

Analysing the chances and risks of mobile researchers and their partners/families within Europe

Introduction

TANDEM (acronym for “Talent and Extended Mobility in the Innovation Union”) is a transnational collaboration project within the European Union’s FP7 programme among the Dual Career Advice and Integration Services (ETH Zurich and University of Copenhagen) and the Euraxess Service Centres (in Bratislava, Copenhagen, Tartu, Thessaloniki and Zurich). The main aim of the TANDEM project is to analyse the mobility obstacles of researchers and their partners and family members, and to show various strategic and institutional ways of minimizing them. A special focus lies on talents’ support on a postdoctoral level and on female researchers in their academic careers.

Experience shows that young researchers choose countries and institutions, which offer a smooth transition with the least friction loss and a longer-term perspective for both their career and their private life. Thus, institutions need not only to offer an excellent and intellectually stimulating research experience and environment but also need also to address the social and cultural context and situation of the individual researcher. Despite social and cultural changes over the last decades, it is still mainly female researchers who face a dilemma building their career and being mobile while considering when and if they have children. Hence, there is a strong need to integrate high quality services with a wide range of co- as well as extra-curricular opportunities such as dual career services, child care options and recognitions of schooling approaches across countries if a country or an institution wishes to be attractive for the best researchers.

As mobility always requires an adaptation period to cope with culture shock, integration and orientation issues, dual career and integration services (DCIS) are one means to allow researchers to successfully continue their work despite the geographical move, as those services take care not only of the mobility obstacles but also help establish a satisfying work life balance. Therefore, the specific objectives of the present project include 1) an analysis of the current DCIS and how they can be adapted to the different career steps and therefore to the varying needs of the researchers, 2) a creation of a modular system adaptable to different institutions and their characteristics, and 3) a focus on the countries in the Tandem-research consortium (namely the above mentioned Denmark, Estonia, Greece, Slovakia and Switzerland) with a trend to brain drain by studying how DCIS could influence positively and support brain circulation.

In a very first step, under the guidance of ETH Zurich, a survey was conducted in the five participating countries (DK, EE, GR, SV and CH), and additionally in

the following European countries: Austria, Germany, Finland, Norway and Sweden. The reason for the latter selection was that Denmark maintains good relations (with a relatively high number of researchers moving right across the border for career purposes) to the Northern countries and Switzerland maintains good relations to its neighbouring countries Austria and Germany also due to language reasons. We therefore reached a higher response rate and a broader picture with little effort.

Although the introduction of DCIS is an answer to the changing situation that requires from the researchers to be mobile, there is not much data about the obstacles and needs of mobile researchers (and their partners & families). The analysis of this situation within the individual countries and the comparison between them should show in which countries and of which institutions DCIS are offered and/or how DCIS ideally should be designed so that the needs of mobile researchers are adequately met. Furthermore, we wanted to learn from the people concerned, which DCI initiative they consider to be the most important and which measure in their eyes would be most efficient and be the most needed and best accepted.

Methods

Initially, information was collected about the current state of DCIS, mainly in Switzerland and Germany, as both are regarded as highly advanced concerning DCIS. Based on this material, an interview guideline was created and semi-structured interviews were conducted with several people from various backgrounds mainly in Switzerland but also in Germany and the UK ($N = 11$). The people asked represented the most important target groups and key players such as service providers from the university and the private industry, postdoctoral researchers, and people on an assistant as well as full professor level as well as their spouse/partner (where applicable). The aim of the qualitative interviews was to gather material for the subsequent surveys.

Based on the interview material, a first survey draft was presented at the kick-off meeting of the TANDEM project in Zurich in October 2012. The aim was to have feedback from the very diverse member countries in order to adapt the survey in a way that each country is satisfied with the result. After the meeting, the member countries performed their own interviews in order to get a clearer picture about the situation of their own country. A final version of the survey including all the feedback of the member countries was developed. However, each country still had the possibility to add individual questions to their own country version to allow for specific national aspects and questions to be included.

