

MOBILE MINDS

Survey of foreign PhD students and researchers in Finland

Kaisa Puustinen-Hopper



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Tekijä(t)	Kaisa Puustinen-Hopper		
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Tiivistelmä	<p>Keväällä 2004 toteutettiin CONNECT-Finland projektin puitteissa kyselytutkimus Suomessa asuvien ja Suomeen muuttavien ulkomaisten tutkijoiden ja jatko-opiskelijoiden informaatio- ja neuvontatarpeista. Projekti on Suomen Akatemian koordinoima ja Euroopan Komission rahoittama.</p> <p>Kyselytutkimuksen aineisto kerättiin verkko- ja postilomakkeella. Kymmentä Suomessa asuvaa ulkomaista tutkijaa ja jatko-opiskelijaa haastateltiin. Vastauksia saatiin 859. Kyselytutkimuksen tavoitteena oli a) selvittää ulkomaisten tutkijoiden ja jatko-opiskelijoiden tärkeimmät informaatio- ja neuvontatarpeet ulkomaille muuttaessa, b) selvittää kuinka tyytyväisiä ulkomaiset tutkijat ja jatko-opiskelijat ovat suomalaisiin informaatio- ja neuvontapalveluihin, ja c) hyödyntää kyselytutkimuksen tuloksia ulkomaisille tutkijoille ja jatko-opiskelijoille suunnattujen informaatio- ja neuvontapalveluiden kehittämisessä. Ulkomaisten tutkijoiden ja jatko-opiskelijoiden informaatiotarpeisiin vaikuttavat elämäntilanne ja jossain määrin myös tieteenala ja kulttuurinen tausta. Myös muut seikat, kuten perheellisyys, vaikuttavat palveluiden tarpeisiin ja siihen mitkä tekijät ovat merkittävimpiä muutettaessa uuteen maahan.</p> <p>Kyselytutkimukseen vastanneet ovat arvioineet, kuinka tarpeellisia ja tyydyttäviä ovat informaatio- ja neuvontapalvelut asumisesta, terveydenhuollosta, maahanmuuton muodollisuuksista, sosiaaliturvasta, verotuksesta, kieliopinnoista, IPR ja tutkimusetiikasta ja perhepalveluista. Vastanneet ovat myös arvioineet sitä, kuinka helppoa on kommunikoida virastojen kanssa. Ulkomaiset tutkijat ja jatko-opiskelijat ovat yleisesti ottaen tyytyväisiä saamansa informaation ja neuvonnan laatuun. Kyselytutkimuksen tulokset osoittavat, että Suomeen saapuvien ja Suomessa asuvien ulkomaisten tutkijoiden ja jatko-opiskelijoiden informaatio- ja neuvontapalveluiden on oltava keskitettyjä ja proaktiivisia.</p> <p>Kyselytutkimuksen tuloksiin perustuen CONNECT-Finland -projektin ohjausryhmä on laatinut suositukset tutkijaliikkuvuutta tukevien palveluiden kehittämiseksi Suomessa.</p>		
Asiasanat	Kansainvälinen tutkijaliikkuvuus, informaatiotarpeet, asuminen, terveydenhuolto, maahanmuuton muodollisuudet, sosiaaliturva, verotus, kieliopinnot, IPR ja tutkimusetiikka, perhepalvelut		
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Description

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Title	Mobile minds. Survey of foreign PhD students and researchers in Finland		
Abstract	<p>The survey of foreign PhD students and researchers in Finland was conducted in spring 2004 as part of the CONNECT-Finland project. The project is co-ordinated by the Academy of Finland and funded by the European Commission.</p> <p>The survey data was gathered by both online and postal questionnaire. Interviews were conducted with ten foreign researchers and PhD students in Finland. 859 responses to the questionnaire were received. The aims of the survey were a) to find out what are the most important information needs of foreign researchers moving abroad, b) to find out how satisfactory foreign researchers find Finnish information and guidance services, and c) to use the gained information to further develop information and guidance services for foreign researchers living in Finland and coming to Finland.</p> <p>The information needs of foreign researchers and PhD students concerning living in Finland vary according to their life situation and, to some extent, to their research discipline and cultural background. The individuals' characteristics have an impact on which services are needed and which factors are considered as most important when arriving in a new country. The respondents were asked to evaluate the importance and quality of information and guidance on housing and accommodation, health care, immigration formalities, social security, taxation, language learning, IPR and research ethics issues and family matters. Respondents have also evaluated how easy it is to communicate with Finnish governmental agencies. Foreign researchers and PhD students in Finland are generally satisfied with the quality of information and guidance they have received. The survey results prove that there is a need for more proactive and centralised information and guidance services that meet the needs of foreign researchers and PhD students arriving and living in Finland.</p> <p>Based on the survey results the Steering Group of CONNECT-Finland has made recommendations concerning the development of services that support researcher mobility in Finland.</p>		
Key words	International researcher mobility, information needs, housing and accommodation, health care, immigration formalities, social security, taxation, language learning, IPR, research ethics issues		
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1. Introduction

Researcher mobility is of interest to universities and companies in Finland and elsewhere. From the nations' economy point of view, foreign researchers and students might be a brain reserve that has potential to contribute to the economic growth of the country, but they are culturally valuable as innovative individuals as well. Very often discussion on researcher mobility is diminished to discussion on brainpower, battle of the brains and the like, and researchers' needs of guidance and social contacts are left with little or no attention. Often researchers are fairly an invisible – although central – resource for the development of societies, and therefore the career in research should be maintained, developed and promoted as a good choice for a career.

A survey was conducted as a part of European Commission funded project Connect-Finland, which is coordinated by the Academy of Finland. This report is based on the survey of the needs of foreign researchers in Finland and on interviews with ten of the survey respondents. The secretariat of CONNECT-Finland has prepared and conducted the survey and interviews to find out the backgrounds and information needs of foreign researchers in Finland. The aim is to recognise and address the various needs that researchers have concerning life in Finland. Based on the information gathered by quantitative and qualitative methods, deficiencies have been recognised in information delivery, and foreign researchers' most important mobility motives have also been identified.

The Steering Group of CONNECT-Finland has formulated recommendations for the development of academic mobility, and these recommendations stem from the survey results. The recommendations will be discussed in the meetings of the Finnish network of public authorities. The network was established in autumn 2004 to communicate issues that are specific to foreign researchers and students arriving in Finland. The aim is to develop the co-operation of public authorities to be more cohesive in regard to researcher mobility.

2. Data and Method of Analysis

The questionnaire (Appendix 1) was sent to foreign PhD students and researchers from 18 Finnish universities and 15 other research institutes. It was also sent to nine private companies. The sample consisted of 1,986 individuals and personnel from nine companies. Universities and research institutes co-operated with the CONNECT-Finland secretariat and gave the secretariat lists of students' and researchers' e-mail addresses. The Centre for Educational Assessment¹ was contracted to perform the technical realization of the survey. They sent invitations to each of the listed recipients asking them to fill in the online questionnaire. The invitation was sent by e-mail to 1,691 people and by post to 295 people whose e-mail addresses were not known. Most of the target group members were given individual or respondent group user names and passwords for the online questionnaire. The reply percentage was 44%. This is satisfactory considering that the questionnaire invitation was sent to all non-Finnish PhD students and researchers in 18 Finnish universities and 15 research institutes. For the R&D personnel in the private sector, group user names and passwords were given to the companies' HR departments. The departments sent the invitation to the questionnaire internally to those members of personnel who were applicable. There were only a few replies from researchers from two companies. It is not known how many foreigners work in private sector R&D in Finland. The Questionnaire was designed by Santtu Mäkinen in collaboration with the Steering Group of Connect-Finland.

Survey data has been processed by using the SPSS 12.0.1 for Windows program. The results presented in this report have been achieved by looking into frequencies, cross-tabulations and means from the data. 0.05 has been held as a significant level of distinction in Chi-Square and Mann Whitney U tests.

