# MAPPING THE POPULATION, CAREERS, MOBILITIES AND IMPACTS OF ADVANCED DEGREE GRADUATES IN THE SOCIAL SCIENCES AND HUMANITIES (POCARIM)

## Policy Report 10
## The Internationalisation of Careers in the Social Sciences and Humanities

Chris Coey, University of Salford

Dorota Kupiszewska, International Organization for Migration

Marek Kupiszewski, Institute of Geography and Spatial Organization, Polish Academy of Sciences

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**Background: The POCARIM Project**

Between 2011 and 2014 a multinational team of academics and researchers collaborated on a research project funded by the European Commission under the Framework 7 Programme: Mapping the Population, Careers, Mobilities and Impacts of Advanced Research Degree Graduates in the Social Sciences and Humanities (POCARIM).[1]

One aim of the project was to explore the movement and engagement of social science and humanities (SSH) PhDs across national borders. Specifically, we aimed to understand the motivations behind and the obstacles to international mobility, and its consequences and impacts not just for the individual but for social and economic communities on multiple scales.

In this policy report we present the project's key findings on internationalisation. Our findings are based on original work carried out in each of the POCARIM countries and which includes: a review of the literature, policy and existing data, as well as original empirical survey and interview research. We draw out the implications of our findings for policymakers.

*Methods*

The project consisted of two core phases. Each phase was coordinated by a key partner and carried out across the 13 countries by all partners.

Phase one of the research consisted of:

- A review of over 350 studies on the themes of: employment trends, career paths and graduate destinations; and impact, engagement and the contribution of SSH research (Gustafsson and Hansen, 2013).

- A review of policy approaches to interdisciplinarity, doctoral education as the first phase of an academic career, and responses to the economic crisis in terms of funding of doctoral education (Bitusikova, 2013).

- A review of existing statistical data sources on the population of social science and humanities researchers in the POCARIM countries and beyond (Canibano *et al.*, 2013).

Phase two consisted of:

- An online survey of 2,723 SSH doctoral graduates which asked a number of questions on the key themes of the project. These included the perceived impacts of respondents' work, and their international, intersectoral and interdisciplinary mobilities. Survey data was cleaned and analysed in SPSS and EXCEL (Kupiszewska *et al.*, 2013).

- In-depth, qualitative interviews with 25 respondents in each of the thirteen POCARIM countries. Each interview was transcribed, translated into English if necessary, and entered into a single NVIVO project file for analysis.

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[1] The countries in which the study was carried out were: France, Germany, Hungary, Italy, Latvia, Norway, Poland, Portugal, Slovakia, Spain, Switzerland, Turkey and the UK. For further details of the project see http://www.salford.ac.uk/nmsw/research/research-projects/pocarim-home.

**The international mobility of doctorate holders in the social sciences and the humanities**

The POCARIM project was conceived and initiated in the context of Europe's response to the emergence of globalisation and the knowledge-based economy, the enlargement of the European Union to include post-communist states and, more recently, the onset of the global financial crisis.

Through the Lisbon Strategy for Knowledge and Growth (the Lisbon Agenda, 2000) and Horizon 2020,[2] policymakers have sought to make Europe the most advanced knowledge-based economy in the world. A key pillar of the Horizon 2020 programme is the Innovation Union, which calls for an increase in the number of researchers by one million, and an increase in the share of GDP spent on R&D to 3%, by 2020.[3]

The Innovation Union Communication asserts the need for researchers to be able 'to work and cooperate across the EU as easily as within national borders [and for] the frameworks for a truly free movement of knowledge'.[4] It therefore embeds an international dimension in many of its 34 commitments. It calls for the development of a European Research Area (ERA) in which barriers to mobility are removed in order to facilitate the:

> *- mobility of researchers across countries and sectors, including through open recruitment in public research institutions and comparable research career structures and by facilitating the creation of European supplementary pension funds;*
>
> *- cross-border operation of research performing organisations, funding agencies and foundations, including by ensuring simplicity and mutual coherence of funding rules and procedures, building on the work of stakeholders, funding agencies and their representative organisations;*
>
> *[…]*
>
> *- opening of Member State operated research infrastructures to the full European user community; and*
>
> *- consistency of EU and national strategies and actions for international cooperation in science and technology.[5]*

In addition, the Innovation Union calls for the reform and ranking of universities in order to identify and promote diversity and the development of world class institutions in Europe, policies to attract and retain greater numbers of top researchers from outside Europe, the pooling of expertise and resources at European level, and increased cooperation with international partners.

The Innovation Union developments are in addition to existing instruments to facilitate researcher mobility. In 2003, doctoral education was added to the remit of the Bologna Process, and the European Commission maintains a website (EURAXESS) which functions as an information and contact point for researchers seeking positions across the member states. EURAXESS also promotes mobility through the European Charter for Researchers & the Code of Conduct for their Recruitment.

The review carried out by POCARIM into research and higher education policies found that international mobility and engagement were common themes from the doctoral training phase onwards at both European and country levels. Across the board this international orientation

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[2] European Commission (2010a).
[3] European Commission (2010b).
[4] European Commission (2010b).
[5] European Commission (2010b).

reflected recognition of the role of international activity in facilitating knowledge exchange and generating innovation, and the need to compete in a 'war for talent' (Michaels *et al.*, 2001). In some countries (for example the UK) the funding constraints faced by institutions had led them to explore international markets for fee-paying students. In others, there was an increasing dependency on external sources of funding which influence the nature of research and the geographies of collaboration.

Across all countries and disciplines we observed policy trends towards greater international activity and engagement. However, these trends were less evident in the social sciences and, in particular, the humanities, most likely because discourses around the role of research in the economy favour those academic fields with more immediate and demonstrable impacts. This situation is reinforced in the resource environment of the economic crisis. Hence funding for subjects in the STEM fields has been preserved in many countries whilst the social sciences and humanities have suffered in some cases quite severe cuts.

**The POCARIM findings**

Elsewhere, we reported on the difficulties in working with existing data to assess the internationalisation of research careers in the social sciences and humanities.[6] National stocks of doctoral educated researchers vary, as do the patterns of mobility into and out of each country. It is even more difficult to identify types, durations or impacts of international mobility from existing data. In the section that follows, we draw on the data that does exist as well as data generated by the POCARIM survey. We combine this with analysis of the qualitative interviews in order to present several key themes which form the basis of our policy recommendations.

*Patterns of international mobility and engagement*

Although reliable data on stocks and flows of doctorate holders is limited, some insights are possible. For example, the OECD's Careers of Doctorate Holders (CDH) study reported that, across its sample of countries,[7] between 15% and 30% of doctoral holders had experience abroad (Auriol, 2010).[8] The MORE2 study of researcher mobility across the EU27 found that around 15% of researchers in the EU are currently working outside their home country, and that high proportions of researchers had been abroad for a period of less than three months (41%) or for three months or more (30%) in the ten years since the award of their PhD (IDEA Consult, 2013a). The MORE data also revealed that the mobility was more common at the doctoral phase amongst SSH candidates than those from the natural sciences and engineering; but that in the post-PhD phase this tendency was reversed.

The proportion of non-citizens in each national population can be seen as an indication of the inflow of internationally mobile researchers and, by extension, the relative attractiveness of each country. Around 13% of POCARIM respondents received their PhD from a country other than the country of their nationality, although there was great variance across the national cases (figure 1). Over 58% of respondents who gained their PhD in the UK, for example, were not UK citizens. This figure was much higher than for the countries which awarded the second and third highest proportions of non-citizen PhDs: Switzerland (29%) and France (27%). In contrast, the proportion of non-citizens awarded PhDs in other countries was in some cases as low as 1.4% (Italy). Whilst the data here seems to reflect what we already know about some countries (the UK and Italy in particular), it is based on a variety of sampling strategies used by the national POCARIM teams. We must therefore be cautious about generalising the findings both to the POCARIM countries as a whole and to individual countries.

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[6] See Policy Report 14 on the review of existing data (Woolley, R., 2014). Policy Report 14: Secondary Data Analysis – Policy Note.

[7] The countries of the CDH study included three POCARIM countries: Germany, Portugal and Switzerland.

[8] It is worth noting the differences between these results and those of the recently completed Changing Academic Profession survey, which found that, of over 21,000 respondents in 19 countries, over 43% had international experience of some kind (Rostan and Höhle 2014).

Figure 1: Proportion of PhDs awarded to foreigners in POCARIM countries[9]
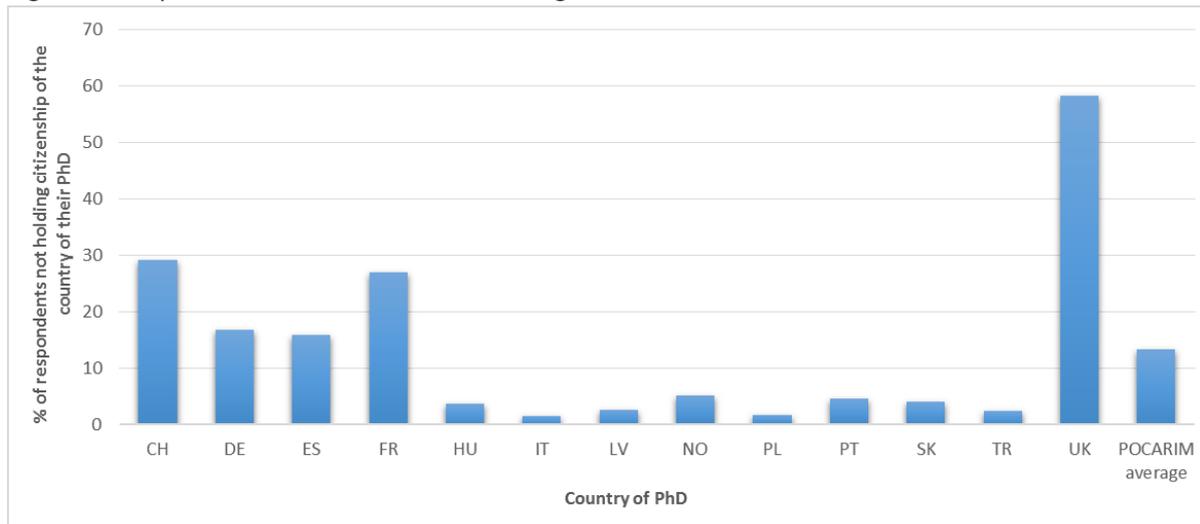
We also found that just over 10% of respondents were working and/or studying outside their country of nationality at the time of the POCARIM survey (figure 2). Here again there were significant differences across countries, with over 26% of Germans, almost 23% of Italians, and 20% of UK citizens working abroad. The countries with the smallest number of respondents overseas were Norway (1.6%), Portugal (2.7%) and Latvia (4%). We cannot infer a great deal from these figures that would apply across all countries. The outflow of citizens from a country, particularly at early career stages, could reflect the importance of international experience (as in Germany), exit from an inaccessible labour market (as in Italy), or strong national embeddedness in international flows more generally.

