

Regional variations in scientific disciplines

Phd-Thesis outline based on IAREG survey data

Roland Schneider

- **Overview thesis project**
 - **Regional variations in scientific disciplines**
- **Overview project IAREG**
 - **EU faculty survey**

Thesis outline /background

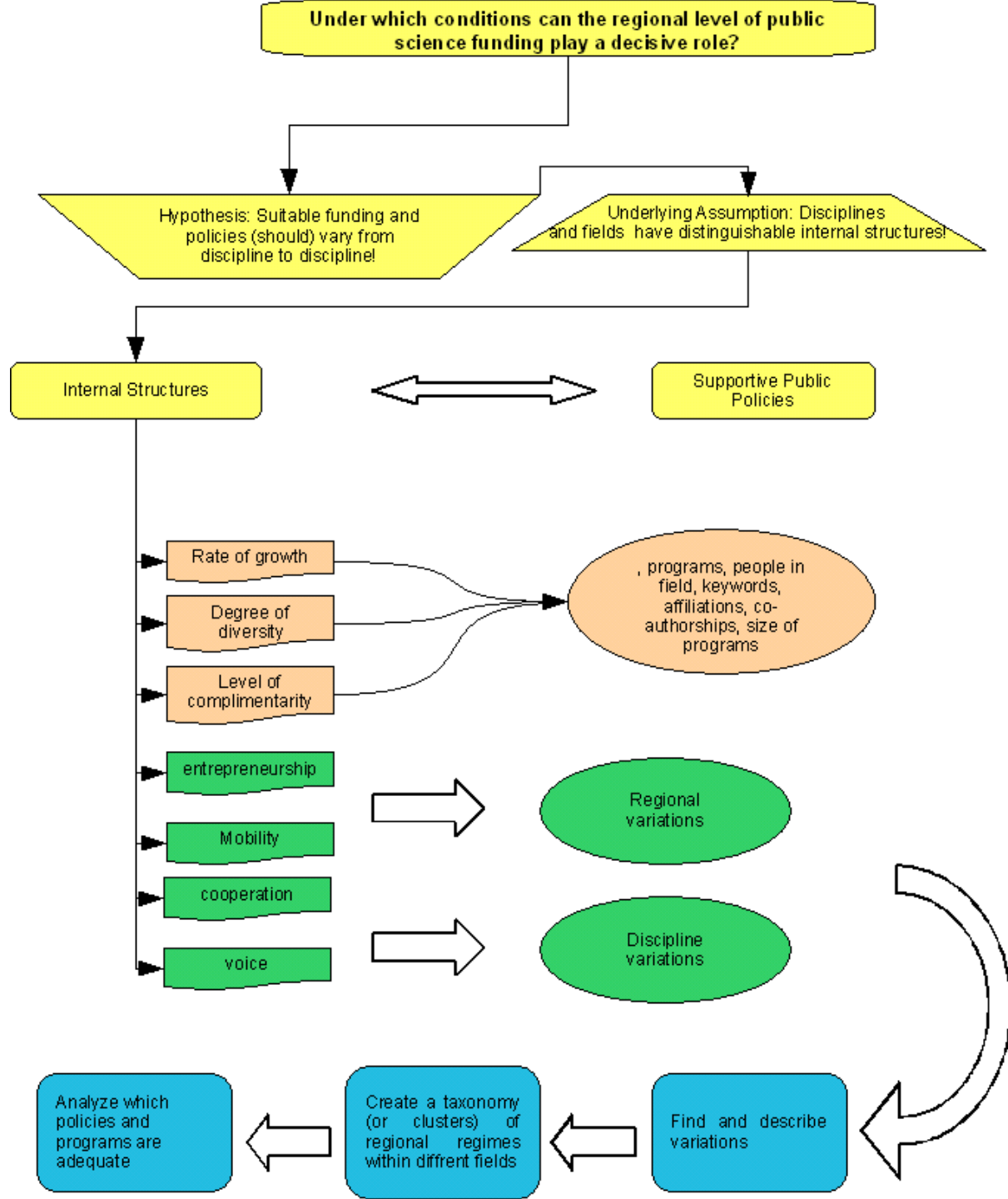
- **Increasing public science funding**
 - **Barcelona 3%-Goal, additional national and regional goals**
- **Emerging multi level governance set up**
 - **Regional and European actors gain influence in some policy areas**