As part of the survey ten researchers and PhD students from five university towns were interviewed in September 2004. Interviewees were chosen from different career stages, disciplines, nationalities, genders and age groups.

¹ Centre for Educational Assessment, http://www.edu.helsinki.fi/arviointikeskus/kieli_englanti/index.asp

3. Respondent Group

The respondents represent 86 citizenships (Table 1) and they have altogether 96 different countries of origin. 16 of the respondents have double citizenship and many have acquired a new one. Biggest groups of nationalities within all respondents are Russians (11.8%), Chinese (11.3%) and Germans (6.2%).

Table 1. *Citizenships of the respondents.*

Citizenship	N	Citizenship	N	Citizenship	N
Albanian	1	Filipino	1	Mexican	3
Algerian	1	Finnish	18	Mongolian	1
American	30	French	34	Moroccan	3
Argentinean	4	Georgian	1	Nepalese	4
Armenian	1	German	53	New Zealander	1
Australian	13	Ghanaian	6	Nigerian	2
Austrian	4	Greek	11	Norwegian	2
Azerbaijan	1	Hungarian	20	Pakistani	6
Bangladeshi	11	Icelandic	1	Peruvian	2
Belgian	7	Indian	12	Polish	12
Belarussian	5	Indonesian	2	Portuguese	5
Brazilian	5	Iranian	12	Romanian	31
British	32	Iraqi	3	Russian	101
Bulgarian	8	Irish	3	Serbian	6
Cameroonian	1	Israeli	4	Singaporean	1
Canadian	12	Italian	21	Slovakian	6
Chilean	2	Ivorian	1	South African	1
Chinese	97	Japanese	8	Spanish	28
Colombian	1	Jordanian	4	Sudanese	2
Costa Rican	1	Kenyan	2	Swedish	23
Croatian	4	Korean	2	Swiss	3
Cuban	1	Latvian	1	Tanzanian	2
Czech	20	Liberian	1	Thai	3
Danish	1	Libyan	7	Tunisian	1
Dutch	29	Lithuanian	14	Turkish	12
Ecuadorian	1	Macedonian	1	Ukrainian	23
Egyptian	3	Malawian	1	Venezuelan	1
Estonian	18	Malaysian	2	Vietnamese	2
Ethiopian	4	Mauritian	1	Total	852
				Missing	7

At the beginning of the analysis it was assumed that there would be some differences between various nationalities in how some issues related to living in Finland are perceived. In the questionnaire the respondents were asked to name their citizenship(s) rather than nationality, because of the juridical aspects of mobility. For the purpose of valid statistical analysis the respondents' 86 citizenships were regrouped. After careful consideration the citizenships were grouped into 18 groups mainly by geographical, but in some cases also by economic and cultural factors. It

is acknowledged that this is a rather arbitrary process, but it has to be done for the purpose of being able to use statistical analysis methods.

Below are the groups of respondents' citizenships. Not all groups have been named, because all do not have established names. The term "citizenship group" will be used from now on, when referring to these groups.

- **North America:** American, Canadian
- **Oceania and Australia:** Australian, New Zealander, Filipino, Malaysian, Singaporean, Indonesian
- **Latin America:** Argentinean, Brazilian, Chilean, Colombian, Costa Rican, Cuban, Ecuadorian, Mexican, Peruvian, Venezuelan
- **Middle Asia:** Chinese, Nepalese, Vietnamese, Mongolian
- **East Asia:** Japanese, Korean (South)
- **Near East:** Iranian, Iraqi, Israeli, Jordanian, Turkish
- **Southeast Asia:** Indian, Pakistani, Bangladeshi, Thai
- **Southeast Europe:** Albanian, Romanian, Bulgarian, Croatian, Macedonian, Serbian
- **Nordic countries:** Finnish, Swedish, Danish, Norwegian, Icelandic
- **Central Eastern Europe:** Czech, Slovakian, Hungarian, Polish
- **Baltic countries:** Estonian, Latvian, Lithuanian
- Armenian, Azerbaijan, Georgian
- Russian, Ukrainian, Belarussian
- **Western Central Europe:** French, Belgian, Dutch
- **Central Europe:** German, Austrian, Swiss
- British and Irish
- **South Europe:** Italian, Spanish, Portuguese, Greek
- **Africa:** Algerian, Cameroonian, Egyptian, Ethiopian, Ghanaian, Ivorian, Kenyan, Liberian, Libyan, Malawian, Mauritanian, Moroccan, Nigerian, South African, Sudanese, Tanzanian, Tunisian

The respondents are from 22 to 66 years. The average age of the respondents is 34 years, which means that most of them are fairly young: Over half of the respondents are 32 years old or younger (Table 2).

Of the respondents 66% are men and 34% are women. 65.7% are married or cohabiting. The term "couple" includes those who are married and those who are cohabiting. The category "other" includes those who are divorced or widowed (Table 3). One quarter of the respondents have a Finnish spouse or partner.

One in three respondents have brought their family (spouse, partner, children) with them to Finland. This highlights the fact that when inviting a foreign researcher to work in a country other than their own, the host institute has to acknowledge the fact that the researcher will possibly want to bring the family with her/him. In that case there will be more people who need services such as education and employment consultancy.

Table 2. Age groups and frequencies.

Age	N	%
22–27	178	20.7
28–32	268	31.2
33–38	195	22.7
39–44	114	13.3
45–50	67	7.8
51–56	20	2.3
57–62	12	1.4
63–68	4	.5
Total	858	99.9
Missing	1	.1
Total	859	100.0

Table 3. Respondents by marital status.

Degree	N	%
Single	272	31.7
Couple without children	250	29.1
Couple with children	311	36.2
Single parent	8	.9
Other	13	1.5
Total	854	99.4
Missing	5	.6
Total	859	100.0

Most of the researchers have a Master's degree or higher, but there are a few who do not have any degree or who have a Bachelor's degree (Table 4). 26.4% of the survey respondents, who have completed their PhD, have received it from a Finnish university. 23% of those who are doing their PhD in Finland have received their Masters' or Bachelors' degree in a Finnish university. Approximately one quarter of the respondents has continued their research in Finland after finishing their highest degree.

Table 4. Respondents' academic qualifications.

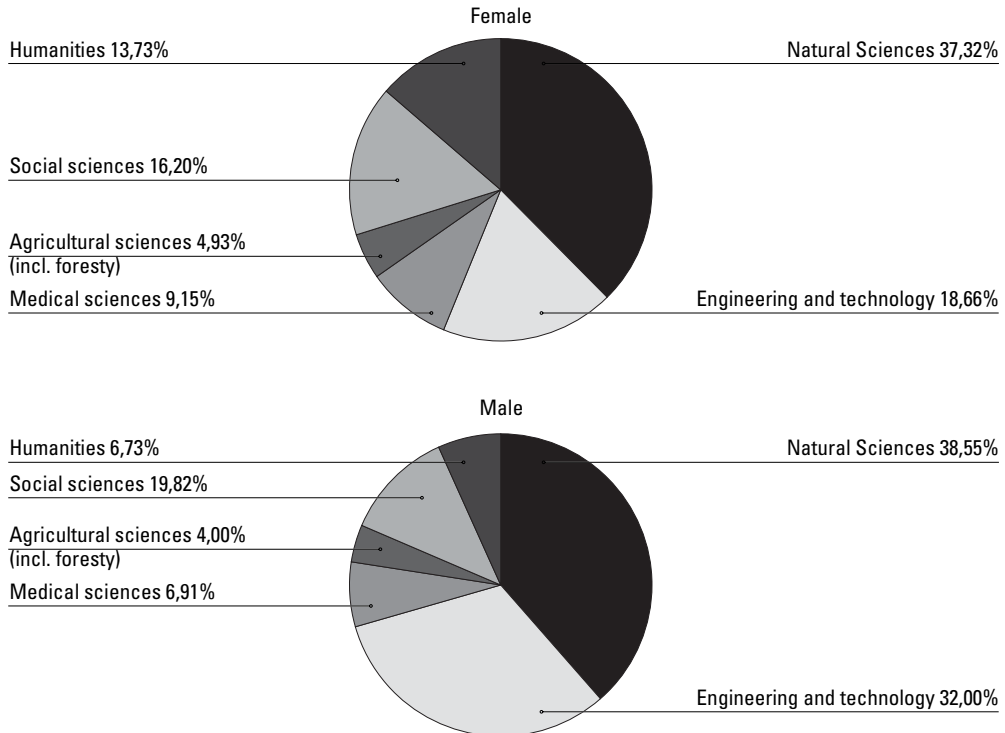
Degree	N	%
Some studies, no degree	4	.5
Bachelor	32	3.7
Master	446	51.9
Licentiate	64	7.4
Doctorate (PhD)	261	30.4
Other	29	3.4
Total	836	97.3
Missing	23	2.7
Total	859	100.0