Each country used its own distribution systems to reach as many researchers as possible who would fill in the survey and would likely send it further to their partner if applicable. The survey was programmed using an online tool (QuestBack Unipark), so it was not only more convenient to distribute the survey by using e-mail

with a direct link that would guide people to the respective page, but also easier for the data collection, as no further equipment was needed to read in the data. A disadvantage of the used method was that we would never know how many people have been reached in the end, as most of the partner countries had to ask their colleagues from other universities to distribute the survey within their institution. Thus, we will never be sure whether the survey reached all researchers at all universities within a country. This has to be taken into consideration when looking at and interpreting the data, as the sample might not be as random as one might have wished it would be. However, the error should be non-systematic, thus, we expect the results to be representative.

In order to have a common ground for all people within all countries answering and working with the survey, we defined the most important terms at the very beginning of the survey. The definitions were as follows:

Dual Career Couple

A couple where both partners pursue a career and aim to have a gainful employment. They may work either in academia or outside.

Integration Initiatives

Integration initiatives are related to the questions after an international move which are relevant for the well-being and settling of the new hires and their families in the new place.

Mobility

Mobility relates to geographical and intersectoral mobility, not to social mobility.

In addition to the survey for the researchers and their partners, a survey for the service providers was developed and distributed in the member countries. Unfortunately, we did not reach enough service providers within each country and thus, data analysis could not be based on a big enough sample to be able to make any general statements. The aim of the provider survey was to also get an idea of the offers within the private industry apart from the universities and research institutions, as dual career services would be definitely useful to extend to the private industry, since a dual career couple in our definition does not exclusively consist of two scientists or researchers working in academia or a research institution. Furthermore, we also wanted to find out to what extent employers currently are responsive to dual career and integration aspects and how far they go in their support of their new hires. We wanted to find out if service providers in the private sector offer more generous DCI packages than universities.

Results

In total, more than 3000 researchers and their partners mainly from Europe but also from other continents have answered the survey. Through the Euraxess network, we could also gather enough data for analysing the situations in the following countries next to our ten target countries: France, *Italy*, Spain, United Kingdom and United States. Although Italy did slightly not reach a large enough sample size, we still included the results in the attachment, as Italy is an important partner country for many of the other investigated countries. Thus, the present results provide a very deep and broad insight into the opportunities and challenges of today's highly mobile researchers.

In the following, when speaking about researchers, we mean researchers *and* their partners if not indicated differently. The majority of the samples consist of doctoral and postdoctoral researchers, which were also the target audience, most of which are first hires and not second hires. When speaking about countries, not specifically mentioning which, it refers to a general statement that is true for all countries that had the minimum amount of people to make a statement. Thus, we only state results about the countries that have enough participants within a single calculation. Which countries those are for each single calculation can be withdrawn from the attachment.

The attachment includes results of three of the open questions, given as pie charts, that have been categorised based on a qualitative analysis of the data. For the interpretation of the results of the open questions It is important to know that only the first obstacle, challenge or positive aspect, respectively, have been categorised.

In the attachment, the results are always given for five countries as a comparison. The first reason is that initially, only the results for the member countries were calculated (DK, EE, GR, SV and CH) for the second meeting in June 2013 in Thessaloniki. Then, the results for the five additional countries that had a separate country link were calculated (AT, FI, DE, NO and SE). And last, we analysed data for the following countries: FR, ES, IT, UK and US. Those were the ones that had enough participants to make general statements, mainly gathered through the Euraxess-network link. However, the results for the US are not incorporated in the present paper, as this is a purely European perception. Another reason why we did not combine the results for all countries into one document is that it would have become too confusing for the reader.

The majority of the researchers are on a doctoral and postdoctoral level, and **most have lived in two to three countries since they started their higher education** (e.g. Bachelor studies), except for AT, SE, ES, and SV. In those countries also many researchers have never been mobile since they started their higher education.

Those researchers in CH that have indicated to have never been mobile since starting with their higher education said to 50% that they like to live in CH. Additional-

ly, a third each indicated that they find it difficult to match mobility with their private life and their partner's career plan. A similar result can be found for SE where also 52% indicated that they simply like to live in their country, 41% stated that they find it difficult to match it with their partner's career plan, and 39% stated that they never saw the necessity to go abroad.

In most countries except FR at least **40% up to 60% moved with a partner**. About 30% in most countries have children (ES: 45%), except for FR and FI where this number is much lower (9% and 18%, respectively).