- **Adequate Allocation of science policy functions across different levels**
 - **All levels do have different STI policies & funding programs**
 - **But also different properties (influence, funding power etc..)**
- **Could based field/discipline specific properties**
 - **Different properties like need for infrastructure, growth, cooperation, size of programs etc...**

- **Research Question:**
 - ***Under which conditions can a multi-level set-up of public science funding play a decisive role?***
- **Hypothesis:**
 - **Suitable policies could vary from discipline to discipline and level to level.**

Three Steps

- ***An analysis of existing European STI-funding system from a multi level governance perspective***
- **Analyze internal structures of a given set of scientific fields**
- ***Analyze which policies and programs could be adequate for which governmental level and scientific disciplines***



Different internal structures of scientific fields

- ***Search Regimes (Bonaccorsi, 2004)***
 - **Rate of growth (publications, programs, people in fields`)**
 - **Degree of diversity (keywords)**
 - **Level of complementarity**
 - **Institutional (affiliations)**
 - **Human (co-authorships)**
 - **Physical**
- **IAREG survey**
 - **Entrepreneurship**
 - **Mobility**
 - **Cooperation**
 - **Influence**

Different governance levels

- **Multi Level Governance (Hooghe & Marks, 1996)**
 - **Emerging multi level governance structure in Europe**
 - **Different types of institutions in this set up**
 - **Allocation of functions is depended on scope of issues**

Intangible Assets and Regional Economic Growth

- **sponsored by the EU-Commission under the 7th Framework Program**
- **total budget 1,4 Mio. €**
- **duration: 30 months (2008-2009)**
- **11 partners from 9 different EU countries**
- **8 different work packages**
- **to provide empirical and theoretical analysis as well as useful policy implications to academia, policy makers and general audience.**

Intangible Assets (IA)

IA contribute to production and productivity
both **within** the firm and **outside** it

Human and organizational
capital, intellectual assets,
brand name etc.

Local externalities, the legal
and institutional framework,
the education system,
property rights protection,
social capital etc.

Growing importance on IA has far reaching
implications on firms locations choices, the modes
and effects of local interaction and externalities and
therefore on regional growth

university faculty members as human capital

- **EU is far more dependent upon Universities for key research** than U.S., which includes very substantial corporate and privately funded science.
- **EU faculty researcher motivations and interests in topics like mobility or entrepreneurship** are insufficiently explored
- **Need to investigate more fully the views of all active faculty members** as key academic stakeholders, potential innovators, latent entrepreneurs and possible relocators (brain-drain).

- **web based**
- **available in 5 different languages**
- **invitation sent by E-Mail to randomly picked faculty members in manually selected institutes**
- **3 faculty members/dept. (including dept. director)**

Questions on...

....

- **Mobility**
- **Entrepreneurship**
- **Governance**
- **Working conditions**
- **Cooperation with different stakeholders**
- **Basic university statistics**

IAREG University Faculty surveys

<i>Austria</i>	7 (plus 7)
<i>Belgium</i>	7
<i>Czech</i>	1
<i>Denmark</i>	4
<i>Finland</i>	6
<i>France*</i>	23
<i>Germany*</i>	40
<i>Greece</i>	2
<i>Hungary</i>	2
<i>Ireland</i>	3
<i>Italy*</i>	22
<i>Netherlands*</i>	12
<i>Poland</i>	2
<i>Portugal</i>	2
<i>Slovenia</i>	1
<i>Spain</i>	9
<i>Sweden*</i>	11
<i>Switzerland</i> <small>IAREG</small>	8 (plus 4)
<i>United Kingdom*</i>	42

