Results of the

Survey

Researcher mobility in a changing world

Part 1: Analysis of overall survey responses

Brussels 26 November 2020

Introductory remark

- ➤ This working document summarizes the initial analysis of the survey data after the recent closure of the on-line survey as a basis for discussion.
- > In this spirit, it should be considered as a working document.
- > To elaborate the analysis further, we invite readers to provide us with their feedback and suggestions for complementary analyses.

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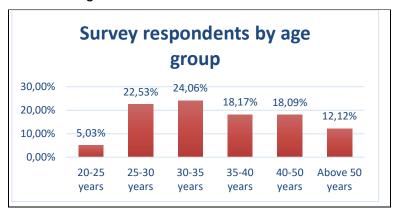
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1. Summary

The survey addressed among other the current situation and needs of international researchers, their perception of international mobility in the new context, factors influencing their motivation and capability to participate in international mobility as well as their preferences and the support and conditions which they need.

Ultimately, the findings help to gain a better understanding of researchers' perception and of factors which influence their motivation and interest, - an important pre-requisite for communicating efficiently with researchers and potential candidates for international mobility and adapting instruments and strategies to the new conditions.

- 1. Responses were received from all parts of the world, with the share of respondents from Europe leading.
- 2. For ¼ of the respondents, their nationality is identical with their current living and work location (in other words: They currently not working in their home countries).



Research abroad

21.07%

is very helpful

42.13%

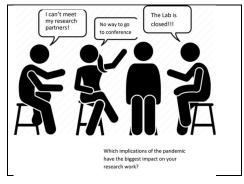
Research abroad

27.2%

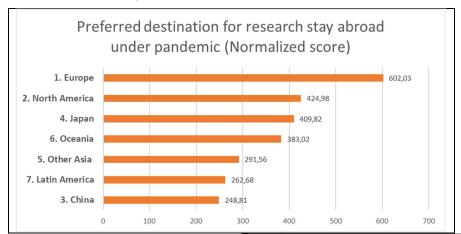
- 3. The total of respondents is a representative cross-section of the age groups which constitute also Euraxess' target groups.
- 4. Majority of respondents belong to the EURAXESS target group of researchers qualify for international mobility.
- 5. Vast majority of respondents comes from universities and research institutes.
- 6. Vast majority of respondents pursues long-term career objectives in academic research.
- 7. Over 85% of respondents perceive international mobility as an important building block for their research careers. For those with previous experience of research stay abroad, this percentage is even higher.
- 8. Among the 788 respondents with at least one first destination for a research stay abroad.
- pre-requisite for international mobility.
- previous research stay abroad, the majority had chosen Europe, followed by North America as their 9. The availability of appropriate support is an important

10. As a destination for a research stays abroad, Europe competes with other globally leading research regions. This is reflected in the preferences of respondents for research stay destinations.

- 11. Respondents feel most restricted by those consequences of the Covid-19 pandemic which reduce their mobility and capability to interact.
- 12. Despite these restrictions, the majority of respondents is dedicated to continue pursuing their plans to go on research stays abroad, even if in some cases with a delay until current restrictions are released. Only a minority has dropped their plans for international mobility.

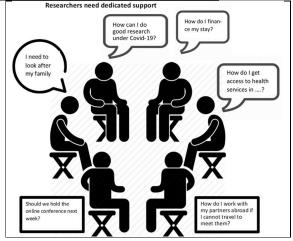


13. The majority of respondents, almost 75%, maintained their preference for Europe as preferred destination also under pandemic conditions, with the level of this preference even higher than under non-pandemic conditions.



- 14. Starting with the availability of attractive mobility grants, a range of supporting factors seem to be useful to encourage researchers to pursue their international mobility plans at almost equal importance, without one single factor standing out in particular.
- 15. There is a clear indication that researchers expect profound changes in the way how their work will be organized in the future and what conditions they will need.

On this basis, Chapter 3 of this report derives some first hypotheses about implications for



the work of Euraxess under the current conditions, focusing on the following areas:

- i. The current Covid-19 pandemic challenges Europe's objective to foster EU-centric mobility
- ii. Highlight Europe's commitment to addressing current pandemic situation.
- iii. Explore new formats to make research communication truly interactive and "live".