Of the disciplines, natural sciences, and engineering and technology are well represented among the researchers and PhD students included in this survey. It can only be speculated whether Finland's reputation as a "high-tech country" has influenced researchers in choosing a suitable country for their PhD studies and research (Table 5, see also Chapter 4.2).

Table 5. Disciplines of the respondents.

Discipline	N	%
Natural sciences	320	37.3
Engineering and technology	232	27.0
Medical sciences	64	7.5
Agricultural sciences (incl. forestry)	36	4.2
Social sciences	111	12.9
Humanities	76	8.8
Total	839	97.7
Missing	20	2.3
Total	859	100.0

There are almost equal numbers of men and women in natural- and agricultural sciences, whereas in engineering and technology there are far fewer women than men. In medical sciences and particularly in the social sciences and humanities the share of women is far greater than the share of men (Graph 1).



Graph 1. Research disciplines by gender.

Most of the survey respondents are PhD students. Approximately 20% of the respondents are at post-doc or higher stage. A few of the respondents who work at universities or research institutes have a Bachelor's or Master's degree and are therefore included in the "missing" category. The large percentage of respondents in the "missing" category suggests that many respondents with PhD have not identified any of the given options as their own career stage (Table 6).

Table 6. Career stages.

Career stage	N	%
PhD student	508	59.1
Post doc	112	13.0
Senior researcher	102	11.9
Professor	40	4.7
Total	762	88.7
Missing	97	11.3
Total	859	100.0

Nearly half of the respondents have less than five years' experience in scientific research, which is expectable when over half of the respondents are PhD students and under 33 years old. Consequently, this means that half of the respondents have more than five years' experience of scientific research.

The share of female researchers in senior roles (senior researcher, professor) is much smaller compared to male researchers (Table 7). It seems that the famous "scissor phenomenon" – where women start as a majority in lower career stages and end up as a minority in higher career stages – manifests itself once again in this survey data.

Table 7. Career stages by gender.

Gender		Career stage				Total
		Post-graduate (PhD student)	Post doc	Senior researcher	Professor	
Female	N	193	37	20	2	252
	%	76.6	14.7	7.9	0.8	100.0
Male	N	313	75	81	37	506
	%	61.9	14.8	16.0	7.3	100.0
Total	N	506	112	91	39	758
	%	66.8	14.8	13.3	5.1	100.0

It is notable that in this survey data the share of researcher women in senior academic staff is well below the average when compared to the share of researcher women in the whole of Finland and EU². However, at the moment there is no information available on the complete number of foreign researchers in the whole

² She Figures 2003. Women and Science. Statistics and indicators. European Commission Directorate-General for Research. Figure 3.1.a, page 62.

of Finland, let alone the share of foreign researchers by gender, seniority level or discipline. Information on visiting researchers in universities is gathered into the KOTA database³, but it does not include those foreign researchers who work in Finnish universities and research institutes on a permanent basis. It neither includes information on foreign PhD students in Finland.

A little less than half of the researchers have been in Finland for four years or more, which suggests that those researchers are in Finland on a permanent basis and are not just on researcher exchange (Table 8). The respondents have been in Finland on average for 4.5 years.

Table 8. *Residence years in Finland.*

Residence years in Finland	N	%
0 to 3 years 11 months	437	50.9
4 years to 7 years 11 months	260	30.3
8 years to 11 years 11 months	70	8.1
12 years to 15 years 11 months	45	5.2
16 years to 42 years	19	2.2
Total	831	96.7
Missing	28	3.3
Total	859	100.0

4. Motives of Mobility

The older the researcher is, the more likely s/he has lived abroad before coming to Finland. Living abroad (Table 9) includes exchange student years, which particularly the younger respondents have experienced. Some of the respondents have done a degree or other further studies such as post-doc abroad.

Table 9. *Have you worked or studied abroad before coming to Finland?*

Living abroad before Finland	N	%
Yes	390	45.4
No	427	49.7
Total	817	95.1
Missing	42	4.9
Total	859	100.0

Most respondents from North America, Central Europe and Africa have lived abroad before coming to Finland, whereas Finland is the first foreign country for most respondents from Middle Asia and Russia, Belarus and Ukraine. The largest nationality groups of the survey, i.e. Chinese and Russians, have chosen Finland as their first experience of a foreign country and foreign research environment (Appendix 2).

The survey results confirm that the most important factor to foreign researchers coming to Finland is the high level of Finnish research environments. Even when examining the respondents' mobility motives with some variables (e.g. country of origin, career stage, discipline, intended length of residence), the order of importance of mobility motives stays the same among all researchers and PhD students. The order of importance is presented starting from most important (No 1) to least important (No 8):

1. High level of research environment
2. Career development
3. Experience of living abroad
4. High standard of living
5. Wife/husband/girlfriend/boyfriend in Finland
6. Learning the language (Finnish, Swedish)
7. Hardship in home country
8. Family members in Finland

The importance that is put on the above-mentioned mobility motives depends largely on the individual's personality and situation in life.

4.1 Career stage as a factor in mobility motives

The career stage of the researcher is a significant factor in international researcher mobility. The high level of Finnish research environments is most important to

foreign researchers at post-doc stage who are at a point in their career at which they should actively further develop themselves as researchers. Those few years will have a significant effect on their future career and doing it abroad will help them to make contacts with potential collaborators (see also page 11). Young researchers purvey their own new contacts – communication channels – by doing their post-doc abroad rather than “inheriting” senior colleagues’ existing networks⁴. PhD students value the high level of Finnish research environments nearly as much as post-doc researchers. Senior researchers and professors also consider the high level of Finnish research environments to be an important mobility motive, although it is not quite as important to them as it is to younger researchers. The career stage affects the researchers’ mobility motives in how much importance they have put on the high level of research environments when they have decided to move to Finland.

4.2 Does the discipline play any role in mobility?

International visibility and recognition of Finnish science has increased in the last ten years. Citations to Finnish research publications have increased considerably in all disciplines⁵, but the reputation of Finnish research environments consists of also non-measurable factors such as lack of rigid hierarchy, flexible work culture and favourable attitude towards innovation and creativity. Foreign researchers who have decided to come to Finland are aware of this reputation. Researchers from all disciplines consider the high level of Finnish research environments to be their most important mobility motive. However, there are some distinctions between respondents from different disciplines. The high level of Finnish research environments has been a more important mobility motive to those whose discipline is engineering and technology, agricultural sciences and forestry, medicine or natural sciences, than to researchers whose discipline is social sciences or humanities. In recent years economic and industrial life has profiled Finland strongly as “a high-tech country”. That might be one of the reasons why researchers of information and communication technologies or forestry put more importance on the high level of research environments as a mobility motive than researchers in other fields of science.

