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Mapping the population, careers, mobilities and impacts of advanced research degree graduates in the social sciences and humanities (POCARIM)

Work Package 4: Survey

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1. Introduction

Two important objectives of the POCARIM project were the assessment of the career paths (Objective 2) and the impacts (Objective 3) of PhD graduates who obtained their degrees in the social sciences or humanities (SSH). These objectives were met through a combination of various tools: review of existing research and studies (Hansen, 2013), policy analysis (Bitusikova, 2013), an on-line survey and qualitative interviews. The current report gives account of Work Package 4 of the POCARIM project, which concerns the on-line survey. In particular, it contains a description survey development and an analysis of survey results.

The aim of WP4 was to identify and survey the population of SSH doctoral researchers graduating in thirteen POCARIM countries since 2000 and to assess their career paths, mobilities and impacts. This population covered graduates irrespective of nationality or citizenship (including nationals, other EU nationals and third country nationals). It was also envisaged that the survey would be used to select the candidates for the in-depth interviews.

Our estimate, based on the Eurostat data for 2004-2011, indicates that annually there were around 26 thousand PhD graduates in SSH in the POCARIM countries (see Table 1), and 32 thousand PhDs graduating in SSH overall in the 27 EU Member States, EFTA countries (Liechtenstein, Iceland, Norway and Switzerland) and Turkey. Thus, PhDs in the POCARIM countries constitute around 81 per cent of all PhDs graduating in the EU, EFTA and Turkey. The mix of countries in the POCARIM survey allows to investigate both the old and the new EU Member States, and the largest PhD "producers" in Europe (United Kingdom, Germany, France and Italy) as well as smaller ones.

Table 1 SSH PhD graduates in POCARIM countries, 2004-2011

	2004	2005	2006	2007	2008	2009	2010	2011
Germany	5402	6261	6417	6004	6272	5995	6026	:
Spain	2662	2156	2201	1993	1975	2086	2455	2308
France	:	3519	3345	3561	3855	4147	4336	:
Italy	2594	2987	3093	:	:	:	:	3444
Latvia	25	28	39	42	43	48	45	87
Hungary	329	418	411	351	440	477	396	475
Poland	1938	2099	2129	2136	1937	1855	1726	2028
Portugal	244	268	274	351	317	333	389	:
Slovakia	221	263	335	357	463	570	810	467
United Kingdom	4332	4613	4862	5302	5121	5467	5814	6494
Norway	189	183	241	244	312	273	201	258
Switzerland	673	764	744	787	855	827	905	:
Turkey	848	912	778	1046	1228	1360	1487	:
POCARIM countries	22 889	24 471	24 869	25 443	26 087	26 707	27 859	28 689
EU27+EFTA+Turkey	28 598	29 469	30 173	31 213	32 332	33 158	34 698	35 685

Source: Eurostat data, except Poland (author's estimate based on data from the Ministry of Science and Higher Education) and the aggregate estimates (author's estimate based on Eurostat data).

2. POCARIM survey design and implementation

The design and implementation of the survey involved eight phases:

1. Discussion of the assumptions and methodology of the survey by the POCARIM partners.
2. Design of a pilot survey by the WP leader in consultation with the project partners.
3. Development of sampling strategies in individual countries.
4. Pilot survey (programming and conducting).
5. Modification of the survey content and structure based on the experience from the pilot survey.
6. Implementation of the POCARIM on-line survey (programming and conducting).
7. Recoding and cleaning of the survey responses.
8. Analysis of the survey results.

The survey content, structure and wording was developed by a team of researchers from the Central European Forum for Migration and Population Research (CEFMR/IOM) in consultation with all POCARIM partners. It was subsequently implemented as an on-line survey by researchers from the University of Liverpool using SelectSurvey.Net software. Sending out of the invitations to the survey was organised in each POCARIM country by the respective project partners

2.1. Basic principles of the survey design

According to the project proposal and the discussions involving all POCARIM partners, the following basic principles of the POCARIM survey were agreed upon:

- The survey should be directed to a sample of PhDs in the social sciences and humanities who graduated in the period 2000-2011.
- The sample of PhD graduates would not be representative, but it should be 'balanced', to include representatives of a variety of fields of study, sectors of employment, educational establishments, regions etc.;
- The survey would be conducted on-line and would be available in English and in other national languages;
- The survey should be structured, not overly long, should not take longer than 15 minutes to fill in;
- The survey should be user-friendly;
- There would be no more than three open-ended questions.

The scope of disciplines included in the social sciences and the humanities categories was defined in POCARIM according to the International Standard Classification of Education (ISCED). Thus, it could be different from that used in individual countries for example in education-related statistics.

2.2. Pilot survey

The pilot survey was developed in the period March-July 2012 and conducted in all thirteen POCARIM countries in August 2012. A detailed report from the preparatory phase and the pilot survey is presented in Annex 2.

Altogether we had 105 responses in the pilot on-line survey (after data cleaning of empty or highly incomplete responses). In addition to the on-line version, the French and Spanish partners proceeded with paper/electronic versions of the translated survey, providing four additional responses each.

Out of the 105 respondents in the pilot on-line survey, 46 were female, 26 male and 33 did not reply to the gender question. We reached a reasonable balance of disciplines represented by respondents. 51 respondents agreed to be interviewed, of whom 46 provided contact data. This result was considered excellent because it was a very good forecast for successfully building a list of candidates for the in-depth interviews.

The pilot survey allowed for the identification of a number of problems, ranging from trivial but quite annoying technical issues to problems with the content and construction of the survey itself. A detailed list of issues identified and solutions found is provided in Annex 2.

2.3. Sampling strategies

The sampling strategies were developed by each POCARIM project partner according to the specific situation in their countries, but followed general guidelines developed by CEFMR taking into account the discussion among all members of the POCARIM consortium.

In the guidelines it was recognized that it is not feasible to do a random sampling in all the countries under study. Therefore, purposive sampling would be appropriate and the POCARIM sampling approach should be closest to heterogeneity sampling / sampling for diversity. The basic principle behind this particular sampling method is to gain greater insights into a phenomenon by looking at it from various angles. This approach helps to identify common themes that are visible across the sample. We assumed this method best suited our research goals in the POCARIM project since we aimed to capture a wide range of perspectives relating to the phenomenon of SSH PhDs careers and to identify a range of careers, from those viewed as typical through to those that are more unusual.

Given the differences in the possibilities of identifying the individuals concerned and encouraging them to complete the on-line survey, the sampling strategies had to be tailored to the situation in each country. In each case the strategy should have allowed to obtain a sample of at least 100 respondents balanced across the following variables:

- PhD discipline (to ensure that the representatives of every broadly defined SSH discipline were included)
- Gender
- Current employment sector (private and public; higher education, NGOs, government, business, other if relevant)
- Country-level ranking of the HE institutions

- Geographical locations within a country (to have the representatives of both large cities and smaller towns)

As the population of SSH PhDs differs significantly in various partner countries in terms of the discipline spread and career paths, we expected that the samples would also differ unavoidably to reflect the national specificities.

There were two main approaches to organising the sending of the survey invitations. One possibility was to contact selected PhD awarding institutions and ask them to distribute the invitations through their mailing lists or publicise the survey through their bulletins. In the other approach, a list of e-mail addresses was compiled and the e-mails were sent out by the POCARIM project partners. Possible sources of information to identify the PhDs could have been for example national databases, the websites of higher education institutions and the websites of other potential current employers in various sectors.

Sampling strategies implemented in the thirteen POCARIM countries and their approach to invitation sending are presented in detail in Annex 2.

2.4 POCARIM on-line survey

The final version of the survey questionnaire, initially prepared in English, was translated into nine other languages. The translations were done by those POCARIM project partners who expected that the possibility of filling in the questionnaire in the respondents' mother tongue would significantly increase the response rate. There were ten language versions altogether: English, French, German, Italian, Latvian, Polish, Portuguese, Slovak, Spanish and Turkish. The POCARIM partners from Hungary, Norway and the UK decided to launch the English version only.

All language versions of the survey were installed on the University of Liverpool server. The English version was launched on 1st October 2012; the national versions followed as they were translated. It was planned for the surveys to be online until 31 December 2012, but a decision was taken to extend the survey duration in order to reach the target number of responses in all the countries. Both the number of responses and the structure of respondents by the agreed variables were monitored for each country and further invitations were sent if needed. All survey versions were closed on 15th February 2013.

The invitations to the survey included a brief introduction to the project (in the national language) and a project flyer explaining the aims of the POCARIM project. In the POCARIM countries in which a national language version of the survey was prepared, the respondents could fill in either the English or the national language version and links to both versions were provided.

The survey contained more than a hundred questions altogether (including sub-questions in the "multiple response" questions) and covered

- characteristics of respondents (including PhD discipline, year and awarding institution)
- information about the respondents' employment, current and past (e.g. sector, type of contract, job country, periods of unemployment)
- international collaboration

- international mobility for professional purposes (short-, medium- and long-term)
- experience of working across disciplines
- impact of the SSH doctors work

In order to increase the response rate, most of the survey questions were not compulsory, but there were a few questions to which an answer was obligatory. These were the questions about PhD discipline, year and country, about current employment status and the question whether the current job was the first one since the award of the PhD.

The full final text of the English version of the survey may be consulted in Annex 3.

Tables 2 and 3 contain basic statistics concerning survey completion in each POCARIM country. Altogether, almost 5 thousand persons accessed the survey, out of whom more than 3 thousand filled in some initial questions. 2724 respondents went through all the questions (although this does not mean that they answered all the questions, as they may have skipped the non-compulsory questions. Almost 60 per cent of respondents who completed the survey filled in a non-English version.

Table 2 Survey completion statistics by survey version

Survey version	Looked at	Answered	Completed
English	2190	1325	1140
French	348	244	177
German	282	202	174
Italian	852	610	519
Latvian	205	146	123
Polish	198	73	57
Portuguese	242	207	181
Slovak	170	107	86
Spanish	233	166	139
Turkish	208	147	128
Total	**4928**	**3227**	**2724**

Table 3 Survey completion statistics by PhD country

PhD country	Completed questionnaires - PhD in SSH or Arts	Completed questionnaires - PhD in SSH	Completed questionnaires - PhD in Arts	Willing to be interviewed – PhD in SSH
France	123	123	0	78
Germany	194	194	0	90
Hungary	245	242	3	131
Italy	839	816	23	505
Latvia	198	191	7	90
Norway	145	137	8	61
Poland	120	119	1	82
Portugal	180	175	5	117
Slovakia	129	123	6	70
Spain	146	145	1	111
Switzerland	106	105	1	52
Turkey	127	127	0	78
UK	157	155	2	82
Other	14	14	0	
Total	**2723**	**2666**	**57**	
Total excl. Other	**2709**	**2652**	**57**	**1574**

The responses dataset was recoded, checked and cleaned. Any test responses introduced by POCARIM partners were identified and removed. The answers to the question on the PhD country and the PhD institution were cross-checked and PhD country code was corrected if needed. One respondent who completed two versions of the survey (Polish and English) was identified and his redundant answer removed.

As indicated in Table 3, 57 respondents have PhD in Arts, which does not fall in the scope of the social sciences and humanities as defined in POCARIM. In the case of 14 persons, their PhD was awarded in a country other than the 13 POCARIM countries. The replies of these 71 respondents were excluded from further analysis. As a result, we obtained a set of 2652 responses for which detailed analysis was conducted.

The responses and contact details of respondents were transferred to the relevant POCARIM partners, as the basis for selecting candidates for the interviews. In all the countries, the number of respondents who expressed the willingness to be interviewed was larger than the required 25 persons. (see Table 3). Some information about how the survey helped to identify candidates for the interview is presented in Annex 4 together with the information on sampling strategies.

3. Analysis of the responses to the survey

3.1. Methodological issues

As discussed earlier, the survey was not designed to be representative. The reason was that in most countries it was impossible to get the complete population of SSH doctors who graduated between 2000-2011 from which to draw a sample. Moreover, if we had aimed at representativeness, the size of the survey sample would have had to be incomparably larger to keep the sampling error within reason. The direct consequence of the lack of representativeness is that the results of the survey cannot be generalized to the entire investigated population (those who have been awarded PhDs in SSH since 2000 in the POCARIM countries). The results are fully valid only for the surveyed population.

Despite these limitations, as we have achieved a balanced composition of the sample, a number of interesting observations may be made based on the responses obtained, which may later be cross-checked with the results of the literature studies and which were deepened through qualitative interviews. In particular, the results may be useful for getting some insight into national patterns and for investigating the differences between countries. However, when using the results in this way, one should be aware that if small values were noted for a variable, they are unreliable. Also, the large numbers do not give a precise result. They should be treated as an indicator that a phenomenon exists, rather than its quantitative estimate.

It was assumed that the partners would provide at least 100 replies from each of the POCARIM countries. All partners met this requirement and 2652 valid replies from the PhDs who graduated in SSH in the POCARIM countries were obtained, more than twice the minimum number assumed. However, the number of valid replies by PhD country varied significantly from 105 in Switzerland to 816 in Italy (see Table 3). Due to the differences in the number of replies by country we have decided to assign weights to the responses in such a

manner that would give results corresponding to exactly 100 replies from each country. Such weighting allows the results to be compared between the countries and insures equal treatment of all the countries when drawing the conclusions about the thirteen POCARIM countries overall. In particular, it eliminates a potential bias that would be introduced by the results from the countries with the largest numbers of replies.

In the further sections we present the main results of the survey. When discussing national results, the data are usually presented in a breakdown by country of PhD, or – when analysing responses concerning employment – by country of employment. The main breakdown by discipline is made into humanities and social sciences. Respondents were assigned to these two categories based on their answer to the question on the PhD discipline, as follows:

- Humanities
  – Archaeology
  – History
  – Languages and Literature
  – Philosophy, Ethics and Religion
  – Other humanities
- Social sciences
  – Anthropology and ethnology
  – Demography
  – Economics and Business
  – Educational Sciences
  – Law
  – Media and communications (including journalism)
  – Political science (including public administration and international relations)
  – Psychology
  – Social and economic geography / human geography
  – Sociology
  – Other social sciences
- Multidisciplinary

The analysis of the results was conducted in various cross-sections, as appropriate: by country (of doctoral dissertation, of employment etc.), by sex and by broad discipline of PhD thesis. The following three broad categories of SSH disciplines were distinguished: (i) humanities, (ii) social sciences excluding economics, business and law (labelled "social sciences excluding economics and law") and (iii) economics, business and low (labelled "economics and law").

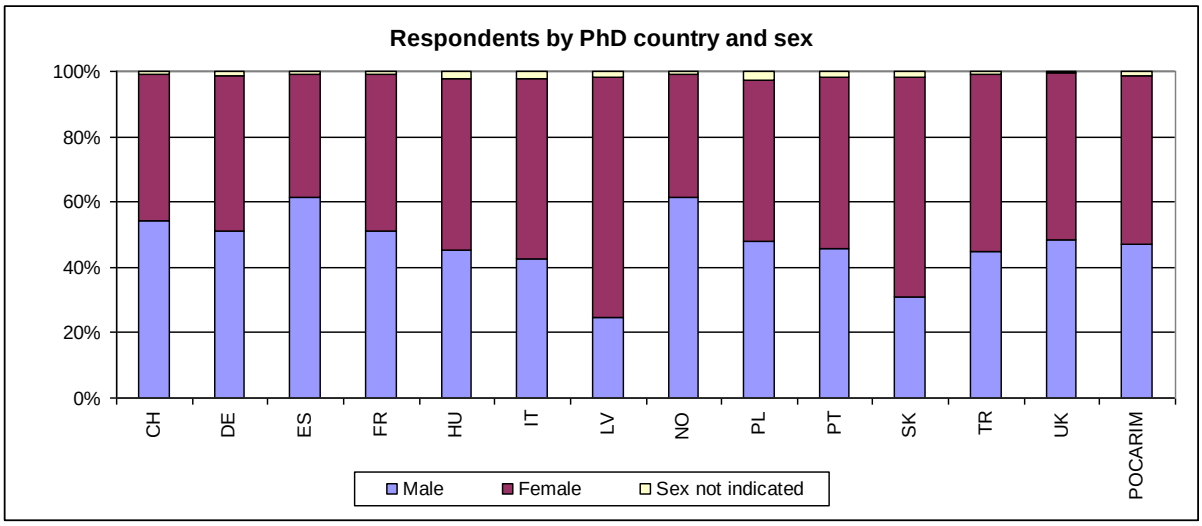
3.2. General characteristics of respondents

Below we present some basic characteristics of the surveyed sample of SSH doctors in the POCARIM countries. As has been said earlier, we attempted to get a balanced purposive sample. The term "balanced" is not defined in statistical terms, but is understood intuitively as a sample with a reasonable representation of all categories of the SSH doctors population.

In the sample there were 47 per cent of males and 52 per cent of females. One per cent of respondents did not reply to the question on their sex (Figure 1 and Table A1 in Annex 1). In most countries the share of each sex was in the 45-55 per cent range. The lowest share of women, 38 per cent per cent, was in the Spanish and Norwegian samples. At the other end of

the spectrum were Latvia with 74 per cent and Slovakia with 67 per cent of female respondents. Latvia, however, has a very high share of females in the overall SSH doctors population (Cañibano et al., 2013).

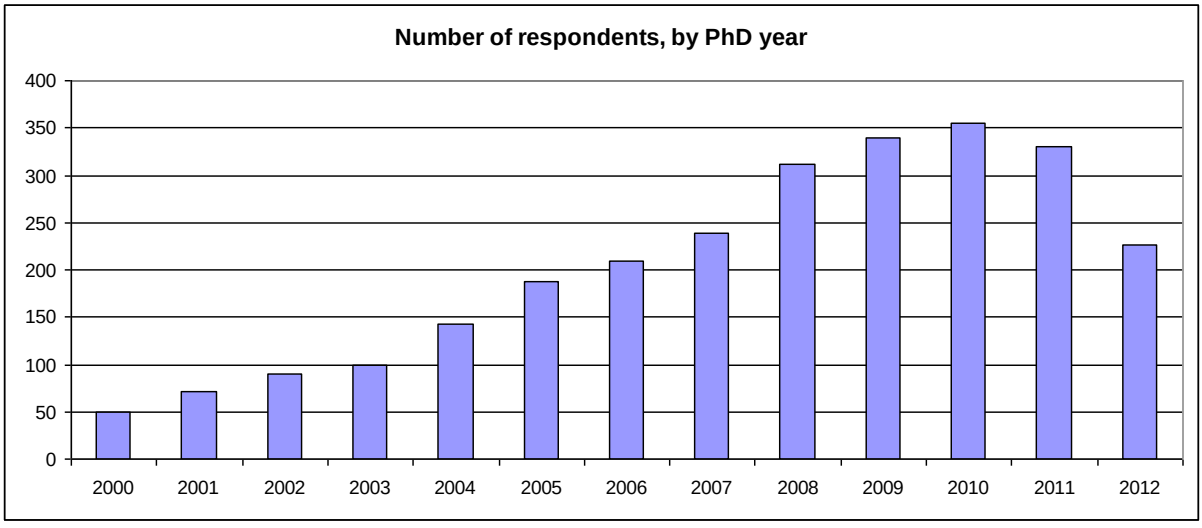
Figure 1 Respondents by PhD country and sex (%)



Country codes: CH – Switzerland, DE – Germany, ES – Spain, FR – France, HU – Hungary, It – Italy, LV – Latvia, No – Norway, Pl – Poland, SK – Slovakia, TR – Turkey, UK – United Kingdom.

Most of the doctors surveyed, 57 per cent of the POCARIM sample, graduated in the years 2008-2012, which makes the sample skewed towards younger doctors (Figure 2). The same is observed in all national samples with the notable exception of Norway and Spain (see Table A2 in Annex 1).

Figure 2 Number of respondents by PhD year



In the POCARIM sample, 70 per cent of respondents obtained their PhD degree in social sciences, 28 per cent in humanities and 3 per cent indicated that their PhD was interdisciplinary (Figure 3). A detailed distribution of respondents by individual sub-disciplines distinguished in the survey is presented for all the POCARIM countries in Table 4. Comparing the proportion of humanities graduates to social sciences graduates over the period 2004-2010 calculated based on Cañibano et al. (2013) data with the proportion in the sample we see a reasonably good fit for POCARIM countries overall, with slightly more

humanities doctors in the sample (there were around 22.5 per cent humanities doctors among SSH PhDs according to the 2004-2011 data). For some PhD countries this oversampling of humanities PhDs was done deliberately to achieve a reasonable sample of this category of doctors.