- iv. Address specific needs of different researcher categories within EURAXESS target group.
- v. Address specific regional needs and interests
- vi. Extend interactive dialogue with the target group researchers
- vii. Follow-up with universities, research institutions and policy makers

2. Survey results in detail

2.1. Survey concept and implementation

Through its huge impact on academic research and teaching and on researchers, the current COVID-19 pandemic influences also researchers' attitude towards international mobility and their possibilities and motivation to take part in such mobility.

Gaining a better understanding of researchers' perception and of factors which influence their motivation and interest is an important pre-requisite for communicating efficiently with researchers and potential candidates for international mobility and for adapting instruments and strategies to the new conditions.

To support this process, the objective of this survey is to provide a rational, fact-based information basis which can be used as input for policy dialogues, for formulating strategies for EURAXESS Worldwide and its hubs and for informing stakeholders to adapt to changes in the international mobility of academics and researchers induced by the pandemic. For this purpose, the survey addresses among other the current situation and needs of international researchers, their perception of international mobility in the new context, factors influencing their motivation and capability to participate in international mobility as well as their preferences and the support and conditions which they need.

To answer these questions, the survey was conceived and implemented as an online survey. The survey was promoted through the worldwide EURAXESS network and carried out worldwide in the period September 1st to October 23rd.

2.2. Survey population

In total, the survey has triggered 1262 responses, of which 1224 were included in this analysis.¹

The following sections describe this survey population as a function of different parameters:

2.2.1. Respondents by geographic location

Responses were received from all parts of the world, with the share of respondents from Europe leading (see following Figure 1).

Six respondents had chosen the offered option to reply "I don't want to answer the survey questions". And thirty-six respondents participated out-side the official survey period.

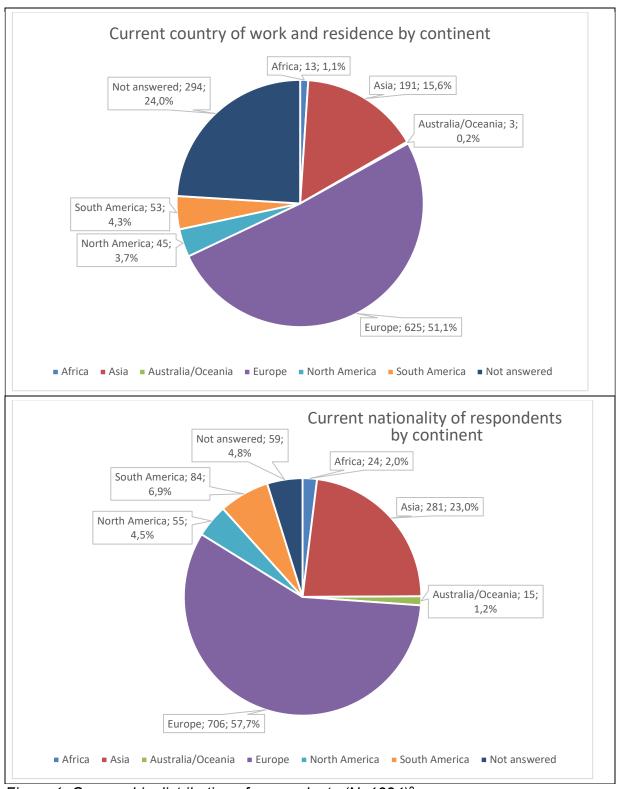


Figure 1: Geographic distribution of respondents (N=1224)²

Including respondents that did not wish to disclose this information or skipped this question without answering.

The following Figure 2 shows in greater detail the respondents by their nationality.