4.3 Comparison of mobility motives by the respondents’ intended length of residence

There is no way of measuring accurately how career-driven the individual’s life decisions are. It is natural that those who have moved countries because of partner’s residence intend to stay in that chosen country permanently more often than those who have moved countries because of a job opportunity. Also those who have had hardship at home country – lack of research opportunities, political persecution etc. – are more likely to stay permanently. This is understandable, because the conditions for mobility for a persecuted person are significantly different from those whose decision to be mobile is more “inherent” than forced.

⁴ Melin, Göran. 2004. Postdoc abroad: inherited scientific contacts or establishment of new networks? Page 100. Research Evaluation. Volume 13 (2), August 2004.

⁵ Scientific Research in Finland. A review of Quality and Impact in the early 2000s. Summary of the General Section of the 2003 Review 2003. <http://www.aka.fi/index.asp?id=B63ED6EA368B4D728BF113B7F150E546>

Our survey shows that those who have rated the career development and the high level of Finnish research environments as highest are less likely to stay permanently in Finland than those whose mobility has been affected by life partner's residence. Those researchers who do not intend to stay permanently do neither find the high standard of living or language learning as important factors in their decision to come to Finland. To experience a foreign country is important to them. When looking at the intended length of residence from a career stage point of view, it can be discovered that researchers at post-doc stage are least likely to stay permanently in Finland (Table10).

Table10. *Intended residence by respondent's career stage.*

Career stage	Intending to stay permanently	Not intending to stay permanently	Total N
Post-graduate (PhD student)	45.0%	55.0%	471
Post-doc	42.0%	58.0%	100
Senior Researcher	64.5%	35.5%	93
Professor	54.1%	45.9%	37
Total	47.6%	52.4%	701

The length of the researcher's intended stay can also depend on the type of contract s/he has. It is possible that if the work contract is permanent, the researcher's permanent residence is more likely than in cases when her/his contract is temporary.

Post-doc researchers are at a stage where it is crucial for their career to develop themselves as researchers, and by being mobile they can expose themselves to situations, ideas and social environments that will help them to become even more competent. Building contact networks with other researchers is also an essential motivating factor in researcher mobility.

“It is not easy to find people or infrastructure for my research in Estonia... and here you can connect with different people who are more experienced scientifically, critical mass of scientists.... I think that is the biggest problem in Estonia”

Estonian post-doc researcher

Researchers from countries that do not have very long traditions in international co-operation in scientific research gain most advantage from international mobility. Once they have established their own networks, they can pass them on to their own colleagues and students.

4.4 Researchers from developed and developing countries

When mobility motives are considered from the perspective of researchers' countries of origin, it is useful to look at economic aspects of the countries, such as the GDP or the economic development stage of the country. In this survey the division of respondents' countries of origin into developed and developing countries is based

on OECD DAC classification⁶ on countries that receive international aid. In the survey data there are no big differences in intended length of residence between researchers from developed and developing countries (Table 11). If anything, those from developing countries seem to be slightly less willing to stay permanently in Finland than those from developed countries. Most of the PhD students and post-doc researchers from developing countries have expressed in their survey responses that they are going to leave Finland at some point, although it cannot be said if they are going back to their countries of origin or somewhere else. However, most of the senior researches (72%) and professors (58%) from developing countries have expressed in their survey responses their intention of staying permanently in Finland.

Table 11. Researchers according to the intended length of residence in Finland and the development stage* of their country of origin.

Intended residence in Finland	%	Researchers from developed countries	Researchers from developing countries	Total
Intending to stay permanently	%	51.1	45.8	48.0
Not intending to stay permanently	%	48.9	54.2	52.0
Total	N	321	448	769

* OECD DAC classification

From the point of view of brain drain from developing to developed countries, this information shows that the phenomenon does not manifest itself very strongly on the Finnish research scene, even though most of the respondents are from countries that are classified as “developing” by OECD’s DAC classification. The number of foreign researchers is still very low in Finland if compared to many other EU countries and therefore cannot be said to affect the overall brain drain significantly. One ought to notice that some of these developing countries are now members of the EU or they are in process of becoming EU member countries, and some of the countries are what could be called as third world countries. The differences in the economies and research environments are significant among the developing countries.

The spouse’s or partner’s residence in Finland is a more important mobility motive to researchers from developed countries than to those from developing countries. The high standard of living in Finland and hardship in home country are more important factors in decision for moving to Finland to those from developing countries than to those from other countries.

“Possibilities (in Sudan) are very narrow because there is not science as such, as there is in Finland or in the western countries, so I didn’t even try (to get a PhD place). There are no real books, equipment, not really even references that you could... of course there is a library but not as extensive as here... and you cannot get money while you are studying and you have to sponsor everything if you don’t have a sponsor.”

Sudanese post-doc researcher

⁶ OECD DAC list of aid recipients – As at 1 January 2003. www.oecd.org/dataoecd/35/9/2488552.pdf

Difficulties at home countries that affected the interviewees' decision to move were usually connected to limited career opportunities in home countries and the high level of Finnish research environments. Although all researchers who participated in the survey consider career development and the high level of research environments as most important reasons for coming to Finland, respondents from developing countries put even more weight on these factors than those coming from developed countries. However, when the intended length of residence factor is controlled, there are no differences in the importance of career development between researchers from developed and developing countries who do not intend to stay permanently. Researchers who are or are becoming members of global mobile workforce are probably the most career oriented of all. They could be called as "nomads in networks of global economy"⁷. Internationalisation of researchers and research groups stems from the internationalisation of research organisations.

4.5 Other factors of mobility

Even though the experience of living abroad is an important mobility motive to many, researchers also aim to further their career by being mobile. When the main objective is for instance to gain a PhD and there is more than one possible place for doing it, it might be a mere chance that decides which country the individual will move in to.

"During my waiting for a visa to USA for my doctoral study, I was funded by a conference to Tampere, and also to be accepted by Tampere University for my PhD study."

Chinese senior researcher

A quick and competent immigration process is a significant factor in increasing researcher mobility to Europe from other parts of the world.

University education including PhD is free in Finland for everyone including non-Finnish citizens. That has been a significant reason for some foreign degree students to study in Finland. The free-of-charge education combined with the high quality of research is an attractive option for many. However, there have been discussions about the appropriateness of offering free university education for everyone regardless of citizenship or country of permanent residence.

Some researchers with family also consider the flexibility of Finnish work culture as a positive feature of doing research in Finland. The possibility to combine family life and research work is seen as an advantage that is special to Finland. In Finnish society it is common (and even encouraged) for women to pursue their own career, which is due to the social atmosphere in Finland.

"One of the reasons for me moving to Finland was the better opportunity for females to pursue academic career in technology."

Slovakian senior researcher

⁷ Raunio Mika., 2003. Should I Stay Or Should I Go? The images and realities of the foreign professionals in Finnish working and living environments. http://www.sjoki.uta.fi/sente/english/verkkokirjasto/T_6_2003_Should_I_Stay.pdf

Finland has a low rate of crime and corruption, which has affected some researchers' decision to move to Finland. Especially those with family appreciate the peaceful and clean environment where it is good to raise a family.

Generally, the open and liberal social atmosphere that appreciates individuality is something that makes Finland a good place to live for many foreign researchers. However, some survey respondents have encountered collisions with Finnish values such as individuality in working life, which can be experienced as loneliness and abandonment.

5. Infrastructure of Researcher Mobility

5.1 First contact to Finland

It is notable that many of the survey respondents have decided to come to Finland on the recommendation by a relative, friend, colleague or superior. Friendships and professional contacts that are established during exchange periods and contacts made in conferences can lead to long-lasting co-operation between individuals and research groups. Researchers in senior roles are often invited as visiting lecturers to foreign universities.

"I did not know the department before, but J (a colleague) and I met in Australia where we were both working as visiting lecturers... and later when I was teaching at my college where I had been as an undergraduate student in the U.S., J wrote to me and asked if I would like to come to Finland for a year as a visiting lecturer. Then I came here and stayed for quite much longer... Unfortunately we don't have funds for that programme that I came with here, so we don't have that money anymore. But we have been able to bring people here. One thing about J is that he has a lot of contacts all around the world."