Figure 2: POCARIM respondents working overseas, by country of nationality

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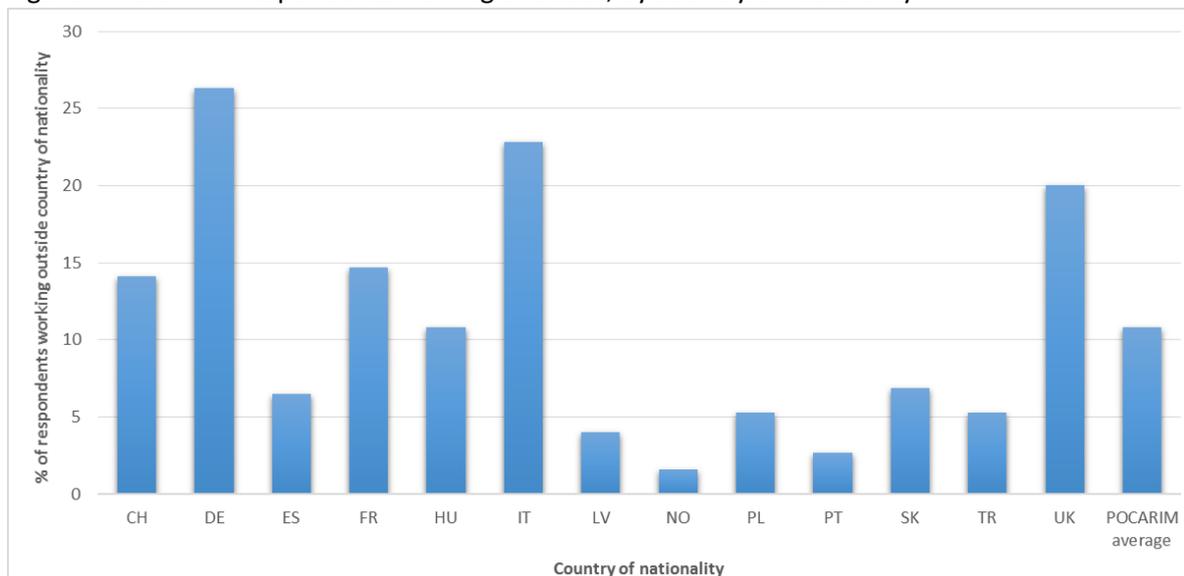
[9] Graph shows the proportion of POCARIM respondents not holding the nationality of the country in which they were awarded their PhD.

We also found significant variation in the number of respondents working outside the country in which they were awarded their PhD (figure 3). Almost 50% of respondents holding a UK PhD were working outside the UK at the time of the survey. This figure was around 30% for France and Germany and as low as 4.5% for Norway. Again, this could be an indication of the value of international experience or closed labour markets in particular countries, but it could also reflect a degree of post-PhD return mobility on the part of non-citizen doctoral candidates.

Figure 3. Share of POCARIM respondents working outside their country of PhD, by country of PhD
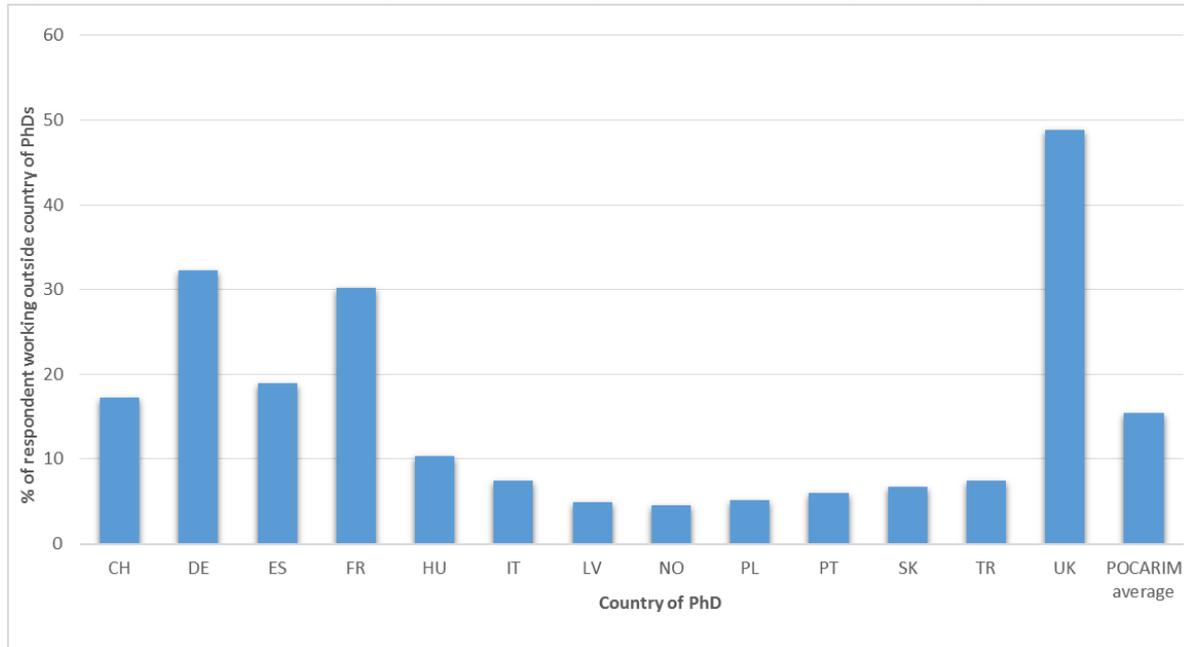


<div align="right">Source: POCARIM</div>

By looking at the country of nationality, of PhD, and of current work in combination we can begin to identify patterns of mobility which reflect the place of national sites and career practices in flows of SSH doctorates.[10] The differences between countries highlight the importance of nationally specific features of mobility flows in SSH at doctoral level, influenced as they are by labour markets, career paths, practices and expectations. In addition, we should bear in mind that SSH research can be highly nationally specific in terms of language, culture and historical traditions, and that this will have an impact on mobility patterns.

Flows of European doctoral holders are strongly patterned and largely located within the European region. The OECD's CDH study (Auriol, 2010) found that with the exception of Denmark, for example, more than 50% (and up to more than 70%) of internationally mobile doctorate holders from the CDH countries went to other European countries, and a large minority of the rest to the USA. The MORE2 study (IDEA Consult, 2010, p. 151) also revealed some interesting patterns of flows of researchers of all disciplines within Europe:

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[10] Undoubtedly these patterns are influenced by the sampling of the survey, as discussed in Kupiszewska *et al*. (2013) report on the POCARIM survey.

The United Kingdom appears to be an important destination for all regions in Europe.

Germany, on the other hand, receives mainly East-European and Spanish researchers. The data also include researchers returning to their country of origin: for Germany 20% of the incoming researchers are German citizens.

France is also an important destination for East-European and Spanish researchers, but also to those from Germany and the Benelux.

German and Baltic researchers form the most important flows to northern Europe.

Important flows also go from Germany to Switzerland and Austria and in the case of Austria, also back again.

Finally, there is also an exchange between the United Kingdom and Ireland. Moreover, 27% of the incoming researchers in Ireland are Irish citizens.

After the German and Irish, Spanish and Italian citizens often return to their country of origin (17% and 14% of the incoming researchers respectively).

IDEA Consult (2010) p. 151.

The POCARIM survey, too, enabled us to map the directions of cross-border flows. We found that just four countries – the UK, the US, Germany[11] and France – were the destinations for between one third and half of all short-, medium- and long-term trips.[12] Specifically, these countries accounted for 34.4% of short-term trips, as much as 50% of medium-term stays, and 41% of long-term stays.

There were some differences between destinations depending on duration. For example, the UK is most popular in terms of short-term mobility, second in medium-term mobility and only third in long-term mobility. The United States is the top destination for both medium-term and long-term trips. The relationship between trip length and destination may be related, among other things, to costs (long distances are probable for trips of longer duration, while short trips are undertaken more commonly within Europe) and the funding opportunities at various locations (there might be more sources of funding for long-term visits in the US than in the UK). Also, it is probable that PhDs consider American universities as more attractive from the scientific point of view.

Taking only short-term mobility episodes (the most common type of mobility, as revealed in table 1 below), our data revealed the UK to be the most commonly visited country, followed by Germany and the United States (table 1). The patterns were slightly changed when disciplines were taken into account. For example, France was the fourth most commonly visited country overall, but third for humanities' doctorate holders. Moreover, the Czech Republic was the fifth most visited destination for humanities PhDs, whilst Sweden was the sixth most visited for social science PhDs, and Belgium the sixth in terms of economics and law.[13]

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[11] Interestingly, when Turkey is excluded from the analysis Germany is less prominent in mobility of long-term duration, particularly in the humanities. A likely explanation for this is the restriction on funding for non-EU (and non-EFTA) nationals.

[12] In the survey we defined short-term as less than one month, medium-term as between one month and one year, and long-term as greater than one year.

[13] Mobility practices vary greatly between disciplines, with particular types of knowledge and practice being particularly influential (Ackers 2008a; Jöns 2007). Broadly speaking it is apparent that careers in SSH are more likely to involve frequent though short term mobility, rather than longer-term, between-job moves (Canibano *et al*. 2011; Edler 2011).

Table 1. Most commonly visited countries for short-term mobility.

| Overall | Humanities | Social Science excl. Economics and Law | Economics and Law |
|---|---|---|---|
| UK | Germany | UK | UK |
| Germany | UK | Germany | Germany |
| United States | France | United States | United States |
| France | United States | France | France |
| Italy | Czech Republic | Spain | Italy |
| Spain | Italy | Sweden | Belgium |

Source: POCARIM

Moreover, analysis reveals the frequency of international collaborations of POCARIM survey respondents by country of PhD (table 2). Respondents who obtained their PhDs in Norway reported the highest degree of cross-border collaboration in their work, with 56% collaborating 'almost always' or 'regularly'. In contrast, 45% of Turkish respondents reported that they 'never' collaborated internationally. German and Swiss PhD holders were most likely to collaborate 'almost always' with partners overseas (21% and 16% respectively).

