







UniWeliS project partners



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Attracting and Supporting International PhD Students, Lecturers and Researchers in Central-Eastern and South-Eastern Europe: Current Status and Recommended Improvement

UniWeliS Project Report

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services of mobile academic staff

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Irina Ferencz ACA Director

Executive summary

This report presents the findings of a comparative study on attracting and supporting international academics – PhD students, lecturers, and researchers – in ten host countries located in Central-Eastern and South-Eastern Europe (Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Poland, Romania, Serbia, Slovakia, and Slovenia). It provides some novel insights into this understudied topic in the target region.

The study was conducted under the EU-funded <u>UniWeliS project</u>, in order to explore national and institutional agendas for attracting and supporting global talent in the target region; to investigate international academics' needs in terms of tailored assistance and their satisfaction with such services; and to elaborate recommendations for higher education institutions, policymakers and funders.

Conceptually, the topic was approached from the **multi-actor perspective** of mobile academics, higher education institutions (managers and support staff) delivering support, and policymakers responsible for enabling frameworks. The study scope was limited to **long-term academic staff mobility** (i.e. three months or longer), understood as a physical, hybrid or online experience at a higher education institution, located in a country other than the academic's country of origin, for the purpose of study, employment, or exchange.

Methodologically, it was supported by **desk research**, a **survey** of 640 international PhD students, lecturers, and researchers hosted or employed by institutions in the target region, and a series of 70 **semi-structured interviews** with the responsible higher education managers and support staff.

National and institutional approaches to attracting and supporting global talent

Policy framework analysis for six target countries (BG, CZ, HU, PL, RS, SK) revealed that dedicated **national global talent attraction and support strategies remained rather uncommon or fragmented across the target region**. Only two countries pursued specific objectives as part of broader national higher education legislation (HU) or under a dedicated higher education internationalisation strategy (CZ), while other countries were either developing such strategic intentions (RS, SK) or implementing them under wider socioeconomic policy frameworks (PL).

For most of the countries included in the analysis, political goals regarding global talent attraction and support were at least partially matched by national funding schemes paying special attention to early-stage researcher mobility, cross-border exchanges, and diaspora engagement. The size and the breadth of such instruments varied significantly. Only two countries (HU, SK) provided systemic support through national scholarship programmes, particularly for international PhD students. Opportunities for more senior academics were mostly offered through various bilateral or multilateral agreements across the target region.

Several countries in the target region (PL, RS, SK) tried to **facilitate the recruitment of international academics** and almost all countries created communication channels to spread information on national opportunities for work and study.

These efforts translated into the **growing share of international PhD students in seven target countries** (BG, CZ, HR, HU, RO, SK, RS) in the 2015–2020 period. However, the trend for **international researchers was less positive**, as only three countries experienced an increase (CZ, PL, SI), while four witnessed a decline in relative numbers (HR, HU, MKD, RS). This situation reflected the lack of more comprehensive, and arguably more costly, funding schemes supporting the long-term incoming mobility of more experienced international academics in the target region.

The level of institutional commitment to attracting and supporting global talent echoed the national approaches. Related **commitment was rated as medium** at 15 of 35 interviewed institutions, where enough evidence was available. **Ten institutions showed high commitment**, deploying specific financial incentives to achieve this goal.

The institutions with lower levels of commitment in some cases **undervalued the long-term international staff attraction** (e.g., in terms of their contribution to excellence and global competitiveness missions), which was perceived as rather costly, and gave priority to international student recruitment at Bachelor and Master's level, perceived as an income generating activity (through the fees paid by incoming students in English-taught programmes).

This means that the numbers of international academics hosted on a long-term basis remained fairly limited across the target region, particularly for researchers and lecturers at more advanced career stages, although several large, capital-city based institutions were an exception to this trend.

From this perspective, national funding schemes that offer both individual grants for international academics and funds to build institutions' capacity to attract, support, and retain global talent are crucial to helping the region's institutions develop more forward-looking, strategic, and viable approaches to internationalisation, with due attention paid to long-term international staff recruitment.

Attractiveness of the target countries and their institutions

Survey data on international academics' reasons for choosing an institution in one of the target countries highlighted the region's overall attractiveness, in terms of perceived opportunities for professional/academic development, as well as a broader sociocultural context, particularly for those from Asia and Europe accounting for the majority of respondents.

Thus, opportunities for professional development through collaboration (48% of all respondents), knowledge exchange (47%), and networking with local academic community (41%) provided top three pull factors. Mobility was seen as an opportunity to improve career prospects and employability (38%), and also to experiment with new research methods and approaches (37%). Academic training was another prominent draw, combined with access to research facilities and room to experiment with new learning practices or teaching methods, reflecting the interests of a large share of respondent doctoral students. Increasing knowledge of social, linguistic or cultural matters were relatively important, which may suggest the region's cultural appeal to many academics, particularly those from neighbouring countries.

Financial aspects of mobility (e.g., opportunities to receive a grant, secure better working conditions or remuneration) were ranked quite low, despite the fact that more than half of respondents used national host country grants and funding schemes to cover their remuneration and living costs. More than a quarter of all respondents reported investing their own means and even more had to combine various sources of funding. This suggests the need to adapt the existing grant packages by aligning them with both national living costs and the personal situations of international academics, in order to increase their attractiveness.

When it comes to the visibility of work and study opportunities in the target countries, 'bottom-up' sources of information remain key. Most survey respondents learned about their mobility opportunity through own professional networks (37%) or from their current employer or host institution (19%). Given the prominent role of such informal channels, the academics' satisfaction with the host country and institution is a key element of the country's future attractiveness to global talent.

Overall, the study revealed relatively **high levels of satisfaction with the mobility experience**. More than two-thirds of the respondents reported that the target countries (68%) and their institutions (66%) offered a quality mobility experience, although the share of 'undecided' respondents (ca. 20%) indicated some room for improvement in the broader framework conditions and in the quality of support provided at various mobility stages, and by different actors.

Support services offered to international academics

Over 70% of respondents reported having obtained some information guidance prior to their mobility while 46% benefitted from personalised assistance at this stage. Nonetheless, nearly **40% of all respondents did not receive any guidance or support on-site**, and only 25% and 21% respectively received information guidance and personalised support upon departure.

The most important areas requiring support were: assistance in immigration matters, accommodation, and social/healthcare insurance. A large majority of respondents received such 'core' services prior to arrival and on-site and showed high levels of satisfaction (except over accommodation, where opinions were divided). The host institutions also

reported to have paid most attention to these areas, by streamlining support processes, primarily at central and/or faculty level.

Support with professional/academic development (e.g., training in teaching and research, career advice) occupied the middle ranking position, echoing the academics' key reasons to perform studies and research in the target region. Although such services were reported as common by the host institutions, many respondents viewed them as less so and also reported higher levels of dissatisfaction (e.g., one third of respondents were strongly dissatisfied, dissatisfied or neutral about the career guidance they received during mobility). This may suggest a potential gap in the original expectations of international academics and the realities.

The information guidance and support for other aspects (e.g., national work regulations, pension plans, travel and family matters) were seen as less important, and were indeed less common and partly devolved to the department level/supervisor, despite the fact that it required significant staff time and technical knowledge. These areas also showed higher levels of dissatisfaction at all mobility stages. Thus, 18% of respondents were strongly dissatisfied or dissatisfied about the information guidance on national work regulations and pension plans prior to arrival. In total, 48% of respondents who received support on family matters during their mobility were strongly dissatisfied or dissatisfied.

The collected evidence showed **proportionality** – the more senior the international academic, the more tailored (but often less professionalised) service they were likely to get, particularly at department level. Support for international PhD students, whose numbers recently expanded at many of the region's institutions, was more streamlined, but with less attention paid to their specific needs and personal situations.

These findings highlight the need for the region's institutions to expand their efforts beyond the essential matters, while further professionalising and optimising internal support processes and systems. This requires a combination of actions, including stronger collaboration between different institutional actors and with external partners, as well as institutional capacity-building and staff training.

Institutional staff demands for further professional development in this respect were mostly for transferable skills (e.g., communication, leadership, personal efficiency), as well as more technical knowledge of various issues, especially those currently given less priority (e.g., career guidance, family matters, mental health and wellbeing).

Recommendations

Based on this study's key findings, the following recommendations are designed for national funders, policy makers, and higher education institutions in the target region in the following areas:

A. Policy frameworks

- Further articulate, streamline, and consolidate national policy priorities for global talent attraction and support at all levels, to develop more comprehensive and encompassing internationalisation strategies.
- Upscale the existing funding schemes used to attract specific groups of international academics and improve their connection to international student recruitment schemes, in order to offer continuous and complementary funding to attract (future) researchers and lecturers at various career stages, including more established academics.
- Expand higher education institutions' staffing autonomy in order to facilitate their efforts to recruit international researchers and lecturers, and to ease the administrative processes and rules governing international academics in collaboration with the other responsible bodies involved.
- Enhance the value proposition of national grants and scholarships for different groups of international academics, by making financial packages more attractive and prestigious through improved matching of local realities with international academics' personal situations, and by branding them accordingly.
- Boost national funding schemes that offer both individual academic mobility grants and funds that build higher education institutions' capacity to attract, support, and retain global talent in a professionalised way (e.g., peer learning, benchmarking, promotion of good practice); and to expand similar capacity-building opportunities at EU level.
- Raise awareness of the **value of international academics** to a country's socioeconomic
 development and prosperity among higher
 education institution's local communities and the
 general public, using impact assessment, data/
 evidence collection, and analysis, then channelled
 through dedicated communication campaigns.
- Further amplify global promotion efforts, taking full advantage of existing information dissemination and communication platforms (e.g., Study in Europe, EURAXESS), and achieve greater synergies with marketing activities targeting international students.
- Offer regular, structured information guidance and assistance on matters that benefit all higher education institutions in the country, such as national labour and tax regulations, as well as opportunities for professional development and employment for international academics.

B. Institutional practices

 Develop more encompassing and coherent institutional strategies and related internationalisation plans, highlighting the links and synergies between international student and staff mobility at various stages, and integrating retention

- goals from the earliest stage, while showcasing how these jointly contribute to achieving the institutional missions.
- Elaborate a differentiated strategic vision for the attraction of different groups of international academics, in line with the institution's priorities, and develop more coherent and connected funding strategies, whilst combining funds from different sources.
- Raise awareness of the benefits of working with international staff across the institution and create concrete opportunities to tap into these benefits.
- Further improve and streamline support and assistance to international academics prior to and during their mobility, paying due attention upon departure to creating opportunities to network and stay connected, based on more efficient and effective institutional processes, and good practice streamlining.
- Provide access to all existing general services for international students and staff regardless of their HR status, while further improving accessibility for international users through internationalisation based on effective institutional language policies and staff training.
- Further **customise institutional processes** to offer more **inclusive services** and cater better to international academics' specific situations and needs (e.g., culturally specific accommodation; special healthcare needs; family situation).
- Streamline and further professionalise support
 for international academics in both core and less
 essential services offered by the faculty, department
 and supervisor, by formalising responsibilities and
 allocating adequate human and other resources
 to clearly articulated purposes, while fostering
 synergies with central level activities.
- Enable the continuing professional development of both administrative and academic staff responsible for service delivery and supervision of international academics including training in management (selfefficiency), intercultural communication, and Englishlanguage, and institutionalise opportunities to recognise and reward their efforts.
- Engage administrative and academic staff in supporting international academics in order to share responsibility and create a welcoming and serviceoriented culture across the institution.
- Enhance support efficiency through formal strategies with external partners fostering 'shared services' and joint procurement approaches (e.g., joint language training, family-oriented and social integration activities, organised jointly with other higher education institutions or municipalities) and to maintain regular, expert level exchanges.
- Develop more comprehensive internationalisation **information systems**, involving process review, evaluation, and correction, data tracking, analytics, and feedback loops for both international academics and support staff.

Introduction

This publication presents the findings of the study on attracting and supporting international PhD students, lecturers, and researchers in ten Central-Eastern and South-Eastern Europe countries (Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Poland, Romania, Serbia, Slovakia, and Slovenia), conducted in 2021 under the EU-funded UniWeliS project (Supporting internationalisation of higher education through professionalising services of mobile academic staff).

Many higher education institutions in the target region have made substantial progress in the development of services and capabilities to internationalise higher education in recent years, supported by EU and national funding programmes. Their major focus was on attracting and assisting international students, as well as enabling short-term visits by international staff. Structured support for PhD students, lecturers, and researchers arriving for longer periods were not developed at the same speed, or to the same extent.

Informed by related UniWeliS project activities, this study tackled the aforementioned gap by investigating the current state of support services for international academics' long-term mobility in the target region, and mapping out ways for their further professionalisation at institutional and national levels.

The first section of this report provides an overview of key methodological issues, including the main objectives, key concepts, and data collection and analysis approaches, as well as the main individual and institutional sample characteristics.

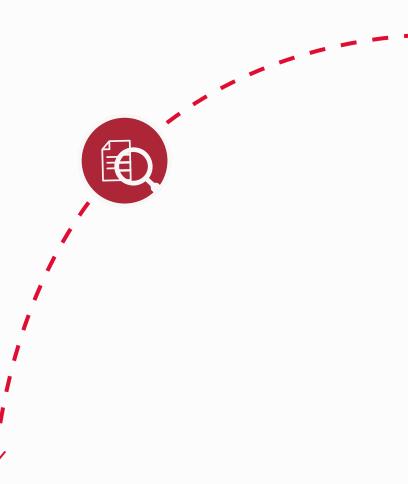
The second section explores current national and institutional approaches to attracting and supporting international talent, and pays particular attention to dedicated strategies and funding schemes, as well as other enabling conditions. It also provides a brief overview of incoming mobility trends in the target region, to contextualize support efforts.

The third section addresses target countries' and their higher education institutions' overall attractiveness to international academics, based on an analysis of their key reasons for choosing to work or study in the target region. It also describes the major sources of information about mobility opportunities in the target countries and various funding sources used by academics to finance their stay.

The fourth section examines different types of information guidance and support services offered to international academics by higher education institutions in the target region at different mobility stages, from the perspective of both individual visitors and their host institutions. It also investigates levels of satisfaction with the support obtained, and the key challenges and possible areas for improvement reported on both sides.

The fifth section presents the conclusions and a set of recommendations for higher education institutions and policymakers and funders in the target region, including the agencies promoting higher education and research internationalisation, building on the key findings presented in the preceding chapters.

The report contains an appendix providing weblinks to the research questionnaires.



1

Methodology

1. Methodology

This section presents the key methodological issues, including the main study objectives, the key concepts applied throughout the report, data collection and analysis procedures, and individual (survey) and institutional (interviews) sample characteristics.

1.1. Objectives and approach

The study had four objectives:

- a) To explore the current national and institutional **levels of commitment** and measures undertaken to attract and support international academics at various career stages by higher education institutions in: Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Poland, Romania, Serbia, Slovakia and Slovenia.
- b) To clarify **international academics' need** for **personalised assistance** from host countries and institutions at various mobility stages, and to investigate any gaps between their expectations and the realities.
- c) To explore the **main challenges** facing international academics in the context of long-term stays in a target country, as well as those facing higher education institutions in the process of setting up and delivering quality support services to international academics, and to identify potential areas for improvement.
- d) To elaborate **recommendations** for higher education institutions and policymakers and funders in the target region.

Support services for international academics lie at the intersection of several broad areas, particularly **internationalisation of higher education** and research at system and institutional levels, as well as **higher education management**, governance, and institutional transformation. Developments in these areas largely underpin the overall ability of higher education institutions to both attract global talent and offer high-quality support to international students and staff.

Considering a broad variety of the internal and external players involved in a mobility support system, this study approached the topic from the perspective of:

- Mobile academics (international PhD students, lecturers and researchers), the main users and beneficiaries of this support.
- Higher education institutions providing information guidance and assistance at institutional level.
- Higher education professionals, particularly managers involved in the design of overarching support systems and procedures, as well as support staff delivering daily assistance at central, faculty, or department levels.

This study was also written with national funders and policymakers' perspectives in mind, to help design the frameworks and funding mechanisms that foster the

attraction of talent in higher education and research, and enable high-quality support in the target region.

