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Research Services and
Career Development



Status and career development of doctoral candidates and other early stage researchers in EU and wider

**HERE seminar „ Status of doctoral candidates EEC/
WBC vs EU or wider“**

**Rectorate building University of Montenegro,
November 19, 2018**



Content of my talk

- **Status and career development** of doctoral candidates and other early stage researchers in EU and wider
 - » status of doctoral candidates,
 - » status of postdoctoral researchers
- Pros and Cons **and Impact** of different types of existing models in funding the PhD studies in the EU



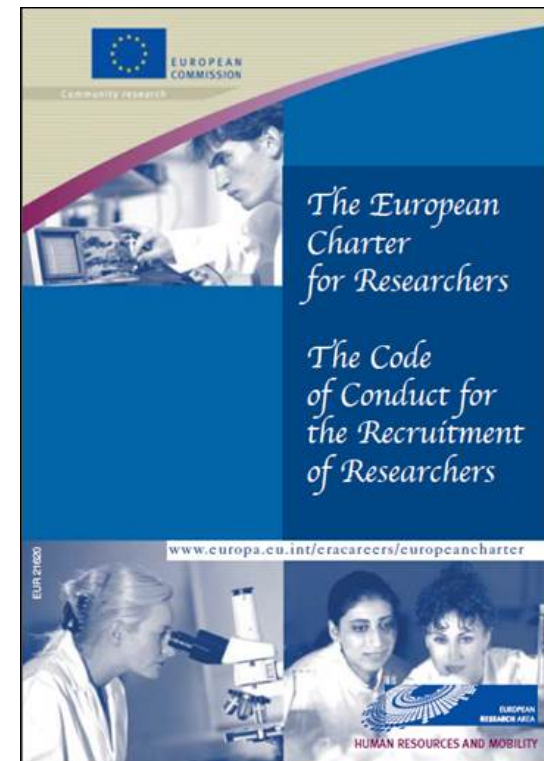
The European Charter and Code

- **General principles for Researchers**

Freedom, ethical principles, professional responsibility and attitude, public engagement, Continuous Professional Development

- **General principles for employers and funders**

- **Code for recruitment of researchers**





The European Charter and Code

Employers and/or funders of researchers should ensure that researchers enjoy **fair and attractive conditions of funding and/or salaries with adequate and equitable social security provisions** (including sickness and parental benefits, pension rights and unemployment benefits) in accordance with existing national legislation and with national or sectoral collective bargaining agreements. This must include **researchers at all career stages including early-stage researchers**, commensurate with their legal status, performance and level of qualifications and/or responsibilities.





The European Framework for Research Careers

R1 First Stage Researcher (up to the point of PhD)

R2 Recognised Researcher (PhD holders or equivalent who are not yet fully independent)

R3 Established Researcher (researchers who have developed a level of independence.)

R4 Leading Researcher (researchers leading their research area or field)



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What do we know about the status of PhDs

The status of the doctoral candidates in Croatia

The doctoral candidate admitted to the university doctoral studies can be:

- a research assistant or a teaching assistant whose study costs are covered by the employing institution of Science and Higher Education;
- a recipient of a Croatian or international scholarships;
- a doctoral candidate whose study costs are paid by the person's employer; or
- a doctoral candidate who carries its own the study costs.

The status of the doctoral candidates in Slovenia

All doctoral candidates enrolled in doctoral programmes are officially students. However, in practice, the status of doctoral candidates depends on their employment. Only unemployed doctoral candidates have the student status in the narrow sense, meaning they are entitled to the state-funded social benefits. Employed doctoral candidates have the same status as any other employees, regardless of their employer (HEI or other).

The status of the doctoral candidates in Austria

- All doctoral candidates enrolled are officially students, independent how or if they are financed. Financial support is possible through
- Employment by the university out of the global budget
 - Employment by the university through grants
 - Employment through scholarships
 - Scholarships equivalent to salaries (then students are not employed and responsible for taxes or social insurance)
 - Tax free Scholarship from the state
 - Funding through external employment (connected or not to the PhD)
 - No funding at all

The status of the doctoral candidates in Italy

Doctoral candidates in Italy are considered as students at the highest level of their education. Accordingly, they may have to pay student fee to access a doctoral program, according to the institutions awarding the doctoral degree. Those that do not receive a scholarship may apply for normal student subsidies.

Doctoral candidates receiving a scholarship have some employee prerogatives, as enrolment in retirement plans, unemployment and maternity subsidies.

Tatus of the doctoral candidates in Czech Republic

All doctoral candidates enrolled in doctoral programmes are officially students. They can be also employed having both statuses at the same time. For example, if doctoral candidates are additionally funded through research grant(s) or are in a part-time form having a work contract elsewhere.

The status of the doctoral candidates in Poland

According to the Law, the doctoral candidates are officially students. Depending on the university, the doctoral candidates can also be employed as

- professor assistants,
- at administrative or technical positions, which are paid in addition to their scholarship.
- funded through research grant(s).

The status of the doctoral candidates in Switzerland

It depends on the regulations of the university (doctoral candidates at Universities/ FTU are students, and in case they are also employed at the University/FTU also employees at the same time). But not all doctoral candidates doing their doctorate are enrolled at a university and have a student status (later named in this document “doctoral candidates with student status”), especially if these doctoral candidates are not paid to do their dissertation. Normally every doctoral candidate in a graduate school has to be enrolled at a university and be therefore a “doctoral candidate with student status”.

