again, there was a variation in responses, but the overall mean score across all universities was 2.83, suggesting that this obstacle was generally considered moderately significant.
5. **Accommodation (including housing and health insurance):** Among the participating universities, the mean ratings for this obstacle ranged from 1.81 to 3.04, with Universidad Politécnica de Cartagena having the highest mean score and Darmstadt University of Applied Sciences having the lowest.
6. **Experiencing culture shock:** This obstacle had the lowest mean ratings, ranging from 1.20 to 2.13 across universities. Universidad Politécnica de Cartagena had the highest mean rating, indicating that academics from that university experienced culture shock more significantly. The overall mean across all universities was 1.45, suggesting that, on average, researchers did not find culture shock to be highly significant during short-term mobility.

HURDLES RELEVANT FOR EUT+

Complementing these questionnaire results with insights from semi-directive interviews and focus group, the emerging understanding about the main hurdles relevant for EUT+ can be grouped in 4 main categories:

- + Funding
- + Teaching load replacement
- + Administrative bureaucracy
- + Family situation

The last part of state-of-the-art above has clearly presented the inequalities and disparities that arise from gender and family situations. Being given the complexity, as rightly pointed out by the literature, as well as the focus of this Dx1.3, which is on **institutional facilitators**, we will focus in this section only on the first three as “hurdles”, providing a detailed analysis.

However, being given the importance of family situation concerning academic mobility, in a non-judgy and positive way, we will present 3 “persona”, whose respective family situation has allowed them to go on long-term mobility. In the form of personas, the characteristics described are the actual descriptions of colleagues having participated in the semi-structured interviews, presented in an anonymous way. The question is therefore posed differently: how family situation allows (v/s prevent) long-term mobility?

5.1 Funding

Funding – and more precisely the lack of it – appears as the main hurdle to mobility. Benefiting from Erasmus mobility grants is only one part and one type of solution. Also, even if academics are lucky enough to benefit from Erasmus grants (e.g., KA 103 or KA 107), whether they do a mobility within EUT+ or to any other HEI, this makes no difference.

As an example, as an incentive to encourage students to go to EUT+ member universities, UTCN has put in place a bonus of 200€ on top of the Erasmus mobility grant, paid on the university's funds. For students, UTCN is the first and, so far, only university having put such an incentive in place. No such thing exists to encourage staff mobility for academics, in none of the nine EUT+ member universities, and even more so to encourage mobility within the EUT+ alliance network. In line with the larger objectives of EUT+ of “creating commons” (presented in detail in section 6 and summarised below), the mobility of academic staff - who move to one campus to another, achieving concrete work and actions - appears as a key enabler, whether to:

- + develop human capital
 - which is the objective of WPx1
 - supported by the mapping tools for research topics and actors of Tx4.1 and Tx4.2
- + create a common infrastructure pool, the objective of Tx5.2

Below, are presented in detail the different types of financial issues that emerge, from our empirical analysis as relevant for EUT+ (v/s exhaustive benchmark):

1. Grants
2. Individual costs (pay for yourself, or at least the travel)
3. Universities' funds: Replacement, salary

5.1.1 Grants

Grants are generally considered by the participants to this study as being insufficiently available:

- + insufficient number (e.g., Erasmus+ grants)
- + highly competitive (e.g., MSCA staff exchange)
- + country-specific that would finance mobility only one-way and insufficient for exchanges (e.g., Spanish government or German grants)

5.1.1.1 Erasmus grants

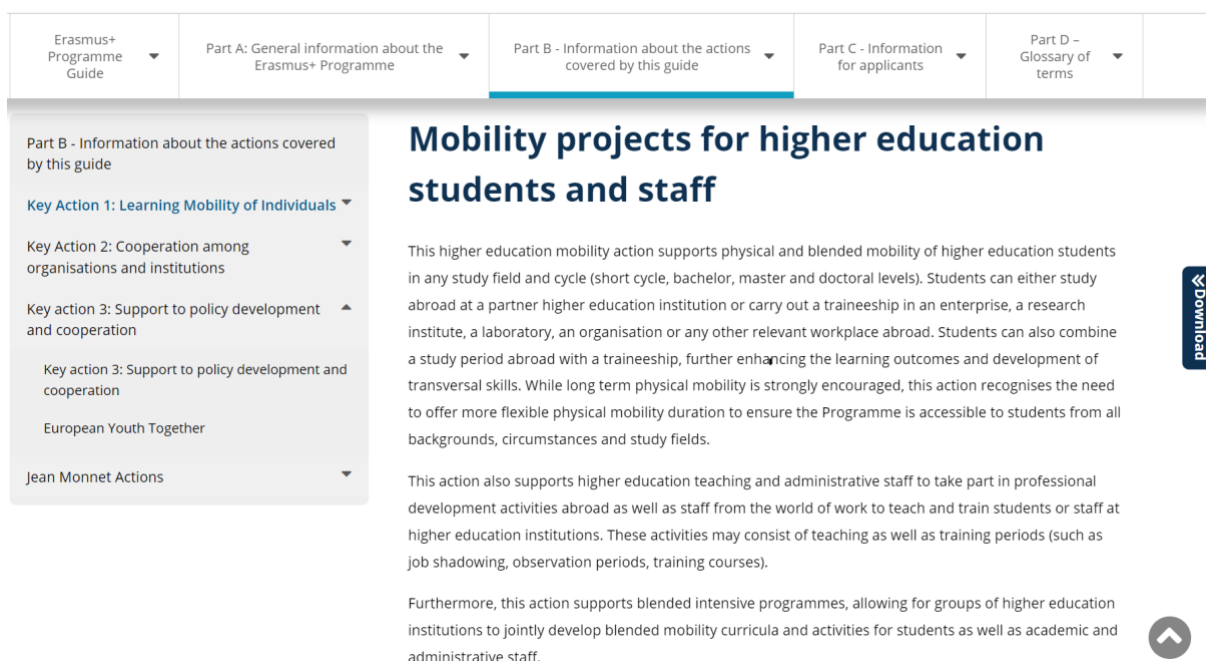
Erasmus grants are perceived as both being useful and as being in limited number. Different types of Erasmus actions exist:

- + Key action 1: Learning mobility of individuals
- + Key action 2: Cooperation among organisations and institutions
- + Key action 3: Support to policy development and cooperation
- + Jean Monnet Actions

What is usually referred to when speaking of “Erasmus grant”, understood as supporting mobility, is the first one: Mobility projects for higher education students and staff. This higher education mobility action supports:

- + physical and blended mobility of higher education students in any study field and cycle

- + higher education teaching and administrative staff to take part in professional development activities abroad, as well as staff from the world of work to teach and train students or staff at higher education institutions. These activities may consist of teaching as well as training periods (such as job shadowing, observation periods, training courses).
- + blended intensive programmes, allowing for groups of higher education institutions to jointly develop blended mobility curricula and activities for students as well as academic and administrative staff⁵.



The screenshot shows the Erasmus+ Programme Guide website. The navigation bar includes: Erasmus+ Programme Guide, Part A: General information about the Erasmus+ Programme, Part B - Information about the actions covered by this guide (highlighted), Part C - Information for applicants, and Part D - Glossary of terms. The main content area is titled 'Mobility projects for higher education students and staff'. It contains two paragraphs of text describing the action's scope and objectives, and a 'Download' button on the right side.

Figure 13: Screenshot of Erasmus+ website

⁵ <https://erasmus-plus.ec.europa.eu/programme-guide/part-b/key-action-1/mobility-projects-for-higher-education-students-and-staff>

However, despite / because of their perceived usefulness, their huge popularity and their always increasing budget⁶, Erasmus grants are perceived as insufficient. E.g., in TU Dublin, if the number of grants have been used for the year, the applicants must wait for the next academic year. This may take time and can be quite discouraging for the applicants. In most universities like UTT, there is an administrative selection based on an application. Even though it is considered as highly beneficial⁷, it cannot be considered as “administrative burden” (referring to the “administrative bureaucracy, ordered 3rd in order of importance by questionnaire’s respondents), the load to constitute one’s application represents some work on top of the work done as part of the mobility itself. At UPCT, this process is considered as simple and is relevant mainly for non academic staff:

“The only requisite for the technical staff is to present a report / short thesis that they present to the Head of service or department, describing the objective, what they want to do before they go, and then what they have done, what are the results of that mobility.”

It is generally the same principle in other universities, like CUT, where knowledge capitalisation is put forward:

“When we have administrative staff going abroad, we have this knowledge hub: which did you like, what do you bring back? For half an hour, one talks about one’s

⁶ In 2024, the budget available for Erasmus+ will be of €4.3 billion. It was of €4.43 billion in 2023; nearly €3.9 billion in 2022. From 2021 to 2027, the total budget available amounts to €26.2 billion, complemented with some €2.2 billion from EU's external instruments.

⁷ Promotional testimony video of two UTT non academic staff having travelled to Riga for a week’s training:

experience, you share the knowledge with everyone. So there needs to be a mechanism for evaluation and centralization of knowledge.”

At this stage of the EUT+ deployment (increasing the number of mobilities), the evaluation process at EUT+ or universities' Erasmus offices seems to be limited for academic staff. The “evaluation” (if even it may be called like this), or the authorisation to do the mobility, is given at the level of the equivalent bodies of Vice-rectorship for research and Vice-rectorship for Education, mainly concerning the teaching load (see next hurdle below). E.g., at UTCN, in 2022-2023, all the Erasmus academic mobility applications have been accepted. The same at UPCT.

However, the fact that an evaluation process is envisaged in the future, makes visible that the grants' allocation, whether Erasmus or other, will become an issue for selection and evaluation:

“If we increase the number of mobilities, for example, if there are 100 people who want to go, and we have the budget for 25, we need to have a look if the mobilities that we are financing are useful. But since we still have very few mobilities, we are not concerned about the results of it. In the long-term, we need to have KPIs to decide the number of mobilities we are going to finance 25 or 30, for which departments it would be more useful to do the exchange.”

This selection is strongly linked to the question of the purpose of the mobility (see Section 5 Needs identification below). This issue of purpose, interestingly, have been put forward mainly by HR Managers:

“It is also important to follow-up, so that it just does not end up in holidays for 2 weeks paid by EUT. What do I actually bring back?”

A second HR manager, who has herself experienced mobility a lot as a researcher, explains that:

“Whether short or long, mobility has the same virtues. This is true for researchers and administrative staff alike. It can't just be a trip and some talks. There has to be a real sense of working together.”

and explicit even further:

“The worst thing for me would be to say "we need to make people mobile, who's volunteering to go to Troyes, you're the dummy, you're going to such and such lab and we have nothing to make him do". Before that, you have to ask ourselves:

- *What do we want to do, what's the objective?*
- *What are we going to share? What are we going to pool?*
- *What will the outputs be?*
- *What's the benefits for each one?*
- *What is the best environment for achieving this?*

And the administration is just there to support all this, for the administrative and practical aspects.”

Indeed, when Erasmus grants are obtained for non academic staff, they are managed by Erasmus Offices and by HR departments. And this question of purpose is at the very core of the MSCA Staff Exchanges.

5.1.1.2 MSCA Staff Exchanges

Another type of grants, which, on the contrary are very much evaluated are the Marie Skłodowska-Curie Actions. Five types of MSCA target different objectives⁸. The one of interest academic mobility is the MSCA Staff Exchanges⁹. They can address three dimensions of mobility, which are:

- + inter-sectoral
- + international
- + interdisciplinary

The aim is to develop sustainable collaborative projects between different organisations from the academic and non-academic sectors (in particular SMEs), based in Europe and beyond. Exchanged staff benefit from

- + new knowledge
- + new skills
- + career development perspectives,

while participating organisations increase their research and innovation capacities.

The description of the Staff Exchanges action summarizes well the benefits of academic mobility as evidenced in the state-of-the-art (section 3 above), and in particular the advantages, both at individual and institutional levels, of exchanging staff.

The Staff Exchanges action funds

⁸ <https://marie-sklodowska-curie-actions.ec.europa.eu/about-marie-sklodowska-curie-actions>

⁹ <https://marie-sklodowska-curie-actions.ec.europa.eu/actions/staff-exchanges?>

- + short-term international exchanges
and
- + inter-sectoral exchanges

of staff members involved in research and innovation activities of participating organisations.

The grant funds the mobility of seconded staff members from **one month to one year**. Staff involved should return to their sending organisations after the secondment, to

- + pass on their knowledge
and
- + foster collaboration

Seconded staff receives:

- + a top-up allowance (for travel, accommodation, subsistence costs), which is on top of the salary paid by their organisation
- + a special needs allowance, if applicable

In addition, funding is provided for:

- + research, training and networking activities
- + management and indirect costs

Both in terms of

- + high-level ambition (knowledge sharing and collaboration fostering) and
- + financial conditions (funding for secondments, research activities as well as management costs)

MSCA Staff Exchanges are considered as **very attractive**. However, they are also **highly competitive**. In 2022, 196 proposals to the CfP were received; 73 were selected, representing €77.5 million for international research cooperation projects.

Even if the success rate is nearly 40%, experience from EUT+ shows that the investment to submitting proposals can be quite important. As part of EUT+ first officially-recognised European Research Institute, ECT Lab+, one such project has been obtained. EpiSteaM - Epistemology in Science, Technology, Engineering, Arts, and Maths¹⁰. Submitted first in 2022, it scored quite well and required some extra work and a resubmission to be funded in 2023, bringing together all the member universities of EUT+.

Apart from being competitive and requiring investment for project proposal writing (time, energy and experience), this type of grants is really focused around one main research objective. Though impactful, in the context of the broad scope of this deliverable x 1.3, MSCA Staff Exchanges are small-scale and could not be envisaged as a sustainable solution for EUT+ structuration and funding of mobilities at a large-scale.

¹⁰ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/org-details/999999999/project/101129655/program/43108390/details>

5.1.1.3 Specific to countries and universities

Semi-structured interviews reveal that the partner university speaking the most positively of the existing measures at national level to support mobility is the Spanish campus of EUT+, UPCT. The interest of these grants is confirmed by the cross interview of academics being in a couple from UC3M - Universidad Carlos III Madrid. For their one-year research stay at the University of Austin, Texas, where they moved with their three children, they both benefited from two different grants from the Spanish government. This allowed them to cover most of their costs, even if they explain that in Austin, the cost of living is 3x superior than in Madrid. These national grants complements the favourable conditions for mobility that are considered as part of UC3M's strategy.

“For sabbaticals, the university provides for substitute teachers to the department, who more or less cover the teaching hours. That is handled by the university, which pays for the extra cost (since the persons on sabbatical keep their salary). The university reserve that funding because they believe it is very important for us to make new collaborations with other researchers, research centres... It is part of the internationalization of the people. Each year they open the sabbatical positions, it is a fixed number, and they put budget to cover that.

It is part of the strategy of the university for excellence. The university let you go, but you have to get your own funding, which is your responsibility.”

And they continue explaining:

“In our university, when you go on sabbatical, they keep your salary. They give you a very small amount of money for travelling, 1200€. Then, we were lucky. The Spanish government created a fund as part of a qualification program for faculty members.

(The wife) applied for one of these positions. That was almost enough for us to pay for most of our expenses in the US. (The husband) applied and obtained another grant, also from the government, 6 months duration for senior faculties. I received it when I was back in Spain, so I had to advance the funds.

For us, the grants were really important. In USA, it was like 3 times the money that we usually spend in Spain. So it is really expensive to do that mobility without any extra funding. We were lucky because the two most expensive things in US are healthcare and education of the children. For healthcare, we were supported by the Spanish government because they maintained the same health system that we have here. They put you like an international insurance and everything was covered. It was really helpful because I'm having a permanent health problem, and we would not have been able to move if that were not covered. So that was really really important for us.

However, depending on the countries and the universities, the situation of financial support can be very different. While the sabbaticals in Spain imply keeping one's salary for the whole year, like in Cyprus or in France, in Romania one can go for longer periods, but receiving one's salary is limited to a period of 3 months. The support that the University gives concerns the teaching hours.

AT UPCT,

"The only thing we facilitate is if we have to cover the classes. We plan substitutes financed by the global budget of the university."

The teaching hours are also covered by the university at UTCN:

“We don't pose a problem to someone who wants to leave. We collaborate, we help each other. It is the faculty that manages the replacement of teaching hours. From an administrative perspective it's simple. It's more complicated for the colleagues who stay on to teach the courses. You cannot say no, because it's teaching and you have to do it. But we get paid overtime. We're not slaves! (laughs). For those who leave for a long time without pay, the funding balances out to pay for overtime.

However, in Bulgaria, lecturers are much more hindered in mobility than researchers precisely because of the teaching load. Our interviewee explains that:

“The basic problem for me as a lecturer is that someone has to cover my classes here. If I find someone, I can go. (...) For PhD researchers, it's easier. They only have 30 or 60 academic hours for their whole PhD 4 years' period. It's easy to be covered. They can go without any problem. The only problem may be the financial one.”

5.1.2 Individual costs

The second type of funding issue is the individual costs that mobility incurs for an academic: Some pay the whole mobility for themselves, many pay at least the travel, most support the extra cost of living.

Within EUT+, the hypothesis is that the MSCA Staff Exchange project, EpisTeaM, will not imply supplementary funding on the visiting academics' side. The MSCA projects are designed in such a way that the secondments are well planned, takes into account the cost of living of the destination country / town. The secondment starts the moment one leaves home. So, in case someone chooses soft mobility and prefers the train to the plane, the travel time is counted as within the secondment. Unless one splits the secondment, and has to cater for the extra travel cost, it is

expected that the MSCA grant comfortably covers the mobility: travel and per diem allowance.

But this is not often the case.

From the 3 persona that are presented in this deliverable, all of them had to pay in some way or another:

+ Travel cost:

“I've been going to Toulouse every year for between 1 and 3 months for 20 years since I completed my thesis. I have my own projects. My colleagues in Toulouse pay for my accommodation, I only pay for the plane ticket. I get my salary from Cluj.”

+ Extra cost of living:

“In our university, when you go on sabbatical, they keep your salary. They give you a very small amount of money for travelling, 1200€. (...) For us, the grants were really important. In USA, it was like 3 times the money that we usually spend in Spain. So it is really expensive to do that mobility without any extra funding.”

+ Whole cost:

“I didn't mind to be honest because I really wanted to do it. If I were waiting for a formal program, a formal funding, a formal organisation, I wouldn't have gone; this wouldn't have happened. (...) It was just more accommodation cost (NB: 1500€ in total for 2 months). This was a nice thing that I wanted to do. That was a challenge in the sense that there was no formal program, and I organized by myself.”

In this last case, the interviewee is very conscious of being somehow lucky. Being “late mid-career” as she categorizes herself, she could afford it:

“For sure, there may be the financial constraints for most people, or family responsibilities. It worked for me really.”

Because of the absence of formal program, the organisation of the mobility was quick and easy:

“There was no constraint really for me. I just booked an Airbnb and booked flights and tell (responsible person), and he was OK with it, and talked to the right people and they all agreed, and then I just arrived.”

Considering this case as an exception, the question of costs, mainly related to cost of living, remains a main hurdle, even when benefiting from grants:

“It is so expensive. Everything was like 3 times what we usually spend in Madrid. And we were lucky because we were in Texas. Because other cities in California or New York are even more expensive. You have to take that into account when going on mobility how much money you need to live in that city. The rent is like 3000€/month.”

At UPCT, the cost of living can really impact the choice of destination:

“From the perspective of each person involved is the necessity to pay for the travel and the accommodation in the country they decide to go. Because the salary is the same than if they were in Spain, so the question is the quality of life, the standard of living. This is the main question if people want to go to Dublin, to London, Paris.

We have a lot of mobilities to Portugal, South America, Italy, but it’s difficult to find people to go to the US or capital cities. The question of cost is the main problem.”

Even for short mobilities, when there is no extra cost implied, two problems remain:

- + Administrative work required to establish a mission, even for short stays
- + Time taken for reimbursement expenses

A colleague from the focus group explained that, together with her husband, they were waiting to be funded back the 3000€ they had advanced. The colleagues from UC3M explained that, though the application from the Spanish government was accepted prior to their one-year mobility, he obtained the actual payment only back in Spain. The question for PhD students was raised at EUT Steering Committee: unlike permanent academics, they cannot benefit from an advance payment.

Therefore, these delayed reimbursements and the need to advance costs (regardless of extra costs that most usually are the case) create inequalities among researchers: in practice, younger, precarious researchers are less likely to be able to afford mobility.

5.1.3 Universities' funds: Replacement, salary

The third and last type of funding issue identified for EUT+ concerns the cost for the universities. This is perhaps the reason why some universities are in a better financial position to support mobility than others.

To recall, the questionnaire results had placed “Obtaining funding for the mobility” as the first main hurdle (score of 3.42/5), followed just after by “Commitments and responsibilities in your home country”, including teaching load (score of 3.21/5).

Funding issue	
Individual (academic staff)	Institutional (management)
Questionnaire	Interviews
Grants	Cost for university
Opportunities	Benefits and constraints

Figure 14: Funding issue's understanding by perspective, methods and relevant phenomena

In the questionnaire, the teaching load had been considered from the perspective of the broad academic community (see repartition of respondents in Section 1). The semi-directive interviews has deepened the more managerial perspective: HR managers, head of faculty and vice-rector for research perspective among the respondents.

This institutional perspective confirms that teaching load can indeed be a touchy question, and is closely linked to the question of funding. While academics who are candidates for mobility consider the question of funding as grants for secondments, for travel or the costs that are left to them to pay, the other relevant issue that emerges, from an institutional/managerial perspective is also the cost for the universities. In most universities, when academics leave on mobility,

- + Universities continue paying for the salary and health insurance costs
- + Universities pay for the replacement of the teaching hours

The disparity in the financial means or strategy of the universities has been analysed above. For some universities, like TUS, covering the teaching hours can be a real hurdle:

“I know someone who under the Fullbright program, had to stay for 6 months. He had to cover his teaching hours of the whole year in one semester to be able to travel the second semester in the US. It was really hard but he did it. In order to have a contract with the university, a lecturer has to cover the compulsory minimum teaching of 300h. If you can cover that in 1 month, then you can go for the 10 other months, which is impossible!”

At UPCT, even if this considered as a “less important problem” (when compared to the cost left to be covered for the academics), yet the issue needs to be managed at the Faculty’s level and the mobility agreed upon the condition of replacement:

“From the perspective of the institution, we have to cover the lessons they are not going to teach during that year. I think this is the less important problem, because usually we have enough faculty staff to cover these absences.

