

## **Researcher mobility in the time of economic crisis**



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## Questions

- What are the barriers and facilitators of researcher mobility?
- How can researcher mobility be fostered in the times of crisis?

## Mobility of scientists is not new

- Before WWII – American scientists going to a few science centers in Europe
- After WWII – an increase in amount of research, esp. in the U.S. – a lot of scientists moved from Europe going to the U.S.
- The changing nature of science and specialization
- Excellence in particular specialized fields is unevenly distributed among countries
- Postdoc in the U.S. is an important step in the academic career
- Certain fields need international collaboration and big infrastructure (e.g. CERN)
- International movement is needed when scientists of one country investigate phenomena which exists only in other countries (e.g. endemic diseases, unique plants or animals)

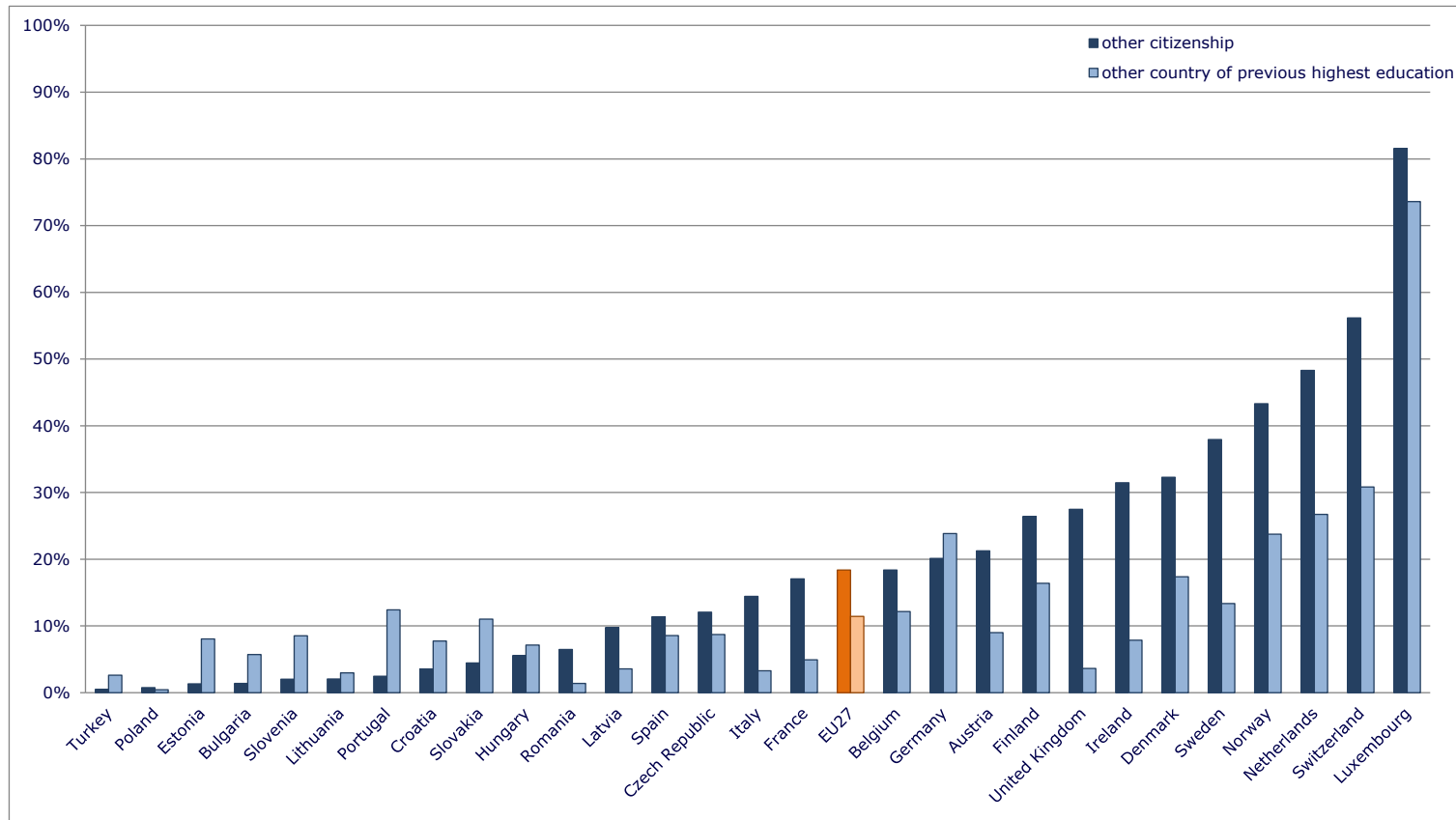


## 1981 Conference in Lisbon (NSF, 1982)

- “...transatlantic interactions have declined during the past decade. An exception to this trend may be extended stays at highly specialized and unique facilities. Intra-European exchanges, however, have increased. The transatlantic decline seems due to a number of factors. Declining science budgets, increased costs and inflation, a stronger desire for job security in the face of limited employment opportunities, dual-career families, and inhibitory national tax, immigration, labour, housing, and other policies - all have served to depress international mobility.”