The status of the doctoral candidates in the Netherlands

Doctoral candidates can have different statuses, either as employees, students, or otherwise. Employees are employed under the Collective Labour Agreement (CLA) of their respective institution, and derive their protected rights from them. This is the most common status for doctoral candidates paid by universities or government-sponsored grants.

Bursary candidates (i.e. those who are paid a scholarship rather than a salary) have a student status, and cannot derive rights from the CLA or any other legal protections for employees. For tax purpose, however, they are considered to be employees (but for tax purposes only).

Contract candidates are employed by an industrial partner, and considered as employees there.

External candidates are registered as doctoral candidates at the university, but have are not contractually employed by any party in relation to their doctorate.



The status of the doctoral candidates in Norway

Employee.

What do we know about the Postdocs' status

Postdocs are in most cases employee of the universities.

In rare cases Postdocs are funded through scholarship are then usually self-employed. This depends on the funding body, but is relatively uncommon.



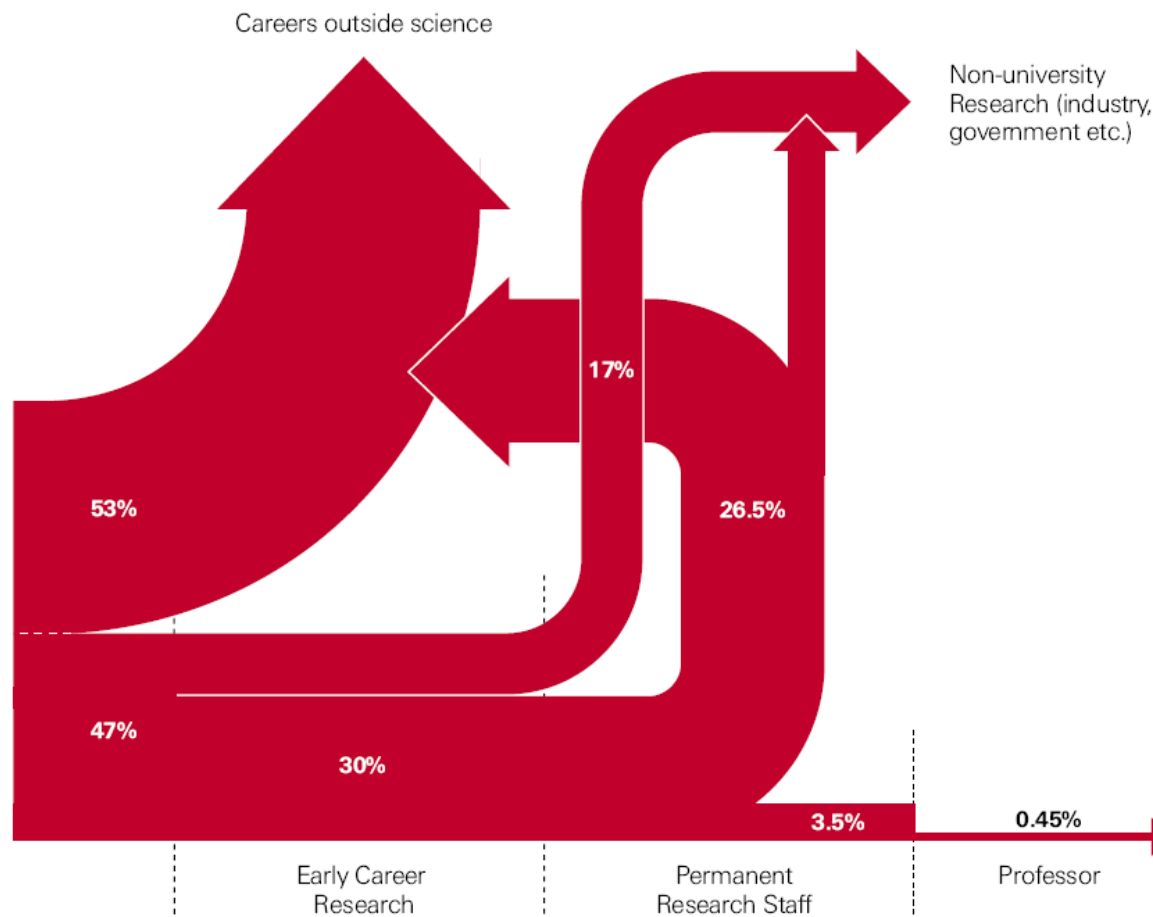
Career Development – why?

- PhD qualification has been in existence for 200 years
- **PhD is the qualification for entry to University academic career**
- Recognition that less than 20% of PhD graduates have a successful University career
- **PhD is the qualification for a career as a leader of research & development in industry/public service**



Career Development – why?