Some universities like UC3M have made mobility part of their strategy for excellence, according to our two interviewees, who say:

“For sabbaticals, the university provides for substitute teachers to the department, who more or less cover the teaching hours. That is handled by the university, which pays for the extra cost (since the persons on sabbatical keep their salary). The university reserve that funding because they believe it is very important for us to make new collaborations with other researchers, research centres... It is part of the internationalization of the people. Each year they open the sabbatical positions (it is a fixed number) and they put budget to cover that. It is part of the strategy of the university for excellence. (...) Our university is really focused on excellence. We are always pushed to obtain accreditation, publish in the best journals, go to the best

research centres. We are encouraged for our research stays to go to the most important research centres.”

Whether having a clear strategy for excellence as for UC3M or simply supporting mobility, in the best possible way according to one’s reality, like member universities of EUT+, the other interviewees confirm that this has a cost for the university.

Despite the rich existing framework in France, that allows to smoothly manage mobility with different solutions depending on status, the question of teaching load remains a real issue at UTT:

“When someone wants to go away for a long time, for a year, this has serious consequences for an institution: that's a lot of teaching and research that isn't done in the institution.”

And the interviewee continues directly with this suggestion:

“But if you're on a 1:1 exchange, you're back to square one. So that's perhaps where we need to be inventive. Beyond short or long-term exchange schemes, we may also have to think about a truly win-win exchange, the real exchange: $+1 - 1 = 0$. Of course, up until now we've never been in that system, because we didn't have a special agreement with a university.”

EUT+ is precisely this privileged network, which would allow the necessary framework in order to facilitate mobility, based on:

- + identified and clear objectives
- + common management of HR or infrastructure
- + the necessary framework in terms of recognition and exchanges.

5.2 Teaching load

The analysis about the costs to be supported by universities has already started to tackle the second type of hurdle that impacts EUT+ academics from going on mobility: the (relative) difficulty for academics to go on mobility because of their teaching load.

A colleague from UTCN having participated in the Focus Group explained that, unless she is allowed to teach all her classes online (which she cannot because of the registration conditions of the students to which the University must comply), she cannot go on long-term mobility. She teaches a specific domain of architecture and is the only one in her university with that profile. With her husband, who works at the same university, they have two children. When she was on maternity leave, the only best acceptable solution had been for her husband to teach her courses. So, whether it is for mobility, for maternity leaves or perhaps for sick leaves, the absence of the teaching staff is a real issue that needs to be tackled by the faculties / departments.

On the contrary, another colleague having experienced a 2-month mobility within EUT+ explains that, amongst other conditions, this was made possible because she is mainly involved in EUT+ and a few other finishing projects. Her activity is centred around research, and she has no teaching.

The institutional perspective for the universities who need to cater for replacement of the teaching hours have been tackled in detail in the Funding Section. The main insight is that disparities exist between universities.

While at UPCT, UTCN or CUT, substitute plans for replacement of teaching hours are financed by the global budget of the university, no such support exists at TUS, which makes the mobility of lecturers more complicated than for researchers.

Our Bulgarian colleague explains:

“The basic problem for me as a lecturer is that someone has to cover my classes here. If I find someone, I can go. (...) In order to have a contract with the university, a lecturer has to cover the compulsory minimum teaching of 300h. If you can cover that in 1 month, then you can go for the 10 other months, which is impossible!”

From the analysis so far, it appears that the issue of funding – whether i) grants, ii) cost for universities, iii) individual costs – is intricately linked to the issue of teaching load.

A third type of institutional hurdle (among the six classified in order of importance through the questionnaire) will be analysed in the sub section below: Administrative bureaucracy.

5.3 Administrative bureaucracy

The perception of the respondents about the administrative steps can be prohibitive. From the interviews, we understand that this bureaucracy concerns mainly:

- + Requesting grants
- + Applying for mobility at university
- + Establishing a mission order

As explained, Erasmus or MSCA grants are clearly established and are not under the control of universities. We will therefore focus on universities' internal procedures. At UC3M, there is a fixed number of sabbaticals each year and academics must apply for it. They are accepted upon evaluation, as part of career development.

In member universities of EUT+, this evaluation process is managed by the relevant bodies of the university: senate, vice-rectorship for research. The scientific aspect is one thing. However, as explained above, there is the teaching load that also needs to be considered, so the vice-rectorship for education is strongly involved in giving the authorisation to leave. The final validation is given by the Rector.

At UTCN, the process is clearly established, with successive steps:

1. Submit the travel request, specifying the funding required
2. Approval by the Head of Department, in terms of funding and teaching load
3. Approval by the Dean of the Faculty
4. Verification of funding (national, international, corporate projects) by the department managing the research.
5. Approval by the Vice-Rector for International Affairs, who centralises the requests and forwards them to the Governing Board
6. The Governing Board decides whether or not to grant funding.
7. The final decision taken by the Rector, which is just formal because the decision has already been approved by the previous signatures.

Surprisingly, all these stages take a day or two, because everything is centralised electronically and digitally. Even the rector's decision is sent by email.

Therefore, based on

- + the rapidity of the 7-step procedure at UTCN in 2 days maximum or
- + the fact that the colleagues from UC3M have applied for 2 sabbaticals and 2 Spanish government grants, and at no point mentioned the process as being cumbersome (while they spontaneously expressed several times how “lucky” they were)

we can make the hypothesis that Administrative bureaucracy is not so much of a hurdle, as respondents of the questionnaire may have perceived.

Linked to the purpose of a mobility (see subsection below), that is subject to

- + Upstream *a priori* reflection as well as
- + Follow-up and *a posteriori* capitalisation of knowledge,

some “administrative bureaucracy” will be involved. It is a necessary step towards structuring mobilities in terms of

- + Purpose
- + Impact

that clearly appear as part of the needs identified.

6 Identification of the needs

Based on the analysis of hurdles (Section 5 above) and inspired by the favourable conditions to mobility, embodied by the 3 persona (Section 7 below), the following needs have been identified.

The hypothesis is that answering these needs has the potential to:

- + Ensure that mobilities are useful and impactful
- + Structure mobility in both an efficient and easy way
- + Make mobility a structuring element of a common EUT+ strategy, towards
 - o Creating commons around infrastructure and human capital
 - o Triggering staff engagement around EUT+

This analysis of needs, based on the insights presented above, have allowed to formulate the recommendations.

6.1 Purpose: thinking and monitoring mobilities

The usefulness of the mobilities is a crucial point for all the informants, who unanimously agree on the importance of the purpose. As an illustrative summary, a colleague uses in the same sentence the terms “tourism”, “go there and do nothing”, “it’s senseless” and thus this opinion should probably be avoided.

As an example, for the EpisTeaM MSCA Staff Exchange project, the secondment process steps are as follows, combining administrative steps and scientific ones:

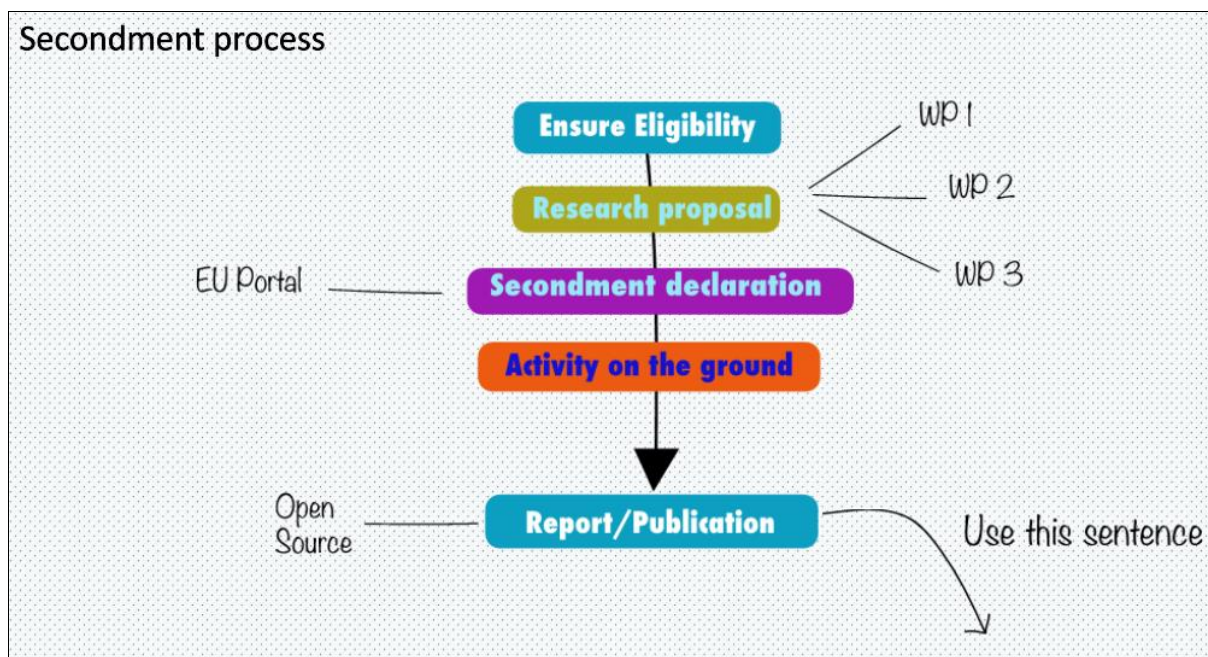


Figure 15: EpiSteaM secondment process

The “research proposal” (step 2 of Figure 15 above) is precisely the principle of the purpose of mobilities that two HR managers have focused on, during the interviews, as being crucial.

One of them explains how she sees the process in terms of prior reflection:

“Before that, we have to ask ourselves:

- *What do we want to do, what's the objective?*
- *What are we going to share? What are we going to pool?*
- *What will the outputs be?*
- *What's the benefits for each one?*

- What is the best environment for achieving this?

And the administration is just there to support all this, for the administrative and practical aspects.”

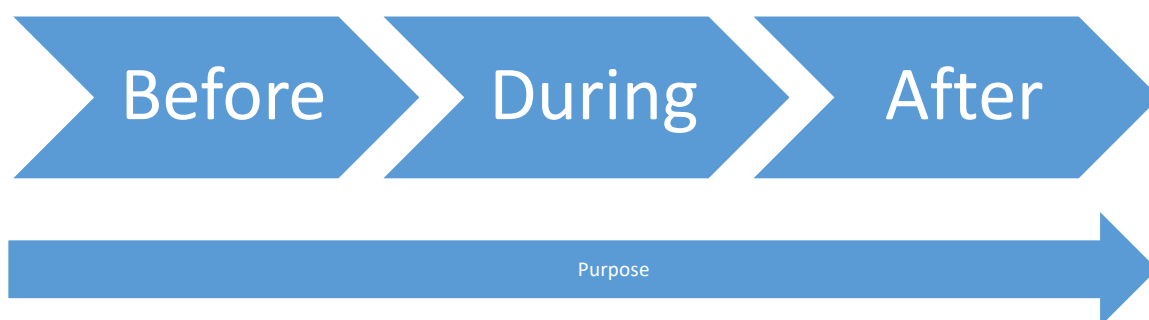


Figure 16: Proper planning (“before”) and monitoring (“after”) of mobility around a purpose

While the verbatim above focuses on the “before”, the other HR manager focuses on the “after”:

“It is also important to follow-up, so that it just does not end up in holidays for 2 weeks paid by EUT. What do I actually bring back? When we have administrative staff going abroad, we have this knowledge hub: which did you like, what do you bring back? For half an hour, one talks about one’s experience, you share the knowledge with everyone. So there needs to be a mechanism for evaluation and centralization of knowledge.”

The first HR manager’s comments are along the same lines:

“What’s interesting about the outward journey and the return journey is that it’s not a case of someone leaving with their suitcase and coming back with their suitcase and back to their life, it’s that at some point there’s a space for exchange, so that we

can say to each other what we've been enriched by, what we'd like to do more of and do better. And it's these spaces that I think it's essential to build.”

And the **complement of this usefulness is its openness:**

“It needs to be for everybody, not only for the people who had the opportunity to go because they already met people. That will determine the success. And also let people in universities know largely about what is being done. We just need to find the mechanism to open EUT to everyone. I would love to see open calls for these mobilities so that everyone can apply, with clear criteria for selection.”

The first HR Manager is completely aligned concerning the potential for mobility as part of the global objective of EUT+ to open up, trigger appropriation and staff engagement:

“The worst of the worst is that in Phase 2, it's still perceived as a closed circle of lucky people. In my day-to-day work, with my finance colleague and the accounting officer, nothing has changed, nothing has moved. Showing students who come as part of EUT+, if there are researchers, there are times to show: these are EUT+ colleagues, we welcome them, it becomes real, concrete.”

It is this same perception at UPCT, who has led / leads the Communication tasks of EUT+ for both Phase 1 and Phase 2:

“I think we need mobility seriously. I think the key is not internal communication, internal engagement. The key here is to see people on the campuses working, without any doubt. That would be the sign that EUT is really achieving their goals. If we don't see students from Riga from Troyes here, it will be difficult to engage people in

knowing that EUT can be a great success. The best tool for engagement is seeing concrete real people.”

6.2 The “must-haves” for mobility

Linked to the question of purpose and clear objectives, there are necessary conditions for mobility, that can be termed in these 3 categories:

- + Prerequisite – being accepted for a research stay
- + Permission – from one’s university, mainly for teaching load
- + Funding – usually grants or different degrees of personal funding

And a 4th one in the practical (v/s scientific or administrative category)

- + Accommodation

INDIVIDUAL PERSPECTIVE

The **prerequisite condition** is to have precisely a purpose and a place. In the case of MSCA projects, a research proposal must be written by the applicant and is subject to evaluation. The colleagues from UC3M explain the process they have followed, spontaneously numbering them:

“First of all, you need to be accepted in some place. I contacted XX whom I know when I was in the US in 2004. That was not easy, because you need 2 teams (NB: husband and wife are not in the same research line), that need to accept both of the research mobilities. So it’s not easy.

Our informant continues:

*“Second you need **permission** from your university and your department concerning your teaching role. We both asked for a sabbatical year that you can get every 6*

years. Obviously we had to do it at the same time which is sometimes crazy: in the same department, we both are leaving. Everyone who asks for it at our university is allowed permission.”

And directly pursues with the third must-have:

*“Third, you need the **funding**. In our university, when you go on sabbatical, they keep your salary. They give you a very small amount of money for travelling, 1200€. Then, we were lucky. The Spanish government created a fund as part of a qualification program for faculty members. (...)”*

A HR manager summarizes the process, presented as being simple as:

“1 host institution, 1 duration, 1 activity, 1 request made to the institution to leave.”

Thus focusing on the prerequisite.

In Sofia, where PhD students are really encouraged to travel (mobility is easier because of the small teaching load as compared to lecturers), the process is well organised:

“PhD students (who travel a lot) rely on their supervisors’ contact. So, the supervisor asks colleagues (purpose of the travel), and the topic is agreed upon. The research / contact aspect is managed by the supervisor. The organizational / administrative aspect is centralized at the Erasmus Office which sends the list of required documents.”

INSTITUTIONAL PERSPECTIVE

Adopting the managerial rather than the individual perspective, when asked about, according to her, what aspects would be needed for **smooth hosting of colleagues** on mobility, a HR Manager answers:

“For me it's simple. You need:

- A context
- A starting support system - a finishing support system
- A mobilised and welcoming environment
- An administration to manage the administrative side.”

Concerning the welcoming environment, the practices of the Erasmus Office in Sofia is considered “**good practice**” by our informant:

“There is very good support for the Erasmus Office for those who arrive under the Erasmus program, not just the preparation of documents. We have dormitories in the area of the university, which are less expensive than on the free market. (...) The staff of the Erasmus Office are lovely, organizing university transport and waiting for invited guests at the airport, especially if late at night. Guests are not left alone. For young people, it can be quite stressful if you don't know anyone, and don't know where to go and what to do. For me, that's very good practice.”

The two HR Management are completely aligned on the necessity of what they term a “**welcome package**”, either for newly recruited academics, visiting researchers or

even short mobilities. One of them is very cautious about the necessity of the full integration of the visiting academic:

“We don't have a package to offer. It needs to be a bit more structured, perhaps with a system of mentoring, welcoming and liaison, particularly with the region, the local authorities, which has a welcome tool for new recruits or visiting academics. The HR focuses on administrative management only and not at all the global dynamics.”

For her, the welcome package should include:

“The welcome package must include

- A welcome from management
- A tour of the site
- A personalised welcome in the department or research unit
- Suggestions for visits to (town name), with the Tourist Office or something similar, to introduce them to the area and its activities.
- This link between the area and internal, personal reception
- Find accommodation for them
- Put them in touch with the local microcosm”

ACCOMMODATION

Accommodation has not been analysed as a “hurdle” *per se* in the section 5 above, though it has been ordered fifth in order of importance (mean score of 2.35 / 5) by the respondents to the questionnaire. Even though it cannot be considered a

scientific or administrative prerequisite, the question of accommodation for long-term mobilities (therefore not hotels as for short-term) is a practical necessary condition. Indeed, depending on the country destination, the situations can be sensibly different.

In Troyes, the colleague having experienced a 2-month mobility explains that she *“just booked an Airbnb”* for 750€ a month, making a total of 1500€, which she found reasonable with her Irish salary. In Sofia, within the Erasmus framework, there are *“dormitories in the area of the university, which are less expensive than on the free market.”* In Cluj, help is provided to help guests find accommodation (as well as for opening bank accounts or for language courses).

For other destinations, accommodation can be a (very) tough question. In Limassol, housing is very expensive and there are *“no plans in supporting (guests’) installation”*. In Cartagena housing is the main problem:

“It’s not about the beach, the weather, the salary or the cost of life. It’s housing! We have problems with housing for the students, so imagine for people coming for 1, 2 or 3 months.”

Like for everything else, accommodation in Dublin is insanely expensive. Above all it is scarce. So, even if one can afford, it is still extremely hard to find.

The question of accommodation goes beyond the prerogatives of the universities, *“We have tried to talk to the townhall to increase the number of flats or possibilities for people to stay in Cartagena. There is only one residence for students in Cartagena, which is private, and each year everything is booked in June. Students who decide to enroll in September, it is already difficult. So for people who decide to come last minute, unless they can find a hotel, but it would very expensive for a few months.”*

At some point, a colleague who practices couch-surfing had proposed the idea of exchanging homes. The suggestion was mainly for students. The idea was hinted during the interviews, but was not welcome with much enthusiasm, pointing to the important issue of intimacy, which is not supposed to interfere with the professional dimension of mobility.

Being given that accommodation is a more a personal question or one that is relevant for the municipalities rather than the universities, it was necessary to mention it. However, co-designing the appropriate institutional lever is not relevant.

6.3 Common framework for recognition of mobility

A need that strongly emerges is the official recognition of mobilities, within a common EUT+ framework:

- + Research stays
- + Teaching hours in other universities – TUS / h_da

The framework in France allows the automatic recognition of mobility experiences:

“It doesn't matter whether academic or non-academic staff are involved, these are experiences that are cited in the promotion reports. I've worked on 5 European projects, so it's all part of my career, things that I put forward, things that have necessarily contributed to my advancement at some point in my career. (...) Of course

it's enriching. (...) It also gives you access to the European Commission, ministries, UNESCO and elsewhere. Nothing is impossible."

The importance of mobility in terms of career development is also recognised in Germany:

"We in HR are aware that spending time abroad for researchers is crucial for their careers. The higher the position one aspires to, international experience plays a vital role."

However, for TUS, our Bulgarian colleague explains:

"Recognition is one of the obstacles for the academic staff. In Sofia, in your 5-year evaluation, 1h lecture equals 1 point, with a maximum of 10 points. For non-academic staff, there is no particular recognition. This cannot be solved by the Erasmus Office or HR department, not even vice-rectors. The recognition problem can only be solved at the level of the General Assembly of the university, the highest governing body, a kind of Parliament of the university."

As explained above, the second main hurdle to mobility is the teaching load, which requires time and organisation for the replacement of the teaching hours. This has been focused on both in the questionnaire and the interviews. The objective of the Focus group has been to deepen the understanding of this hurdle in a collective way, and to co-design relevant solutions. The suggestions are presented in order of appearance in the discussion:

- Get colleagues to replace you for short periods

- Find funding for a replacement
- Doing all teaching duties before mobility
- Do the mobility during a sabbatical, and get paid by the host university
- Align regulations between EUT+ partner universities
- So how to implement a framework allowing teachers to teach online for a period of time,
- Have a “mobility calendar”, to determine the best time to carry out a mobility outside your teaching weeks at a certain university.

The first issues had already been discussed during interviews and have been presented in the previous sections of this deliverable. The last two appear interesting. The online teaching depends on the universities regulations and commitments towards students. At UTCN, students registered to be taught face-to-face, and unless major constraints, a limited percentage of online teaching is allowed. At UTT, despite the end of the sanitary measures, as part of a lecturer’s will to experiment asynchronous online teaching for the “lectures” (complemented by in-class tutorials), the whole semester teaching has continued to be done by video capsules.

Concerning the mobility calendar, there is already a mobility map for students to find courses across the EUT+ campuses, with the campuses respective calendars. So this would definitively be possible to identify best times for mobility. One of the colleagues-persona does up to 3 months mobility each year, mainly during the summer holidays.

The needs identification will focus on one specific idea that was proposed:

- + Align regulations between EUT+ partner universities

Indeed, currently, if teachings (still in limited number) are done as part of Erasmus mobilities on another EUT+ campus than one's university, it is not counted in one's teaching load. Depending on universities, and on the status of academics, the teaching load can be quite important.

Therefore, in line with:

- + EUT EXTRAS objectives of creating commons
And most of all
- + EUT+ ambition towards merging into one university

A form of common regulatory framework across the nine EUT+ campuses to recognise the teaching hours must be co-designed, in line with national regulations.

It is only with this type of incentives and structural recognition that it will be possible to:

- + Increase the number of mobilities
- + Actually achieve concrete actions, like sharing teachers and proposing open courses and seminars

As explained in the previous section 6.2 above, the other must-haves for mobility, research stays imply having a contact lab that accepts to welcome a researcher based on a research project. Depending on one's network, that may be more or less complicated. Whereas, for teaching mobilities, especially being given the mobility

maps as part of the teachings in EUT+, the teaching mobilities appear even more as a quick-win.

Therefore, while respecting national regulations and frameworks, it would be needed to design a common recognition framework of the teaching hours in between the different EUT+ campuses. Linked to that, EUT+ Phase 1 WP3 has resulted in a common recognition frameworks of credits during mobility. Coherent with this reflection and progress, EUT+ is participating in the JEDI project, examining the contours of the European Degree. Therefore, the same type of recognition framework for the teaching hours, would be perfectly coherent and be possible.

This common framework towards recognition of teaching hours would greatly support the increase in the number of mobilities for teaching.

6.4 Common procedure and centralisation of knowledge tool

As explained in the previous section 6.2, above the other must-haves for mobility, research stays rests on the prerequisite of, as our colleague formulates it, of *“being accepted somewhere”*, i.e having a hosting lab, a research project, and (for young career researchers) a supervisor.