Figure 3 Respondents by PhD country and PhD broad discipline (%)

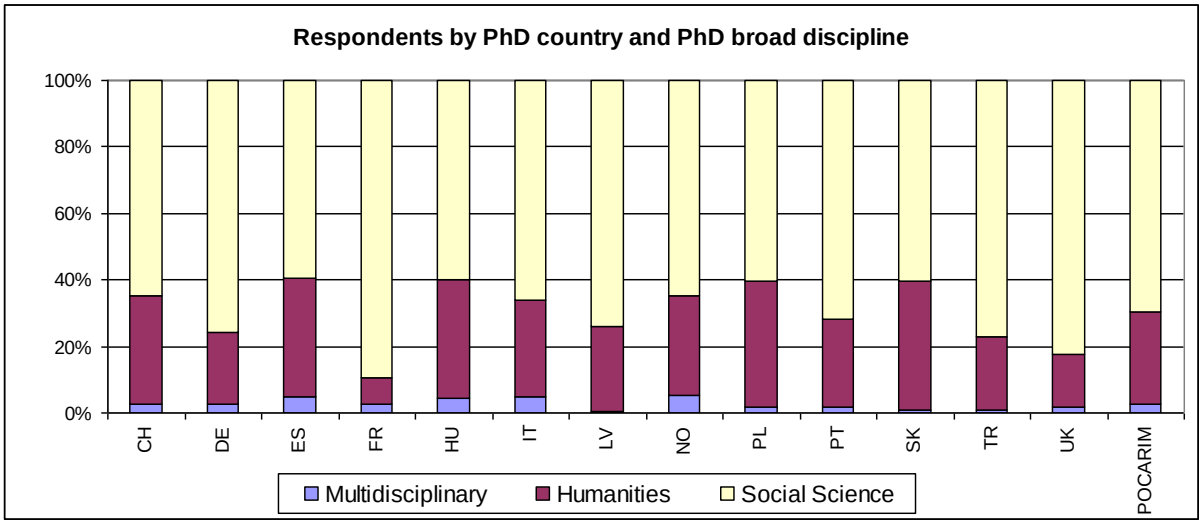
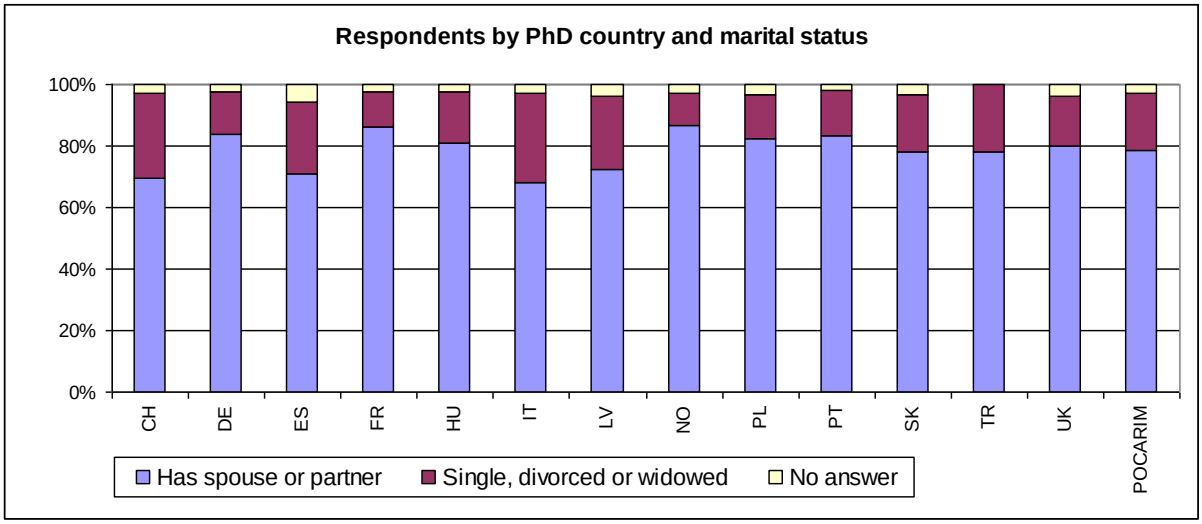


Table 4 Respondents by PhD country and discipline (%)

Discipline	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Archaeology	3	2	1	0	4	3	3	4	5	3	2	6	0	3
History	5	4	12	0	10	8	13	6	10	8	7	6	3	7
Languages and Literature	8	9	8	5	17	10	7	10	10	10	9	9	4	9
Philosophy, Ethics, Religion	5	5	11	0	2	5	3	8	9	3	11	0	7	5
Other humanities	12	2	3	3	2	3	1	1	3	2	11	2	1	4
Anthropology and ethnology	3	3	0	5	3	2	5	6	5	1	6	0	1	3
Demography	0	0	1	2	0	1	0	0	2	0	0	0	0	0
Economics and Business	14	23	23	24	25	18	28	11	10	19	22	20	32	21
Educational Sciences	1	6	1	4	8	3	20	7	6	11	14	10	17	8
Law	10	1	8	20	7	8	2	4	9	6	2	3	5	7
Media and communications	10	3	12	1	0	2	0	5	3	2	7	9	2	4
Political science	11	9	4	2	3	5	7	15	7	2	2	16	7	7
Psychology	5	15	1	2	4	7	3	2	5	10	4	9	1	5
Human geography	3	8	8	5	0	1	3	2	5	4	0	2	1	3
Sociology	3	5	0	22	7	15	5	13	8	15	1	6	12	9
Other social sciences	6	4	2	2	2	4	1	0	2	3	3	2	6	3
Multidisciplinary	3	3	5	2	5	5	1	5	2	2	1	1	2	3
Humanities	**32**	**22**	**36**	**8**	**36**	**29**	**26**	**30**	**38**	**26**	**39**	**22**	**15**	**28**
Social sciences excl. econ. & law	**41**	**52**	**28**	**45**	**28**	**40**	**43**	**50**	**41**	**47**	**37**	**54**	**46**	**43**
Economics and Law	**24**	**24**	**32**	**45**	**32**	**26**	**30**	**15**	**19**	**25**	**24**	**23**	**36**	**27**

A majority – on average 78.5 per cent of respondents - is either married or in partnership (Figure 4 and Table A3 in Annex 1). In Norway and France there are respectively 87 per cent and 86 per cent of respondents in marriage or partnership, quite likely due to social arrangements supporting couples. Italy and Switzerland, with 29 per cent and 28 per cent respectively of the single, divorced or widowed, have the largest share of those without a partner. In Italy the problem of *bamboccioni*, young people living with their parents for a very long time, is well researched and linked with culture, income, savings and intergenerational transfers. The difference in the time stayed at home between young Italians and young French is around 5 years (Mencarini et al., 2010). Quite likely the SSH doctoral population follows these patterns.

Figure 4 Respondents by country of PhD and marital status



91 per cent of the surveyed sample were in paid employment or had received a fellowship, and another 5 per cent were self-employed (Table 4 in Annex 1). Only 3 per cent did not have a paid job, which means that the number of unemployed was even lower, as the "Not in paid work" POCARIM category covers both the unemployed and those who have chosen not to be employed for a variety of reasons, such as for example maternity, family care obligations, further education or gap year. Thus, the unemployment level in the POCARIM sample is well below the average overall unemployment level in the EU in the recent months (12.0 per cent in February 2013; Eurostat, 2012). There might be two explanations of this observation: either we did not manage to capture the representative number of unemployed doctors, or doctoral education gives some degree of immunity from the adverse labour market conditions.

On average, 76 per cent of the POCARIM respondents currently work in the public sector (Table 5), clearly the most important employer for the SSH doctors in all the states. We managed to capture a reasonable number of responses from the private sector (18 per cent) and also some responses from those working in the third sector (3 per cent).

A vast majority of respondents, 78 per cent on average in the POCARIM countries, are employed in a higher education or research institution (Table 6). In the sample, we also had 7.4 per cent of respondents from business/commercial entities, 6.8 per cent from government or administration organizations, 2.6 per cent from the primary or secondary education sector and 1.8 per cent from non-governmental organizations.

Table 5 Respondents by sector and country of current employment (%)

Employment sector	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Public	81	71	83	70	86	77	82	74	72	85	81	64	65	76.3
Private	16	21	15	25	10	18	13	19	21	12	11	33	19	18.0
Third sector	1	5	2	2	2	1	3	5	5	1	3	1	8	3.0
Other	2	3	0	2	2	3	2	2	3	2	5	3	7	2.8

Table 6 Respondents by country of current employment and type of institution (%)

Type of institution	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Business/commercial entity	7	14	7	16	6	4	6	3	11	2	10	2	8	7.4
Higher education or research organisation	70	65	78	60	74	86	77	91	70	91	83	91	76	77.8
Primary or secondary education institution	2	1	7	6	1	2	3	0	4	2	1	0	4	2.6
Government or administration organisation	16	8	5	6	9	4	9	5	9	3	3	4	7	6.8
Non-governmental organisation	0	5	1	2	4	0	2	1	4	0	2	1	2	1.8
Other	5	8	2	10	5	3	3	1	2	1	1	3	2	3.5

The tables presenting the distribution of SSH doctors by main characteristics and country show that the sample we used is well balanced, albeit not representative. Readers of the remaining part of the report should always keep this in mind and interpret the results accordingly.

3.3. Career paths of respondents

One of the aims of the POCARIM project is to examine the career paths of SSH doctors. They were investigated in the survey through the questions concerning the first and subsequent jobs after the award of the PhD (up to five jobs in addition to the current one) and unemployment experience. The first job could include the one started before obtaining the PhD and continued afterwards.

Sector of employment and type of employing institution

For the POCARIM countries on average, the first job of 76 per cent of respondents was in the public sector (Table 7). In post-socialist countries: Hungary, Slovakia, Latvia, as well as in Portugal and Switzerland, this share was the highest: more than four out of five SSH doctors had their first job after PhD in this sector. The clear leaders as regards employment of SSH doctors in the private sector are France (29 per cent), Turkey, and Poland (both 28 per cent), with Spain and the UK (25 per cent and 24 per cent respectively) following suit.

The comparison of the distribution of SSH doctors by the sector of employment in the first (Table 7) and the current job (Table 5) shows that for the POCARIM countries these distributions are very similar on average, however some differences can be noted in several countries. In Germany, the share of respondents whose current job was in the public sector

was 8 percentage points lower than reported for the first job, indicating quite significant transfers from the public to the private sector. In Turkey, the difference was 5 percentage points. Some countries experienced transfers in the opposite direction: the largest were in Spain (9 percentage points) and in Poland (4 percentage points).

Table 7 Respondents by country and sector of first employment (%)

Employment sector	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Public	80	79	74	66	85	77	81	73	68	82	81	69	68	75.5
Private	19	17	25	29	12	20	16	21	28	16	12	28	24	20.6
Third sector	0	3	1	2	1	0	2	4	2	1	2	1	3	1.6
Other	1	1	0	3	2	3	1	2	2	2	4	3	6	2.3

The most important first employer of SSH doctors are higher education and research institutions and this is clearly visible in our sample (74 per cent on average in POCARIM countries; Table 8). Business and commercial institutions offered 10 per cent of jobs and government and administration, 7 per cent.

Table 8 Respondents by country of first employment and type of employing institution (%)

Job sector	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Business/commercial entity	10	14	14	19	8	7	11	4	15	3	12	2	13	10.2
Higher education or research organisation	63	68	68	62	71	77	70	92	61	91	74	89	75	74.0
Primary or secondary education institution	2	2	7	7	2	5	5	0	7	2	6	2	4	3.9
Government or administration organisation	17	8	6	2	10	5	8	3	12	4	7	3	5	6.9
Non-governmental organisation	1	3	1	1	3	2	3	0	4	0	2	2	1	1.7
Other	7	5	3	10	6	4	3	1	2	1	0	3	2	3.4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100.0

Interestingly, in Norway, Portugal and Turkey the share of those working in the public sector (Table 7) was lower than the share of employed in higher education and research institutions, clearly showing the importance of private education and research on the employment market of these countries. This increasing importance of the private sector in higher education is confirmed by Altbach, Reisberg and Rumble (2009) in the report prepared for UNESCO.

Business and commercial entities employed on average 10.2 per cent of the surveyed sample. However, there are substantial differences between the countries: in France 19 per cent of surveyed doctors had their first job in business and commerce, followed by Poland (15 per cent), Germany and Spain (14 per cent each). Turkey (2 per cent), Portugal (3 per cent) and Norway (4 per cent) had a very low intake of SSH doctors to first employment in this sector. Large discrepancies can be also observed in the employment of SSH doctors in government and administration: it was a very popular option in Switzerland (17 per cent) and marginal in France (2 per cent), Turkey and Norway (3 per cent each).

Except in Spain, France and Poland (7 per cent each), primary and secondary education institutions were a completely marginal employer for SSH doctors, as were non-governmental organizations.

For the POCARIM countries overall, the differences in the type of the first (Table 8) and the current (Table 6) employing institutions are not very significant: we noted 3 percentage points of outflow from business and commercial institutions and 4 percentage points of inflow to higher education and research institutions over time. The most significant outflows from business and commercial entities were in Spain (7 percentage points) and Latvia and the UK (5 percentage points each). The increase of importance of higher education and research institutions as an employer of SSH doctors over their career time (expressed through the difference in the share of this employer in the first and current job) is particularly visible in Spain (increase by 10 percentage points), in Italy, Poland and Portugal (9 percentage points increase in each), and in Switzerland and Latvia (7 percentage points' increase). This may be due either to the effect of the economic crisis, causing a gradual shrinking of jobs in sectors subject to economic volatility, or to graduates' strategy of taking any available job as their first job after graduation. Then, when the opportunity arises, they would migrate to employment in more stable academic institutions, perceived as "better" both in the sense of job stability and opportunities, to fully use their research qualifications.

There is no significant difference between men and women as far as the type of currently employing institution is concerned. There are some differences between the graduates of various SSH disciplines: higher education institution and research institutes took ten percentage points more doctors in "social sciences excluding economics and law" than doctors in economics and law, which was compensated with the eight percentage point higher employment of the latter in business and commercial institutions.

Contract duration and type

On average in the POCARIM countries, almost half of respondents were offered permanent employment in their first job (Table 9). This share increases with the time that passed since getting the PhD degree and in their current jobs 54 per cent of the surveyed SSH doctors had a permanent contract (Table 10). However, the differences between countries are extremely high. Only 12 per cent of doctors in Italy and 22 per cent in Slovakia had permanent contracts in their first job after PhD. At the other end of the spectrum were Hungary and Norway, where 81 and 69 per cent of SSH doctors enjoyed permanent employment in the first job. The same countries have respectively the lowest and the highest shares of permanent contracts also in the case of the current job. These large differences between the countries can by no means be due to varied economic performance of the countries. They must be embedded in the institutional and structural arrangements of their labour markets, especially the higher education and research institutions. Such differences deserve both comparative studies and national case studies for a better understanding of what causes such huge differences in employment security in various countries and to reduce the instability in the countries with the lowest shares of people with permanent contracts.

Men enjoyed the stable form of employment more often than women: at the time of the survey 58 per cent of males were in permanent employment, as opposed to 50 per cent of females. The field of the doctoral dissertation also had some influence on the duration of the employment contract: those with PhDs in economics or law have permanent positions in 60 per cent of cases, whereas those who graduated in humanities, in only 49 per cent of cases.

Table 9 Respondents by country of first employment and contract duration (%)

Type of contract	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Permanent	30	26	48	59	81	12	62	69	66	53	22	59	52	49.2
Fixed-term	66	69	45	31	18	75	35	30	27	40	74	39	39	45.1
Other	5	5	7	10	1	14	3	2	6	7	4	2	9	5.7

Table 10 Respondents by country of current employment and contract duration (%)

Type of contract	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Permanent	42	46	59	68	82	16	57	88	60	55	18	54	66	54.5
Fixed-term	55	48	35	19	17	77	40	12	36	35	79	44	27	40.3
Other	3	6	6	13	1	8	3	0	4	10	4	3	7	5.2

The most surprising is the reduction of the share of those on permanent contracts over time (i.e. between first (Table 9) and current employment (Table 10) in four countries: Latvia, Poland, Slovakia and Turkey. Clearly in Central Europe and Turkey job security decreased over time! This phenomenon may be linked to the economic crisis; however, these countries were not the hardest hit. Perhaps in these countries the more attractive jobs offering better opportunities are linked to less secure employment? Slovakia, Poland and Turkey are the countries with the highest proportion (46 per cent, 45 per cent and 40 per cent respectively) of those who changed employment because they were looking for better career opportunities (see Table 13 further).

On average in the POCARIM countries, 80 per cent of the surveyed SSH doctors had full-time employment in their first job (Table 11). This share increased noticeably to 87 per cent in the job at the time of survey (Table 12). The highest increase was in Turkey, by 33 percentage points. In most countries the proportion of respondents with a full-time current contract was above 90 per cent, with the highest percentage in Turkey (97 per cent), Poland and Norway (96 per cent) and Portugal (95 per cent) However, in a few countries this share was significantly lower: only 41 per cent in Switzerland and 77 per cent in Germany and Latvia.

We suspected that the share of full-time employed would differ by sex. Indeed, on average in the POCARIM countries 90 per cent of males but only 83 per cent of females were working full-time at the time of the survey (Table 12). The largest differences between sexes were noted in Switzerland (with 57 per cent of male doctors and only 21 percent of female doctors working full-time), in Germany and in the UK. A notable exception with significantly more females (93 per cent) than males (88 per cent) in full-time employment is France.

In general, less affluent countries have higher shares of those engaged in full-time employment while rich countries have higher shares of those working part-time. Female respondents were more often employed part-time than males, as expected. The Swiss pattern of employment deserves closer examination during the interviews; we may set a hypothesis, that doctors in a rich country may have less stimuli to work full-time (as a part-time salary satisfies their financial requirements) and instead engage in other activities, such as family life.

Somewhat unexpectedly, having or not having children was not a factor differentiating access to full-time jobs. The area in which the PhD was granted does not seem to be significant

either, although slightly more doctors in economics and law (90 per cent) were in full time employment compared to other social sciences doctors (86 per cent) and humanities doctors (87 per cent).

Table 11 Respondents by country of first employment, type of contract and sex (%)

Type of contract	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Total														
Full-time	37	69	81	81	95	80	79	96	90	91	93	64	85	80.2
Part-time 50% or more	54	26	12	17	5	11	13	4	7	7	2	1	9	12.9
Part-time less than 50%	9	5	7	2	0	8	8	0	3	1	5	35	7	6.9
Men														
Full-time	51	80	84	77	95	82	81	96	95	91	92	60	93	82.9
Part-time 50% or more	38	20	13	19	4	11	12	4	4	9	5	0	2	10.8
Part-time less than 50%	12	0	3	4	1	7	7	0	2	0	3	40	4	6.3
Women														
Full-time	21	59	75	84	96	80	78	96	88	92	94	67	77	77.4
Part-time 50% or more	71	31	11	16	4	11	14	4	9	5	0	2	14	14.8
Part-time less than 50%	7	11	14	0	0	10	8	0	4	2	6	31	9	7.8

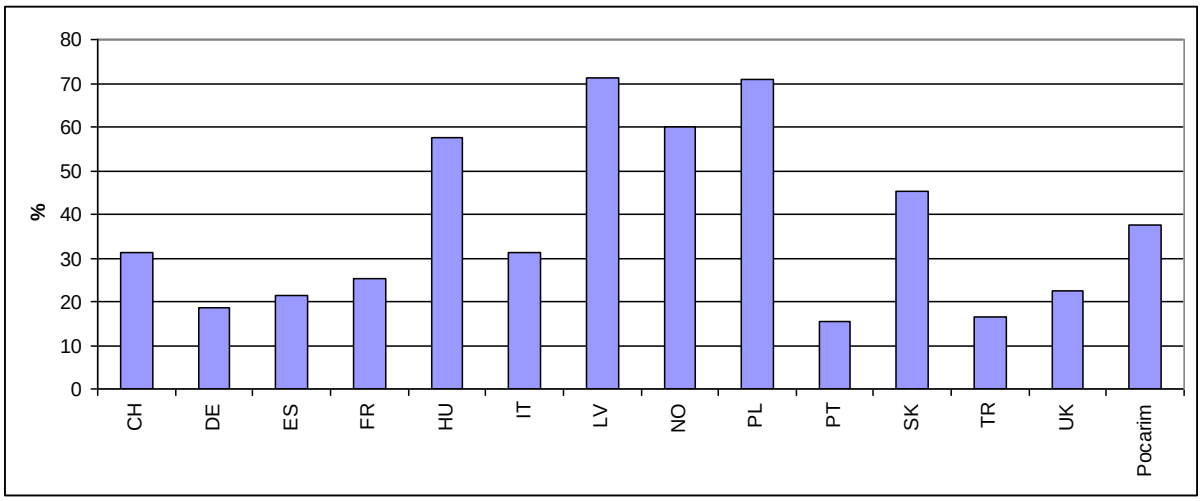
Table 12 Respondents by country of current employment, type of contract and sex (%)

Type of contract	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Total														
Full-time	41	77	91	90	94	91	77	96	96	95	93	97	88	86.7
Part-time 50% or more	55	21	5	9	6	6	17	4	3	5	3	1	6	10.7
Part-time less than 50%	4	2	4	1	0	3	5	0	1	0	4	2	6	2.6
Men														
Full-time	57	89	95	88	96	94	80	97	98	94	92	100	95	90.4
Part-time 50% or more	41	11	2	10	4	4	15	3	2	6	5	0	0	7.9
Part-time less than 50%	2	0	3	2	0	2	5	0	0	0	3	0	5	1.7
Women														
Full-time	21	66	85	93	94	89	76	94	95	97	93	95	81	82.9
Part-time 50% or more	72	30	9	7	6	7	19	6	4	3	1	2	12	13.6
Part-time less than 50%	7	4	6	0	0	4	5	0	2	0	5	3	7	3.4

Additional jobs

Almost 40 per cent of all respondents have an additional paid job(s) (see Table A5 in Annex 1). The differences between countries are very high (Figure 5). 71 per cent of those working in Latvia and Poland, 60 per cent in Norway and 58 per cent in Hungary are engaged in another gainful activity in addition to the primary job. This is contrasted with 19 per cent in Germany, 17 per cent in Turkey and 15 per cent in Portugal. It seems the phenomenon of additional paid activity is quite typical for post-socialist countries and Norway. Quite clearly, national affluence is not the only factor influencing this phenomenon: it must also be embedded in institutional, cultural and historical conditions.

