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Research Services and
Career Development



Prerequisites for high-quality doctoral programmes

The role of Universities and the new developments in doctoral programmes

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

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



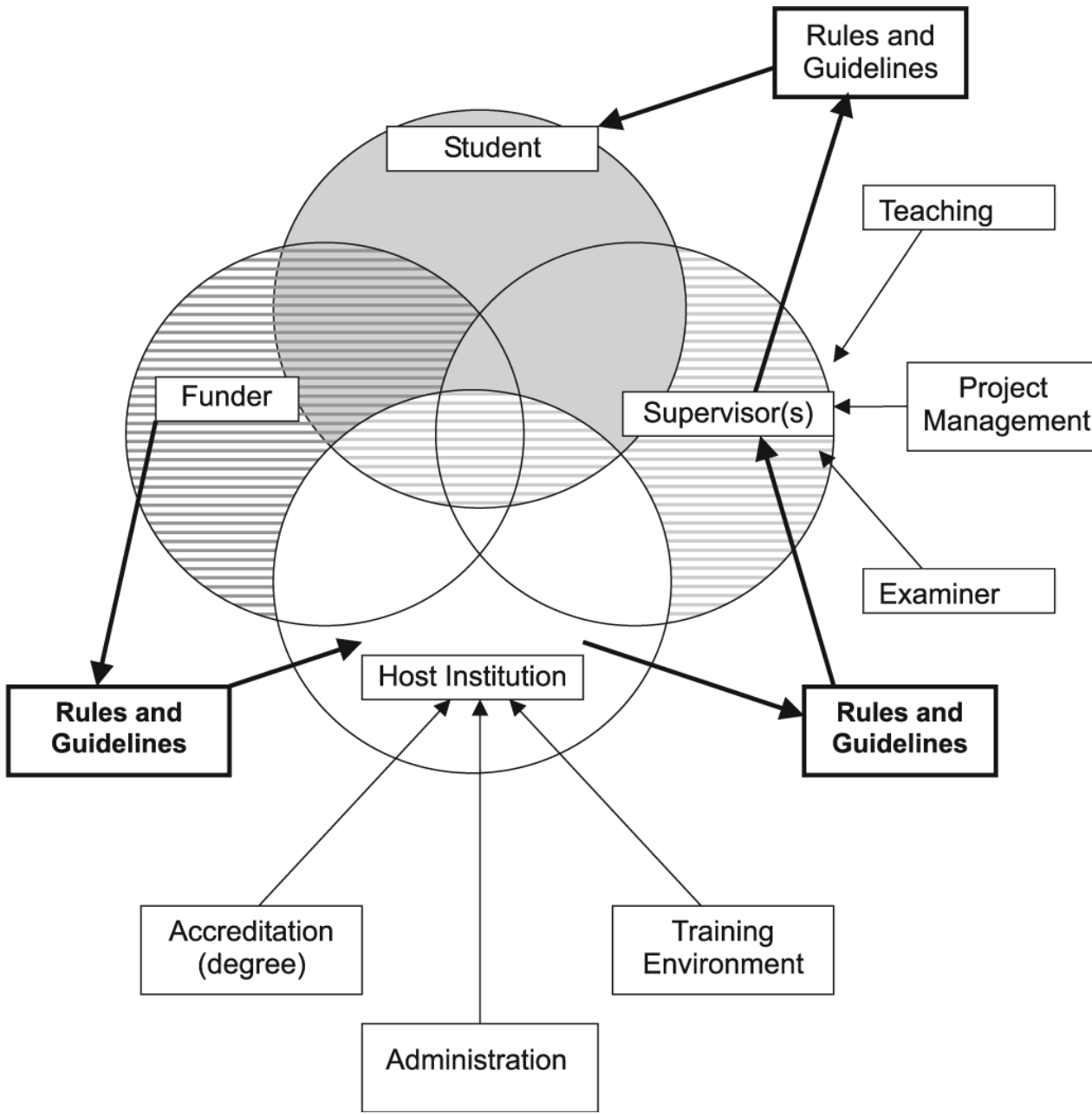
Content of my talk

What makes a high quality PhD Programme?