For researchers, the number of incoming mobilities is often not even known centrally at the university, and stays within the labs. For outgoing mobilities, there is no **administrative visibility**. Sabbaticals are managed at the research level:

“It’s an academic issue since it would be through the sabbatical year, not an administrative issue. It would go through the Senate House and other bodies. (...) It’s at the rectorship level.”

And if the researchers have their own projects or industry contracts (v/s Erasmus grants), they are “invisible” in the system:

“Some researchers have their own contacts, are paid, and therefore do not need funding. As they are not subject to the evaluation procedure, we don’t know how many of them there are.”

Apart from the visibility issue, since mobilities at that exponential level is new and that EUT+ member universities do not have the experience, though the administration is only a support, they lack both competence and resources:

“However, these have been individual cases so far, and our HR department currently lacks the capacity to manage larger inquiries.”

Thus, the expression of this need:

“Standardizing the conditions would be the best approach to avoid individual cases. Having a clear, standardized process would certainly be beneficial. Exceptions should be minimized, and regulations need to be established. This would increase the willingness of the HR department to provide support. Within the EU, this should be relatively uncomplicated to implement. Currently, we are bound by specific contractual regulations. Moreover, it is a very time-consuming process; individual discussions with professors are necessary. All laws must be complied with, and the implementation is currently very complicated.”

And the HR Manager concludes by:

“Having a single point of contact where one could receive help and information would be really beneficial.”

This need is confirmed by a colleague having experienced mobility and making the observation of the limits within her own university.

“I have (person’s name) here who wants to go for a short-medium term mobility in Cartagena, but there are so many obstacles here, she’s been coming back and forth for 6 months. We have to wait for the EUT+ plan, waiting for Erasmus+ from our own office, between different things, it constantly goes back and forth.”

And expresses this need:

“We just need a very clear process: if you want to go, this is what you do, and it has to be signed and agreed by everybody. Partly it’s miscommunication also, because I was explained it was just an ordinary Erasmus mobility, it is a straightforward process.”

Therefore, in order to facilitate mobility within EUT+, what is needed is a process that is

- + **Clear:** what to do, whom to contact
- + **Standardized:** independent of the type of mobility (except funding)
- + **Centralized:** with dedicated, competent people who can provide the right information
- + **Easy:** to avoid the “administrative bureaucracy” that has been identified as hurdle, e.g in the form of a tool.

This process can be supported by an online tool (see Recommendation N° 4, Section 2).

Indeed, in response to the identified need for enhanced mobility support within EUT+, a proposal for a comprehensive web portal emerges as a pivotal solution, connecting seamlessly to Tx4.1, Tx4.2 mapping tools of research domains, and Tx5.2 initiatives.

6.4.1 Conceptualizing the Web Portal

The envisioned web portal aims for user-friendly accessibility and integration across all EUT+ campuses. This system aims to streamline mobility processes and mitigate barriers by offering comprehensive support and standardized procedures. Identified functionalities encompass a diverse range of support:

KEY FUNCTIONALITIES

1. **Communication and Statistical Insights:** Providing real-time updates, news, and statistical analyses pertinent to mobility trends and opportunities.
2. **Tailored Practical Guides:** Segmenting practical information by university to assist staff members embarking on mobility journeys. Information spans accommodation, social security nuances, transportation guidelines, cultural insights, salary specifics, and local banking information.
3. **Interactive Exchange Space:** Fostering a vibrant community through forums and collaborative spaces, enabling dialogue, information sharing, and peer-to-peer support.
4. **Centralized Funding Information:** Compiling comprehensive data on grants and funding options available across EUT+ campuses, simplifying the application process.

5. **Clarity on Teaching Obligations:** Offering clarity on how teaching responsibilities can be managed and fulfilled during secondments, ensuring a harmonized approach across universities.
6. **Research Mapping and Facilities:** Illustrating the diverse research domains and available facilities within EUT+ and affiliated external partners, emphasizing the profound impact of mobility on career and research advancement.

KEY ATTRIBUTES

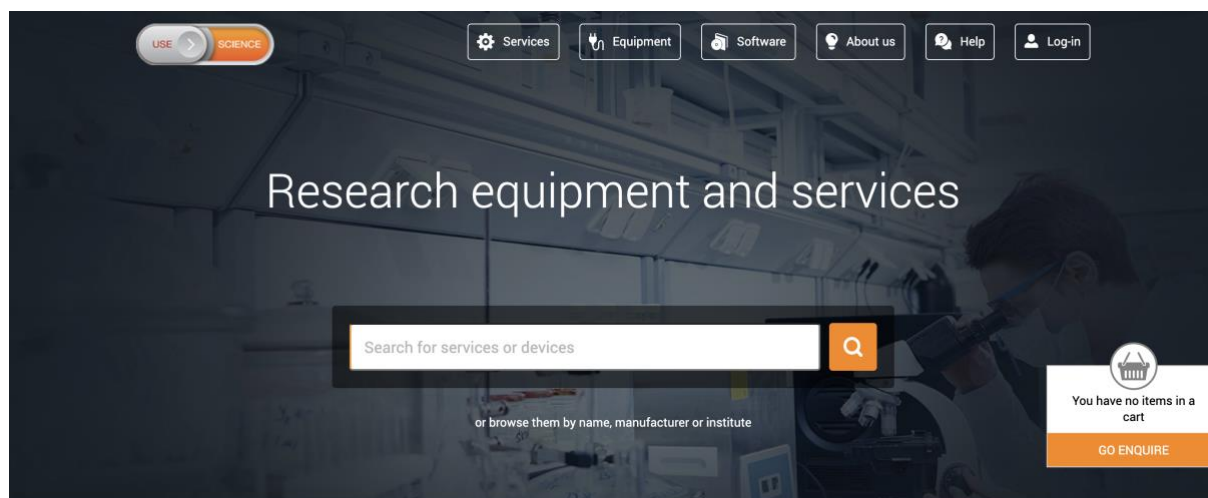
1. **Clarity and Transparency:** The system ensures clarity by delineating clear directives, specifying points of contact, and providing accessible guidance for users.
2. **Centralization of Information:** It consolidates vital information, encompassing guidelines, regulations, and pertinent details within one accessible platform.
3. **User-Friendly Accessibility:** The system's interface is designed for ease of use, aiming to alleviate administrative burdens and bureaucratic hurdles often associated with mobility processes.

TECHNICAL ASPECTS

The proposed web portal geared towards enhancing mobility support within EUT+ can be executed through two primary approaches. Firstly, building the platform from scratch stands as a viable option, leveraging modern web development frameworks and technologies. This approach allows for tailoring the portal to meet the EUT+ alliance's specific needs while ensuring scalability and flexibility in accommodating future enhancements.

Alternatively, leveraging existing websites within the EUT+ alliance, such as the one from RTU (scientificservices.eu, as shown on Figure 17), presents an opportunity to integrate and expand upon established frameworks. Utilizing an already operational platform enables faster deployment, potentially reducing development time and costs. By building upon proven infrastructures like the one from RTU, integration efforts can focus on adapting functionalities and incorporating bespoke features required to fulfill the outlined objectives of the envisioned web portal.

Both strategies offer distinct advantages and challenges, with the choice contingent on factors like time constraints, budget considerations, and the desired level of customization. Whether starting from scratch or utilizing pre-existing structures, the technical implementation of this web portal holds promise in facilitating seamless connectivity, fostering collaboration, and addressing mobility barriers within the EUT+ alliance.



Latest equipment in our catalogue



Figure 17: RTU's portal for sharing research equipment and services

CORE VALUES

At its heart, emphasizes the pivotal role of mobility in career progression, fostering research collaborations, and nurturing skill development. The platform champions values of cultural exchange, linguistic diversity, and research advancements, positioning mobility as a catalyst for professional growth. Furthermore, the portal's pronounced emphasis on ecological impact and virtual mobility underscores its commitment to sustainable practices, aligning seamlessly with EUT+'s overarching goals.

ADDRESSING MOBILITY HURDLES

A fundamental objective of the web portal is to surmount the challenges hindering mobility within the EUt+ alliance. Recognizing the impediments such as heavy teaching loads, financial constraints, and administrative complexities, the portal incorporates strategic solutions within its framework. These include facilitating colleague replacements, synchronizing regulations, identifying funding sources, motivating senior staff, and streamlining administrative processes.

In line with EUt+'s primary goals, this online portal aims to represent the EUt+ alliance's dedication to fostering effortless collaboration, sharing knowledge, and advancing careers. By tackling mobility obstacles via a centralized and user-friendly platform, the portal accelerates the creation of a dynamic and interconnected academic community within EUt+.

6.5 Clear strategy towards creating commons around mobility

This Task x1.3 is, as recalled in Section 1, part of a work package around Developing human capital, with the objective to steer Europe towards a new path of excellence. As stated in the bid, “the objective of this work package is to establish the solid foundations of a diverse, mobile body of staff who will lead institutions towards their ambitious strategic objectives.”

As expressed by one of the informants,

“In Phase 2 (of EUt+), after this pilot trial and error thing and more operational type of work, it’s more mobility rather than less mobility. It’s more sharing work and not just testing things. If we’re trying to do things across the network that are operational, you need to meet teams on the ground – working directly with the Green

Office - and not just working with the Liaison person. Because it's much more sharing of practices, not just knowledge but activities really, collaborative sorts of initiatives.

Therefore, whether

- + in terms of evolution from EUT+ Phase 1 to Phase 2
- + the initial objectives of EUT EXTRAS and even more
- + the needs identified by this study of Tx 1.3

all the insights concur towards the **potential for mobility to contribute to**

- + achieving ambitious strategic objectives of institutions
- + supporting career development of academic staff

The benefits at individual level for career development will be presented as a kind of conclusion to confirm the need to support, promote and facilitate mobility, within EUT+ as regards the needs and specificities analysed in this deliverable, but also in a more general way for academic in Europe. At this stage, the needs analysis will focus on this first potential for mobility: in terms of contributing to the strategic objectives of institutions.

MOBILITY AS CONTRIBUTING TO INSTITUTIONS' STRATEGIC OBJECTIVES

The objectives of WPx1 have been recalled, and it is crucial to contextualise Tx1.3 and WPx1 within the other achievements of EUT EXTRAS and the project's global ambition for EUT+: creating collective excellence. Towards this objective, among the main achievements of EUT EXTRAS are the tools developed for in-depth analyses of

research collaborations: both internal among EUT+ partners (Dx4.1) and external focused on socio-economic developments (Dx4.2), that will lead to a common dashboard (Dx4.3) to be created by the end of the project.

The “EUT+ R&I mapping toolkit” (Dx4.1) is able to support decision-making, prioritisation and matchmaking, and the mapping of internal research & innovation portfolios, competencies as well as external opportunities and demands. Its aim is to analyse and highlight the distinctive capacities of the partners and their existing collaboration potential among them. With additional analysis, this will also help to understand how EUT+ R&I is thematically related to global societal challenges and the priorities of the territories.

The achievement of TX4.2 is the development of a text analysis tool aiming at analysing EU Call for Proposals (see here: <http://cis.cut.ac.cy:8501/>). It is based on Topic Modelling, and it is linked to a tool (developed in the framework of TX4.3) that mines all EU-funded projects, as well as to the Scopus-indexed publications of all EUT+ partners (also mined via a tool developed in the context of TX4.3). The tool has been developed based on an analysis of the priorities of the EU research policy, using automatic content analysis methods the relevant documents (strategic aims, policies, call for proposals, etc.) and needs analysis of stakeholders.

The tool of Tx 4.3 records publication performance of EUT+ alliance. It is useful for decision-making within EUT+, for forming new post-graduate study programmes, for creating new ERIs, etc.

As is visible in the description of the tools above, these collaborations can only be made effective if people actually work together. As our colleague formulates it:

“If we’re trying to do things across the network that are operational, you need to meet teams on the ground.”

This fact of meeting teams “on the ground” implies also sharing infrastructure, which is the objective of Tx5.2. Deliverable X5.2 aims to identify infrastructure that can be shared by all alliance partners, and secondly, put forth a strategy of resources and infrastructure pooling, going further and beyond the mutualisation of our existing tools for developing a programme of co-investments to fill gaps. The work done in this task will contribute to the integration of EUT+ research resources and activities into a joint research and innovation strategy integrating all disciplines. Thus, it will foster the opportunities and excellence of EUT+ research which exceeds those of the individual partners by far.

Therefore, in line with

- + the objectives of WPx1 to
 - + develop human capital, with the objective to steer Europe towards a new path of excellence
 - + establish the solid foundations of a diverse, mobile body of staff who will lead institutions towards their ambitious strategic objectives
- + the tools developed for collaboration as part of WPx4 to
 - + analyse the content of a Calls for Proposals and EUT+ community to find appropriate partners
 - + mine all EU funded projects to find partners with experience in securing research grants
 - + record publication performance of EUT+ alliance, for decision-making within EUT+, for forming new post-graduate study programmes, for creating new ERIs, etc.

- + the inventory and methodology of WPx5 to
 - + identify infrastructure that can be shared by all alliance partners
 - + put forth a strategy of resources and infrastructure pooling for developing a programme of co-investments to fill gaps.

EUT+ needs a clear strategy for mobility to support EUT+s joint research and innovation strategy that will foster the opportunities and excellence of EUT+. “Excellence” in EUT EXTRAS is about “collective excellence”, relying on the creation of commons, whether shared human capital or pooled resources, that are mutualised with academics travelling from one research platform to the other, or as part of the emerging structuration of European Research Institutes (ERIs).

Therefore, in line with creating commons and ambitious strategic objectives, mobility must become a compulsory part of EUT+ strategy.

6.6 Ecological considerations

This issue of ecological considerations and soft mobility (only) emerged from the Focus group. Being given the approach adopted, the questionnaire and the interview grids have been designed based on the state-of-the-art. Our literature review, as exhaustive and relevant as it could be, did not mention the question of ecological considerations that could prevent mobility. Soft mobility as part of EUT+ is still very tentative, mainly because

- + mobilities are done as part of physical meeting weeks (3-5 days travel)

- + long mobilities, staff exchange and secondments are just starting and are limited in number

As EUT+ progresses from a project-based pilot experimentation (Phase 1) to structuration towards one organisation based on concrete actions on the ground (Phase 2), the number of mobilities will grow exponentially.

When looking at the current trends at European level from the European Commission, whether Marie Skłodowska-Curie Actions or Erasmus+ programmes, sustainable thinking in research management including low-emission forms of transport, is not an option. Also, in line with WPA 2 of EUT Accelerate (Phase 2) on “Transitions and society”, where there is a strong focus on green transition, **a strong reflection and concrete measures to support soft mobility is a must.**

Though (still) a minority phenomenon as part of EUT+, the question is yet present.

Perhaps anecdotal, a postdoc researcher from the European Sustainability Sciences Lab working group, who has completely stopped travelling by plane a few years ago. She only travels by train, and would give up physical meetings in Cyprus or Ireland. A PhD student also from Sustainability Sciences attended the EthiCo multiplier event¹¹ in August 2023 at TUS, travelling from Troyes to Sofia by train. It took 3 days to and 3 days from Sofia, and was considered as an interesting experience.

¹¹ Erasmus project as part of EUT+ first fully implemented European Research Institute, ECT Lab+

PRELIMINARY INSIGHTS FROM EXPLORATORY QUESTIONNAIRE

Following this experience, these two young researchers designed a questionnaire that circulated among a restricted number of participants around the EthiCo event, which allowed to gather an insightful preliminary understanding of the question of soft mobility.

The main mode of transport is the plane.

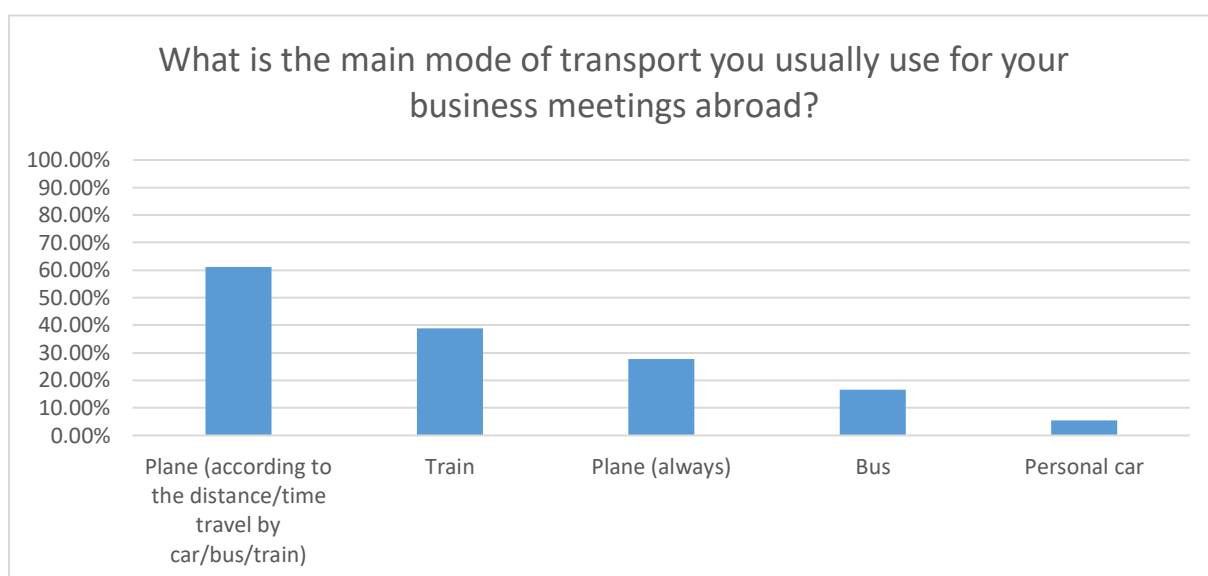


Figure 18: Main mode of transport

The main hurdle to taking the train is that is it time-consuming, followed by security reasons of travelling alone – especially as a woman – in night trains (Figure 18). The main reason put forward (for the minority who answered the question) concerning

solutions like sailing for EUT+ destinations like Cyprus or Ireland: the trip is too long (Figure 19).

The main lever to adopting these soft mobility solutions would be to travel in group (Figure 20).

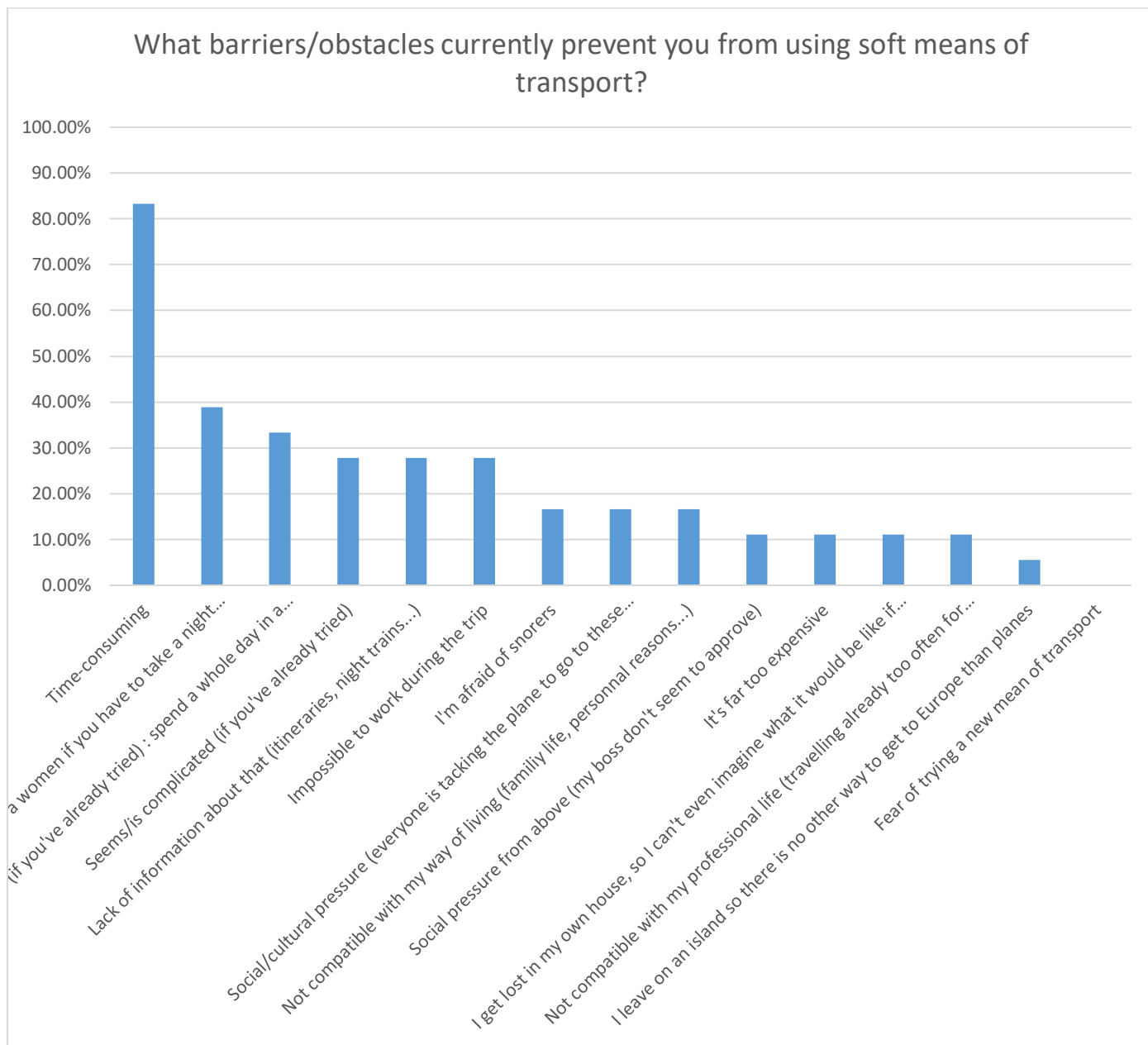
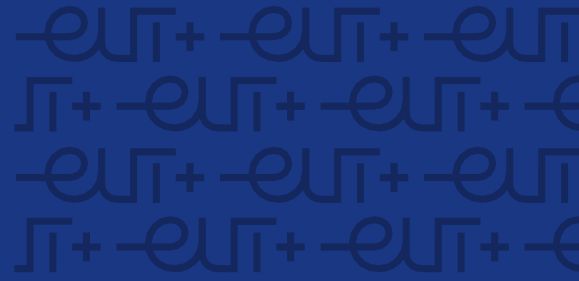
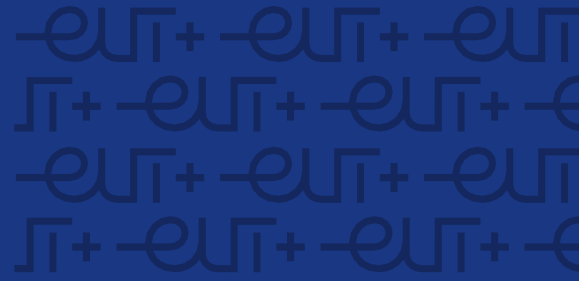


Figure 19: Main hurdles to soft mobility



What would be the obstacles for you to consider such tips for trips?