Figure 5 Share of respondents engaged in additional paid activity by country of current employment



The discipline of the doctoral dissertation does not seem to have an impact on the share of those taking on an additional job. Some differences among sexes have been noted. The difference between males and females taking on additional paid activity is 6 percentage points on average in the POCARIM countries, with a larger share for men (41 per cent of those who replied) than for women (35 per cent).

Motivations for job change

The main reason for job change (in the case of leaving the first job) was the search for better career opportunities (indicated by 31 per cent of respondents on average in the POCARIM countries; Table 13). The next most frequent reason was an expired contract (22 per cent). Better career opportunities were particularly important for doctors surveyed in Slovakia (46 per cent) and Poland (45 per cent), whereas an expiring contract was the most frequent reason for change of employment in Italy (55 per cent) and Switzerland (42 per cent). Neither social conditions nor a better salary alone seem to play any significant role in employment decisions of the sample, except in Spain and Latvia where a better salary was indicated as the most important reason for the change of job by 13 per cent and 12 per cent of first job leavers respectively.

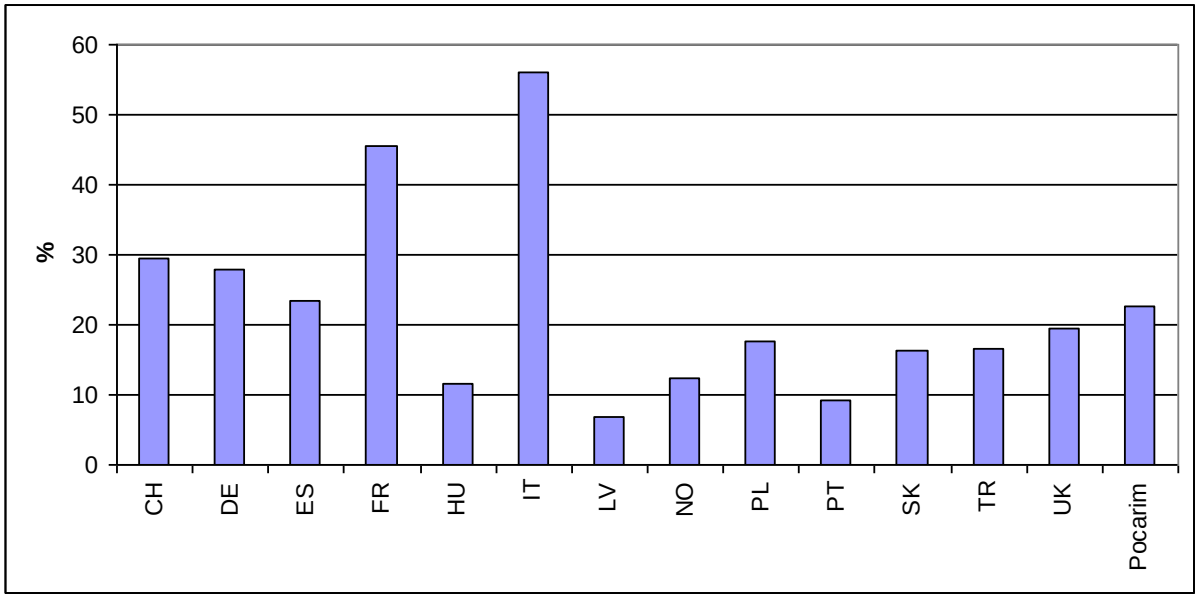
Table 13 Respondents by country of first employment and reason for leaving first job (%)

Job change reason	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
My contract finished	42	25	21	31	8	55	9	24	11	26	2	3	27	22.0
I was offered a better salary	0	2	12	7	0	3	13	2	6	0	5	7	5	4.7
I was offered better working conditions	9	12	23	0	26	9	2	12	6	15	9	7	8	10.6
I was offered better social benefits	0	0	0	0	0	1	0	0	0	0	0	3	0	0.3
I left for family/personal reasons	9	7	5	18	11	1	9	8	10	0	19	10	12	9.1
I looked for better career opportunities	23	33	21	25	34	17	31	23	45	28	46	40	34	30.7
I was offered another position in the same organisation	17	8	12	0	5	8	9	21	11	15	5	7	8	9.7
Other	0	12	6	19	16	7	27	11	11	15	14	23	6	12.9

Unemployment experience

Experience of being unemployed concerns on average 22.5 per cent of SSH doctors surveyed in POCARIM (Table A6 in Annex 1), but varies from country to country (Figure 6), with Italy having the largest share of those with unemployment experience (56 per cent), followed by France (46 per cent). In new EU member states, Norway, Portugal, the UK and Turkey no more than one in five experienced unemployment. As noted earlier, such discrepancies most likely arose due to varied institutional arrangements on the job market, especially on the academic job market of the countries concerned. Sex does not differentiate the share of those who experienced unemployment, but the field of study does: only 16 per cent of those who graduated in economics, business or law have had a period of unemployment since getting the PhD against 26 per cent of graduates in humanities.

Figure 6 Share of respondent with unemployment experience after PhD, by PhD country.



3.4. International activity and international mobility

One of the objectives of the POCARIM survey was to get some insight into international activity undertaken by doctoral graduates in the social sciences and humanities. On average in the POCARIM countries, 23 per cent of the surveyed SSH doctors were never (since the award of the PhD) engaged in cooperation with partners from abroad (Table 14). The field of PhD study had no impact on the frequency of such cooperation. However, there are large differences between the countries. The highest share of those who were not involved in international cooperation concerns doctors from Turkey (45 per cent) and France (37 per cent), while the lowest was in Norway, with only 7 per cent of the surveyed doctors never engaging in such cooperation. A vast majority of the respondents had occasional cooperation (on average 40%).

Perhaps most interesting is the identification of the countries with a high level of intensive cooperation, i.e. having regular contacts with partners abroad or almost always working in collaboration with international partners (see Figure 7). The most active doctors are those who obtained PhD in Norway (55 per cent of doctors work regularly or always with partners abroad) and Switzerland and Germany (51 per cent in each).Countries in Central Europe (except Latvia) and Southern Europe have much less developed cooperation, below the average value for the entire surveyed population. One may set a hypothesis that two factors may influence the level of international cooperation: (i) the affluence and (ii) the duration of participation in European research cooperation (such as Framework programmes and other similar European vehicles).

Table 14 Respondents by country of PhD and frequency of international collaboration (%)

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

Another indicator of international activity is international mobility. In the survey, we distinguished short-term, medium-term and long-term mobility. Short-term mobility referred to conferences, consultancy, business trips, meetings with collaborators, study visits, training and other short-term stays abroad not exceeding one month. Medium-term mobility concerned stays abroad exceeding a month but not longer than a year, including fixed-term contracts, posted work, study visits, research visits and lectureships. Long term-mobility referred to trips abroad for professional purposes for a period above one year and could include for example contracts abroad, posted work and post docs.

On average in the POCARIM countries, 85 per cent of those who replied to the question about mobility had some mobility experience. This share does not seem to depend strongly on the PhD broad discipline but varies between the countries (Figure 8): from 67 per cent in the case of doctors from France to 100% in the case of doctors from Norway. This confirms the position of Norway as the country with the most developed international collaboration.

Figure 7 Share of respondents who regularly or always work in cooperation with partners abroad

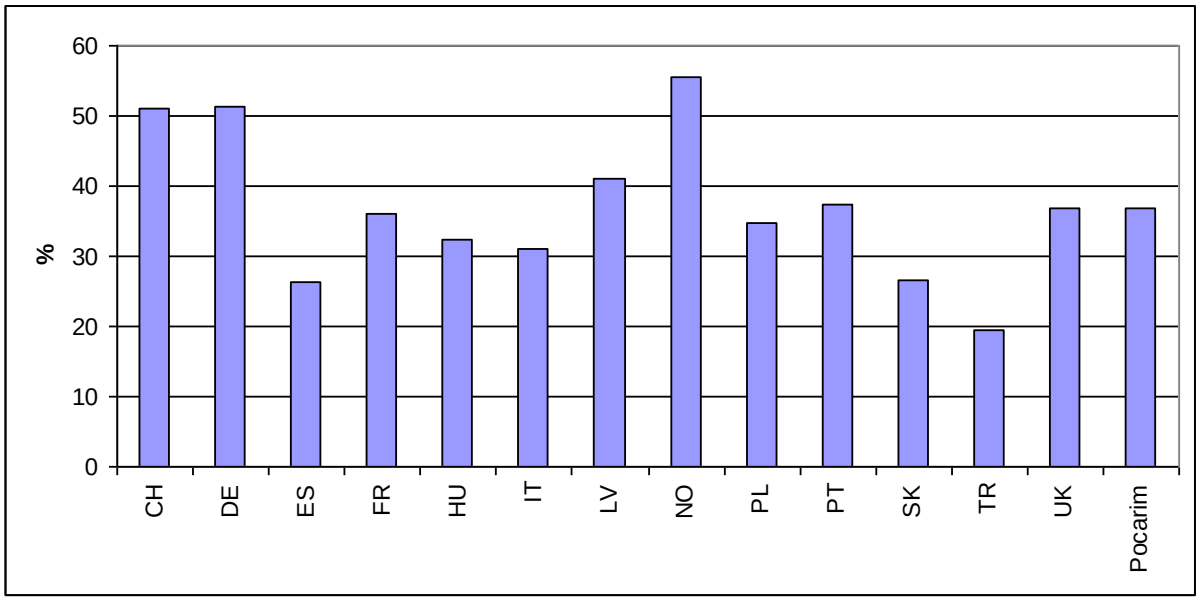
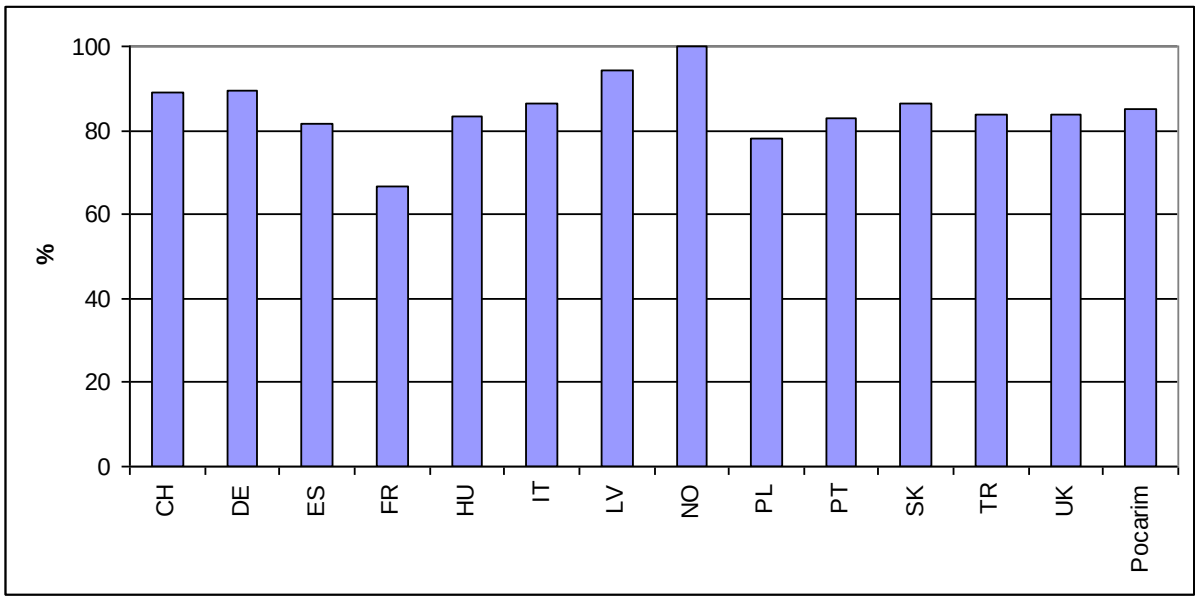
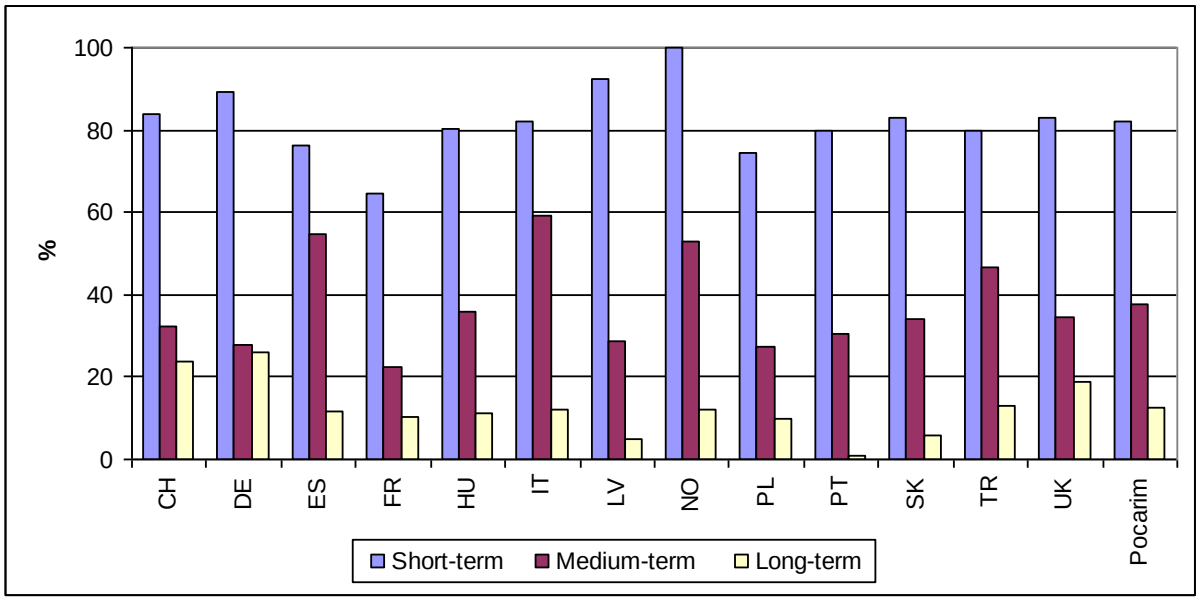


Figure 8 Share of respondents with international mobility experience.



Not surprisingly, short-term international trips are the most frequent form of mobility (Figure 9). On average, 82 per cent of respondents was engaged in short term mobility and over 61 per cent does it on a regular or frequent basis (Table A7 in Annex 1). 28 per cent of respondents travel 3 or more times a year. Medium term mobility covers relatively broad category of relocations, from short study visits to stays lasting an entire academic year. In migration statistics some of them, namely those lasting over 3 months, would fell under the concept of short-term migration (United Nations, 1998). On average 37 per cent of surveyed doctors ever engaged in medium-term mobility. Those completing their dissertations in Italy, Spain and Norway were most active (more than a half of respondents in undertook some form of medium-term mobility). On the other hand, 78 per cent of doctors educated in France never engaged in such mobility (Table A8 in Annex 1).

Figure 9 Share of respondents with international mobility experience, by type (duration) of stay abroad



Mobility which exceeds one year falls under the definition of long-term international migration recommended by the United Nations (United Nations, 1998) and adopted by the European Union (Official Journal of the European Union, 2007). Both the process of taking decision about long-term migration and the consequences of such decision are very different to those related to short- and medium-term mobility. We may therefore expect that the patterns of such mobility may be different. For the POCARIM countries on average, 12 per cent of respondents ever moved to another country for the purpose of work for a period longer than a year. SSH doctors who received their degrees in Germany and Switzerland were most prone to long-term work-related migration. 26 per cent of the former and 24 per cent of the latter have had such migration experience(s). The differences between the countries in long-term mobility of doctors, presented in Figure 9, cannot be explained based on our general knowledge of migration patterns and processes. To give only one example: 89 per cent of surveyed doctors who obtained their degrees in Hungary and 90 per cent of those from Poland have no experience of long term mobility. However Poles are much more mobile than Hungarians in general. It would be interesting to investigate, if mobility of doctors differs indeed from this general pattern.

One could expect that short-term mobility of doctors could be related to the affluence of the sending country (with richer countries affording to fund more trips), while long-term mobility could have the opposite relation, as doctors may seek opportunity to move from less to more affluent countries. The data presented in this section suggest that the country affluence is probably not the only factor and that national cultural and institutional setting have an impact. This observation may be used as a recommendation to put investigation of motives and mechanisms of mobility on the agenda of the in-depth analyses of the interviews in Workpackage 5.

3.5. PhD impact

One of the aims of the POCARIM project was to understand the broader impact of the work of PhDs in the social sciences and humanities. According to the survey, SHH doctors perceive that the impact of their degrees is high on themselves and their close environment: on their personal satisfaction (93 per cent of respondents indicated a beneficial or highly beneficial impact), on their career (85 per cent) and on the organisations they work for (83 per cent) (Table 15). The level of self-assessment of the impact vary from country to country. An average assessment of the impact for three variables related to the "close environment" (including personal satisfaction and career) is the highest in Norway (96 per cent of the surveyed doctors think that the impact was beneficial of highly beneficial) followed by Portugal (93 per cent), Turkey and the UK (92 per cent each). In Slovakia and France this percentage was 80 and 79 per cent respectively, the lowest among the POCARIM countries but still high. We may conclude that SSH doctors in all POCARIM countries assess that the impact of their degrees on themselves and the surrounding them closely environment is high.

Contrary to the above, the impact on the more distant world is in their view much smaller: on average, 46 per cent of SSH doctors perceive that their degree had beneficial impact on the local society, 48 per cent see a beneficial impact on the country and 49 per cent on the global society. The perceived impact on the more distant environment differs substantially from country to country. The highest average of the three indicators concerning the impact on the "more distant world" was noted in Turkey (7 per cent) and the lowest in Slovakia (33 per cent) and Switzerland (36 per cent).

These results should not come as a surprise: the impact on doctors' close environment (their satisfaction, career or employer) is easy to conceptualise and perceive. The impact on the local society, the country or the global society is both more difficult to conceptualise and very difficult to measure. It is also quite likely that the actual impact decrease with the "distance" from the source: if a person presents a paper on a conference, the impact of his or her career is immediate and obvious, the impact on local society is debatable, and the impact on global society, unless the presentation is on a high-level international forum, is negligible to none. It should also be noted, that the cohort of the surveyed doctors was relatively young in terms of the time since the award of the PhD (roughly 5 years on average). It is possible that with the age and increasing professional experience the perception of the impact may change.