Such a complementary, multi-actor approach was instrumental to establishing any substantial gaps between the various players' needs and expectations and to charting a way towards more comprehensive, coherent, and quality-oriented support systems.

1.2. Key concepts and study scope

The report relied on several key concepts, which were adapted for the purpose of this study, and which delineated its scope.

The term **international academics** is used to refer to a broad category of visiting academic staff at various career stages, including PhD students, lecturers, and researchers, "not having the citizenship of the country in which the higher education institution is established" (Bonaccorsi and Biancardi, 2019). It is applied interchangeably with other terms such as mobile staff or international academic staff.

Academic staff categories significantly vary from one country to another, being subject to differentiation by a number of features (e.g., main activities; the type of institution in which they work; the contractual status or integration or not within a clearly defined career path) (Crosier, 2019). In this study, we opted for the broadest definition which includes doctoral candidates or PhD students (employed as researchers or registered as students) in academic staff. This approach is quite common in research and institutional practice; for example, it is applied by the European Tertiary Education Register (ETER) (Bonaccorsi and Biancardi, 2019).¹

Staff mobility is a multifaceted phenomenon that takes various forms, such as academic visits, exchanges, sabbaticals, grants, and employment (Bonaccorsi and Biancardi, 2019). This broad term covers the mobility of academic, administrative and technical staff employed by higher education institutions. This study focused more specifically on **academic staff mobility**, understood as a physical, hybrid or online experience at a higher education institution based in a country different from the country of origin for the purpose of study, employment, or (research/teaching) exchange.

The scope of this study was limited to only include **long-term mobility** experiences of three months or longer, given that this type of mobility was found to be less common in the target region, as shown by the UniWeliS pre-project needs analysis and confirmed by project desk research. The analysis included both **current** and **past mobility** experience from the past five years.

¹The ETER database distinguishes between the following categories: staff whose primary responsibility is instruction, research or public service; holders of an academic rank (e.g., professor, assistant professor, lecturer); staff with other titles (e.g., dean, head of department) whose principal activity is instruction or research; PhD students employed to perform teaching assistance or research duties (Bonaccorsi and Biancardi, 2019).

Career stage is recognised as an important differentiator of academic mobility (e.g., European Commission, 2017). This study applied the EU reference framework fostering comparability of career structures across employment sectors and countries, which sets out four main categories of researchers (European Commission, 2011):

- R1: First Stage Researcher (up to the point of PhD).
- R2: Recognised Researcher (PhD or equivalent holders who are yet to gain full independence).
- R3: Established Researcher (researchers who have developed a level of independence).
- R4: Leading Researcher (researchers leading their research area or field).

The scientific literature underexplored the topic of **support services** for international academics. This study understands support services for international academics as a broad range of activities addressing administrative, academic, professional, personal and other matters, pursued by higher education institutions in an organised manner, in order to enable and facilitate the stay of international PhD students, lecturers, and researchers at their respective host institutions.

It also differentiates between **information guidance** through various communication channels at different stages of mobility and actual **support** involving other types of physical or technology-enabled activities (e.g., translation, accompanying visitors to meetings with the administrative services). Further emphasis was placed on **personalised assistance** at different **mobility stages** (pre-arrival, on-site, and prior to departure) paying due attention to specific needs.

Limited information was available concerning **professional development** of staff responsible for welcoming mobile academics, which is one of the focus areas of this study. We therefore relied on several useful proxies developed under previous Erasmus+ projects, namely two competence development frameworks for staff supporting student mobility (Framework for Erasmus Staff Competences, 2019) and for administrative staff involved in internationalisation (Systemic University Change Towards Internationalisation, 2017).

These frameworks provided helpful methodological guidance on the key **knowledge**, **skills** and **attitudes** required to perform various tasks supporting outgoing and incoming mobility, as well as the internationalisation of higher education and research more broadly.

In this context, professional development of staff involved in attracting and supporting international academics was understood as a set of formal, structured, activities organised by higher education institutions to improve the relevant knowledge, skills, and attitudes of higher education managers and support staff and to allow them to excel in their day-to-day duties.

1.3. Data collection and analysis

The study relied on mixed method data collection processes:

- Desk research investigating (a) major concepts and research avenues in the scientific and practiceoriented literature related to professionalised support services for mobile academic staff and (b) national approaches to attracting and supporting global talent.
- A survey of international PhD students, lecturers, and researchers hosted at or employed by higher education institutions in ten Central-Eastern and South-Eastern European countries for at least three months within the last five years.
- A series of semi-structured interviews with higher education managers and support staff responsible for designing, organising, and offering support to international PhD students, lecturers, and researchers at 35 higher education institutions in the target region.

Two sets of questionnaires were designed to implement the survey and execute the interviews.

1.3.1. Survey questionnaire

The questionnaire for international academics hosted by higher education institutions in the target region comprised three parts covering: (a) mobility experience; (b) support services and needs; (c) profile and contact. The survey included 38 questions of various types (see Appendices).

The survey specifically addressed the following groups of respondents:

- Target group 1: International PhD researchers/ students who worked or studied at a higher education institution in Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Poland, Romania, Serbia, Slovenia, or Slovakia during their participation in the survey. These academics aimed to earn a PhD, or had studied or worked there for this purpose in the past five years.
- Target group 2: International researchers and lecturers visiting a higher education institution in Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Poland, Romania, Serbia, Slovenia, or Slovakia for three months or longer at the time of their participation in the survey, or who had performed this kind of visit in the past five years.
- Target group 3: International researchers and lecturers employed by a higher education institution in Bulgaria, Croatia, the Czech Republic, Hungary, North Macedonia, Poland, Romania, Serbia, Slovenia, or Slovakia on a permanent or temporary (three-month or longer) contract during their participation in the survey, or who had enjoyed such an employment contract with an institution in this region in the past five years.

The draft questionnaire was tested on five mobile academics from different countries and at different career stages, nominated by UniWeliS partner institutions to confirm various issues (e.g., clarity, comfort, length, relevance). These academics shared their feedback in writing or through a dedicated focus group. The final questionnaire was based on the comments received.

The questionnaire was implemented as an online survey, advertised through different communication channels so as to reach international academics with current or previous experience of working or studying in each target country. It was disseminated in close collaboration with ACA members, the national agencies that promote or fund incoming and outgoing staff mobility, including UniWeliS project partners: SAIA, n.o. and NAWA. The information was also cascaded through UniWeliS partners' professional networks, including EURAXESS support centres and higher education institutions.

The dataset obtained was checked for missing data and outliers. Valid responses covered at least 60% of the questionnaire, including a series of key questions on the following aspects:

- Reasons for selecting a study or research destination.
- The type of services obtained by the respondents and their satisfaction with these services.
- The most important support services from the perspective of international academics.
- Challenges and improvements proposed by the survey participants.

The data was analysed using SPSS statistical software and Microsoft Excel. In most cases, valid percentage values were retained unless specified otherwise.

Due to a wide variation in the number of responses received for several target countries, data was analysed per country for several key questions, in order to capture any significant country differences. This variation, affected by the high number of responses received for Hungary (primarily from PhD students), was also mitigated by analysing key data points per group of international academics defined by their career stage.

Qualitative answers to open questions were coded manually to identify and assess key trends and to select the most representative evidence and contextual information.

1.3.2. Interview questionnaire

The questionnaire designed for interviews with higher education management and support staff involved in the design or delivery of support services for international academics comprised four parts: (a) participant profile; (b) institutional approach to attracting and supporting international academic staff; (c) desired staff competences, and (d) professional development and training needs (see Appendices).

The interviews targeted the following participant groups:

- Target group 1: Higher education managers at higher education institutions in the target countries responsible for the design and delivery of institutional policies and actions supporting long-term incoming academic staff mobility (e.g., vice-rectors of internationalisation or research, faculty deans, vice-deans of internationalisation, heads of department; heads of doctoral schools).
- Target group 2: Administrative staff at higher education institutions in the target countries involved in providing information guidance and personalised support to incoming academic staff at central, faculty, or department levels.

The questionnaire included 22 main questions. It was adapted to two different target groups through the inclusion of several strategy related questions for higher education managers and some technical questions regarding support service delivery for higher education support staff.

The draft questionnaire was tested on five members of staff employed and nominated by UniWeliS partner universities to confirm various issues (e.g., clarity, comfort, length, relevance), who shared their feedback through a dedicated focus group. The questionnaire was finalised based on the comments received.

The interview sample was compiled in view of the following considerations:

- The number of interviews per target country was predefined according to the size of the respective national higher education system.
- Attention was paid to assembling as a diverse sample of higher education institutions as possible, in terms of their profile (e.g., comprehensive or specialised universities, universities of applied sciences), size, and geographic location (e.g., capital-based or regional institutions).
- In most cases, two interviews with representatives of both target groups at each selected institution were held, in order to capture a broader institutional perspective. More interviews were executed for decentralised universities where responsibility for international higher education and research was devolved to faculty level.

The institutional interviews were recorded and transcribed. Detailed summaries were prepared to facilitate thematic analysis. The latter involved coding the data to identify and review five key themes considered important for this study:

- The type and number of international academics attracted.
- The level of institutional commitment to attracting and supporting international talent.
- Standard processes in place to support this commitment and organise support.

- Challenges and suggestions for improvement.
- Professional knowledge, skills, and training needs of the higher education staff involved in the design and delivery of support services.

Each theme was closely examined to gain an in-depth understanding of interviewees' perceptions and suggestions for improvement.

1.4. Data sample

1.4.1. Survey respondents' profile

In total, the survey of international academics with current or past experience of mobility in one of the target countries received 1076 responses. Of these, 640 valid responses were retained for analysis (based on the aforementioned 60% completeness rule).

1.4.1.1. Gender, host country, and country of origin

A majority of the respondents (337), corresponding to 56% of those who disclosed information about their gender (n=607) were male, whereas 44% were female (265). Less than 1% of the respondents selected the "other" option (5).

Most respondents reported on their current mobility experience, that is their experience during participation in this study. In total, 508 (79%; n=640) respondents were staying in one of the ten target countries for study, employment, or exchange, whereas 132 (21%; n=640) reported on a prior mobility experience within the past five years.

The responses received for ten target countries involved a mix of current and past mobility experiences. Hungary received the largest number of responses in absolute terms (375; 59%), followed by Slovakia (80; 13%), and the Czech Republic (72; 11%). The lowest number of responses was received for North Macedonia (2) and Croatia (4) (Figure 1).

Q2: Please choose the country of your current mobility (study, visit or employment) & Q3: Please choose the country of your longest mobility (study, visit or employment) experience in the past five years on which you would like to report. Percentages correspond to the share of total respondents.

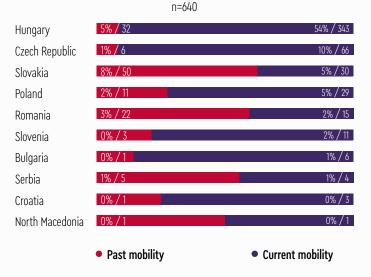


Figure 1. Respondents by host country

As mentioned above, this uneven distribution of responses required breaking down and analysing the data for several key questions per country, as well as per group of international academics defined by their career stage (given that the responses for Hungary were mostly submitted by PhD students).

The respondents came from 89 countries around the globe. Asia was the most represented region in this sample (223), notably Middle East and South Asia, followed by Europe (207), and Africa (111) (Figure 2).

Q29: What is/are your country/countries of citizenship?

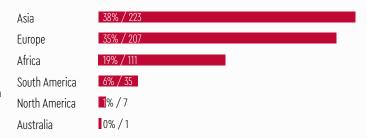


Figure 2. Respondents by region of origin

In total, 62% of the respondents to this question (n=584), representing more than half of the total number of the survey participants, came from top 20 countries of origin/citizenship. Ukraine, India, and Jordan topped the list, followed by Syria and Tunisia (Figure 3).

Q29: What is/are your country/countries of citizenship? Top 20 countries

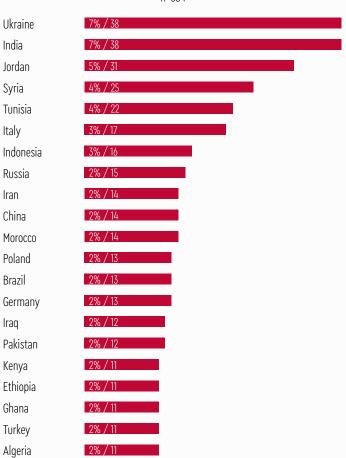


Figure 3. Respondents' top 20 countries of origin

Approximately 17% of the respondents (n=584) held EU citizenship from one of the following member states: Austria, Bulgaria, the Czech Republic, Croatia, Cyprus, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden. Italy (17), Poland (13), Germany (12), and Romania (8) achieved the biggest EU representation.

This sample distribution captured several **geographically diverse mobility patterns**: intra-EU mobility, cross-border mobility in Central-Eastern and South-Eastern Europe and with neighbouring countries, as well as global mobility, primarily marked by staff exchanges with African and Asian countries.

The target countries had different geographic sample compositions. Table 1 provides details for the respondents' **top 5 countries of origin** for six target countries, which received at least ten valid responses (excluding Bulgaria, Croatia, North Macedonia, and Serbia from analysis). The top 5 lists for the Czech Republic, Slovakia, Slovenia, and Poland mostly included countries in Europe, whereas Romania achieved top sample representation of African countries, and Hungary of Asian ones.

Table 1. Respondents' top 5 countries of origin for six target countries

Czech Republic	Hungary	Poland	Romania	Slovakia	Slovenia
Ukraine	Jordan	Spain	Cameroon	Ukraine	North Macedonia
India	India	Germany	Algeria*	Brazil*	Germany*
taly	Syria	Italy	Ivory Coast*	Italy*	Italy*
ran	Tunisia	Hungary*	Moldova*	Poland*	Kosovo*
Poland*	Indonesia	Serbia*	Morocco*	Russia*	Czech Republic**
Russia*			Tunisia*		India**
rance*					Indonesia**
					Turkey**

Countries marked with (*) and (**) received equal numbers of responses and are listed in the alphabetical order.

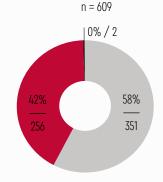
1.4.1.2. Educational background, principal activity, and career stage

In terms of educational background, 58% of the respondents to this question reported holding a Master's degree or equivalent diploma, while 42% reported holding a doctoral degree (Figure 4). The sample therefore included a large share of doctoral candidates or PhD students, as also shown in the respondents' distribution per principal activity and career stage.

In total, 47% of the respondents selected doctoral training as their principal activity, while 41% and 8% respectively opted for research and teaching (Figure 5). "Other" types of reported activity included in-between situations, for instance, a combination of teaching and research, or doctoral training/study and research.

Respondents who selected "doctoral training" and "research" as their principal activity (548) were asked "What is your career stage?"², whereas those who opted for "Teaching" and "Other" (76) categories were asked "How many years of experience do you have?"

Q30: What is the highest level of education you have achieved?

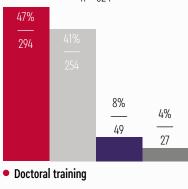


- Bachelor's degree (or equivalent)
- Master's degree (or equivalent)
- Doctoral degree

Figure 4. Respondents by education level

² Based on the EURAXESS classification. URL: https://euraxess.ec.europa.eu/europe/career-development/training-researchers/ research-profiles-descriptors, accessed on 1 December 2021.

Q34: What is your principal acitivity? n = 624



- Research
- Teaching
- Other

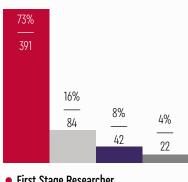
Figure 5. Respondents by principal activity

Overall, 73% of the respondents to this question (61% of all respondents) identified themselves as first-stage researchers (up to the stage of PhD). Recognised researchers (PhD or equivalent holders who are not yet fully independent, e.g., post-docs or assistant professors) represented ca. 16% of the respondents, whereas established researchers (with a degree of independence) and leading researchers (e.g., a research area/field or large-scale scientific projects: offering scientific advice to policy makers and funders) jointly accounted for 12% (Figure 6).

This distribution required in some cases the data breakdown by different groups of international academics depending on their principal activity and career stage.

Teachers were almost equally distributed in their professional experience, except for the most experienced lecturers who represented less than 1% of the entire sample and only 8% of those who answered this question (Figure 7).