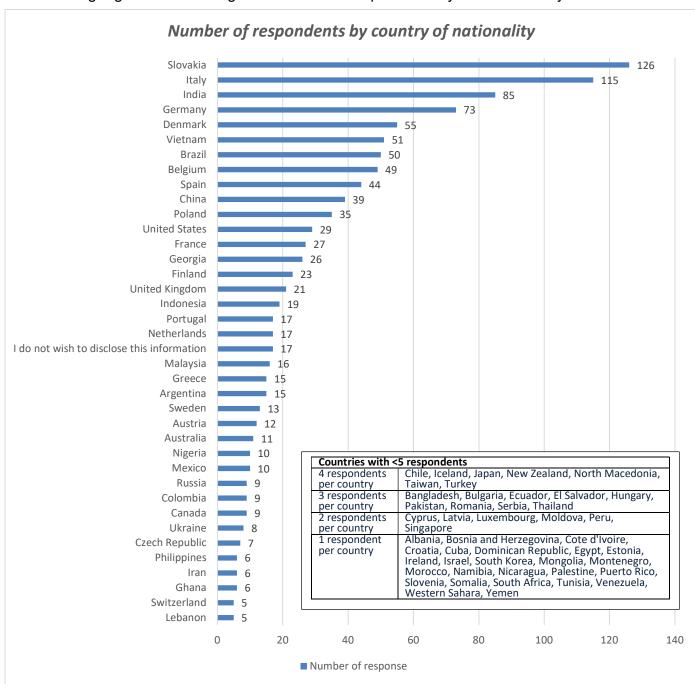


Figure 2: Number of respondents by nationality3

The comparison between current country of work and residence and nationality reveals already an interesting detail about mobility patterns of respondents: For 309 respondents, corresponding to 34.95% of all respondents who answered both relevant questions (884),

Among 1224 respondents, 17 selected "I do not wish to disclosed this information", 42 skipped the question and 82 respondents have a second nationality.

their nationality⁴ is not identical with their current living and work location (in other words: They are currently not working in their home countries). Among these 309 respondents, there are 32 respondents that have a second nationality, including 11 respondents whose **second** nationality is identical with their current living and work location. This leaves a remining group of 298 respondents whose **first and second** nationality is not identical with their current living and work location.

The following Figure 3 identifies the current locations of these 298 respondents.

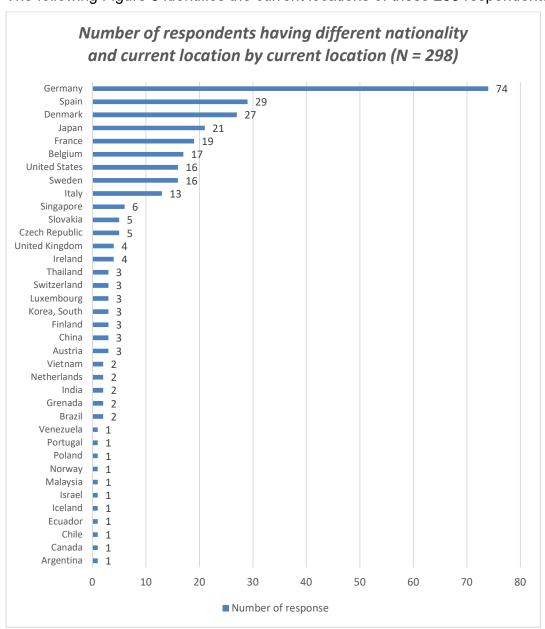


Figure 3: Number of respondents with different nationalities and current locations by current country of location (N=298)

⁴ First nationality in case that respondents have more than one nationality.

2.2.2. Respondents by their personal characteristics

Figure 4 shows that the total of respondents is a representative cross-section of the age groups which constitute also Euraxess' target groups.

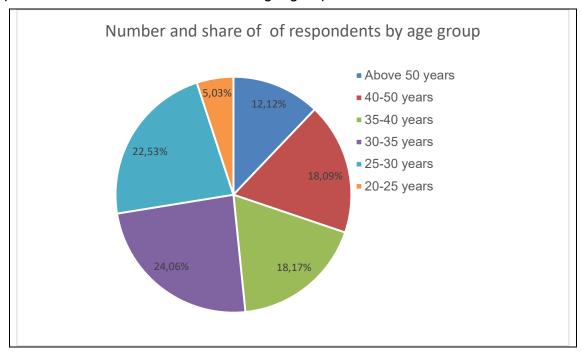


Figure 4: Respondents by their age groups (N=1172⁵)

Figure 5 provides complementary personal information about respondents.

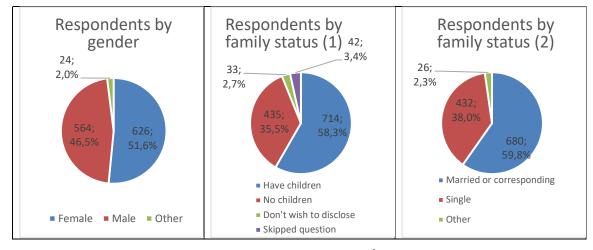


Figure 5: Respondents by other personal characteristics⁶

⁵ Among 1224 respondents, 10 did not wish to disclose this information and 42 skipped this question

⁶ Respondents by Gender: N-1158; Respondents by family status 2, N=1147; Respondents by family status 23: N=1138)

2.2.3. Respondents by their professional characteristics

As shown in the following Figure 6, respondents represent a reasonable cross-section of age groups.