Table 15 Beneficial impact of PhD by impact area and respondent's country of PhD

Impact area	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Personal satisfaction	93	87	95	89	92	93	92	96	98	98	85	95	97	93.1
Career	81	87	85	70	87	84	81	96	79	88	78	92	90	84.5
Organisation (employer)	77	80	83	78	83	85	77	96	71	91	76	90	91	82.9
Local society	34	43	44	42	45	53	51	41	44	61	30	64	47	46.1
Country	32	42	42	33	49	52	51	65	38	65	36	73	48	48.2
Global society	42	47	46	39	45	63	46	48	34	64	32	74	58	49.2

Note: The table gives the percentage of respondents who indicated a beneficial or a highly beneficial impact of their PhD

The shares of respondents who indicated some negative impact was generally very small. However, as many as 8 per cent of respondents with a PhD from France and 5.8 in Italy thought that the PhD had a negative impact on their careers. Italy, France and Slovakia were the countries were a negative impact in some impact area was noted most often. The highest share of respondents who indicated a negative impact, was in Italy in the question about the impact on the country: 14 percent of doctors in Italy considered this impact as negative, compared to 4 per cent in the POCARIM countries on average. Again, this may be a topic worth investigation in the in-depth interviews.

Among various forms of making a positive impact, the most popular are typically academic activities: publication of textbooks, monographs, books, articles etc and teaching students. On average, 90 percent of the surveyed SSH doctors were active in these fields (Table 16). Between 60 and 70 per cent of the respondents participated in policy-relevant conferences, transferred knowledge, managed projects or supervised students. Clearly, the composition of the sample, with a very high share of respondents employed in higher education institutions and research institutes (Table 6) resulted in a list of impact instruments typical for academic life. On average the most active (engaging most often in one of the indicated impact activities) are doctors graduating in Norway and Portugal and least active are those obtaining their degree in France and Slovakia, with the difference exceeding 20 percentage points.

SSH doctors engage also quite frequently in activities not typically academic. 53 per cent gave interviews in media (radio, TV or newspapers), 37 per cent advised to policy actors on the local, regional, national or international level, 35 per cent participated in societal or political committees. There are some differences in the types of the undertaken impact activities among the doctors representing various disciplines. The respondent with a PhD in the economics, business or law have advised policy actors and participated in policy-relevant conferences significantly more often than those with a PhD in humanities (respectively 39 per cent and 66 per cent of doctors in economics and law, while only 20 per cent and 46 per cent of doctors in humanities). Surprisingly, as much as 23 per cent of the respondents developed innovative products, which may seem to be far from being a typical activity for somebody specialising in social sciences or humanities.

Table 16 Respondents by PhD country and impact instrument/activity (%)

Impact activity	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Given interviews in media (radio, TV, newspapers)	50	53	59	33	51	40	65	91	64	51	34	57	38	52.8
Developed innovative products	20	37	24	18	22	19	33	16	28	25	15	20	22	22.9
Been a board member/ volunteer/advisor in an NGO	17	29	23	15	27	12	44	37	42	23	29	42	27	28.2
Been a board member in a company	6	6	11	10	16	6	21	20	21	9	6	5	12	11.3
Participated in societal or political committees	34	33	28	30	28	34	42	37	45	30	23	45	41	34.7
Taught students	82	82	96	83	88	90	90	93	84	96	91	97	86	89.1
Advised to policy-actors on the local, regional, national or international level	39	50	31	30	26	35	43	69	31	37	14	28	50	37.1
Participated in policy-relevant conferences or events	55	66	43	70	65	65	58	84	56	71	42	58	75	62.1
Published textbooks, monographs, articles, books	84	83	97	78	94	95	89	99	90	97	89	96	82	90.3
Taken part in knowledge transfer activities	58	68	75	58	55	56	74	75	60	86	77	67	68	67.4
Managed/coordinated projects	73	83	60	61	64	51	58	87	74	58	60	63	77	66.9
Supervised graduate or PhD students	54	59	63	54	66	78	69	85	47	82	70	71	60	65.9

NB. Percentage were calculated in relation to the number of those who replied if they have undertaken a given activity or not.

4. Conclusion

This report presents the main findings of the POCARIM survey conducted in thirteen European countries. The samples of respondents in each country were well balanced across a number of variables including sex, PhD sub-discipline and employment sector. The survey was not representative, therefore the findings, which are correct for the surveyed sample, may be not valid for the entire SSH doctors populations in each country. Nevertheless, we tried to indicate some similarities and dissimilarities in the career paths, international cooperation and mobility, and in the impact of PhD graduates in the countries concerned.

Considering the average results for the POCARIM countries, most of the surveyed SSH doctors work in the public sector. They are typically employed by higher education and research institutions. Over half of them have permanent contracts and four out of five work full-time. The most frequent reason for change of employment is contract expiry and search for better career opportunities.

A vast majority of SSH doctors engage in international cooperation and are involved in various forms of geographical mobility related to it. Obtaining a doctoral degree results in very high personal satisfaction and is beneficial for the doctors' careers. The work of the SSH PhD holders is also beneficial for the employing institution. However, less than half of

doctors perceive that they have an impact on the local society, country and global society. Most of the impact activities are typical of academic life.

However, the populations of SSH doctors in various POCARIM countries differ from each other and there are some national country–related specificities. For example, Hungary and Portugal have a very high share of those employed in the public sector, whereas Turkey and the UK have a relatively low share, with a difference of 20 or more percentage points. In terms of employment stability, the clear leaders are Norway and Hungary, with the highest shares of surveyed doctors employed currently on permanent contracts, while Italy and Slovakia have an exceptionally low share of those with permanent contracts. The share of doctors engaged in another paid activity in addition to their main job varies from below 20 per cent in Portugal, Turkey and Germany to more than 70 per cent in Poland and Latvia.

The highest intensity of regular international cooperation was reported in Norway, Germany and Switzerland. Swiss and Germans had the highest incidence of long-term travel. France and Turkey have the highest proportion of those who never collaborated with partners abroad, Turkey has also the highest proportion of those with no international mobility experience.

Obtaining a PhD had a beneficial impact on the careers of 96 per cent of respondents in Norway, but only 70 in France. The impact of the doctors' work on the employing organizations was assessed as beneficial most frequently in Norway and least frequently in Poland.

The in-depth interviews should allow us to investigate the possible reasons for the differences between the countries and to learn about the causes and motives behind SSH doctors' behaviours and strategies. They may reveal to what extent the historical, social and cultural patterns influence doctors' decisions and what role institutional arrangements play.

References

Altbach P., L. Reisberg, L. Rumble (2009) Trends in Global Higher Education: Tracking an Academic Revolution. A Report Prepared for the UNESCO 2009 World Conference on Higher Education. UNESCO.

Bitusikova A. (2013) Mapping the population, careers, mobilities and impacts of advanced research degree graduates in the social sciences and humanities (POCARIM). Work Package 2: Policy analysis. Project report. University Matej Bel.

Cañibano C, E. Castro-Martínez, A. García-Aracil, F. J. Ortega-Colomer, J. Otamendi and R. Woolley (2013) Work Package 3: Secondary Data Analysis. Mapping the population, careers, mobilities and impacts of advanced research degree graduates in the social sciences and humanities (POCARIM).

Official Journal of the European Union (2007) Regulation (EC) no 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection and repealing Council Regulation (EEC) No 311/76 on the compilation of statistics on foreign workers.

Eurostat (2012) Unemployment statistics
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Unemployment_statistics#Recent_developments_in_unemployment_at_a_European_and_Member_State_level

Accessed 13.04.2013

Hansen T. B. (2013) POCARIM: Mapping the Population, Careers, Mobilities and Impacts of Advanced Research Degree Graduates in Social Sciences and Humanities. Work Package 1: Research Review. Project report. Oxford Research, Oslo.

Mencarini L., A. Pailhé, A. Solaz, M-L Tanturri (2010) Two generations at home: the time cost of young adults living with their parents in France and Italy. Carlo Albero Notebooks No. 179

Modena F., C. Rondinelli (2010) Leaving home and housing costs. The experience of Italian youth emancipation

United Nations (1998) *Recommendation on statistics of international migration*, New York.

Annex 1 POCARIM survey results – additional tables

Table A 1 Respondents by PhD country and sex (%)

Sex	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Male	54	51	61	51	45	43	25	61	48	46	31	45	48	46.9
Female	45	47	38	48	52	55	74	38	50	53	67	54	51	51.7
No answer	1	2	1	1	2	2	2	1	3	2	2	1	1	1.4

Table A 2 Respondents by PhD country and PhD Year (%)

PhD year	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
2000	1	0	5	2	0	1	0	7	2	1	2	1	10	2.3
2001	1	3	10	0	0	2	0	10	9	1	0	4	4	3.3
2002	3	2	8	3	2	2	1	10	3	4	0	7	7	4.0
2003	3	5	8	2	1	2	7	9	2	3	4	9	3	4.4
2004	4	9	12	6	1	5	6	8	7	2	2	8	5	5.8
2005	5	12	9	6	0	8	6	12	6	7	4	6	8	6.9
2006	7	14	6	5	2	9	6	9	10	9	9	6	4	7.5
2007	7	12	6	8	5	10	13	14	10	12	3	8	4	8.5
2008	10	14	6	11	14	12	13	5	13	7	14	18	10	11.4
2009	9	14	12	15	20	12	7	9	12	12	11	18	14	12.7
2010	10	15	7	19	26	12	11	3	13	18	14	11	14	13.2
2011	17	1	9	13	22	13	21	2	9	19	15	2	10	11.8
2012	25	0	3	11	6	12	8	1	4	6	22	2	7	8.2

Table A 3 Respondents by PhD country and marital status (%)

Marital status	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Has spouse or partner	70	84	71	86	81	68	72	87	82	83	78	78	80	78.5
Single, divorced or widowed	28	13	23	11	17	29	24	10	14	15	19	22	16	18.6
No answer	3	3	6	2	2	3	4	3	3	2	3	0	4	2.9

Table A 4 Respondents by PhD country and employment status (%)

Employment status	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
In paid employment, fellowship or stipend	95	88	88	84	95	88	94	97	92	96	92	92	86	91.4
Self-employed	3	9	6	9	3	4	4	2	8	2	8	5	8	5.4
Not in paid work	2	3	6	7	2	8	2	1	1	2	0	3	6	3.3

Table A 5 Respondents by country of current employment and engagement in other paid activity (%)

	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Has other paid job	31	19	22	25	58	31	71	60	71	15	45	17	22	37.5
Does not have other paid job	69	81	78	75	42	69	29	40	29	85	55	83	78	62.5

Table A 6 Respondents by PhD country and unemployment experience (%)

Unemployment experience	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Some periods of unemployment since PhD	30	28	23	46	12	56	7	12	18	9	16	17	19	22.5
No periods of unemployment since PhD	70	72	77	54	88	44	93	88	82	91	84	83	81	77.5

Table A 7 Respondents by country of PhD and short term (up to one month) mobility (%)

Frequency of short term trips to other countries	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Often (3 times a year or more)	41	39	18	22	26	30	29	55	22	19	11	16	38	28.3
Regularly (1 or 2 times a year)	26	34	32	21	31	30	46	36	30	42	38	33	31	33.1
Rarely (less than once a year)	7	12	17	13	15	15	14	8	13	14	26	20	10	14.1
Once	9	5	9	9	7	7	3	1	10	4	8	10	4	6.7
Never	16	11	24	35	20	18	8	0	25	20	17	20	17	17.8

Table A 8 Respondents by country of PhD and medium term mobility (from one month to one year) (%)

Number of stays abroad	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Once	17	15	29	10	23	28	17	23	15	14	14	27	14	18.9
2-3 times	9	9	19	5	10	20	10	24	8	11	18	12	14	13.1
More than 3 times	7	4	6	7	3	11	2	6	4	5	2	7	7	5.5
Never	68	72	45	78	64	41	71	47	73	69	66	54	65	62.5

Table A 9 Respondents by PhD country and long term mobility (stays longer than one year) (per cent)

Number of long term stays abroad	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Once	18	21	10	8	10	9	4	10	9	1	6	11	15	10.0
More than once	6	5	2	3	1	3	1	2	1	0	0	3	3	2.3
Never	76	74	88	90	89	88	95	88	90	99	94	87	81	87.6

Table A 10 Respondents by country of PhD and impact of PhD on personal satisfaction (%)

PhD impact on personal satisfaction	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Very beneficial	56	53	72	53	50	72	54	66	65	76	46	71	77	62.4
Beneficial	37	33	23	36	42	22	37	31	34	22	39	25	19	30.7
Neutral	7	11	3	11	7	4	8	4	0	2	12	5	2	5.7
Negative	0	2	1	1	1	3	1	0	2	0	3	0	1	1.2

Table A 11 Respondents by country of PhD and impact of PhD on career (%)

PhD impact on career	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Very beneficial	36	49	57	30	42	51	34	66	36	57	28	56	61	47
Beneficial	45	38	28	40	45	33	46	30	43	31	50	36	28	38
Neutral	13	11	13	21	12	10	17	3	18	9	20	6	7	12
Negative	6	2	2	8	1	6	3	1	3	3	2	2	3	3

Table A 12 Respondents by country of PhD and impact of respondents' PhD on the organisations they work/worked for (%)

PhD impact on organisation	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Very beneficial	31	39	43	27	37	48	31	50	24	48	36	48	52	39.4
Beneficial	46	42	40	51	46	37	46	46	47	43	41	42	39	43.5
Neutral	23	18	15	19	15	11	20	4	27	8	20	10	8	15.4
Negative	0	2	2	3	2	3	3	0	2	1	3	0	1	1.7

Table A 13 Respondents by country of PhD and impact of respondents' PhD on the local society (%)

PhD impact on local society	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Very beneficial	6	13	13	12	7	14	11	4	10	13	6	21	16	11.1
Beneficial	28	30	31	30	38	39	41	37	34	48	24	44	31	35.0
Neutral	60	55	55	53	53	40	46	59	55	37	64	36	51	51.1
Negative	6	2	1	5	2	7	3	1	1	2	6	0	2	2.8

Table A 14 Respondents by country of PhD and impact of respondent's PhD on his/her country (%)

PhD impact on respondent's country	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Very beneficial	4	10	11	8	8	14	12	7	5	14	4	27	16	10.8
Beneficial	28	32	31	25	41	38	39	58	33	51	32	46	32	37.4
Neutral	63	55	56	58	49	34	42	35	59	33	58	27	48	47.5
Negative	6	3	1	9	2	14	7	0	3	2	6	0	3	4.3

Table A 15 Respondents by country of PhD and impact of respondent's PhD on the global society (%)

PhD impact on respondent's country	CH	DE	ES	FR	HU	IT	LV	NO	PL	PT	SK	TR	UK	Pocarim countries average
Very beneficial	6	9	13	12	6	20	12	12	6	13	2	20	12	11.1
Beneficial	36	38	34	26	39	43	34	36	29	50	30	54	46	38.1
Neutral	56	52	52	54	54	31	53	52	66	35	64	26	40	48.8
Negative	2	1	1	7	1	6	1	0	0	2	4	0	2	2.0

Annex 2 Report from the preparatory phase and the pilot survey *(by Anna Kicinger)*

First draft of the survey

The first draft of the survey was prepared by CEFMR and circulated for feedback on 12 April. Until 9.05.2012 we received feedback from Spain, Latvia, Turkey, Italy, Slovakia, Portugal, Germany, Switzerland, France and UK. All of the suggestions and comments were given attention and have been taken into account. However, it was not possible to include all of them in the second draft of the questionnaire. In general there were two types of comments:

a) minor comments relating to the content/language/organization of the first draft
b) more developed proposals that aimed to modify the questionnaire significantly

Efforts were made to include as many of the suggestions as possible and still keep the survey concise and user-friendly at the same time.

Second draft of the survey

The second draft of the survey was circulated on 21 May 2012. CEFMR received the acceptance from Turkey, Italy, Portugal, and Hungary and additional feedback from Spain, Latvia, UK, Germany and Switzerland by 8 June 2012. Following the feedback, the WP leader proceeded with work on the 3rd draft, including email exchanges and discussions with Spanish, Latvian and UK partners. Finally, on 11 June 2012 the 3rd draft of the survey was circulated as a version to be piloted as soon as possible.

Third draft of the survey

The 3rd draft of the survey was submitted to Liverpool to be posted on-line on 11 June 2012.

Partners from Turkey, France and Spain decided to translate the pilot. Other partners decided to translate the final version (Poland, Latvia, Slovakia, Portugal, Germany) or use only an English version (Norway, Italy, Hungary, UK). Several issues arose during the translations (e.g. a need to differentiate between next and additional jobs).

First unexpected trouble in putting the survey on-line appeared at this stage: we learned that the University of Liverpool does not offer the IT services in putting the surveys on-line. As a result, the UK partner were unexpectedly faced with the additional tasks to learn the software and to put the survey on-line. This way the process took much longer than it was anticipated. In the meantime, the partners agreed that we will be doing the pilot only in English, since it became clear that we will not be able to pilot other language versions on-line.

Minor changes in the 3rd draft resulted from the discussions that arose during translations. Further changes in the survey design resulted directly from the process of transforming the survey from the Word file to the on-line version which involved some changed in the form of the questions. Following many days of improvements and modifications that resulted in large part from the software deficiencies, the link to the on-line version of the pilot survey was sent to all project partners on 6 July 2012.

Piloting

The on-line version of the pilot survey was launched on 6 July 2012. The pilot survey was closed on 27 August 2012.

Altogether we had 105 responses in the pilot survey (after data cleaning of empty or highly incomplete responses). We achieved the following number of respondents per country (according to the answer to the question on the country of PhD):

Table 1 Respondents in the pilot by country of PhD.

France	1
Germany	6
Hungary	5
Italy	6
Latvia	8
Norway	8
Poland	6 (including one double entry)
Portugal	4
Slovakia	8
Spain	1
Switzerland	5
UK	21
Turkey	1
No response in question on PhD country	25 (out of which 4 indicated Turkey as their country of current employment)

In addition to the on-line version, French and Spanish partners proceeded with the paper/electronic versions of the translated survey. For Spain, four questionnaires were filled in (Spanish version) and three of them were sent to WP coordinator with detailed comments. For France we received four questionnaires filled in French, as well as a detailed feedback from 5 respondents.

Between 15 August and 24 August 2012 CEFMR sent the automatically generated reports from the pilot survey to every partner (except Norway which was still involved in piloting at the time). Country data from pilots (including contact data of respondents) were sent on request (as xls files) in October 2012 to seven partners (Poland, Portugal, Spain, Germany, Norway, Hungary, Italy).

Basic characteristics of respondents in the pilot survey: 46 females, 26 males, 33 no response; respondents represented various SSH disciplines. Out of the 105 respondents in the pilot survey, 51 respondents agreed to be interviewed, out of which 46 provided contact data.

Between piloting and final survey

Main problems encountered during piloting:
- organization: summer break affected the piloting and this phase of the project lasted a month longer than expected
- several technical issues arose related both to the content of the survey and IT software we use:

- high rates of non-response to crucial questions – a need to set them as obligatory arose
    - we decided to keep to minimum open questions given the foreseen problems in the analysis, given the many language versions (eg. any questions on country)
    - we decided to set the IP-related access to survey (only one respondent can be generated from one IP number) to avoid double entries by the same respondents
    - No responses can be automatically selected as this generated a respondent even if sb only entered and left the survey without answering any questions
    - the quality/usability of data from the pilot survey exported from the SelectSurvey.NET to Excel was not satisfactory and needed further efforts to amend the survey and the format of some questions.
- feedback to the content of the survey:
    - need to address multiple employment
    - to take more broad approach to counteract bias towards academics

The changes after piloting were made in cooperation between CEFMR and the University of Liverpool and lasted between 27 August 2012 – 1 October 2012.

Table 2 Summary of comments and feedback to comments after piloting.