Q35: What is your career stage? n = 539



- First Stage Researcher
- Recognised Researcher
- Established Researcher
- Leading Researcher

Figure 6. Respondents by career stage (researchers)

1.4.1.3. Field of study or work

Over a quarter of this question's respondents worked in or studied natural sciences, mathematics and statistics, followed by engineering, manufacturing and construction, as well as arts and humanities. Other reported fields of work or study included pharmaceutical sciences, animal science, (landscape) architecture, and sports (Figure 8)³.

This diverse representation of study or work fields captures the needs of international academics in specific support services, for example, those related to organising access to infrastructure or to recognition of prior qualifications, where requirements may be more demanding in some professions or fields.

Q36: How many years of experience do you have (calculated from obtaining your highest degree)?

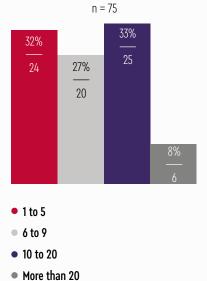


Figure 7. Respondents by years of experience (teachers)

Q33: What is your field of research, teaching or study?

Natural sciences, mathematics and statistics Engeneering, manufacturing and construction Arts and humanities Social sciences, journalism and information 11% / 69 Education 9% / 58 9% / 57 Business, administration and law 6% / 36 Health and welfare Agriculture, forestry, fisheries and veterinary 5% / 31 Information and Communication Technologies 5% / 30 1% / 7 Other 0% /2 Services

Figure 8. Respondents by field of research, teaching or study

³ Based on International Standard Classification of Education: Fields of Education and Training 2013: ISCED-F 2013. URL: http://uis. <u>unesco.org/sites/default/files/documents/international-standard-cladetailed-field-descriptions-2015-en.pdf</u>, accessed on 1 December 2021.

1.4.1.4. Mobility purpose, duration, and format

Most respondents travelled to earn a PhD degree (69%), including a large share of survey participants who reported on their current or past experience at a higher education institution in Hungary (Figure 9). Almost a quarter of the respondents moved to one of the target countries to exchange experience in research or teaching (23%). These also included postdoctoral, fellowship-based and research mobility specifically highlighted by several respondents.

Less than a tenth travelled to take up new employment (7%) The top three employment destinations were higher education institutions in the Czech Republic (26), Poland (6), and Slovakia (5).

Other mobility purposes reported by several respondents included doctoral credit mobility and mixed situations (e.g., a research and teaching exchange leading to an employment contract).

Q4: Please indicate the purpose of your mobility (study, visit or employment) n = 640

- To earn a PhD degree
- To exchange experience in research or teaching
- To undertake a new employment
- Other

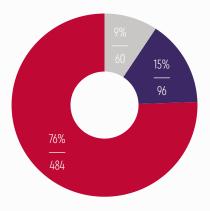
Figure 9. Respondents by purpose of mobility

Most respondents spent or intended to spend at least one year in their host country/institution (76%). This group mostly included PhD students or researchers who moved to the target region to obtain a doctorate degree and those who travelled to take up a new employment position (Figure 10).

In total, 15% of all respondents spent between three and five months in their host country/institution, mostly to exchange research or teaching experience. Less than one tenth reported spending between six and eleven months in their host country, primarily to exchange experience or work on a PhD (e.g., as part of a cotutelle programme or doctoral credit mobility) (Figure 10).

Q5: How long did you stay/are you planning to stay at your mobility (study, host or employing) institution?

n = 640



- 3 to 5 months
- 6 to 11 months
- 12 months or longer

Figure 10. Respondents by duration of a mobility stay

The vast majority of respondents (82%; n=630) undertook traditional, physical mobility experiences. Only 6% reported a fully remote mobility experience. This group included 29 PhD students/early-stage researchers who were either prevented from travelling to their host country due to COVID-19 travel restrictions, or had to follow online courses during their stay in view of limitations on attendance numbers imposed by pandemic responses. In total, 13% of the respondents reported experience of hybrid mobility involving both physical and virtual formats.

1.4.1.5. Family situation

Family situation is an important differentiator for both the type of services expected by international academics (e.g., childcare, family healthcare) and the scope of assistance needed (e.g., visa support for the whole family).

The majority of the respondents to this question in absolute terms reported having moved to their host country alone (81%). Only 15% travelled with their families, accompanied by a partner (8%) or by children under the age of six (5%) or over six years old (2%). Other cases (3%) mostly included expected family reunification as well as remote work or study due to COVID-19 travel restrictions (Figure 11).

Most academics who travelled to obtain a PhD were 'single' (369; 58%) (Figure 12). Although early career stages are likely to correlate with being single, some of these respondents indicated that they had (unsuccessfully) tried to bring their family with them or were still waiting for family reunification. The latter seemed to be especially problematic in some cases, due to the financial limitations reported (e.g. insufficient scholarships/grants to obtain a family visa or to sustain family during their stay) or to COVID-19 travel restrictions (for more details, see section 4.1.6).

Q7: Did you move to this country together with your family?

n = 634

No, I moved there on my own	81% / 513
Yes, I moved there with my partner	8% / 52
Yes, I moved there with my partner and my child/children (> 6 years old)	5% / 33
Other (please specify)	3 % / 22
Yes, I moved there with my partner and my child/children (< 6 years old)	№ / 14

Figure 11. Respondents by family status during mobility

Similarly, most of the respondents who reported having travelled to exchange research or teaching experience, travelled on their own, which could be due to the sometimes shorter duration or intermittent nature of such mobility (122; 19%) (Figure 12).

Most respondents who travelled with their families travelled to take up new employment. In total, 20 of the academics in this group moved together with their partner and/or child(ren) (Figure 12). This could be explained by a variety of factors, including their higher probability of having a family and the better financial situation of a more advanced career stage.

Mobility purpose vs family status

n = 634

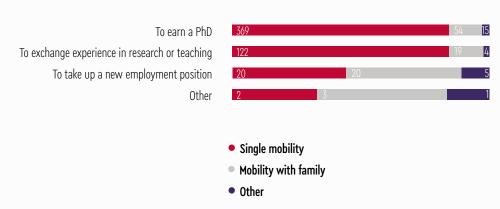


Figure 12. Respondents by mobility purpose and family status

1.4.2 Interview participants' profile

The UniWeliS partners conducted 70 interviews with higher education management and support staff from 35 higher education institutions in the target region, in order to explore existing institutional practices and approaches to attracting and supporting international academics (Table 2).

1.4.2.1. Institutional profile

The institutional sample covered the diverse situations of various higher education institutions in the target region. Of the 35 higher education institutions included in the interviews, 30 institutions were public and 5 were private. The sample included 10 specialised institutions (including one research institute) and 25 comprehensive universities. Of these, 11 institutions were based in capital cities/regions, whereas 24 institutions were located in non-capital regions (Table 2).

Table 2. Higher education institutions interviewed by country, type, and profile

Country	Higher education institutions	Type	Profile	No. of interviews
Bulgaria	Sofia University	Public	Comprehensive	5
Ü	Plovdiv University "Paisii Hilendarski"	Public	Comprehensive	2
	Technical University of Sofia	Public	Specialised	2
	Trakia University	Public	Specialised	2
				- 11
Croatia	University of Rijeka	Public	Comprehensive	1
5. 5 d d d	University of Zagreb	Public	Comprehensive	4
	5	. 050	oomprononerro	5
The Czech	Masaryk University	Public	Comprehensive	2
Republic	Palacký University Olomouc	Public	Comprehensive	1
Сробно	University of Chemistry and Technology, Prague	Public	Specialised	1
	University of Pardubice	Public	Comprehensive	1
	Offiversity of Fardobice	TODIIC	Comprehensive	5
Hungary	Eötvös Loránd University	Public	Comprehensive	1
iongary	University of Debrecen	Public	Comprehensive	2
	University of Debrecen University of Miskolc	Public	Comprehensive	1
		Public	•	
	University of Pécs	PUDIIC	Comprehensive	2 6
North Macedonia	Hairanaita IIICa I/lianant ObaidaliiII Ditala	D. Jelia	C	_
North Macedonia	University "Ss. Kliment Ohridski" – Bitola	Public	Comprehensive	1
2.1.1		p. Hr.	D 1: 1:1	1
Poland	International Centre for Interfacing Magnetism	Public	Research institute	1
	and Superconductivity with Topological		/ Specialised	
	Matter - MagTop, Institute of Physics, Polish			
	Academy of Sciences			
	Kozminski University	Private	Specialised	1
	Medical University of Gdańsk	Public	Specialised	3
	University of Łódź	Public	Comprehensive	3
	University of Social Sciences and Humanities	Private	Specialised	1
	University of Warsaw	Public	Comprehensive	1
				10
Romania	Ovidius University of Constanta	Public	Comprehensive	1
	Alexandru Ioan Cuza University	Public	Comprehensive	2
	West University of Timisoara	Public	Comprehensive	3
	·		·	6
Serbia	Belgrade Metropolitan University	Private	Specialised	2
	Singidunum University Belgrade	Private	Comprehensive	2
	University of Niš	Public	Comprehensive	5
	University of Novi Sad	Public	Comprehensive	2
	Similarity of Horr out	1 00110	oomprononsite	11
Slovakia	Alexander Dubček University of Trenčín	Public	Comprehensive	2
JIO FUNIU	Comenius University in Bratislava	Public	Comprehensive	3
	Technical University in Zvolen	Public	Specialised	3
	Pavol Jozef Šafárik University	Public	·	
	Lavui 10761 291911K MIIIA6121FA	PUDIIC	Comprehensive	2
Clavania	International Cohool for Conin and Decimon	Drivet-	Charieliand	10
Slovenia	International School for Social and Business	Private	Specialised	1
	Studies, Celje	D 11:	0	•
		Dublic	Comprehensive	2
	University of Ljubljana University of Primorska	Public Public	Comprehensive	2

1.4.2.2. Staff members' profile

The staff members' sample was equally diverse in its gender distribution, employment levels, and the type of position held by the interviewees.

Of the 70 staff members interviewed, 70% (49) were female and 30% (21) were male. This gender distribution generally reflects the situation in the higher education sector. Nearly 63% of the interviewees (44) held managerial positions when they took part in this study and 37% (26) were employed in supporting/administrative roles. Furthermore, 69% of the interviewees (48) were employed to work centrally, primarily by rector's offices or international relations departments, while 31% (22) worked at faculty or department level (Table 3).

Management staff employed at central level (29) were mostly vice-rectors of international relations or research and development or the heads/directors of international relations offices. Support staff employed at central level (19) included international relations officers or mobility coordinators, who in some cases covered both student and staff mobility, and student support or doctoral school officers.

The sample of higher education management staff employed at faculty level (15) mostly included vice-deans for international relations, whereas faculty-level support staff (22) included several employees partly or fully responsible for international cooperation or mobility and, in some cases, human resources or student support officers (Table 3).

Such heterogeneity was instrumental to collecting a broad range of views on attracting and supporting international academics at institutional level and to identifying common patterns across the target region. These issues are discussed in more detail in the following chapters.

Table 3. Interviewees by employment level and type of role

	Higher education managers	Higher education support staff	Total
	<u> </u>	Tilgilor cuocation sopport stall	1001
Central level	29	19	48
Faculty or department level	15	7	22

Total 44 26 70	
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National and institutional approaches to attracting and supporting global talent

2. National and institutional approaches to attracting and supporting global talent

This chapter explores current national and institutional approaches to attracting and supporting global talent in the target region, and highlights the enabling factors and most relevant actions contributing to this objective. It also provides a snapshot of incoming long-term academic mobility flows and shares academics' views of the attractiveness of the target countries and their institutions, in order to shed some light on the effectiveness of such approaches in the short to medium term.

2.1. National efforts to attract and support global talent

National approaches to attracting and supporting global talent were analysed in detail, based on the evidence collected via desk research for six target countries: Bulgaria, the Czech Republic, Hungary, Poland, Serbia, and Slovakia. Special attention was paid to the strategies and funding schemes in place, as well as to incoming mobility trends over the last five years, supported by Eurostat data.

2.1.1. Dedicated national strategies and policies

Analysis of the existing policy frameworks showed that dedicated national global talent attraction and support strategies remained relatively uncommon or fragmented across the target region. Only two of the target countries, the Czech Republic and Hungary, carried out specific objectives, either as part of broader national higher education legislation (HU) or in the form of a dedicated higher education internationalisation strategy (CZ) (Table 4). In two other countries, this policy development process was either underway (SK) or pending due to changing political priorities (RS). In Poland, more general objectives were introduced under socioeconomic and foreign policy priorities, whereas in Bulgaria, related strategic objectives are yet to be implemented (Table 4).

Given the lack of strategic focus on this area, few national targets to support implementation were introduced across the region. The Czech Republic established an international student recruitment goal only (20% of the student body by 2030), while Slovakia drafted a tentative target that was pending official adoption at the time of analysis: to increase the number of international PhD students and academics by 15% and 10% respectively, by 2030.

All countries analysed except Bulgaria operated some funding schemes aiming to encourage global talent recruitment and support at various levels, although the size and the breadth of such instruments significantly varied (Table 4). The most structured support was offered for international PhD students through national scholarship programmes (e.g., HU, SK), while funding opportunities for other groups of academics were more scattered.

Across the region, specific attention was paid to attracting early-stage researchers (doctoral candidates and postdoctoral researchers), as well as to cross-border exchanges and diaspora engagement. Support for (shorter-term) incoming lecturer or researcher mobility mostly took place under bilateral and multilateral agreements (e.g., the Central European Exchange Programme for University Studies - CEEPUS4; Visegrad Fund⁵), as well as EU-funded programmes, particularly Horizon 2020 and Erasmus+.

Four countries (CZ, PL, RS, SK) established special rules easing visa/immigration or employment processes for international students and researchers, especially from outside the EU, to create a more welcoming international environment and to facilitate international academic stays (Table 4).

All six countries covered by this analysis broadly advertised academic opportunities for international PhD students via national study platforms⁶, and for international researchers and lecturers via the European EURAXESS portal⁷ complemented by national EURAXESS platforms (Table 4).

At the time of analysis, **Bulgaria** had no specific national policies or targets, which would provide a strategic framework for attracting or supporting international academics (including PhD students) to/at Bulgarian higher education institutions.

The Czech Republic implemented several key strategic documents to attract international academics (including PhD students) and support them during their

One of the related goals of the Innovation Strategy of the Czech Republic up to 2030 (The Council for Research, Development and Innovation, 2019) is to simplify conditions and expedite the process of employing skilled international staff through several tools (e.g., incentives to support international teams and establish a welcome office; targeted programmes to support excellence, such as ERC CZ, EXPRO, and "pipeline" programmes to attract, develop and maintain top-level researchers).

The Strategy for Internationalisation of Higher Education for the period from 2021 (The Czech Ministry of Education, Youth and Sports, 2021) and the Strategic Plan of the Ministry of Education, Youth and Sports (The Czech Ministry of Education, Youth and Sports, 2020) for higher education, support the international cooperation priorities outlined in the Innovation Strategy.