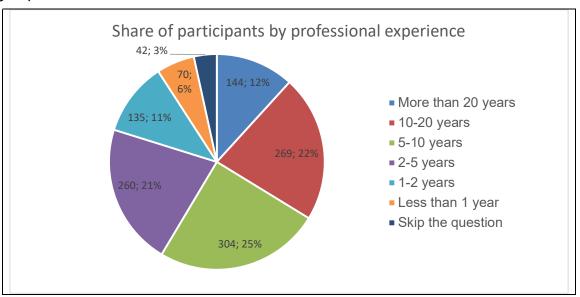


Figure 6: Respondents by their professional experience (N=1182)

The following Figure 7 confirms also that the majority of respondents belong to the EURAXESS target group of researchers who quality for international mobility.

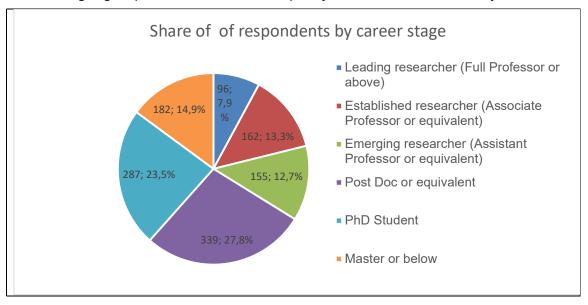


Figure 7: Respondents by their career stage (N=1262)

Among 182 respondents which have a Master degree or below, 143 expressed also that research is the primary focus of their work (corresponding to 78.57%).⁷

⁷ 85,18% of respondents answered "yes" to the question "Is research a major part of your work?" (plus 11,57% "No", 3,01% "I do not wish to disclose this information")

The following Figure 8 provides details on the respective research areas.

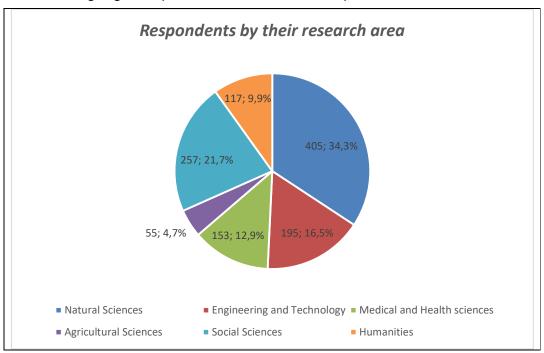


Figure 8: Respondents by their research area (N=1282)

The following Figure 9 and Figure 10 show the occupational background of respondents.

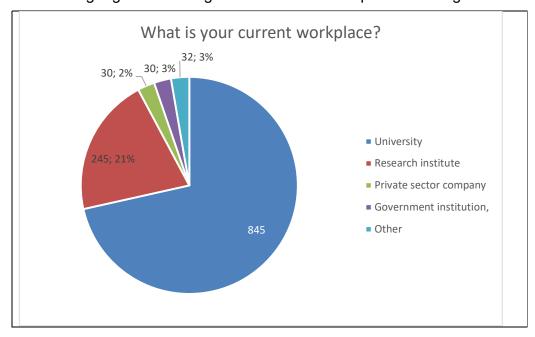


Figure 9: Respondents by current workplace (N=1182

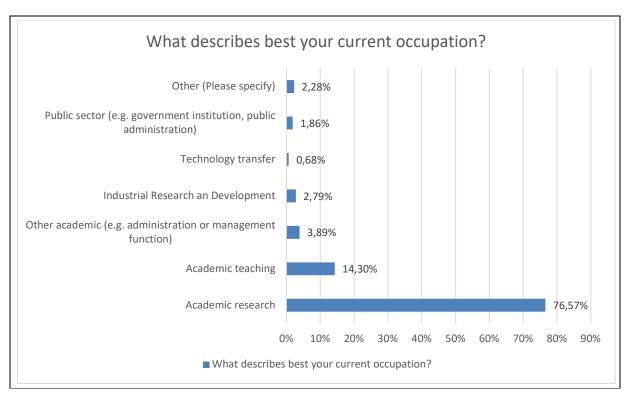


Figure 10: Respondents by current occupation (N=1182)8

As expected, the vast majority of respondents pursues long-term career objectives in academic research (see Figure 11).