Table 2: Respondents by country of PhD and frequency of international collaboration (%)[14]

| Frequency of international collaboration | CH | DE | ES | FR | HU | IT | LV | NO | PL | PT | SK | TR | UK | POCARIM countries average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Never | 25 | 12 | 28 | 37 | 23 | 26 | 12 | 7 | 24 | 17 | 19 | 45 | 21 | 22.7 |
| Occasionally | 24 | 37 | 45 | 27 | 45 | 43 | 47 | 38 | 41 | 46 | 54 | 35 | 42 | 40.4 |
| Regular contacts with partners abroad | 35 | 30 | 23 | 25 | 23 | 25 | 32 | 48 | 26 | 32 | 21 | 13 | 32 | 28.0 |
| Almost always work in collaboration with partners from abroad | 16 | 21 | 3 | 11 | 10 | 6 | 9 | 7 | 9 | 5 | 6 | 6 | 5 | 8.9 |

Source: POCARIM

In the interviews, too, we found geographical patterns of international activity. A small number of countries were frequently mentioned, confirming the findings of the survey. The USA, the UK and Germany in particular emerged as important destinations for longer-term career or PhD study moves across the board. France, Spain and Portugal were reported to be significant sites in other geographies of international activity beyond Europe which reflected their historical, linguistic and cultural links with former colonies: France with North Africa, Spain and Portugal with Latin America.[15]

In a similar way, patterns of international activity amongst respondents from the post-communist countries tended to reflect either an ongoing orientation towards former partners or a reorientation towards the West. The significance of the UK, Germany and Italy (and increasingly Austria) were noted to the extent that they tended to provide lead partners in EU projects.

Language plays an important role in shaping patterns of international activity; it also reflects the relative standing of certain countries and regions in science production. Unsurprisingly, English was commonly reported to be a fundamental requirement of almost all cross-border work, and not only

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[14] From Kupiszewska *et al.* (2013).

[15] These strength of these traditional patterns should not be overstated. For example, in their exploration of the mobility patterns of Spanish researchers Canibano *et al.* (2011) found that the significance of traditional destinations (Western Europe and North America) was being superseded by new ones (in Latin America).

for respondents with an orientation towards the USA or the UK. This comment from a German interviewee is quite typical:

> *English was absolutely critical for me because all of the jobs I have had here involve interacting with people, and without English language skills I couldn't have done it [DE08].*

Whilst English is clearly the dominant language in the international work of many POCARIM respondents, we also found examples of other languages playing similar, if less significant, roles. For reasons of history and/or geography, French, Spanish and Portuguese were features of interactions between their respective countries and former colonies; and Russian retained some significance in the work of a number of respondents from the former communist states. Language use also depended on the kind of activity being conducted, for example fieldwork or other activities in specific locations, writing or reading research, or everyday communication. The following Polish interviewee spoke of her own work-related language use:

> *English to such an extent that I can write an article, but communicatively, for these normal conversations, Russian and socially, let's say, Spanish and German [PL18].*

The following German psychologist, based in the USA, hinted at the ways in which language use can be a barrier in one domain and not another. She spoke of how she did not feel entirely comfortable using English socially, because she was unhappy with her accent and less 'flexible'. However, this is not the case when it comes to writing:

> *I would say that my academic writing comes more naturally for me in English because I have been socialised with a lot of literature in English [DE01].*

There are disciplinary patterns in language use, too. It has been observed that English tends to dominate publications in the 'harder' sciences, whereas other languages remain relatively well represented in the 'softer' sciences (van Weijen, 2012), suggesting that language may be amore significant barrier to international activity in the humanities and social sciences than other disciplines. The POCARIM findings suggest a more complex understanding of the role of language is necessary. One French interviewee, for example, spoke of a Latin-American community of scholars in science and technology studies which operates principally in Portuguese and Spanish:[16]

> *Scholars have no problem to dialogue even if one speaks Spanish and the other responds in Portuguese. And these debates are not known in the English-speaking region. I think it's the same for France. Scientific debate does not circulate easily and English is both a channel and a barrier [FR13].*

A number of interviewees commented on their experience and perception of peripherality. One Portuguese interviewee, based in the Azores, found his mobility severely constrained by the combination of distance and funding. This case is an extreme illustration of the barrier of distance, but different issues relating to location were reported by other interviewees. The need for long-term international mobility arose for one Italian historian because there were only two institutions on her home island of Sardinia, and her academic profile was not suited to either. In his case it made little

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[16] This might reflect broader patterns of language use amongst Portuguese and Spanish speakers. Meneghini and Packer (2007) report that 60% of Brazilian science publishing is in Portuguese, although this work tends to be for smaller or peripheral audiences, and is less likely to be peer reviewed than work published in English. More importantly from our point of view, the majority of downloads of the Portuguese-language publications are from Spanish- and Portuguese-speaking countries, suggesting the existence of a distributed non-English language science community.

difference whether she sought work on the Italian mainland or elsewhere in Europe and, in fact, she perceived her opportunities as being greater outside Italy.

*Disciplines, resources and places*
Evidence from the interviewees sheds light on the geographies of international activity of the POCARIM population. For example, the attractions of the UK, Germany and the USA were strongest in a number of disciplines: Germany in archaeology, for instance, and the USA in the social sciences more generally. In other cases the national character of a discipline limited or shaped international engagement. A French interviewee reported, for example, that 'in social sciences we have a very French way of doing ethnography which is highly embedded within the philosophy and the sociology' [FR10]. This 'French way of doing' was something of a barrier to the transmission of knowledge and building of networks across borders for some respondents, not least because it defined the geographical limits of a disciplinary community.

In the humanities in particular, subjects can be very grounded in particular cultures and places.[17] This was so for many of the lawyers we interviewed:

> *...the law systems are very special, so there is no major international mobility when you are a lawyer or a university lawyer unless you are studying international or European law [FR05].*

The influence of fieldwork sites in shaping some forms of mobility was evident in a number of accounts. One Polish geographer, for example, works on Polish-speaking minorities in neighbouring countries; whilst a Slovakian historian's research draws on historical sites and sources in Slovakia and the Czech Republic.

As the points on fieldwork suggest, the fact that infrastructures and resources exist in particular places shapes the geographies of activity in important ways. The possession of key archaeological artefacts and archives, for example, made certain institutions in Germany important centres in this field. In addition, having the resources to fund research and attract top professors was a commonly reported explanation for the centrality of a particular site:

> *[Top places] concentrate the resources and the access to the journals [FR11].*

One point that emerged time and again in the interviews was that the centrality of a place in an academic field was based on individuals and departments rather than institutions or countries. Specifically, it is clear that the quality, quantity and impact of a person's publications (journal articles or monographs depending on the discipline) is a strong indicator of their importance in a field. Moreover, leading figures were repeatedly reported as being extremely active in networking and collaborating, and also very mobile:[18]

> *I think that there is some importance of the quality of the first projects developed, but I also think that is deriving from their networking capability and from their participation in many events of different nature, both in and outside Europe. Thus people with high mobility in the terms I was referring to. Being available for frequent travelling and for networking is important for their centrality [PT02].*

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[17] For further discussion of the relationship between place, mobility and discipline see Ackers (2013) and Jöns (2007).

[18] In fact, a single 'magnet' researcher and her networks could be instrumental in establishing a cross-border cluster sustained by frequent visits by researchers from elsewhere.

*Forms of international mobility*

The POCARIM survey collected data on a variety of international experiences, from between-job, migratory moves to repeated, short-term journeys of a few days (figure 4). Analysis reveals a great deal of international engagement across POCARIM countries.

Experiences of short-term international mobility were very common. With the exception of Spain, France and Poland, around 80% or more of respondents from all countries reported that they had engaged in this kind of mobility (a POCARIM average of 82%), with 62% doing so regularly or frequently.[19]

A majority (i.e. between 50% and 60%) of respondents from Spain, Italy and Norway had experience of medium-term mobility of up to a year. Whilst only 12% of all POCARIM respondents had moved country since they were awarded their PhDs, this figure was 26% for doctorates from Germany and 24% of those from Switzerland.

Figure 4: Share of respondents with international mobility experience, by type (duration) of stay abroad
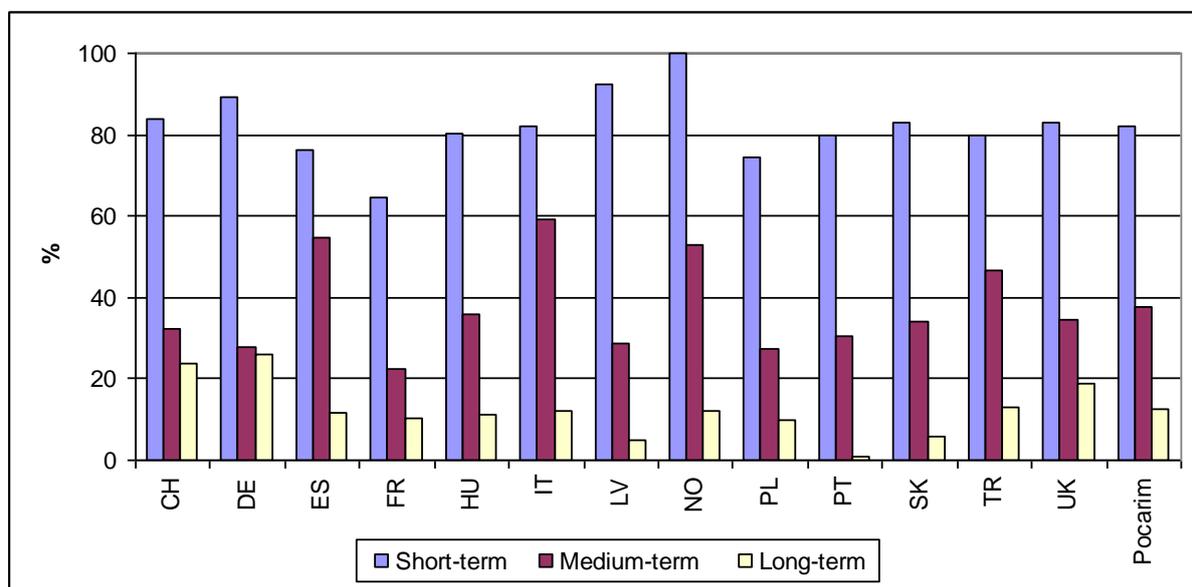


Source: Kupiszewska et al. (2013)

It is instructive to turn to the interviews to look for explanations of the patterns revealed here. For example, the respondents reported a variety of work- and study-related international practices that map on to the different durations of mobility above. The most generic forms (i.e. across all disciplines and national contexts) and most commonly reported included one- or two-day conferences and medium- to long-term placements in a foreign host institution. Some reported very long-term or open-ended mobilities, including more or less permanent moves from a home to a host country.

It is important to note that most respondents to the survey, and most interviewees, were relatively early career researchers. The career phases of the sample in most cases correspond with the First Stage Researcher (R1) and the recognised Researcher (R2) categories of the European Framework

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[19] These findings resonate with those of the Changing Academic Profession survey (Rostan and Höhle, 2014), which found that short term mobility was the most common form and, moreover, that it was a feature of early career phases in particular.

for Research Careers (European Commission, 2011). These are also the career stages at which frequent and short-term mobility is most common.[20]

The vast majority of POCARIM respondents spoke of their experiences of attending or presenting work at conferences in a country other than the one in which they were working or studying. Conferences emerge, in fact, as not only a frequent and relatively accessible form of mobility, but also one which has the potential for multiple and significant positive outcomes for career building and knowledge transfer (see below). Participation in workshops, summer schools and other face-to-face professional engagements were less commonly noted but still widely reported. Some outside academia reported frequent short-term business- or policy-related trips.

