Mobility and career of researchers: national practices and challenges Slovakia

BUILDING A SINGLE EUROPEAN MARKET FOR RESEARCHERS

E*CARE FINAL CONFERENCE
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&
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SLOVAKIA IN BRIEF

Date of establishment:	**1 January 1993 (splitting of Czech and Slovak Federative Republic)**
Political system:	**parliamentary democracy**
Official language:	**Slovak**
Capital:	**Bratislava (428,672 inhabitants)**
Neighbouring countries:	**Austria, the Czech Republic, Hungary, Poland, Ukraine**
Area:	**49,035 sq. km**
Population:	**5,400,998 (out of them 51.5 % of women)**
Ethnic mix of the population:	**Slovaks (85.8 %), Hungarians (9.7 %), Roma (1.7 %), less then 1 % - Czechs, Ruthenians, Ukrainians, Germans...**
Population and their denominations:	**Roman Catholic (68.9 %), Evangelical Lutheran of Augsburg Confession (6.9 %), Greek Catholic (4.1 %), Reformed Christian (2.0 %), without denomination (13.0 %).**

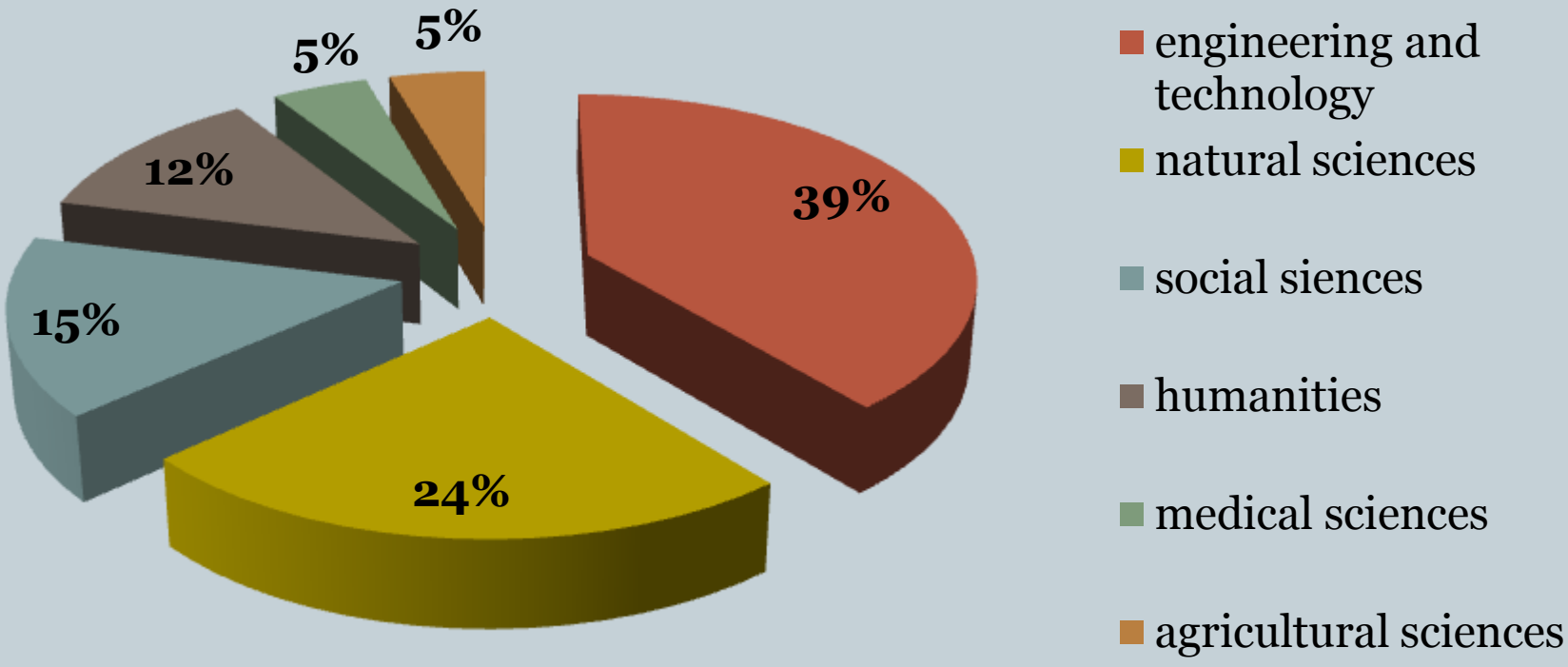
SLOVAKIA IN BRIEF

Membership in international organisations:	**EU (May 2004), NATO (March 2004), OECD (2000), UN, WHO, INTERPOL etc.**
Currency:	**Euro (since January 1, 2009)**
GDP, real growth:	**2009 = 63.05 bln. € (-4.8 %), 2010 = 65.97 bln. € (+4.1%, recovery)**
Average wage in economy:	**2009 – 744.5 €, 2010 – 769 €**
Average wage in science and technology:	**2009 – 919.33 €, 2010 – 938 €**
Unemployment rate:	**2009 – 12 %, 2010 - 14.4 %**

RESEARCH POTENTIAL AND STRUCTURE

- 2009 - 304 legal and physical entities in Slovakia carrying out research and development activities (and provided statistical data)
- R&D organisations integrated in various sectors:
  - the higher education sector – 20 public HEIs, 3 state HEIs, 11 private HEIs and 4 foreign HEIs
  - the state research and development sector - 82 research institutes, including the Slovak Academy of Sciences (SAS) and state sector R&D organisations established by central state administration bodies
  - the private R&D sector and private non-research organisations sector - about 124, resp. 27 legal and physical entities active in R&D (listed in the trade register)
  - private non-profit sector of R&D - 12 organisations reported (interest association of legal entities, non-profit organisations engaging in R&D)

Legal and physical entities in Slovakia (2009) according to the fields of science and technology



FUNDING & EMPLOYMENT IN R&D

- In 2009, spending on R&D stood at 0.48% of GDP - about 303 million of EUR (55% from public funds and 45% from private sources)