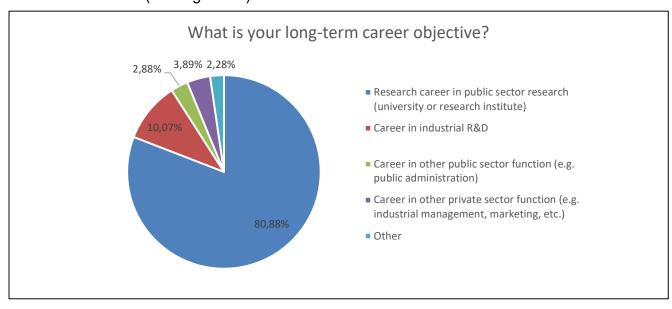


Figure 11: Career objectives of respondents by (N=1182)

⁸ Multiple answers possible.

2.3. Mobility profiles and history of respondents

Consistent with the focus on research careers (see Figure 11, previous section), over 85% of respondents perceive international mobility as an important building block for their research careers (see Figure 12)

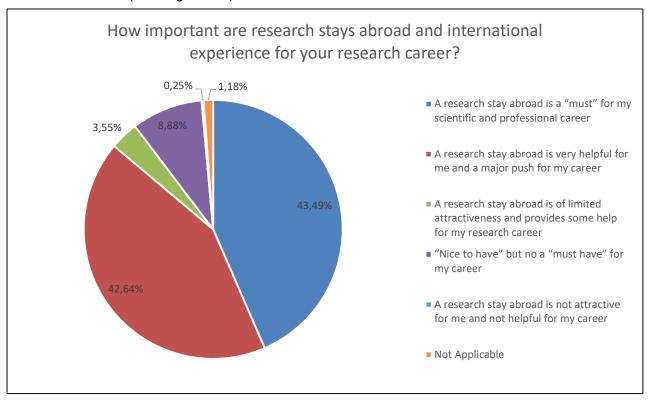


Figure 12: Overall perceived importance of international mobility for all respondents(N=1182)

To understand better this information, the following two graphics break this overall result down into two groups: Respondents who had at least one research stay abroad (Figure 13) and those who have not yet had a research stay abroad (Figure 14).



Figure 13: Perceived importance of international mobility for respondents <u>with</u> previous experience of research stay abroad (N=788)



Figure 14: Perceived importance of international mobility for respondents <u>without</u> previous experience of research stay abroad (N=375)

Among the 788 respondents with at least one previous research stay abroad, the majority had chosen Europe, followed by North America as their first destination for a research stay abroad (see Figure 15).

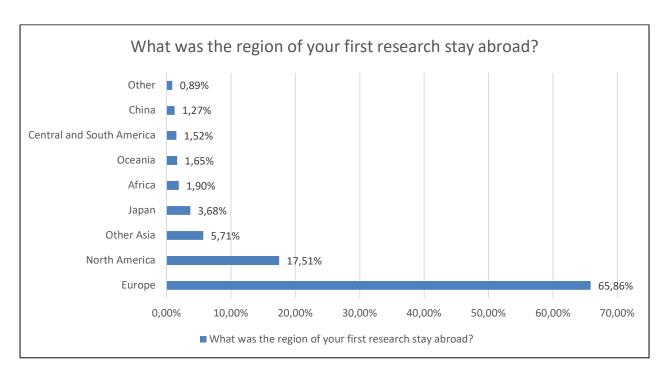


Figure 15: Destinations of first research stays abroad of respondents (N=788)

Figure 16 shows the distribution of duration of such research stays in detail.

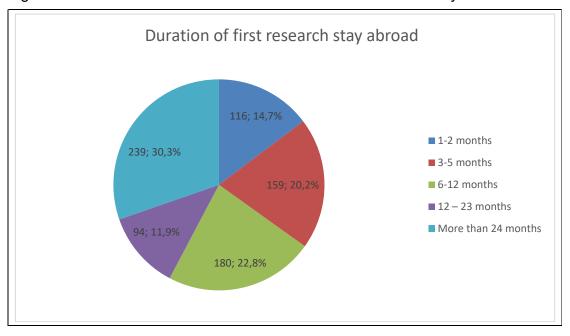


Figure 16: Duration of first research stay abroad (N=788)

The availability of appropriate support is an important pre-requisite for international mobility. The following Figure 17 explores which sources of support the respondents have used for their research stays abroad.