Figure 1.6 Careers in and outside science

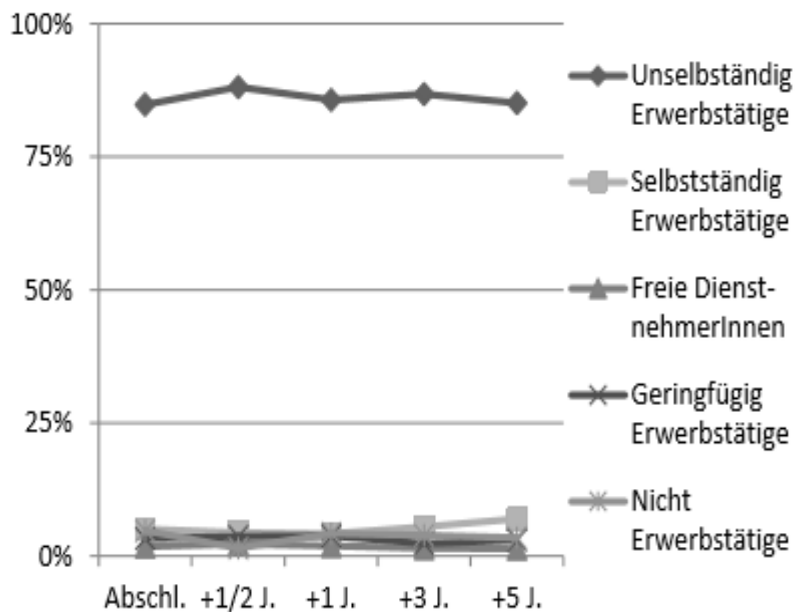


The Scientific Century: securing our future prosperity (The Royal Society, 2010)

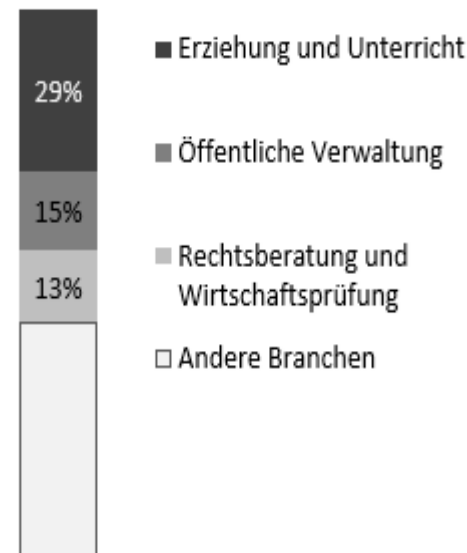
What do we know? Are UNIVIE graduates successful?

Data from our Graduates 2004 – 2013: do we have an issue?

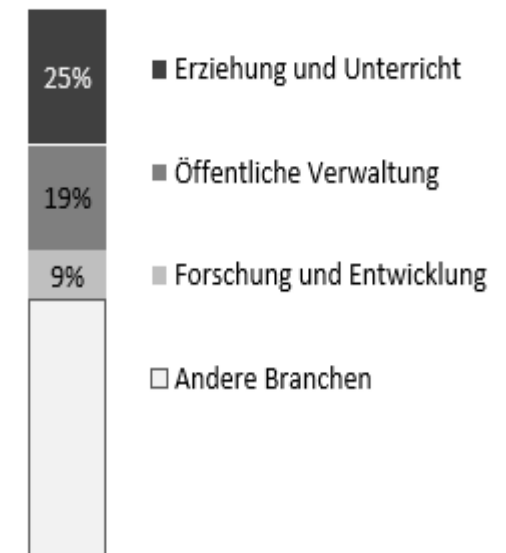
Erwerbsstatus (inkl. Studierenden- bzw. Übergangsjobs)