American professor

Personal contacts play a central role in the recruitment of researchers and PhD students. Some of the survey respondents had learnt of a degree or job opportunity from an advertisement in a magazine or when browsing universities' websites on Internet. That is the reason for why it is important to advertise available vacancies at universities' homepages in English as well as in Finnish.

"I saw a job advertisement in a magazine... I think it was Nature or something... I don't know if it was the department (why I wanted to go there), but there was R (a colleague) working there that I had heard of, and I thought it was a place where there was money and possibilities to do my own stuff. "

Dutch senior researcher

Some researchers have had their first contact to Finland during an exchange year or holiday in Finland or elsewhere. They have been in Finland as Erasmus exchange students or have attended a summer school arranged by a Finnish university.

"I studied in Helsinki as an exchange student for four months in 1999 and visited twice in 2000 as a continuation of the initiated research. After defending MSc in Vilnius I started PhD in Helsinki in 2001. I plan to graduate in 2005 and do not intend to stay in Finland, but going to keep scientific cooperation."

Lithuanian PhD student

Some of the researchers have befriended with Finns abroad and decided to visit these Finnish friends and ended up staying for a longer period. A successful exchange year and good experiences have motivated many to come back as a PhD student.

5.2 Income sources

The survey respondents' income comes mostly from one or two sources. Most often foreign researchers receive their full income as a salary from a Finnish university, receive funding from the Academy of Finland, have a grant or a scholarship from a Finnish university or receive funding from the National Technology Agency of Finland (Tekes). Nine percent of these researchers receive funding from their home country or other foreign organisations. This kind of funding can come from organisations such as Alexander von Humboldt Foundation in Germany that supports post-doc scholars of all nationalities and disciplines with the aim to promote international co-operation in research. One should bear in mind that often researchers do not know where their wages come from, because universities and research institutes receive funding from organisations such as Tekes and the Academy of Finland, and researchers' wages are paid from their funds.

Table 12. Survey respondents according to income sources.

Income source	%
Finnish university salary	31
Academy of Finland	22
Finnish university grant/scholarship	14
National Technology Agency (Tekes)	13
European Union funding	10
Finnish foundation	9
Private enterprise salary	9
Own savings	9
Part-time/full-time work outside research	9
Centre for International Mobility (CIMO)	9
Finnish research institute salary	9
Parental or family support	9
Other (e.g. consulting work, public authorities grants/salary)	8
Funding from home country	3
Support from the state of Finland (KELA or equivalent)	2
Loan from a bank	1

Even though many foreign researchers are satisfied with their possibilities of receiving funding for their research, there are researchers who find temporary work contracts, short-term grants and tough competition difficult to put up with. Temporary work contracts are generally recognised as a problem at Finland, and it concerns both foreign and Finnish researchers. However, most of the survey respondents (79%) would recommend working in Finland to their colleagues.

6. Information and Guidance Services in Finland

One of the key aims of this survey was to identify how important it is to researchers to get information on various aspects of moving to and living in Finland. It has also been identified how satisfied the foreign researchers are with the information (Appendix 3) that has been provided them by various Finnish institutions and social networks. The topics of information and guidance are presented in order of importance and satisfaction in Table 13.

Table 13. Importance and satisfaction ratings by topic of information and guidance: Number 1 represents the most important or satisfactory issue and number 7 the least important or satisfactory issue.

Topic of information or guidance	Importance	Satisfaction
Housing and accommodation	1	1
Health care	2	5
Immigration formalities	2	5
Social security	3	5
Taxation	4	6
Language learning (Finnish or Swedish)	5	3
IPR and research ethics	6	2
Family matters (schools, nurseries)	7	4

6.1 Housing and accommodation

Information and personal guidance on housing and accommodation is most important when arriving in a new country. It is crucial to have somewhere to stay once in a new country; this might be why housing has been rated as the most important topic of information when planning the move to a new country. Only after arranging housing one will start to concentrate on other things such as language studies. Internet is widely used in Finland for looking for flats, for instance. Foreign PhD students can apply online for a flat from a local student housing foundation, so they have a flat when they arrive in Finland. Foreign researchers and PhD students should be provided with detailed information of the accommodation, for instance if the flat or room they intend to rent is furnished or not.

Foreign researchers are most satisfied with the quality of guidance on accommodation, although the availability of housing has become more difficult in the capital area. PhD students get help from local student housing foundations available in every university town. Many foreign researchers arriving in Finland are helped by their friends, colleagues or departments to find a flat, and some universities have guest apartments for visiting foreign researchers.

“I would like to emphasise the housing problem, it is not as easy anymore to get a flat from student housing foundation... finding a flat has been lately becoming more of a problem for us, because visiting researchers expect that the receiving institute or

laboratory helps them to find a place for them to live, because that is the most important thing."

German post-doc researcher

It is difficult for foreign researchers to look for accommodation from private markets when they are not in Finland, which is why the employer should assist in finding a (furnished) flat. Housing situation is problematic especially in the capital area but also in many university towns, which is why there should be more organised housing service for foreign researchers. At the moment foreign researchers coming to Finland depend on the help and kindness of their colleagues in the host institute.

6.2 Health care

Information and guidance on health care has been rated as the second most important – along with immigration formalities – when arriving in a new country. 69.5% of the respondents think it is important to get information on health care issues and only 6.4% think it is not important. Although over a third of the respondents are satisfied with the quality of information on health care issues, it is worrying that 27.2% of the respondents are dissatisfied with the quality of information they have received. This dissatisfaction might be caused by the complex interpretation on individual's residence status, which decides one's right to free health care and other social benefits.

"I had residence permit for one year and was covered in social security. But my wife's residence permit was for less than a year, so my kids (who came to Finland with her residence permit) were not covered by Finnish social security. KELA (Social Insurance Institution of Finland) did not know that there is this agreement... that Estonia will pay for Estonian children's health expenses in Finland. KELA did not know it and when my kids got ill we had to go private and pay a lot of money."

Estonian post-doc researcher

This example highlights the need for more focused and customer-oriented approach by Finnish bureaucrats when dealing with foreign researchers and their families. Better service can be achieved by informing staff regularly about issues concerning their foreign customers. The entitlement for social security, which also depends on the immigration status of the individual, decides if the individual has access to public health care. Researchers who have been entitled to public health care have been pleased with the quality of service they have received.

"I find the level of health care much higher than anywhere I have been, but initially we didn't have any health care (were not entitled to social security) and I had to do it privately and luckily I was in good health. But that certainly adds to the cost of living..."

American professor

When a person is not entitled to public health care, s/he has to use private health care services that can be very costly. At present it is very difficult to get a private Finnish health insurance if the person is not entitled to the Finnish social security.

Researchers who are not EU citizens and not entitled to Finnish social security must therefore take private insurances (in their home country) prior to their arrival to Finland. This is an issue that can hinder researchers' mobility.

6.3 Immigration formalities

Information on immigration formalities is very important to anyone moving countries. Getting advice on immigration issues is most important to researchers from Oceania and Australia, Africa, Latin America and North America, whereas researchers from the Nordic countries and Middle Asia do not find it quite as important. Immigration procedures vary depending on the immigrant's citizenship and legal status. The criteria on which the residence permit is given are complex and might not be the first thing the researcher moving to Finland is interested about. The residence status of an individual decides her/his right to social security, which is why it often comes as a surprise that some PhD students and those with less than one-year residence permit are not entitled to Finnish social security.

"At first I was not very concerned about what kind of visa I need, I just wanted to get a flat and get here first... Now I have realised that I lost many rights (benefits) because I had a student visa instead of a normal residence permit. The problem for foreigners is that they do not have any work permit with the student visa, so they can't find a job as easily as Finns, they do not have student rights, but residence permit says he is a student... As a student I could not get a KEELA card, which was a problem when working in a chemistry laboratory... so I had to take care of myself, which meant extra cost, but marriage (with a Finnish citizen) gave me all rights."