  - basic research supported by 45.5%, applied research by 24.5% and 30% went to development funding

- There were 25,388 employees in R&D in 2009 (resembling to 15,951.6 of FTE), of which 11,220 were women (7.134.0 of FTE),
  - researchers counted 21,832 – 82 % (13,290,0 of FTE) of the total number

NATIONAL STRATEGY FOR S&T DEVELOPMENT

- embodied in **"Long-term Objective of the State Science and Technology up to 2015"** adopted in 2007 - deals with:
  - coordination of S&T,
  - infrastructure of R&D,
  - systemic priorities of S&T and subject priorities of R&D,
  - support for S&T,
  - international scientific and technical cooperation,
  - evaluation of R&D, and
  - popularisation of S&T.

R&D FINANCING AND NATIONAL STATEGY

- In the area of support for S&T the document sets the aim to safeguard finances in the amount of 1.8% of national GDP in 2015, which is necessary to be able to fulfil objectives for S&T development.
- An important priority will be the increasing of the participation share of private sources in R&D in such a way, that these resources represent 2/3 of the overall S&T support by 2015.
- The strategy also has the ambition to increase the programme-based purpose oriented R&D support at the expense of institutional support so as to achieve the ratio 30%:70% of institutional funding to programme-based purpose oriented R&D funding.

INVOLVEMENT OF PRIVATE SECTOR

- In order to initiate and encourage the involvement of private sector in R&D **the Act No. 185/2009 Coll. on stimuli for research and development** and on the **amendment of the Act on income tax** was adopted in 2009.

- The act lays down conditions of providing stimuli for R&D to an entrepreneur as a kind of state aid. Stimuli are considered to be e.g. a subsidy from the state budget for the support of the basic or applied research, experimental development, or for working up a project feasibility study, or for safeguarding IPR protection or for a temporary allocation of high-qualified R&D staff; or an income tax relief.

HUMAN RESOURCES IN R&D AND NATIONAL STATEGY I

- the area of human resources as part of R&D infrastructure in long-term strategy, aims
  - to enhance the interest of young people to work in R&D
  - to adjust the content of study programmes to professional needs
  - to enable for PhD students to actively participate in R&D projects and to gain experience by means of internships in business R&D organisations and R&D organisations abroad and
  - to create conditions for mobility of PhD students and young researchers by means of supporting programmes
  - to increase the interest of R&D staff working abroad to return and work in Slovak R&D organisations