⁴ URL: www.ceepus.info, accessed on 1 December 2021.
⁵ URL: www.studyineurope.eu, accessed on 1 December 2021.
⁶ National study platforms can be accessed via the Study in Europe portal: URL www.studyineurope.eu, accessed on 1 December 2021.
⁷ URL: https://euraxess.ec.europa.eu and https://euraxess.eu and https://euraxess.eu and https://eu<a href="https://eu<a href="http

Table 4. National global attraction strategies, funding schemes, and communication channels

	Strategic objectives for global talent attraction and support	National targets for global talent attraction	Dedicated programmes and funding schemes	Special rules easing mobility of international academics	National promotion platforms
Bulgaria	No	No	Under various bilateral or multilateral schemes	No	Study in Bulgaria (PhD students)
					EURAXESS Bulgaria
The Czech Republic	Yes	No	PhD students: Yes (bilateral schemes) Diaspora: Yes Postdocs: Yes Other lecturers & researchers: Yes (bilateral schemes)	Yes	Study in the Czech Republic (PhD students) EURAXESS Czech Republic
Hungary	Yes	No	PhD students: Yes (national scholarship programme) Postdocs: planned Diaspora: Yes Other lecturers & researchers: Yes (bilateral schemes)	n/a	Study in Hungary (PhD students) EURAXESS Hungary
Poland	No	No	PhD students: Yes Postdocs: Yes Diaspora: Yes Other lecturers & researchers: Yes	Yes (employment)	Go Poland (PhD students) ⁸ Research in Poland ⁹ EURAXESS Poland
Slovakia	Upcoming	Upcoming	PhD students: Yes (national scholarship programme) Postdocs: Yes Diaspora: Yes Other researchers, lecturers & artists: Yes	Yes	Study in Slovakia (PhD students) EURAXESS Slovakia
Serbia	Pending	Pending	PhD students: Yes Postdocs: Yes (limited) Diaspora: Yes Other lecturers & researchers: Yes (bilateral schemes)	Yes	Study in Serbia (PhD students) EURAXESS Serbia

 ⁸ URL: https://study.gov.pl, accessed on 1 December 2021
 9 URL: https://researchinpoland.org, accessed on 1 December 2021

One of the new Internationalisation Strategy's key priorities is to make the Czech Republic "an attractive and friendly country, and its universities [...] attractive institutions for international students, graduates, and academic and research staff" (The Czech Ministry of Education, Youth and Sports, 2021). This priority includes the development of services offered to international students and staff. According to the Strategy, the state of such services offered by Czech higher education institutions "should be taken into account in the evaluation of the quality of the university's activities and its achievement is facilitated by methodological support". Higher education institutions are expected to implement a broad range of measures for this purpose, including:

- To develop and create innovative infrastructure, information and counselling services, and facilities for international students and staff, thereby creating an attractive environment; create welcome centres to provide international applicants, students and staff with a wide range of support services to facilitate their stay in the Czech Republic, including support for visa matters, recognition of foreign education credentials and qualifications, study counselling, assistance in finding accommodation, in cooperation with the Czech Republic EURAXESS centre.
- To cooperate with international student clubs and support their activities, and develop integration activities for international students and staff.

The Czech Ministry of Education, Youth and Sports committed to financially supporting infrastructure improvements and the further development of support services (e.g., welcome centres, student clubs, student buddy systems) for international students and academic staff at higher education institutions. Support will also be offered to develop the language and intercultural skills of administrative staff.

Hungary adopted "A change of pace in higher education" strategy in 2014, which provided a general framework for sector development including internationalisation by increasing international student, lecturer, and researcher mobility as a way to enhance competitiveness. Relevant actions supporting the achievement of this objective involved fostering Hungarian institutions' capacity to attract international students, lecturers, and researchers through the expansion of the *Stipendium Hungaricum* programme and increased financial resources for researcher mobility.

Further objectives were formulated in the National Research and Development and Innovation Strategy (2021–2030) (The National Research, Development and Innovation Office, 2021), which among other things, aimed to "strengthen knowledge production by [...] ensuring a supply of researchers".

At the moment of writing, **Poland** lacked a separate document providing strategic guidance for the internationalisation of higher education or research, global talent acquisition or researcher mobility, or containing any related national benchmarks. A more general framework for international student recruitment, talent acquisition, and academic mobility was established in the following strategic documents:

- The Law on Higher Education and Science ("Constitution for Science") increased Polish higher education institutions' autonomy to recruit international students and academics and expanded international doctoral students' eligibility for dedicated state scholarship support (The Ministry of Education and Science of the Republic of Poland, 2018).
- The Responsible Development Strategy until 2021 and Human Capital Development Strategy 2020 (The Ministry of Labour and Social Development of the Republic of Poland, 2013) outlined medium to longterm economic priorities including human capital development and university internationalisation.
- Strategy for scientific excellence, The Excellence Initiative Research University programme.
- The Polish Foreign Policy Strategy 2017–2021 highlighted the importance of promoting Poland as a top destination for research and study (The Ministry of Foreign Affairs of the Republic of Poland, 2017).
- The State Scientific Policy, which was ready for adoption at the time of analysis, outlined policy priorities for the research and higher education sectors in terms of their contribution to the challenges facing the Polish economy and society.

Similarly, global talent attraction is broadly addressed in **Serbia** through various legislative and policy documents supporting science and research. The Law on Science and Research of the Republic of Serbia promotes inter-institutional cooperation and researcher mobility within the Serbian, regional, European and global research area. Acknowledging the role of international cooperation, the law introduced a set of evaluation criteria for an institution's capacity to attract and retain foreign researchers (The Ministry of Education, Science and Technological Development of the Republic of Serbia, 2015).

The document stressed the need to remove administrative barriers to researcher mobility (visa regime, residence permits, etc.) and the importance of allocating national funding towards this. The new Strategy for Scientific and Technological Development (2021–2025) and its accompanying action plan continued implementation of the abovementioned targets, which were seen as having only partially been achieved by its predecessor.

The Strategy for the Development of Education in Serbia until 2020 and its related action plan encouraged the international openness of the higher education system and international student, lecturer, and researcher mobility (The Ministry of Education, Science and Technological Development of the Republic of Serbia, 2015).

The draft Strategy for Internationalisation of Higher Education in Serbia (2017–2025), developed in 2016, highlighted the importance of the topic for the country, but it was not formally adopted.

The abovementioned strategies and action plans included a set of key performance indicators (KPIs) for the achievement of the respective goals, including two quantitative KPIs for higher education institutions related to measuring success in attracting international researchers: the number of (a) incoming researchers achieved through international exchange programmes or projects (including international researchers, diaspora scientists, and scientists from the Western Balkans and Danube regions) and (b) interinstitutional agreements signed by Serbian higher education institutions with their EU partners under Erasmus+ and CEEPUS programmes.

Slovakia has long-standing experience of developing national research, development and innovation strategies addressing the internationalisation of higher education and mobility. However, these strategies were only partially implemented due to the lack of a systematic approach and insufficient funding. Building on this past experience, the Slovak government adopted a series of recent strategic documents and initiatives:

- The National Reform Programme addressed the need to increase the overall quality and excellence of the national higher education system (The Ministry of Finance of the Slovak Republic, 2020).
- The National Programme of Education Development approved by the Slovak government in 2018 foresees to develop a centralised Strategy for internationalisation of higher education institutions (The Ministry of Education, Science, Research and Sport, 2018).
- The Slovak Ministry of Education, Science, Research and Sport presented its draft higher education internationalisation strategy up to 2030 for public consultation in autumn 2021, with a major focus on the internationalisation of study and human resources. Research internationalisation is to be covered in other policy documents related to science, research and innovation. The most relevant objectives included open recruitment of international lecturers and researchers, improving the quality higher education in Slovakia through internationalisation, further expansion of existing scholarship programmes for international student,

lecturer, researcher, and artist mobility and the improvement of framework conditions and support for international students and higher education staff in Slovakia.

- The draft internationalisation strategy includes the following target for higher education institutions: increasing the number of international doctoral students and academics at Slovak higher education institutions by 15% and 10%, respectively.
- The Slovak Recovery and Resilience Plan (Component 10 Attracting and Retaining Talents) foresees a new scholarship scheme for international students (at least 540 scholarships to be awarded by 2024).
- The Innovative Slovakia strategy prioritises support for R&D human resource development, including by achieving the return of Slovak researchers working abroad and attracting EU and non-EU researchers to Slovakia (The Ministry of Investment, Regional Development and Informatization of the Slovak Republic, 2020).

One of priorities of the Slovak Rectors' Conference for 2020–2024 included "developing an international higher education environment", including support services for incoming researchers as a way to foster higher education quality, enhance Slovak universities' visibility and support internationalisation for the benefit of domestic students (The Slovak Rectors' Conference, 2020).

Several other policies, such as the Migration Policy and the Integration Policy of the Slovak Republic, recognised the importance of the integration of highly skilled workers and students in Slovakia.

2.1.2. National talent attraction programmes and funding schemes

For most of the countries included in the analysis, political goals regarding global talent attraction and support were at least partially matched by national funding programmes or smaller scale support schemes (Table 4).

In **Bulgaria** higher education institutions can only benefit from various mobility funding schemes managed by international agencies (e.g., the German Academic Exchange Service (DAAD) and the German Research Foundation (DFG) supporting mobility of German doctoral students; the Francophone University Agency (AUF) funding mobility of French doctoral candidates in Bulgaria) or from related opportunities under EU-funded programmes.

In the **Czech Republic**, the Czech National Agency for International Education and Research (DZS) supports international higher education through several schemes, including the Academic Information Agency

(AIA), AKTION Austria - Czech Republic, the Barrande Fellowship Programme, CEEPUS, and the European Economic Area Grants. It also provides scholarships to students and academics at Czech higher education institutions under bilateral intergovernmental agreements and runs the Study in the Czech Republic initiative to attract international students.

The Czech Science Foundation offers individual postdoc fellowships to encourage outstanding scientists with international experience to undertake their own research projects at a Czech institution, and the Technology Agency of the Czech Republic supports international cooperation in the area of applied research, development, and innovation.

In **Hungary**, the main related funding schemes include:

- The Bilateral State Scholarship, which supports incoming researchers who wish to perform research and development activities at one of Hungary's higher education, research, or art institutions¹⁰.
- The Stipendium Hungaricum programme, which was launched in 2013 to encourage national higher education institutions to attract top international students at all levels (including PhDs). Apart from a tuition fee waiver, the programme offers a monthly stipend, medical insurance, and housing allowance to scholarship holders. The programme is supervised by the Ministry of Foreign Affairs and Trade and managed by the Tempus Public Foundation (TPF).
- Cross-border diaspora programmes, including the Hungarian Diaspora Scholarship launched in 2020 to strengthen ties with diaspora communities by offering access to young people, including doctoral students, to Hungarian higher education) and other regional funding schemes, including CEEPUS, the DOMUS Scholarship¹¹ run by the Hungarian Academy of Sciences, and the Makovecz Scholarship¹².

Poland has a broad range of talent attraction programmes and funding schemes including:

- · Research grants and fellowships awarded to international doctoral and post-doctoral researchers employed by Polish higher education institutions by the National Science Centre (NCN).
- Talent attraction programmes run by the Foundation for Polish Science (FNP) to support in international recruitment and collaboration by outstanding research teams; to allow top researchers to create a research team in Poland, irrespective of their nationality; to encourage the return of outstanding scientists of Polish origin to the country; to offer funding for projects designed by international postdoctoral fellows coming to Poland.
- Programmes managed by Polish National Agency for Academic Exchange (NAWA) to support the internationalisation of Polish academic and research institutions, particularly, the NAWA Chair

(allowing Polish higher education institutions to invite outstanding researchers), Welcome to Poland (building Polish universities' capacity to serve international academics and create a welcoming environment), ULAM NAWA (scholarships for international postdoctoral researchers), and the Polish Returns programme (aiming to attract scientists with Polish origins to take up employment in Poland).

- Grants and venture capital funds awarded by the National Centre for Research and Development (NCBR) for R&D projects, to support top research teams, and mobilise scientific and economic communities to tackle issues of key importance for Poland's development.
- Grant programme of the Medical Research Agency (ABM), which offers funding for non-commercial clinical trials in Poland, to provide Polish patients with access to latest technologies and engage Polish researchers in global research.

In **Serbia**, incoming researcher mobility is mainly funded by three major sources: the Ministry of Education, Science and Technological Development, EU-funded programmes (e.g., Horizon Europe, Erasmus+), and higher education institutions' own funds. Several talent attraction schemes emerged on a project basis. For example, the BioSense Institute at the University of Novi Sad implemented the "Antares" scientific project to attract research talent from aboard. The Serbian government funds "The World in Serbia" and "Serbia for Serbs from the Region" programmes and provides scholarships under bilateral or multilateral agreements (e.g., CEEPUS).

In **Slovakia**, four types of funding schemes for incoming academics exist:

- National and bilateral programmes, including the Slovak National Scholarship Programme supporting student, lecturer, researcher and artist mobility, and the Action Austria - Slovakia, co-funded by the Slovak and Austrian governments to provide grants for PhD students and researchers from both countries, as well as scholarships based on intergovernmental agreements.
- EU-funded programmes (e.g., Erasmus+, especially, the K107 action for incoming researchers from partner countries; Horizon 2020/Horizon Europe Marie Skłodowska-Curie Actions, e.g., H2020 MSCA COFUND SASPRO 2 - the Slovak Academic and Scientific Programme hosted by the Slovak Academy of Sciences, Comenius University Bratislava and Slovak University of Technology in Bratislava and offering 40 fellowship positions under incoming and reintegration schemes).
- International mobility funding programmes, such as CEEPUS, supporting mobility and cooperation between higher education institutions from member countries.

URL: https://tka.hu/international-programmes/4127/bilateral-state-scholarships, accessed on 1 December 2021.
 URL: https://euraxess.ec.europa.eu/jobs/funding/domus-hungary-scholarship-hungarian-academy-sciences, accessed on 1 December 2021.
 URL: https://hungarianinsider.com/makovecz-program-will-receive-huf-330-million-5153/, accessed on 1 December 2021.

 Institutional funding programmes, e.g., Štefan Schwarz Support Fund, awarding fellowship positions to internationally experienced postdoctoral researchers of any nationality at the Slovak Academy of Sciences, and the IMPULZ programme recruiting internationally recognised scientists and top young researchers for the Slovak Academy of Sciences.

2.1.3. Other actions fostering talent attraction and support

Several countries in the target region (PL, RS, SK) made special efforts to facilitate the recruitment of international research and teaching staff and to disseminate information about opportunities for work and study at their national higher education and research institutions.

In **Poland**, the Law on Higher Education and Science granted national higher education institutions the autonomy to recruit international research or teaching staff without prior authorisation from the employment authority. The Foreigners Act of 12 December 2013 also enacted simplified immigration/residence permit procedures for international researchers.

Poland operates several platforms to offer information on study opportunities (e.g., Go Poland!), Polish university graduates career paths (the Polish Graduate tracking system), and project-based vacancies (the Foundation for Polish Science, Research in Poland), and provide matchmaking tools for Polish host institutions and international applicants (e.g., the POLONEZ BIS programme).

In **Serbia**, although the Strategies for Scientific and Technological Development include provisions to remove administrative barriers for international researchers (e.g., visa, residence and work permits), their implementation has been limited to date. The Law on Employment of Foreigners was modified to allow international researchers to be employed in international research or teaching activities in Serbia on a project basis.

Opportunities for study and research in Serbia are advertised via EURAXESS, Study in Serbia and Foundation Tempus (Erasmus+ and CEEPUS programmes). The national EURAXESS portal provides information about various practical matters including visa issues, accommodation, banking, childcare and the schooling system, social and health insurance, healthcare, language training, taxation, and the recognition of academic qualifications.

The **Slovak** government simplified procedures regulating the conditions for entry and residence permits for incoming researchers. As of 1 May 2018, third-country researchers and their families can enter

for short-term stays (up to one year) without having to obtain temporary residence in case they have received a residence permit for the purpose of research in another EU member state (Directive (EU) 2016/801 transposed, enabling Intra-EU mobility for thirdcountry nationals). Third-country researchers applying for temporary residence in Slovakia based on a host agreement are entitled to a simplified residence permit procedure, the immediate employment regardless of the job market situation, a nine-month renewal of the residence permit for the purpose of job search or starting a business. They are also exempt from application processing fees. This group of researchers is entitled to teach a specific number of hours. These researchers and their family members do not need to obtain a work permit.

Several organisations promote opportunities for research and study in Slovakia:

- SAIA, n. o. (The Slovak Academic Information Agency)
 - acting as the national promotion agency for incoming students (including PhD students) based on the GOOD IDEA-SLOVAKIA national brand;
 - acting as EURAXESS Slovakia, consisting of five centres across the country, which provide support, information and personal assistance to mobile researchers, academic staff and their families;
- The Slovak Rectors' Conference (SRK) promoting higher education in Slovakia;
- Slovak Fulbright Commission promoting exchange opportunities for academics between Slovakia and the USA within the Fulbright Programme;
- Slovak embassies abroad participating in promotion events organised by EC representation offices.

Furthermore, SAIA and EURAXESS Slovakia occasionally organise legal and intercultural training for administrative staff at Slovak higher education institutions and research organisations, and prepare events promoting mobility and internationalisation (e.g., Day of Academic Mobility and Internationalisation) among national higher education institutions and policy makers.