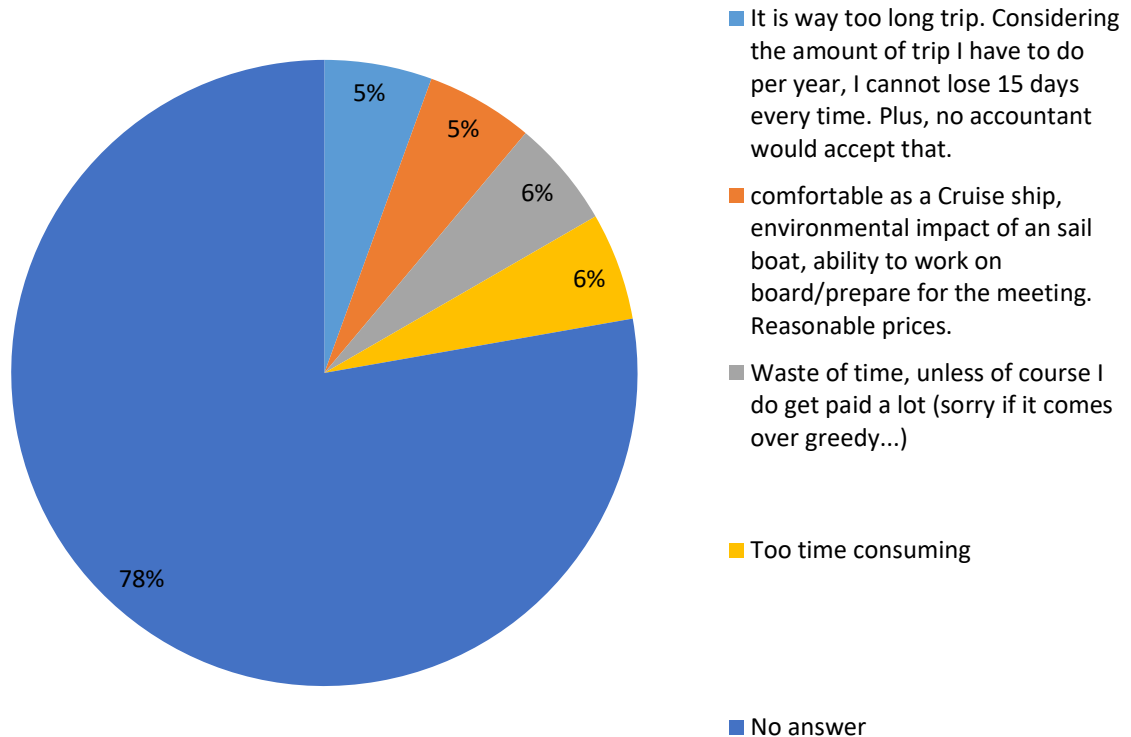


Figure 20: Obstacles to solutions like sailing

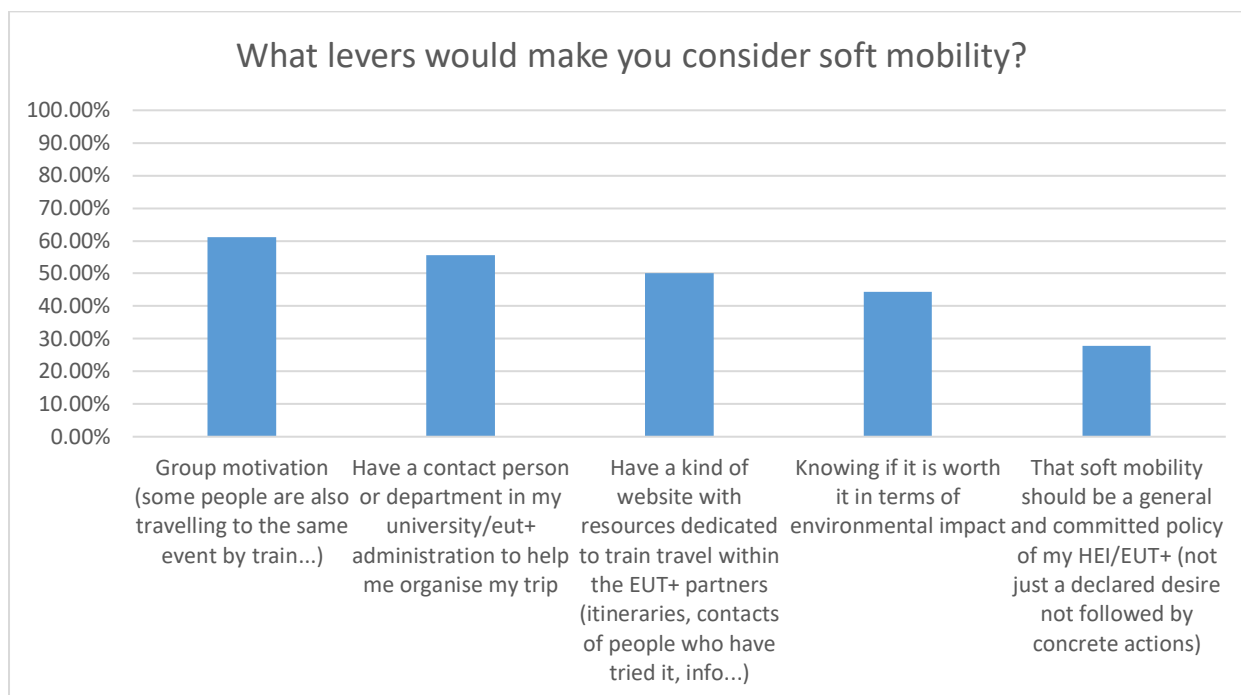


Figure 21: Main levers to consider soft mobility

Despite this till now very cautious approach to soft mobility on the part of the small panel of respondents, the trend is for soft mobility to be growingly being put forward by the European Commission.

MSCA GREEN CHARTER

The Marie Skłodowska-Curie Actions has a Green Charter that promotes the sustainable implementation of research activities ¹². Information is clearly provided about:

¹² <https://marie-sklodowska-curie-actions.ec.europa.eu/about-msca/msca-green-charter>

- + why environmental sustainability is important to the MSCA
- + how the Green Charter applies to one's project

The goal of the MSCA Green Charter is to encourage sustainable thinking in research management. Among the measures that individuals and institutions are invited to consider, there is: **“use low-emission forms of transport”**.

Also, MSCA secondments start at the moment one leaves home. Since a secondment lasts a month minimum (unless split), even if the travel by train takes 2 or 3 days, this travel time is counted as part of the secondment: in terms of *per diem* allowance, insurance, work time.

Therefore, for these MSCA secondments' “long” mobilities¹³, soft mobilities can totally be considered.

EUT EXTRAS – with sharing human capital through mobility, or the objectives of student mobility as part of EUT+ (Phase 1) or EUT Accelerate (Phase 2) – share with MSCA that “Physical mobility (of researchers) remains a key feature of the programme.”

Thus, in order to trigger a more sustainable model of university of the future, for its common strategy for mobility (see Recommendation N°1, Section 2.1), EUT+ could draw inspiration from the evaluation model of MSCA projects. Indeed, “at final reporting stage, all MSCA projects will be asked to report on the ways they have

¹³ This Dx1.3 study considers “short mobilities” as less than 2 weeks and “long mobilities” as from one month)

sought to minimise the environmental impact of their research activities and how they applied the principles of the Green Charter.”

ERASMUS+ MOBILITY PROJECTS: PHYSICAL AND BLENDED

Like MSCA, Erasmus+ programmes¹⁴ also considers Environmental sustainability and green practices in higher education mobility. As such, HEIs must promote environmentally friendly practices in all activities related to the Programme. This means promoting the use of sustainable means of transport for mobility, taking active steps when organising events, conferences and meetings related to Erasmus+ mobility in a more environmentally friendly manner.

Contrary to MSCA, Erasmus programmes specify clearly that the durations of any time of mobility, whether for student or staff, is “excluding travel time”, which makes the choice of sustainable means of transport automatically more difficult.

Apart from greener means of transport, Erasmus programmes also consider other forms than the classical physical mobility: blended mobility. While long term physical mobility is strongly encouraged, this action recognises the need to offer more flexible physical mobility duration to ensure the Programme is accessible to students from all backgrounds, circumstances and study fields.

Blended mobility is a combination of physical mobility with a virtual component facilitating a collaborative online learning exchange and teamwork.

¹⁴ <https://erasmus-plus.ec.europa.eu/programme-guide/part-b/key-action-1/mobility-projects-for-higher-education-students-and-staff>

Blended intensive programmes allow for groups of higher education institutions to jointly develop blended mobility curricula and activities for students as well as academic and administrative staff. Any study period or traineeship abroad of any duration, including doctoral mobility, may be carried out as a blended mobility. Any teaching or training period abroad for academic staff may be carried out as a blended mobility.

An initiative like the “interrail pass” from UTT Alumni¹⁵, is worth mentioning to draw inspiration from. Travelling by train rather than by train would reduce the carbon emissions by 80%. With the collaboration of UTT’s Foundation, this programme provides financial and practical support for students travelling for semesters in Europe. It puts forward two main advantages :

- + reducing carbon print
- + reducing the cost of travel for the student

The “business model”, based on donations from Alumni or through the Foundation can be easily benchmarked towards scaling-up.

¹⁵ <https://www.utt-alumni.fr/fr/pass-interrail/>

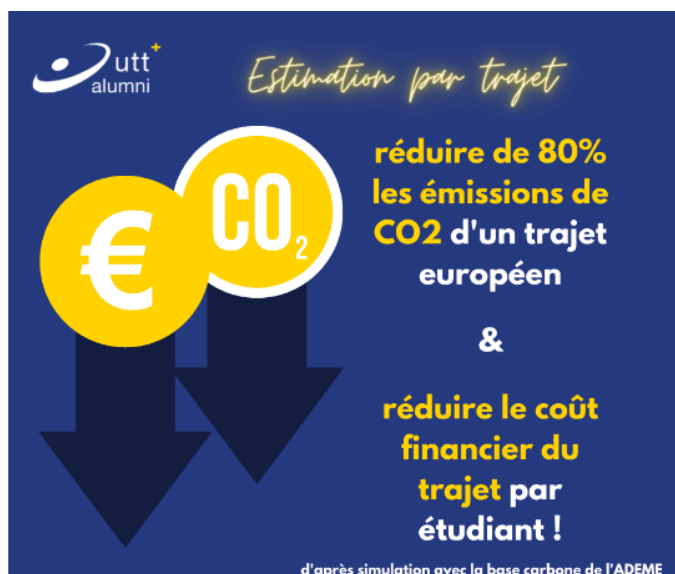


Figure 22: Interrail pass promotion

7 Facilitators to mobility

As described in Section 5 – Hurdles to mobility – the 4th hurdle ordered by the respondents to the questionnaire in terms of importance is: **Personal and family-related concerns**. Gender and family situations giving rise to inequalities and disparities have been clearly identified in the state-of-the-art. Being given both this significance and complexity of this phenomenon of family situation (that is very individual, while the focus of this Dx1.3 on **institutional facilitators**) the issue has been tackled not as a “hurdle” but in a positive and non-judgy way. The question is reversed: rather than asking

- + “how do family situations **prevent** mobility?”

this section presents

- + “what types of family situations **allow** mobility?”

Thus, the hurdles and barriers analysis (Section 5) have given rise to the identification of the needs (Section 6) and this facilitators section complements the analysis to formulate the recommendations that are put forward at the very beginning of this deliverable (Section 2).

7.1 Persona

This section presents 3 “persona”, whose respective family situation, together with their professional ones, has allowed them to go on long-term mobility. In the form of personas, the characteristics described are the actual descriptions of colleagues having participated in the semi-structured interviews, presented in an anonymous way (all first names have been modified).

7.1.1 Dana – 2-months mobility on another EUT+ campus



ACADEMIC PROFILE

Dana is an associate professor, considering herself in “late mid-career”. She works at 80% of her time for EUT+, and is finishing 2 other research projects. She is only involved in research and does not have any teaching load.

MOTIVATION TO MOBILITY

The main motivation was a change of environment: *“Here at (home town) since I'm working on EUT+ or on other research projects, I'm not on the Campus very much. So my job is working a lot from home, travelling a lot and from time to time going on the campus. So it was a nice change of environment, it's good to have these times away, it was really reinvigorating for me, with a change of routine with going to the office every morning.”*

Among the benefits, this mobility allowed her to get to know people a bit better: *“Just understand a bit more work situations, a little more on a social level as well.”*

She also improved her language skills: *“I didn’t get back fluent but I did get back better.”*

REALITY

Though she actually got a bit more engaged with people, the reality is that *“My job didn’t change, I did exactly the same job. I was not necessarily working in a department. I think it is important to be mindful for the people who are going on mobility. If it’s a learning exchange experience, that wasn’t really rich for me in the sense that I was doing the same job (...) being online a lot of the time, just in another environment. (...) There is no big knowledge transfer or change or sharing of practices or anything like that. Though, I think it was positive, I did quite enjoy it.”*

FUNDING ISSUE

Dana covered her own costs to do this mobility: *“I didn’t mind to be honest because I really wanted to do it. If I were waiting for a formal program, a formal funding, a formal organisation, I wouldn’t have gone; this wouldn’t have happened.”*

Since there was no formal program, there were no administrative procedures, and the organisation of the mobility was quick and easy:

“There was no constraint really for me. I just booked an Airbnb and booked flights and tell (responsible person), and he was OK with it, and talked to the right people and they all agreed, and then I just arrived.”

She is aware of the combination of the will to pay for oneself and the favourable situation that made her mobility a kind of exception rather than the norm: *“For sure,*

there may be the financial constraints for most people, or family responsibilities. It worked for me really.”

FAMILY SITUATION

Having a grown-up son, Dana explains that she *“can with my life, because I don’t have young children”* and also *“I have a very supportive husband. Even if he doesn’t want to me to go, he never says no, so that’s good.”*

FACILITATORS TO MOBILITY

- + No teaching load
- + Family situation: supportive husband, no young children
- + Will and sufficient means to support the financial cost oneself

7.1.2 Oscar – 1-3 months mobility each year for 20 years



ACADEMIC PROFILE

Oscar is a Professor, having Directorship responsibilities, and advanced in his career.

MOTIVATION TO MOBILITY

Since the end of his PhD, obtained at the University of Toulouse (France), Oscar has continued the collaboration in a constant way: *“I’ve been going to Toulouse every year for between 1 and 3 months for 20 years since I finished my thesis. I have my own projects.”*

REALITY

Oscar mainly does these yearly mobilities during the summer holidays, where he has no obligations in his home university. Otherwise, for other mobilities (meetings,

conferences), he coordinates with colleagues to be replaced and replaces them in return. For longer absences of colleagues, those who stay to provide the lessons are paid overtime. The process to ask for mobilities at his university comprise clear steps and is quick and easy (2 days maximum, digitalised process).

FUNDING ISSUE

“I have my own projects. My colleagues in Toulouse pay for my accommodation, I only pay for the plane ticket. I get my salary from (home town).”

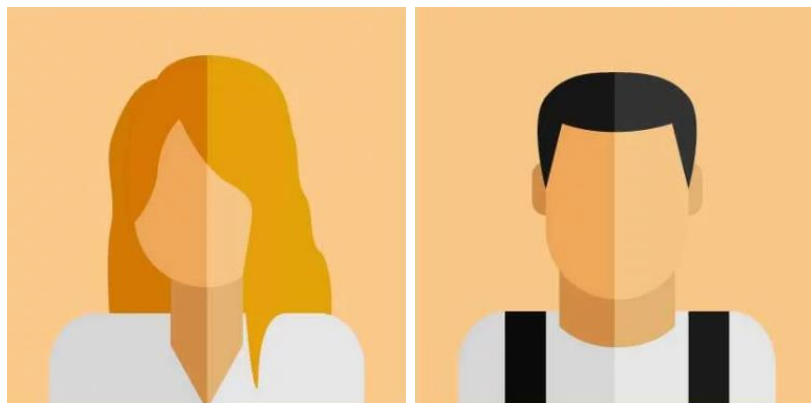
FAMILY SITUATION

Oscar and his wife have met in Toulouse when they were foreign PhD students, coming from the same town where they have continued to live since then. *“My wife also works in academia, so we go together every time.”* They collaborate with two different universities in Toulouse and succeed in coordinating their respective stays. They do not have children. And Oscar concludes: *“The support of one’s spouse is compulsory.”*

FACILITATORS TO MOBILITY

- + Adaptable teaching replacement
- + Family situation: spouse’s support, no children
- + Own research projects with financial support for accommodation

7.1.3 Angela and Federico – 1-year mobility in Austin, USA



ACADEMIC PROFILE

Angela and Federico are Associate Professor at UC3M. They are both computer scientists but in different domains. They have both experienced long-term mobility in the past, in the US for him, and in the US and the UK for her. They have strong experience of working on European projects and at international level.

Though not “academic”, the specificity of their profile is that they have three children that were part of the one-year mobility to Austin, Texas, USA.

MOTIVATION TO MOBILITY

Angela makes the comparison with her first secondment, and how this mobility constitutes a major progression in her career towards becoming a senior scientist: *“In my 7 months research stay in Carnegie Mellon, it was also very fruitful. I was working with them on a very specific projects, doing a very specific task. I was then a postdoc. My position here was more like a senior researcher, as a consultant. It is completely different from that point of view, and we were collaborating in another position. Now, I have my own research projects here.”*

She also explains: *“From the professional academic perspective, in one year, you have the time to meet a lot of people, start new research: design, implement and even do some evaluation of that research. In one year, you have time enough to cover the whole process of a research line. We have just published the work done there.”*

REALITY

The reality that they describe is very positive. When narrating their experience, they spontaneously say several times *“we were lucky”*: for the university’s support to internationalisation and career development, for obtaining supplementary funding, for the fruitful experience, for what they have learnt and bring back to Spain...

“We were lucky to be involved in every meetings, including how to design new grades and everything, good practices about teaching and researching, and I’m going to use it in my university, of course.” They add: *“In Spain, we usually get a strong theory basis of everything. In the US, from a practical point of view, they are always teaching the last advance in a domain. The seminars are like this: mixing academics and students. The students are getting all this information and it is very good: technology and last advance.”*

Despite some cultural differences in the daily life that the whole family experienced, *“we found very very good people there and made very good friends there. Some are Americans and many are from other countries.”*

FUNDING ISSUE

They both benefited from sabbaticals from the university: salary and health insurance paid. Each of them applied for two different grants from the Spanish

government that they obtained. Despite the need to advance the costs, or some extra costs to be supported, they consider the financial help as having been very crucial: *“It is so expensive. Everything was like 3 times what we usually spend in Madrid. And we were lucky because we were in Texas. Because other cities in California or New York are even more expensive. You have to take that into account when going on mobility how much money you need to live in that city. The rent is like 3000€/month.”*

FAMILY SITUATION

Angela and Federico have three children: two girls and a boy, attending three different school levels. Angela jokes: *“with us at the university, we had the whole panel of educational levels!”*. In Madrid, the children attend a bilingual (public) school. These language skills constituted a crucial prerequisite for the mobility, in order to be able to attend school in the US.

However, Angela concedes that *“It was difficult. Before that, I had made another 7 months research stay at Carnegie Mellon, and another 3 months research stay in the UK. If you have a family, it is important to have a stabilization, and have a whole school year, have at least 10 months that are really stable for them, because otherwise it would be really difficult for them.”*

FACILITATORS TO MOBILITY

- + Ability to have sabbaticals and lab hosting coordinated for both
- + Sabbaticals as a couple, with bilingual open-minded children
- + Spanish grants to support mobility

8 Conclusion

Combining a rigorous in-depth analysis to the co-design of solutions, Dx 1.3 proposes five main recommendations to facilitate academic staff mobility (see Section 2 for details):

1. Make mobility a key pillar of a coherent strategy of EUT+ towards “collective excellence”, in line with creating commons, whether human capital or sharing infrastructure, and around the EUT+ Research Institutes
2. Adopt a centralised-standardised approach, in line with national regulations and ensuring purpose and usefulness, to manage mobility at EUT+ level
3. Align regulations between partner universities to allow teaching hours recognition
4. Design and develop a web portal tool to facilitate mobility, linked to Tx4.1 and Tx4.2 mapping tools of research domains and Tx5.2 of the same project
5. Envisage new forms of mobility – blended, soft – as part of a sustainable model to European mobility

Being given the comprehensive approach adopted, the identification of the needs are specific to EUT+. However, in a kind of triangulation, the same phenomena are confirmed, whether they emerge from the literature review or from policies benchmarked by Dx 1.1 or the insights gained by Dx 1.2.

These similarities align to demonstrate the interest of this series of recommendations in a more generalizable way, and its potential for translation into policy at the EUT+ level. Indeed, for EUT+ or more largely, institutional levers to academic mobility has the potential to be a quick-win:

- + a fantastic tool for internal engagement
- + an efficient way to operationalise the creation of commons
- + an effective contribution to the targets of the ERA in terms of brain circulation in a balanced way (without brain drain)

The focus of this deliverable, as written in the bid and the Description of Action, has been on mobility programmes: research stays, teaching periods, travelling to use infrastructure, common research projects, secondments... within short (less than 2 weeks) or long (more than one month) mobilities.

The insights gained from the respective work of Tx1.1, Tx1.2 and Tx1.3 are complementary, in that they provide concrete recommendations and operational actions – structured around different forms of mobilities – to:

- + consolidate the alliance and promote collaboration (Dx1.1)
- + guide the development of policy for the future (Dx1.2)
- + achieve “collective excellence” by making mobility a key pillar of a coherent strategy of EUT+ (Dx1.3)

Tx1.3 reveals the utmost importance of mobility as part of a global and coherent strategy within EUT EXTRAS to actually implement the creating of commons, whether putting together human capital (WPx1) or sharing research infrastructure (Tx5.2).