HUMAN RESOURCES IN R&D AND NATIONAL STATEGY II

- to ensure the permanent qualification growth of R&D staff
- to support mobility of Slovak R&D staff within EU and intersectoral R&D mobility by introducing new information means on mobility offered to R&D staff connected to mobility portals and being part of mobility centres in European Research Area
- to ensure better conditions for accepting foreign researchers in Slovakia, improve visa policy for researchers from 3rd countries and define conditions for their performance in Slovak R&D organisations
- to create conditions for keeping the existing labour force in R&D and to improve employment conditions for women in R&D

ERA MOBILITY STRATEGY
VISA PACKAGE I

- amendments to the Act on Stay of Aliens No 48/2002 connected with transposition of three Directives dealing with third country nationals, besides 2005/71/EC (purposes of scientific research) these were 2004/81/EC (victims of trafficking and illegal immigrants cooperating with authorities) and 2004/114/EC („Students Directive“) came into force on January 1, 2007
- they focus mostly on general provisions connected with the admissions of third-country nationals to Slovakia
- transposition of the parts of the Directive 2005/71/EC dealing with the approval of research organisation wishing to host a researcher and hosting agreement have been prepared for approval by the Ministry of Education as part of the Act No. 172/2005 on Organisation of the State Support for R&D as its amendment

ERA MOBILITY STRATEGY
VISA PACKAGE II

- no specific steps taken with respect to the Recommendation on uniform short-stay visas for researchers from third countries due to its voluntary character
- transposition of Scientific Visa Directive done formally
  - the instrument of Hosting Agreement has not been tested yet in reality
  - The Ministry of Education, Science, Research and Sport, responsible for keeping a register of organisations eligible to issue Hosting Agreements, has not been approached by any research organisation with the request to be included into the register

ERA MOBILITY STRATEGY
VISA PACKAGE III

- PhD students not included in the scope of the transposed Council Directive 2005/71/EC in Slovakia
- PhD student (doctoral candidate) is a 3rd level university student based on the Slovak legislation, therefore a PhD student falls under the scope of the "Students´ Directive" 2004/114/EC
- the permit for temporary stay for the purpose of studies may be granted by a police section to an alien who attends an elementary school or studies at a secondary school or at a university in the SR

ERA MOBILITY STRATEGY CHARTER & CODE I

- Slovakia belonged to the first countries in which research communities signed adoption of principles of the European Charter and Code, a document focusing on the roles, rights and responsibilities of both researchers and employers/funders as regards the career development of researchers
- in November 2005 Slovak Rector's Conference on behalf of the Slovak higher education institutions, in December 2005 Slovak Academy of Sciences, recognised scientific institution, bringing together around 70 research organisations

ERA MOBILITY STRATEGY CHARTER & CODE II

- the biggest challenge in Slovakia - to work with the Recommendation further and continue in implementation of its principles
- any reaction to the initiative of the Commission that would take the implementation of C&C to another level
- a tool in the form of *Human Resources Strategy for Researchers* offered to the research organisations to make the whole process smoother has not been adopted by any organisation so far

EURAXESS SLOVAKIA

- adoption of the Charter and Code and reaction to other initiatives regarding mobility and career development of researchers would hardly happen without active involvement of the Slovak EURAXESS Services Centre, part of the European EURAXESS Network
- national network of EURAXESS services centres, hosted today by 6 regional SAIA, n. o. offices, established in 2004 with the support of EC, helps overcome obstacles to smooth operation of the mobility programmes and provides information and services to international and Slovak researchers and their families on various aspects of mobility including practical information (on issues of social security, taxes, visa and residence permits, or study opportunities for family members) related to the stay in another country

EURAXESS SLOVAKIA

- vital communication tools in the work of the centres include the European portal EURAXESS – Researchers in Motion (http://ec.europa.eu/euraxess) and national EURAXESS portal (www.euraxess.sk) through which researches may search also for work opportunities and research institutions may announce openings for researchers free of charge

E*CARE SURVEY

- the aim of survey - to identify obstacles, good practices and tools used for the support of researchers' career and mobility at national level and the role of Euraxess Services Centres and other national or international stakeholders in order to overcome these obstacles
- like in other participating countries, survey implemented by means of two questionnaires, one targeted at researchers in different stage of their careers (PhD students, other early stage researchers, experienced researchers, coming from different environments) and the other one at national stakeholders dealing with research and/or researchers
- in Slovakia national sample - 118 questionnaires filled in by researchers and 30 filled in by national stakeholders