2.2. National incoming researcher and doctoral mobility trends

Policy efforts aiming to foster the attractiveness of national higher education institutions to international academics can be reflected, to some extent, in the evolving numbers of international researchers, lecturers, and PhD students hosted or employed in the analysed countries.

When comparing the **share of international researchers**¹³ engaged at higher education institutions in the target region over a similar period (2016–2019), for which comparable data was available¹⁴, the **trend was generally less positive** than for PhD students.

Foreign doctorate students as a % of all doctorate students in 2015-2020 (Source: European Innovation Scoreboard 2021)

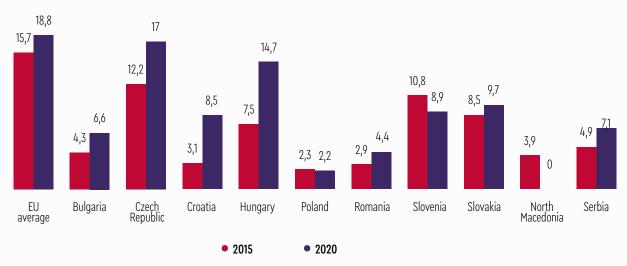


Figure 13. The share of international PhD students of all PhD students in 2015-2020

According to the European Innovation Scoreboard 2021 / Eurostat data, the **share of international PhD students of all PhD students increased in seven countries** during the 2015–2020 period (BG, CZ, HR, HU, RO, SK, RS). Croatia, the Czech Republic, and Hungary achieved significant increases approaching the EU average. Slovenia experienced a small decline, and Poland was subject to flat growth. The data for North Macedonia was incomplete (Figure 13).

Only three countries experienced an increase (CZ, PL, SI), particularly noticeable in the Czech Republic, and two countries had flat growth (BG, SK). A downward trend was observed in four countries (HR, HU, MKD, RS) (Figure 14).

Foreign researchers as a % of all researchers in higher education in 2016-2019 (Source: Eurostat)

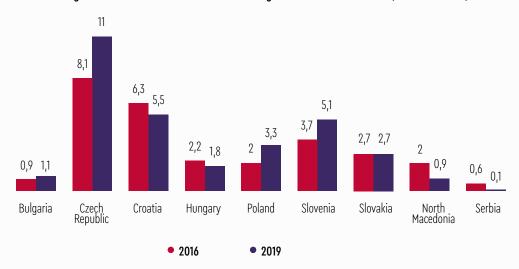


Figure 14. The share of international researchers of all researchers engaged in the higher education sector in 2016–2019

¹³ Eurostat definition: "Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems and also in the management of the projects concerned." (§5.35, Frascati Manual, OECD 2015), URL: https://ec.europa.eu/eurostat/cache/metadata/en/rd_esms.htm#meta_update1644265184727, accessed on 11 January 2022.

¹⁴ Comparable data could be retrieved from the Eurostat database for nine countries for the 2016-2019 period. No data was available for Romania. URL: https://ec.europa.eu/eurostat/databrowser/bookmark/dfe19aa4-0915-4b57-8d04-f084fd807e38?lang=en, accessed on 11 January 2022.

2.3. Institutional efforts to attract and support global talent

Higher education institutions' commitment to attracting and supporting international academics in the longer term is one of the ultimate prerequisites for creating a more internationalised and welcoming higher education and research environment. The degree of such commitment was analysed based on the qualitative feedback collected through a series of interviews with 35 higher education institutions in the target region.

2.3.1. Institutional commitment

A set of broad metrics assessing the level of institutional commitment to attracting global talent (starting from PhD level) was established (Figure 15).

Methodologically, lower levels of commitment were assigned to cases where respondents either directly acknowledged that this was not a priority for their institution, or reported no formal recognition of this priority in their strategic documents (e.g., institutional strategy, internationalisation plan). In cases where attracting international academics was, at least, a declared priority (either perceived as such by the interviewee or declared as a priority in the strategic documents), the overall commitment was scored medium. When this priority was reported both formally acknowledged in the strategic documents and equipped with dedicated implementation plan(s), including financial or other resources for implementation, commitment to the related goal was classified as high. It was either not possible or difficult to assess this trend for five higher education institutions in the sample due to a lack of relevant information.

Commitment was rated as medium at half of the institutions where enough evidence was available. This group covered a broad range of cases, varying between institutions that had included a simple reference to attracting international academics in their strategic plans and those with more developed and comprehensive approaches, sometimes reinforced by ad hoc project-based funding (Figure 15).

One third of the institutions were found to be highly committed to attracting global talent, testing various institutional funding mechanisms including dedicated institutional funding programmes (e.g., Comenius University Bratislava, the University of West Timişoara), attractive remuneration schemes (e.g., Central European Institute of Technology at Masaryk University), or targeted use of performance-based funding mechanisms for the related purpose (e.g., the University of Rijeka) (Figure 15).

These more strategic and operational approaches were typically pursued by larger comprehensive universities some of whom reported being members of the European Universities alliances. Participation in the latter initiative both stimulated and reflected the strategic aspirations of this group, in terms of global talent recruitment and support. The institutional funding schemes designed were, however, rather small in scale, experimental, and focused on one or two groups of international academics (e.g., postdoctoral researchers, diaspora scientists).

Examples of institutional support for international talent recruitment

The University of West Timişoara (WUT) in Romania designed the Visiting@WUT grant programme to attract international lecturers and researchers, and foster internationalisation at faculty level. The programme is divided into two components: Visiting Professor and Visiting Researcher. Each faculty can invite up to two visiting professors or researchers for max. nine-month stays per academic year.

Comenius University Bratislava has started to attract international postdoctoral researchers via its new, three-year postdoctoral programme, which funds 20 employment positions per year.

There was a relatively **small group of institutions** with low levels of commitment (ca. 17%). This mostly included small specialist institutions based in more remote areas, who seemed to be just starting out on their internationalisation pathway, in addition to institutions facing structural barriers to attracting or employing international academics in the longer term (e.g., national language restrictions imposed on academic staff recruitment in Serbia and Slovenia), as well as those that placed more emphasis on attracting international students.

Q5: How committed is your institution to attracting and supporting international researchers/lecturers (incl. PhD students)?

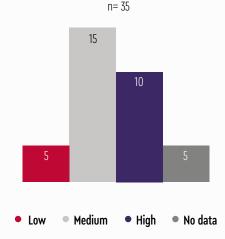


Figure 15. Institutions' commitment to attracting and supporting international academics

The distribution of higher education institutions with medium and high levels of commitment was fairly similar across the target countries (Figure 16).

Q5: How committed is your institution to attracting and supporting international researchers/lecturers (incl. PhD students)? n=35

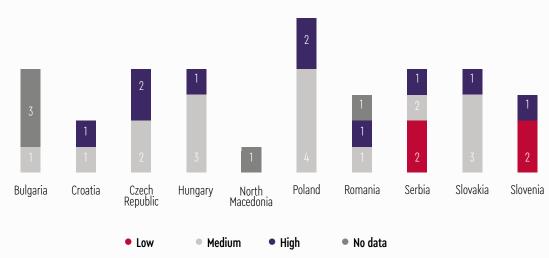


Figure 16. Institutions' commitment to attracting international talent, by country

The feedback received from the higher education institutions showed that the existence of **policy** frameworks enabling institutional autonomy, effective funding mechanisms, and adequate resources were some of the key national-level factors that underpin institutions' overall commitment to global talent recruitment and the quality of the support system and welcome culture in place. University leaders' interest in internationalisation and the institutional capacity to pursue the related goals also play a decisive role at the institutional level.

Our analysis also revealed that international student recruitment (first and second cycle) is a stronger focus than the attraction of international PhD students, and research and teaching staff under existing internationalisation strategies and support activities. This pattern could partly be explained by the fact that international fee-paying students are increasingly a good source of income for higher education institutions in the region, whereas the recruitment of international academics (on a temporary and particularly permanent/employment basis) requires substantial investment, which is reported as being quite limited in most countries in the target region, particularly Bulgaria and Serbia.

Attracting both international staff and PhD students was mostly possible due to the use of dedicated national financial incentives and scholarship grants for different groups of international academics, as outlined in section 2.1.2.

The study also revealed that many higher education institutions in the target region seemed to underrate

the value of international staff mobility in terms of its potential contribution to the institution's missions, including international student recruitment, particularly through an increase in the quality of programmes taught in English.

From this perspective, national funding schemes that offer both individual grants (e.g., academic fellowships, open job positions, team set-up offers) and funds to build higher education institutions' capacity to attract, support, and retain global talent are crucial to helping higher education institutions in the region develop more strategic and comprehensive approaches to internationalisation that foster their competitiveness.

2.3.2. Institutional incoming researcher, lecturer, and doctoral mobility trends

Commitment to international talent attraction is echoed in the numbers of international academics hosted on a long-term basis, which remained fairly limited across the target region, particularly in terms of researchers and lecturers at more advanced career stages.

Although the data on the number of international academics including PhD students hosted or employed on a temporary or permanent basis was rather patchy and tentative, given the diverse potential interpretations of "employment" and, in some cases, interviewees' limited ability to provide accurate estimates for the entire institution, this study revealed some tentative patterns regarding the critical mass of international academics attracted and served by the institutions.

In most cases institutions reported attracting relatively small numbers of international PhD students (up to 20 per year). Nearly one third of the institutions interviewed reported having hosted between 20 and 100 international PhD students per year. The highest figures were reported by several Hungarian and Czech higher education institutions (more than 100 doctoral students from abroad), who recently expanded their international student intake, including doctoral candidates.

The international researcher and lecturer dataset was even more limited or fragmented. Nearly two thirds of the institutions that shared this information reported to employ on average up to 20 international academics on temporary or permanent contracts. The remaining share of institutions, which reported higher numbers, was mostly represented by large, comprehensive institutions based in capital regions.

These tentative figures based on the estimates of the interviewed staff point out to the **relatively low level of longer term international staff recruitment** (including PhD students) (beyond short-term exchanges and conference participations) in the target region, although several large, capital-based institutions are an exception to this trend. This is particularly the case for international researchers and lecturers at more advanced career stages.

As detailed in section 2.1.2, national funding for this group of researchers remains quite limited across the target region, and is mostly available under bilateral and multilateral agreements or EU-funded programmes, which primarily cover temporary project assignments or contracts. Supporting incoming researcher mobility at more advanced career stages is arguably more costly for host countries and higher education institutions, as it requires attractive and 'all-inclusive' employment packages. Such mobility may also be hindered by various structural barriers at national level (e.g., language or other limitations to employment).

Attractiveness of the target countries and their institutions

3. Attractiveness of the target countries and their institutions

The overall impact of national and institutional efforts to attract and support global talent can partly be captured through individual researchers', lecturers', and PhD students' perceptions of the attractiveness of their host countries and institutions, as well as levels of satisfaction with their mobility experience.

3.1. Top reasons for selecting the target region and its higher education institutions

The survey of international researchers, lecturers, and PhD students hosted by higher education institutions in the target region shed some light on their key motivations for choosing a target country and institution as a destination for study or work. These motivations were similar for different target countries.

The evidence obtained showed that **Central-Eastern** and **South-Eastern Europe appealed to mobile** academics both in terms of perceived professional/academic opportunities and a broader social and cultural setting.

Opportunities for professional development through collaboration (307), knowledge exchange (301), and networking with the host country or institution's academic community (259) were one of the top three pull factors. Mobility was also seen as an opportunity to improve career prospects and employability (244), and also to experiment with new research methods and approaches (239) (Figure 17).

Opportunities to access **training and education** (165) ranked quite highly given the large share of PhD students in the sample, alongside access to research facilities and equipment (164) and room to experiment with new learning practices or teaching methods (155) (Figure 17).

Increasing knowledge of social, linguistic or cultural matters were relatively important to the survey participants, which could indicate the target region's cultural appeal to some academics, including those from neighbouring countries and EU member states. This interest could be further explored and leveraged by national agencies (Figure 17).

Financial aspects of mobility, such as opportunities to receive a grant, or secure better working conditions or remuneration, were ranked quite low, despite the fact that many respondents used national host country grants and funding schemes to cover their remuneration and living costs, as outlined in more detail below. This could imply that the target countries were not originally chosen for the size of their financial offer, particularly in view of the fact that some respondents reported experiencing financial difficulties during their stay (for more details, see section 4.1.6).

Q11: What were the most important reasons for selecting your study, host or employment country and institution? Please select top 3 reasons from the list.

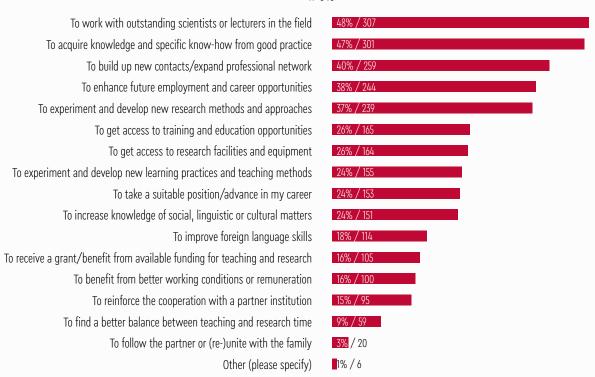


Figure 17. Top reasons for selecting the host country and institution as a destination for study or work

3.2. Sources of mobility funding

Information on the key mobility funding sources used by the international academics surveyed shed some light on their interest in and uptake of the various funding schemes presented in section 2.1.2. Analysis showed that national **host country grants** and scholarships were the main source of funding used to cover living expenses, with over half of the respondents selecting this type of funding source (348). This was particularly true for the 255 respondents who moved to obtain a PhD (Figure 18).

National home country grants and scholarships (offered by the country of current residence or country of citizenship) were the second largest source of funding for remuneration and living allowance, selected by 114 and 88 respondents, respectively. Other important financial sources included European grants (113), as well as funding offered by host institutions (103), which were used by various groups of academics with different mobility intentions (Figure 18).

In various countries, the share of academics independently financing their remuneration/ living allowance was quite limited (62), and mostly comprised those aiming to obtain a PhD (45) (Figure 18).

But for travel expenses, the situation was found to be quite opposite. Most respondents paid for travel to their host country themselves (102), pointing to either a lack of dedicated travel funding schemes or the insufficient size of mobility grants. National grants offered by the country of citizenship (66) seemed to be more inclusive of travel expenses than the other funding sources featured in this analysis (Figure 18).

Almost one fifth of the respondents (124) used a combination of at least two or more funding sources to cover mobility related living and travel expenses (Figure 18).

The relatively high share of respondents who reported investing their own means and of those who reported combining various sources of funding suggests the need for national funding agencies to review both the size and the scope of grant packages to increase their overall attractiveness and to improve their alignment with both national living costs and the personal situations of international academics. This need was also quite apparent in the evidence on various financial issues experienced by respondents outlined in more detail in section 4.1.6.

Q9: What funding did you get for your mobility? (multiple choice) n = 640

I have used my own means to fund my mobility Funding from my home institution Funding from my host institution European grant National grant or scholarship of my host country/country of employment or study National grant or scholarship of my country of current residence (if different from country of citizenship or host country) 13% / 17 43% / 66

- National grant or scholarship of my country of citizenship
- Remuneration/living allowance
- Travel expenses

Figure 18. Key sources of funding to finance respondents' mobility experiences

3.3. Sources of information about mobility

When it comes to the visibility of academic mobility opportunities offered in the target countries, 'bottom-up' sources of information remain key. Most survey respondents learned about their mobility opportunity through own professional networks (236) or from their current employer or host institution (119). National and European web portals were an important source of information for less than one fifth of all respondents (110). Information from past/home institutions and press recruitment advertisements was less common (Figure 19).

"Other" responses (82) included multiple references to national ministries of higher education and/or research in a home country (25) and as well as personal networks (18) (Figure 19).

The above findings indicate **some room for broader promotional efforts at national level**, taking full advantage of the existing platforms presented in section 2.1.1. Overall, the promotion of opportunities for study and research in the target region emerged from the institutional interviews as one of the areas where public support could be further expanded.

As information on study and work opportunities in the target region seem to largely circulate by word of mouth through international academics' professional networks, their level of satisfaction with the support obtained from the host country and institution is crucial to the country's present and future attractiveness to global talent. This issue is explored in more detail in section 4.