Most of the researchers in all countries have a European nationality and a Master degree from Europe. It is DK and FI that have more non-European researchers compared to the other countries, even though 63% and 62%, respectively, still are Europeans. However, only about **60% have previously lived in another European country**. This number is even lower for Sweden (47%). Those who did not move from a European country have mostly moved from the United States.

Researchers in all countries indicated that **being mobile highly affects their private life plan**. Researchers also clearly indicated that they went abroad because it was important for their career and not due to the fact that there were no opportunities in their own country. Researchers also indicated that they are not strongly professionally connected to their home country. For all countries researchers indicated that their **professional integration is better than their private integration**, except for ES where this number is about equal. However, there is much room for improvement for both aspects in all countries.

When researchers were asked as an open question what the biggest obstacles were within the first three months after arriving in their current country, for most countries **it is language and culture they struggle most with**. In NO and SE it is also administrative/bureaucratic issues that are stated as a big obstacle. In the UK it is clearly administrative/bureaucratic issues that are the biggest obstacle, which might be explained by UK being an English-speaking country thus not adding the language barrier to the complex transition phase of the international hires. When asked to state the most challenging aspects about mobility in general, researchers clearly indicate social aspects as the most challenging. This means that it is difficult to establish new friendships, but it is also difficult to maintain old friendships. Moreover, **researchers miss their family and friends, also as a support network**. Asked what the most positive aspects of mobility are in general, researchers rather gave a diverse picture whereby the possibility to have new experiences, the chance to discover new cultures, one's personal and social enrichment, and occupational advantages were stated about equally. Still, when asked to weigh the positive and negative aspects about mobility against each other, **researchers rated mobility as rather more positive than negative in general**.

In CH, ES and UK the majority has never made use of integration initiatives neither formal nor informal whereas in DK, FI and DE the majority has already done so. In FR, SE and NO the distribution is about equal. As integration support was in-

indicated as highly important within all countries and from those who did not make use of integration initiatives, the majority would have wished to have such a support in most countries, one can conclude that there really are no integration initiatives for those countries at least for doctoral and postdoctoral students.

The survey included a ranking task that aimed to force people to trade the following aspects against each other according to their importance when arriving in a new country: living/housing, public authorities, taxes, language course / intercultural knowledge/training / culture, leisure, social policy, dual career and childcare/school. Researchers without a partner and without children clearly indicated that living/housing is the most difficult aspect. However, as soon as researchers have a partner and/or children, **dual career and child care/school are ranked as the most important aspects next to housing/living.**

Whereas the majority in DK has heard of (formal or informal) dual career services, in CH and SE most researchers have never heard of it. In NO and DE about half have already heard of (formal or informal) dual career services. Just as for integration initiatives, dual career services are seen as highly important by researchers in all countries and the majority of those that have never heard of dual career services would have wished to have such a service, at least in CH the only country that had enough respondents for this question. Moreover, the existence of **dual career services would clearly make a difference on researchers' final decisions** if they had more than one job offer. Although highly controversially discussed at the service provider's level, the researchers consider dual career services as highly positive.

In CH, second hires indicated to rather prefer to have help finding the best match for their career than to receive a job offer from the partner's institution with the best possible matching. This clearly shows that they prefer to be the active person who shapes his/her career him/herself instead of being offered something out of "goodwill" which is a temporary solution and which may cause problems of acceptance and respect (accusation of nepotism). However, both options were rated as rather desirable. Also, second hires would rather accept a position in a slightly different area from their educational profile than a position they were actually overqualified for.

Within the first hires, 22% to 39% of the couples made about the same amount of compromises within their career to match the career perspectives of the partner whereas between **59% and up to 75% of the first hires state that it was their partner who made more compromises.** Consequently, the picture is upside down for the second hires as we know of the Swiss sample where about 41% of the couples made about equal compromises to match the career perspective of the partner, however it was the second hires themselves, thus 53%, who made more compromises to match the career perspectives of the partner, i.e. a first hire.

When asked to state whether they think that the structures in the *institution they work* support a balance between private life and career, researchers in CH, DE and SE rather gave an average approving rating whereas researchers in NO and

especially DK gave a rather highly approving rating. When asked to state whether they think that the structures in the *country they live* support a balance between private life and career, researchers in DE again rather gave an average approving rating whereas researchers in NO and also SE and especially DK gave a rather highly approving rating. Researchers in CH however even gave a below average rating.