- Institutional strategies and policies and organizational structures,
- Different pathways towards the doctorate
- Key components for success (supervision, embedding, funding)
- Career pathways of doctorate holders



Interest groups



From: Cryer, Pat, and Peter Mertens. "The PhD examination: Support and training for supervisors and examiners." *Quality Assurance in Education* 11.2 (2003): 92-99.



What makes a good doctorate?

...depends on stakeholders' different expectations!

- The candidate and future doctorate holder
- The supervisor
- The program director, the dean, the university leadership
- The future employer
- The ministry
- The society
- The parents....

What makes a good doctorate?



the doctoral holder him/herself, when he/she

- Has a satisfying research experience;
- Has excellent career prospects;
- Has established his or her own professional network;
- Has published and positioned him/herself in the field;
- Has done PhD in a reasonable time;
- Has gained necessary skills for a future job;
- Is ready to take the next career steps.



for the supervisor, when the candidate

- Has contributed to knowledge;
- Has published with the supervisor;
- Is able to formulate new questions;
- Has presented at international conferences;
- Is ready to apply for postdoc position;
- Became a young colleague;
- Has shown creativity, persistence and determination.

What makes a good doctorate?



for the university leadership, when the candidate

- Has completed her or his PhD in the reasonable time;
- Has contributed to the reputation of the University;
- Has contributed to the university's research output;
- Is aware of ethical issues related with academic work;
- Is acquainted with academic values;
- Became an ambassador for academia.



for future employers, when the candidate

- Has high problem-solving skills
- Has people management skills
- Is able to transfer his knowledge to new areas of application
- Is a team player
- Is a good communicator
- Has excellent technical skills
- Is able to contribute to the further development of the company.



(Mis-)Matching of Expectations

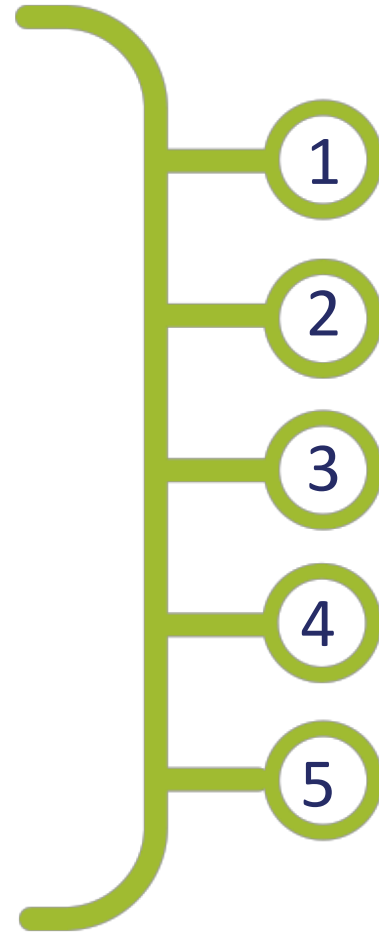
What employers want	Researchers are good at	What they think employers want
Problem solving	Problem solving	Problem solving
Tech/subject expertise	Research skills	Creativity
Research skills	Collaboration	Adaptability
Communication	Tech/subject expertise	Communication
Creativity	Self-organisation	Collaboration
Self-organisation	Adaptability	Innovation
Collaboration	Creativity	Self-organisation
Innovation	Emotional intelligence	Project management
Project Management	Communication	People management
Emotional Intelligence	Project management	Tech/subject expertise
Business Awareness	People management	Leadership
Leadership	Innovation	Research skills
Adaptability	Leadership	Business awareness
People management	Business awareness	Emotional intelligence



The doctoral journey as socialization process

“...through which individuals gain the **knowledge, skills, and values** necessary for successful entry into a professional career requiring an advanced level of specialized knowledge and skills.”

Weidman, John C., Darla J. Twale, and Elizabeth Leahy Stein. *Socialization of Graduate and Professional Students in Higher Education: A Perilous Passage? ASHE-ERIC Higher Education Report, Volume 28, Number 3. Jossey-Bass Higher and Adult Education Series.* Jossey-Bass, Publishers, Inc., 350 Sansome Street, San Francisco, CA 94104-1342, 2001.