MOBILITY PARTICIPATION AND SURVEY SAMPLE

- in the analysis identified researchers who had been participating in any international mobility
- in Slovak sample around 60% had an experience with international mobility, though large group, representing almost 40% of respondents had not participated in any international mobility programme
- rather low mobility participation rate can be due to the relative youngness of the respondents, with almost 45% of respondents being in the age between 25 - 35 years and further 15% being of the age under 25 years; also the research experience of respondents demonstrates the youth of the sample (37 % less than 4 years)

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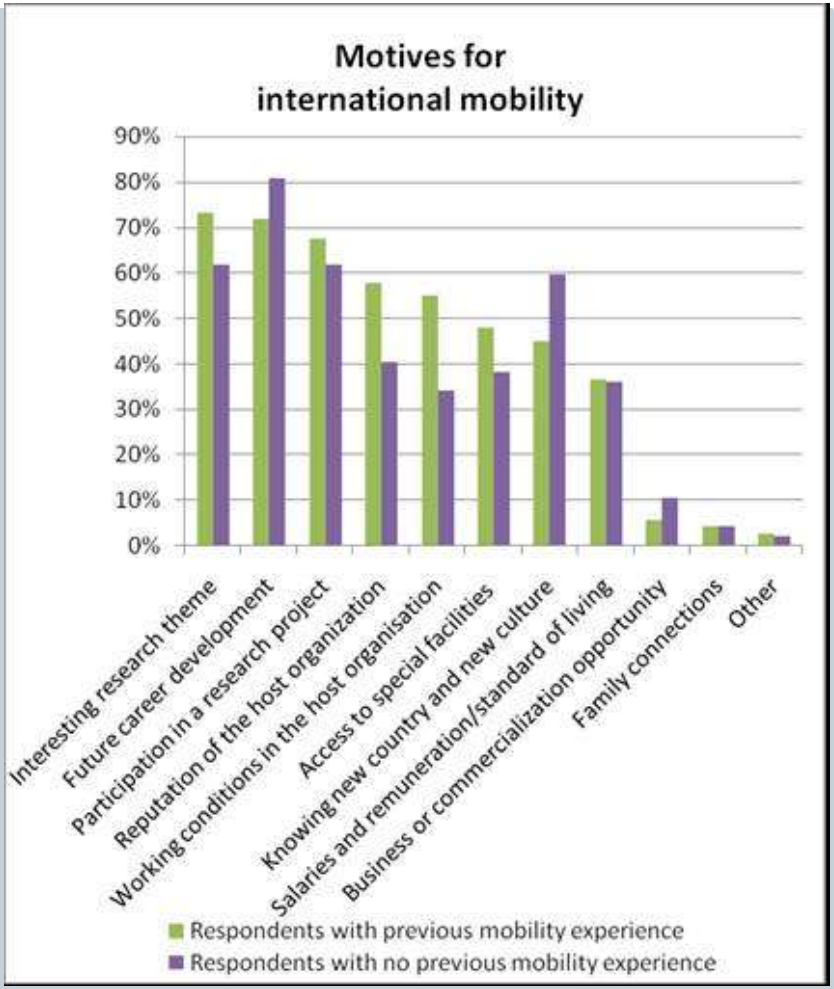
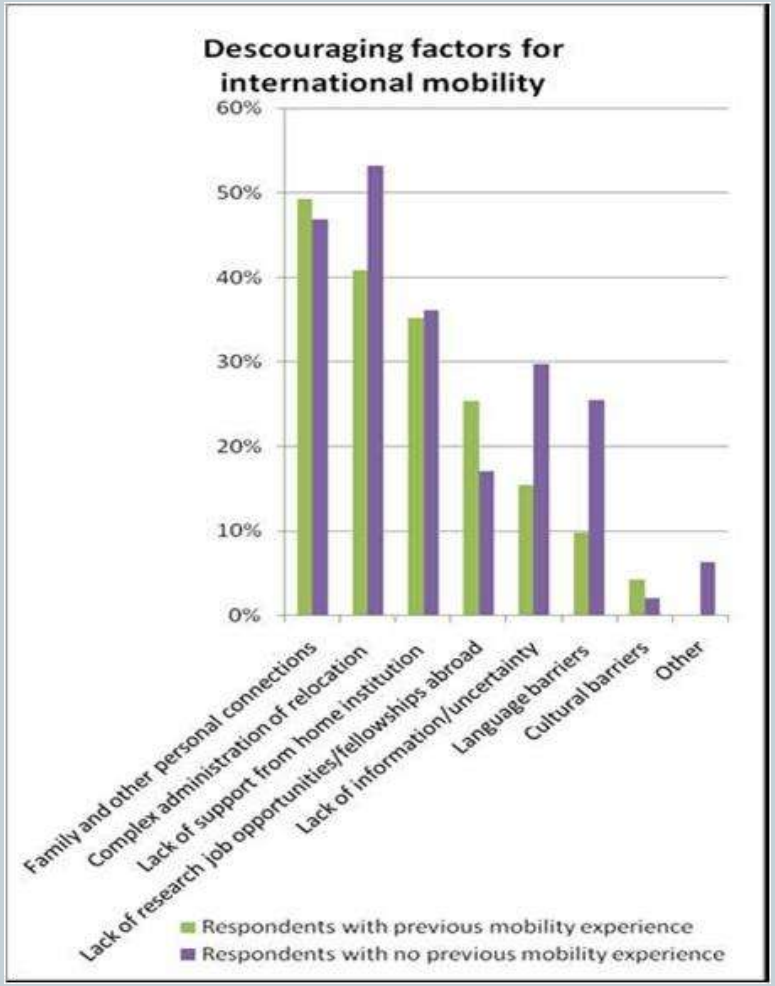
Motives for international mobility