Annexes

Annex 1a – Questionnaire (Lime Survey)

Annex 1b – Questionnaire complete analysis

Annex 2a – Interview grid - managerial perspective

Annex 2b – Interview grid – academic 2-months mobility

Annex 2c – Interview grid – couple/family 1-year mobility

Annex 3a – Focus group host’s facilitation slides

Annex 3a – Focus group Jamboard results

Bibliography

- [Ack04] Ackers, L. (2004). Managing relationships in peripatetic careers: Scientific mobility in the European Union. *Women's Studies International Forum*, 27, 189.
- [Bra16] Brandenburg, U., Petrova, D., Bugárová, M., Kunc, M., Stiburek, S., & Tumová, P. (2016). *The Erasmus Impact Study Regional Analysis: A Comparative Analysis of the Effects of Erasmus on the Personality, Skills and Career of Students of European Regions and Selected Countries*. European Commission: Brussels, Belgium.
- [Cam59] Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81-105.
- [Cao20] Cao, C., Baas, J., Wagner, C. S., & Jonkers, K. (2020). Returning scientists and the emergence of China's science system. *Science and Public Policy*, 47(172).
- [CFI04] Creswell, J. W., Fetters, M. D., & Ivankova, N. V. (2004). Designing a mixed methods study in primary care. *Annals of Family Medicine*, 2, 7-12.
- [ERA05] European Commission. (2005). European Research Area. Retrieved from https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-area_en.
- [Era21] Erasmus+ programme 2021-2027. (2021). Retrieved from <https://erasmus-plus.ec.europa.eu/>
- [Eur04] Euraxess- Researchers in motion. (2004). Retrieved from <https://euraxess.ec.europa.eu/>
- [Eur05] The European Charter for Researchers. (2005). Retrieved from <https://euraxess.ec.europa.eu/jobs/charter/european-charter>

- [EUt22] EUt+ incentive plan for all staff mobility. EUt+ Initiative WP5, Deliverable 5.2.1. (2022).
- [Gue16] Guével, M. R., Pommier, J., & Absil, G. (2016). Articuler des méthodes qualitatives et quantitatives – Illustrations de la conceptualisation par les méthodes mixtes. In J. Kivits, F. Ballard, C. Fournier & M. Winance (Eds.) Les recherches qualitatives en santé (pp. 296-311). Paris: Armand Colin.
- [Ive23] Iversen, E. J., & Woolley, R. (2023). International mobility and career progression of European academics. Paper presented at the 27th International Conference on Science, Technology and Innovation Indicators.
- [Joh07] Johnson, R. B., Burke, A. J., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1, 112.
- [Jon11] Jons, H. (2011). Transnational academic mobility and gender. *Globalisation, Societies and Education*, 9, 183.
- [Kal22] Kalenyuk, I., & Djakon, D. (2022). Academic mobility in the era of turbulence. *Economics & Education*, 07, 6.
- [Kat17] Kato, M., & Ando, A. (2017). National ties of international scientific collaboration and researcher mobility found in Nature and Science. *Scientometrics*, 110, 673.
- [Kim09] Kim, T. (2009). Transnational academic mobility, internationalization and interculturality in higher education. *Intercultural Education*, 20, 395.
- [Krz22] Kafarski, K., & Kazak, J. K. (2022). Erasmus Staff Mobility in the Building of a European Network: The Case of a Central European University. *Sustainability*, 14, 4949.

[Lam21] Lam, Q. K. H., & Ferencz, I. (2021). Erasmus+ staff mobility comparative data analysis. European Commission.

[Lee10] Leemann, R. J. (2010). Gender inequalities in transnational academic mobility and the ideal type of academic entrepreneur. *Discourse: Studies in the Cultural Politics of Education*, 31(5), 609.

[Lei16] Leisyte, L., & Rose, A.-L. (2016). The Challenges of Attracting and Retaining Academic Talent. *Journal of the European Higher Education Area*, 4(1), 1.

[Lei17] Leisyte, L., & Rose, A.-L. (2017). Academic Staff Mobility in the Age of Trump and Brexit? *International Higher Education*, 89(5), 1.

[Mat12] Matthews, T., Judge, T., & Whittaker, S. (2012, May). How do designers and user experience professionals actually perceive and use personas? In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 1219-1228).

[May00] Mays, N., & Pope, C. (2000). "Qualitative research in health care: Assessing quality in qualitative research." *BMJ*, 320(7226), 50-52.

[Mit14] Mitchell, N. (2014). More focus needed on higher education staff mobility. *University World News*.

[MOR16] European Union. (2016). MORE3 study. Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/4681ae98-3ba0-11e8-b5fe-01aa75ed71a1>

[MOR19] Organization Name. (2019). MORE4. Retrieved from <https://www.more-4.eu/>

[Nie14] Nielsen, L. (2014, January 1). Personas. Interaction Design Foundation - IxDF. Retrieved from <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/personas>

[OCa07] O’Cathain, A., Murphy, E., & Nicholl, J. (2007). Integration and publications as indicators of ‘yield’ from mixed methods studies. *Journal of Mixed Methods Research*, 1, 147-63.

[Pop95] Pope, C., & Mays, N. (1995). Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *BMJ*, 311, 42–5.

[Sha96] Shauman, K. A., & Xie, Y. (1996). Geographic mobility of scientists: Sex differences and family constraints. *Demography*, 33(4), 455.

[She22] Shen, W., Xu, X., & Wang, X. (2022). Reconceptualising international academic mobility in the global knowledge system: towards a new research agenda. *Higher Education*, 84(6), 1317.

[Sme05] Smeby, J. C., & Trondal, J. (2005). Globalisation or europeanisation? International contact among university staff. *Higher Education*, 49(4), 449.

[Ste15] Stephan, P., Scellato, G., & Franzoni, C. (2015). International Competition for PhDs and Postdoctoral Scholars: What Does (and Does Not) Matter. *Innovation Policy and the Economy*, 15 by the National Bureau of Economic Research.

[THC17] Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. *The SAGE handbook of qualitative research in psychology*, 2, 17-37.

[UNE21] Inbound/outbound internationally mobile students by continent of origin. The UNESCO Institute for Statistics.
<http://data.uis.unesco.org/index.aspx?queryid=3804> (2021).

[Zha23] Zhao, X., Akbaritabar, A., Kashyap, R., & Zagheni, E. (2023). A gender perspective on the global migration of scholars. *Proceedings of the National Academy of Sciences*, 120, e2214664120.

Survey regarding research staff mobility within EUt+

Thank you for your time and effort in sharing information with us about staff mobility: learning interesting facts as you respond to questions. This survey will take approximately 5 minutes to complete.

There are 23 questions in this survey.

This survey is anonymous.

The record of your survey responses does not contain any identifying information about you, unless a specific survey question explicitly asked for it.

If you used an identifying access code to access this survey, please rest assured that this code will not be stored together with your responses. It is managed in a separate database and will only be updated to indicate whether you did (or did not) complete this survey. There is no way of matching identification access codes with survey responses.

1. Page 1

Did you know that... From 1987 to 2020, more than 9 million individuals participated in various types of mobility to study, volunteer, for training, and for professional experience programs abroad under the EU Erasmus framework.

1.1) Have you ever experienced mobility as a student?

- Yes
- No

(Only if 1.1 is answered "Yes")

1.2) Was it a short period (< 2 weeks) or a longer period (> 1 month)?

- Short
- Long
- Both short and long

1.3) Have you ever experienced mobility in your professional career?

- Yes
- No

(Only if 1.3 is answered "Yes")

1.4) Was it a short period (< 2 weeks) or a longer period (> 1 month)?

- Short
- Long
- Both short and long

(Only if 1.3 is answered “Yes”)

1.5) What type of mobility did you experience?

- Research Collaboration
- Postdoctoral Fellowship
- Sabbatical
- PhD Research
- Visiting Professor

1.6) How many conferences (outside of your country) have you attended these last 5 years?

- Input: a number

2. Page 2

Did you know that... The purpose of the European Charter for Researchers, established in 2005, is to promote international mobility for researchers to enhance their skills and create a more competitive research environment in Europe.

2.1) Would you consider a mobility to a EU+ member university?

- Short period (< 2 weeks)
- Long period (> 1 month)
- Both short and long mobilities
- None

2.2) Would you consider a mobility to a university outside of EU+?

- Short period (< 2 weeks)
- Long period (> 1 month)
- Both short and long mobilities
- None

Did you know that... Nearly 80% of researchers have collaborated with researchers from other fields. This marks a 6% increase from 2016. Also, collaboration within academic institutions is more common as compared to collaboration with the non-academic sector.

2.3) What could be the reason for your mobility with a research context?

- Other:
- Using research facilities (for experiments...)
- Working on a joint project (EU,...)
- For a co-supervised personnel (PhD, post-doc, master...)
- For a visiting position (for a fixed-term, for sabbatical)

2.4) Would you travel with your family on a short period (< 2 months) if you have any?

- Yes
- No

2.5) Would you travel with your family on a longer period (> 2 months) if you have any?

- Yes
- No

Did you know that... Gender disparities exist in academia, with women often facing challenges related to mobility and career progression. However, there has been a significant increase (nearly x3) in the number of female published researchers in recent years.

(Only if 1.3 is answered "Yes")

2.6) On a scale from 1 to 5, please rate the following obstacles or difficulties you have encountered in your experience with mobility for a short period (< 2 weeks), with 1 being not significant and 5 being highly significant:

- Accommodation (including housing and health insurance)
- Personal and family-related concerns
- Administrative bureaucracy
- Commitments and responsibilities in your home country (e.g., teaching or other duties)
- Obtaining funding for the mobility
- Experiencing culture shock

(Only if 1.3 is answered "Yes")

2.7) On a scale from 1 to 5, please rate the following obstacles or difficulties you have encountered in your experience with mobility for a longer period (> 1 month), with 1 being not significant and 5 being highly significant:

- Accommodation (including housing and health insurance)
- Personal and family-related concerns
- Administrative bureaucracy
- Commitments and responsibilities in your home country (e.g., teaching or other duties)
- Obtaining funding for the mobility
- Finding a suitable position
- Experiencing culture shock

2.8) On a scale of 1 (not significant) to 5 (highly significant), for which categories you see mobilities as a good thing for your career?

- Research opportunities
- Teaching opportunities
- Career growth and skill development
- Expanding international networks
- Gaining recognition within the research community

Did you know that... International research mobility is on the rise, with 56% of articles published in the journal Higher Education on the subject being published during the only period between 2015 and 2021?

2.9) What would you suggest to facilitate your mobility? Select those relevant to you:

- Teaching relief by your own institution
- Logistical help (picking up, housing etc...) from the host institution
- Help for your family to accommodate to the host
- Local institution guide/liaison appointed
- Local outside-the-institution guide appointed

3. Demographic data

3.1) I am a

- Man
- Woman
- Prefer not to reply

3.2) Age group

- 19-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75 years or older

3.3) My university

- Cyprus University of Technology
- Darmstadt University of Applied Sciences
- Riga Technical University
- Technological University Dublin
- Technical University of Sofia
- Universidad Politécnica de Cartagena
- Université de technologie de Troyes
- Universitatea Tehnică din Cluj-Napoca
- I am a visiting professor. Indicate university:

3.4) Nationality

- Germany
- Latvia
- Ireland
- Bulgaria
- Cyprus
- Spain

- Romania
- Italy
- France
- Other EU citizen
- Non EU citizen

Did you know that... In the European Union, researchers are classified into four broad profiles, each with its own unique characteristics and competences, from R1 to R4 depending on experience.

3.5) My profile

- R1 - First Stage Researcher (Up to the PhD)
- R2 - Recognised Researcher (Ph.D. or equivalent who is not yet independent)
- R3 - Established Researcher (PhD research staff who already have a high level of independence)
- R4 - Leading Researcher (Research staff leading their line or field of research)

3.6) What is your research field?

- Natural Sciences
- Engineering
- Social Sciences
- Health and Medical Sciences
- Mathematics and Statistics
- Computer Science and IT Humanities
- Environmental Sciences
- Business and Management
- Other:

3.7) I would say my experience in staff mobility is

- Low
- Medium
- High

3.8) I would say my interest in knowing more about staff mobility is

- Low
- Medium
- High

Annex 1b

Results of the large-scale questionnaire

Staff mobility: Obstacles and Solutions

List of abbreviations

- CUT: Cyprus University of Technology
- h_da: Darmstadt University of Applied Sciences
- RTU: Riga Technical University
- TU Dublin: Technological University Dublin
- TUS: Technical University of Sofia
- UPCT: Universidad Politécnica de Cartagena
- UTT: Université de technologie de Troyes
- UTCN: Universitatea Tehnică din Cluj-Napoca

1 Presentation of the results of the survey

As already mentioned, this survey is the second and final survey after a first one was tried within the UTT partner mostly. 529 complete answers have been analysed when another than 300 ones have been left aside as they were not complete. The fact that the UTT partner had already filled in the first test survey explains why there are less answers from this partner.

Figure 1 gives the repartition of the partners regarding the answers of the poll.

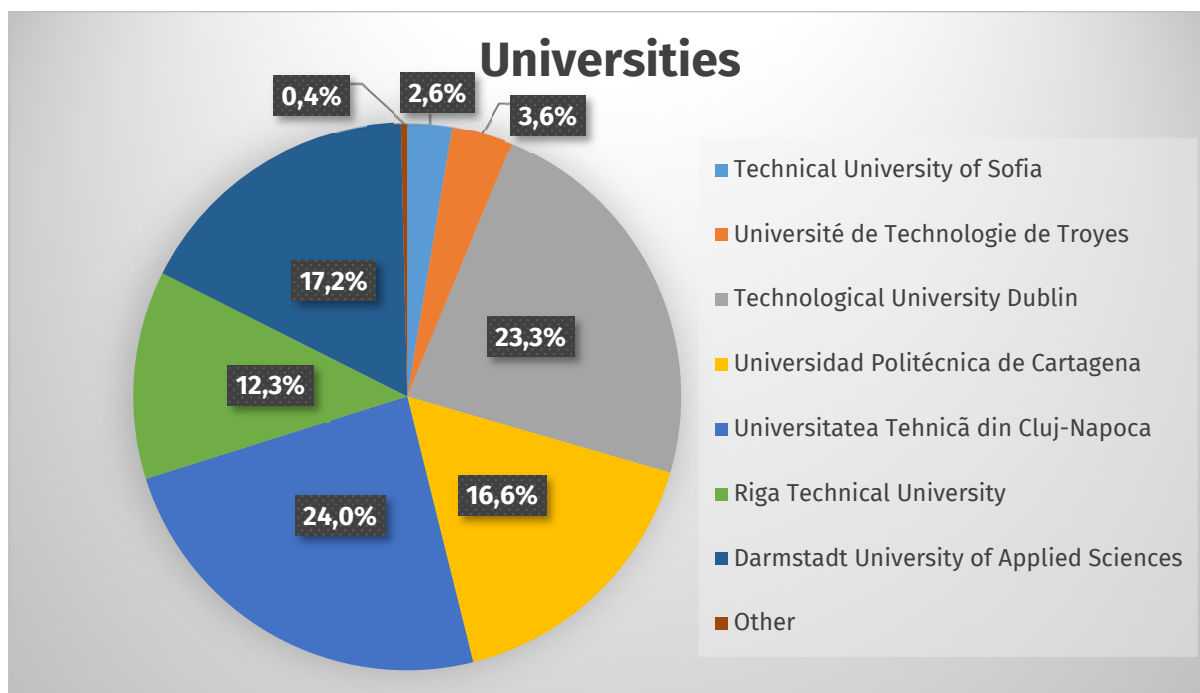


Figure 1: Percentage of responses per partner

2 General and demographic data

We start the analysis of the survey with demographic data where Figure 2 provides the repartition by genre, while Figure 3 provides it by age groups. Figure 3 can be correlated to Figure 4 which is the repartition by the level of maturity of the researcher (or at least its felt one). We can say that even though we do not have 50/50 for the man/woman repartition, there is a significant percentage of responses from the woman side considering we are dealing with technological universities where a usual bias towards men is usually found. There is also a good spread in terms of age groups and we can correlate it to the EU researcher maturity level going from R1 to R4 with the categories being R1+R2 ~ age groups 25-34 + 35-44, while R3 ~ age group 45-54 and R4 ~ age groups 55-64 and more. Figure 5 shows a high

percentage of native researchers across EUT+ universities, with UTT and TU Dublin having the lowest percentages.

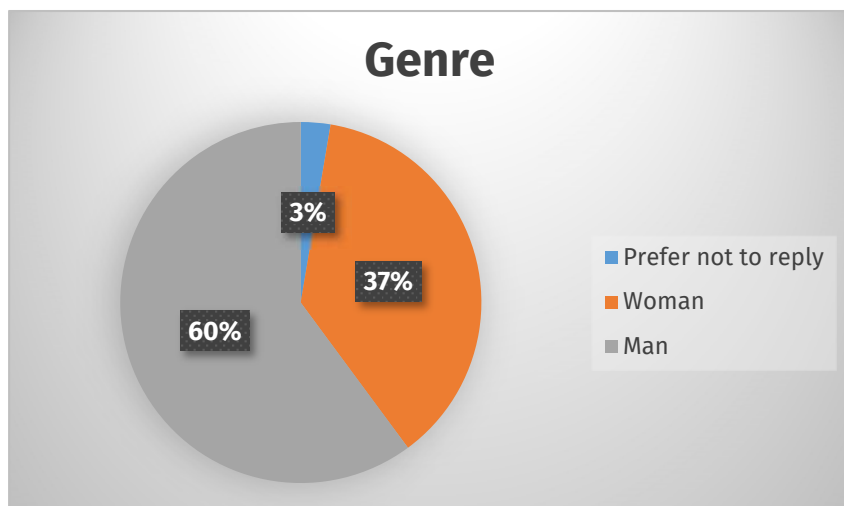


Figure 2: Genre repartition for the answers of the survey

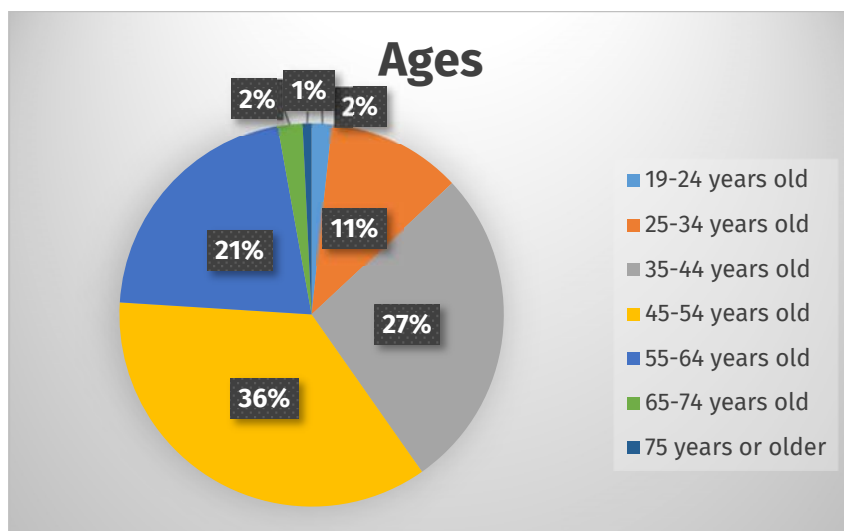


Figure 3: Age group repartition for the answers of the survey

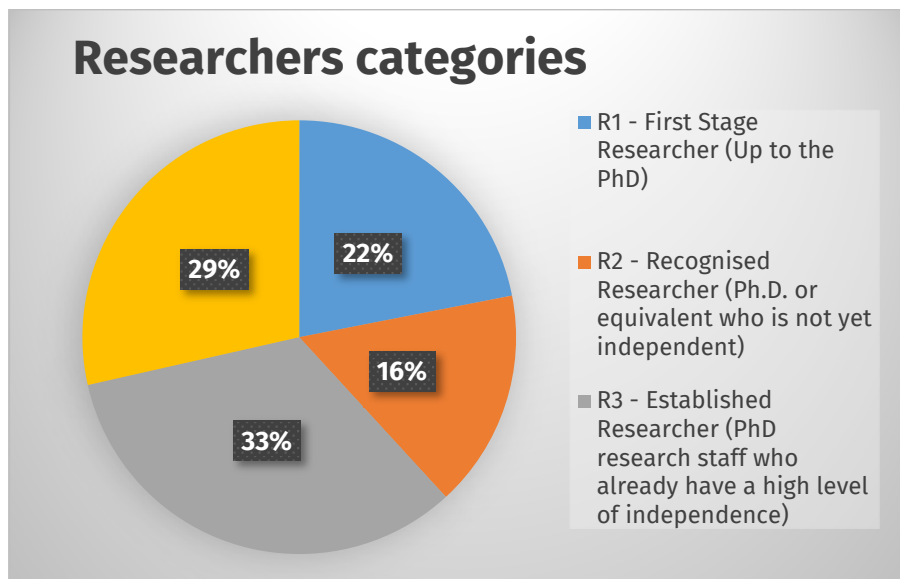
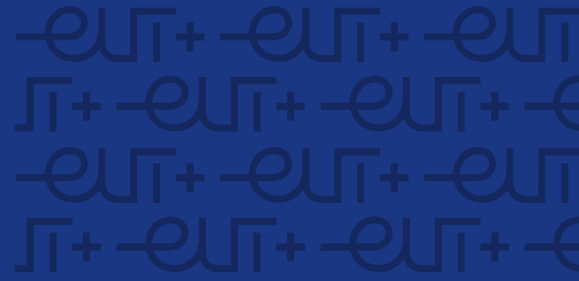


Figure 4: Research maturity level repartition for the answers of the survey

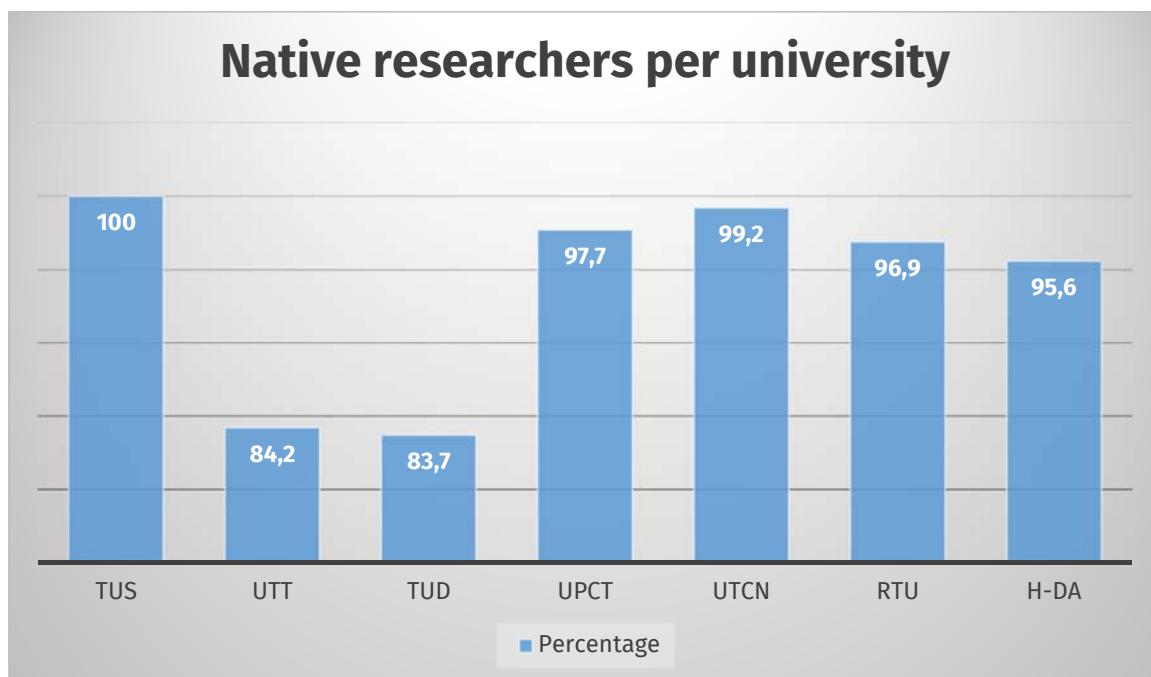


Figure 5: Native researchers repartition for the answers of the survey

3 Past and current mobilities of the EUT+ partners

Before wondering what can be improved for the future of the researchers' mobility, the first page of the survey questioned what kind of mobility (being short or long, or both), if any, the researchers from the EUT+ have been doing in the past starting from when they were students (Figure 6-a and Figure 6-b) to during their career (Figure 7).