(Washington, DC: NSF, 1982)

## International PhD degree mobility of R1 and R2 researchers per country of PhD (destination)



(Source: MORE2 Higher Education Survey, 2012)

## Brain drain and brain gain in Europe in the times of austerity

- Receiving versus sending countries: brain gain and brain drain
- Brain drain problem is acute both in Western European and Central-Eastern European countries
- This problem is more acute in the times of economic crisis

## Satisfaction with recruitment process at home research institution per country

	Open	transparent	merit-based
Austria	55.2%	55.6%	58.3%
Belgium	64.6%	60.3%	65.6%
Bulgaria	46.2%	51.3%	44.3%
Croatia	43.3%	50.3%	47.5%
Cyprus	54.0%	62.0%	61.7%
Czech Republic	52.4%	66.5%	59.0%
Denmark	64.7%	57.9%	72.0%
Estonia	63.3%	75.9%	69.7%
Finland	55.7%	57.2%	70.1%
France	56.6%	53.6%	58.5%
Germany	61.6%	64.7%	62.6%
Greece	45.0%	63.7%	61.0%
Hungary	46.1%	51.2%	52.7%
Iceland	51.7%	60.1%	61.1%
Ireland	71.3%	70.4%	68.8%
Italy	30.6%	46.2%	45.4%
Latvia	61.2%	60.0%	61.1%
Lithuania	45.9%	47.7%	52.8%
Luxembourg	72.2%	68.7%	75.8%
Macedonia (FYROM)	45.6%	54.3%	56.5%
Malta	54.8%	66.8%	69.1%
Netherlands	62.7%	65.0%	73.2%
Norway	62.0%	66.7%	69.5%
Poland	61.5%	68.1%	59.5%
Portugal	45.9%	55.8%	56.6%
Romania	51.1%	52.0%	51.9%
Slovakia	51.6%	58.4%	54.7%
Slovenia	41.1%	52.8%	52.4%
Spain	51.5%	63.4%	64.5%
Sweden	63.8%	62.9%	71.4%
Switzerland	66.1%	65.7%	68.7%
Turkey	48.8%	56.9%	51.4%
United Kingdom	77.5%	80.4%	83.1%
<b>EU27</b>	<b>60.0%</b>	<b>64.6%</b>	<b>65.7%</b>