Q8: How did you learn about this mobility (study, visit or employment) opportunity? (multiple choice)



Figure 19. Sources of information about mobility opportunities used by the respondents

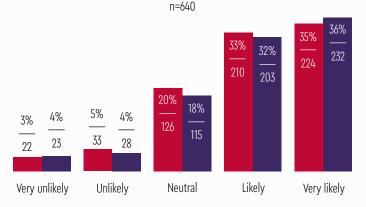
3.4. Overall satisfaction with the host country and host institution

Most respondents reported relatively high levels of satisfaction with the host country and institution.

In total, 68% and 66% of all respondents were "likely" or "very likely" to repeat their experience in their host country and host institution, respectively.

However, a relatively large share of respondents were undecided about their host country and host institution (20% and 18%, respectively), indicating some room for further improvement (Figure 20).

Q25: Based on your reported mobility (study, visit or employment) experience, how likely would you be to pursue it again?

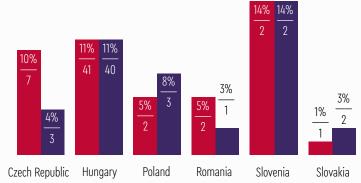


- Another mobility to your study, host or employment country
- Another mobility to your study, host or employment institution

Figure 20. Respondents by level of satisfaction with the host country and host institution

When it comes to differences between the target countries, the lowest relative levels of satisfaction, calculated as the share of respondents per country, were reported in Slovenia and Hungary (Figure 21). In Hungary, this score was mostly given by international PhD students with a *Stipendium Hungaricum* scholarship, who dominated the national sample. Slovakia achieved the lowest dissatisfaction levels.

The share of respondents who selected "unlikely" or "very unlikely" for host county and host institution under question
25 among total respondents per country



- Host country
- Host institution

Figure 21. Satisfaction with the host country and host institution per target country

The target countries and their higher education institutions were reported as relatively attractive, both professionally and culturally, by the respondent international academics, who also used the financial opportunities provided by some of these countries. While overall levels of satisfaction with the host country and host institution seem equally high, many of the respondents were in two minds about their experience. Section 4 explores the potential reasons for this finding.

Support services offered to international academics

4. Support services offered to international academics

This section explores various types of written guidance and support received by the international academics surveyed, their degree of satisfaction with the assistance received, and the most common challenges they faced in the context of their mobility to the target region. This analysis is complemented by an overview of the current institutional practices used to establish and deliver support services and the related implementation issues facing higher education institutions in the target region.

4.1. International academics' views

4.1.1. The most important support services

According to the respondents, the three most important areas requiring support were: immigration matters, accommodation, and social and healthcare insurance, the essential services enabling any international experience. Funding ranked in fourth place, reflecting the importance of financial support for mobility at all stages, including post-mobility professional (re-)integration. Professional/academic development, such as training in teaching and research, as well as career advice and guidance occupied the middle ranking positions (Figure 22).

These findings echoed the key reasons to perform studies and research in the target region, which concerned the development of new knowledge, and the enhancement of future employment and career opportunities, as seen in section 3.1.

Assistance with **travel arrangements and practical local matters**, as well as **language support**/translation, featured inside the top ten most important areas, possibly due to the high share of respondents with limited prior international experience and insufficient local language skills, as seen in the communication challenges experienced by the international academics surveyed across the target region (see section 4.1.6 for more details) (Figure 22).

Assistance in family matters and social integration received the lowest scores (in absolute terms) due to the lower share of respondents travelling with their family in the sample (Figure 22). However, the qualitative feedback showed that support in family issues was very important to international academics with families, particularly during the COVID-19 pandemic, which affected overall levels of satisfaction with mobility.

Surprisingly, the various welcome programmes provided by higher education institutions (e.g., induction trainings or information days) were not seen as important by the responding international academics compared with other types of support (Figure 22). This may suggest **international academics are more interested in tailored introductions to the host institution** and more personalised contact with central or faculty level support staff, than in the large-scale welcome events higher education institutions design for international students.

Support for the recognition of qualifications was also ranked relatively low, possibly reflecting the limited needs of international PhD students (for whom these matters are typically covered as part of the admissions process), exchange lecturers and researchers (for whom the recognition of qualifications is rarely a requirement), and the small share of respondents studying or working in a regulated field (e.g., law, medicine) where such recognition is required.

This ranking looked a bit different at various career stages. The top three services, consisting of the essential matters (immigration, accommodation, and social and healthcare insurance), followed by funding issues, were nearly the same for all categories of researchers, regardless of their career stage (Table 5).

However, professional development services, such as training, career advice and guidance, were slightly more important for first-stage researchers, whereas practical and administrative support, including language/translation, appeared slightly more significant for recognised and established researchers (Table 5). The latter were also more interested in family support than early-stage researchers (probably due to the fact that academics at more advanced career stages are more likely to have a family and the financial means to sustain them abroad).

Finally, leading researchers seemed to attach more value to support for professional networking and qualifications recognition, which may be important to securing permanent employment, as well as to social life (Table 5).

Q21: Assistance on what matters do you consider most important? Please rank your top 5 choices.



Figure 22. Key areas of support reported by respondents

Table 5. Key matters for support by different groups of researchers

N 	First Stage Researcher	Recognised Researcher	Established Researcher	Leading Researcher
1	Immigration matters	Immigration matters	Accommodation	Accomodation
2	Social and healthcare insurance	Social and healthcare insurance	Immigration matters	Social and healthcare insurance
3	Accommodation	Accommodation	Social and healthcare insurance	Funding opportunities
4	Funding opportunities	Funding opportunities	Funding opportunities	Professional networking
5	Training in teaching and research	Language support / translation	Language support	Immigration matters
6	Career advice and guidance	Local practical matters	Travel arrangements	Training in teaching and research
7	Travel arrangements	Training in teaching and research	Local practical matters	Recognition of qualifications
8	Language support / translation	Career advice and guidance	Training in teaching and research	Travel arrangements
9	Professional networking	Professional networking	Professional networking	Career advice and guidance
10	Local practical matters	Family matters	Family matters	Social life
11	Recognition of qualifications	Travel arrangements	Welcome programme	Local practical matters
12	Welcome programme	Social life	Career advice and guidance	Language support / translation
13	Family matters	Welcome programme	Recognition of qualifications	Family matters
14	Social life	Recognition of gualifications	Social life	Welcome programme

4.1.2. Information guidance and personalised support obtained

To explore the type of information guidance and personalised support obtained by respondents, the questionnaire included a set of questions related to three different stages: prior to mobility (study, visit or employment), during mobility, and upon departure or after mobility (study, visit or employment).

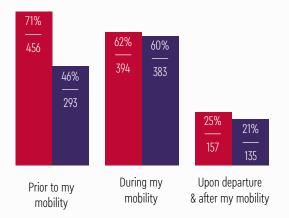
Over 70% of respondents reported having obtained some sort of information guidance prior to their mobility while less than half (46%) benefitted from personalised assistance at this stage (Figure 23).

The reported shares of information guidance and personalised assistance were almost equally distributed on-site. Although the share of those who obtained information guidance during mobility (62%) was lower than the pre-arrival figures, the percentage of those who obtained personalised assistance increased from 46 to 60% (Figure 23). However, nearly 40% of all respondents seem not to have received any information guidance or personalised assistance during their mobility.

Only a quarter of all respondents received information guidance upon departure and even fewer received personalised support at the end of their experience (21%) (Figure 23). This could partly be explained by the large share of respondents who had yet to reach the end of their mobility experience. It may also indicate that mobile academics have a better grasp of the local situation at the end of their stay and are therefore more self-sufficient.

However, this outcome could also point to the fact that higher education institutions in the target region tend to prioritise support at earlier stages, to offer international academics a smooth experience. As a result, they might overlook both mobile academics' (particularly, international PhD students) professional development and (re-)integration expectations, and their institution's needs to engage in further community-building, alumni engagement, and networking.

Q12: Did you receive any kind of information guidance or personalised support in the context of your mobility? (multiple choice)



Information guidance
 Per

Personalised assistance

Figure 23. Information guidance and personalised assistance received at various mobility stages

The data breakdown per country mostly confirmed the above trends. For nearly all target countries, the level of information guidance dropped from the preparatory to the on-site stage and even more so by the final stage. Personalised support either increased from the prior to mobility stage to on-site or remained unchanged for all target countries, but shrank considerably towards the end of mobility (Table 6).

Romania achieved the highest shares of respondents supported at all stages of mobility, while Bulgaria demonstrated the lowest values. Slovakia had the highest figures for information assistance prior to mobility (discarding North Macedonia with only two responses in total), but one of the lowest values for such assistance prior to departure. Serbia demonstrated second highest values for personalised support during mobility, next to Croatia and Romania. Poland had higher than average figures for both information assistance and personalised support at various mobility stages except for personalised assistance during mobility (Table 6).

These findings suggest that there is still ample room for increasing both information guidance and assistance for international academics in all target countries, particularly upon their departure. Efforts to improve support at the final stage may be particularly important for attracting other international academics from the same sending countries.

Table 6. The share of information guidance and personalised assistance recepients at various mobility stages in the total number of respondents per host country

	Information guidance prior to mobility	Personalised assistance prior to mobility	Information guidance during mobility	Personalised assistance during mobility	Information guidance upon departure*	Personalised assistance upon departure*
Bulgaria	43%	29%	43%	29%	0%	0%
Croatia	75%	25%	50%	100%	0%	0%
The Czech Republic	60%	58%	56%	63%	33%	33%
Hungary	70%	39%	63%	53%	19%	19%
North Macedonia (**)	100%	50%	0%	50%	0%	0%
Poland	75%	55%	63%	60%	45%	45%
Romania	84%	62%	76%	84%	64%	50%
Serbia	56%	33%	0%	78%	0%	40%
Slovenia	71%	57%	50%	71%	0%	0%
Slovakia	85%	54%	61%	76%	24%	32%

^(*) calculated based on the number of past mobilities, in order to exclude those who had not yet completed their experience at the time of survey participation

^(**) limited sample used for calculations (two responses)

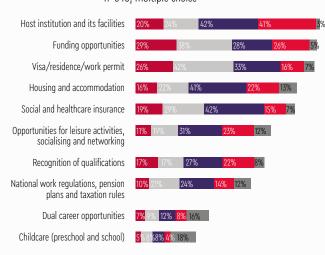
4.1.3. Pre-arrival stage: satisfaction with the obtained information guidance and support

Information guidance

Pre-arrival information guidance was most commonly received about the host institution and its facilities, particularly from the host institution's central, faculty or department levels. Information about funding opportunities was also very common, most frequently offered via the host country's official websites or public agencies, as well as from the home institution (Figure 24).

Other common types of information covered visa/residence/work permit matters (often shared via the host country's official portal), as well as housing and accommodation, social and healthcare insurance, and social integration opportunities. Social integration guidance was largely offered by the host institution's central level departments, and to some extent via the host country's official websites or public agencies (Figure 24).

Q13: What kind of information have you received prior to your mobility? n=640; multiple choice



- Home institution (e.g., international office)
- Host country (national web portal, funding agency, host country representative office/embassy)
- Host institution central or faculty services (e.g., international office, welcome center)
- Host institution department or supervisor
- Other

Figure 24. Type of information received by the respondents from different sources prior to mobility

Information about integration into the local labour market, particularly in terms of qualifications recognition and national work regulations, and family related matters (childcare and dual career opportunities) was less commonly shared with respondents, primarily by the host institution's central level departments (Figure 24).

Although this type of information is typically need-driven and, therefore, relevant to specific groups of individuals, "other" information providers played a more visible role in offering information on some of these matters. This may suggest respondents interested in this type of information had to turn to other sources, possibly due to a lack of or poorly adapted information from the home or host organisations involved in the support cycle.

Levels of satisfaction with the various types of information received prior to mobility were especially high for more common areas, including guidance about the host institution and its facilities, immigration (visa/residence/work permit) matters, and funding. Respectively, a total of 76%, 69% and 65% of all respondents were either satisfied or strongly satisfied with the guidance received on these three aspects (Figure 25).

Almost 62% reported high levels of satisfaction with the information on housing and accommodation received (i.e. respondents who selected "agree" or "strongly agree"); however, in this category, the share of dissatisfied survey takers ("disagree" or "strongly disagree") was also one of the highest (16%) (Figure 25). This echoes the persistent challenges of offering accommodation advice (and the actual quality of housing services) at some institutions in the target region.

The information about national work regulations, pension plans, and taxation rules appeared problematic, as it scored the highest levels of dissatisfaction (18%) ("disagree" and "strongly disagree" responses options considered together). As mentioned above, this is also a topic in which a smaller share of the respondents received guidance prior to mobility, which could affect their interest in the professional development opportunities in a target country after mobility.

Similarly, dissatisfaction with information on family related matters (childcare and parental benefits and dual career opportunities) was fairly high. In total, 13% and 18% of all respondents selected "disagree" or "strongly disagree", and more than one fifth of the respondents for whom these two types of information mattered reported low levels of satisfaction in both cases ("disagree" or "strongly disagree").

These outcomes highlight the need for higher education institutions in the target region to expand information issued to mobility and go beyond essential immigration, housing, and healthcare insurance matters, by addressing other important concerns, particularly regarding national labour regulations and family support frameworks.

Q14: To what extent do you agree with the following statement: "The information provided to me prior to my mobility (study, visit or employment) have met my needs and expectations".

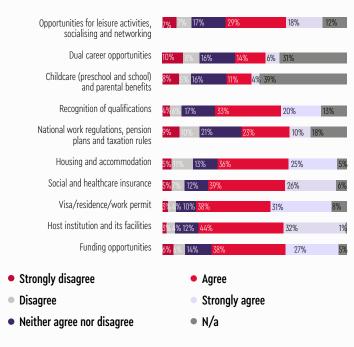


Figure 25. Satisfaction with information guidance provided prior to mobility

Support received prior to mobility

Pre-arrival, the most common assistance received was for a mobility/employment agreement, visa/residence/work permit, accommodation, and healthcare insurance, followed by language support. In most cases, such services were offered to respondents by the central host institution or at faculty level, with departments taking an equally active role, particularly on issues related to mobility/employment agreements and language support (Figure 26).

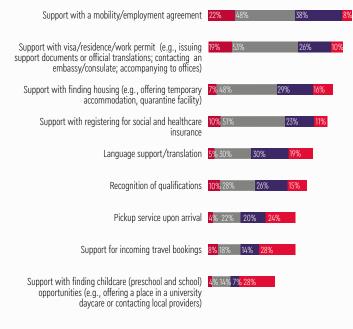
Less frequently offered pre-arrival support services included help recognising qualifications, pickup service upon arrival, incoming travel bookings and help finding childcare facilities. Assistance in these areas was more or less equally provided by the host institution's central departments/faculties and departments/supervisors, except for childcare, where central services took the lead (Figure 26).

"Other" sources of support were relatively high for the latter group of services, indicating that the respondents concerned often dealt with these matters themselves, or with the help of external service providers.

Although personalised support on the aforementioned matters often requires significant staff time or expert knowledge, these services were still provided in nearly a quarter of all cases at departmental/supervisor level and less than in half of all cases at central/faculty level.

Q15: What kind of support (personalised assistance) have you received prior to your mobility (stay, visit or employment) and at which level?

n=640; multiple choice



- National or regional funding agency
- Host institution central or faculty services (e.g., international office, welcome center)
- Host institution department or supervisor
- Other

Figure 26. Type of support received prior to mobility at various levels

Prior to arriving in their host country, respondents particularly valued support for visa/residence/work permit matters and the conclusion of a mobility or employment agreement, which were among the most common services obtained at this stage. Overall, 70% and 67% "strongly agreed" and "agreed" that support for these types of issues had met their needs and expectations. They also reported fairly high satisfaction with support registering for social and healthcare insurance (61%) (Figure 27).

As for information guidance prior to mobility, **opinions** were rather split over assistance with finding housing, including temporary accommodation and quarantine facilities. Although 58% of all respondents "strongly agreed" and "agreed" (counted together) that support had met their needs and expectations, 13% remained neutral and 15% "strongly disagreed" and "disagreed" with this statement (Figure 27). This echoes respondents' qualitative feedback that finding accommodation in the target region was one of their most common challenges (for more details, see section 4.1.6).