Researchers with children strongly indicated that they would have had a faster advancement of their career without children and they would have had more publications. However, they did not necessarily state that they fear to have less quality in work or less motivation with children. When asked to assess several options for a better work-life balance, **researchers assess flexible work hours as highly useful, followed by help with childcare and unlimited work contracts.** It is not necessarily part-time work that they rate as most useful.

Discussion

Mobility clearly affects researchers private life plans. Thus, being mobile is already a conflict in itself. Being mobile is a clear decision also for one's career, as researchers strongly state that they do it for career reasons and not because there are no possibilities within their home country.

Researchers state a number of different reasons when asked for the most positive aspects about being mobile. Although these aspects together with the decision for one's career probably let people conclude that in general mobility is rather positive than negative, it is clearly the social aspects that are most challenging for them. Therefore, **it is the social topics that should be taken care of in order to improve mobile researchers' situations.** Researchers state that the loss of their social support network is one of the most challenging obstacles they face abroad. This especially becomes important for partners with children, as **they are completely reliant on third party help when it comes to childcare.** Another indication that childcare is an important topic could be seen when researchers with children were asked about the best option for a better work-life balance. It was help with childcare and unlimited work contracts next to flexible work hours that were most preferred.

Limited work contracts make it difficult to plan the private future. It is a high-risk situation for a couple to follow the partner or one of the partners in the academic career, because the job perspectives of the partner are unclear and the financial security is not guaranteed. One academic salary is often not enough to support a family. The possibility of getting assistance with issues like dual career, childcare and housing would definitely help researchers to reduce this insecurity.

The strong demand for flexible work hours can be interpreted as a fact that researchers like their job and would not like to reduce their workload. However, it could also be interpreted in a way that they are aware of the fact that they cannot work less in case they would like to progress their career. A third interpretation could

be that they definitively like to be more involved in childcare. Whatever the reasons might be, **flexible work hours should not be the most challenging measure for universities to implement into their structures**. Still, this was a somehow surprising result, as one would have expected that they might also ask for part-time work in a researcher's position. Institutions and especially universities should be aware that **researchers with children indicate to have fewer publications and progress their career slower**. This circumstance **should be taken into consideration in application procedures and tenure procedures**.

Childcare/school, dual career services and living/housing were ranked as the most important topics when arriving in a new country. Thus, **living/housing should clearly be taken care of for incoming researchers**, as it obviously affects all and would make a huge positive impact if improved.

About 40-60% of the researchers moved with their partner. Thus, also dual career is not a topic that affects only few researchers. This situation should especially alarm CH and SE where almost none of the surveyed researchers have ever heard of dual career services, because researchers clearly state that the existence of a dual career service for their partner would influence their final decision if they had more than one job offer. Looking at the high number of second hires that have to make compromises within their career because of the mobility of their partner, it becomes evident that **dual career services would help to improve this very dissatisfying situation for people living in an equal partnership**.

In general, it is clear that **for doctoral and postdoctoral students**, the target audience that at the same time also comprises the majority of respondents, **there are not enough or at least not good enough integration initiatives and dual career services**, be it on a formal or informal basis, even though there are differences between countries. For all countries, there was room for improvement be it for private integration or professional integration. Each university should be interested in improving the integration and dual career situation, as there are not only the best professors, there are also the best doctoral as well as postdoctoral students. If an institution does not want to shrink artificially the pool of possible world class candidates, it should also invest in those social factors and not only in research related benefits, as otherwise, **it is left with the people who are ready to sacrifice their private life which are not necessarily also the best researchers or ideal employee**.

Conclusion Europe

The existence of integration and dual career initiatives varies widely between European countries. Surprisingly, it is not the countries with the best and most financed research environment that offer the most initiatives, such as Switzerland and Sweden. One possible explanation could be that they are research wise attractive

enough and do not need to offer additional incentives for world class mobile researchers. The question is how long those countries can keep this exclusive position in Europe. This will closely be accompanied by the European aim turning brain drain into brain circulation within Europe.