## National case study: the Czech Republic I

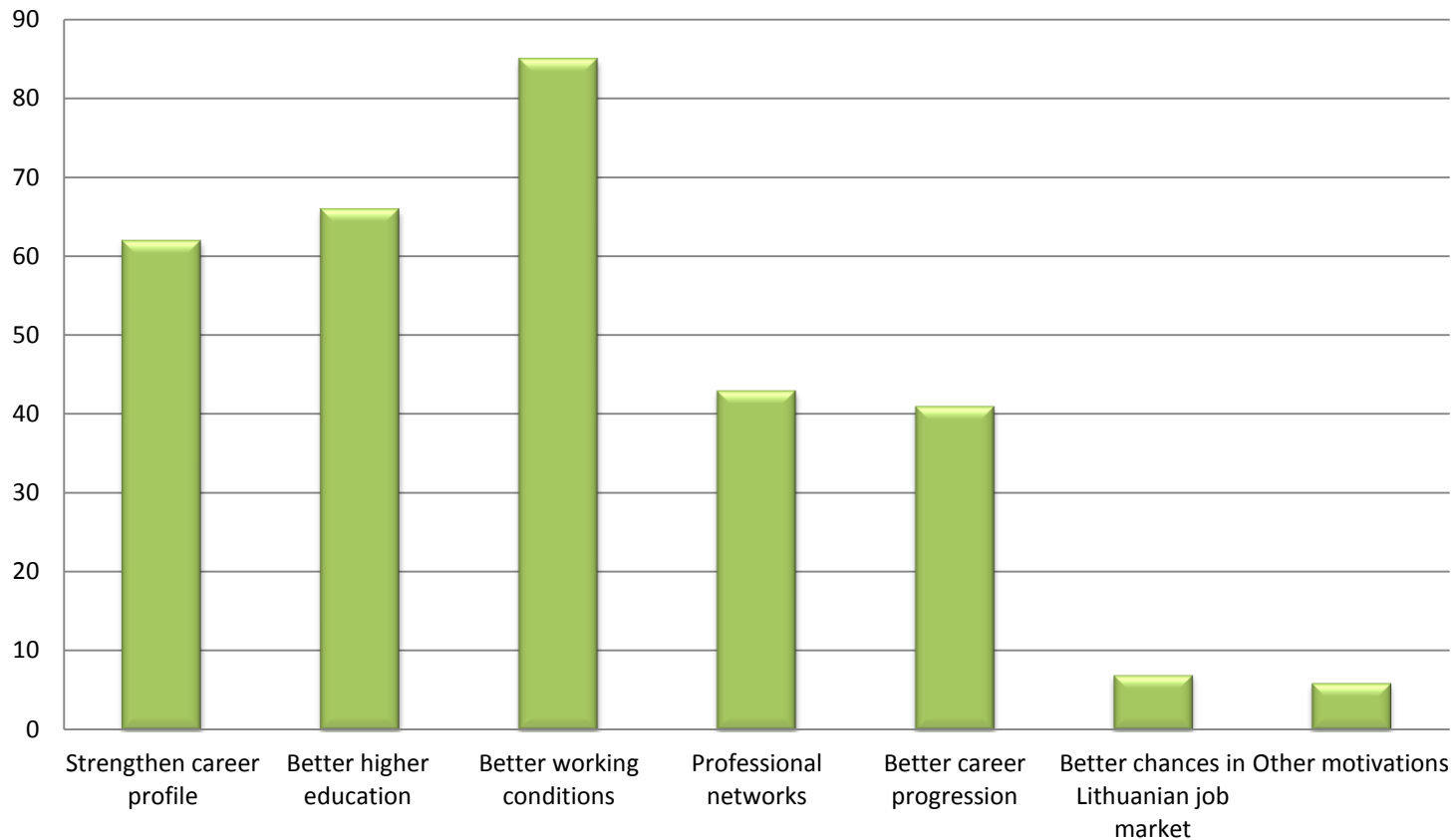
- In 2008 foreigners made up 4.4 % of all professional employees in the Czech Republic
- International mobility trends:
  - Job advertising and hiring procedures are not an open process
  - International researcher mobility is perceived as important mainly for building networks and for new experiences
  - Researcher mobility is usually based on personal networks and is a bottom up process
  - Reasons for returning from abroad are mostly personal
- Barriers: policy, organizational and personal barriers
  - Kostecky and Bernard (2008) study: The main barriers against returning to the home country are income, career opportunities and social milieu
  - The low level of academic salaries in the Czech Republic, complicated immigration procedures, bureaucracy and language barriers (Leisyte et al. 2010)
  - Employment of partners and social welfare for the families of incoming researchers