Medium-term moves of between three months and a year or even longer, undertaken during the student phase or early career (doctoral or postdoctoral), were relatively less common but not infrequent. These stays abroad included study, teaching and research (which might include some kind of fieldwork, depending on the discipline). The Erasmus scheme had been used by interviewees for both study- and teaching-related mobility.

*Mobility: enablers and barriers*
A number of professional and institutional factors enable the mobility of academics and researchers. These include administrative support, funding, relief from day-to-day duties such as teaching, and other mechanisms which help researchers to manage their workloads.[21] Amongst our interviewees, many had drawn on institutional, national, European or other sources to fund mobility of different durations. The need for funding is brought into focus in the comment of this Portuguese interviewee, who reports on the problems of financing mobility in the current economic climate:

> *[Interviewer: Do you think that your international mobility will have the same shape as it has till now?] Well, 'till now' includes two different phases: a good phase where we could find funding for [mobility] and a bad phase, the current phase, where we cannot find funding for it. I hope that the country's situation improves and, along with it, the possibilities for mobility increase [PT01].*

Where funding was not available, some interviewees reported that they had covered the costs themselves, or reduced their mobility to a minimum or to zero. The fact that some were willing to personally fund international mobility points to the perceived importance of this type of activity in the careers of our respondents. In fact, the lack of mobility, particularly in early career was subsequently regarded with regret.

> *Now when I look back, [not going abroad] is the only regret about my career and education. I wish I would have done it. I believe it may add a lot to someone. […] But with the lack of experience and vision of that period, it was not something I thought of [TR03].*

The POCARIM survey revealed that overall that the likelihood that respondents had some experience of mobility increased with the amount of time since the award of their PhD (figure 5). The pattern is almost the same with regard to age. However, respondents in the oldest age groups report a lower

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[20] As evidenced by, for example, by sources as diverse as the MORE2 study (IDEA Consult 2013) and the Changing Academic Profession study (Rostan and Höhle, 2014).
[21] The importance of mobility in creating opportunities for undisturbed work was noted in the evaluation of the Marie Curie Actions (Watson 2010). This same study also found, however, that the disruption of mobility, settling in and return, could eat into otherwise productive time.

level of mobility, probably due to the fact that there were fewer opportunities in the past when they were younger and more likely to have travelled.

Figure 5. Percentage of respondents with mobility experience, by number of years since PhD.



**Mobility experience**
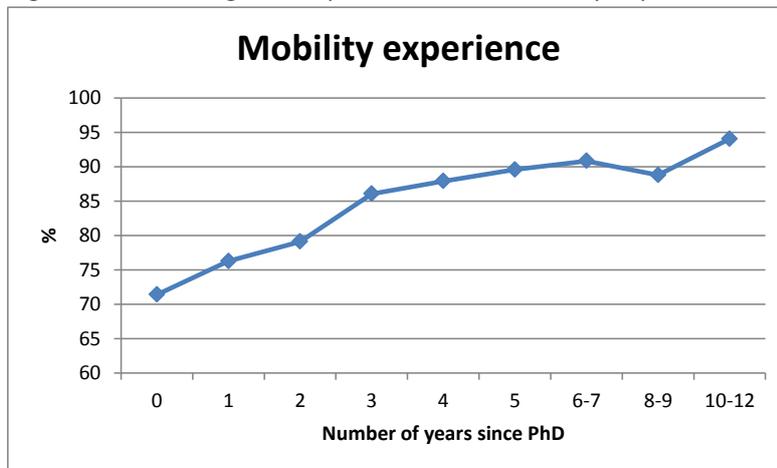
Source: POCARIM

Interviewees consistently indicated that at particular stages in the life course family considerations strongly affect the desirability, possibility and duration of mobility.[22] We therefore factored in gender and the presence of children to our analysis and found that women are less mobile than men whether respondents have children or not (figure 6).

Figure 6. Proportion of respondents with mobility experience by gender.
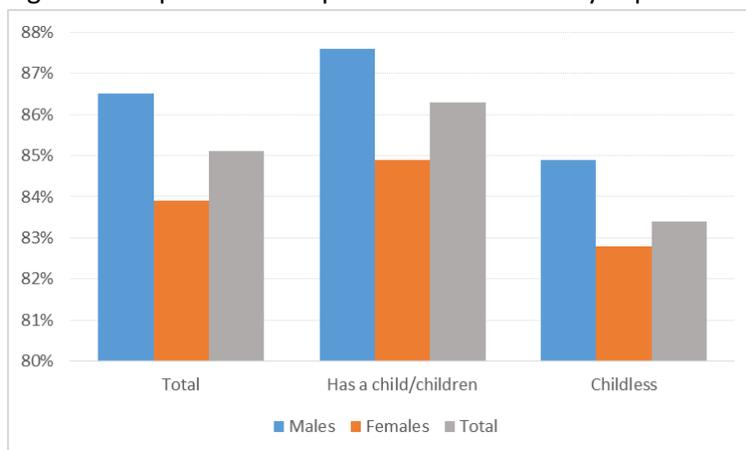


Source: POCARIM

When we added different durations of mobility to our analysis a more complex picture was revealed. For one thing, there are high levels of short-term mobility of less than one month across the board (82%), with children having no negative impact on men or women (figure 7). However, this finding must be seen in the context of the interviews, in which it was clearly reported that frequent short-term trips conflicted with family, work and other commitments, and that the arrival of children initiated a phase of immobility.

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[22] For a full discussion of this dimension of the study, see Policy Brief 12: The Impact of Partnering, Parenting and other Caring Responsibilities on SSH Work and Careers (Perista and Perista, 2014)

Figure 7. Respondents with short-term mobility experience by sex and parental status

**Short-term mobility**
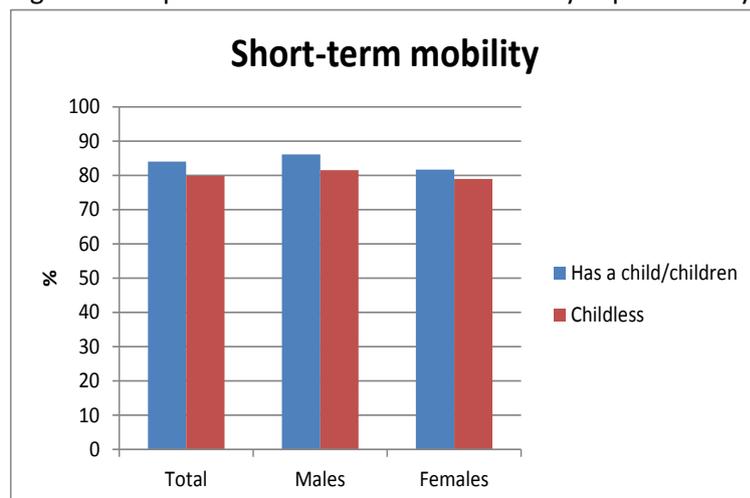


Source: POCARIM

Stays of medium durations of between one month and one year were less commonly reported by the survey respondents (37%), with little difference in this type of mobility between men and women without children. However, those with children, and women in particular, were significantly less likely to have engaged in medium-term mobility: the percentage of female respondents with medium-term mobility experience was 52% higher for those without children than for those who have a child/children: 44.3% versus 29.2% (figure 8).

Figure 8. Respondents with medium-term mobility experience by sex and parental status

**Medium-term mobility**
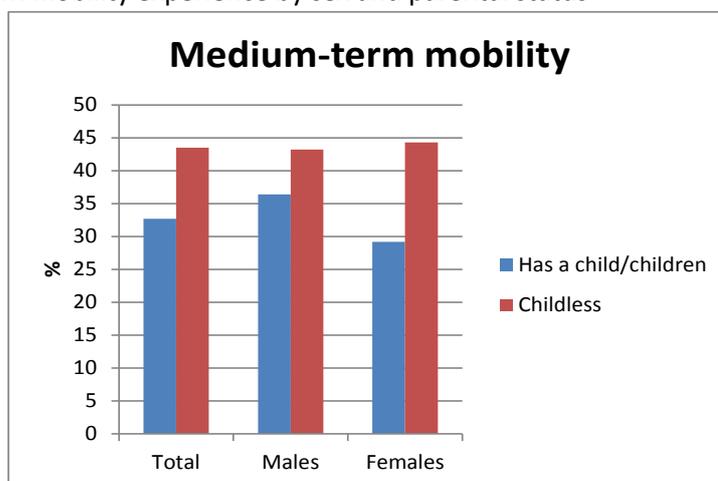


Source: POCARIM

The most significant differences are found in the reporting of long-term mobility of over one year. Although women are slightly more likely to have reported this kind of mobility than men, the difference between women with and without children was dramatic. The percentage of female respondents with long-term mobility experience was 2.2 times higher for those without children than for those with children: 17.3% versus 7.8% (figure 9).

Figure 9. Respondents with long-term mobility experience by sex and parental status



**Long-term mobility**
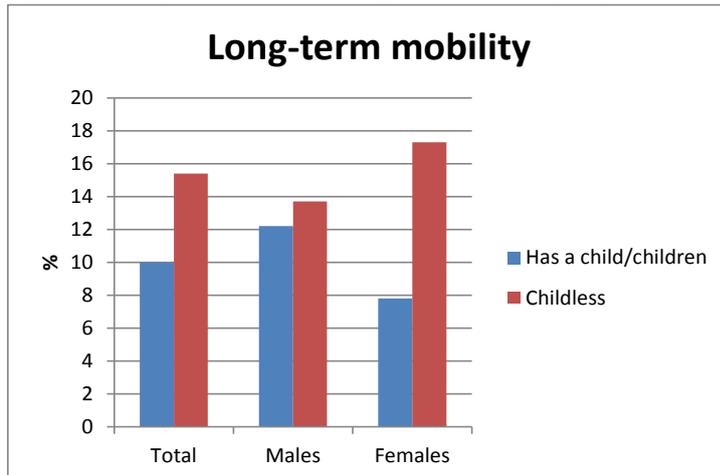
Source: POCARIM

These longer periods of mobility or relocation can be particularly disruptive for children and partners, and can strain relationships. More than one interviewee commented on the high divorce rate of academics in this respect:

> The big disadvantage [of mobility] is the time consumption of these activities and the impacts in family terms when I have to move. There is a tension between career and family and that is not always easy to manage. Many people do not know how to manage this and I am convinced that the above average number of divorces among higher education teachers has to do with this tension [PT01].