From Figure 6, the poll that: overall, 38.9% of researchers reported having experienced mobility as students, while the majority, 61.1%, had not. When we delve into the data from individual universities, we see some variation. The highest rate of student mobility was reported at Darmstadt University of Applied Sciences, with 57.1% of researchers having experienced mobility as a student, followed by UTT and UPCT with 47.4% and 44.3%, respectively. On the other hand, TU Dublin had the lowest rate of researcher mobility as a student, with only 24.4% of researchers reporting such experiences. Other universities with lower rates includes the UTCN and TUS, with 35.4% and 35.7%, respectively. The data from Riga Technical University closely mirrored the overall results, with 40.0% of researchers reporting mobility experiences as a student and 60.0% reporting none.

Figure 6-b further inquired about the duration of the mobility experience as a student. A significant majority of researchers, 63.1%, had a long period of mobility that lasted more than a month when they were students. A smaller proportion, 21.8%, had a short mobility experience lasting less than two weeks. Interestingly, 15.0% reported having both short and long periods of mobility. When we look at the data by university, we also see some variations. The UTT and UPCT have the highest rates of long-term mobility, with 77.8% and 76.9% respectively. On the other hand, RTU and TU Dublin have relatively high rates of short-term mobility, with 34.6% and 33.3% respectively. The data also shows that a notable proportion of researchers

RTU, 26.9%, and TUS, 20.0%, have experienced both short and long periods of mobility as students.

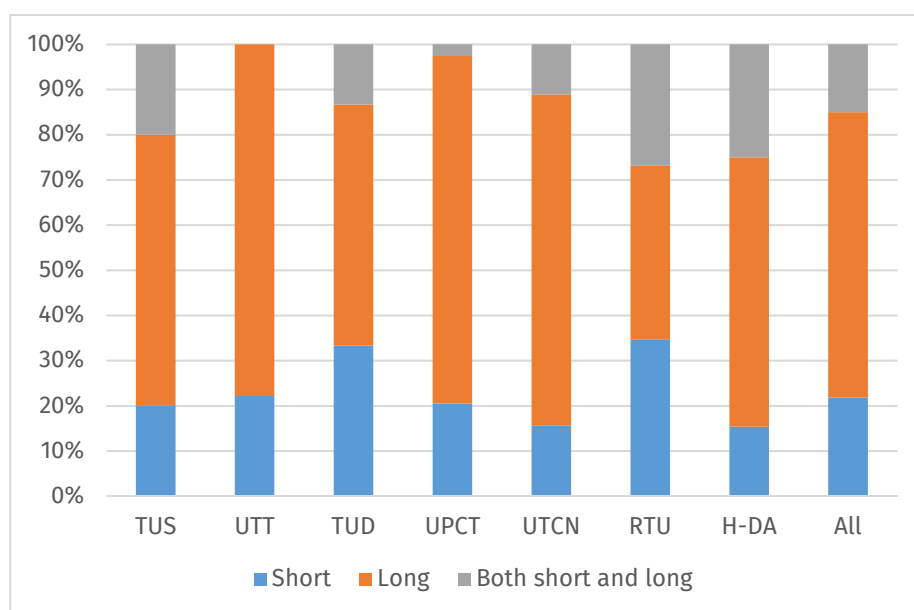
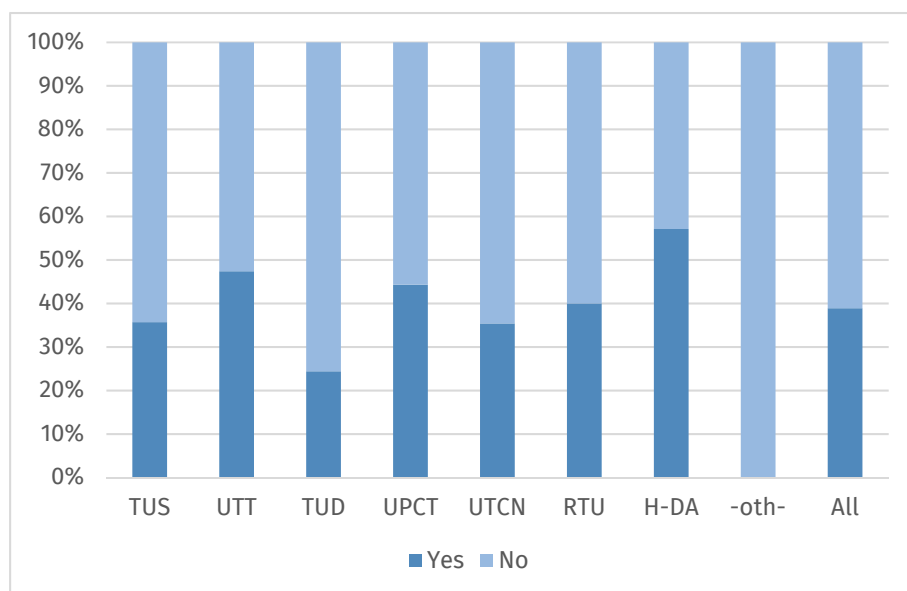


Figure 6: Answers to the question "Have you ever experienced a mobility as a student?", a- with 'yes-no', b- how long

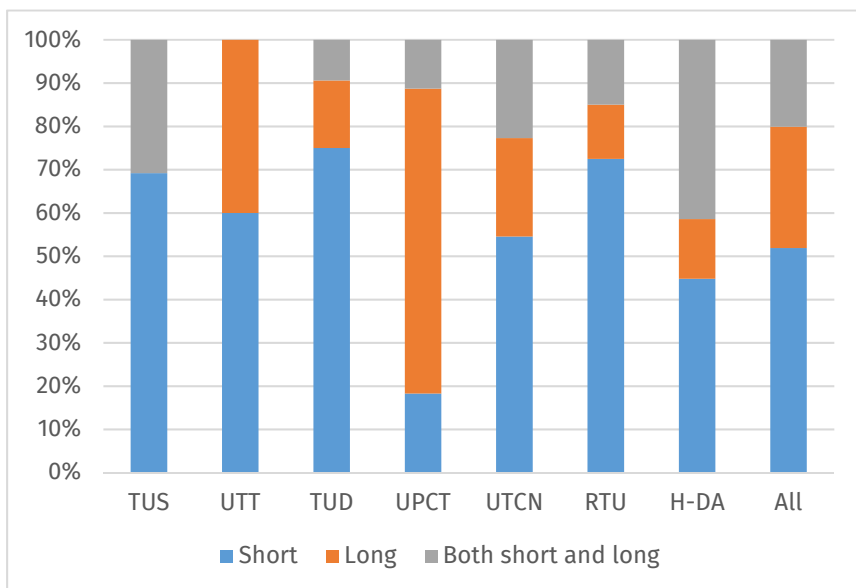
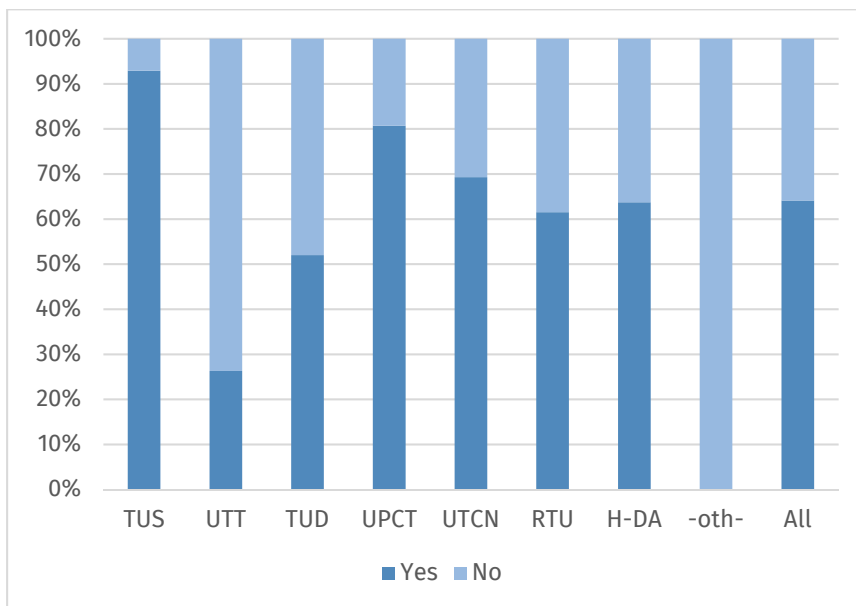
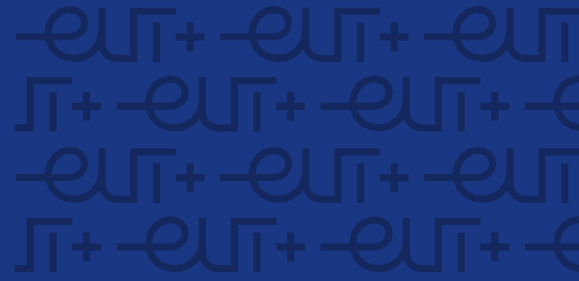


Figure 7: Answers to the question “Have you ever experienced a mobility in your professional career?”, a- with ‘yes-no’, b- how long

Figure 7 is now interested in whether researchers from the alliance have experienced a mobility during their career, yes or no (Figure 7-a) and if yes, how long

(Figure 7-b). Overall, 64.1% of respondents have experienced mobility in their professional careers, while 35.9% have not. A closer look tells us that TUS had the highest percentage of respondents who have experienced professional mobility, at 92.9%, followed closely by the UPCT partner with 80.7%. On the other hand, the UTT had the lowest percentage of respondents who have experienced professional mobility, at only 26.3%, indicating a significant difference in career mobility experiences among its staff compared to other universities and the fact that the same researchers moved when they were students. RTU, H-DA and UTCN had similar percentages of respondents who have experienced professional mobility, at 61.5%, 63.7%, and 69.3% respectively. The Technological University Dublin had a fairly even split, with 52.0% of respondents having experienced professional mobility and 48.0% not having done so. Figure 7-b also asked respondents about the duration of their professional mobility experiences. Overall, 51.9% of respondents had short-term experiences (less than 2 weeks), 28.0% had long-term experiences (more than 1 month), and 20.1% had both short and long-term experiences. Looking at individual universities, RTU and TUDublin had the highest percentages of respondents with short-term experiences, at 72.5% and 75.0% respectively. UPCT stands out with a significant majority (70.4%) of respondents having long-term experiences, while TUS reported no long-term experiences. H-DA had the highest percentage of respondents who had both short and long-term experiences, at 41.4%. Interestingly, no respondents from the UTT reported having both short and long-term experiences.

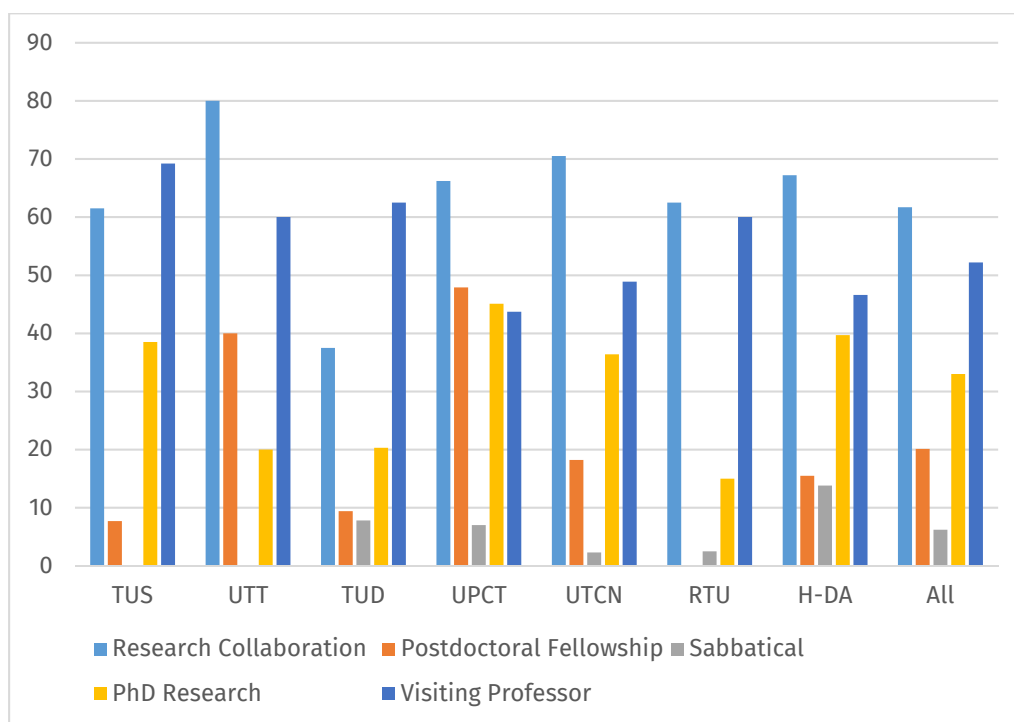


Figure 8: Answers to the question “What type of mobility did you experience?”

Figure 8 reports the kind of mobility that was done during their professional careers with 5 choices: Research Collaboration, Postdoctoral Fellowship, Sabbatical, PhD research and Visiting Professor. The most common type of mobility was Research Collaboration, with an overall percentage of 61.7%. This was the most popular type of mobility at almost all universities, with the highest rate at the UTT at 80.0%, and the lowest at TU Dublin at 37.5%.

The second most common type was being a Visiting Professor, with an overall rate of 52.2%. This type of mobility was most common at the Technical University of Sofia (69.2%) and least common at the Universidad Politécnica de Cartagena (43.7%). PhD Research was experienced by 33.0% of participants overall, with the highest rate at the Technical University of Sofia (38.5%) and the lowest at the Technological

University Dublin (20.3%). The Postdoctoral Fellowship had an overall rate of 20.1%, with the highest rate at the Universidad Politécnica de Cartagena (47.9%) and no participants from the Riga Technical University experiencing this type of mobility. Finally, the least common type of mobility was a Sabbatical, experienced by only 6.2% of participants overall. The highest rate was at the Darmstadt University of Applied Sciences (13.8%) and there were no participants from either the Riga Technical University, the Université de Technologie de Troyes, or the Technical University of Sofia who experienced this type of mobility.

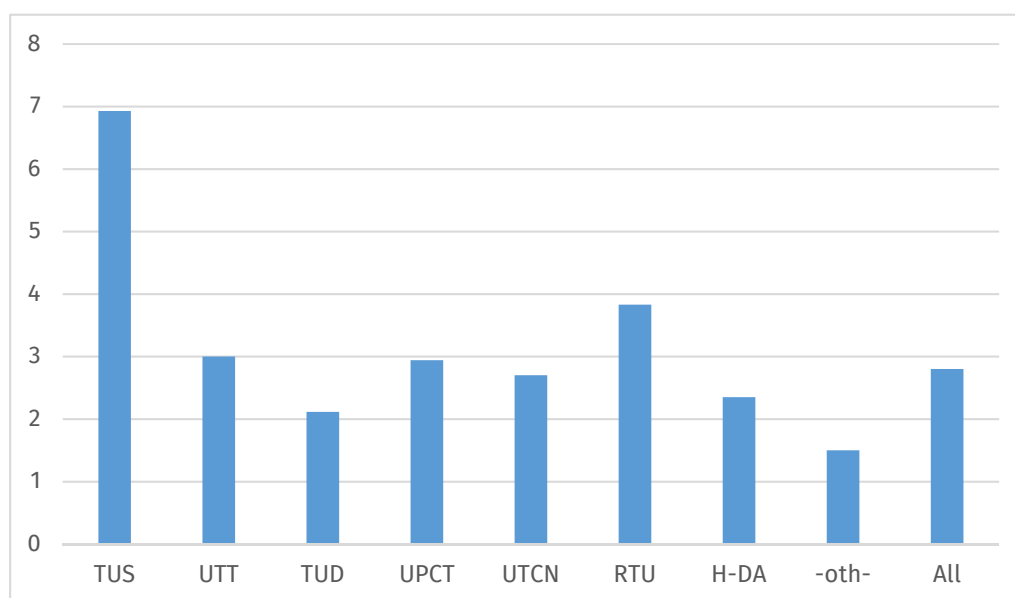


Figure 9: Answers to the question “How many conferences (outside of your country) have you attended these last 5 years?”, average value by university

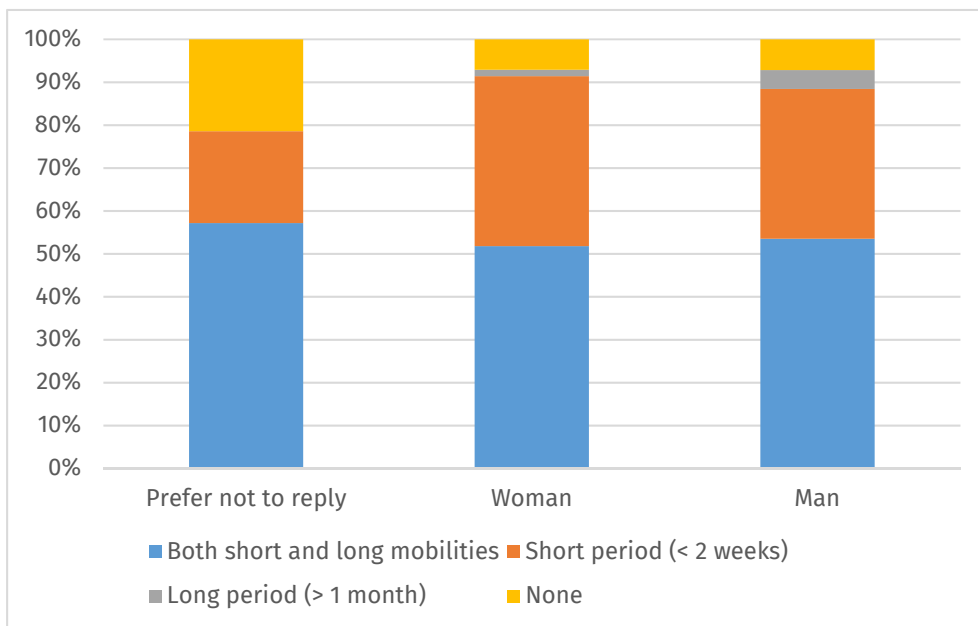
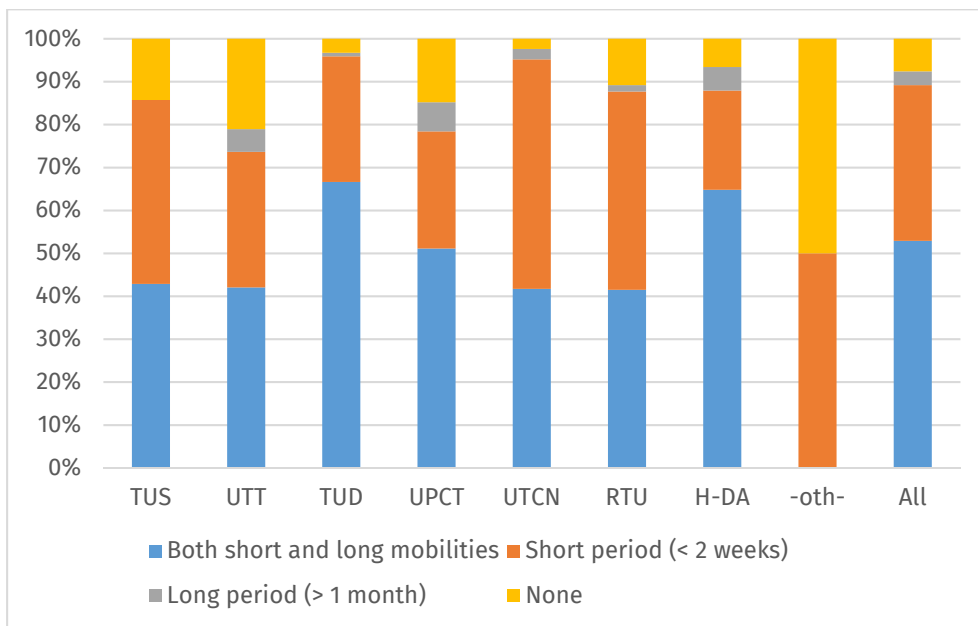
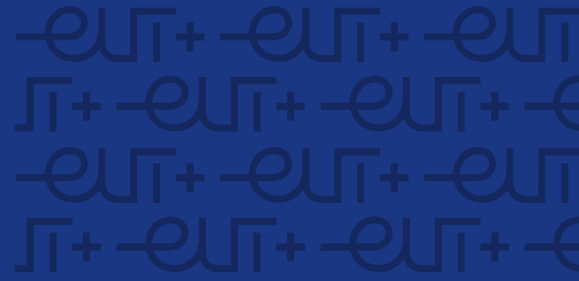
Finally, the last type of question was related to how many conferences (outside the country) have the researcher attended within the last 5 years. This measure is interesting to gauge the ‘willingness’ of the researcher to go abroad for something inherent to his work (Figure 9). On average, participants attended approximately 2.8 conferences, with a standard deviation of about 3.92, indicating a wide spread in the

data. The minimum number of conferences attended was 0, while the maximum was 50. The median (50th percentile) was 2, suggesting that half of the respondents attended 2 or fewer conferences.