Lower degrees of satisfaction were reported for support with incoming travel bookings (20% of all respondents "strongly disagreed" and "disagreed" that it had met their needs and expectations). Reported levels of satisfaction with: pickup service upon arrival (17%); language support and translation (15%), and support with finding childcare facilities (11%) were even lower (Figure 27). These figures increased to 19%, 21% and 17%, when calculated as a percentage of those who required such assistance by discarding "n/a" responses.

Respondents' somewhat higher expectations of logistical/travel support could be partially explained by the limited prior (longer term) mobility experience of over half of all respondents (55%), for whom the country of origin and country where they had obtained their highest qualification overlapped. Institutions in the target region may need to reflect on how they could (further) meet these expectations.

Lower levels of satisfaction with both information guidance and personalised assistance on family matters prior to mobility exposed the need for institutions in the target region to improve their support for mobility with a family.

Q16: To what extent do you agree with the following statement: "The support provided to me prior to my mobility (study, visir or employment) have my needs and expectations".



Figure 27. Satisfaction with information guidance provided prior to mobility

4.1.4. On-site stage: types of support received and related levels of satisfaction

The most common support services received during mobility included advice on institutional administration and welcome initiatives (e.g., information seminar, programme or welcome package), offered both by the central host institution/faculty and by departments and supervisors, with the latter being slightly more common. Assistance on another widespread support area, local practical matters, was more often offered at central or faculty level, with "other" providers playing a visible role (Figure 28).

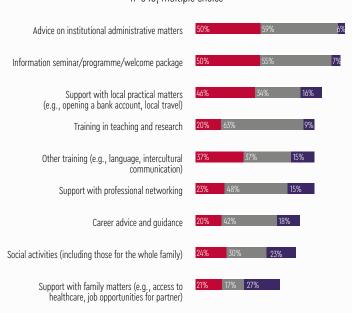
Assistance with both professional development and academic matters (including training, professional networking, and career advice) was less commonly provided. Given that this type of assistance was mostly arranged at department or supervisor level, this may have been provided in a more ad hoc manner, which may affect quality (Figure 28).

Finally, some of the least frequent services: support for social activities and family matters, were organised at various levels, and here the greatest shares of "other" providers were called into service (Figure 28).

These findings may point to a **substantial workload at department/supervisor level** due to a combination of administrative and professional/academic support tasks. Handling administrative issues comes on top of departments' main responsibilities, despite the fact that it often requires expert knowledge and reliance on professional networks.

Q17: What kind of support (personalised assistance) have you received during your mobility (stay, visit or employment) and at which level?

n=640; multiple choice



- Host institution central or faculty services (e.g., international office or welcome center)
- Host institution department or supervisor
- Other

Figure 28. Type of support received by the respondents at various level prior to mobility

The most common services offered during mobility achieved highest satisfaction levels. Overall, 76% of all respondents "strongly agreed" or "agreed" (counted together) that advice on institutional administrative matters had met their needs and expectations. Similarly, 70% were highly satisfied or satisfied with their information seminar, programme or welcome package. Satisfaction with support on local practical matters was similarly high, as it was also for training in teaching and research (Figure 29).

Support for family matters achieved lower satisfaction levels (16% of all respondents and only 48% of those who received such support were found to be strongly dissatisfied or dissatisfied), as did social activities (16% of all respondents strongly dissatisfied or dissatisfied), as well as professional development services such as career advice (17%), professional networking (16% strongly unsatisfied or unsatisfied), and other types of training (14% strongly dissatisfied or dissatisfied) (Figure 29). As mentioned earlier, this type of support was generally offered at department or supervisor level and in a less structured way, resulting in quality variations and lower levels of satisfaction.

Q18: To what extent do you agree with the following statement: "The support provided to me during my mobility (study, visit or employment) have met my needs and expectations"

n=640Social activities (including those for the whole family) Other training (e.g., language, intercultural communication) Training in teaching and research Career advice and guidance Support with professional networking 10% 27% Support with family matters (e.g., access to healthcare, job opportunities for partner) Support with local practical matters (e.g., opening a hank account, local travel) 3% 27% Advice on institutional administrative matters 4% 6% 9% 49% 5% Information seminar/programme/welcome package

Figure 29. Satisfaction with support provided during mobility

Agree

Strongly agree

Strongly disagree

Neither agree nor disagree

Disagree

4.1.5. Pre-departure stage: types of support and levels of satisfaction

The most common types of support received before departure included assistance with reporting on the results of a mobility experience, which was provided both at central/faculty and department/supervisor levels. Administrative support for cancelling various contracts was offered particularly at central level, whereas information on funding opportunities was shared between central-level and department teams (Figure 30).

Professional development support including networking and career advice was mostly provided at department or supervisor level. Respondents who were yet to complete their mobility experience selected "n/a" or "other" response options (Figure 30).

Q19: What kind of support (personalised assistance) have you received upon departure or after your mobility (stay, visit or employment) and at which level?

n=640; multiple choice



- Host institution central or faculty services (e.g., international office or welcome center)
- Host institution department or supervisor
- N/A or other

Figure 30. Type of support received by the respondents at various levels prior to mobility

The overall **level of satisfaction with the support** services obtained prior to departure or after mobility was found to be pretty high, particularly for administrative services. Nearly 71% and 67% of those who received support for reporting mobility results and on administrative matters (discarding "n/a" responses), respectively, strongly agreed or agreed it had met their needs and expectations. Similarly, 67% of those who received information about funding opportunities were strongly satisfied or satisfied (Figure 31).

However, the shares of those who were strongly satisfied or satisfied (counted together) dropped for professional development support involving professional networking and career advice, reaching only 58% and 61%, respectively (Figure 31).

Q20: To what extent do you agree with the following statement: "The support provided to me after my mobility (study, visit or employment) have met my needs and expectations"

n=640



Figure 31. Satisfaction with support provided after mobility

4.1.6. Challenges and suggestions for improvement

Reflecting on their mobility (study, research or work) experience, survey respondents reported a broad range of challenges they faced with during their stay in a target country (Figure 32).

Less than one tenth of all respondents reported having not encountered any issues or problems in the context of their mobility. Some respondents also explicitly praised their host country and institution.

The qualitative evidence obtained showed that language/communication problems were by far the biggest challenge experienced by more than a quarter of the mobile academics surveyed. Language barrier challenged all aspects of mobility communication, both within the host institution and in the host country more generally (Figure 32).

The language barrier was also reported as complicating other issues, particularly the various administrative or practical processes, as well as social and cultural integration, which were among the common challenges reported (Figure 32).

"Mostly cultural and language barriers. Providing cultural and language programmes for free may mitigate the challenges" (PhD student in Hungary).

"Integration of doctoral candidates into university-wide programmes and events would be great. This should particularly include language studies for foreign students/scholars as well as structured and personalised support for doctoral candidates" (PhD student in Slovenia).

Q11: What were the most important reasons for selecting your study, host or employment country and institution? Please select top 3 reasons from the list.

n = 615Language barrier No major challenges Challenges with immigration and visa matters Problems with accomodation Problems with social integration or cultural barrier Limited funding (e.g., insufficient size of a scholarship, financial difficulties) Lack of support on administrative/practical aspects, limited orientation/quidance Pandemic (e.g., travel or access restrictions) 29 / 6 Lack of professional integration opportunities or limited career advice Academic challenges (e.g., study pressure, different academic culture, lack of training/supervision) Lack of English-language information Difficulties with family reunification and dual Problems with access to healthcare 10 Difficulties with opening a bank account, tax issues 10 Lengthy or unclear administration processes Challenges with research (e.g., access to research facilities, lab work) Challenging local or international travel arrangements Difficulties with childcare and family matters Lack of information about study requirements, programme or faculty

Figure 32. Key challenges facing the respondents in the context of their mobility experience

Discrimination (ratial, gender, etc)

Challenges with recognition of prior qualifications

Persistent language issues could largely be due to the limited use of English in the daily life of higher education institutions in the target region and to the insufficient language skills among the local population. Many early-stage researchers, particularly PhD students, also acknowledged the need for more accessible, additional language training in both English and the local language, which could facilitate their professional and social integration.

Administrative and practical challenges, particularly immigration and visa matters, including obtaining a residence card or work permit, and accommodation were also big concerns. Reported housing issues mostly included a lack of affordable options, quarantine facilities and accommodation suitable for families or PhD students (Figure 32).

"Most things should be clarified before mobility, in order to avoid problems or difficulties once you are in the host country and at the host institution. Accommodation and administrative issues are usually the most complicated things to solve, where help from the host institution is always really appreciated" (Researcher in Poland).

"It was often difficult to find up-to-date information about current rules and regulations regarding immigration, health care, taxation, and other official matters. It would be great if universities could provide the most important data to the newcomers (or a list of reliable sources where one can find answers)" (PhD student in Hungary).

The analysis revealed **financial difficulties** to be another substantial challenge. These generally related to insufficient scholarships or grants for local living costs and various research related expenses, and to the lack of funding available to perform or continue research or teaching in a host country.

This challenge was also linked to the lack of (support for) professional integration opportunities, including career advice, professional networking or job finding (Figure 32).

"While there are many opportunities for mobility, the system is not built to retain highly-professional researchers from abroad in the system. To create future opportunities for mobility research grants should be available for higher level and permanent positions. Furthermore, universities should have open hiring practices instead of hiring local staff. One crucial point is offering education in English next to the local language" (Researcher in Poland).

"The living allowance is not comparable with other European countries. Considering the inflation rates and economic conditions, it is inevitable to increase the living allowance. For research purposes, especially for publications, additional grants are required for PhD scholars" (PhD student in Hungary).

"Most of the time the host universities assistance offices were of big help. The only thing I would like more help with is information about funding opportunities in my field and potential career opportunities in the Czech Republic. If I had a better picture of the opportunities, this would increase the chance of me staying here" (Researcher in the Czech Republic).

Several respondents, including primarily PhD students, faced various academic issues, including study pressure and anxiety, difficulties with online learning and issues with adapting to another academic culture. More senior researchers reported on different problems related to performing research. In some cases, for example, physical access to research facilities, these were subsequent to COVID-19 restrictions (Figure 32).

Difficulties with family reunification and dual careers were openly mentioned by 19 respondents, a limited number in absolute terms, but that represents nearly 20% of those who travelled to a host country with their family members in relative terms (ignoring those who were unable to bring their family with them).

"We were hard-pressed to find suitable employment for my husband. This affected my family a lot even though I was more than happy with my new placement. At one point, I seriously considered going back home. This is the fourth EU member state I have moved to. It is more difficult with the family and at one point one needs to make sacrifices between career advancement and family needs. I am now looking into possibilities of relocation but family integration programmes are the first thing I check when employment opportunities arise" (Researcher in the Czech Republic).

"The major challenge for me is family reunification. I have been abroad for four years and I still have two years to complete my studies. I suggest more support for family reunification and to try and convince the immigration office to be less demanding and make it easier for students as their residence will be permanent" (PhD student in Hungary).

4.2. Institutional perspective

4.2.1. Services offered by higher education institutions

Universities in the target region reported offering international academics a broad range of support services, in line with their commitment to establish and maintain a welcoming environment and the available resources.

Support to international PhD students, lecturers, and researchers for various administrative and legal issues, including local practical matters, was most common at various mobility stages (Figure 33). This type of support was mentioned by almost all interviewed staff members and represented the bulk of the mobility-related work performed by international relations offices at central or faculty level. These services cover the most essential aspects of organising and supporting mobility, and were ranked highly by the international academics surveyed.

Further common support areas reported by the institutions included academic, research and professional development, as well as social and cultural activities and help finding suitable accommodation (Figure 33).

These findings seem to only partially match the international academics' feedback presented above. Although training in teaching and research was quite common, significantly fewer respondents reported receiving support for professional networking and career guidance at various mobility stages, than assistance with administrative issues. This may indicate a degree of disparity between the expectations of institutions in the target region and those of the international academics they host.

The other services included in Figure 33 received substantially fewer mentions by the staff interviewed, suggesting that they either did not exist, were organised less systematically (e.g., psychological counselling, family matters), or were viewed as less important (e.g., sports facilities).

The evidence obtained suggests that **nearly all institutions offered 'core services'** related to visa, residence permit, social insurance, and accommodation. **Fewer institutions seemed to offer less essential services** related to professional development and personal matters in a consistent way. In this context, family matters, cultural integration, and language training were mentioned as areas for improvement by many interviewees.

Q7: What services does your institution offer to support international researchers/lecturers (incl. PhD students)? (open question included in the institutional questionnaire)

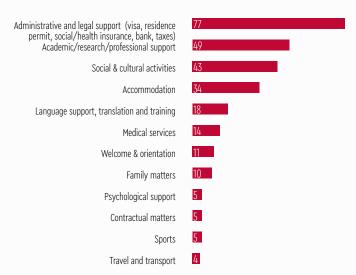


Figure 33. Services generally offered to international academics by the higher education institutions interviewed

4.2.2 Roles, responsibilities, and procedures

Our analysis established a **broad range of actors involved in the institutional support 'ecosystem'** encompassing different levels (central, faculty, and department) (Figure 34).

Central-level departments, primarily international relations offices or welcome centres, typically provided core mobility support (e.g., visa/immigration, accommodation) to all kinds of international academics, including PhD students, researchers, and lecturers.

Admissions offices, student support services, and doctoral schools engaged particularly with international PhD students, especially, when it came to academic support. International researchers and lecturers often had to interact with services, including human resources (HR) and legal departments (on contractual matters), as well as research and innovation (R&I) offices (on scientific matters). Many institutions gave international academics at all career stages access to university infrastructure/services including accommodation and housing, language centres, oncampus clinic, sports facilities, and so on.



Figure 34. Most common institutional units delivering support for international academics

International relations offices generally organised support differently in view of the academics' HR status, career stage, mobility duration/purpose, or funding source. In some cases, international relations office staff supported both international students (at all levels) and staff, depending on the size of an institution.

The degree of **collaboration between institutional actors varied at the institutions** interviewed, and remains an issue for higher education institutions in the region and beyond. Several good practice examples featured regular information exchanges (e.g., between the international relations office and faculty HR departments at Masaryk University; the international relations office and student services at Singidunum University), including by means of internal mobility information systems and applications (e.g., the University of Primorska, the University of Chemistry and Technology in Prague). Several institutions also reported conducting systematic reviews of their support processes (the Palacky University Olomouc).

Overall, the evidence showed that international academics received more customised services from central offices or at faculty level as their careers advanced (Figure 35). Such high levels of personalisation, sometimes to the extreme, was only possible due to the relatively low numbers of international researchers and lecturers at more advanced career stages, as explained in section 2.3.2, (particularly those hosted on a longer term basis). Support for international PhD students, whose numbers had recently expanded at some institutions in the target region, was more streamlined and less personalised.

Various personal mentoring and buddy programmes plus institutional adaptation courses were reported by the institutions in the target region. These were implemented to offer more customised support to a broader group of international academics in a more efficient and effective way (e.g., Trakia University; the University of Miskolc; the Palacky University Olomouc, the Central European Institute of Technology).

Career stage: advanced

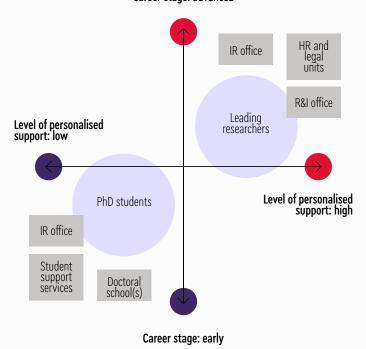


Figure 35. Personalised support vs career stage

The institutions reported actively working with various external partners to offer support, including:

- National policy makers (e.g., to adapt national immigration legislation, staffing and academic autonomy frameworks) (e.g., University of Rijeka).
- National internationalisation/mobility funding and support agencies (e.g., DZS, NAWA, SAIA, Fulbright) (e.g., general information guidance on studying and working in the host country).
- Embassies (e.g., information dissemination; promotion of mobility opportunities).
- Municipalities (e.g., social housing, joint branding and visibility partnerships).
- Police stations, tax offices, banks, international schools and kindergartens, real estate agencies.
- Local integration centres (e.g., the University of Pardubice).
- Institutions operating within the EURAXESS network.