Relocating or 'starting again' somewhere else comes with significant challenges, not least of which are the cumulative and multiple family, social, cultural and even linguistic 'relocations' (McAlpine, 2012). Being 'established' not only professionally but in social and family support networks can therefore be an important priority for those with young families.

> I think I need to like the country and I need to like the place. And I really like it here so I'm not a guy who wants to go home. Sometimes home would probably be [Germany] and I'm not really sure about that. For me home is now here and if I changed, then it's great, if I stay it's also great but I don't want to go to a place I don't like to. Given that my wife she came here from a different culture and it was quite hard for her also to do, you know, to get the life here, and she got that now, so I don't want to destroy that. No, it's also something we have to build up again and again [CH04, German national with Latin American partner].

It should be noted that some interviewees tried to limit international mobility in their work because of its disruptive impact on their personal lives, even when no children were involved. A small number of others just preferred to stay close to home. The personal and social sacrifices necessary to incorporate short trips into an academic career were commented upon by one respondent in the following way:

> There are a lot of situations in personal and family terms, and in terms of leisure time that are compromised, for instance, by the need to travel on a Sunday in order to attend a meeting starting on Monday morning. Thus, part of the weekend ceases to exist as leisure time. In my personal case, the fact of not having any children makes it easier for me but, in any case, I do not do some things I would like to do because of this frequent travelling [PT02].

> ### *Laura [UK06]: partial migration and cross-border careers*
>
> British historian Laura has recently started a job in a university in her home town in the north of England. After completing her undergraduate and doctoral studies at the University of Oxford, her husband's family connections in Germany led them to Berlin, where Laura found an academic position. Her husband found work in a Russell Group university in London, and for several years they lived apart, maintaining a home in each city and commuting regularly to be together. When Laura gave birth to their first child, Dave continued to commute from London to Berlin, though with greater frequency, until Laura found her current job and returned to England. Dave still travels to be with them each weekend.
>
> Laura's lectureship in Berlin was limited to six years, and the insecurity of German academia – in which most people do not achieve a permanent position until they are into their 40s – influenced her decision to return. Laura's professional options on return to the UK were limited by her location and the fact that she needed to find a secure job as soon as possible. Her new job meets her needs, although it is at a less prestigious institution where the focus on teaching makes research difficult.
>
> Nevertheless, Laura's institution has ambitions to raise its research profile and has recruited a number of new staff, including Laura, to achieve this. She is expected to keep office hours, which can make child care difficult to manage, and she is expected to refrain from travel during the teaching terms. At the same time, however, the institution is relatively generous in its funding of mobility.
>
> Both Laura and Dave remain hopeful of a future move to Germany: both are doing their habilitation and Dave is applying for fellowships through the Humboldt scheme. Laura has been working on a monograph, which she has submitted to the UK's Research Evaluation Framework and which she will also use for her habilitation. Her professional and social networks in Germany overlap, and she hopes she will be able to draw on them if she returns in the future.

*Motivations: the mobility imperative and career risk*

Previous experiences of international educational mobility are strongly associated with the desire and/or willingness to undertake mobility in later life.[23] Many interviewees had experiences of mobility that predated their professional activities, and which had engendered a positive orientation to international mobility. For example, most respondents had been abroad for holidays, high school or Erasmus exchanges or, in some cases, as a result of broader transnational and migrant family backgrounds.

The motivations for these stays abroad varied, but tended to include both personal and academic or professional considerations. For example, many expressed an interest in travel for the excitement and adventure it brought, and for the experience of other cultures. These personal factors were not always explicit in the interviews but, alongside negotiations of work-life balance, they did provide a whole-life context for mobility experiences for many interviewees.

From a professional perspective, one expected outcome of international mobility was that it would enhance an individual's reputational capital in the academic labour market at home or elsewhere. In a practical sense this was tied up with the desire to make professional contacts, 'to gain some exposure and interactions, meet people' [CH17]. In other words, there was an expectation that mobility would lead to network formation or maintenance.[24]

Medium- to long-term trips in particular were often associated with the possibility of specific types of knowledge transfer, which could be of cutting-edge empirical or theoretical knowledge, or methodological approaches. This was the experience of the following German interviewee, who

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[23] An evaluation of the Marie Curie researcher mobility programme found 62% of participants had earlier experiences of mobility (Ackers, 2000).

[24] This link between international mobility and networks is also explored in Policy report 7: The Importance of Networking to the Careers, Mobilities and Impacts of POCARIM Respondents (Ackers, 2014).

commented that her time overseas offered her the 'advantage of getting inside methods which I wasn't using before' [DE07].

At the same time, there were often broader expectations of the advantages of immersion in another academic culture. This was tied in to the relative position of national contexts in the global system.

> *The only thing I was planning when I was going to the States was to learn how to do research. Because I'm sure you know that the American academy is very different from the Turkish academy. People are different there. So, I just wanted to smell the atmosphere, to do certain things. That is why I wanted to come from the States, to apply what I learned to Turkish society, to teach, to contribute to Turkish academy, basically. These were my motivations [TR03].*

The issue of access to funding and resources has already been reported as an important motivation for international activity in the context of the economic crisis. On the one hand, researchers are increasingly competing for grant funded project work at national and European level; on the other hand, much of this funding is tied to international collaborations. Whilst the requirement for internationally collaborative teams was seen positively by respondents, there was also a sense that on occasion they created artificial alignments of researchers:

> *…on one hand you think 'OK, in the field there are particular experts to work together with', and on the other side you are delivering and you are asked by funding institutions to find international partners; so you just look for somebody [DE16].*

Grant-funded projects provided the first experiences of international activity for a number of interviewees. Such experiences also contributed to the formation of early networks.

> *Through my work as a graduate assistant, I was doing my PhD. I got to meet different people across Europe because I was on the European project. They were not necessarily doing exactly what I'm doing but I got to meet some people at conferences. I know a couple of people in Canada that I've worked with and so it's mostly […] people in Switzerland that I don't necessarily have contact with right now [CH15].*

It was noted above that the burden of day-to-day professional duties could hinder mobility. More generally, these responsibilities can interfere with other research and writing activities. Mobility, therefore, becomes for some an opportunity to find time and space to work on other things:

> *I also wanted to have a break from [home institution]. I had a lot on my plate and I had no time for myself and my writing. So I took it as an opportunity to do something for myself [SK02].*

The counterpoint to these motivations for mobility are the perceived impacts of *immobility*. For some, a lack of international experience was perceived as something of a handicap. For example, with her disciplinary community and networks distributed across borders, this Portuguese interviewee commented that the rejection of international activity would be 'suicidal' for her career because, for one thing, 'it would mean jeopardising the continuity of [my] work' [PT02].

For one interviewee, international experience was perceived to be 'what separates people who have jobs from those who don't' [UK03]. In this sense mobility is seen as a basic requirement of an academic or research career, and very much points to the emergence of an 'expectation of mobility', in which:

> *The fact of mobility has been divorced from the objectives associated with it to become almost a rite of passage; a convenient, independent, indicator of excellence rather than a means to an end (Ackers, 2008).*

Several of the interviewees provided examples of transnational 'portfolio working',[25] that is, they held multiple positions at the same time in different countries. There were a variety of reasons for this, including the need to build a full-time career in difficult national labour markets, and the need to pursue opportunities and funding on an international scale whilst maintaining a family life. The following interviewee described his own experience of working across two countries:

> *…now my position in Sweden is 40%, I'm a full time tenured assistant professor but I agreed to get a my position reduced to 40%, and there was no problem with that, so I spend about one month per semester in Sweden, and otherwise I'm in Prague and everybody seems to be happy including myself for this arrangement, which of course wouldn't be as probably possible without European systems everything [NO18].*

There are clear differences in the extent to which this 'expectation of mobility' is formalised in the POCARIM countries. Access to academic positions can be very restricted in Italy, for example, leading to a longer-term or permanent move. In Germany, international experience is strongly associated with employability.

> *I am pretty sure [my time in the UK has been important in getting this new job]. Because most universities in Germany now prefer people who have spent at least some time abroad. [Interviewer: So without moving to the UK do you think you will still have got the professorship?] Most likely not, no [DE15].*

In Hungary we found evidence that institutions are formalising the requirement for international experience in recruitment.

> *Basically what happened is that there was a condition [implemented] by the department head here, namely that you can only be hired full-time if you've spent between 6 and 18 months abroad. This is very important here, and there is a lot of emphasis on setting up, maintaining and operating international contacts [HU04].*

An interesting development in studies on mobility has been the identification of a 'mobility paradox' (IDEA Consult, 2013b). This is the observation that, in spite of the many positive reported outcomes, international mobility appears to be adding add less value to a career as time goes on. The authors of the MORE2 study suggest this could be because in some cases mobility is driven more by push than pull factors. In other words, researchers are in effect forced out of their home countries due to lack of opportunity. A further factor could be that, as mobility becomes more common, a period abroad plays less of a role in setting an individual apart from her peers in the labour market, especially if during the same time her immobile peers were able to consolidate their networks, reputations, outputs and job security at home. As we will see below, returning home after a period abroad was difficult for a number of POCARIM interviewees.

*The outcomes of international mobility*
The recently completed MORE2 study found that for 91% of EU researchers working outside the EU informal networks were an important way of maintaining contact with their colleagues in Europe, whilst conferences in Europe were important for 74% IDEAQ Consult, 2010). The same study found

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[25] Portfolio working is common in the early phases of a research career, as researchers piece together a variety of part-time roles to build up a full-time profile (Mellors-Bourne *et al*. 2013).

that non-EU researchers with work experience in the EU maintained a high degree (94%) of ongoing engagement, also through informal networks (91%) and conferences (77%). Significantly, 79% of non-EU MORE2 respondents with experience in the EU reported that they still collaborated with the EU partners in research activities.

Analysis of the POCARIM data reveals three important features of the relationships between mobility, collaboration and impact:

- Higher levels of international mobility are associated with higher levels of international collaboration;

- Higher levels of international mobility are associated with higher levels of impact across a range of indicators;

- And higher levels of international collaboration are associated with higher levels of impact across a range of indicators, to a greater extent than for international mobility.