What has changed?	Why?	In response to comments from:
We deleted the question on the title on the PhD diploma	In all the countries (except Switzerland), including UK, respondents did not understand this question and wrote the title of their PhD theses.	Germany, analysis of responses in pilots
Responses to the question on PhD discipline: List of disciplines was put in the alphabetical order	For clarity reasons	Germany
We deleted the question on the number of jobs since PhD	It was not easy to establish number of employments for respondents engaged in many gainful activities at the same time	France, Poland
We reordered the responses in question on "why you do not work"	Clarity	Analysis of responses in pilots
We added a comment starting the section on current employment: Please tell us about your current job you consider the main one. If you are unemployed, tell us about your most recent main job.	To capture the multiple gainful activities of SSH doctors which is a widespread phenomenon in some countries	Latvia, Poland, France, Spain
We deleted question on the city of current work	To facilitate coding and analysis	
We added questions on additional jobs/ employment	To capture the multiple gainful activities of SSH doctors which is a widespread phenomenon in some countries Currently job is widely defined as "gainful activity" which should enable us to capture the broad picture of various forms of jobs across Europe	Latvia, Poland, France, Spain
We changed the scale in the question on yearly remuneration	To capture better the diversity among respondents from the high-salary countries	Norway, Switzerland

We added an explanation in question on employment: Please consider also jobs that started before you obtained a PhD and lasted after that	To capture those that did not change a job after PhD	Spain
We added a question in the sections on employment	To provide missing information on the reasons for taking another job	Germany
We changed "international research project" to "international projects"	To counteract a bias towards academics	Spain, France
The mobility table was simplified and reordered	Not to discourage the respondents with a long table,	UK
The list of responses in the question on impact was changed	To counteract the bias towards academics	Spain, France
Questions on employment – we added questions on how the salary is funded	To capture externally and internally funded employees, including externally funded post-docs	UK, Spain

Other changes were technical, related to the functioning of the survey.
The final design of the survey was ready on 18 September 2012. Between 18 September and 1 October 2012 we proceeded with the work on putting the survey on-line. Much of the efforts concentrated on the selection of the proper format of questions to obtain the output data in a usable format. CEFMR and the University of Liverpool run a number of tests of the on-line survey to make sure the data generated are manageable and proper for further analyses.

Due to the changes between the pilot version and the final version, the data from the pilot survey could not be merged with data from the final POCARIM survey. However, the contact details provided by respondents could be used when selecting the candidates for the interviews. We also received a good selection of comments that may be analyzed along with the rest of qualitative material gathered in the final survey (comments by respondents).

Annex 3 Text of the POCARIM survey (English version)

Q	
	PAGE 1
	Welcome! This survey is conducted within the POCARIM project (Mapping the Population, Careers, Mobilities and Impacts of Advanced Research Degree Graduates in the Social Sciences and Humanities) that aims to increase the understanding of the career trajectories, employment patterns and contributions of doctoral graduates in the social sciences and humanities in Europe. The information you provide us will be used in aggregate form. No names will be used to identify respondents and details will not be passed onto any third parties. To be eligible to fill in this questionnaire you must have obtained a PhD in the social sciences or the humanities between 2000 and 2012. The PhD must be from an institution based in one of the POCARIM member countries: France, Germany, Hungary, Italy, Latvia, Norway, Poland, Portugal, Slovakia, Spain, Switzerland, Turkey, or the United Kingdom. Research results of this project will be made available on the project website http://www.liv.ac.uk/law-and-social-justice/POCARIM/index.htm. If you have any questions about the questionnaire or the project, please do not hesitate to contact the Coordinator, Professor Louise Ackers at Louise.Ackers@liverpool.ac.uk Thank you for your assistance in this research!
	PAGE 2
	General information on your PhD
1	**Please assign your PhD to one of the disciplines below:** **Select one only. [obligatory]**
	Anthropology/ethnology
	Demography
	Economics and Business
	Educational Sciences
	Law
	Media and communications (including journalism)
	Political science (including public administration, international relations)
	Psychology
	Social and economic geography /human geography
	Sociology
	Other social sciences
	Archaeology
	History
	Languages and Literature
	Philosophy, Ethics and Religion
	Arts (arts, history of arts, performing arts, music)
	Other humanities
	Multidisciplinary
2	**In which year was your PhD awarded? [obligatory]**
	[drop-down menu 2000 -2012]
3	**In which country was your PhD awarded? [obligatory]**
	France
	Germany
	Hungary

	Italy
	Latvia
	Norway
	Poland
	Portugal
	Slovakia
	Spain
	Switzerland
	Turkey
	United Kingdom
	Other
4	**Please give the name of the institution that awarded your PhD (full name, please do not abbreviate). [empty space, open-ended questions]**
5	**When was your masters (or last degree before your PhD) awarded?**
	[drop-down menu, Before 1990, 1991… 200
6	**In which country was your masters (or last degree before your PhD) awarded?**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
	PAGE 3

	Your career history
	We would like to understand the kinds of work which holders of doctorates in the Social Sciences and Humanities do, and the conditions that they experience. Please help us by answering the questions in this section.
7	**What is your current employment status? [obligatory]**
a	In paid employment, fellowship or stipend
b	Self-employed
c	Not in paid work
	REDIRECTION TO PAGE 5 (if a and b) OR TO PAGE 4 (if C)
	PAGE 4
8	**Please indicate the main reason you are not in paid work:**
	I am unemployed and seeking work
	I have caring responsibilities
	Because of my health
	I am retired
	I am not actively seeking work
	Other
	REDIRECTION TO PAGE 6
	PAGE 5
	Your current employment
	Please tell us about what you consider to be your main current job
9	**In which sector is your current main job?**
	Public
	Private
	Third sector
	Other
10	**Which of the following best describes the organization you work for?**
	Business/commercial entity
	Higher education or research organisation
	Primary or secondary education institution
	Government or administration organisation
	Non-governmental organisation
	Other
11	**In which country is your current job?**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta

	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
12	**How long have you held this job?**
	Years [drop-down menu 0-12]
	Months [drop-down menu 0-12]
13	**Please tell us the type of contract you have in your current main job.**
	Permanent
	Fixed-term
	Other
14	**How is your position funded?**
	By my employing organization
	It's externally funded (post-doc, fellowship, stipend)
	It's unpaid
	I'm self-employed
	Other
15	**Is this position held full-time or part-time?**
	Full-time
	Part-time 50% or more
	Part-time less than 50%
16	**Apart from your primary job, do you take part in any other paid activity?**
	Yes
	No
17	**If yes, how many hours per week do you usually spend on these activities?**
	Please enter numbers only
18	**On average, how many hours do you work in total each week? Please include your primary job and other work-related activities**
19	**Considering your average working time, approximately how much time (in %) do you usually spend on the following?**
	Research
	Teaching
	Administration
	Management
	Other
20	**Please estimate your annual net income. Please consider the sum of all your incomes.**
	(€10,000 = approximately GB£8,000)
	Below 10,000 Euro
	Between 10,000 and 20,000 Euro
	Between 20,000 and 40,000 Euro
	Between 40,000 and 60,000 Euro
	Between 60,000 and 80,000 Euro
	Between 80,000 and 100,000 Euro
	More than 100,000 Euro
	Prefer not to disclose
21	**Is your current job your first job since the award of your PhD? [obligatory]**
	Yes

	No
	REDIRECTION TO PAGE 6 (if NO) OR TO PAGE 11 (IF YES).
	Page 6
	Your first job after the award of your PhD . Please also include jobs that started before you obtained your PhD and continued afterwards. If you haven't had any jobs since obtaining your PhD, please proceed directly to the last question on this page.
22	**In which sector was your first job after completing your PhD?**
	Public
	Private
	Third sector
	Other
23	**Which of the following best describes the organisation you worked for?**
	Business/commercial entity
	Higher education or research organisation
	Primary or secondary education institution
	Government or administration organisation
	Non-governmental organisation
	Other
24	**In which country was your first job after your PhD?**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey

	Ukraine
	United States
	United Kingdom
	Other
25	**How long did you hold this job?**
	Years
	Months
26	**Please tell us the type of contract you had in this job.**
	Permanent
	Fixed-term
	Other
27	**How was your position funded?**
	By my employing organization
	It's externally funded (post-doc, fellowship, stipend)
	It's unpaid
	I'm self-employed
	Other
28	**Was this position held full-time or part-time?**
	Full-time
	Part-time 50% or more
	Part-time less than 50%
29	**Why did you leave this job?**
	Please select the most important reason.
	My contract finished
	I was offered a better salary
	I was offered better working conditions
	I was offered better social benefits
	I left for family/personal reasons
	I looked for better career opportunities
	I was offered another position in the same organisation
	Other
30	**Apart from the jobs you have told us about already, have you held any others since obtaining your PhD? [obligatory]**
	Yes
	No
	REDIRECTION TO PAGE 7 (if YES) OR TO PAGE 11 (IF NO))
	Page 7
	Other jobs (1)
31	**In which sector was your next main job after your PhD?**
	Public
	Private
	Third sector
	Other
32	**Which of the following best describes the organisation you worked for?**
	Business/commercial entity
	Higher education or research organisation
	Primary or secondary education institution
	Government or administration organisation
	Non-governmental organisation
	Other
33	**In which country was this job?**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic

	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
34	**Please tell us the type of contract you had in this job.**
	Permanent
	Fixed-term
	Other
35	**How was your position funded?**
	By my employing organization
	It was externally funded (post-doc, fellowship or other)
	It was unpaid
	I was self-employed
	Other
36	**Was this position held full-time or part-time?**
	Full-time
	Part-time 50% or more
	Part-time less than 50%
37	**Apart from the jobs you have told us about already, have you held any others? [obligatory]**
	Yes
	No
	REDIRECTION TO PAGE 8 (if YES) OR TO PAGE 11 (if NO)
	Page 8
	Other jobs (2)
38	**In which sector was your next main job after your PhD?**
	Public
	Private
	Third sector
	Other
39	**Which of the following best describes the organisation you worked for?**
	Business/commercial entity

	Higher education or research organisation
	Primary or secondary education institution
	Government or administration organisation
	Non-governmental organisation
	Other
40	**In which country was this job?**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
41	**Why did you leave your previous job for this job?**
	Please select the most important reason.
	I was offered a better salary
	I was offered better working conditions
	I was offered better social benefits
	I was looking for better career opportunities
	My previous contract finished
	I left my previous job for family/personal reasons
	I was offered another position in the same organization
	Other
42	**Please tell us the type of contract you had in this job.**

	Permanent
	Fixed-term
	Other
43	**How was your position funded?**
	By my employing organization
	It was externally funded (post-doc, fellowship or other)
	It was unpaid
	I was self-employed
	Other
44	**Was this position held full-time or part-time?**
	Full-time
	Part-time 50% or more
	Part-time less than 50%
45	**Apart from the jobs you have told us about already, have you held any others? [obligatory]**
	Yes
	No
	REDIRECTION TO PAGE 9 (if YES) or TO PAGE 11 (if NO)
	Page 9
	Other jobs (3)
46	**In which sector was your next main job after your PhD?**
	Public
	Private
	Third sector
	Other
47	**Which of the following best describes the organisation you worked for?**
	Business/commercial entity
	Higher education or research organisation
	Primary or secondary education institution
	Government or administration organisation
	Non-governmental organisation
	Other
48	**In which country was this job?**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand

	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
49	**Why did you leave your previous job for this job?**
	Please select the most important reason.
	I was offered a better salary
	I was offered better working conditions
	I was offered better social benefits
	I was looking for better career opportunities
	My previous contract finished
	I left my previous job for family/personal reasons
	I was offered another position in the same organization
	Other
50	**Please tell us the type of contract you had in this job.**
	Permanent
	Fixed-term
	Other
51	**How was your position funded?**
	By my employing organization
	It was externally funded (post-doc, fellowship or other)
	It was unpaid
	I was self-employed
	Other
52	**Was this position held full-time or part-time?**
	Full-time
	Part-time 50% or more
	Part-time less than 50%
53	**Apart from the jobs you have told us about already, have you held any others? [obligatory]**
	Yes
	No
	REDIRECTION TO PAGE 10 (IF YES) OR PAGE 11 (IF NO)
	Page 10
	Other jobs (4)
54	**In which sector was your next main job after PhD?**
	Public
	Private
	Third sector
	Other
55	**Which of the following best describes the organisation you worked for?**
	Business/commercial entity
	Higher education or research organisation
	Primary or secondary education institution
	Government or administration organisation
	Non-governmental organisation
	Other
56	**In which country was this job?**
	Austria
	Australia
	Belgium

	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
57	**Why did you leave your previous job for this job?**
	Please select the most important reason.
	I was offered a better salary
	I was offered better working conditions
	I was offered better social benefits
	I was looking for better career opportunities
	My previous contract finished
	I left my previous job for family/personal reasons
	I was offered another position in the same organization
	Other
58	**Please tell us the type of contract you had in this job.**
	Permanent
	Fixed-term
	Other
59	**How was your position funded?**
	By my employing organization
	It was externally funded (post-doc, fellowship or other)
	It was unpaid
	I was self-employed
	Other

60	**Was this position held full-time or part-time?**
	Full-time
	Part-time 50% or more
	Part-time less than 50%
	Page 11
	Unemployment
61	**Have you had periods of unemployment since completing your PhD?**
	Yes
	No
62	**If you answered 'yes', please estimate the total number of months you were unemployed since your PhD.**
	Please enter numbers only.
	Page 12
	Your international activity
	We would like to understand the types of international activity undertaken by doctoral graduates in the Social Sciences and Humanities. Please help us by answering the questions in this section.
63	**Since the award of your PhD, have you ever collaborated in your work with partners abroad?**
	Yes, occasionally
	Yes, I have regular contacts with partners abroad
	Yes, I almost always work in collaboration with partners from abroad
	No, never
64	**How many international projects you have taken part in since you completed your PhD?**
	Please enter numbers only.
65	**Since completing your PhD, how often have you travelled to other countries for professional purposes?**
	Please consider conferences, events, consultancy, business trips, meetings with collaborators, study visits, training or other **short-term stays not exceeding one month**.
	Often (3 times a year or more)
	Regularly (1 or 2 times a year)
	Rarely (less than once a year)
	Once
	Never
	Short-term international mobility
66	**If the answer is 'yes', please tell us up to three of the most common destination countries of such visits.**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania

	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
67	**(no text) [drop-down menu of countries as in q66]**
68	**(no text) [drop-down menu of countries as in q66]**
	Medium-term international mobility
69	**Have you stayed abroad for longer periods (exceeding a month but not exceeding a year)?**
	Please consider fixed term contracts, posted work, study visits, research visits, lectureships and so on.
	Yes, once
	Yes, 2-3 times
	Yes, more than 3 times
	No, never
70	**If the answer is 'yes', please tell us up to three of the most common destination countries of such stays.**
	Please specify up to three countries.
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand

	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia
	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
71	**(no text) [drop-down menu of countries as in q66]**
72	**(no text) [drop-down menu of countries as in q66]**
	Longer-term international mobility
73	**Since completing your PhD have you moved to another country for the purpose of work for a period longer than a year?**
	Please consider contracts abroad, posted work, post docs and any other longer term mobility.
	Yes, once
	Yes, more than once
	No
74	**If the answer is 'yes', please tell us up to three of the most common destination countries of such stays.**
	Austria
	Australia
	Belgium
	Brazil
	Bulgaria
	Canada
	China
	Croatia
	Cyprus
	Czech Republic
	Denmark
	Estonia
	Finland
	France
	Germany
	Greece
	Hungary
	India
	Ireland
	Iceland
	Italy
	Japan
	Latvia
	Liechtenstein
	Lithuania
	Luxembourg
	Malta
	Netherlands
	New Zealand
	Norway
	Poland
	Portugal
	Romania
	Russia
	Slovakia

	Slovenia
	Spain
	Sweden
	Switzerland
	Turkey
	Ukraine
	United States
	United Kingdom
	Other
75	**(no text) [drop-down menu of countries as in q66]**
76	**(no text) [drop-down menu of countries as in q66]**
	Page 13
	Working across disciplines
	We would like to ask about the interdisciplinary nature of your current work. Interdisciplinarity implies integration of concepts or theories, tools or techniques, information or data from different academic disciplines, schools of thought and/or sectors of economy.
77	**Please indicate the statements that apply to you.**
	Interdisciplinary work is an important part of my current work
	My work involves using methods/theories/tool/data from other disciplines to study cross-disciplinary issues
	My work involves collaboration with partners from different disciplines
	Not applicable
	Page 14
	Impact
	One of the aims of our study is to understand the broader impact of the work of PhD holders from the Social Sciences and Humanities.
78	**Please indicate in the table below the impacts of your PhD in the following areas:**
	Personal satisfaction
	Your career
	Organisations you work/ worked for
	Local society
	Your country
	Global society
	Very beneficial
	Beneficial
	Neutral
	Negative
	Page 15
	Impact
79	**Which of the following have you done since completing your PhD?**
	I have given interviews in media (radio, TV, newspapers)
	I have developed innovative products
	I have been a board member/volunteer/advisor in an NGO
	I have been a board member in a company
	I have participated in societal or political committees
	I have taught students
	I have advised to policy-actors on the local, regional, national or international level
	I have participated in policy-relevant conferences or events
	I have published textbooks, monographs, articles, books
	I have taken part in in knowledge transfer activities
	I have managed/coordinated projects
	I have supervised graduate or PhD students
	Yes
	No
80	**Please state any other activities related to your PhD that you think were relevant in terms of their value and impact for society.** [three empty spaces, open-ended question]
	Page 16
	Personal information
81	**What is your nationality (tick more than one if appropriate)?**
	British

	French
	German
	Hungarian
	Italian
	Latvian
	Norwegian
	Polish
	Portuguese
	Slovak
	Spanish
	Swiss
	Turkish
	Other, please specify
82	**What is your usual country of residence?**
	France
	Germany
	Hungary
	Italy
	Latvia
	Norway
	Poland
	Portugal
	Slovakia
	Spain
	Switzerland
	Turkey
	United Kingdom
	Other, please specify
83	**You are:**
	Male
	Female
84	**What is your year of birth?**
	E.g.1975 [empty space]
85	**Do you have any children?**
	No
	Yes, I have one child
	Yes, I have two children
	Yes, I have more than two children
86	**Do you have a spouse/partner?**
	Yes
	No
	REDIRECTION TO PAGE 17 (IF YES) OR TO PAGE 18 (IF NO)
	Page 17
	Your spouse/partner
87	**Your spouse/partner is a citizen of:**
	The same country as me
	Other EU/EEA country
	Non-EU/EEA country
88	**Your spouse/partner is currently:**
	Employed, in a research career
	Employed, not in a research career
	Unemployed, looking for a job
	Taking care of child(ren)/or other family members
	Other, please specify
	Page 18
	Additional comments
89	**If you would like to provide additional comments on your post-PhD career path or the impact of your PhD, please do so in the space below:**
	[Open-ended question]
90	**This survey is a part of a large cross-national research project. Would you agree to participate in a more detailed interview later this year?**

	Yes
	No
	REDIRECTION TO PAGE 19 (IF YES) OR TO THANK YOU PAGE (IF NO)
	Page 19
	Your contact details
91	**Please kindly provide your contact details. They will be used only to contact you, and will be separated from your answers to the survey.**
	Title (Prof., Dr., Ms., Mr.):
	First name:
	Family/Surname:
	Email:
	City :
	Contact telephone number (including country code):

Annex 4 Sampling strategies in 13 POCARIM countries

France (by Dominique Vinck)

As far as it was impossible to have lists of PhD graduates emails from a national level, the strategy was to work with doctoral schools, associations and individuals.

Population of PhD graduates
The population of SSH PhD graduates from France universities, who received their doctoral degree from 2000 to 2011 is a little bit less than 50 000 persons (between 3200 and 4800 per year): 66 per cent in Humanities, 20 per cent in Law and political sciences, 14 per cent in economics, management and social sciences.

Survey sample of universities (doctoral schools)
There are 82 doctoral schools in France delivering a SSH doctoral degree. The main sampling strategy was to select a sample of doctoral schools in order to have a balance for all the disciplines between Paris and out of Paris and to have at least to two provincial universities. We needed to convince each doctoral school we contacted in order either they would send us lists of email or they would send the survey themselves; part of them did not answer to our request to cooperate, even after various emails and phone calls. Another part of them promised to send directly the questionnaire but we did not received any confirmation they sent the questionnaire.
What we know is the fact that the survey was sent at least to the following PhD graduates:

- Paris: Management – 50 PhD holders between 2006 and 2012
- Paris: Sciences of language – 57 PhD holders between 2005 and 2012
- Paris: Humanities and Social Sciences – 207 PhD holders between 2009 and 2012
- Out of Paris – Nantes: Law, economics, management, social science and territory – 369 PhD holders between 2000 and 2012
- Out of Paris – Grenoble: Law – 85 PhD holders between 2006 and 2012
- Out of Paris – Grenoble: Geography and urbanism – 58 PhD holders between 2002 and 2012
- Out of Paris – Grenoble: Management – 163 PhD holders between 2000 and 2012
- Out of Paris – Grenoble: History – 27 PhD holders between 2007 and 2012
- Out of Paris – Grenoble: Psychology and educational sciences – 46 PhD holders between 2007 and 2012
- Out of Paris – Grenoble: Sociology – 31 PhD holders between 2000 and 2012
- Out of Paris – Grenoble: Political science – 50 PhD holders between 2002 and 2012

The following doctoral schools accepted to cooperate but we had no confirmation they really sent the survey:

- Paris:
    - Economics
    - Social sciences
    - Law
    - Geography
    - Humanities
    - History and anthropology
    - History of art and archaeology

    - Epistemology and history of science
- Out of Paris:
    - Grenoble: Law
    - Aix-Marseilles
        - Economics and management
        - Law and political sciences
        - Social sciences
        - Education
    - Besançon: humanities
    - Bordeaux: social sciences, political sciences
    - Clermont-Ferrand: Humanities, psychology, history, Education, Anthropology
    - Lille: Humanities
    - Limoge: Law and political sciences
    - Lyon:
        - Education, Psychology, Communication
        - History, geography and urbanism, archeology, political sciences, sociology, anthropology
        - Law
    - Caen: social science and territory, education, psychology
    - Avignon: Communication, History

Furthermore, one PhD association in Paris disseminate the survey.
Thus, at least 1139 PhD graduates were contacted with the survey.