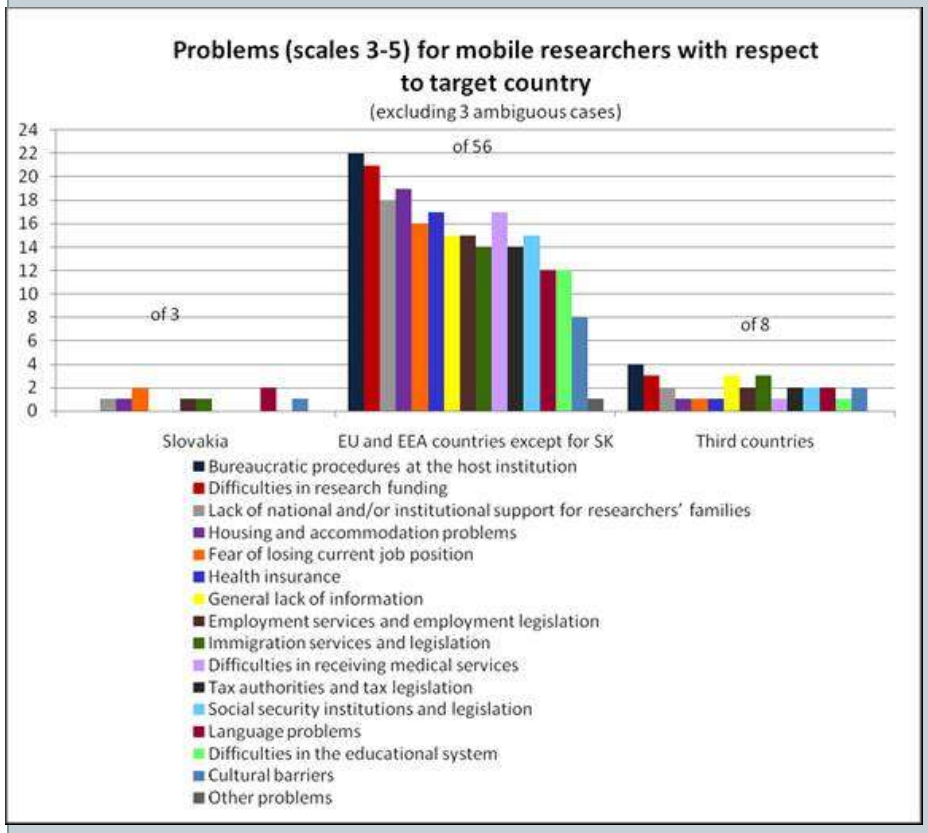
- The **most important factors** for respondents **with previous mobility experience (MR)** and with **no mobility experience (NMR):**
  - Interesting research theme
  - Further career development
  - Participation in a research project
- **Differences** between MR & NMR:
  - For NMR - the most important further career development
  - Knowing new country and new culture – No. 4 for NMR, No. 7 for MR
  - Higher salary – No. 7 for NMR, No. 8 for MR