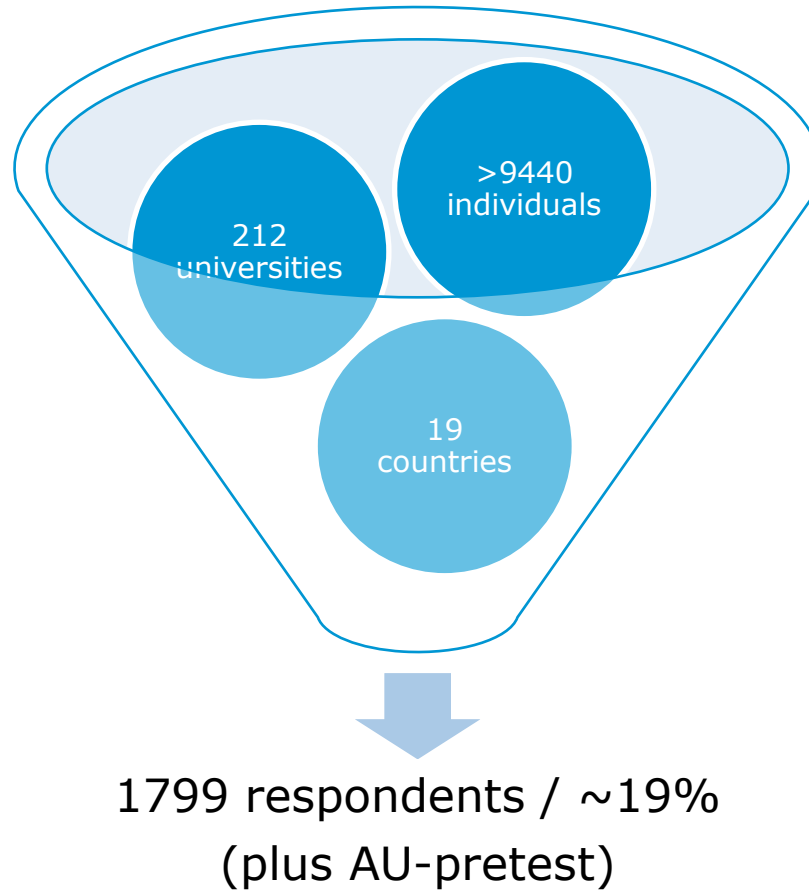
Shanghai Top 500 European Universities
(~U.S.benchmark)

x6 disciplines/uni (>1 dept./discipline possible)

- Biological sciences
- Physics
- Chemical engineering
- Computer Science
- Economics
- History

Setup reflects Prof. Goldstein's US-survey

Size



Survey Status

	Mails sent	Reminders Sent	Data Cleaning	First Analysis of Data
AU (pretest)	✓	✓		
AT	✓	✓	✓	✓
CH	✓	✓		
EU1 (Other European Countries)	✓	✓		
EU2 (UK & FR)	✓	✓		

Academic Relocation: Considerations and Options

- **Would you accept a university post in a different region, assuming improved conditions?**

Yes

No

- **Assuming certain improvements in important career or living conditions were met, I would consider a university post in a:**

European Region

North American Region

South American Region

Asian Region

Australian Region

- **Important career or living improvements that would support the favorable consideration of a post in a new region are (select 3 most important):**

Significant increase in salary

Promotion to a higher or permanent university position

Better working conditions

Ability to work in language(s) I know

More prestigious university or institute

Fewer teaching and instructional obligations

Less pressure for research and publication

Stronger faculty colleagues and networks in my discipline

More intellectually engaged/ better trained student body

Equivalent or better pension and/or health benefits available

Greater opportunities for pursuing my research

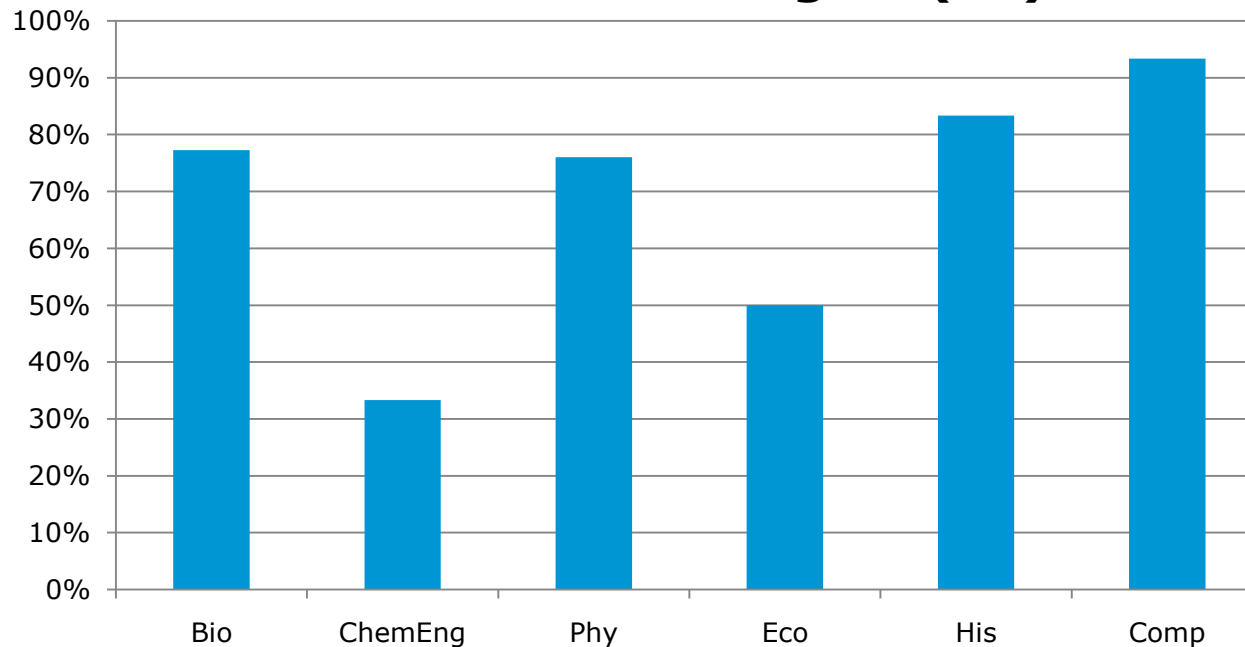
Better living situation for me/ my family