The European research population still is a male population of up to two thirds although women are catching up.¹ This situation is against what one would expect knowing that women form the majority of graduate students at universities. However, the female percentage constantly falls reaching the doctoral preparation stage. At the top level, e.g. full professorship, only 20% of women are left. One quoted reason is that female researchers have been less mobile than male researchers. The present results clearly reveal that researchers are mobile for career reasons. The question is where do all the highly educated female researchers work and isn't it a waste of talent and a huge economical loss to not have them integrated better into the academic or research system.

According to estimates, there will be a high demand for well-educated professionals, technicians and managers worldwide in the near future.² So far, many governmental and business leaders have long relied on migrant workers to fill the talent gaps. However, it is also said that this will not be enough to minimise the upcoming talent shortfall. Thus, one strategy will be to rely better on the skill sets of women. Therefore, to extend the talent pool, one needs to make childcare easily available and one needs flexible work schemes to name only a few. The same demand for help with childcare and the need of flexible work hours has been found in our data for men and women. It is clear that with children the career is slower and the publications are fewer. However, the solutions researchers ask for do not represent insurmountable barriers and moreover they do not affect work load. The impression is that it is not necessarily the framework conditions that are not given, but especially the fact that those framework conditions are not brought to live from the people within institutions. And maybe it needs one more generation to finally implement equality of men and women when it comes to bear the brunt of work balancing career, childcare and keeping the family happy. Still, some countries like Denmark do already pretty good on the subject. It thus seems to be possible. Consequently, it is important that not only companies understand this but also that the government takes measures, as they determine the boundary conditions.

Still, countries will remain highly reliable on migration.² Thus, migration policies need to be improved in order to ease migration. Most mobile researchers within Europe have a European nationality and most have a Master degree from a European country. However, many are directly recruited from the United States. It seems that many researchers from Europe go once to the United States in their early ca-

¹ European Commission (2013) She Figures 2012. Gender in Research and Innovation. Statistics and Indicators. Luxembourg: Publications Office of the European Union.

² World Economic Forum (2011). Global Talent Risk – Seven Responses. Geneva: World Economic Forum.

reer, but then come back. One speculation would be that they miss being close to their family and friends, the reason that was named most often for the biggest challenge of being mobile. Thus, as a brain drain country, you should offer return packages and also offer spouse career services and childcare programmes for the returning people.²

Young researchers choose countries and institutions, which offer a smooth transition with the least friction loss and a longer-term perspective for both their career and their private life. The reason why universities should be especially sensitive to work-life balance issues is the fact that researchers are more likely to have children than the working population in general independent of their sex.³ Thus, there is a clear demand for European universities to solve the childcare problem, as this was strongly stated as highly preferable for a better work life balance next to flexible work hours and unlimited work contracts. Moreover, European countries should be highly interested to invest in solid, prominent and professional dual career services. It will not only attract world class researchers but it is an additional economical win for a country, as most second hires are well educated, having at least a Master degree, many even hold a PhD. It will pay off in the future, not only as an additional win to reduce the predicted talent shortfall, but it will bond the world class researchers to their institutions and their new country.

It is culture and language that are among the biggest obstacles for foreigners within all investigated European countries. However, it is also an advantage of Europe to have cultural and lingual diversity that makes Europe so unique to live in. Foreigners can not be expected to perfectly speak the language of a new country from the beginning and European countries should try to strongly assist foreign researchers with integration and dual career topics. At the same time it is the researchers that should be aware that it needs an effort to learn a language and to immerse in another culture to be able to fully integrate. Most of the researchers also indicate those new experiences and the learning about new cultures as a big advantage of being mobile. It needs both sides to take an effort in order to make the most of (requested) mobility.

Our personal conclusion is that the expectations from the researchers' side and the possibilities from the institutional side are not that far away as one might think after reading the present report. Some of the major obstacles are language and culture. It is clear that as an institution one cannot change cultural issues, however, the access to free or cheap language courses also for partners and family members would be a relatively easy task. Additionally, one could think about cultural awareness trainings. We consider a minimal amount of integration and dual career services from the institutional side as part of the social responsibility they have to take when actively wishing to attract and recruit the best talents worldwide.

³ European Commission (2013) She Figures 2012. Gender in Research and Innovation. Statistics and Indicators. Luxembourg: Publications Office of the European Union.