**Top 3 Wirtschaftsbranchen (ÖNACE),
1 Jahr nach Abschluss**



**Top 3 Wirtschaftsbranchen (ÖNACE),
5 Jahre nach Abschluss**

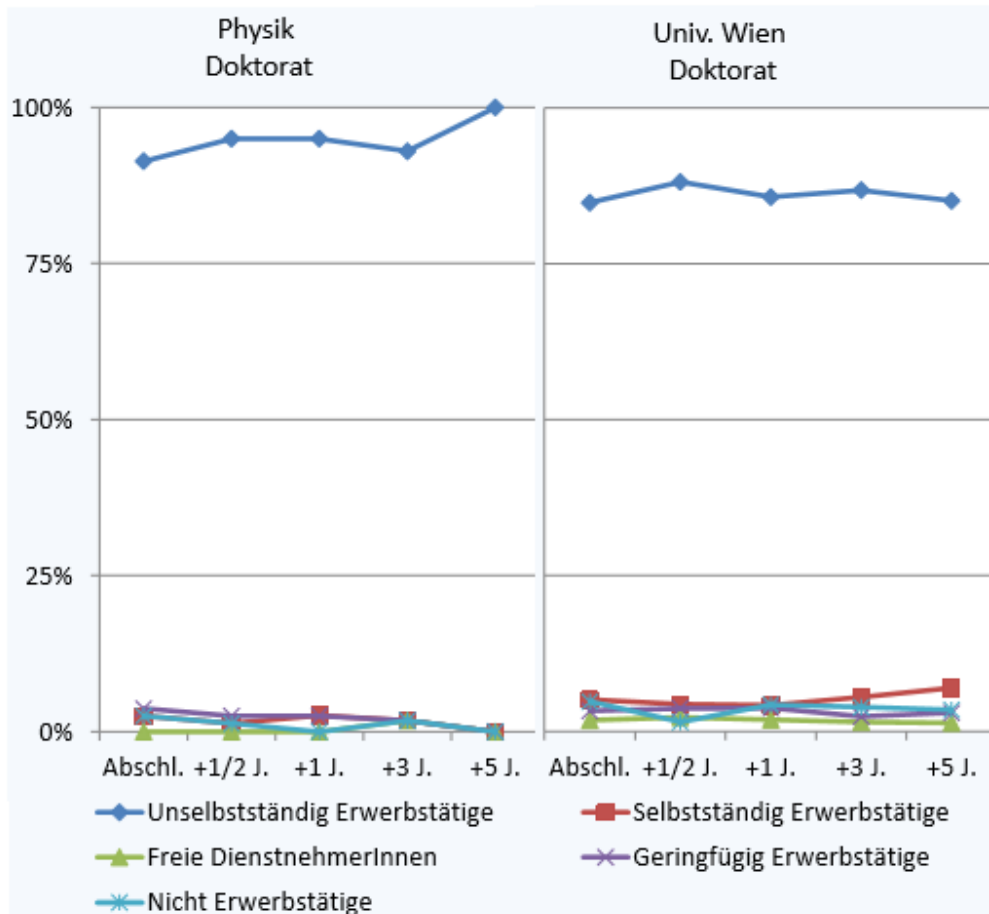




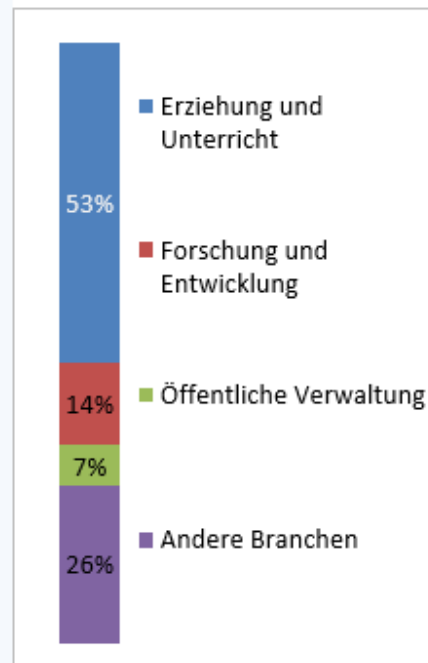
What do we know? Data from our Graduates 2004 – 2013: physics

Erwerbsstatus und Branchen

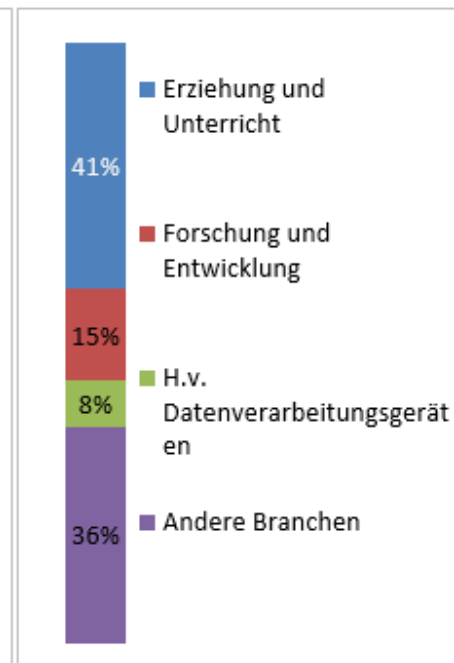
Erwerbsstatus (inkl. Studierenden- bzw. Übergangsjobs)



Top 3 Wirtschaftsbranchen (ÖNACE), 1 Jahr nach Abschluss



Top 3 Wirtschaftsbranchen (ÖNACE), 5 Jahre nach Abschluss



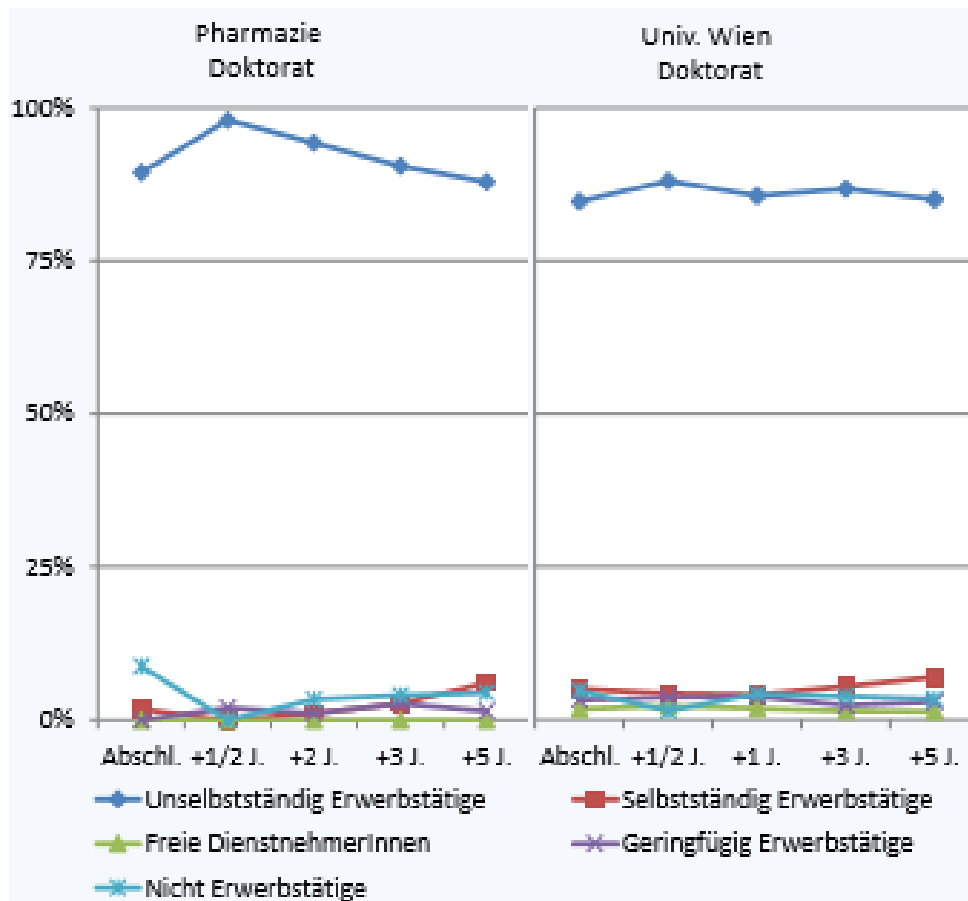
ÖNACE: Die österreichische Version der europäischen Wirtschaftstätigkeitenklassifikation NACE (Nomenclature générale des activités économiques dans les communautés européennes).