Types of doctorates

- 1 Thesis-based doctorate
- 2 Publication-based thesis (PBT)
- 3 Practice-based doctorate
- 4 Professional doctorate
- 5 PhD by published work



Types of doctorates

1. Thesis-based doctorate

Examined on the basis of a major thesis (or dissertation) reporting on intensive research under supervision (the traditional Humboldtian model)

2. Publication-based thesis (PBT)

Examined on the basis of a peer-reviewed academic papers (published or accepted for publication,) accompanied by an over-arching paper presenting the overall introduction and conclusion

3. Practice-based doctorate

Based on a supervised research project, normally from the performing arts where the output is creative (such a novel, a portfolio of artistic work, a film) and a written piece (shorter than the traditional Ph.D. thesis, and includes context and reflections)

4. Professional doctorat

Based on a combination of course work and a supervised research project, which is intended to be smaller than the traditional Ph.D. It is more applied, as well as work-based or work-focused

5. Phd by published work

PhD awarded to a candidate “whose thesis consists entirely or predominately of refereed and published articles in journals or books which are already in the public domain”. Many institutions in UK restricted eligibility “to those with a defined relationship with the institution of one kind or another”



What makes a good doctorate?

- Promotes education through independent research, in accordance with high ethical standards and good scientific practice;
- Secures the embedding in an active research environment with adequate research infrastructure;
- Considers the individual research and development interests of the doctoral candidates;
- Prepares doctoral candidates for careers inside and outside science;



What makes a good doctorate?

- Is efficient in the sense of completion rates and time to degree;
- Builds on transparent and independent quality assurance processes;
- Contributes significantly to the scientific output of the university;
- Provides high satisfaction for both supervisors and doctoral candidates;
- Contributes to the attractiveness, reputation and profile of the university;
- Can rely on the commitment of the university management.

The stakeholders' roles and interest, e.g.

	Ministry	University	Supervisor	Candidates
Increased efficiency				
• Higher completion rates	X	X		X
• Shorter time to degree	X	X		X
• Higher scientific output	X	X	X	X
Transparency and attractiveness				
• "Visibility and Marketing"	X	X	X	X
• Processes and requirements		X		X
• Recruitment and selection procedures		X		X
Improvement of training				
• Scientific supervision		X	X	X
• Sound competency development		X	X	X
• Skills Development	X	X		X
• Career preparation	X			X



What are the structural measures
supporting a high quality program?

Which are maybe more hindering than

The good old days of
helping?
the doctorate

- Shift in purpose of doctoral education
- Shift from individual to institutional responsibilities regarding the doctoral experience



Quelle: WIKIPEDIA



Transparent policies

Professionalization of structures and supervision

Different pathways towards the doctorate



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Some words on policies

10 Salzburg Principles (2005)

- I. The core component of doctoral training is the **advancement of knowledge through original research.**
- II. Embedding in **institutional strategies and policies.**
- III. The importance of diversity.
- IV. Doctoral **candidates are considered as early stage researchers.**
- V. The crucial role of **supervision** and assessment.
- VI. Achieving critical mass.
- VII. Duration: 3 to 4 years.
- VIII. The promotion of **innovative structures.**
- IX. Increasing mobility.
- X. Ensuring appropriate funding.

Salzburg II recommendations (2010)

- The doctorate is and must be **research based**
- Space for **individual development** (incl. transferable skills training)
- **Supervision** is central to doctoral education
- At the heart of 'de-privatisation': Taking **institutional responsibility** by making doctoral education a collective effort: → **emergence of doctoral schools!**
- **Autonomy** for the institution to choose mission and strategy and to set up the appropriate structures

→ European (global) standardization of expectations with respect to third cycle also affects the Universities in Montenegro



7 Principles of Innovative Doctoral Training (2011)

In the framework of the European Research Area, the European Commission has developed a set of seven principles for innovative doctoral training. The seven EU principles were based on the ten Salzburg principles (enriched in 2010 by a series of Salzburg II Recommendations on ways to implement the principles), good practice in Member States and the Marie Curie experience. They have been endorsed by the EU Council of Ministers in their conclusions on the modernisation of higher education on 28/29 November 2011.