The same initial support as for dual career solutions is needed for childcare and housing, as these two also address basic needs. Unsolved, they will hinder researchers to produce great work, which actually was the initial reason why they have been hired over from abroad. What is needed is a common consciousness about the situation for all parties. It is clear that institutions cannot find the perfect position for partners, offer day care places for all foreign hires' offspring and offer an inexhaustible reservoir of apartments to rent at the same time. However, a foreign researcher (with partner/family) needs to be assured that her/his institution can provide her/him with information about the most important topics and offer a certain degree of active support on all those basic needs as part of their social responsibility.

The aim should be to help people to help themselves. It is clear that in the end, researchers have to integrate themselves and this needs an extra effort that they should make. However, as each country also profits from this international recruitment, we as a society should become more open. Mobility is a fact, integration is not. Institutions, the biggest profiteers of this change, should thus pioneer.

Conclusion Sweden

Sweden had the second biggest sample among all countries, most people answered from the Chalmers University of Technology, followed by the Karolinska Institute, the Stockholm University, the Lund University and the University of Gothenburg. Sweden recruited many researchers from outside Europe, especially from the United States, compared to the other European countries that mostly recruited within Europe. However, most of the researchers in Sweden have a European Master degree and a European nationality, meaning that although they more often than other countries recruit from outside Europe, they still recruit Europeans or at least people educated within Europe. Another remarkable result was that many researchers in Sweden have never been mobile since they started with their higher education (e.g. Bachelor studies) compared to many other countries. The reasons they indicated were that they like to live in their country (52%) and never saw the necessity to go abroad (39%). However, some also stated that it would be difficult to match with their partner's career plan (41%).

An interesting result for Sweden was that when asked for the biggest obstacles when arriving to Sweden it also was language and culture, as for most other countries, however, housing and administrative/bureaucratic issues was indicated from about the same number of people. **Most researchers on a doctoral and postdoctoral level have never made use of integration initiatives within Sweden.** More than fifty per cent would have wished such a support and only about ten per cent were sure that they would not have wished integration initiatives. Surprisingly, more than a third of those who have never made use of integration initiatives were unsure about whether they would have wanted such a support. However, given the

fact that most researchers stated that integration initiatives are highly important for researchers, Sweden should definitely think about improving this situation.

Living/housing should be taken care of in Sweden, as this was ranked as highly important next to child care and dual career within the ranking task. Especially, as housing was already often mentioned for the open questions as a big obstacle. Additionally, **child care/schooling and dual career services were indicated next to living/housing as highly important**. Also, help with childcare was clearly stated as highly preferable for a better work life balance next to flexible work hours and unlimited work contracts. This subject should definitely be a focus for integration initiatives in Sweden. However, in comparison to many other European countries, **Sweden as a country was perceived as highly supportive to balance private life and career**. The rating was only average on an institutional level, thus, universities have room for improvement, as it seems that the country boundaries are very favourable for improvement within this topic.

There is also **room for improvement for the investment in dual career services**, on one hand due to the fact that dual career services would influence researchers final decisions and on the other hand due to the fact that most researchers rate dual career services as highly important. The majority has never heard of dual career services in Sweden, but many indicated to have wished such an offer. It is more than 93% of all respondents of the Swedish sample that have at least a Master degree, many even have a PhD. Thus, most second hires are highly educated. This situation offers an economic win for Sweden that should be made use of.

This report has been written by Dr. Alexandra Zingg, scientific leader of the first work package of the TANDEM project in August 2013. She has been assisted with many useful comments and inputs throughout the preparation, conduction and reporting phase of her project part by the following TANDEM project members: Madeleine Luethy, Susanne Schuler, Sibylle Hodel, Sofia Karakostas and Dr. Thomas Eichenberger. For more information about the report, please contact Dr. Alexandra Zingg (alexandra.zingg@sl.ethz.ch). For more information about the first work package, please contact Madeleine Luethy (madeleine.luethy@sl.ethz.ch). And for more information about the TANDEM project, please contact Sofia Karakostas (karakostas@sl.ethz.ch). All information about the members, on-going activities, and results of the TANDEM project can be found at: <http://www.euraxess-tandem.eu/>.