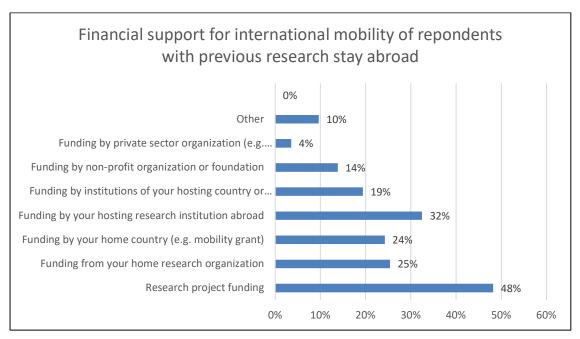


Figure 17: Share of respondents with previous research stay abroad who received financial support for international mobility (N=788; multiple answers possible)

2.4. Mobility objectives, motivation and conditions of respondents for international mobility

Figure 18 provides an insight into current situation and plans of respondents concerning international mobility. Almost 80% of respondents have been engaged, are currently engaged or planning to become engaged in international mobility.



Figure 18: Actual mobility situation and plans of respondents (N=1182)

As a destination for research stays abroad, Europe competes with other globally leading research regions. This is reflected in the preferences of respondents for research stay destinations (see Figure 19; without consideration of current Covid-19 pandemic impact).

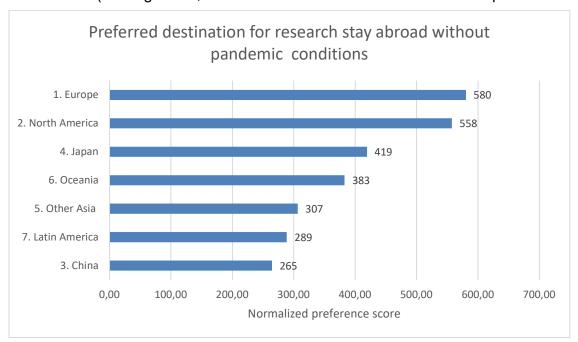


Figure 19: Perceived attractiveness of research regions as destinations for research stays abroad under current pandemic conditions (N=302)⁹

2.5. Impact of Covid-19 pandemic on respondents' attitude towards international mobility

As the following Figure 20 shows, respondents feel most restricted by those consequences of the Covid-19 pandemic which reduce their mobility and capability to interact.

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In the corresponding survey question, respondents were asked to rank destination in descending order of preference. For analysis, a score from 1 to 7 was allocated to each destination. Normalized preference scores were calculated from the sum of all responses.

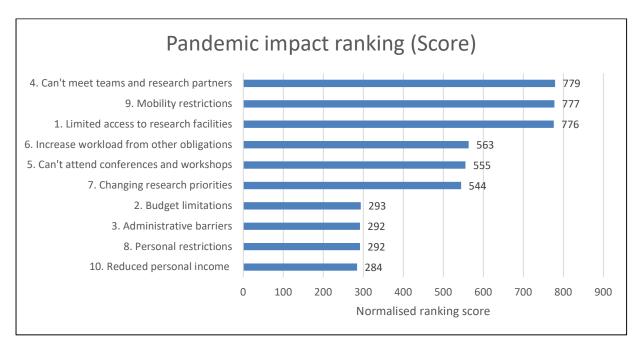


Figure 20: Perceived influence of Covid-19 pandemic-imposed impacts (N= 1182)10

As a consequence, respondents seem to have different reactions to these restrictions and to the actual insecurity about the duration and further path of the pandemic, ranging from "I continue and pursue my international mobility actions" to "I am unsecure what to do and wait". However, a minority has dropped their plans for international mobility (see Figure 21).

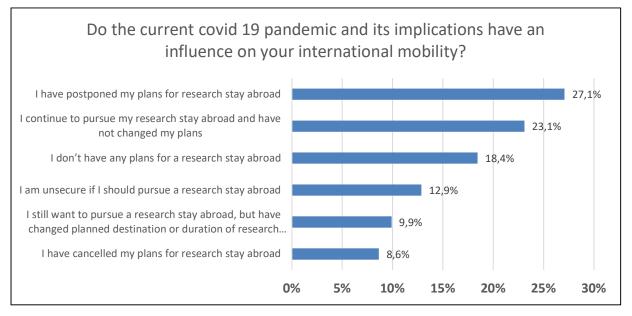


Figure 21: Reactions of respondents to current Covid-19 situation (N=1182)

In the corresponding survey question, respondents were asked to rank restriction types in descending order of perceived severeness. For analysis, a score from 1 to 7 was allocated to each type of restriction. Normalized preference scores were calculated from the sum of all responses.