In many cases, these partnerships were based on often informal contacts established by the international relations office staff members. Services based on efficiency and effectiveness principles shared with other international higher education institutions or research centres, as well as some viable business models, were rarely mentioned by the interviewees, with the exception of regular information exchanges between staff members (e.g., reported by the University of Primorska).

4.2.3. Institutional and individual abilities to provide quality support

According to the higher education management and support staff interviewed, the **most common challenges** of global talent attraction and support involved **institutional/leadership commitment and adequate resources**; **effective and efficient governance and management processes, and institutional capacity** to address the issues (Table 7).

Feedback from the interviewees included several suggestions for further improvement in the three areas identified above. To improve the level of commitment and resources invested in building a welcoming environment, they suggested involving more staff to support international academics in order to share responsibility across the institution. They also recommended establishing more strategic links between international student mobility and staff mobility, for example, by convincing international students to stay.

Interviewees mentioned the desirability of further improvements to information services, mentoring systems and approaches, as well as the development of institutional welcome points. They also widely acknowledged the importance of **continuing professional development and staff training**.

Only a few institutions offered regular structured (in-house or externally contracted) training to build individual international relations staff capacities to set up and deliver quality support to international academics at various levels (e.g., the Center for Excellence for Internationalisation at the Palacky University Olomouc providing services for all higher education institutions in the Czech Republic). Several institutions provided on-the-job-training and opportunities to attend international events and peer learning activities (e.g., the University of West Timişoara, the University of Pécs).

In this context, the interviewees highlighted the most important skills, attitudes, and knowledge required to excel at their job and expressed their needs for additional training (Table 8).

The demand for further professional development mostly covered training on **transferable skills** (e.g., communication, leadership/personal efficiency), as well as more specific, **professional knowledge of various support services**, particularly those to which the institutions had been paying less attention (e.g., career guidance, family matters, mental health, and wellbeing).

Table 7. Most common challenges facing institutions in the target region when establishing and delivering quality support services

Commitment and resources	Governance and management	Capacity	
Lack of interest, commitment to or ownership of internationalisation across the institution	Insufficiently clear, formalised and streamlined support processes for less essential services (e.g., professional development, social integration) delivered at faculty, department or supervisor levels	Lack of specialist knowledge of various aspects of support (e.g., family related matters; advice on pensions, tax returns, immigration issues, career guidance and networking)	
	A 1 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Lack of strategic vision and comprehensive approaches to global talent recruitment and support contributing to broader institutional mission	Additional workload and lack of administrative staff	Lack of skills or attitudes required for quality support (e.g., inability to deal with intercultural differences, insufficient knowledge of English)	
Lack of sustainable opportunities to attract international staff, particularly researchers, for longer periods	Lack of institutional data monitoring systems and approaches to track international academics, and better respond to their needs	Lack of staff training programmes to expand service knowledge, skills, and attitudes at central, faculty, and department levels	
Financial difficulties (e.g., insufficiently attractive salary packages, limited financial and staffing autonomy)	Insufficient coordination and lack of trust, between various internal support structures	Lack of recognition for acquired knowledge and skills	
	Lack of coherent institutional language policies	Infrastructural problems (e.g., on-campus housing satisfying various needs)	

Table 8. Required knowledge and training

Top skills, attitude, and knowledge required	Desired training courses
Internal and external knowledge of (international) higher education	Expert training in topics such as welcome services and orientation, family matters, community-building, marketing, etc.
Communication and intercultural skills (incl. foreign language skills; empathy and flexibility)	Intercultural training, 'attitude to service'/soft skills training; English language training, particularly for administrative staff
Problem-solving skills	Management, leadership and personal efficiency training (e.g., time and stress management, conflict resolution)
Digital skills	Training on data collection/tracking systems and analysis

Conclusions and recommendations

5. Conclusions and recommendations

In recent years, many higher education institutions across the target region have made **noticeable progress in building their capacity to attract and support international academics**, particularly at an early stage in their careers. In countries that have experienced noticeable increases in the number of international academics hosted on a longer term basis (e.g., the Czech Republic, Hungary, Poland), these achievements were propelled by growing political support at national level.

Overall, across the region, national global talent attraction and support strategies remain quite rare or fragmented to date, and only partially matched by national funding schemes. National policymakers and funders' paid special attention to attracting early-stage researchers (doctoral candidates and postdoctoral researchers), and to supporting cross-border exchanges and diaspora engagement. Researcher and lecturer mobility received more limited support under small-scale bilateral or multilateral agreements. The level of political commitment to the objective discussed could therefore be increased and translated into concrete strategies and tangible objectives in all target countries.

In general, the target region and its higher education institutions were seen as **attractive** by those **international academics** who chose them (particularly those from Europe and Asia who represented the majority of survey respondents), both in terms of perceived **professional/academic opportunities** and the broader social and cultural setting. Visitors also used the **financial opportunities** provided by some countries, with more than half of respondents having benefitted from national/host country grants and funding schemes.

However, this potential seems underexploited by the target countries and their institutions, as the numbers of more established international researchers and lecturers (beyond PhD level) attracted on a longer term basis, stagnated or decreased in seven target countries over the last years.

The analysis showed that the existence of **policy** frameworks enabling institutional autonomy, effective funding mechanisms, and adequate resources, are some of the key factors that underpin institutions' commitment and ability to recruit global talent and the quality of their support system and the welcome culture in place.

In this light, further improvements to **national frameworks** for higher education and research could be implemented:

 Higher education and research policymakers in the target region are advised to further articulate, streamline, and consolidate national policy priorities regarding global talent attraction and support at all levels, to develop comprehensive, encompassing and viable internationalisation strategies.

- Existing funding schemes have been used successfully to attract specific groups of international academics (e.g., PhD students) for several years. They could be upscaled and better connected to international student recruitment schemes, to create a funding continuum to attract (future) researchers and lecturers at various career stages.
- More strategic funding portfolios incorporating targeted, sustainable, and sufficiently funded mobility/recruitment and research funding programmes, offering opportunities for creating international research groups, are needed to attract global talent and enable their integration into the national academic landscape.
- It is important to (continue) to improve and expand the recruitment autonomy of higher education institutions in order to facilitate their efforts to recruit international researchers and lecturers in a more flexible way, and to ease the administrative processes and rules governing international academics (e.g., visa, immigration and employment requirements), in collaboration with the other bodies involved.
- To mitigate any financial issues facing grant recipients, national funding agencies could further enhance the value proposition for different groups of international academics by making their grants more financially attractive, and by improving their matching of local realities with international academics' personal situations, for instance, by considering living costs for academics with families. This would leverage the use of dedicated mobility funding programmes as a tool to further boost the region's appeal to global talent, and brand regional prestige.
- National funding schemes that offer both individual grants for academic mobility and funds to build institutions' capacity to attract, support, and retain global talent are crucial to enabling the region's higher education institutions develop more strategic, comprehensive and viable approaches to internationalisation and foster competitiveness through the continuing professionalisation of support services. Similarly, long-term funding opportunities to set up a research group are of key importance to ensure international academics' professional/academic integration in the host country.
- Considering the importance of EU funding programmes for the target countries, capacity could be further built through stewardship, peer learning and training on new topics arising in the global context (e.g., digital marketing, talent retention, international alumni relations, academic cooperation under 'challenging conditions') at EU level.
- To foster the aforementioned policy changes, national agencies involved in the attraction and retention of global talent could further raise local institutional communities and general public awareness of international academics being an asset to national economic and social development and prosperity. To achieve this, agencies would need to rely on regular (impact) data monitoring, evidence collection, and analysis channelled through dedicated communication campaigns.

 National agencies could further amplify their efforts by globally promoting opportunities for study and research in the target region, taking full advantage of existing information dissemination and communication platforms, and creating greater synergies with marketing activities targeting international students.

Higher education institutions' commitment to attracting and supporting international academics on a longer basis is one of the ultimate prerequisites for creating a more internationalised and welcoming higher education and research environment. However, attracting international academics is still only a goal at many institutions in the target region (nearly one third of those interviewed), which have few concrete instruments in place. This in turn reflects the (limited) availability of support frameworks and incentives at national level.

International student recruitment is a significantly higher priority for the region's institutions, as it is often (perceived as) income-generating, whereas the **value** of 'costly' international staff mobility is broadly underestimated in terms of its potential contribution to the institution's missions and transformation. Furthermore, while institutional efforts for the attraction and particularly support of international students and academic staff are often linked in practice, for example, because they are worked on by the same staff members, they are still strategically disconnected in many cases.

Considering that information about study and work opportunities in the target region seem to largely circulate through more informal channels, such as international academics' professional networks, their level of satisfaction with the support obtained from the host country and institution plays an important role in the country's future attractiveness to global talent and branding efforts.

In this context, **higher education institutions** in the target region are recommended to enhance their strategic approaches to global talent attraction and support by:

- Developing more encompassing and coherent institutional strategies accompanied by action plans and indicators, which highlight the links and concrete synergies between international student and staff mobility at various stages and integrate prospects for retention from the earliest stage (e.g., Master's level), and which showcase how talent recruitment and support jointly contribute to the overall institutional objectives, by increasing the quality of higher education, research and service to society.
- Elaborating a differentiated strategic vision to attract different groups of international academics in line with the institution's priorities, and developing more coherent and connected funding strategies (e.g., by convincing international students to stay on), whilst combining funds from different sources.
- Raising overall awareness of the benefits of working with international staff across the institution and creating concrete opportunities to tap into them.

Although this study revealed fairly high levels of satisfaction with both host countries and institutions across the region (68% and 66%), a large share of the international academics remained in two minds about their mobility experience (20% and 18%), indicating room for further improvement on several fronts.

Most of the higher education institutions in the target region created dedicated internal processes and (mostly central or faculty) structures, to support international PhD students, lecturers, and researchers hosted on a longer term basis. The most comprehensive and structured procedures were established to ensure support for the 'core' matters that make mobility inherently possible, including visa and immigration, accommodation, health insurance, and basic administrative matters, with special emphasis paid to written guidance and support pre-arrival and during mobility. These were the topics that mattered most to the majority of international academics in the sample.

The present analysis did not reveal any substantial gaps between the essential services expected by international academics and those currently offered by the institutions. Nor did it expose any major dissatisfaction with support for 'core' matters, except in the area of accommodation, which is still an issue for some higher education institutions who own limited housing infrastructure, or those based in capital cities where there is high demand.

Yet, there is still a large share of international academics who did not receive any information guidance or support during their mobility (40%) and especially upon departure. Therefore, there is **ample room for both the expansion of 'core' services and improvement on 'softer' issues, such as family matters and professional development**, as many mobile academics had to rely on somewhat ad hoc support (primarily at department or supervisor level), or resort to their own resources and external service providers, resulting in lower satisfaction with the support received (48% dissatisfied or strongly dissatisfied with family support received during mobility).

More limited support was equally available for matters related to national labour regulations and funding opportunities, as well as language training, which achieved lower levels of satisfaction at various mobility stages, potentially limiting international academics' (particularly PhD graduates) overall ability to and interest in staying on and joining the national labour market. Finally, assistance with language support and training could still be expanded at various mobility stages, especially given the fact that the language barrier remains one of the biggest challenges experienced by mobile academics in their host country.

In order to increase the institution's capacity to offer quality service and build a welcoming environment and culture for incoming academics, various actors within the national support 'eco-system' need to consider the following recommendations:

National funders and policymakers:

- National funding agencies could be enabled to play a stronger role in offering regular and structured information guidance and assistance on matters that benefit all higher education institutions, such as national labour and tax regulations, as well as opportunities for professional development and employment (including an overview of national funding sources, employment fairs, economic sectors in need of highly skilled workers, etc.). This information could be more prominently incorporated in all recruitment, welcome, and 'stay-on' packages.
- National funding agencies could help institutions further professionalise their service delivery, through targeted training sessions, peer learning activities, institutional service benchmarking within the country and with other higher education institutions in the region, and the promotion and recognition of good practice.

Higher education institutions in the target region:

- Institutions in the target region will need to continue improving the support and assistance given to international academics prior to and during their mobility, paying due attention to fostering opportunities to network and stay connected upon departure, based on more efficient and effective institutional processes, and by streamlining good practice.
- Institutions could further expand access to all existing general services for international students and staff without differentiating between different groups or based on HR status, while further improving their accessibility through internationalisation, based on effective institutional language policies and staff training (e.g., by offering English-language guidance on how to use various services, and increasing the number of English-speaking support staff employed).
- Established institutional processes could be further tailored in order to increase inclusivity and better respond to the specific situations and needs of international academics (e.g., culturally diverse/specific accommodation; special healthcare/insurance needs; family situations), which seem important for their overall satisfaction with the mobility experience and willingness to stay.
- Such customisation and segmentation of the target audience could be achieved through the development of several distinct tracks (e.g., established in view of immigration status, family situation or any other important social or cultural differentiators), to ensure that the required services are offered to the group in need, and by organising demand-driven services, and capturing intercultural differences.
- There is a need to streamline and further professionalise support for international academics in both the core and less essential services offered at the faculty, department and supervisor level, by formalising responsibilities and allocating adequate staff and other resources for clearly articulated purposes, while fostering synergies with central level activities. Administrative guidelines facilitating the international academics' professional and personal experiences need to be incorporated in

- higher education institution's operational standards and procedures.
- This professionalisation requires creating opportunities for internal capacity building and the continuing professional development of both administrative and academic staff responsible for service delivery and for the supervision of international academics including managerial (self-efficiency), intercultural communication, and English-language training as well as institutionalised opportunities to recognise and award their efforts.
- Institutions could also use their participation in various European university networks and associations more strategically, for peer learning activities on support services.
- It also seems important to engage more administrative and academic staff in dealing with international academics in order to share responsibility and create a welcoming and service-oriented culture across the institution. A greater level of 'buy-in' could be achieved based on the Agile approach, for instance, by creating a cross-institutional task force, to foster coordination and build trust at various levels.
- To enhance support efficiency, institutions could design formal partnership strategies with external partners to foster 'shared services' and joint procurement (e.g. joint language training, family-oriented and social integration activities, organised jointly with other higher education institutions or municipalities) and maintain regular expert level exchanges.
- Finally, potential ways to enhance institutional operations include the development of more comprehensive information systems for internationalisation, involving regular review, evaluation and correction of processes, data tracking, analytics, and feedback loops that could be used to connect both international academics and support staff, and to harvest suggestions for improvements.

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List of abbreviations

ACA Academic Cooperation Association

BG Bulgaria

CZ Czech Republic

DZS Czech National Agency for International Education and Research

EU European Union

HR Croatia

HU Hungary

NAWA Polish National Agency for Academic Exchange

MKD North Macedonia

PL Poland

SAIA Slovak Academic Information Agency

SI Slovenia

SK Slovakia

RO Romania

RS Serbia

TPF Tempus Public Foundation

UniWeliS Supporting internationalisation of higher education through professionalising services of mobile academic staff

Appendices

Annex 1: UniWeliS survey questionnaire for international academics

https://aca-secretariat.be/wp-content/uploads/2022/03/Annex-1_UniWeliS-questionnaire_international-academics.pdf

Annex 2: UniWeliS interview questionnaire for higher education managers responsible for the design of support services for international academics

https://aca-secretariat.be/wp-content/uploads/2022/03/Annex-2 UniWeliS questionnaire HE-managers.pdf

Annex 3: UniWeliS interview questionnaire for higher education support staff offering assistance to international academics

https://aca-secretariat.be/wp-content/uploads/2022/03/Annex-3 UniWeliS questionnaire HE-support-staff.pdf

About ACA

The <u>Academic Cooperation Association (ACA)</u> is a leading European association supporting research, innovative practice, and policy-making in international higher education, working under the motto "the European voice of national organisations for the internationalisation of higher education".

ACA is a member-driven platform, providing a shared voice to national agencies for the internationalisation of higher education. Within ACA, the members enhance their capacities and join forces in supporting and 'doing' future-oriented, top-quality internationalisation.

ACA is also a brain-trust, with a long-standing experience in conducting sound research and providing – through its active members and the Secretariat – expert advice on key developments in international higher education to universities, governments, and supra-national organisations.