Sampling frame
As we generality had no access to lists of individuals (due to the national rule regarding privacy), we were not able to construct a sample inside the populations of the doctoral schools who accepted to cooperated. Thus, the survey was sent (directly by the doctoral school or by ourselves) to the whole list of PhD graduates of the doctoral schools which cooperated.
The doctoral schools generally have neither a complete nor up-to-date list of their own PhD graduates, except for the last years (after 2006 or 2007). Thus the sample is not at all representative of the years 2000 – 2006.

Searching the e-mail addresses
In France, due to a law on the protection of personal data, the administration of doctoral schools cannot provide the email addresses of their graduates. They are not available from any official sources. Thus, the introductory letter and survey were sent directly by the doctoral schools to their graduates.
For the years between 2000 and 2006, we asked some professors to provide the names of their graduates and their email addresses. We got like that 6 PhD graduates more.

Final sample
We are sure that 1145 (1139 + 6) PhD graduates were invited to fill the questionnaire. It is possible that some doctoral schools, which accepted to send our questionnaire really sent it, and thus maybe more PhD graduates were contacted, but we never received confirmation. We nether received information of how many did not received the questionnaire due to email problems or to change of direction.
Regarding the distribution, we can say the following:

- Temporal distribution
    - PhD graduation before 2006: 204
    - PhD graduation since 2006: 941

- Geographical distribution
    - Paris 307 PhD graduates
    - Out of Paris 752 PhD graduates
- By discipline:
    - Management: 213 PhD graduates
    - Sciences of language: 57 PhD graduates
    - Humanities and Social Sciences: 207 PhD graduates
    - Law, economics, management, social science and territory: 369 PhD graduates
    - Law: 85 PhD graduates
    - Geography and urbanism: 58 PhD graduates
    - History: 27 PhD graduates
    - Psychology and educational sciences: 46 PhD graduates
    - Sociology: 31 PhD graduates
    - Political science: 50 PhD graduates

Response rate

Except for a very small part of the sample, we were unable to remind the PhD graduates to fill the questionnaire in case they did not yet filled it, we were unable to improve the response rate. As a total, in April 2013, there were 123 full answers.

> It seems that many more PhD graduates answered the questionnaire but for unexplained (technical?) reason their answer neither occurred. We are sure of that for at least 6 persons we personally knew. Others PhD graduates did not fill completely the questionnaire.

Thus we could calculate a response rate of at least 11%.

> After looking at survey responses we may be able to say that at least one doctoral school distributed the survey without confirming it to us. The others who confirmed they sent the questionnaire have really sent it out.

Regarding the distribution of the answers we can say that the response rates are the following:

- Temporal distribution
    - PhD graduation before 2006: 11%
    - PhD graduation since 2006: 11%
- Geographical distribution
    - Paris: 15%
    - Out of Paris: 10%
- By discipline, we cannot calculate response rates because of the disparity in terms of definition between the information coming from doctoral schools and the self definition by the persons who answered the questionnaire. But we could say we have an over representation of PhD graduates in economics and management (30 PhD graduates), in sociology (27 PhD graduates) and in Law (25 PhD graduates), which reflect the doctoral schools which accepted to send the questionnaire. On the contrary, on 27 PhD graduates in history who were contacted, no one answered.

Selection of candidates for interviews

Regarding the selection of the candidates for qualitative interviews: 72 out of 123 PhD graduates accepted to be contacted. We selected among this list in order to equilibrate between Paris and out of Paris, between people still living in France and people living out of France. We sent them an email to find a way to have an interview. One third accepted but we met some practical problem with a few of them. Thus we had to complete the list with PhD graduates (6) we encountered by another way: among them already known PhD graduates who said us having filled the questionnaire but who didn't appeared in the database.

Germany (by Heike Jöns and Hannah Deakin)

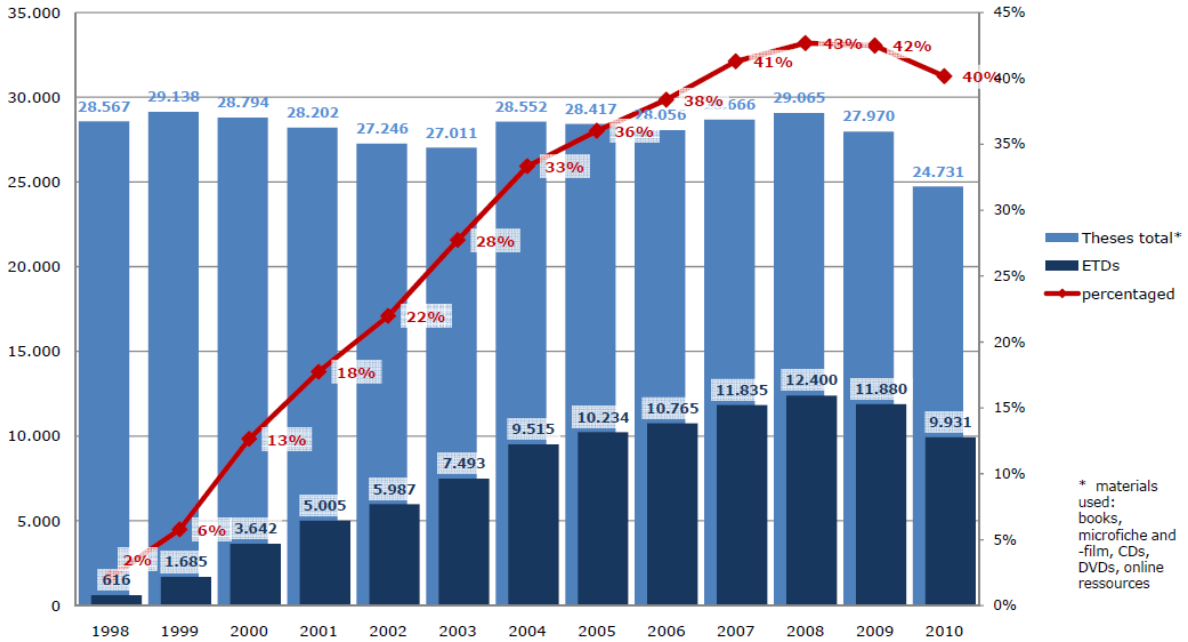
Population

Our population are all SSH PhD graduates from German universities, who received their doctoral degree from 2001 to 2010 (ten years; N = 62,967).

Sampling frame

To survey the population of SSH PhD graduates from German universities, we used the Online Catalogue of the German National Library (DissOnline: http://search.dissonline.de/). This database lists all PhD theses that have been published online in our period of interest. The advanced search function enabled us to search for online PhD thesis by year, German university, and discipline so that we were able to filter SSH graduates. Our sampling frame thus comprised of all SSH graduates, who received their doctoral degree in the period 2001 to 2010 and have published their PhD online. The share of SSH PhD graduates, who published their PhD thesis online, has varied over the years (Figure 1).

Figure 1 Share of online publications among all PhD theses and habilitations (post-doctoral theses) by year of publication in the German National Library (last updated: 25th April 2011)



Source: Courtesy of German National Library.

Survey sample of universities

We compiled a list of all German universities (data source: http://www.bmbf.de/en/6574.php?F=3&LANG=ENG&M=753&T=8) and divided them into four generations. We then sampled a historically and geographically balanced sample of 17 German universities, choosing every sixth university from each of the four generations of universities (Figure 2).

Figure 2 POCARIM sample universities in Germany

(2012)

Pre-19th century universities	Total: 25;	Sample: 4
19th century and pre-WWII universities	Total: 25;	Sample: 4
Post-WWII universities up to 1989	Total: 41	Sample: 7
Post-unification universities from 1990	Total: 12	Sample: 2

Source: http://www.bmbf.de, own classification and sample of universities

Using all POCARIM disciplines as agreed in the grant proposal (p. 8), we counted all DissOnline entries of online PhD theses by SSH PhD graduates in the period 2001 to 2010 by year and sample university (Table 1).Via this method, we were able to access 13 per cent of all PhD graduates at the 17 sample universities, or every eighth PhD graduate (Table 2).

Survey sample of email addresses

Email addresses of PhD graduates were searched for every DissOnline entry from our sample universities, using Google, LinkedIn, and XING.This online search produced the email addresses for every second sampled SSH PhD graduate. Our survey was thus sent to every sixteenth SSH PhD graduate per year, who received their doctoral degree at one of our 17 sample universities.[1]The questionnaire was sent out to 1,117 SSH PhD graduatesfrom German universities in the period 2001 to 2010.[2]172 email addresses were incorrect and therefore rejected. 26 of these addresses were then found in an additional search and the email resent. The cleaned survey sample thus consisted of 971 individuals.

Survey response samples

The first emails were circulated on 1st November 2012. By 23rd November 2012, we had received 150 survey responses. This equals a response rate of 15 per cent. A second email, combining a thank-you note with a reminder to fill in the survey if this had not been done yet, was sent out on 23rd November 2012. The survey was closed on 22nd February 2013 with a final response rate of 20 per cent, or 194 questionnaires.

Interview sample

After the pilot surveys had been undertaken, two pilot interviews were conducted. While the pilot surveys did not enter the final response sample due to revisions of the questionnaire, the pilot interviews are included in our interview sample. On 23rd November 2012, we conducted a purposeful sampling of interviewees based on the first survey response sample. We chose our interviews based on gender, year of PhD completion and current sector of employment and conducted 20 interviews. The complete set of survey responses was used to recruit five more interviewees. We conducted 16 interviews online, via Skype and video conferencing (15 in English and 1 in German, 3 interviews by telephone (2 in English and 1 in German), and 6 interviews face-to-face (5 in English and 1 in German). The face-to-face interviews were conducted in Warwick (1 in English), Munich (3 in English), Darmstadt (1 in English), and Heidelberg (1 in German). The interviews in Germany were conducted during the week beginning 13th January 2013. Altogether, we conducted 22 interviews in English and 3 in German

[1] Gathering this data took about one working week per universities, with variations by size of sample.

[2] The survey was tested using 23 pilot questionnaires with a response rate of c. 20 per cent. The pilot responses were not included in the final response sample but pilot interviews were conducted with two respondents. The interview pilots are included in the interview sample.

Appendix 1 DissOnline entries of SSH PhD graduates 2001 to 2010 for POCARIM sample universities in Germany

SAMPLING FRAME - 17-UNIS IN DISSONLINE	Year of foundation	SSH PhDs 2001-2010	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
University of Heidelberg	1386	246	2	8	20	34	27	37	31	26	30	31
University of Jena	1558	164	1	1	7	23	18	16	30	27	22	19
Ludwig Maximilians University of Munich	1472	356	3	7	9	49	42	39	63	42	52	50
University of Kiel	1665	193	6	10	11	18	19	17	25	25	35	27
Humboldt University of Berlin	1810	225	4	4	13	23	26	16	26	43	41	29
Dresden University of Technology	1828	101	0	0	2	13	13	13	16	13	16	15
University of Hannover	1831	125	0	1	14	12	17	15	15	12	18	21
University of Frankfurt am Main	1914	143	2	5	10	20	12	28	25	15	14	12
University of Magdeburg	1953	54	1	0	3	3	2	5	16	9	9	6
Ruhr University Bochum	1962	153	2	7	16	9	27	24	16	20	23	9
University of Konstanz	1966	197	2	1	12	19	18	28	28	32	25	32
University of Bremen	1971	115	1	9	13	12	11	14	12	20	11	12
University of Paderborn	1972	40	0	1	4	5	7	5	6	7	3	2
University of Bayreuth	1975	23	0	0	3	3	2	6	1	4	4	0
Catholic University of of Eichstätt-ingolstadt	1980	28	0	0	2	2	4	6	2	1	9	2
Viadrina University	1991	25	0	0	1	6	6	2	2	0	4	4
University of Erfurt	1994	37	0	0	3	3	6	4	4	5	6	6
TOTAL		2225	24	54	143	254	257	275	318	301	322	277

Source: Sampled from http://search.dissonline.de/

Table 2 POCARIM survey and interview population and samples for Germany

	Total popu-lation	17 unis population	17 unis in Diss-online	Survey sample (first circulation)	Invalid emails	Clean survey sample	Response sample by 23/11/12	Final response sample by 22/02/2013	Interview sample
Number	62,967	17,639	2225	1117	146	971	150	194	25
% of total population	100	28	3.5	1.8	0.2	1.5	0.2	0.3	0.04
% of 17-unis sample	N/A	100	12.6	6.3	0.8	5.5	0.9	1.1	0.1
% of 17-unis in Diss-online	N/A	N/A	100	50.2	6.6	43.6	6.7	8.7	1.1
% of survey sample	N/A	N/A	N/A	N/A	13.1	86.9	13.7	17.4	2.2
% of clean survey sample	N/A	N/A	N/A	N/A	N/A	100	15.4	20.0	17.1
% of final response sample	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	12.9

Hungary (by Annamaria Inzelt, László Csonka and Brigitta Zsom)

PhD qualification has not had a long history in Hungary. After the transition began the redeployment of higher education system has started. In 1993 there was enacted the first law on Higher Education (1993/LXXX) that regulated awarding the PhD title as the only scientific title in Hungary. Since then the universities have the right to award the PhD title. First Doctorate Schools have been functioning since 1994, but many others were established in 2001. The Hungarian Doctorate Council was established on the 24th January 2007.

Selecting the universities for the sample

In Hungary there are 67 higher education institutions (HEI) in 2012 from them 26 are universities and 41 colleges. All universities run doctorate schools and 1 college also has doctorate school. However not all of them have doctorate school on the field of social sciences and humanities (SSH). 18 universities and 1 college have doctorate school on SSH fields. They are running 40% of Hungarian doctoral schools, namely 69 from 174.

For our research topic the total population is 19 HEIs. For the sample we selected 8 universities with 43 SSH doctorate schools. The selection based on the following deliberations:

1. Select universities from different regions
2. Select universities with specific characters

To 1: Regional selection: sample covers 5 regions from 7 Hungarian regions. Central Hungary is in the sample with 4 universities since the intellectual assets are concentrated in and around of the capital. All other regions are in the sample with 1-1 universities.

To 2: Specific characters
As regards the characters key sampling criteria was to select well performing universities. (6 are belonging to this group.) Additional criteria were to choose a foreign speaking university and a recently emerging university with strong business links in an advanced region. Well performing universities are recognised as good universities nationally and some of them are evaluated internationally too as good one. In Hungary two titles have been introduced for qualification of the universities: *Research University* and *Excellence University*. Universities have to apply for these titles and go through on evaluation process. The maximum score is 100 points. For Research University title the organisation has to reach 80 points. If a university reaches less than 80 but at least 70 points it is qualified as Excellence University. Both Research Universities and Excellence Universities have to be strong research activities, participate in good international network, and take care on the talented students. While research universities have go through on certain threshold in each of their studied fields of science the Excellence Universities can get the title even if few faculties (doctoral schools) are not suit the requirements of quality.

In 2012 there are 5 Research Universities and 5 Excellence Universities in the country. From 5 Research Universities one has no any doctoral schools in the field of SSH. 4 others are included in the sample. From 5 Excellence Universities 2 were selected in the sample. One of them (Corvinus University of Budapest) is the strongest and largest university in the field of economics and the other one (University of Pannonia) is the single university in its region.

Together 6 universities are in the sample by their qualification and they are state owned. They got their title in 2010 for 3 years (until 31th March 2013). (They will be re-evaluated in 2013.)

Additionally to the well performing universities two other were selected.

- An English speaking private university, called *Central European University*. The enrolled students are international, a bulk of them from Central and Eastern European countries and CIS countries. Many of its graduates (either Hungarian or foreign) are using their good chances to be internationally mobile on the job market after their doctorate degree. It has a good reputation in the field of SSH. Hungarian graduates from this university similar to foreign graduates, and they usually work abroad after graduation.
- An emerging state-owned university was also selected. Széchenyi István University exists since 2002. Its predecessor was established as a college in 1968 (initiated by a giant socialist firm in car/truck engine industry). This university is located in a flourishing region of Hungary where the role of the car industry and other transport equipment manufacturer is high. The university is developing dynamically in the field of engineering and recently penetrated in several fields of social sciences for offering these capabilities to the region. This university represents an emerging, non-traditional university in the field of social science. It was assumed its presence in the sample may offer good opportunities to learn about market-led PhD job careers.

Table 1 summarizes the characters of selected universities. Number of SSH doctorate schools varied by universities between 2 and 11. Two of the selected universities have no doctoral schools in humanities but all are active at least one field of social sciences.

Identifying SSH Doctorate degree holders

Preparing a register for target population the first task was to identify the PhD degree-holders at several schools.
By the law the Doctorate Council is responsible to run a databank on all Hungarian doctorate holders. As this organisation was established only in 2007 it began to develop its databank in 2007. The official website of this Council (www.doktori.hu) contains information on Doctorate Schools and the doctorate training (name and supervisor of the doctorate holders, title of the thesis and the time of awarding the title) fully from 2007 but data on previous years are still gap-toothed. (Uploading the information on previous years is progressing slowly because several universities did not take care on these kinds of administrative data in earlier years.)

The names of SSH PhD graduates were extracted from this website and they number was compared to the statistics of (former) Ministry of Education. After the identification of doctorate schools that have not reported yet doctorate holders who obtained their degree between 2000 and 2007 we approached the maintainers of the doctorate schools for names.

Table 2 gives a detailed overview by regions, selected universities, their SSH schools and the number of doctorate holders (from 2000) by these schools. Last column of this table shows how many e-mail addresses were available.

Searching e-mail addresses

Because of the Law on Protection of Personal Data and the Disclosure of Information of Public Interest (1992/LXIII) it is not allowed to obtain the e-mail addresses of the doctorate

graduates from the same sources as their names. The second step was to find e-mail addresses. It was a special, time-consuming searching process. In the case of finding e-mail addresses the first step was searching on Google and direct mail contact with leading professors at various doctorate schools. Google source provided row information that lead to another step that contained e-mail addresses. Figure 1 summarizes the procedure.

Table 3 extracted from Table 2 and summing up the number of graduates with available e-mail addresses and they proportion to total population by fields of science.

Looking the average availability by fields it may assume we will have good chances to analyse the sample by fields of science. The difference between total number of degree holders and available e-mail addresses shows an important missing mass although many tools were used for identify the e-mail addresses.

Figure 1 illustrates how e-mail addresses were identified for surveying.