A range of supporting factors seem to be useful to encourage researchers to pursue their international mobility plans at almost equal importance, without one single factor standing out in particular (see Figure 22).

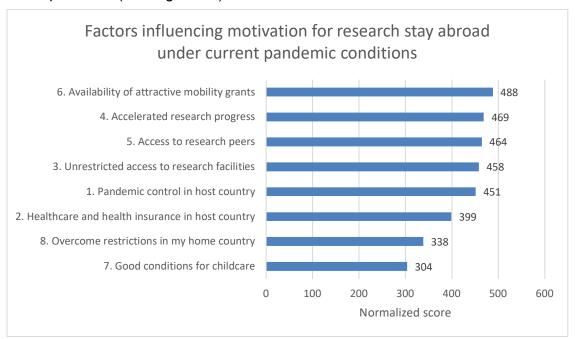


Figure 22: Factors influencing motivation for research stay abroad under current pandemic conditions (N=1182)¹¹

When asked "If there was no Covid-19 pandemic, would your research destination preference be different?", the majority of respondents, almost 75%, maintained their preferred destination irrespective of the absence or existence of pandemic conditions (see Figure 23).

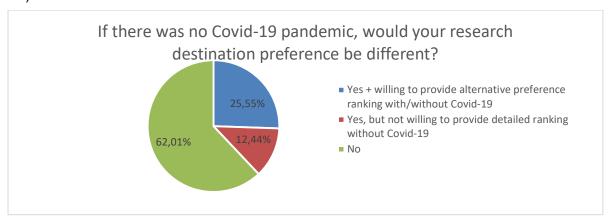


Figure 23: Question: If there was no Covid-19 pandemic, would your research destination preference be different (N=1182)

In the corresponding survey question, respondents were asked to rank influencing factors in descending order of perceived severeness. For analysis, a score from 1 to 7 was allocated to each influencing factor. Normalized preference scores were calculated from the sum of all responses.

The answers of those respondents who were willing to provide their preferences for both pandemic- and non-pandemic conditions indicate that under the current conditions, dominated by the influence of the Covid-19 pandemic, Europe seems to gain attractiveness as a destination for a research stay abroad, compared with pre-pandemic conditions (see Figure 24; compare with Figure 19, page 16 for pre-pandemic preferences).

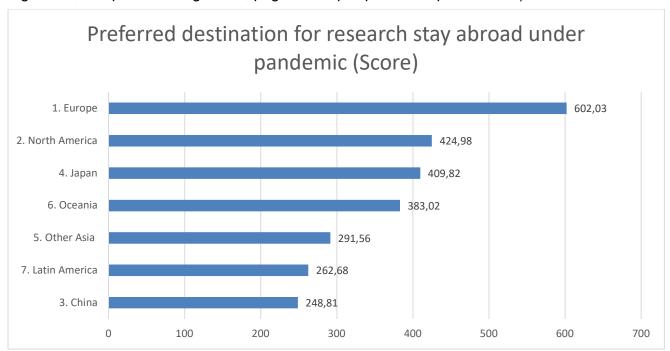


Figure 24: Perceived attractiveness of research regions as destinations for research stays abroad (considering current pandemic conditions) (N=1182)

2.6. Research conditions

Encouraging researchers to continue to pursue plans to work in research organizations abroad, in particular under the current Covid-19 pandemic conditions, requires a good understanding of the conditions for excellent research which they need. Figure 25 explores these conditions and the importance which respondents allocate to these.

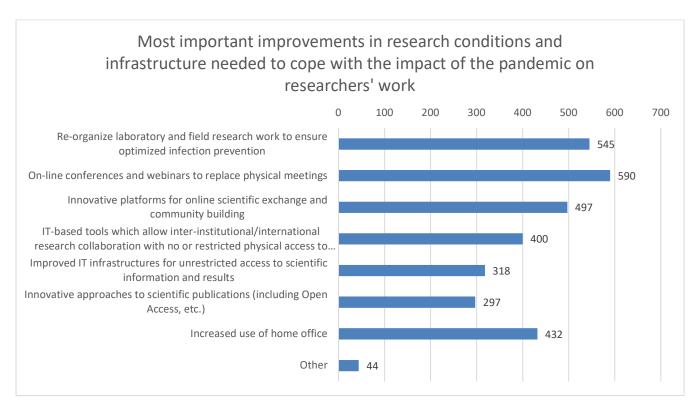


Figure 25: Perceived need for improvements in research conditions and infrastructure to cope with the pandemic impact (N=1182; multiple answers possible)

Even if these results can only be indicative, they seem to indicate that researchers expect profound changes in the way how their work will be organized in the future and what conditions they will need. This may be explored further by research policy makers and research institutions as a part of their efforts to sustain a high level of researcher mobility and to attract excellent researchers.