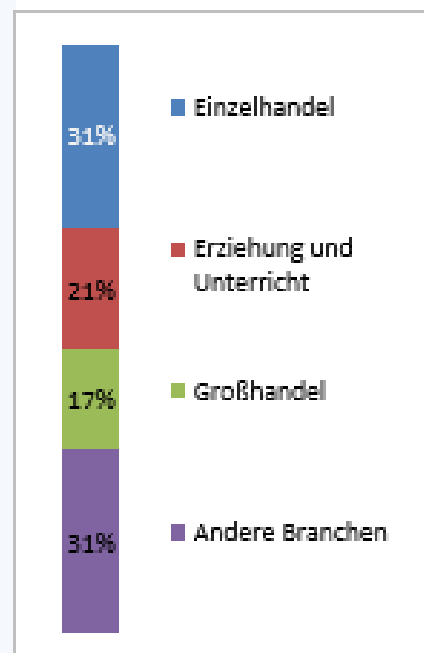
What do we know? Data from our Graduates 2004 – 2013: pharmacy

Erwerbsstatus und Branchen

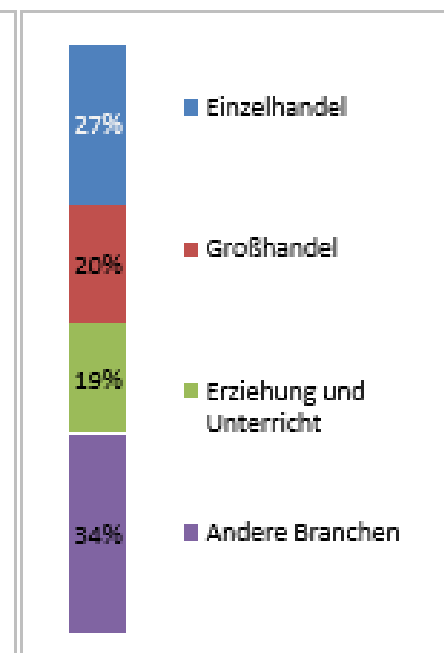
Erwerbsstatus (inkl. Studierenden- bzw. Übergangsjobs)



Top 3 Wirtschaftsbranchen (ÖNACE), 2 Jahre nach Abschluss



Top 3 Wirtschaftsbranchen (ÖNACE), 5 Jahre nach Abschluss



ÖNACE: Die österreichische Version der europäischen Wirtschaftstätigkeitenklassifikation NACE (Nomenclature générale des activités économiques dans les communautés européennes).

What do ECRs do in the U.K. ?

PhDs

•Education	50%
•Health and Social Work	17%
•Manufacturing	14%
•Finance Business and IT	9%
•Public Administration	5%
•Other	5%

Postdocs

•Higher Education	27%
•Life Science and Pharma	12%
•Public Administration	12%
•Charities & 3 rd Sector	8%
•Manufacturing	8%
•Health and Social Work	6%
•Other	27%

Researcher Careers

- Research in Higher Education (HE)
- Lecturing, teaching and research in HE
- Teaching outside HE
- Public, Private and Charitable sector research
- Entrepreneurial
- Managerial
- Professional (Law, Engineering, Medicine, Architecture, University Administration, NGO Management, ...)
- Communication (Media, Publishing, Science Communication,...)
- Policy and Government (incl. Think Tanks) or Consultancy