Figure 1 Identify e-mail addresses of the target population

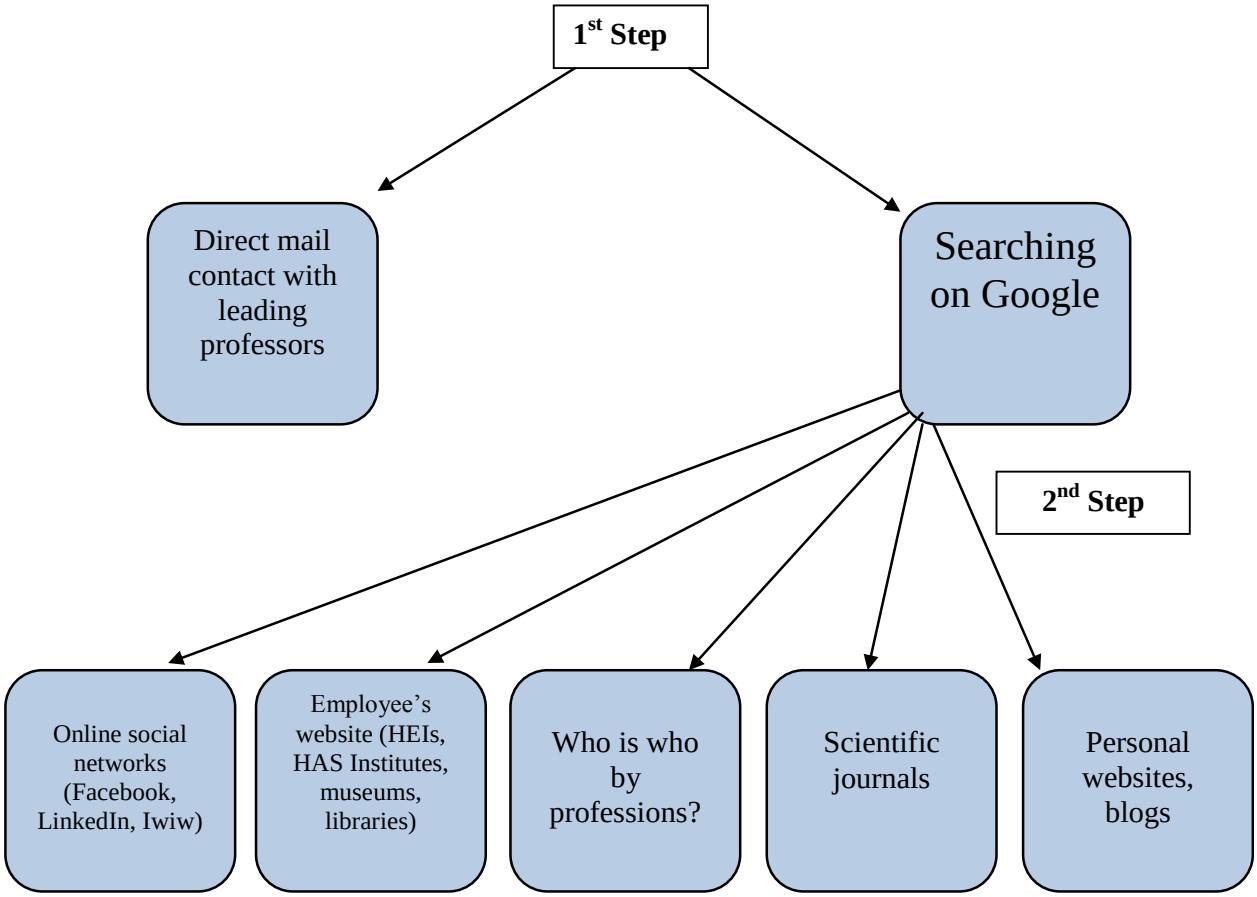


Table 1 Selected universities by their regions and by some characteristics

Region	Specifi-city	Name	Nr. of SSH doctorate schools	Other information
Central Hungary	R	Eötvös Loránd University, Budapest (ELTE)	11	The university listed in Shanghai Rankings. The field of physics is listed in Shanghai Rankings also (101-150). In the country the ELTE education is the most popular in the field of human sciences. The university was founded in 1635; this is the oldest continuously working university in the country.
	R	Budapest University of Technology and Economics	4	Listed in Webometrics (with the best result in the country). The education profile has been extended with social sciences accompanied by several structural changes at the university. Following the establishment of faculty in economics the university was renamed. Since 1st January 2000 it is called Budapest University of Technology and Economics.
	E	Corvinus University of Budapest	4	Listed in Eduniversal Rankings in 2011(best masters and MBA programs worldwide). The Financial Times has listed the Business Administration Program of the Corvinus University of Budapest since 2005. In 2009 the university won the award for the International Cooperation Culture.
	F	Central European University, Budapest	2	English speaking education, The CEU accredited in both Europe and USA. CEU students come from over 100 countries of five continents. CEU has a uniquely international atmosphere.
South Great Plain	R	University of Szeged	6	Listed in Shanghai Rankings. University of Szeged has is very active in the EU Framework Programme 7. University has good international linkages and reputation.
North Great Plain	R	University of Debrecen	11	The university won the gold award of the Hungarian Higher Education Quality Award. Research, development and innovation activities are in high level at all fields of sciences cultivated by university.
West Pannon	N	Széchenyi István University, Győr	3	The university has an important role in the West Pannon Region. There is a strong cooperation among the education and the local economic development.
Central Trans-danubia	E	University of Pannonia	2	The university is responding to the needs of the regional society and links the actors from the academic and business community. Beyond that the university has strong relationships with the cross-border regions and other parts of neighbouring countries.

Notes:
R: Research University
E: Excellence University
F: Foreign University
N: Newly emerging University

Table 2 Detailed data by the field of Sciences in the selected universities

Region	Name	Field of Science	Number of doctorate holders	
			Total	with e-mail address
Central Hungary	Eötvös Loránd University	**All SSH**	**1853**	**527**
		• **Humanities**	1649	451
		– Philosophy	102	20
		– Literature and Cultural Studies	334	93
		– History of Arts and Cultural History	73	19
		– Ethnology and Cultural anthropology	47	10
		– Educational Sciences	421	96
		– Linguistics	271	74
		– Psychology	76	30
		– History	325	109
		• **Social Sciences**	204	76
		– Law	103	37
		– Political Sciences	18	7
		– Sociology	83	32
	Budapest University of Technology and Economics	**All SSH**	**132**	**106**
		• **Humanities**	41	35
		– Philosophy	33	28
		– Psychology	4	3
		– History	4	4
		• **Social Sciences**	91	71
		– Economics and business	91	71

	Name	Field of Science	Number of doctorate holders	
			Total	with e-mail address
Central Hungary	Corvinus University of Budapest	**All SSH**	**465**	**96**
		• **Humanities**	0	0
		• **Social Sciences**	465	96
		– Political Sciences	22	15
		– Sociology	84	29
		– Economics and business	314	35
		– Economics	45	17
	Central European University	**All SSH**	**33**	**18**
		• **Humanities**	25	10
		– History	25	10
		• **Social Sciences**	8	8
		– Economics	8	8
South Great Plain	University of Szeged	**All SSH**	**334**	**104**
		• **Humanities**	256	64
		– Literature and Cultural Studies	133	19
		– Educational Sciences	19	15
		– Linguistics	32	18
		– History	72	12
		• **Social Sciences**	78	40
		– Law	58	24
		– Economics	20	16

Region	Name	Field of Science	Number of doctorate holders	
			Total	with e-mail address
North Great Plain	University of Debrecen	**All SSH**	**266**	**180**
		• **Humanities**	199	129
		– Philosophy	18	8
		– Literature and Cultural Studies	46	31
		– Ethnology and Cultural anthropology	15	9
		– Educational Sciences	17	14
		– Linguistics	28	20
		– Psychology	27	22
		– History	48	25
		• **Social Sciences**	67	51
		– Law	8	6
		– Economics and business	36	31
		– Economics	19	12
		– Regional Studies	4	2
West Pannon	Széchenyi István University	**All SSH**	**56**	**38**
		• **Humanities**	0	0
		• **Social Sciences**	56	38
		– Law	12	10
		– Economics and business	33	21
		– Regional Studies	11	7
Central Transdanubia	University of Pannonia	**All SSH**	**55**	**39**
		• **Humanities**	30	23
		– Linguistics	30	23
		• **Social Sciences**	25	16
		– Economics and business	25	16
Total			**3194**	**1108**

Table 3 Number of available e-mail addresses to total number of degree holders by field of science

Field of Science	Number of available doctorate holders (e-mail addresses)	Proportion of available e-mail addresses to total number of doctorate holders (%)
Social Sciences		
Law	77	43
Political Sciences	22	55
Sociology	61	37
Economics and business	174	35
Economics	53	58
Regional Studies	9	60
Subtotal	396	40
Humanities		
Philosophy	56	37
Literature and Cultural Studies	143	28
History of Arts and Cultural History	19	26
Ethnology and Cultural anthropology	19	31
Educational Sciences	125	27
Linguistics	135	38
Psychology	55	51
History	160	34
Subtotal	712	32
Total	1108	34

Selection procedure of Hungarian interviewees

The Hungarian POCARIM survey resulted in a total of 244 responses. Out of them 132 expressed their readiness for face to face and they provided their contact data. We have taken a multi-variable selection process to ensure the best coverage of the survey respondents including people with off-mainstream careers. We selected 50 people from 132 in first round and tried to approach them. We selected PhD graduates from all eight universities that were included into our survey sample.
During the preparation phase of interviews it became clear some of them changed their minds and did not like to devote time for interviews. Some other cases the targeted people did not refuse the interview but we could not find a proper date for the interview after several interactions.

Selection variables

- Institutions / Fields of sciences

In the case of field of sciences we were selecting the most 'popular' fields (i.e. where we had more than 10 responses) to ensure that at least one interviewee will be in our sample from those fields.

- Geographical location of awarding organisations

Since the selected universities are locating not only in Central region of Hungary (mainly Budapest) our aim was to involve PhD degree holders into the interview sample who were graduated in other regions.
In the selection of interviewees we have managed to cover 6 host cities of PhD awarding universities across Hungary. As a result we have conducted interviews in Budapest, Szeged, Debrecen, Győr, Veszprém and Pécs. We had to consider another aspect in the cases of interviews in the countryside, namely the availability of interviewees on the selected day of visit. We wanted to avoid multiple and time-consuming journeys between our offices and the targeted cities. We have selected those interviewees who were available when most of their peers in their cities were available, too.

- Year of PhD

As PhD graduation has not have long history in Hungary there were very few degrees issued in early 2000s. However we thought it is important to select PhD graduates who obtained their degree in the early years of the targeted period (2001-2012). Their presence is important as they have a richer career path (with more positions, more varied job movements) than latter graduated. However most of the survey respondents obtained their degree in the period 2009-2012 during the economic crisis. In the cases of such fresh PhD graduates we were focusing on their job searching strategies instead of career movements.

- Sector of employment

The overwhelming majority of on-line survey respondents arrived from academic sector. However we thought PhD graduates working in non-academic sectors are also important target group for our research. We tried to specifically look for interviewees working in the private sector.

- Gender

The gender distribution is showing a slight over-representation of male respondents (share of males is 67% among interviewees and 46% in survey).

The following tables give overviews on 25 interviewed persons by selection variables:

Table 1 Interviewed persons by field of sciences

Field of Sciences	Nr. of interviewees
Economics	10
Law	3
History	3
Language & Literature	2
Other Social Sciences	2
Sociology	1
Anthropology	1
Multidisciplinary	1
Political Sciences	1
Psychology	1

Table 2 Interviewed persons by location of universities

City/Region	Nr. of interviewees
Budapest / Central Hungary	15
Szeged / Southern Great Plain	4
Debrecen / Northern Great Plain	2
Győr / Western Transdanubia	2
Pécs / Southern Transdanubia (not in our original sample)	1
Veszprém / Central Transdanubia	1

Table 3 Interviewed persons by year of PhD degree

Year of PhD	2003	2006	2007	2008	2009	2010	2011	2012
Nr. of interviewee	1	1	2	4	2	10	4	1

Table 4 Interviewed persons by sectors

Sector of current employment	Nr. of interviewees
Academic (Public)	17
Non-academic (Private, 3rd Sector)	8

Note to the tables: One of the interviewed persons withdraw her interview when it was ready in English. Instead of this interview that belonged to sampled universities we included an interview that was carried out during the testing phase. The person got his degree at a university that is not included into the final sample. The characteristics of this person fit well to the selection criteria.

Figure 2 Map-view of interviewees' geographical location (purple cross)

Symbols: Roman numerals: Nr of universities in the sample
Arab numbers: Nr of interviewed persons

Italy (by Emanuela Reale and Giulio Marini)

The sampling for identifying the PhD holders from 2000 to 2012 was based on the following steps:

- First we identified a group of universities in Italy, which own a web-based repository of PhD theses, chosen in order to form a balanced sample of organizations as to: size (large/medium), the presence of all the SSH fields (generalistic), the age (old/recent), the geographical location (north/south), the character of research universities (according to the definition of this parameter provided by the EUMIDA Project). The universities include both ranked and non-ranked organizations;

- Then we checked the repositories of these universities, in order to list the names of the SSH doctorates, and try to find out the e-mail addresses using web-based resources. In some cases we also asked the universities to supply the contact details, if available, under confidentiality rules;

- Meantime, we addressed other possible sources of contact (PhDs association, professional associations, networks and social networks) in order to balance the sample by geographical location, year of doctorate, discipline and gender, and to avoid as far as possible the excessive presence of PhD holders in academic positions.

A database of 1800 candidates was built in a first round with the information coming from universities and social networks; then a second round of checking for the different sources was done in order to improve the number of respondents, which was further enlarged until we got a number of 2500 candidates. The number of response is (841), a rate of 33,64% that is in very much above the regular achievement of large surveys sent via email.

The sample is a well-balanced one with respect to the characteristics we tried to represent. We also checked the representativeness taking into account the population of PhD holders in Italy in the SSH disciplines. The results are outlined in the following Table 1.

Table 1 PhD Holders in Social Sciences and Humanities (SSH)

	PhD attained in Italy per year in social sciences and humanities*	POCARIM survey Italy
2000	1192	10
2001	1187	14
2002	1291	17
2003	2014	19
2004	2837	40
2005	3326	66
2006	3457	79
2007	3396	88
2008	4029	101
2009	4034	100
2010	3788	98
2011	n.a.	109
2012	n.a.	99

Source of data about PhD holders in Italy: MIUR

** Since 2007 areas and disciplines cannot be derived precisely from the MIUR statistics because the names of doctoral programs are indicated instead of the main areas. Despite the higher specification, disciplines of affiliation cannot be sure. For 2007, 2008 and 2009 year esteems are computed from the grand total (a third of total, as more or less the previous years showed). For 2011 and 2012 data are not yet available.*

Interview sample

The survey results were used to identify the people to be interviewed, looking at those that show their willingness to participate in this further stage of the POCARIM project. The sampling was based on a random selection, which took into account some requisites (year of the doctorate, gender, and job (working in academic and non-academic sector, unemployed). The distribution of the interviews is summarized in the following table:

Italian University	10
Foreign University	5
Self-employment	2
Retired	0
Unemployed	1
Public Research Organisation	4
Private company (employed)	2
Other (Museums, libraries, non for profit organizations…)	1
TOTAL CANDIDATES	**25**

Latvia (by Agrita Kiopa)

Given the comparatively small population of SSH PhDs (about 700), I am aiming at building a sample that covers full population. The starting point for population build was a list of names, which I received from the register of the Promotion Council of the Latvian Academy Of Sciences. In addition, I retrieved names and thesis information from the websites of major Latvian universities.

The compiled database includes following fields:

From Academy of Science:
- Name
- Name of Supervisor
- University
- Discipline
- Year of birth
- Year of defence

From Internet (Google, Universities, Facebook, "Draugi", Linkedin)
- Contact info (professional/private e-mail, phone number)
- Current job (Organization and position)

SSH Disciplines, in which Ph.D. degrees have been awarded, include communication, education, economics, geography and environmental science, history, law, literature, linguistics, management, philosophy, political science, psychology and religion.

The total number of names (sample size), which I was able to compile fro all sources is 699. Of these I was able to locate email addresses for 605.

91 respondents agreed to be interviewed. The further selection was made (N=29) to cover as broad span of years when degree was awarded, institutions, which awarded the degree, science discipline, as well as sector and region of employment.

Norway (by Tor Borgar Hansen)

The main source for identifying the stocks of doctoral graduates since 2000 in Norway, is the Doctoral Registry operated by NIFU. This registry contains information on degree awarding institutions, nationality of graduates, disciplines and other variables. Thus it is possible to determine the population of SSH doctoral graduates from Norwegian degree awarding institutions in the period of 2000-2012. According to the registry, the total number of SSH PhD graduates in the period between 2000 and first half of 2012, is 2856, as shown in Table 1.

Table 1 The population of Norwegian SSH PhD graduates 2000-2012 (first half)

Discipline	2000-2012 (first half)
Humanities	975
Social sciences	1881
Total SSH	2856
Source: Oxford Research AS based on the Doctoral Degree Register (NIFU)	

Unfortunately, Oxford Research was not able to obtain micro data from the registry for use in the POCARIM SSH candidate survey. Thus, we employed another strategy to compile the population.

Population of SSH PhD candidates for the POCARIM survey

As the list of degree awarding institutions in Norway in the field of SSH as rather limited, we decided to employ a strategy of consulting every degree awarding institution web pages. As a matter of fact, each HEI has records of their PhD (or doctoral) candidates which cover the whole period between 2000 and 2012. This means that we were able to compile a database of SSH PhD-candidates on our own by using publicly available information. The result of our compilation of candidates is shown in Table 2.

Table 2 The population for the Norwegian POCARIM survey

HEI	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total	Share
AHO	3	3	3	4	3	4	6	5	6	5	6	4	1	53	2 %
BI	1	6	6	2	10	6	10	6	7	8	8	12	8	90	3 %
HiM							3	2	5	4	4		2	20	1 %
MF	2	4	2	1	4	3	4	6	5	6	6	7	3	53	2 %
NHH								19	13	8	16	15		71	3 %
NMH			1	1	2		2	1	4	6	1	2	3	23	1 %
NTNU	13	22	29	28	20	24	45	34	60	35	35	40	25	410	14 %
UiA							3	1	1	6	1	5	2	19	1 %
UiB	21	34	40	39	41	36	49	51	61	62	58	55	46	593	21 %
UiN				1		4	3	5	5	4	6	4	2	34	1 %
UiO	52	63	78	71	81	84	83	115	142	113	86	79	62	1109	39 %
UiS							9	3	6	14	17	17	13	79	3 %
UiTø	13	14	17	14	14	15	22	33	37	37	27	21		264	9 %
UMB												8	10	18	1 %
Total	105	146	176	161	175	176	239	281	352	308	271	269	177	2836	100 %

Source: Oxford Research AS

By comparing tables 1 and 2, we see that our compilation includes virtually all SSH PhD candidates from Norwegian HEI between 2000 and 2012 (2836 out of 2856, 99,3 %). Thus we have an excellent basis for drawing a sample for the POCARIM SSH PhD candidate survey.

Sample and survey distribution

Following the completion of the Norwegian SSH PhD population database for 2000-2012, we started collecting e-mail addresses via internet search. In a relatively short period of time, we were able to find e-mail addresses for 721 out of the 2836 SSH PhD graduates. We put emphasis on balancing the sample in such a way that we strived to maintain the distribution between HEIs and years in the population. An overview of the resulting sample is shown in Table 3.

The survey was distributed electronically by use of the mass distribution tool of MS Word/Outlook. In the process of sending invitation e-mails, we detected that 27 of the respondents could not be reached due to bad e-mail addresses. The new N is thus 694.

Responses

We received 146 complete and an additional 17 incomplete questionnaires. The distribution of responses is shown in Table 4.

Table 3 Sample for the Norwegian POCARIM survey

HEI	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Tot.	Share
AHO	1	1	2	3	1	3	2							13	2 %
BI	1	1	3	1	3	1	3	3				1		17	2 %
HiM							1			2	1			4	1 %
MF	1	2		1	2	2	3	2						13	2 %
NHH								9	4		2	1		16	2 %
NMH			1	1	1		1		1	2				7	1 %
NTNU	4	8	10	12	9	11	14	11	8	10	2	1		100	14 %
UiA							1			2	1		1	5	1 %
UiB	11	24	22	23	23	18	18	18	6	8	8	1		180	25 %
UiN				1		3	1	2						7	1 %
UiO	30	31	32	25	34	31	27	28	10	11	4	4		267	37 %
UiS							3	1	2	5	5	1		17	2 %
UiTø	8	5	6	7	7	5	6	16	5	4		1		70	10 %
UMB												4	1	5	1 %
Total	56	72	76	74	80	74	80	90	36	44	23	14	2	721	100 %
Source: Oxford Research AS															

Table 4 Distribution of answers from the Norwegian POCARIM survey

HEI	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total	Share
BI		1												1	1 %
MF	1	1			1	1								4	3 %
NHH								2	2		1			5	3 %
NMH										1				1	1 %
NTNU	1	1	1	1		3	3	4	2	5				21	14 %
UiB	1	6	4	4	3	3	3	3	1	3	2	1		34	23 %
UiN				1				1						2	1 %
UiO	6	5	10	6	6	8	5	8	1	1	1			57	39 %
UiT	1	1	1	1	2	3	2	1	1	2				15	10 %
UNKNOWN	1									1				2	1 %
UMB												2	1	3	2 %
ABROAD						1								1	1 %
Totalsum	11	15	16	13	12	19	13	19	7	13	4	3	1	146	100 %
Source: Oxford Research AS															

Based on this, we calculate the response rate of the Norwegian survey to be 21,03 % (completed questionnaires) and 23,48 % if we also include uncompleted answers.

Use of survey information to select interview candidates

67 out of the 146 survey respondents stated their willingness to participate in in-depth interviews (WP 5). Out of these, 28 candidates were invited to participate in an interview. The candidates were chosen on the basis of their mobility experience as stated in their survey responses, while at the same time securing a balance between the various SSH-disciplines and years of graduation. In all, 20 interviews were conducted.