Turkish PhD student

Foreign researchers are generally fairly satisfied with the quality of practical information and guidance they have received on immigration formalities, although there are some issues that need to be addressed. Many are satisfied with the clarity of the information even if the content of the information is not favourable to them. The length of the immigration process and short residence permits are issues that cause most dissatisfaction.

6.4 Social security

Most of the foreign researchers who participated in the survey think it is important to receive information and guidance on social security when arriving in a new country. Chances for getting any social benefits are very limited for childless foreign researchers, especially for those who have not stayed in Finland for more than two years for some other reason than studying.

"I am a citizen of EU, but my wife is Latvian, which was not a member of EU then, and every time she went to KEELA she had to push them to do things which they were supposed to do. That was... a bit annoying. I do not think it was always on purpose, but I think KEELA at the time was still not used to dealing with foreigners. And you always had to find out that you had certain rights and then you had to go and tell them about it and then they said that "yeah, you can really get it". We had been there already two

months before and they had not told us... It is always a case that they do not volunteer the information, you always have to go and tell them what to do."

Dutch senior researcher

Less than a tenth of the respondents have not needed information or guidance on social security issues. Out of those who have needed guidance, 26.8% are dissatisfied with the quality of service and 35.9% are satisfied. Most important would be to clarify if and when a foreign researcher or her/his family is entitled to Finnish social security. This depends largely on the immigration status of the researcher and her/his family (see Chapters 6.2 and 6.3).

6.5 Taxation

Over half of the foreign PhD students and researchers think taxation is an important topic of guidance when planning a move abroad. Only 7.8% of the respondents have not needed information or guidance services on taxation issues. 26.4% of those who have needed information on taxation have been satisfied with the quality of practical information and guidance. 31.7% of respondents have been dissatisfied. This is a worryingly large percentage, and measures have to be taken to find out and correct the reasons for this level of dissatisfaction. Overall, the quality of information and guidance services on taxation rated lowest among all respondents, which indicates general dissatisfaction on the quality of taxation information.

"In 2002 I contacted tax office and I never got guidance in English. First year (of my PhD) I was on scholarship so it was tax free, but when I was on salary I met with tax office person and I hardly found anyone speaking English. It was difficult to explain how to make tax arrangements and I still have so many questions in my mind..."

Turkish PhD student

Language barrier is one thing that causes dissatisfaction among the survey respondents. Taxation is complicated by nature and the system is difficult to understand even if one speaks Finnish. The Finnish tax authorities have very good web pages in English where one can find detailed information on the Finnish taxation system, contact details and also helpdesk to enter a question, which is replied very effectively.

6.6 Language learning

Getting information and personal guidance on language learning possibilities (learning Finnish or Swedish) was considered fairly important. The respondents generally had a positive view on this issue. Over half of the respondents think it is important to get information and personal guidance on language learning possibilities. Only one in five think it is not important. According to the respondents it is important to learn Finnish because it gives them more independence and makes it possible to participate in informal conversations, which serve the function of socialising and information delivery.

R: In the first year I attended the Finnish lessons but I could not take the exam because of some meeting or conference, so I could not continue the studies at language centre. But I need to learn it, because most of the time I do not know what is going around me in the laboratory or I cannot be involved with everything, because I need to ask most of the time what is going on.

I: Is it with actual work or coffee room discussion?

R: Actually I would say both, coffee room discussions... most of the things are discussed there actually, but when we have some meeting – official meeting – is in English and I get some information, but even for something which is not related to work, some gathering or some occasion, I learn during coffee breaks... but nowadays it is easier because I have got to know people and they tell me things... This is why Finnish is also important, so I can feel like one of them.

Turkish PhD student

The respondents are generally fairly satisfied with the quality of practical information and guidance they have received on language learning possibilities. Only 10% have not needed this information or guidance. Universities, however, have some restrictions on who is allowed to attend Finnish lessons. At some universities the Finnish for foreigners classes are so popular that only exchange students are allowed to attend, and PhD students – who would probably benefit most from language studies – do not fit into classes because of limited number of places. One should also consider if studying Finnish as “a school subject” is appropriate for PhD students, who do not necessarily need the study attainment but to be able to speak and understand the language.

6.7 IPR and research ethics issues

The importance that researchers put on IPR and research ethics issues depends on their research discipline and their cultural background. Researchers from medicine value IPR and research ethics issues most, which is understandable considering the nature of the discipline. Researchers in technical and agricultural sciences also consider these issues as important. Social scientists and humanists rarely invent things that would need to be patented or that would have considerable direct monetary value, and therefore IPR issues seem to be something that does not affect their research. Natural scientists put least importance on guidance on these issues. Research ethics in all disciplines is learnt through practical research work. Research ethics or IPR issues are rarely discussed or brought up at departments or research institutes unless there has been a problem with them.

“I don’t know if it is this department or Finnish system, but they do not tell me anything about IPR if I do not need that information at the time. I am not quite sure what my situation is concerning my intellectual property. If I have ideas, is it mine or department’s, I am not clear about that. For instance if I go back to the States, there is one day that you have to fill in all the paperwork and sort out everything. It is really good because then you get information about health insurance, the school rules, where to park your car, how to deal with police etc. It also covers the intellectual property rights for the scientists and those kinds of things... Which isn’t the case here.”

Dutch senior researcher

The respondent's cultural background has influence on how important IPR and research ethics issues are considered. Asian and African respondents value information and guidance on IPR and ethics issues most among all citizenship groups. Researchers from European and Baltic countries do not consider guidance on these issues important at all. This might reflect differences in research environments and the need for "house rules" for incoming researchers.

Researchers are satisfied with the information and guidance they have been provided on IPR and research ethics issues. Researchers have learnt about these issues for instance, when they have signed a work contract or made a consortium or funding contract with "external" parties such as companies. The practice of informing PhD students and researchers about IPR issues varies between universities, departments and disciplines.

6.8 Family matters

Couples with children and single parents appreciate information and guidance on family matters the most among all survey respondents. Approximately 60% of the respondents do not have children and therefore have not needed these services. Those who have needed information and guidance on family matters have been satisfied with the quality of information and quality of the services.

"Our children went to Finnish school, in Helsinki German school, and they got very good integration, but for us (my wife and myself) there was no-one who would help us with integration... My son started going to school in Helsinki, a kindergarten, other children started school already in Germany. In Jyväskylä they went to Finnish school, there wasn't any German school. It has been very good for them to go to this Finnish school, they liked it very much. When we came back to Helsinki, we asked them if they wanted to go back to the German school, but they did not want to go back, they continued a Finnish school... We are very satisfied with the way Finland cares for our children. It is one of the reasons why we stay here in Finland."

German professor

University towns have schools and nurseries that have other than Finnish as the language of teaching, and children who do not speak Finnish are favoured in admission. Information about schools and nurseries is communicated in the same way as about other services, which is by friends and colleagues.

6.9 Information on other issues

Many of the respondents feel that it is important to have information on the social environment, particularly on social relations and communication in Finland. These topics are related to the concept of cultural awareness, which is crucial to people who move to a new country or who are in close interaction with people from various cultural backgrounds. Some Finnish universities offer lessons in intercultural communication and many have also lessons on Finnish culture. These, however, are available only for those who are already in Finland. This issue on social relations and Finnish customs will be addressed at the national Researcher's Mobility Portal

and it will also be taken up in discussions with the members of the Finnish Mobility Network Steering Group. Researchers would also like to have information on career options and other employment issues, such as rights of the employee. Research funding opportunities in Finland and information on recognition of qualifications have also been mentioned as topics of interest. These issues have already been added to the portal. Likewise, church activities and recreational activities for foreigners have been mentioned as topics that are important to have information about when arriving in a new country. Many researchers have also requested information on traffic in Finland, vehicle regulations including taxation and driving licences. Voting rights, banking, pensions and labour unions are among topics that some researchers have mentioned as important to get information about.