The correlation between the share of respondents who had short-term international trips and the share of those who collaborated with partners abroad is very strong. However, Turkey has lower collaboration than we would expect with its level of mobility (figure 10).[26]

Figure 10. International collaboration frequency versus short term mobility frequency, scatter plot (excluding Turkey)
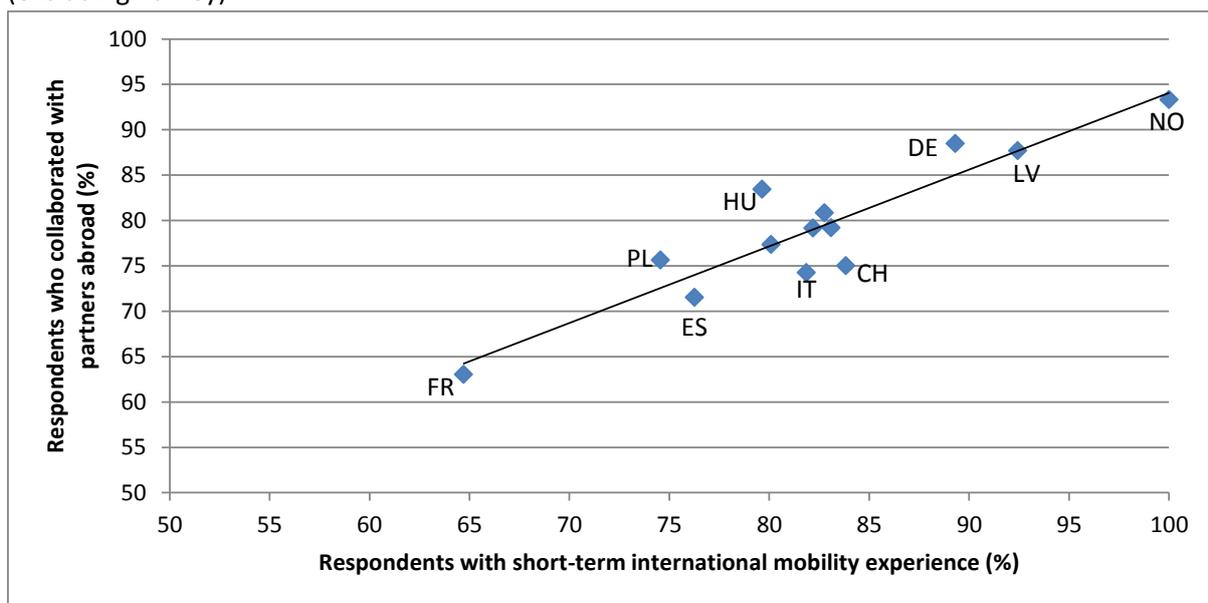


Source: POCARIM

Higher levels of mobility are associated with higher levels of impact[27] across all activities we surveyed (table 3). In particular, respondents reporting mobility are more than twice as likely to have given interviews in the media, and almost twice as likely to have advised policy-actors on the local, regional, national or international level.

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[26] The Pearson correlation coefficient for the relationship between international mobility and international collaboration is 0.75, or 0.91 if Turkey is excluded.

[27] By 'impact' we do not mean national assessment systems such as the UK's Research Excellence Framework.

Table 3. Respondents by impact instrument/activity and experience of mobility (%)

| Impact activity | Mobility experience | | |
| --- | --- | --- | --- |
| | Yes | No | Yes/No ratio |
| Given interviews in media (radio, TV, newspapers) | 58 | 27 | 2.2 |
| Have advised to policy-actors on the local, regional, national or international level | 40 | 22 | 1.8 |
| Have supervised graduate or PhD students | 71 | 44 | 1.6 |
| Developed innovative products | 25 | 15 | 1.6 |
| Been a board member/volunteer/advisor in an NGO | 30 | 19 | 1.5 |
| Have managed/coordinated projects | 71 | 48 | 1.5 |
| Have participated in policy-relevant conferences or events | 66 | 45 | 1.5 |
| Have participated in societal or political committees | 37 | 28 | 1.3 |
| Have taken part in in knowledge transfer activities | 71 | 54 | 1.3 |
| Been a board member in a company | 12 | 10 | 1.2 |
| Have published textbooks, monographs, articles, books | 93 | 77 | 1.2 |
| Have taught students | 91 | 82 | 1.1 |

Source: POCARIM

The significance of international collaborations for the degree of impact was even greater. Respondents who reported that they regularly or always worked in collaboration with international partners were 2.6 times more likely to report that they had developed innovative products, 2.3 times more likely to report that they had advised policy-actors on the local, regional, national or international level, and twice as likely to report that they had given interviews in media or worked with NGOs (table 4).

Table 4. Respondents by impact instrument/activity and international collaboration (%)

| Impact activity | International collaboration | | |
| --- | --- | --- | --- |
| | Regular or always | Never | Ratio |
| Developed innovative products | 29 | 11 | 2.6 |
| Have advised to policy-actors on the local, regional, national or international level | 47 | 21 | 2.3 |
| Given interviews in media (radio, TV, newspapers) | 64 | 32 | 2.0 |
| Been a board member/volunteer/advisor in an NGO | 35 | 17 | 2.0 |
| Have participated in societal or political committees | 42 | 24 | 1.7 |
| Have managed/coordinated projects | 80 | 47 | 1.7 |
| Have participated in policy-relevant conferences or events | 73 | 47 | 1.6 |
| Been a board member in a company | 12 | 8 | 1.5 |
| Have supervised graduate or PhD students | 75 | 49 | 1.5 |
| Have taken part in in knowledge transfer activities | 73 | 52 | 1.4 |
| Have published textbooks, monographs, articles, books | 94 | 79 | 1.2 |
| Have taught students | 91 | 84 | 1.1 |

Source: POCARIM

Finally, we looked at the correlations between international mobility and international collaborations in terms of three key impacts: innovations, policy advising, and working with NGOs (table 5). We found a very strong correlation between international collaboration and policy advising (Pearson coefficient of 0.79), and a weak correlation with developing innovative products (Pearson coefficient of 0.26). The correlation between international mobility and policy advising was

moderate (Pearson coefficient of 0.59), and working with NGOs was weak (Pearson coefficient of 0.38).

Table 5. Correlation between international activity and impact (Pearson coefficient)

|  | Innovations | Policy advising | Working with NGOs |
|---|---|---|---|
| **International mobility** | 0.10 | 0.59 | 0.38 |
| **International collaboration** | 0.26 | 0.79 | -0.03 |

Source: POCARIM

However, we should be cautious about how we interpret the findings above. For one thing, there is a close relationship between international mobility, international collaborations and impacts which makes it difficult to unpick the directions of influence. International collaborations may lead to mobility, for instance, or mobility may lead to collaborations. Moreover, as careers progress, the range and degree of impacts can be assumed to increase and, as they do, the opportunities for international activity will increase also. What we can safely say, and what the interviews illustrate, is that without international activity the impacts of SSH research are, at the least, inhibited.

In fact, the interviews revealed that the overwhelming assessment of the international activity, and in particular mobility, of all types was positive. Frequently mentioned positive outcomes of all types and durations of mobility included:

- communicating and acquiring knowledge and skills
- establishing and maintaining professional and academic relationships
- building a personal profile and reputation
- and scoping the landscape of a discipline or field and recognising the potential of one's own place within it

Knowledge exchange was strongly perceived to be a positive outcome of mobility. On the one hand, communication technologies increasingly facilitate communication with distant colleagues, and the rise of a global field of academic publishing in English enables the transfer of certain explicit forms of knowledge. On the other hand, the value of co-presence on tacit knowledge exchange remains high. One Hungarian interviewee summed up this point succinctly:

> *I have a lot to learn in methodology. The things I want to learn are what people here can't do, so I have to go there. It's not something you can learn from reading someone's article [HU03].[28]*

The establishment and maintenance of professional relationships is also an important feature of research careers. It is through membership of both close and distant networks that individuals learn about opportunities for work and funding, as well as disciplinary innovations. These opportunities in turn lead to collaborations and publications in a cycle that one interview described as a 'snowball effect' [NO18]. Mobility plays a crucial role in this network activity.[29]

> *[Mobility] is important especially when you go to conferences, you meet with new people and you have a chance to learn about their research. [...] So, you have a chance to meet new people. And you learn how other people in your field approach a certain thing, how they do research. So you have a chance to contribute to your career by participating, by attending*

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[28] The crucial role of mobility and co-presence in knowledge exchange and innovation has been highlighted by Williams and Baláž (2008).
[29] The relationship between mobility and networks functions the other way, too: the opportunities that arise through networks can lead to mobility, hence the observation that 'networks make migrants' (Ackers 2008b).

*these conferences. In that sense, I think cross-border travels are important for your career, because you meet with a person and then you decide to write an article together [TU04].*

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**Luisa** [FR20]**: early-career international mobility and network building**

Portuguese national Luisa is a geographer in a university in Lisbon, where she has been for over three years now. Following her undergraduate study in Portugal, she took an MA in Paris because she was attracted by the reputation of French institutions. She followed this with a PhD jointly supervised between a French and a Portuguese institution, and then did a couple of post-docs during which she worked on multinational EU projects. She has had and continues to be mobile for short periods for workshops, conferences and to meet colleagues face to face, partly in the course of her work as a coordinator of research teams involved in two major projects: one national and one led by a French institution.

Luisa says that international mobility has been 'good for me and good for my CV'. In particular she was able to build networks in France and Europe more widely, and also the Portuguese networks which facilitated her return move. Luisa sees only advantages to her collaborations and work on European projects, particularly in terms of 'publications and for the access to research grants'. In fact, her publishing activity, in collaboration with French and Portuguese colleagues and presented in both French and international journals, reflects Laura's international experiences. Two final benefits of her experiences that she mentions are that they improved her reputation and enabled her to 'discover other cultures, other ideas and other ways of working'.

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It is important to note, however, that many interviewees reported that networks they had established earlier in their careers had declined and fallen dormant or been replaced by new networks which reflected their developing professional interests.[30] One Italian interviewee had the following to say:

> *I wouldn't say [I have maintained relationships from my PhD] I have, maybe, good relations with many, and many remember me and may appreciate me as pal and scholar, but unfortunately 'weak ties' don't matter. Only everyday embeddedness plays a role [IT27]*

International experience on a researcher's CV is increasingly a signal of excellence within the labour market, and is therefore a kind of reputational capital that researchers seek to acquire. International activity is bound up with networks, collaborations and opportunities in such a way as to generate a situation in which 'mobility breeds mobility' (IDEA Consult, 2010b), that is, as international activity enhances a researcher's profile, so new opportunities arise, often involving further international collaborations.

The practical outcome of this cycle is the fact that a very large proportion of highly cited publications are cross-border co-publications (Deloitte Consulting, 2013). One interviewee summed up the situation in this way:

> *I think that if you participate in the European circulation and international projects, you have publications in international scientific journals, you are invited to be an expert, et cetera, [and] your reputation will be improved [HU02].*

Locating oneself in a discipline and field both at home and internationally is an important early-career process. International mobility can contribute to the understanding of how an individual, institution or even country fit in a field, and inspire constructive engagement. This as an important outcome of mobility for this Latvian interviewee:

> *And of course also [international engagement brings] the self-assurance that we here are not worse 'by a hair', or less [than those working elsewhere]. But, well, there are also real gains such as publications. I have a paper getting published in America at the moment. That is because the editor of the journal invited me to write a paper for their journal [LV03].*

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[30] These issues of network decay and latency are discussed in Policy Brief X: Networks.