Discouraging factors for international mobility



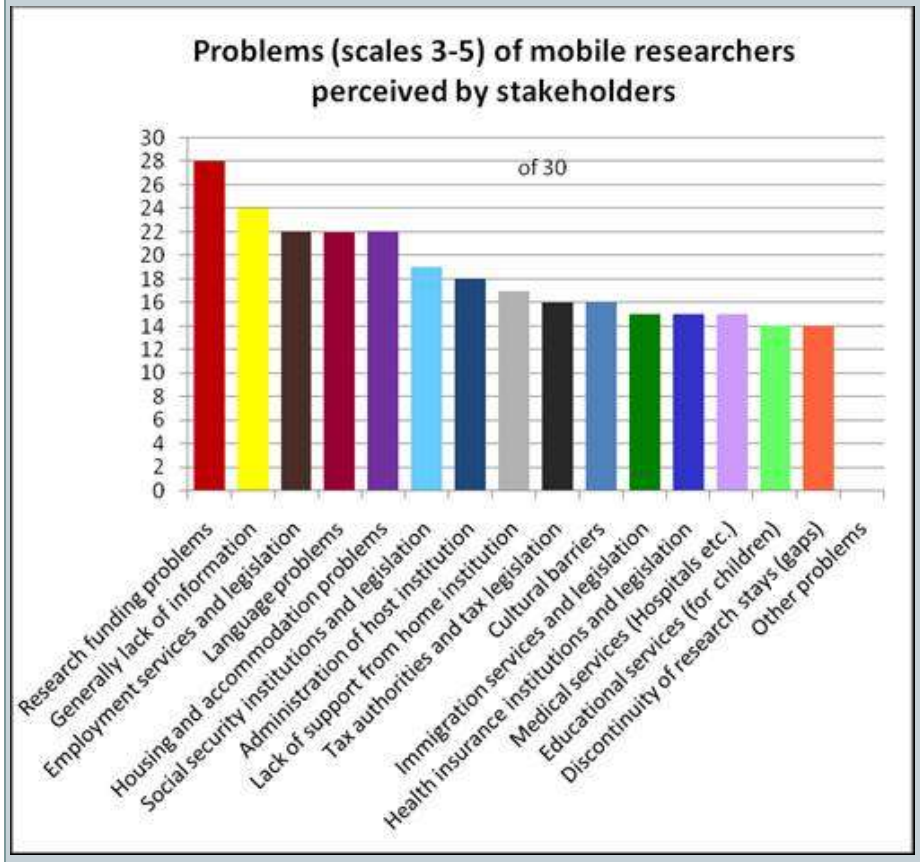
- The **most discouraging factors** for respondents **with previous mobility experience (MR)** and with **no mobility experience (NMR):**
  - Family and other personal connections
  - Complex administration of relocation
  - Lack of support of home institution
- **Differences** between MR & NMR:
  - For NMR - the most discouraging complex administration of relocation
  - Lack of information/uncertainty and language barriers relatively important for NMR in comparison with MR

Mobile researchers problems with respect to target country



- **Problems in EU & EEA** besides SK:
  - Bureaucratic procedures at the host institution
  - Difficulties in research funding
  - Housing and accommodation problems
  - Lack of national and/or institutional support for researchers´ family
  - Health insurance