Many of these issues are not specific to researchers only, although there are issues concerning e.g. pensions, grants and labour union memberships that people engaged in scientific research should be aware of. That is why these topics are approached from a researcher's point of view in the national Researcher's Mobility Portal. One of the most important things would be to improve the information delivery by offering a centralised information source such as information desks for researchers at universities. Even if the Researcher's Mobility Portal addresses this need in some ways, it does not fully compensate for face-to-face interaction.

6.10 Information sources

It is unquestionable that social contacts are the most important source of information for foreign researchers when arranging their daily lives: Most of the respondents said that they have received help from friends, their spouse or partner or from colleagues at the host institute (Table 14).

"People at my institute personally did a lot of the work here. While I have found Finnish institutions to be generally helpful, I think the support of colleagues is the best thing."

American senior researcher

Internet is nowadays used as an effective source of information on various issues. Nearly half of the respondents have used Internet services for finding information on settling in and organizing their lives in Finland. Many have also contacted Finnish officials directly for information. The host institution's guidebook for foreigners and personal tutor has been of help to a quarter of the respondents. Many universities have online guidebooks, which mainly are intended for exchange and undergraduate students, but PhD students and researchers are known to use them to some extent. However, there seems to be a need for more specialised information source for researchers, and the Finnish Researchers' Mobility Portal will hopefully prove to be the one. The host institute's international office has been a source of information for very few respondents, although many researchers consider the office to be meant for undergraduate students. Research services offices' functions are not very well known and only a few of the respondents have used their information services. Only a few of the respondents have used relocation consultant services in settling in and organising their lives in Finland.

Table 14. Information sources by share of survey respondents who have used them.

Information source	%
Personal contacts	75.1
Colleagues	63.4
Internet	46.4
Contacting Finnish authorities	41.6
Information booklet for foreigners by host institute	24.0
Personal tutor	23.5
General guidebooks for foreigners	23.4
Office of international affairs	2.0
Research services office at host institute	4.5
Relocation consultant	1.3

Many foreign researchers and PhD students have contacted Finnish authorities directly. According to the survey respondents and the interviewees it is difficult to get information from the authorities if the person (who needs information) does not ask direct questions about the issue. For a person who comes from a country where certain concepts might not even exist, it is difficult to know what to look for.

"When I got my first pay check at university I was shocked at how little I was paid. I thought that the amount wasn't what was agreed! And when I asked (about it) they told me that they had deducted 60% of my wages because I would have needed a tax card. And I did not know what a tax card was and where I would get one. I had never even heard of it and no-one had told me about it..."

Spanish senior researcher

Host institutions should take responsibility for incoming researchers especially with professional matters, but also in making sure they settle in and know how to organise their daily lives. Diverse social contacts are naturally important, but also directing the foreign researchers to use the universities' own international affairs offices or national researcher's mobility portal, which provides information that will help them to be more independent in the new environment. Many researchers have requested for more centralised information delivery system at universities.

"I certainly think there should be someone at the university who can tell you about these things, what rights you have, where you need to go, who you need to talk to and so on. At least it was the situation in most other places (where I have been), in Scotland and in the US. Who will let you know what you can get and they will do whatever they can for you."

Dutch senior researcher

It is easiest for researchers to communicate with the administration of their own institute. Generally the Finnish information and guidance services have been evaluated as fairly satisfying. Providing services in English has improved during the last few years and most offices in university towns have staff that can communicate in English. This is something that many have been very pleased with.

"All government officials speak English! Working mates explained the basics of the working environment. People I contacted by e-mail have always answered. Almost every bit of information about Finland is online, and in English too."

Argentinean PhD student

Even if the staff can communicate in English, some survey respondents are dissatisfied with the communication style and behaviour of Finnish bureaucrats. That is something that can and should be dealt with reciprocal attempt to understand cultural differences.

7. Conclusions

Almost one third of the survey respondents with PhD and one quarter of those with Master's degree had completed their degree in a Finnish university. Many survey respondents had their first contacts with Finland and Finnish research environments through a colleague or a supervisor, during an Erasmus exchange year or by reading publications of Finnish researchers. Internationally well-known Finnish researchers and research groups have been an important "pull-factor" for many. Factors that have most affected researchers' and PhD students' decision to move to Finland are the high level of Finnish research environments and the respondents' aim to develop their career.

Foreign researchers' information needs vary according to life situations and to some extent also research discipline and cultural background. The individuals' family characteristics have an impact on which services are needed and which factors are considered most important when arriving in Finland. One in three respondents have arrived in Finland with their family (spouse, partner, children). This underlines the fact that when a foreign researcher comes to Finland, there is often more than one person who needs services such as education and employment consultancy. Difficulties that foreign researchers and their families sometimes face are often caused by unexpected divergence in Finland's jurisdiction, availability and quality of services and social conventions compared with their home countries. Some of the statistically significant distinctions that have been perceived in this survey between citizenship groups are very likely affected or caused by respondents' cultural backgrounds and communication styles.

The survey respondents are generally satisfied with the quality of information and guidance they have received. Availability of guidance, however, causes some dissatisfaction as many foreign researchers feel that universities and research institutes lack centralised and organised information and guidance services for foreign PhD students and researchers. Even if information on various issues is available online, the respondents have had difficulties in finding it. The quality of information and guidance given to foreign researchers is found good, but the availability of guidance services should be communicated more effectively.

8. Recommendations by the Steering Group

1. Improving recruiting practices

A more focused and proactive approach in offering information and guidance services should be provided for incoming and present foreign researchers and PhD students. The Researcher's Mobility Portal is a good tool for this purpose, but effective guidance also involves the possibility for personal communication with an advisor.

Developing human resources in Finnish research environments should involve a more systematic approach for the recruitment of foreign researchers and PhD students. It is crucial that staff members responsible for the recruitment of researchers are well aware of the various possibilities to fund researcher mobility.

2. Compiling information on researcher mobility

Currently there are no comprehensive statistics of the number of foreign researchers in Finnish universities and research institutes. It is, thus, recommended that universities annually compile personnel statistics identifying their faculty with citizenship. The KOTA database could be developed to provide information on foreign researchers (visiting and permanent) working in Finland and foreign PhD students in Finnish researcher training programmes. This way it would be possible to observe developments in the number of foreign researchers in Finnish universities.

3. Enhancing international co-operation

Finnish universities and research institutes should further strengthen international co-operation.

4. Further strengthening the collaboration of governmental agencies

In 2004 a network of Finnish governmental agencies started regular meetings with the aim to improve co-operation on issues that concern foreign researchers and students coming to Finland. The Steering Group of CONNECT-Finland warmly recommends that the network continue to further develop this co-operation.

Appendix 1



Draft

ACADEMY OF FINLAND - UNIT OF INTERNATIONAL RELATIONS

QUESTIONNAIRE TO FOREIGN RESEARCHERS, R&D (Research & Development) PERSONNEL AND DOCTORATE STUDENTS IN FINLAND

Either circle or tick the option that applies most. In open questions, use the given space.

A. Background information

1. Age: _____ years

2. Gender Female Male

3. Place of birth (country): _____

4. Your current citizenship: _____

5. Place of residence in Finland: _____ Zip/postal code: _____

Name of municipality: _____

6. Marital status: Single
 Couple (without children)
 Couple (with children)
 Single parent
 Other: _____

7. If you are **not** living single, did your family (spouse/partner/possibly children) follow you to Finland?

- Yes
- No
- I have a Finnish spouse/partner
- I have met my non-Finnish spouse/partner in Finland

B. Immigration to Finland

8. How long have you lived in Finland during your current stay here?

Years _____ Months _____

9. Estimated length of your total stay in Finland (Insert years and months or tick)?

Years _____ Months _____ (or) I intend to stay in Finland permanently



Draft

10. How important were the following factors in your decision to come to Finland?
(1=not important - 5=very important)

	1	2	3	4	5
Wife/girlfriend/husband/boyfriend is living in Finland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other family member is living in Finland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High level of research environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High standard of living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning a foreign language (Finnish or Swedish)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experiencing a foreign country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hardship in home country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. What was your most important motive for coming to Finland?