When we look at the data by university, we see some interesting patterns. TUS had the highest average number of conferences attended at approximately 6.93, but also had a high standard deviation of about 12.83, indicating a large variation in responses. On the other hand, H-DA had the lowest average number of conferences attended at approximately 2.35. RTU and UTT had similar averages (around 3.83 and 3 respectively), but RTU had a higher standard deviation (around 4.66 compared to Troyes' 4.20), suggesting a wider spread in the number of conferences attended by its respondents.

4 Future mobilities within the EUT+ partners

In this section, the first question asked was: what type of mobility (long, short or both) the researchers from the EUT+ alliance would consider within a EUT+ member university (Figure 11-a, Figure 11-b and Figure 11-c) and also outside a EUT+ member university (Figure 11-d, Figure 11-e and Figure 11-f).



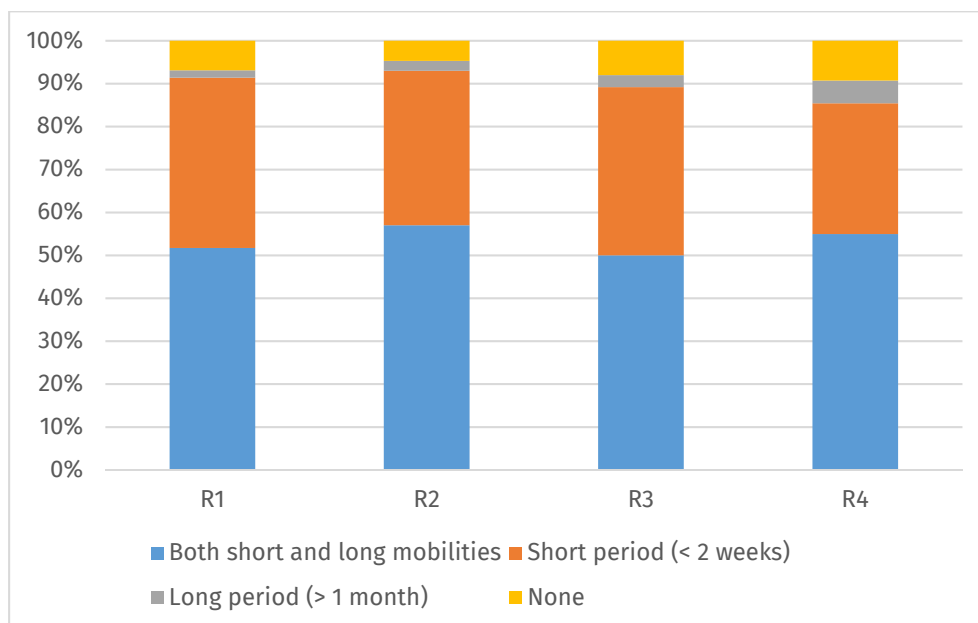


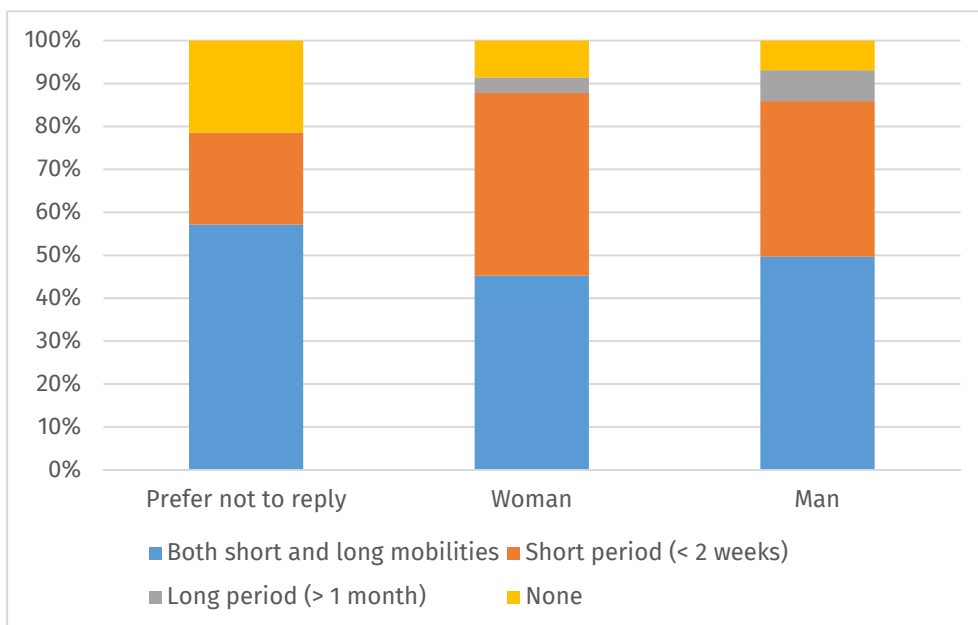
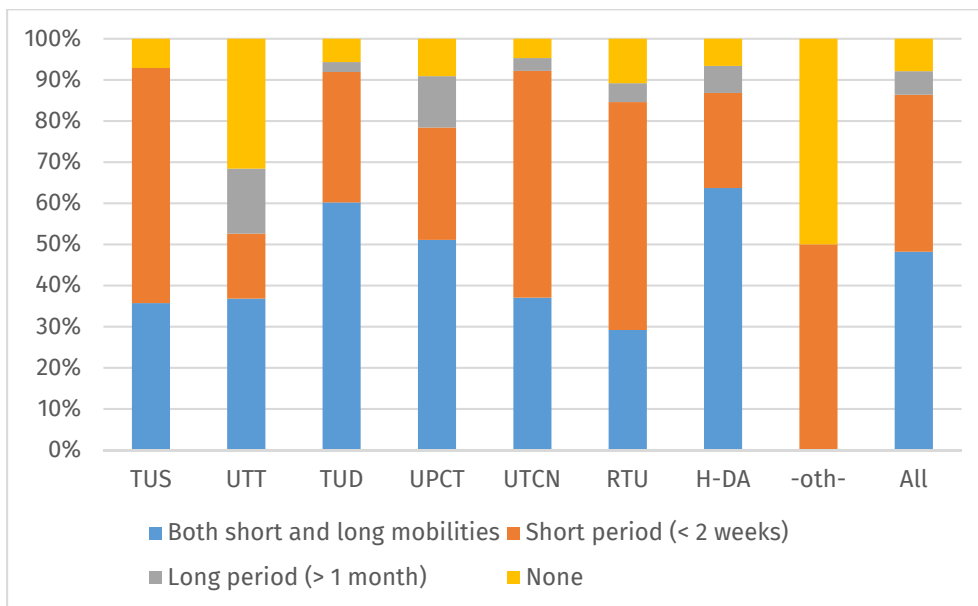
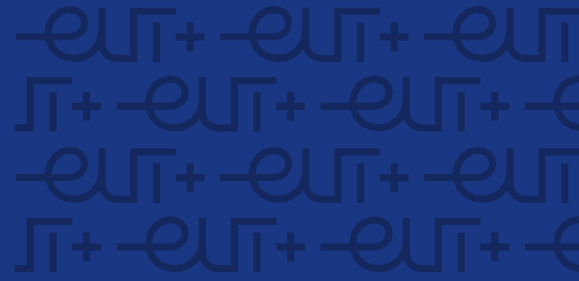
Figure 10: Answers to the question “Would you consider a mobility to a EUT+ member university?”, a, b, c-

The poll reveals interesting insights into the preferences of researchers regarding mobility to a EUT+ member university (Figure 10). A significant majority, 52.9% of the respondents, expressed interest in both short (less than 2 weeks) and long (more than 1 month) mobility periods. Short mobility periods were the second most popular choice, with 36.3% of researchers indicating a preference for stays less than 2 weeks. Long mobility periods were less popular, with only 3.2% of researchers expressing a preference for stays longer than 1 month. A small percentage of researchers, 7.6%, indicated that they would not consider any mobility to a EUT+ member university. When we look at the data by university, we see some variations in these trends. For instance, the Technological University Dublin had the highest percentage (66.7%) of researchers interested in both short and long mobilities, while the Darmstadt University of Applied Sciences had the lowest percentage (23.1%) for short period mobilities. The Technical University of Sofia and Universitatea Tehnică din Cluj-Napoca both had no researcher interested in long period mobilities.

Furthermore, the data is stratified by gender, with women showing a higher inclination toward short-term mobility (39.6%) compared to men (34.9%), while men express a slightly higher preference for long-term mobility (4.4%) compared to women (1.5%). Both genders have the same proportion of researchers not interested in a mobility to a EUT+ member university (7.2% for men and 7.1% for women).

When examining the data by the research category of respondents (R4 - Leading Researcher, R3 - Established Researcher, R2 - Recognized Researcher, R1 - First Stage Researcher), it is interesting to note that the lower the research category, the more open respondents are to short-term mobility, with R1 respondents showing the highest interest (39.7%). On the other hand, long-term mobility is less appealing to all research categories, with R1 researchers showing the least interest (1.7%). Both short and long mobilities are evenly distributed among the research categories, indicating that these options are popular across the board.

The intersection of gender and research categories presents a complex picture. For instance, men in the R3 - Established Researcher category have the highest preference for short-term mobility (38.0%), while women in the same category show the lowest interest (26.7%). Moreover, women in the R4 - Leading Researcher category have the highest preference for having no mobility at all (33.3%), whereas no men in the same category share that preference (0.0%).



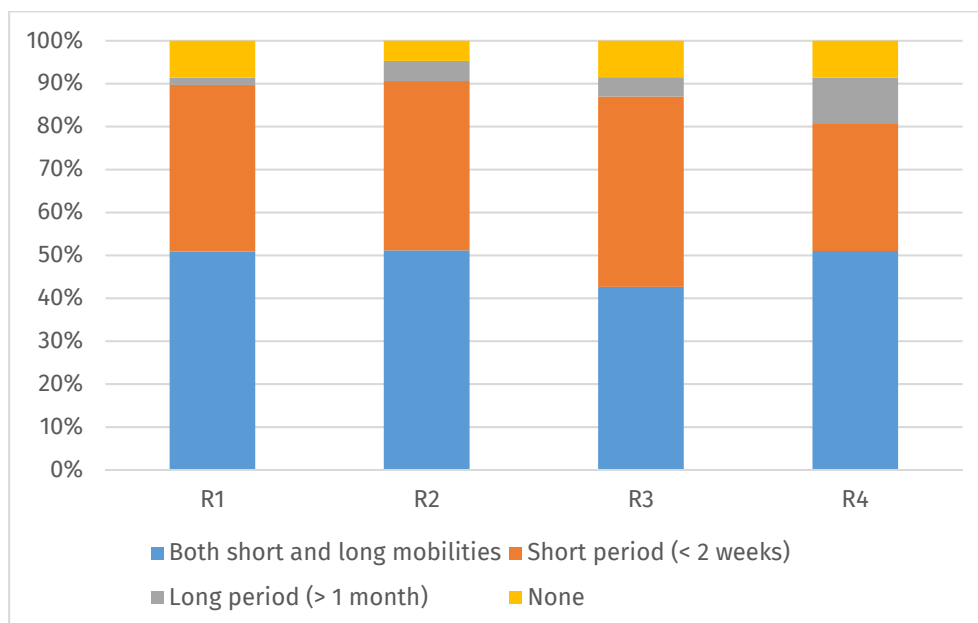


Figure 11: Answers to the question “Would you consider a mobility to a university outside of EUT+?”, a, b, c-

For a university outside the EUT+ (Figure 11), the majority of respondents, 48.2%, were open to both short and long mobilities. Short periods of less than 2 weeks were preferred by 38.2% of respondents, while long periods of more than 1 month were less popular, with only 5.7% considering this option. A small percentage, 7.9%, indicated they would not consider any mobility to a university outside of EUT+. When looking at individual universities, TUS and UTCN had the highest percentage of researchers considering short periods (57.1% and 55.1% respectively), while the UTT had the lowest at 15.8%. For long periods, UPCT had the highest percentage at 12.5%, with several universities reporting no researchers considering this option. TU Dublin and H-DA had the highest percentage of researchers considering both short and long mobilities (60.2% and 63.7% respectively). The UTT had the highest percentage of researchers not considering any mobility at 31.6%.

The data categorized by gender reveals some differences in preferences. Women are more open to short periods of mobility (42.6%) compared to men (36.2%), while a higher percentage of men (7.2%) are willing to consider long periods of mobility compared to women (3.6%).

Finally, the data categorized by research stages (R1 - R4) demonstrates that R3 - Established Researchers show the highest willingness (44.3%) to engage in short periods of mobility, while R4 - Leading Researchers are more inclined (10.6%) to consider long periods of mobility. This might suggest that more experienced researchers are more willing to invest in longer-term international collaborations, while early-stage researchers are focused on shorter-term opportunities.

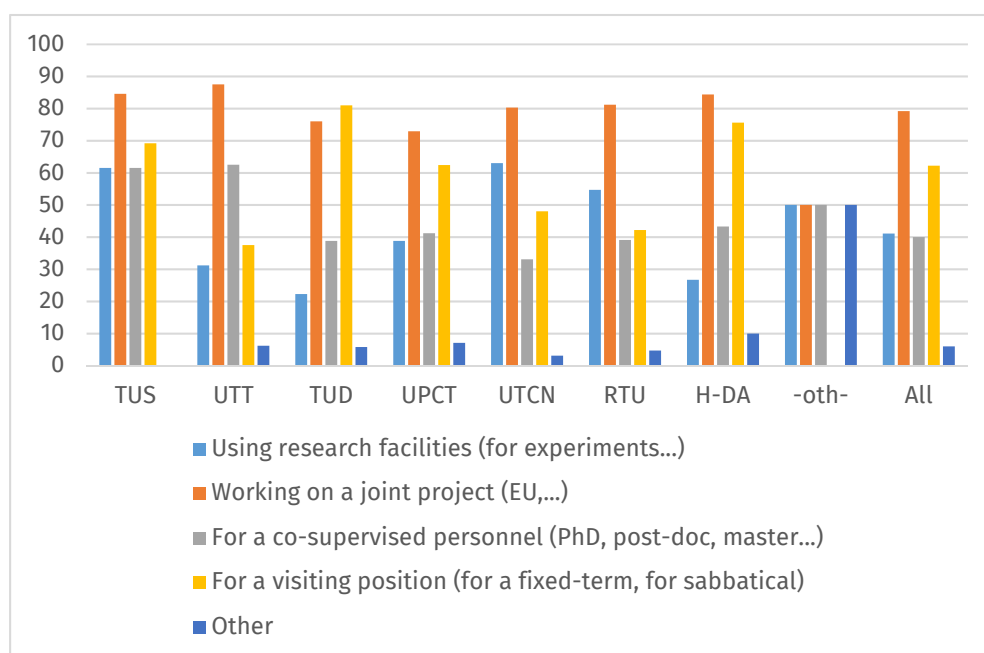


Figure 12: Answers to the question “What could be the reason for your mobility with a research context?”

In comparison to Figure 8 which asked what type of mobility did you in the past, Figure 12 is about what type of mobility would you envisage in the future, what would be the reason for your future mobility.

By far, the most popular reason, with 79.2% of respondents, was working on a joint project, such as an EU project. This was followed by visiting positions, either for a fixed-term or for sabbatical, which accounted for 62.2%. Using research facilities for experiments was another significant reason, with 41.1% of respondents selecting this option. Meanwhile, 40.0% of respondents reported mobility for co-supervised personnel, such as PhD, post-doc, or master students. The category labeled “Other” was the least selected option, with only 6.0% of respondents choosing it. There are variations from partner to partner and for instance, the highest percentage of respondents from the TUS reported using research facilities for experiments (61.5%) and working on a joint project (84.6%). At the UTT, the majority of respondents also reported working on a joint project (87.5%), but fewer reported using research facilities for experiments (31.2%). A correlation can probably be made between the needs of a given partner to another: such as not enough research facilities, or not enough funding, or the will to work on a different.

Another important question was whether the research was willing to travel with her/his family for a short period (< 2 weeks) or for a longer period (> 1 month). The answers to this question revealed interesting insights about the travel preferences of individuals with families. For short-term travel (less than 2 weeks), a slight majority of respondents (52.7%) indicated they would travel with their family.

This sentiment was most strongly echoed at the UTCN, where 61.4% of respondents answered ‘Yes’. TUS and TUDublin also had a majority of ‘Yes’ responses, at 57.1% and 56.9% respectively. However, the UTT and RTU had more ‘No’ responses, with

57.9% and 63.1% respectively. For long-term travel (more than 1 month), the overall sentiment was almost evenly split, with 51.2% answering 'Yes' and 48.8% answering 'No'. UPCT and H-DA had the highest proportion of 'Yes' responses, at 64.8% and 63.7% respectively. On the other hand, UTCN had the highest proportion of 'No' responses (63.8%), followed closely by the UTT (57.9%) and RTU (56.9%).

Breaking down the data by gender, 54.8% of women and 52.2% of men prefer short family trips, while men (53.5%) appear to be slightly more inclined to embark on longer family trips than women (48.2%).

In terms of academic status, established researchers (R3) exhibit the highest willingness to embark on short family trips at 56.2%, closely followed by recognized researchers (R2) at 54.7%. First-stage researchers (R1) and leading researchers (R4) show similar percentages, with 50.9% and 49.0%, respectively. When it comes to long family trips, respondents' academic status does not appear to have a significant impact. Both established researchers (R3) and recognized researchers (R2) exhibit the highest willingness, with 53.5%. First-stage researchers (R1) and leading researchers (R4) have similar percentages, with 50.0% each.

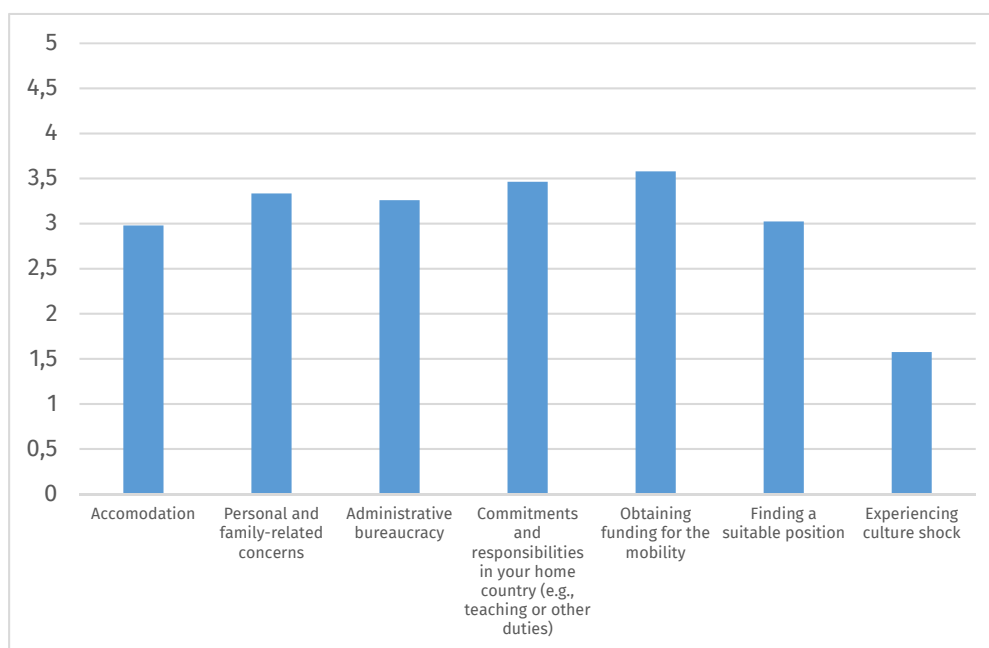
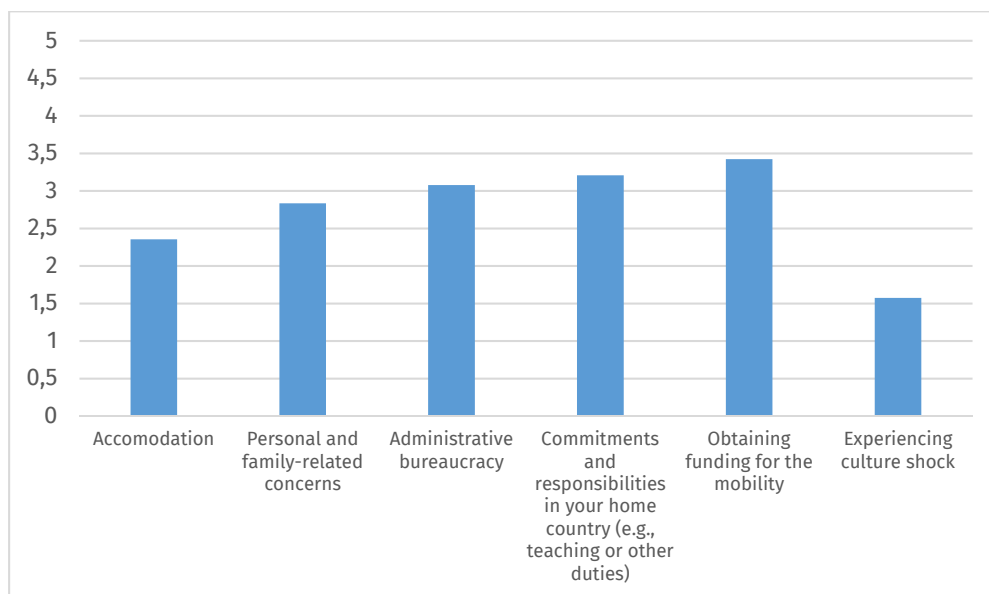


Figure 13: Answers to the question “On a scale from 1 to 5, please rate the following obstacles or difficulties you have encountered in your experience with mobility, with 1 being not significant and 5 being highly significant”, a- for a short period (< 2 weeks) and b- for a longer mobility (> 1 month)

After that came the question on rating on a scale from 1 to 5, the main obstacles or difficulties the researchers have encountered in their experience with mobility for a short period (< 2 weeks), with 1 being not significant and 5 being highly significant. Figure 13-a provides the results. It was found that the highest-rated obstacle was **obtaining funding for the mobility**, with an average score of **3.42** and a standard deviation of **1.39**. Next, participants rated their **commitments and responsibilities in their home country**, such as teaching or other duties, at an average of **3.21**, with a standard deviation of **1.33**. **Administrative bureaucracy** was rated slightly lower, with an average score of **3.08** and a standard deviation of **1.23**, followed by **Personal and family-related concerns** with an average rating of **2.83**, with a standard deviation of **1.47**. **Accommodation**, including housing and health insurance, was rated by 339 participants with an average score of **2.35**. The scores varied widely, with a standard deviation of **1.42**, and ranged from a minimum of 1 to a maximum of 5. Finally, the lowest-rated obstacle was **experiencing culture shock**, with an average score of only **1.45** and a standard deviation of **0.89**. This suggests that culture shock was not a significant concern for most participants in short-term mobility experiences.