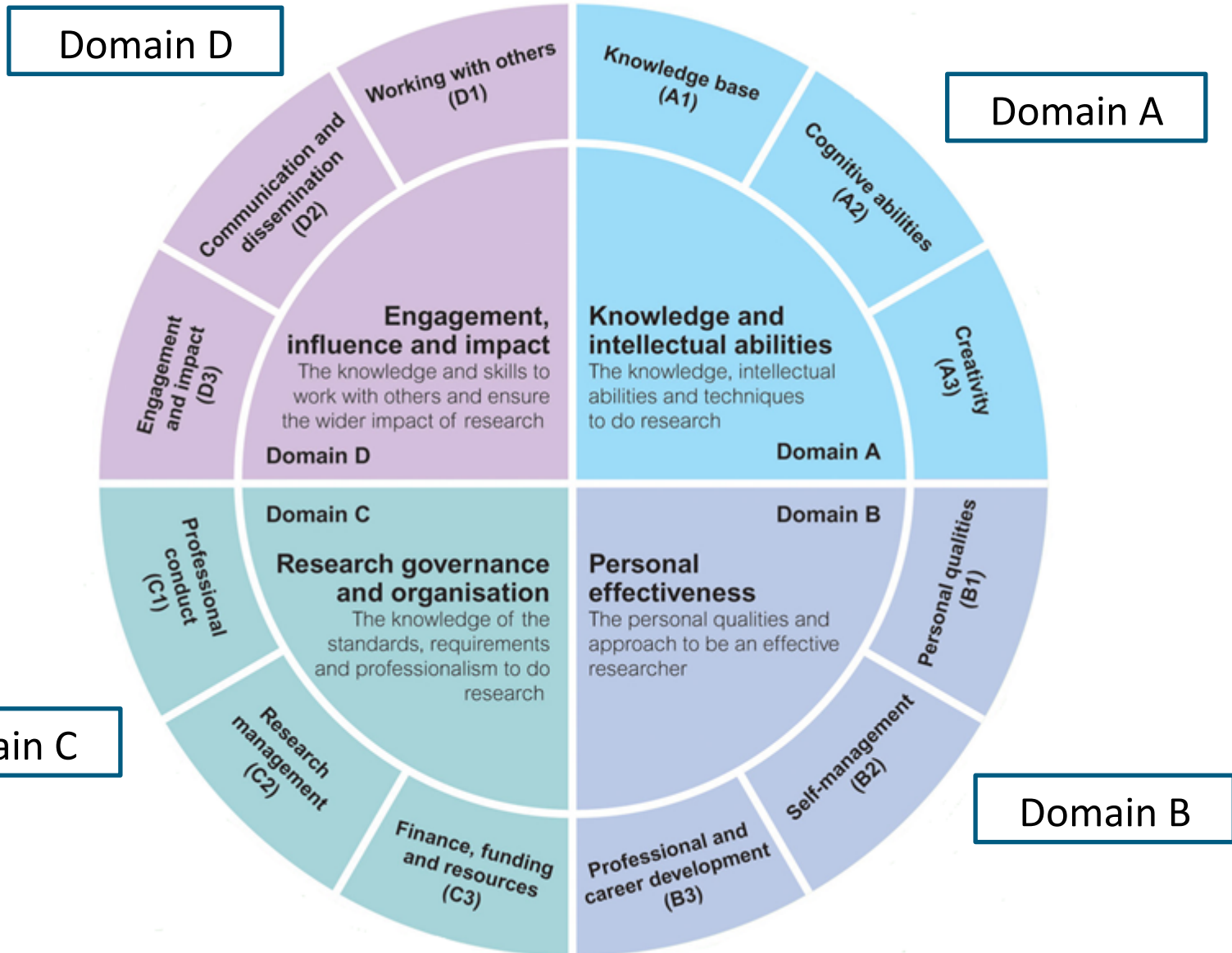


Career Development - nonetheless

- There is a lot of uncertainty within the PhD population
- Most of the PhDs would like to continue in academia, but...
- Many PhDs find it difficult to articulate their skills
- Many PhDs do not invest enough time on personal development planning (and get little support in this respect from their supervisors).



UK RDF Researcher Development Framework



Transferable skills trainings for researcher

- Transferable skills can play an important role in supporting researchers' diverse career paths, ultimately promoting better research outputs and helping to underpin innovation and economic growth.
- The literature suggests formal training for PhD candidates and other researchers as one key channel for transferable skills acquisition as a complement to informal training and workplace experience.
- Trainings for PhDs became very common in Western European Universities.
- As a new trend it can be recognized that more and more institutions also engage with Postdocs.

Transferable skill category	Skills included:
Interpersonal skills	<ul style="list-style-type: none"> * Working with others/teamwork * Mentoring and supervisory skills * Negotiating skills * Networking skills
Organisational skills	<ul style="list-style-type: none"> * Project and time-management skills * Career planning skills
Research competencies	<ul style="list-style-type: none"> * Grant application writing skills * Research management and leadership * Knowledge of research methods and technologies beyond the PhD project * Research ethics and integrity
Cognitive abilities	<ul style="list-style-type: none"> * Creativity and the ability for abstract thought * Problem solving
Communication skills	<ul style="list-style-type: none"> * Communication/presentation skills, written and oral * Communication/dialogue with non-technical audiences (public engagement) * Teaching skills * Use of science in policy making
Enterprise skills	<ul style="list-style-type: none"> * Entrepreneurship * Innovation * Commercialisation, patenting and knowledge transfer

Skills to be acquired as postdoc

- Strategic research leadership
 - Broaden perspectives, strategic thinking, identifying new research lines
- Leading business of research
 - Finance, pitching and influencing, public engagement, intercultural perspectives
- Research management
 - Multiple projects, legal, coaching and mentoring others, recruitment
- Communication
 - Teaching and facilitation

D. Bogle, Presentation at the MSCA 2018 Conference



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The impact of funding



The impact of funding

The funding situation varies from country to country and depends inter alia on

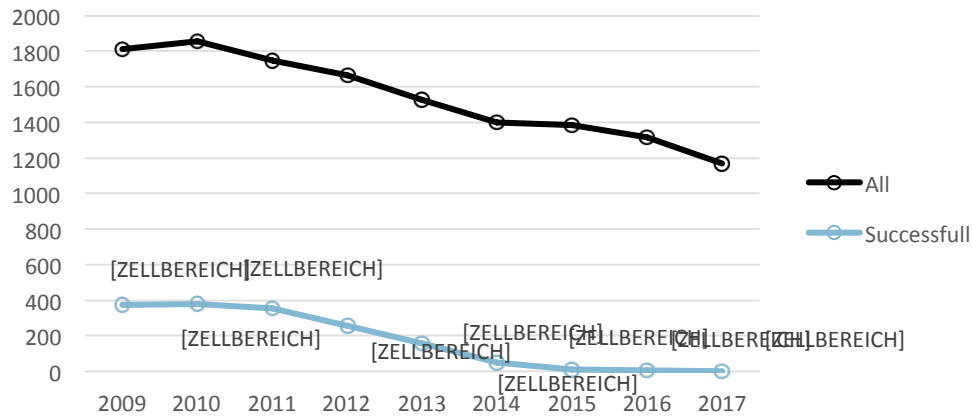
- Legal frameworks
- Existing funding landscape
- Funding situation of the national HE sector
- Sources of universities' funding

...But funding PhDs has a significant impact!