12. How important is it for you to get **information and personal guidance** on the following issues when arriving in a new country? (1=not important - 5=very important)

	1	2	3	4	5
Language learning possibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immigration formalities (visa, residence permits etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing & accommodation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family matters (daycare facilities, schools etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intellectual property rights and research ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. In which country did you live before Finland? _____

C. Professional data and research work in Finland

14. Your major field of research or R&D work (**choose only one!**):

- Natural Sciences (incl. also e.g. biological sciences, computer science, general programs in mathematics, statistics)
- Engineering and technology
- Medical sciences
- Agricultural sciences (incl. forestry)
- Social sciences
- Humanities (incl. e.g. arts, history, languages and literature, philosophy, theology)

15. Your educational background (or equivalent; **your highest degree only**):

- Some studies, no degree
- Bachelor
- Master
- Licentiate
- Doctorate (PhD)
- Other: _____

16. In which university did you earn your highest degree? _____

17. What was the field of study in your highest degree? _____



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18. Type of your **current** host institution in Finland (**choose only one!**):

- University (incl. art, economical and technical universities)
- Governmental research institute
- Private enterprise
- Other: _____

19. **Name** of your **current** host institution in Finland: _____

20. How long is your **total work experience** in scientific research and/or R&D work so far (including time spent in preparing the PhD)?

- Less than 2 years
- More than 2 but less than 5 years
- More than 5 but less than 10 years
- More than 10 but less than 15 years
- More than 15 but less than 20 years
- More than 20 years

21. **If you work or study in a university**, what is your career stage as a researcher? (Otherwise please go to question 22.)

- Post-graduate (PhD student)
- Post doc
- Senior researcher
- Professor

22. Have you worked or studied abroad before this (**more than three months outside your country of origin**)?

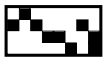
- yes. Where? _____
- no

23. How did you get to know your current Finnish host institution?

24. Would you recommend working in Finland to your research / R&D colleagues for professional reasons?

- Yes. Please specify:

- No. Please specify:



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29. How would you improve information and guidance services to foreign researchers in Finland?

30. What have been the most positive features in receiving information and guidance about settling in Finland and organizing your daily life here?

31. What is your short personal history concerning staying in Finland? (**Example:** "Arrived in 1999 as an Erasmus student. Met a Finnish girl/boy, came back for PhD studies in 2001. Now about to finish my PhD and working in an enterprise in Helsinki."):

32. Any other comments concerning settling in Finland?

Thank You very much for participating and helping us improve the services provided to foreign researchers, R&D personnel and PhD students in Finland!

As a part 2 of the ongoing study, The Academy of Finland plans to interview some of the respondents of this survey. The interviews start from September 2004. The privacy of all the interviewees will be carefully protected and their identity will not be revealed at any point. If you are interested in participating in the interviews, please type your contact information in the field below. Thank you!

Name: _____

Street address: _____

Zip code / City: _____

Phone: _____

Email: _____

**To be returned to: Academy of Finland / Santtu Mäkinen
Vilhonvuorenkatu 6
PL 99, 00501 Helsinki**

Appendix 2

Respondents by experience of living abroad and citizenship groups

Citizenship groups	N/%	Have you lived abroad before Finland?		Total
		Yes	No	
North America	N %	25 64.1	14 35.9	39 100.0
Oceania and Australia	N %	12 63.2	7 36.8	19 100.0
Latin America	N %	9 45.0	11 55.0	20 100.0
Middle Asia	N %	28 29.5	67 70.5	95 100.0
East Asia	N %	5 55.6	4 44.4	9 100.0
Near East	N %	18 51.4	17 48.6	35 100.0
South East Asia	N %	13 41.9	18 58.1	31 100.0
South Eastern Europe	N %	19 38.0	31 62.0	50 100.0
Armenian, Azerbaijan, Georgian	N %	2 66.7	1 33.3	3 100.0
Russian, Ukrainian, Belorussian	N %	42 35.0	78 65.0	120 100.0
Central Eastern Europe	N %	22 38.6	35 61.4	57 100.0
Baltic	N %	17 54.8	14 45.2	31 100.0
Nordic	N %	27 62.8	16 37.2	43 100.0
Western Central Europe	N %	40 57.1	30 42.9	70 100.0
Central Europe	N %	40 67.8	19 32.2	59 100.0
British and Irish	N %	20 60.6	13 39.4	33 100.0
South Europe	N %	28 44.4	35 55.6	63 100.0
Africa	N %	22 61.1	14 38.9	36 100.0
Total	N %	389 47.8	424 52.2	813 100.0

Appendix 3

Satisfaction with the quality of practical information and guidance on housing and accommodation.

Level of satisfaction	N	%
I have not needed the information or guidance	65	7.6
Dissatisfied	136	15.8
Neither dissatisfied nor satisfied	181	21.1
Satisfied	426	49.6
Total	808	94.1
Missing	51	5.9
Total	859	100.0

Satisfaction with the quality of practical information and guidance on health care.

Level of satisfaction	N	%
I have not needed the information or guidance	51	5.9
Dissatisfied	234	27.2
Neither dissatisfied nor satisfied	204	23.7
Satisfied	316	36.8
Total	805	93.7
Missing	54	6.3
Total	859	100.0

Satisfaction with the quality of practical information and guidance on immigration formalities.

Level of satisfaction	N	%
I have not needed the information or guidance	46	5.4
Dissatisfied	245	28.5
Neither dissatisfied nor satisfied	186	21.7
Satisfied	327	38.1
Total	804	93.6
Missing	55	6.4
Total	859	100.0

Satisfaction with the quality of practical information and guidance on social security.

Level of satisfaction	N	%
I have not needed the information or guidance	82	9.5
Dissatisfied	230	26.8
Neither dissatisfied nor satisfied	183	21.3
Satisfied	308	35.9
Total	803	93.5
Missing	56	6.5
Total	859	100.0

Satisfaction with the quality of practical information and guidance on taxation.

Level of satisfaction	N	%
I have not needed the information or guidance	67	7.8
Dissatisfied	272	31.7
Neither dissatisfied nor satisfied	236	27.5
Satisfied	227	26.4
Total	802	93.4
Missing	57	6.6
Total	859	100.0

Satisfaction with quality of practical information and guidance on language learning possibilities.

Level of satisfaction	N	%
I have not needed the information or guidance	86	10.0
Dissatisfied	158	18.4
Neither dissatisfied nor satisfied	202	23.5
Satisfied	358	41.7
Total	804	93.6
Missing	55	6.4
Total	859	100.0

Satisfaction with the quality of practical information and guidance on intellectual property rights and research ethics.

Level of satisfaction	N	%
I have not needed the information or guidance	191	22.2
Dissatisfied	114	13.3
Neither dissatisfied nor satisfied	207	24.1
Satisfied	285	33.2
Total	797	92.8
Missing	62	7.2
Total	859	100.0

Satisfaction with the quality of practical information and guidance on family matters.

Level of satisfaction	N	%
I have not needed the information or guidance	298	34.7
Dissatisfied	96	11.2
Neither dissatisfied nor satisfied	172	20.0
Satisfied	224	26.1
Total	790	92.0
Missing	69	8.0
Total	859	100.0

The survey of foreign PhD students and researchers in Finland was conducted in the spring of 2004 as part of the CONNECT-Finland project. The aims of the survey were to find out what are the most important information needs of foreign researchers moving abroad, and how satisfactory foreign researchers find Finnish information and guidance services and to use the gained information to further develop information and guidance services for foreign researchers in Finland.

This report includes the results of the survey and the recommendations the Steering Group of CONNECT-Finland has made concerning the development of services that support researcher mobility in Finland.

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