Improved opportunities to work with firms or research organizations

Fewer obligations in administration or committees

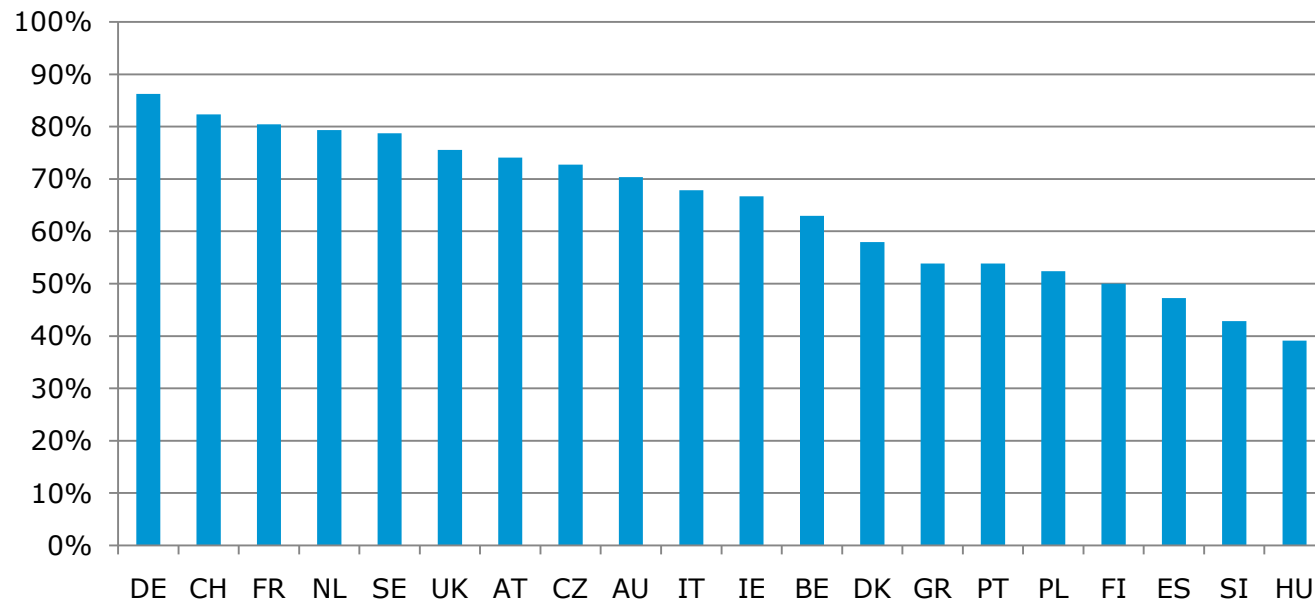
Would you accept a university post in a different region, assuming improved conditions?

different region (AT)



Would you accept a university post in a different region, assuming improved conditions?

different region



- **Find regional/national and discipline-specific variations**
- **Create taxonomy of variations**
- **Analyze how different government levels actions could be better adapted to these variations**

Open Questions

- **Is IAREG data suitable for this kind of research?**
- **How to develop a connection between variations found and adequate policy levels ?**
- **Focus on certain disciplines, or a certain level?**

Thank you for your attention!



**Institut für Regional- und
Umweltwirtschaft
Institute for Regional Development and
Environment
Nordbergstraße 15, 1090 Vienna, Austria**

Mag. Roland Schneider

T +43-1-313 36- **4839**

F +43-1-313 36- **705**

Roland.Schneider@wu.ac.at

www.wu.ac.at