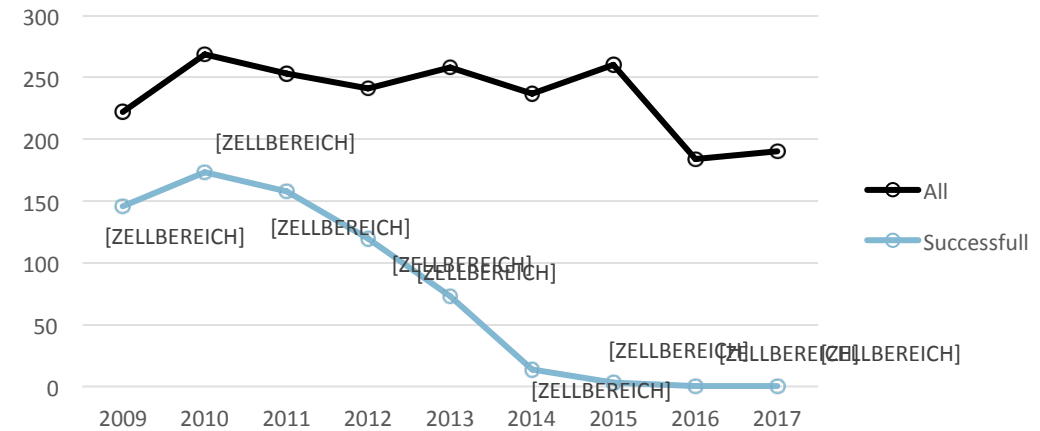


PhD performance at the University of Vienna

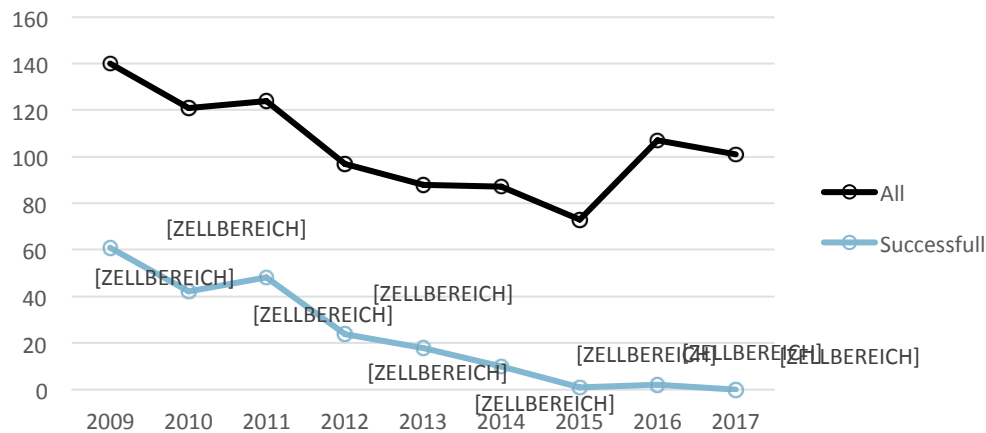
Beginnercohorts - All



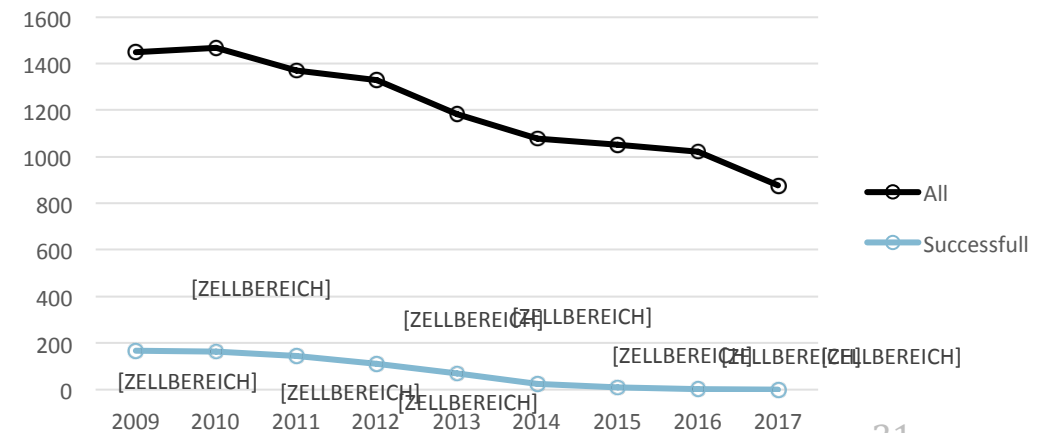
Beginnercohorts - Fully Funded



Beginnercohorts - Partially Funded

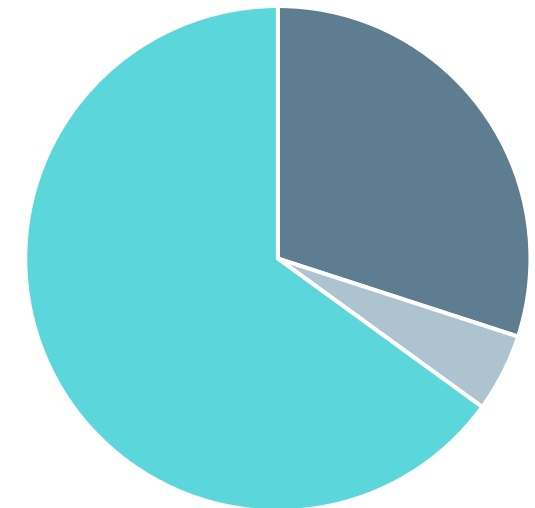
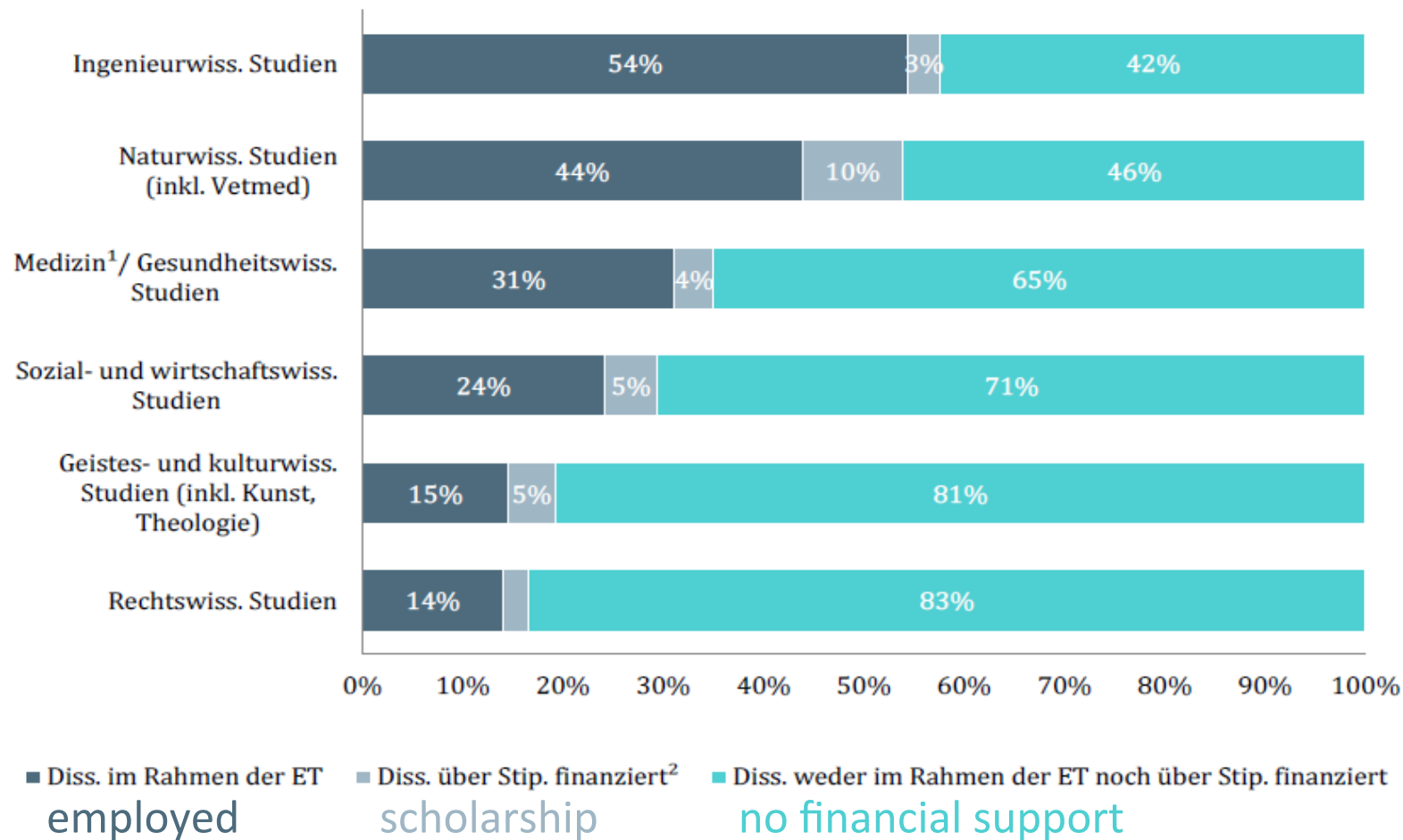


Beginnercohorts - Non Funded





Grafik 12: Rahmenbedingungen der Dissertation nach Studiengruppe



¹ Bei medizinischen Doktoratsstudien handelt es sich um das Dr.-Studium der medizinischen Wissenschaft, nicht um die ärztliche Ausbildung des Studiums Human- und Zahnmedizin.

² SelbsterhalterInnen-Stipendium, Studienabschluss-Stipendium, DOC-Stipendium oder eine andere Förderung, die mind. 75% der Gesamteinnahmen ausmacht. Quelle: Studierenden-Sozialerhebung 2015.



Context in Austria. Candidates' satisfaction

Satisfaction with selected aspects depending on the financing situation	Employed candidates	Candidates with scholarships	Candidates without financial support
Supervision	72%	78%	54%
Opportunity to exchange with peers	69%	73%	50%
Access to research infrastructure	80%	60%	43%
Embedded in research activities at the department	70%	49%	31%
Support during the publication process	51%	44%	29%

Source: Studierenden-Sozialerhebung 2015

References and further reading

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- LERU (2016) .*Maintaining a Quality Culture in Doctoral Education*



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