Of course, there are important differences in the type and duration of mobility, and the outcomes. In many cases frequent and short conference trips sufficed to embed respondents in the international networks of their fields, and enable the transfer of knowledge back to their home institutions and systems.

Those interviewees who commented on mobility as a source of deeper engagement and insight into the ways national and academic cultures function were often referring to longer stays. Indeed, research suggests that individuals who have undertaken longer stays attribute greater significance to their international networks than do their less mobile or immobile peers (Fontes *et al.*, 2012). In a number of cases, respondents from geographically or academically peripheral locations in particular spoke of the direct and concrete impact of knowledge transfer they brought back from overseas. The following Turkish interviewee undertook her PhD in the USA, before returning home. She noted the differences between the academy in the two countries, and her potential for greater impact in Turkey:

> *I'm not a nationalist person, but I thought that Turkish society needs me more than the United States does. So, I liked to come back to teach to Turkish students, I'd like to come back to do research on Turkish society. I'd like to contribute to Turkish academy rather than the American academy, because I would get lost there. There are thousands of people there. They are very good at their jobs. The only thing I was planning when I was going to the States was to learn how to do research [TR04].*

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**Aydin [TR01]: immobility on the periphery**

Turkish citizen Aydin is an instructor at a university in Istanbul where he has worked for two years. The only significant international experience he has had was to take part in a summer school in Germany, which he funded himself. This resulted in the development of a network which he maintains through infrequent, short trips, but which has not yet resulted in collaborations. For the most part, he did not take advantage of the opportunities he had for mobility for a range of reasons:

*"There were some private issues, actually. During my PhD, my marital status changed and I lost my father. Financial concerns also increased. Then when I finished my PhD, there was military service ahead of me. There were financial concerns again. International mobility is a very good thing, but maybe I gave up. I don't know, I'm a bit lazy. Maybe I'm a local type".*

Aydin observes a circular relationship between his lack of mobility and his publishing: because he lacks international experience, his opportunities for collaboration and publishing have been limited; because of his publishing profile he spent the first part of his career in a teaching-oriented institution; because he had limited opportunities for research he was unable to become involved in international networks and collaborations. He believes that international experience would have improved his English, another barrier to his activities. Ultimately, Aydin suggests that his lack of mobility early on 'is killing my career'.

Aydin perceives a prejudice in scientific publishing work form Turkey and elsewhere in the developing world. He understands 'international' as English-speaking and North American. With a future publication in an English-language journal he hopes to be able to leverage a sabbatical in the USA, where the leaders in his field can be found. This, he hopes, will provide a crucial boost to his career.

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*Factors affecting the success of an international mobility episode*

One of the key factors affecting the success of international mobility is the 'fit' between the needs and objectives of the mobile researcher and the host environment, a theme that has emerged in earlier research on researcher mobility.[31] One aim of mobility might be to gain new knowledge or methods, in which case it is important that they can be found in the destination. One respondent

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[31] See the recent evaluation of the Marie Curie Actions (Watson *et al.* 2010), and the NORFACE study on doctoral mobility in the social sciences (Ackers *et al*. 2008).

noted the contrasts between the knowledge he found in Paris and the knowledge he found in London:

> *[Interviewer: When you went to London and to Paris, do you see in your professional development, do you see any consequences?] I think not much professionally when I went to Paris, but the time in London was a very different case because this research is on recent art approaches, which is a contemporary subject. I met quite a lot of people and it really opened up my mind, the way I look at how things were being done [CH03].*

One element of making an effective 'match' between a mobile researcher and a host institution, and therefore a successful international experience, is ensuring that relationships in destinations are effective and with the right people. One POCARIM respondent spoke of her disappointment with her research leader:

> *Personally I made the decision that the person I was going to work with was not suitable. The experience was not as enriching from a professional point of view [ES23]*

Another reported feeling excluded from the research community of her host organisation. She unsurprisingly reported a lack of constructive outcomes:

> *It's something I've thought about a lot, because I did spend two years there [in France], and I was very frustrated, maybe I came back here [to Poland] with such relief because here everybody wants to include me in their project, both at the faculty and in the [research institute], and there [in France] it was always some psychological problem, I do not know where it came from [PL04].*

Timing and duration also play a role in making international mobility work. For one thing, there is a sense in which the value that can be added through mobility is limited. After a certain time, there is no further benefit to a stay. The following respondent spoke of this tension between further embedding in a foreign environment and returning home. Her decision was partly personal but also pragmatically professional:

> *I think after 5 years in Bolivia I saw that now I have to decide if I would like to stay really long in Bolivia. Not for the rest of my life, but to think whether I should invest more to stabilize my own life there. Or would this be an opportunity to go back to Europe, because I was at the beginning of [my] thirties when I had this decision and I thought that maybe if I would go five years later, it would be too late to get in the market in Europe. It was five years of Bolivia, it was a really good time, this could help me to do something in Switzerland. But if I would have ten years of experience in Bolivia, it would not be. Five years more would not be a value added [CH02].*

The need to plan strategically for longer-term international stays is highlighted elsewhere by respondents who had gone overseas and spent long periods in a foreign system. Longer periods of time imply greater degrees of embeddedness in the cultures, practices and career paths of specific systems. In short, professional profiles developed in one national context do not necessarily travel easily to another. In the following quotation a UK-based German interviewee comments on her experience of trying to negotiate the expectations of an academic career in two different countries:

> *So suddenly I was too broad for England and too specialized for the German academic system. It wasn't a happy situation to be in because I really wanted to embrace the English academic culture but I couldn't do that in Germany. And in Germany where I had always been highly successful, through my focusing on one research area I suddenly became too narrow in my research - oh she's still doing the same [DE24].*

It is not only networks but academic cultures and reputations more generally that may not translate. The particular geographies of French social science have been noted above. The interviewee quoted below spoke of the difficulties she had in her effort to transition from a doctoral position at a prestigious French institution to an early career position at home in Portugal. Her efforts were ultimately unsuccessful and she left academia and research for a policy position. Whilst she perceived the main problem to be her lack of networks in a strongly relationship-based Portuguese system, she also commented on the fact that the cultures and languages of academia, and the reputations of particular academics, did not necessarily travel easily across borders:

> *Only now am I starting to learn a bit of the Portuguese institutional language. But, for me, it is as though I was graduating just now. It's a big barrier. Or perhaps it's not even a barrier. What I feel is that I'm invisible, because they don't understand [my background]. Only a couple of people do. They don't understand what my added value may be [PT03].*

Undertaking a PhD or early career phase overseas can therefore be surprisingly risky – or at least have unforeseen negative consequences. This raises questions of ethics, career counselling and training for institutions recruiting doctoral candidates from overseas. For example, two US citizen interviewees completed their PhDs in Switzerland and the UK respectively before returning to the USA. Back in the US academic labour market, they found their lack of networks to be a severe handicap.

> *I doubt you'll find many North Americans being hired right off the bench to research positions in Europe. And if they have been, they are very well networked beforehand. I have an impression from talking to other people that just all things being equal, sending an application for jobs position where you don't already know or you're not already networked in, there's just no incentive to hire a North American. Which leaves us between a rock and a hard place, because then we come back to the United States I already have a European PhD and they want to hire from within the United States [CH02].*

The two American interviewees were also among a number of third country nationals for whom visa and immigration regulations posed severe and even fatal problems. These non-EU citizen post-doctoral researchers were unable to remain in the countries of their PhD study or to move elsewhere within the European Union, where their experience, knowledge and networks might be put to use.

The need to be well supported and fully informed about the implications of long-term stays in foreign systems is captured in this observation from the UK-based German academic already quoted above:

> *…if you want to change systems permanently and you have not done your PhD in the system it is extremely difficult, and you need lots of support from people and you need to work hard to build up all your publications and networks. [Academics] need to be made aware that the publications culture and the expectations what you need to do in order to become a professor or to get a permanent post in the different systems vary enormously [DE24].*

International mobility experiences of more limited duration can be very productive, but two conditions appeared to affect the usefulness of conference attendance. Respondents suggested that at early career stages it is important to establish one's own professional identity rather than, for example, travelling in order to represent the work of a professor or project leader.

A second consideration is whether the contacts and networks made through mobility are of an appropriate type for a person's career stage. For example, one interviewee spoke of having built

relationships with quite senior academics who, when it came time to publish, overlooked him. Experiences of this type were, however, rare. Far more common were reports of networks and relationships facilitating opportunities to progress in early career.

Of course, ensuring that the type of mobility matches the desired outcomes is also important. One Latvian interviewee, who had taken part in the Erasmus programme as a teacher, reported that whilst her experiences were interesting in terms of meeting students, they were 'superficial' (i.e. not relevant) in terms of her research.

*'Immobile' internationalisation*
Not all researchers are mobile: some by choice stay close to home and limit or rule out mobility of all types as far as they can. For others, however, immobility is enforced by a range of barriers working alone or in combination. The MORE2 study explored these reasons (figure 11), and found that foremost amongst them were family or personal reasons (reported by 67.4% of respondents), followed by funding (52.0%), logistical problems (49.9%) and finding a suitable position (28.0%) IDEA Consult, 2013, p. 169).

Figure 11. Most important barriers which lead to immobility



Source: IDEA Consult, 2013.

Recent research has identified a strong link between international mobility, research outputs, and the internationalisation of host environments (Trippl, 2011; BIS, 2011). The mobility of key actors between geographically and intellectually distinct communities is also seen as playing a crucial role in generating encounters which lead to exchange and innovation. The important point here is that the receiving community is both immobile and receptive to new ideas (Balaz and Williams, (2008); Bathelt *et al*., 2004).

Incoming mobile researchers also contribute to internationalisation because they provide an important channel of international engagement for less-mobile academics in receiving institutions – a phenomenon that has been termed 'armchair internationalisation' (Locke and Bennion, 2010). Although the POCARIM survey results reported above point to the link between international mobility and international activity, there is still a proportion of respondents with no history of mobility who nevertheless are engaged in international collaborations. Based on analysis of the

interviews we can suggest that the international networks of mobile peers are a contributing factor to the internationalisation of these immobile respondents.

Many POCARIM interviewees reported having a mix of national backgrounds amongst their immediate peers and colleagues, which they perceived very positively. On the one hand, international academics bring cultural change and new perspectives more generally. One interviewee [NO02] noted the 'consensus-oriented' culture of Norwegian academia, to which incoming academics bring a 'breath of fresh air.' Another [TU04] spoke of her sense that people coming in from outside could be particularly valuable in bringing new perspectives to local problems.

In addition, incoming internationally mobile academics play an important role in providing access for local colleagues to international networks. In the same way, colleagues leaving for overseas remain part of local networks and provide access to new ones. Moreover, once established, networks can be maintained through virtual means with limited co-presence, though the activities in a given network may vary in intensity as the interests of its members change.