## National case study: the Czech Republic II

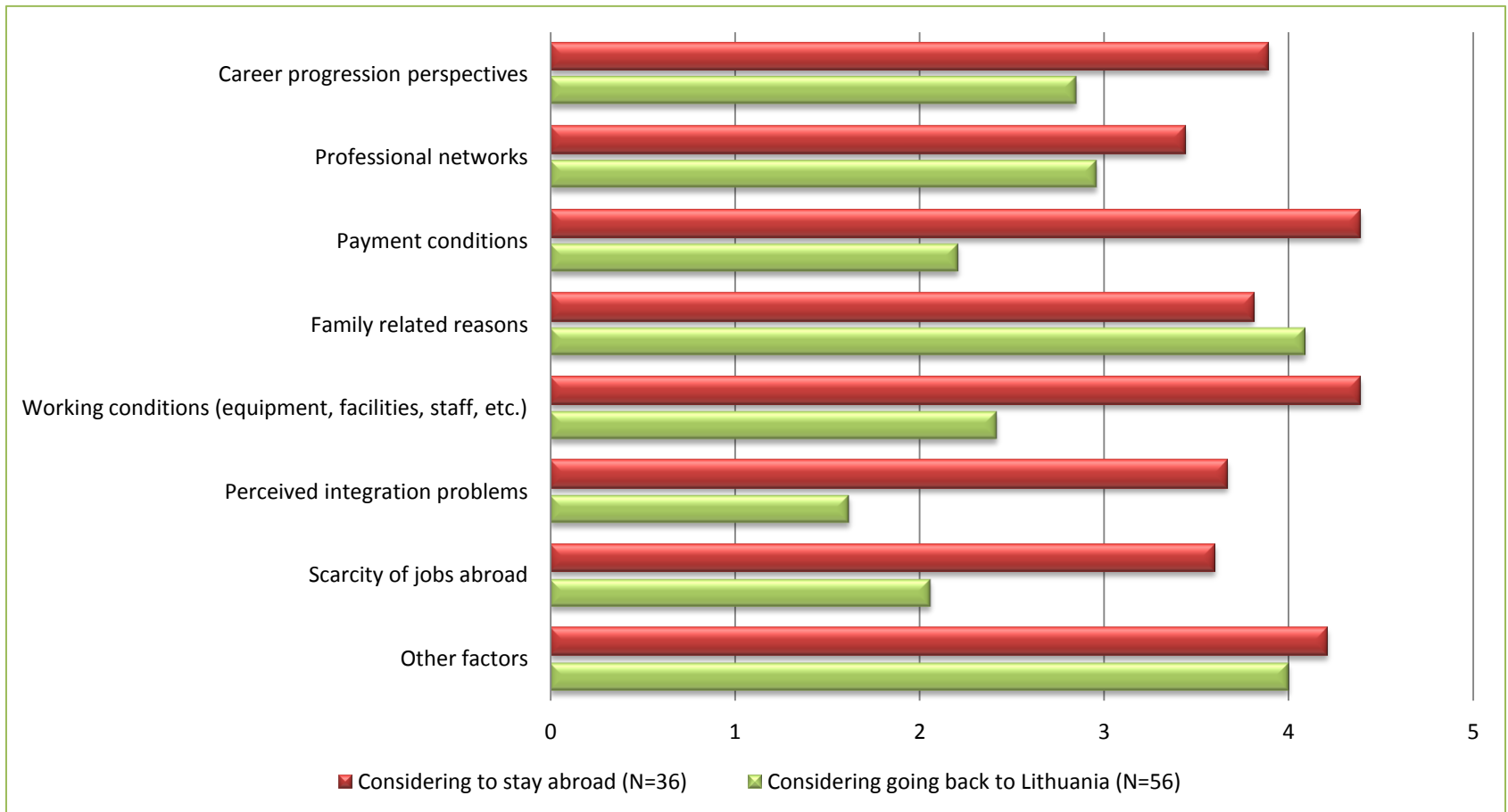
- The main reasons to return for researchers of Czech origin are personal reasons, schooling of children, family, and cultural proximity
- A number of facilitating factors such as services with Czech language training, facilitation with the visa procedures or institutional orientation could be helpful measures for foreign born incoming researchers. Further, information provided via Internet sites and other means of communication about new openings, for example, was seen as helpful
- The RETURN Programme
- The Regional Reintegration Fund - a good example of an initiative at the regional level to support international mobility (South Moravian Region)

## National case study: Lithuania I (motivations to go abroad for study/work 2013)



Academics and other researchers, N=127

## National case study: Lithuania II (Lithuanian researchers abroad)



Entries are mean values on a scale from 1 (not at all) to 5 (to a very high extent)

## Do policy instruments work?

- Open recruitment: Dissatisfaction with publicity of job vacancies in European HE institutions – 40% (with differences from 22% to 69% - MORE2 study) (ERA Progress Report, p. 21)
- Social security and visa procedures: Obstacles still exist regarding pension systems and visa granting procedures (Ibid., p. 23)
- 200 Euraxess Centers in 40 European countries have been responding to increased demand for information and assistance (e.g. Czech example from the HR in R&D Audit Report, 2010)
- Fast track immigration is working for scientists, but the problems with family members may persist (e.g Czech example)
- In Europe, 31% of post PhD researchers worked abroad for longer than 3 months (ERA Progress Report, p.22)

## Take away messages

- Brain drain and brain gain balance becomes precarious in the times of economic crisis
- Researchers go back to the home country mainly due to personal reasons
- Researchers go abroad to another country for better work conditions, networking and prestige maximization possibilities
- A policy mix encompassing transparent recruitment, financial incentives, less bureaucratic visa and research funding procedures and legal/language support is necessary
- Further information gathering regarding the openness of the research labour markets is necessary, e.g. using the highly skilled mobility index (Cerna and Chou, 2013).

Thank you for your attention