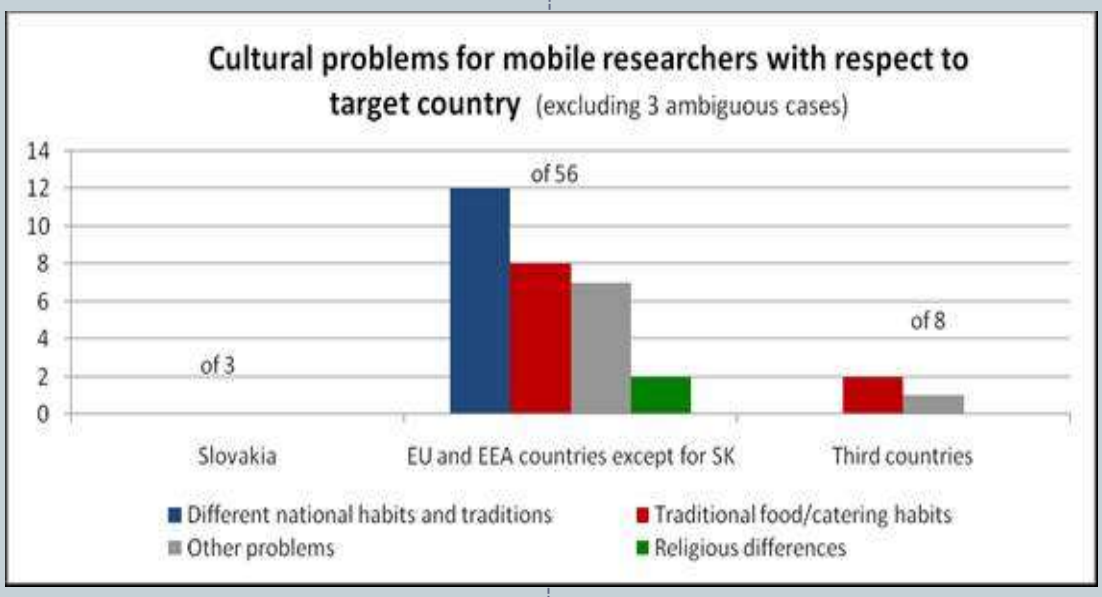
Mobile researchers problems perceived by stakeholders

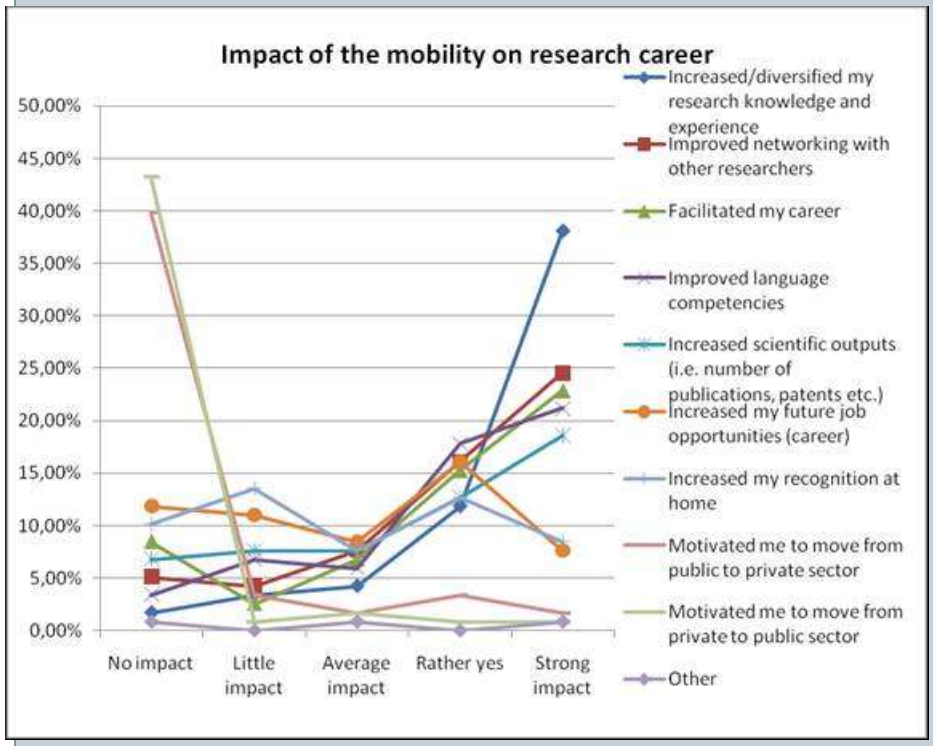


- **Problems** perceived **by stakeholders:**
  - Difficulties in research funding
  - Generally lack of information
  - Employment services and legislation
  - Language problems
  - Housing and accommodation problems

Cultural problems for mobile researchers

- **the most significant different national habits and traditions**





- **The strongest impact:**
  - Increased/diversified research knowledge and experience
  - Improved networking with other researchers
  - Facilitated career
  - Improved language competence
  - Increased scientific outputs
- **The lowest impact**:
  - Motivated to move either from public to private sector or vice versa