Below is a detailed analysis of the results for each category:

1. **Accommodation (including housing and health insurance):** Among the participating universities, the mean ratings for this obstacle ranged from 1.81 to 3.04, with Universidad Politécnica de Cartagena having the highest mean and Darmstadt University of Applied Sciences having the lowest.
2. **Personal and family-related concerns:** The mean ratings for personal and family-related concerns ranged from 2.54 to 3.45 across universities. Universidad Politécnica de Cartagena had the highest mean rating, indicating that researchers there considered these concerns to be more significant.

Again, there was a variation in responses, but the overall mean across all universities was 2.83, suggesting that this obstacle was generally considered moderately significant.

- Administrative bureaucracy:** The mean ratings for administrative bureaucracy ranged from 2.81 to 3.52 across universities. Technological University Dublin had the highest mean rating, indicating that researchers there found administrative bureaucracy to be more significant. The overall mean across all universities was 3.08, indicating that this obstacle was moderately significant for most participants.
- Commitments and responsibilities in your home country:** Mean ratings for commitments and responsibilities in the home country ranged from 2.77 to 3.43 across universities. Universidad Politécnica de Cartagena had the highest mean rating, suggesting that researchers from that university perceived this obstacle as more significant. The overall mean across all universities was 3.21, indicating that this obstacle was moderately significant for most participants.
- Obtaining funding for the mobility:** The mean ratings for obtaining funding ranged from 2.20 to 3.70 across universities. Universidad Politécnica de Cartagena had the highest mean rating, indicating that researchers there found funding to be more challenging to secure. The overall mean across all universities was 3.42, suggesting that obtaining funding for mobility was a relatively significant obstacle for participants.
- Experiencing culture shock:** This obstacle had the lowest mean ratings, ranging from 1.20 to 2.13 across universities. Universidad Politécnica de Cartagena had the highest mean rating, indicating that researchers from that university experienced culture shock more significantly. The overall mean

across all universities was 1.45, suggesting that, on average, researchers did not find culture shock to be highly significant during short-term mobility.

On the other hand, Figure 13-b gives the rating on a scale from 1 to 5 of the main obstacles or difficulties the researchers have encountered in their experience with mobility for a longer period (> 1 month), with 1 being not significant and 5 being highly significant. According to the poll conducted across EU+ universities, respondents identified several challenges when it comes to extended mobility experiences. The most significant obstacle, with an average rating of approximately 3.58, was obtaining funding for the mobility, suggesting that securing financial support is a primary concern for individuals embarking on longer-term mobility. Following closely behind was the burden of commitments and responsibilities in their home country, with a mean score of around 3.46, indicating that balancing these responsibilities during mobility is a notable challenge. Personal and family-related concerns ranked third, with a mean rating of 3.33, emphasizing the importance of addressing personal and familial matters while abroad. Administrative bureaucracy was considered a significant challenge as well, with a mean score of approximately 3.26. Accommodation, encompassing housing and health insurance, was rated somewhat lower but still significant, with a mean of 2.98. Finding a suitable position, while important, had a mean score of 3.02, indicating moderate difficulty. Lastly, experiencing culture shock received the lowest mean score, at 1.58, suggesting that it was generally perceived as less significant compared to other obstacles. It is thus pretty clear that the main difficulties are the same whether we are dealing with a short or a long mobility.

Some variations exist between universities:

➔ Accommodation (including housing and health insurance):

The respondents from UPCT reported the highest mean rating of 3.66, indicating that accommodation-related issues were somewhat significant in their mobility experiences. H-DA followed with a mean rating of 3.03, while RTU had a mean rating of 2.85. On the lower end of the scale, TUS had the lowest mean rating at 2.54. Overall, accommodation challenges were moderately significant for most universities.

→ Personal and family-related concerns:

Researchers from UPCT indicated the highest mean rating of 3.83 for personal and family-related concerns, suggesting that these issues were moderately significant. UTT had the highest mean rating of 4.0, indicating a relatively high significance of these concerns. TUS had the lowest mean rating at 2.54, suggesting these concerns were less significant for their researchers.

→ Administrative bureaucracy:

Researchers at Universidad Politécnica de Cartagena reported a mean rating of 3.30 for administrative bureaucracy, suggesting moderate significance. Darmstadt University of Applied Sciences had a slightly higher mean rating of 3.48. Meanwhile, Riga Technical University had the lowest mean rating of 2.85. These results indicate that administrative bureaucracy was moderately significant across most universities, with some variation (standard deviation ranging from 1.08 to 1.46) in researchers' perceptions.

→ Commitments and responsibilities in the home country:

The data reveals that commitments and responsibilities in researchers' home countries were moderately significant, with mean ratings ranging from 3.22 to 3.76. Universidad Politécnica de Cartagena had the highest mean rating at 3.63, while Universitatea Tehnică din Cluj-Napoca had a mean rating of 2.77.

→ Obtaining funding for mobility:

The data shows that obtaining funding for mobility was moderately significant, with mean ratings ranging from 3.38 to 3.96. Universidad Politécnica de Cartagena had the highest mean rating at 3.96, indicating relatively high significance. Technical University of Sofia had the lowest mean rating at 2.38, suggesting that funding was less of an issue for their researchers.

→ Finding a suitable position:

Researchers across universities reported that finding a suitable position was moderately significant, with mean ratings ranging from 2.38 to 3.33. Darmstadt University of Applied Sciences had the lowest mean rating at 2.38, while Technological University Dublin had the highest mean rating at 3.33.

→ Experiencing culture shock:

Culture shock was generally perceived as less significant, with mean ratings ranging from 1.42 to 2.05. Universidad Politécnica de Cartagena had the lowest mean rating at 1.42, while Université de Technologie de Troyes had the highest mean rating at 2.05.

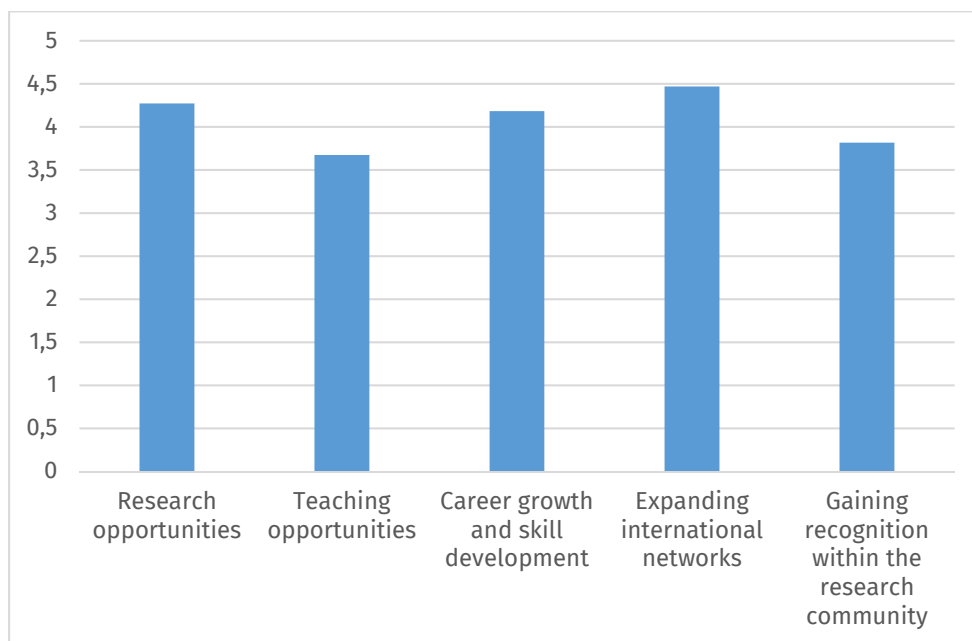


Figure 14: Answers to the question “On a scale of 1 (not significant) to 5 (highly significant), for which categories you see mobilities as a good thing for your career?”

Figure 13 asked the following question whether, on a scale of 1 (not significant) to 5 (highly significant), for which categories you see mobilities as a good thing for your career? In terms of research opportunities, the data reveals that a substantial proportion of the 529 participants find mobility to be highly significant, with a mean score of 4.27 and a standard deviation of 1.05. The majority of respondents (75%) rated research opportunities related to mobility as a 5, indicating a strong belief in the positive impact of mobility on their research careers. Teaching opportunities, on the other hand, received a slightly lower mean score of 3.67, with a higher standard deviation of 1.22. While a significant portion still considered teaching opportunities abroad important, the distribution of responses was more dispersed, as indicated by the higher standard deviation. Career growth and skill development scored a mean of 4.18, suggesting that mobility is seen as highly significant in this regard. Again, 75% of respondents rated it as a 5, demonstrating a strong consensus

on its importance for career development. Expanding international networks garnered the highest mean score among all categories, with a mean of 4.47 and a relatively low standard deviation of 0.88. This indicates that respondents overwhelmingly view mobility as crucial for building international networks, and the data is clustered around the higher end of the scale. Lastly, gaining recognition within the research community received a mean score of 3.82, with a standard deviation of 1.18.

While the majority still considered this aspect significant, there was more variation in responses compared to research opportunities and international networks.

As in Figure 12 and Figure 13, results vary between universities. In the category of research opportunities, respondents from different universities had varying opinions. The mean scores ranged from 3.88 to 4.59, with UPCT and UTCN reporting the highest scores. The majority of respondents in all universities rated research opportunities as highly significant, with 75% of respondents in all universities giving a score of 5. Teaching opportunities also showed some variability in responses. The mean scores ranged from 2.84 to 4.04, with TUDublin having the highest mean score and UTT the lowest. While all universities had respondents who rated teaching opportunities as significant, the distribution of scores was broader, indicating that opinions were more diverse. Career growth and skill development received generally positive evaluations, with mean scores ranging from 3.74 to 4.45. UPCT had the highest mean score, and TUS had the lowest. Again, a majority of respondents across all universities rated this category as highly significant for their careers. Expanding international networks received consistently high ratings across all universities, with mean scores ranging from 4.26 to 4.58. This category garnered the highest mean scores, indicating that respondents from different universities saw international networking as highly beneficial for their careers. In the category of

gaining recognition within the research community, mean scores ranged from 3.22 to 4.08. RTU had the highest mean score, while H-DA had the lowest. Although opinions varied, a majority of respondents in all universities still considered this aspect significant for their careers. In summary, these poll results show that respondents generally perceive mobility experiences as highly significant for their careers, particularly in the areas of research opportunities, career growth, skill development, and expanding international networks. Teaching opportunities and gaining recognition within the research community also hold importance but with slightly more variability in respondents' opinions. These findings highlight the multifaceted benefits of mobility experiences for individuals pursuing careers in academia and research.

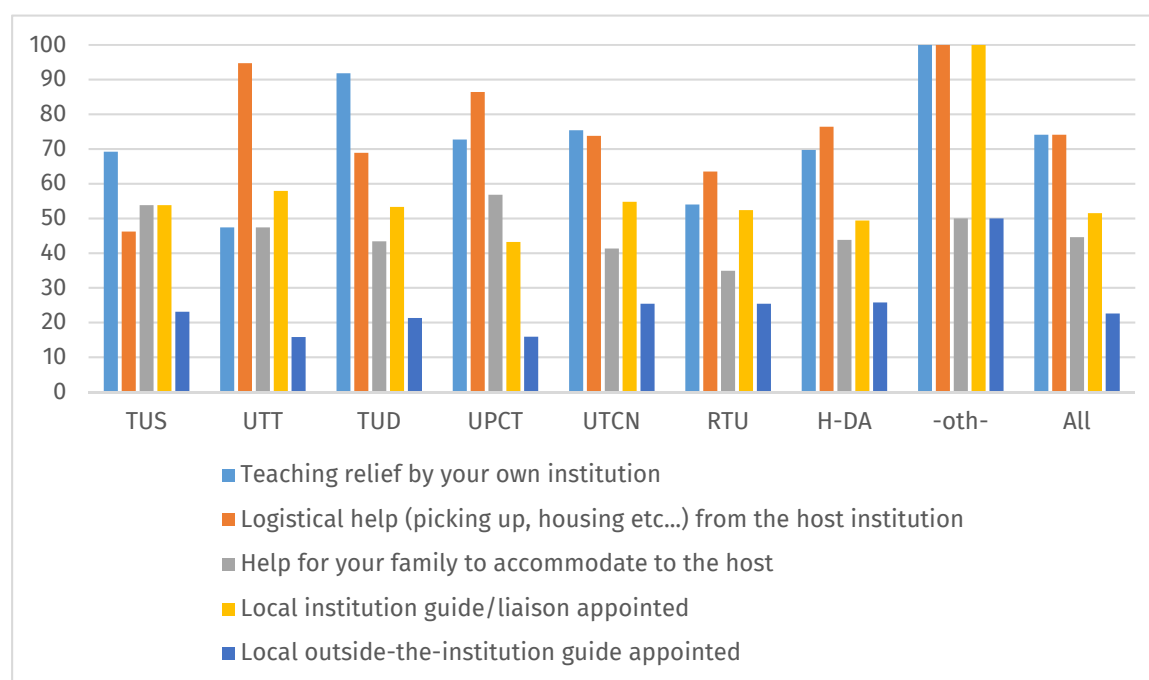


Figure 15: Answers to the question "What would you suggest to facilitate your mobility?"

The final question was: “what would you suggest to facilitate your mobility?” with a choice of 5 different possibilities. Looking at Figure 15, it appears that two options, “Teaching relief by your own institution” and “Logistical help (picking up, housing etc...) from the host institution,” received the highest support, both with a substantial 74.1% approval rate. This suggests that researchers prioritize academic support from their home institutions and logistical assistance from the host institutions, indicating a desire for a seamless transition during their mobility experiences. The data also show that “Help for your family to accommodate to the host” garnered a lower but still noteworthy approval rate of 44.6%. This indicates that a significant portion of researchers acknowledges the importance of family support when working abroad. In contrast, “Local institution guide/liaison appointed” received support from 51.5% of respondents, demonstrating a desire for local assistance and guidance, likely related to adapting to the new environment and academic institution. “Local outside-the-institution guide appointed” had the lowest approval rate at 22.6%, indicating that researchers may not see external guides as essential for their mobility experience. It is worth noting that there are variations in the responses among different universities, highlighting the importance of considering institutional contexts and researcher demographics when implementing mobility support programs. In summary, the poll results emphasize the significance of teaching relief, logistical assistance, family support, and local institution guides in facilitating researcher mobility across EU universities.

Annex 2a

Interview grid with HR managers

Staff mobility: Obstacles and Solutions

1. What are the actions that exist at your university to facilitate transnational academic mobility or more generally staff exchange?
2. What would be the difference in managing the mobility of academic / research staff as compared to administrative staff?
 - Duration
 - Support needed (shadowing requires specific tasks to be observed and a dedicated person)
 - Language skills
3. Researchers look for “attractive employment and working conditions”, and the success of universities depends on attracting top academic staff who excel in teaching, research, and securing research funding.
What is done at your university in terms of attractiveness?
4. What would be the difficulties that foreign researchers may encounter when joining your university?
What actions are put in place to support them?
5. Would you have the percentage of foreign researchers at your university?
EU or non EU citizens?
6. From your HR perspective, what are your constraints if a researcher leaves for a secondment for, let's say, a whole year?
What are the aspects you need to cater for in his absence?

7. What is the procedure for a researcher to ask for a secondment?
E.g., we have the EpisTeam project, a Marie Skłodowska-Curie Action Staff Exchange. Let's say I want to spend one month at the University of Washington. What should I do to inform my university and be allowed to leave on secondment?
8. What would be needed (administrative and practical aspects) to be able to welcome colleagues in good conditions?
 - short mobilities
 - long secondments
9. Is staff mobility a question relevant for the Human Resources department, in terms of managing careers, or for the Vice Rectorship for Research, in terms of piloting of research?
10. From an administrative point of view, what would that change to go on mobility to a member university?
E.g., for student mobility, credits are automatically recognized as part of an integrated curricula, where students move freely from one campus to the other, where they feel "at home on every campus".
Would things be facilitated for staff mobility among member universities of EUT?
11. What do you think would be the perception of the university's personnel with more and more colleagues from other campuses coming over to your university?
Would there be a difference of reception between short mobilities of 10 days, or a secondment of a full year?

Annex 2b

Interview grid – D.M – 2 months mobility

Staff mobility: Obstacles and Solutions

1. What do you bring back from this mobility experience?
 - most positive (professional, personal)
 - most difficult
2. What are the constraints you've met? How did you overcome them or not?
 - Ongoing work at TU Dublin
 - Housing in Troyes
 - Funding
 - Quality of life (Dublin salary to live in Troyes)
 - Acculturation...
3. Do you think it was easier to integrate because you are very involved in EUT? What would be the difference with going on secondment for EpisTeam?
4. How was the collaboration with people from UTT? Was it fruitful to be here or not enough? How to make the most of one's presence?
5. How did you manage your family situation? What is your situation which allowed this mobility?
6. Language skills. How is your French now? French culture?
7. What would you say to colleagues from EUT+ to encourage them to go on mobility?
8. Would you participate in FG to co-design the ideal mobility pathway?

Annex 2c

Interview grid – A.I and F.R – 1 year mobility in Austin, Texas

Staff mobility: Obstacles and Solutions

1. What do you bring back from this mobility experience?
 - most positive (professional, personal)
 - most difficult
2. What are the constraints you've met? How did you overcome them or not?
 - Ongoing work at Madrid
 - Housing in Texas
 - Funding
 - Quality of life (Spanish salary to live in Texas)
 - Acculturation...
3. How did you have this idea of a 1-year mobility and what was the process to organize this?
4. How was the support from the University of Madrid?
Was your request accepted easily? Your teaching load? Salary?
5. How was the collaboration with people from University of Texas? Was it fruitful to be there for a whole year?
What do you bring back?
6. How did you manage your family situation? What is your situation which allowed this mobility?
(How did you manage the health issues?)
7. Language skills. How is your English now?
8. What would you say to other colleagues to encourage them to go on mobility?

EUROPEAN VALUES EMPOWERING TECHNOLOGY

www.univ-tech.eu



EUROPEAN
UNIVERSITY OF
TECHNOLOGY

TX1.3 STAFF MOBILITY

FOCUS GROUP

STAFF MOBILITY

1.3 Explore institutional levers to facilitate and accelerate staff mobility programmes within EUt+ (Lead UTT)

This task will consist of compiling an exhaustive list of requests and observations regarding institutional barriers and levers to mobility programmes for researchers, from comprehensive interviews and participatory workshops. Building on these insights, the alliance will produce a series of recommendations that can be translated into policy at the EUt+ level. This will render not just our alliance, but the EU-wide research system in general, more attractive to researchers, and more competitive from a regional perspective, thus contributing to the development of the European employment market and the consolidation of the European Research Area.

STEPS



FOCUS GROUP

- Introduction
- 1st part: Co-design the support tool to mobility
- 2nd part: World café
- Round up

ICE BREAKER

- First name + Campus + Title/role + **Favourite dessert**

CO-DESIGN THE TOOL

- Tool – platform?
 - Centralised practical information
 - “Knowledge hub”
- What are the characteristics ?
- What should it do?
- What should it support?

FINDING LEVERS / FACILITATORS

- “The ideal pathway”
 1. Teaching load
 2. Funding (grants)

WORLD CAFÉ ORGANISATION

- **Imagine the ideal action plan**
- 2 tables, 2 hosts, 2 * 30 minutes

1. Teaching load

- Host: Ovidiu
- Participants: Christoph, Rado, Silivan, Quanbo, Benoît

2. Funding

- Host: Noel
- Participants: Iona, Karlis, Christophe, Karine

SUM-UP

- Ideal pathway presentation
- Insights / recommendations



EUROPEAN VALUES EMPOWERING TECHNOLOGY

www.univ-tech.eu



EUROPEAN
UNIVERSITY OF
TECHNOLOGY

Focus group on Staff Mobility

Co-design of support tool to mobility



World café 1: Teaching load

Teaching load

Funding for replacement lecturer

Condensed teaching: e.g. do twice the teaching for 7 weeks

Replacement by colleagues for short periods

Align regulations between partner universities

Secondment during unpaid Sabbatical. Payment by host university.

Implementation of a framework that allows the teaching staff to move their activity on-line for a period of time. Eg. Romania allows for 30% of a class to be taught on-line.

(like link with ERIs)

Interdisciplinarity

WPa4 TEDS - experiment

ISPs (EthiCo and Aesthetico) - experiment also

+ An idea that just came up in my mind was the one that we could have a mobility schedule, to see when is best to go on a mobility outside your teaching weeks to a certain university.

World café 2: Funding

Funding

Centralised system /
Processes at EUT+ -
streamline to
support these
mobilities

Dedicated
travel
agencies and
processes

Motivation for
senior staff

administrative
burden - Paper work
even if for short
term mobility -
retrieve money from
mobility a posteriori
(3 months refund
period)

added
complication -
mobility is
expensive

NEED : allocate
money to ERIs for
mobility (part of
career development
policy)

Career
development
policy

<https://www.eciu.eu/researchers-mobility-fund>

More flexible than
Marie Curie. Started to
top up
Erasmus <https://www.eciu.eu/researchers-mobility-fund>

Types of
fundings

"Summer"
(June) - non
teaching
period

TU Dublin
- very
sabbatical
process

Erasmus +
Teaching
Mobility &
Staff Mobility

KA
220

Like
EthiCo
multiplier
event

Summer /
winter
schools

Global outreach

The image shows a collage of website elements. At the top, a banner features the text "EMPOWERING TECHNOLOGY" and "EUROPEAN UNIVERSITY OF TECHNOLOGY" over a background of a person working with a robotic arm. Below this, there are three main content blocks:

- Riga Technical University:**
 - Erasmus+ studies
 - Erasmus+ Staff Teaching
 - Erasmus+ Staff Traineeship
- Technical University of Cartagena:**
 - Erasmus+ studies
 - Erasmus+ Staff Teaching
 - Erasmus+ Staff Traineeship
- University of Technology of Troyes:**
 - Erasmus+ studies
 - Erasmus+ Staff Teaching
 - Erasmus+ Staff Traineeship

On the right side, there is a search interface titled "Find programmes" with a search bar and a "Find programmes" button. Below the search bar, there are filters for "Search all departments" and "Choose specific departments". A list of departments is shown, including "Riga Technical University (1)", "Technical University of Cartagena (1)", and "University of Technology of Troyes (1)".

At the bottom, there is a "DATA SCIENCE WORKSHOP" announcement with a date of "17 Jan 2022" and a "Read more..." link. To the right of this, there is a "Exchange Erasmus Staff Teaching" section for the "University of Technology of Troyes" with an "Apply now!" button.