Poland (by Dorota Kupiszewska, Krystyna Kupiszewska, Anna Kicinger, Marek Kupiszewski and Weronika Kloc-Nowak)

In Poland, the survey has been targeted at PhD graduates who completed their theses in 2000-2012. It was decided that the most effective way to reach the required number of responses would be to send individual, personalised e-mails to the potential respondents. A list of PhDs was compiled using three sources. The principal source was the "Polish Science" ("Nauka Polska" database available through the http://nauka-polska.pl website (in Polish), which includes information on completed doctoral theses. This database was particularly useful for indentifying PhD holders currently working in the higher education and in research institutions, but was also used to identify those working in the government institutions.

The second source was goldenline.pl, a professional network service, searched for PhDs using Google. The majority of PhDs working in the private sector were found this way. Many of the PhDs working in NGOs were found using various combinations of keywords (including "NGO", "doktor nauk" (PhD), "doktorat" (PhD thesis) in Google or by looking at specific NGOs' websites. Also, to increase the number and the diversity of respondents, some e-mail addresses were collected through private contacts.

When compiling the list of e-mail addresses, we tried (i) to cover all social sciences and humanities disciplines, as specified in the POCARIM application, (ii) to insure wide geographical coverage of the respondents, (iii) to insure that we have responses from both the largest/best universities and provincial universities, (iv) to cover PhD employed in various sectors, (v) to have good balance of both sexes.

One of the problems was that the "Polish Science" database not always included an email address of the person (generally the PhDs in humanities provided an e-mail address less often than for example those in economics and business), or an e-mail sent to the address provided was not valid. Moreover, the response rate was lower than anticipated. We monitored the number of responses and kept extending our list and sending the invitations until reaching (or exceeding) the required number of responses. The additional invitation were targeted at the PhDs from the underrepresented sub-categories (disciplines or work sectors).

To increase the response rate we gave the respondents the choice of filling either the English or the Polish version of the survey. It seems to have been a good strategy, as 45% of respondents with a PhD degree from Poland completed the Polish version of the survey.

Altogether we sent out 812 invitations, out of which 768 did not bounce back so were assumed to have been delivered to the addressee's mailbox. Assuming that all respondents who completed their PhD in Poland filled in the survey in response to our invitation, the response rate was around 15%.

As mentioned above, the main source for compiling the address list for sending survey invitation was the "Polish Science" database, developed by the Information Processing Institute (Ośrodek Przetwarzania Informacji). The access to the database is provided in four thematic ways: Institutions, People in science, Scientific papers and Ministry of Science and Higher Education research projects. The "Institutions" database was used to search for PhD holders working in the government organisations (for example using the "Ministry" keyword as a filter and investigating the list of PhDs employed in the given institution).

From the point of view of the POCARIM project the most useful was the "Scientific papers" database[3], as it allowed to filter the PhD dissertations by their end year and search for the PhDs completed in the 2000-2012 period. They could be also searched by scientific disciplines. The individual records of the database include: paper/dissertation title, author's name, type of the paper (e.g. R&D, PhD, habilitation), start date, end date, name(s) of supervisor(s), name(s) of reviewer(s), institution were the work was conducted, degree awarding institution and dissertation description. The email address of the author is not displayed directly but may be found (if available) in the information about the author that may be accessed through a hyperlink attached to the authors' name.

Out of 119 respondents with PhD in SSH who completed the POCARIM survey, 82 persons agreed to participate in a more detailed interview. Out of those, a list of 32 candidates for an interview was compiled. The selection criteria were: field of PhD, current sector of employment, gender, nationality, and geographical location of the PhD institution and of the current employer. The required number of 25 interviews were conducted, including 5 with PhD holders employed in the business sector, 5 in government and public administration and 4 in non-governmental organizations (there were only 4 willing to take part, all were interviewed). 16 interviews were conducted face to face, including 2 outside the capital city. 8 interviews were conducted over Skype and one over telephone, due to Skype failure on the respondent's side. Among the interviewees there were two Polish nationals working abroad and one non-EU national working in Poland.

Portugal (by Pedro Perista and Heloisa Perista)

The sampling strategy in Portugal was as follows:

- We took as a departing point the on-line Portuguese Open Access Scientific Repository.
- We also considered from the start the number of PhD thesis by SSH field in the reference period.
- A selection of the most relevant universities was made, in order to get a balanced sample of organisations taking into account criteria such as geographical location, size, etc.
- In each of these higher education bodies, the doctoral thesis presented between 2000 and 2012 in the selected SSH fields were selected.
- When the email address of the PhD holder was not available (which occurred quite often) an internet search followed in order to get these addresses. (Note: most PhD holders are still working in the same university where they defended their doctoral thesis, which is preventing us to find many PhD holders working outside the academia.)
- A special effort was done in order to collect the email addresses of foreign men and women (namely from Brazil) who took their PhD in Portuguese Universities.

[3] http://nauka-polska.pl/dhtml/raportyWyszukiwanie/wyszukiwaniePraceBadawcze.fs?lang=pl (interface in Polish only)

- A database containing the names and email addresses by scientific field, as well as the year of conclusion of the PhD and the university where this took place, was built.
- The final database included over 950 entries and all these persons were invited to fill in the questionnaire.
- Only a few persons were contacted through private contact. These regarded, most of all, the initial phase/pre-tests.
- All the emails were sent by us. Thus no other email lists/organisations were involved.
- The distribution by discipline was the following:

Law	121
Archaeology	9
Communication Sciences	21
Social Sciences	27
Educational Sciences	66
Political Science	23
Antiquities/Classics	23
Languages and Literatures	101
Philosophy	50
Geography	54
Economics	89
Management/Business/Administration	101
History	79
Sociology	94
Psychology	101
Total	959

- Response rate was app. 18.8%
- The selection of the candidates for the interviews was made through the application of selection criteria to the survey's database. A set of criteria was weighted according to its relative importance in the context of Portuguese PhD holders (thus not according to the sample obtained through the survey). Criteria used were 1) discipline, 2) university where the PhD was obtained, 3) gender. Additionally, a balance between recent graduates and less recent graduates was attempted though it has not been set as criterion.

Slovakia (by Alexandra Bitusikova and Dagmara Bacova)

Sampling for on-line questionnaire survey of SSH PhD graduates 2001 to 2010 from Slovak universities

Slovakia does not have a central database or a tracking system of PhD graduates. Most of institutions do not track their doctoral graduates either. Only the Comenius University in Bratislava has a register of PhD graduates, however, the database does not contain any contact details such as an address or email (only the name, faculty, discipline and the year of PhD completion).

Therefore, for the purpose of sampling for online questionnaire survey we used the following methodology:

1. Addressing PhD holders through personal networks of researchers that are involved in POCARIM and their colleagues; and through personal networks of those PhD holders who were addressed (snowball effect).
2. Online search of workplaces where there was a possibility to find PhD holders from SSH (such as universities, research institutes, museums and art galleries, secondary and primary schools, NGOs and public sector (municipalities). The most efficient way was through universities and research institutes that present their employees on their websites with their titles. Other institutions usually do not show the level of education of their employees.
3. Addressing the administrator of the web portal of the Slovak branch of EURODOC (ADS) – the association of doctoral candidates and young researchers – with a request to distribute the POCARIM online questionnaire through their mailing list. (We received a confirmation from the administrator that the questionnaire was disctributed, but we do not know how many people filled in the questionnaire based on this link).
4. Google search of names of PhD holders from the Comenius University database. This way we managed to find several PhD holders that are employed in other than academic sector.

Searching contacts through universities and research institutes´ websites was very time consuming because in each case it required verification of the discipline and year of completion. We selected universities that were geographically situated across the whole country (Western, Central and Eastern Slovakia – cities of Bratislava, Košice, Prešov, Nitra, Žilina, Trnava and Banska Bystrica). We contacted personally each potential respondent (not via university or faculty secretariats). The method of sending an email to a larger group was used only in case of EURODOC (ADS). Each potential respondent was addressed in a separate personal email, and was given information about the POCARIM project and two bilingual alternatives of the questionnaire. This way we distributed up to 500 questionnaires. 130 PhD graduates filled in the questionnaire, and 67 of them agreed to be interviewed and gave us their contact details.

Interviews sample

After summarising the survey results we started to contact (via email) those respondents who agreed to be interviewed. Our objective was to create a diverse sample that would include PhD holders working in academia as well as in other sectors, who come from SSH disciplines, different parts of Slovakia and are of different age and work seniority. We used also a method of a snowball and asked our respondents for more contacts of PhD holders (even if they did not take part in the online survey). This way we managed to find mainly respondents from non-academic workplaces.

We travelled to meet respondents in different parts of Slovakia. It was sometimes difficult to harmonise their time with the time of the meeting, but in most cases we gave the respondents an opportunity to decide about the date, time and place of the meeting. All respondents were happy to be contacted again in case we needed more information. Some interviews had to be shortened because of work duties of the respondents, in these cases we tried to focus on main thematic areas of the interview.

Each interview that followed the questionnaire with all its questions was time consuming and required a minimum of an hour to be completed, but in most cases more (up to two hours). In two cases the respondents complained about the questionnaire (too long and difficult), on the other hand, several respondents were satisfied with the questions and described the interview as auto-therapy or self-reflexion.

The final sample consisted of 25 respondents, out of that 21 women and 4 men. This gender imbalance was obvious already in the online survey where it was mostly women agreeing with the interview. We were addressing PhD holders from different disciplines. Most of those who agreed with an interview were from psychology and economic sciences. Three respondents never worked in academia, other had or have at least a part-time work agreement with a university of a research institute, working there either as teachers or researchers.

Spain (by Carolina Cañibano, Elena Castro, Adela García, Javier Ortega, Javier Otamendi and Richard Woolley)

In Spain, the study is focused on the analysis of the professional careers, mobility and impacts of a sample of PhD holders who defended their theses dissertations in Social Sciences and Humanities Departments of one of the five biggest universities in Spain (The University of Valencia, The Complutense University of Madrid, The University of the Basque Country, The University of Seville and The University of Barcelona) in the period comprised between 2000 and 2012. The selection of such universities assured geographical diversity and also a greater availability of candidates by disciplines. The disciplines included within the study were Economics, Geography, History, Journalism, Law, Linguistics, Management/Business Administration, and Political Sciences and International Relationships.

An original database of 500 candidates was built from the available information contained in TESEO, a publicly accessible database which contains information on theses and doctors in all disciplines since 1977. The next step was searching the e-mail addresses for those individuals through various types of websites, such as university departments, personal blogs, or corporate sites. Additional information about the candidates, such as the name, the department where they defended the dissertation, the university, the discipline to which they were ascribed, contact telephone number, and information about the type of sector (university, industry, government) and position held, complemented the original database. In all cases, the search strategy was registered in the database in order to facilitate replication of the search.

Once the database was completed, we invited all the candidates via e-mail to participate in the online survey (either in English or in Spanish). The period comprising this phase started in the 27th of November and the online questionnaire was closed the 15th of February. Two reminding e-mails were sent during this time. The overall response rate was almost 29%. We received a total of 146 responses out of which 112 marked the box "interested in being interviewed."

We made contact with 40 candidates, of whom a total of 30 PhD holders finally agreed to be interviewed. We selected the candidates so as to have as much diversity as possible in terms of job occupations. Most researchers who answered the survey work in University or

Government agencies. We included therefore all contacts working in industry that had shown an interest in being interviewed. The final distribution of interviewed PhDs is as follows:

Private University	1
Public University	8
Foreign University	3
Self-employment	4
Retired	1
Unemployed	3
Public Research Organisation	5
Private company (employed)	4
Other (Museums, libraries…)	1
TOTAL CANDIDATES	**30**

A third of the interviews was conducted in person. The rest of the interviews had to be conducted by telephone or videoconference, mainly due to the distance of some of the interviewees (i.e. Germany, Taiwan, among other locations). Once the appointment for the interview was set, we shared the interview outline with the candidates. All interviews were recorded (with two exceptions). The interviews were conducted in Spanish and transcribed directly in English.

Switzerland (by Metka Herzog)

To establish the population of graduates in SSH, we made use of the database from the Federal Statistical Office on the basis of the Graduate Survey, which is conducted every two years since 1999. At the aggregated level, we can observe the numbers of awarded doctorates by gender, age, year, discipline, nationality (Swiss/foreign) and by the university. In Switzerland, only the following twelve state-run university institutions of academic learning (10 cantonal universities, plus 2 Federal Institutes of Technology) are allowed to award doctoral degrees:

Ecole polytechnique fédérale de Lausanne (EPFL)
Eidgenössische Technische Hochschule Zürich (ETHZ)
Universität Basel
Universität Bern
Université de Fribourg
Université de Genève
Université de Lausanne
Universität Luzern
Université de Neuchâtel
Universität St. Gallen
Università della Svizzera italiana (USI)
Universität Zürich

In the disciplines relevant for this study, some universities stand out with the number of awarded doctorates. The greatest numbers of doctorate holders in SSH are at the University of Zürich, St. Gallen and Geneva. EPFL, on the other hand, hardly has any doctoral students in the studied fields. We make sure to cover universities in the three linguistic regions of

Switzerland. Following the geographic criteria and the number of students in the selected disciplines by university, we decided to select the following universities:
- Università della Svizzera italiana in Lugano for the Italian-speaking part of Switzerland
- University of Geneva and University of Lausanne for the French-speaking part of Switzerland
- University of Zürich, University of Lucerne for the German-speaking part of Switzerland
- Graduate Institute of International and Development Studies, Geneva: it is a university-level institution specialized in graduate education in social sciences.

Considering the distribution of doctorates in Switzerland by discipline, we aimed for contacting more doctorate holders in the following disciplines: Economics and Management, Social Sciences and Law (in this order).

At first, we contacted the Federal Statistics Office, which conducts the Graduate Survey on a biannual basis and has a record of names and addresses of awarded graduates. However, the responsible for the mentioned survey informed us that the legal basis of data protection prohibits the transmission of names and addresses and all recorded data are treated for statistical purposes with strictest confidence.

Considering that we could not make use of a comprehensive list of a sampling frame, different strategies were used when approaching the universities. At the USI in Lugano, Research Support Services of the University assisted the dissemination of the survey. Due to confidentiality reasons, email invitations to complete the survey were sent out to PhD alumni in SSH directly by the USI Research Support Services.

At the University of Lausanne, we approached the Department on Information Systems and Statistics. Considering the relatively good tracking system of its alumni, we managed to invite many PhD holders from the University of Lausanne. The questionnaire was sent to 384 PhD holders whose email addresses are known (out of a total of 876 PhD holders in SSH in the period from 2000 to 2012).

We did not receive the response from the secretariat at the university level at the University of Geneva. However, the Institute for Environmental Sciences at the University of Geneva allowed us to approach their PhD alumni through their group email address.

In the German-speaking part of Switzerland we approached the University of Lucerne and Zurich. In the light of data protection issues which require following of internal protocols, the procedure for disseminating the survey took longer than expected at the University of Zurich. Unfortunately, the survey was not disseminated in time before closing the survey.

In addition to contacting responsible university departments directly, we also took advantage of the alumni network of the National Centre of Competence in Research (NCCR) North-South, which is a research programme in the fields of global change and sustainable development. Alumni which were awarded a PhD degree from any of the Swiss universities were sent an invitation to participate.

Interview sample

The selection for in-depth interviews was chosen on the basis of diversity in terms of gender, sector of their current jobs, disciplines and years since completion of their PhD thesis. We

aimed to include interview respondents in different age groups. The distribution of interview respondents in terms of disciplines and in terms of the year of their PhD completion is presented in tables 1 and 2. In the period from the end of November 2012 to the end of April 2013, 18 interviews have been completed. Of these 18 interviews, 12 interviewees are women and 6 men; 11 are currently working in a sector linked to academia and 7 work in a non-academic sector, either in companies or in (non) governmental organizations. 11 interviews were conducted face to face and the remaining 7 were conducted either by phone or by Skype. All interviews were conducted in English, except one which was conducted in French.

Table 1: Distribution of interview respondents by disciplines

Discipline	Number of interviewees
Human geography	1
Art history	1
Sociology	1
Ethnography	1
Philosophy	1
Business	1
Economics	1
Political science	3
International Relations	1
Interdisciplinary	4
History	1

Table 2: Year of PhD completion

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1		1	1	2	2	3	4	2	2

Turkey (by Zeynep Aycan)

The Council of Graduate Education's Theses Database was used as the source of selecting participants. Participants for the survey were randomly selected among the PhD graduates in each of the POCARIM fields. Then, using the information gained from the Theses Database as the starting point, participants' contact information were searched online (e.g., Google, Facebook). 648 persons were contacted through individualized mails inviting them to take the survey and 126 responded positively. For the qualitative interviews, survey responses were used to select participants from a variety of fields and work experiences.

Among the 648 participants initially contacted for the survey, field distributions were like the following: 2 Ancient History, 13 Ancient Languages and Literatures, 48 Archaeology, 13 Republican History and Turkish society, 15 Communication, 64 Economics, 1 Economics-Finance, 54 Educational Sciences, 10 English Language and Literature, 4 European Union and International Economical Relations, 3 Foreign Language Education, 25 Geography, 50 History, 36 International Relations, 39 Journalism, 46 Law, 1 Literature, 4 Linguistics, 65 Management, 16 Philosophy, 28 Political Science, 14 Political Science and Public Administration, 1 Psychological Counseling and Guidance, 35 Psychology, 1 Public Relations and Publicity, 2 Radio Television and Cinema, 38 Sociology, 3 Translation, 4 Translation and Interpreting Studies, 4 Turkish Language and Literature, 9 Turkish Literature.

United Kingdom (by Chris Coey and Louise Ackers)

The main source for identifying the stocks, and to some extent the flows, of doctoral graduates since 2000 in HSS nationally, regionally, by institution, nationality, discipline and other variables, is the dataset held by the UK's Higher Education Statistics Agency (HESA). However, this data is not at all useful for identifying individuals within the population. There is scope for identifying individuals through library databases (at institution-level and nationally via the British Library), although when this option was investigated it proved time-consuming and difficult – leading to the conclusion that in a sector as large as the UK's there may be better approaches.

We therefore adopted a strategy which involved using the existing databases held by universities themselves – either through the alumni or the careers offices in each institution. We used this strategy with a single institution to reach the respondents for the pilot phase, and it generated over 20 responses – even though there was no follow up email, it was during the long summer holiday, and we had not clearly articulated the process to the institutional contact at that point. A conversation with an alumni manager at another UK institution led us to believe we could hope for a good degree of support from institutions – many of whom are keen to improve the data they hold on graduates (of all types).

Using university websites we first identified careers and alumni offices and key people therein. We made contact by email and follow up telephone calls in order to establish that we were dealing with the best person to help. In the time available to us we generated a list of contacts at 33 institutions. The institutions could be differentiated by size, location, age, research and/or teaching profile and ranking. Naturally there was an orientation towards the research-focused institutions which were more likely to have doctoral programmes.

We got positive responses from first contact in 30 institutions, but in 13 cases follow up calls and emails were either ignored or we were told that they could not help. This left 17 institutions who agreed to disseminate the link to the survey. We were told this would be done in a variety of ways, including targeted emails to graduates fitting our criteria that were selected from institutional databases, and putting a link to the survey (along with a short explanatory text) on institutional websites, alumni pages or other social media such as Facebook. By the close of the survey the UK institutions had generated 143 responses from 12 institutions.

There were two weaknesses in this approach. The first was that it turned out to be much more difficult and time consuming than initially expected to identify and make contact with institutional personnel who were likely to be able to help us. The second was that in several cases institutional staff appeared to believe that we were involved in some kind of marketing, did not understand the purpose of the survey, or were conducting their own surveys and were reluctant to 'bombard' their alumni with requests. In addition, we were unable to track the progress of the dissemination of the link, even with multiple follow up calls in some cases. An online search suggests that at least two institutions put the link online, though neither of these generated any responses. A follow up call to one institution with a very good response rate revealed that they had directly emailed alumni that fitted our population characteristics having identified them from their database.

From the responses to the survey, 83 respondents indicated their willingness to take part in an interview of whom forty were selected for interview. Selection for interview was based on

ensuring a variety of characteristics amongst the sample, such as field of PhD, nationality, time since award of PhD, gender, current employment sector. We also aimed to do as many as possible face to face, so geographical proximity was also a consideration. We were able to arrange and conduct interviews with the full 25 as required, mostly face to face but with a small number being done over the telephone and a couple over Skype.