3. Preliminary conclusions and hypotheses

Based on the survey results, the following preliminary conclusions are suggested:

(1) The current Covid-19 pandemic challenges Europe's objective to foster EU-centric mobility

On the positive side, the majority of researchers are still motivated and interested in international mobility. But the current pandemic situation restricts their capability to engage in international mobility and creates insecurity.

(2) Highlight Europe's commitment to addressing current pandemic situation.

To sustain the motivation and interest of its target group in EU-centric mobility, Euraxess International should emphasise this topic explicitly in its communication, beyond routine communication on EU research and funding opportunities, e.g.

- Europe's commitment to Covid-19-related research and its flexible adaptation of other research priorities to the new situation;
- New opportunities for mobile researchers emerging under HORIZON EUROPE;
- Europe's leadership in innovative state-of-the-art research management, collaboration and communication instruments which enable efficient research even under pandemic-restricted conditions;
- Europe's advantages as a research location, especially under pandemic-restricted conditions, both in terms of optimal research conditions and in terms of personal living and working conditions, safety and health.
- (3) Explore new formats to make research communication truly interactive and "live".

Since many respondents expressed particular concern about not being able to interact with their international peers and to meet these personally and work with them, Euraxess should explore and develop specific innovative formats to address these concerns, such as

- Web-based highly interactive events (e.g. currently tested "Meet MY Lab" series),
- Further enhance participation in thematic online exchange among researcher communities, such as conferences and webinars, e.g. in collaboration with scientific partner organisations.
- (4) Address specific needs of different researcher categories within the Euraxess target group.

The analysis of the survey population and of their perception of current restrictions and needs suggests to make communication more target-group specific. The following examples may illustrate this:

 For young researchers at the beginning of their scientific career; mobility should be promoted specifically as an opportunity to learn, gain international experience and build a profile in their scientific peer communities – all this despite current pandemic restrictions! This may include for example making them more aware that key activities like science communication contests, European Research Days, etc. continue on the basis of new formats • For experienced researchers, emphasize how instruments which contribute to their research work and advanced career (e.g. ERC) will continue and develop despite Covid-19 and what specific opportunities they offer under current conditions. It might also be interesting and rewarding to engage dialogues with them on which new research priorities and opportunities arise under the influence of the pandemic and in the post-pandemic research landscape and on the resulting future of their research work in the post-pandemic world.

(5) Address specific regional needs and interests

Attitude towards international researcher mobility as well as current pandemic situation and perception are not identical among different Euraxess' global focus regions. At this time, some of them are still in the middle of their fight to get the pandemic under control, while others are on their way to "return to normal operations. Combined with other differences (e.g. different development stages, ranging from world-class research systems like the US to not yet fully developed research systems in some of the emerging countries like some ASEAN or LAC countries), this calls for regionalized communication strategies and topics, which address specifically topics of particular actual importance for regional target groups.

(6) Extend interactive dialogue with the target group researchers

Given the underlying interest in dialogue to find innovative solutions to cope with the current pandemic and insecurity about what the post-pandemic conditions for international research will be, Euraxess should seek to engage a dialogue with researchers on this topic.

One opportunity for this might be for example to follow-up on the answers to the questions about perceived need for improvements in research conditions and infrastructure. This could be done for example in webinars on "post pandemic research", addressing e.g. what needs researchers express concerning future organisation and conditions to conduct research in the lab and with international partners, future role of innovative tools for combining physical work in the lab with web-based collaboration, how will simulation, Artificial Intelligence, etc. change research work, etc.

(7) Follow-up with universities, research institutions and policy makers

Worldwide, universities and research institutions have a difficult time to cope with the actual implications of the pandemic on their work and on the conditions which they can offer mobile international researchers and on how they must adapt to meet the new success factors of the current pandemic and the emerging post-pandemic research landscape. Th same is true for research policy makers, who are currently reconsidering their research strategies, necessary adaptations of research infrastructure and mobility schemes.

Confronting these stakeholders with the survey findings might be a valuable contribution to the policy dialogue as well as an opportunity to engage mutually beneficial dialogues and future collaboration with them