> *You won't be in touch for like for some years or so but I think that's something you can go back to and, say, [get] closer to these people again and ask questions and/or ask favours or whatever, and yes, I think that it works [CH19].*

Other cross-border activities were reported that demanded limited or no mobility, and again the significance of technology was emphasised in many cases. One example was the involvement of respondents in collaborative project and publishing work with partners overseas. Whilst initial face-to-face contact was desirable – and conferences in particular played a significant role here – many reported that, subsequently, email and/or video conferencing was sufficient.

Whilst the outcomes of international collaborations of the types described here are not easily quantifiable, they can be useful in building an international profile. As one interviewee puts it:

> *Apart from the papers, [the outputs are] none. It just shows that I have an international profile as I can work with people from all around the world but that is it [FR06].*

Our interviewees revealed that, where opportunities for travel were constrained, hosting an international conference enabled them to make contact with international leaders in their fields. One respondent had been able to build networks with overseas scholars in his field even though, in terms of travel, he said 'my international career is nearly zero' [PT04]. Another spoke of the opportunities for young researchers at his institution to become involved in international work:

> *We choose an issue that is of interest to people from other countries as well, and send it around Europe, and use this to set up a challenge, a set of issues, both theoretical and practical, so there's fieldwork too. The students are both Hungarian and international – the Hungarian students translate the interviews we make. Then we compile the results. This all only one event, but what takes time is that each time we publish a bilingual book about it. This means first that we have to iron out the materials with the students, and once the manuscript is ready, that's just the first step. Then we look for funding for publication. A difficult factor is that there is no money for translation. So the whole thing can result in years of ongoing work. At the moment we have two unfinished books, neither one is progressing very well, but they keep us busy all the time [HU04].*

*International activity outside academia*
International mobility was a feature of work outside the academic sector, though to a much lesser degree. Women in particular appear to be affected by this phenomenon: the mobility of women within academia is 30% higher than those outside, and for men 23% higher (figure 12).

Figure 12. Percentage of respondents with mobility experience, by job type (within academia versus outside academia) and sex.
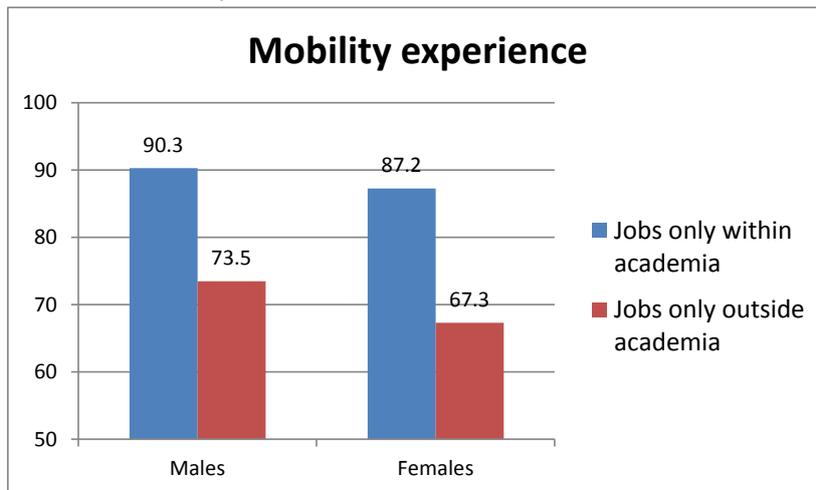


Source: POCARIM

From the comments of interviewees who had moved outside academia it was evident that practices were distinctly different. Some spoke of leaving the HE sector specifically to avoid early career mobility (or, indeed, longer-term types of mobility more generally). It was evident in these cases that those who remained internationally mobile experienced different frequencies, types, purposes and expected/actual outcomes from their visits.

Importantly, a common theme of these non-academic mobilities was that there was an immediacy and concreteness to the expected outcomes which was not evident in academic accounts. In other words, there was rarely a sense that mobility could or would generate any vague or unspecified positive outcomes at a later date; business meetings, workshops or presentations had narrowly defined expected outcomes.

**Conclusions**

International mobility is a feature of work and careers for researchers in the social sciences and the humanities, and an important agenda of policymakers at national and European level. Through a large scale survey we were able to map the patterns of mobility within careers and between countries, and through in-depth interviews we were able to explore the factors that shaped these patterns. We considered a range of mobility types from short- to long-term, including between-job international moves, the factors that enabled or inhibited them, and their outcomes.

- The high degree of international mobility and other types of cross-border engagement suggests that there is a transnational space of SSH research which encompasses the POCARIM and other countries. This space is primarily European, with the UK and Germany playing central roles. However, the United States is also a significant destination for all types of mobility and international engagement.

- The place of each country in patterns of international activity are shaped by a number of factors: cultural, linguistic and historical legacies; research and academic career paths, practices and expectations; and the availability of financial, infrastructural and other resources (including people and reputations). To varying degrees disciplinary traditions can also be associated with particular countries.

- Country-specific factors influence the international activity of SSH researchers in two key ways.
    - Mobility of shorter duration is enabled or inhibited by funding and other institutional or national structures (such as time off for travel), the overall internationalisation of an academic or research system, and the geographical proximity from key centres (and therefore costs of travel).
    - Mobility of longer duration, and in particular cross-border career moves, can also be problematic in country-specific ways. For example, a professional profile established over time in one country may not translate to another country. This may be because a narrower set of interests or different activities is valued, or because an incoming researcher lacks the necessary networks to be able to identify or be considered for opportunities.

- Therefore, whilst there is evidence of a transnational labour *pool* in SSH research, labour *markets* remain in many ways nationally specific. The UK's very open labour market, for example, contrasts dramatically with the closed labour market in Italy, in spite of the fact that both countries could potentially draw on the same population of mobile researchers.

- National characteristics and traditions are not determining, however. We also find evidence of changes in patterns of international activity occurring in both 'bottom up' and 'top down' ways. For example we see a reorientation of former Soviet Bloc countries which reflects wider national and European trends; and we see the influence of European funding on the geographies of interactions in large-scale research projects.

- The most commonly reported forms of mobility amongst the POCARIM respondents were of short to medium duration. These included travel for conferences and workshops, fieldwork, and in order to conduct cross-border collaborative search. There were fewer instances of mobility of longer duration or which were open-ended or permanent.

- We find benefits to international mobility both in the survey and the interviews. The survey shows a relationship between mobility and impact, which is that respondents reporting international mobility more frequently reported a range of impacts from their work.

However, it is difficult to say what direction the influence travels. In the interviews numerous positive outcomes of international mobility were reported. These included straightforward knowledge transfer and acquisition, an understanding of different perspectives and academic cultures, and the establishment and maintenance of networks.

- Moreover, we find that researchers who are internationally mobile are more likely to be engaged in international collaborations. Therefore, countries with a high proportion of internationally mobile researchers are also more likely to have a high level of international collaborations. This was found to be the case for all countries except Turkey, which had a lower than expected level of collaboration.

- Different durations of mobility are related to different outcomes. For example, frequent, short trips enable networks to be established and to grow. Longer-term trips are associated with greater embedding in, and understanding of, host academic cultures, although there is a limit to the degree to which additional time adds additional value.

- For countries which are relatively peripheral or in which funding for international activity is limited, welcoming foreign researchers to conferences and workshops or to longer-term fellowships enables relatively immobile researchers to build networks and play a role in international communities.

- The role of mobility in the lives and careers of SSH academics is not uncomplicated, however.
  - In some cases mobility can be more forced than desired. In terms of long-term mobility this could be the case if there is a strong expectation or a formal requirement for foreign experience in order to secure a job at home; or where the national labour market is effectively closed and researchers are forced to go abroad for work.
  - Shorter trips can also be disruptive to personal and professional lives. Often there is inadequate support at institutional level or at home to enable mobility when it is desired. This can be particularly problematic for researchers in geographically peripheral places. It is also likely to be a factor in the relatively lower levels of mobility amongst women.

- It is not sufficient to merely be present in a host environment for the benefits to accrue. To maximise the knowledge and network returns from longer international stays, mobile researchers must develop positive social and professional relationships with peers.

- Experiences of international mobility at early career, PhD or pre-PhD phases contribute to a positive view of the value of mobility later on, and a disposition to international activity.

**Policy recommendations**

1. Policymakers need to recognise existing patterns of international activity, in particular the ways these patterns are influenced by national configurations of traditions, resources, disciplines, career paths and labour markets. In order to facilitate greater integration across national borders, more research is recommended to identify the ways in which these characteristics inhibit or shape mobility in specific national contexts.

2. There are potential tensions between mobility and immobility within SSH research careers, and also between the potential career and knowledge outcomes of mobility. This is an area in which further research would lead to valuable understandings.

3. The value of international experience is clear. However, SSH researchers should be fully informed about the opportunities and risks of international mobility, and provided with strategies to facilitate positive experiences. Such information would have greatest value at doctoral phase and early career stages, and we recommend it be incorporated into researcher training at these stages.

4. The significance of mobility during doctoral and post-doctoral phases points to the value of supporting longer-term stays through which researchers are more able to establish meaningful and enduring social and professional relationships, and gain deeper understanding of knowledge cultures elsewhere. Because researchers tend to be younger and less inhibited by responsibilities at during these phases, they are more likely to be willing and able to take advantage of longer-term mobility opportunities, and requires less support (financial and other) compared to older researchers.

5. Later on in careers, due to family and other responsibilities, longer stays tend to be less manageable. However, researchers at these career points can be expected to be already established in cross-border communities, and to be more competent networkers and knowledge agents. For these researchers, funding and support for shorter trips can be a sufficient and cost-effective way of achieving the knowledge and network outcomes of international mobility.

6. Support should be provided for departments and institutions in peripheral or transitional countries to enable the inward mobility of leading researchers through shorter (i.e. conferences) or longer (i.e. fellowships) visits. In this way relationships and networks can be established that provide essential connections to international fields, knowledge and skills, as well as career information and opportunities. There is an important equality dimension here: to the extent that women and those with caring responsibilities are particularly affected by the factors that limit mobility, they will also benefit from the opportunities brought in through inward moves. In addition, through building networks and other channels for engagement and knowledge exchange, inward mobility of this type will help to counter the brain drain from peripheral institutions and regions.

7. The positive perception of international collaborative activity points to the success of existing policies in this area. However, the slight suggestion that partnerships could be instrumentally designed to meet the requirements of a funding call rather than for the optimum research outcomes could be addressed, for example, through hosting conference-style events at which researchers focus on an issue and establish potential research partnerships.

8. There is potential for policymakers to influence the structure of international activity and to promote the growth of fields in particular countries. The powerful magnetic attraction of key

centres and individuals in particular fields points to the potential of strategic investment in particular places that could encourage inward flows of researchers in those fields.

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