Seven Principles of Innovative Doctoral Training

1. Research Excellence
2. Attractive Institutional Environment
3. Interdisciplinary Research Options
4. Exposure to industry and other relevant employment sectors
5. International networking
6. Transferable skills training
7. Quality Assurance

accountability procedures on the research base of doctoral education, developed separately from the quality assurance in the first and second cycle. Goal of QA should be to enhance the quality of the research environment as well as promoting transparent and accountable procedures. It is not about the QA of the PhD itself rather the process or life cycle, from recruitment to graduation.



Relevance for Universities in Montenegro

- You want to be an internationally attractive partner for co-operations.
- You want to keep your best students (not wanting them to leave for international alternatives, ‘brain drain’)
- and become an internationally attractive place/mentor for PhD candidates from abroad (‘brain gain’).
- You want to be part of your international scientific community.



Milestones in the reform

2005



10 Salzburg
Principles

2010



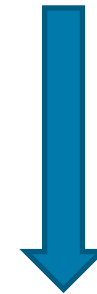
Salzburg II
Recommendations

2011



7 Principles of
Innovative
Doctoral Training

2016



Taking Salzburg
Forward

How do these principles, recommendations and guidelines affect our practice?

transferable skills;

- encourage universities to follow international standards and benchmarks.
- Code of Conduct for Doctoral Education are developed on institutional level



Examples 1 : Austrian university development plan 2016-2021

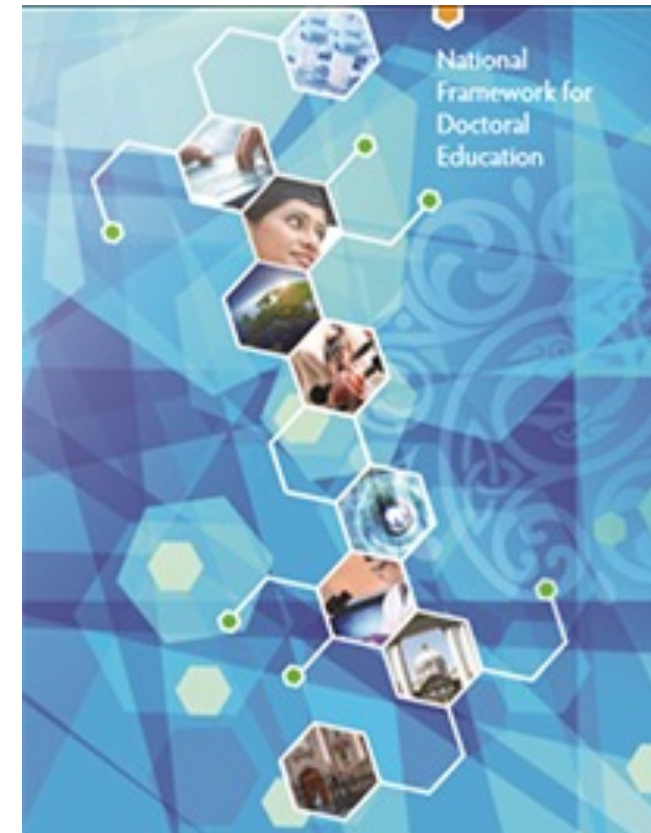
Published by the Austrian Ministry 2015

*"Based on the relevant **international standards** published by the European Commission or the EUA as a recommendation (Principles for Innovative Doctoral Training 2011 and Salzburg II Recommendations 2010), doctoral studies at the universities **are to be further developed** according to the Austrian framework." (translated, S 20)*



Examples 2 : National Framework for Doctoral Education in Ireland

*The key aim of this National Framework for Doctoral Education is to underpin excellence in all forms of doctoral education in Ireland. It provides a set of principles for doctoral education, while recognising the diversity in the Irish higher education system. **It is consistent with European and international standards, principles and guidelines, including, for example, the Salzburg principles, the Salzburg II recommendations and the Principles for Innovative Doctoral training.***



Examples 3: PhD Regulation at the University of Bergen, Norway

Salzburg V → Section 5.6 The PhD agreement

Admission to the university's PhD programme must be formalized in a written agreement within the framework of the standard agreement for admission adopted by the University Board. The agreement is to be signed by the PhD candidate, supervisor(s), department and the Faculty the PhD candidate has been admitted to. The agreement governs the parties' rights and obligations during the period of admission and is intended to ensure that the PhD candidate regularly participates in an active research environment, and is to facilitate the completion of the PhD programme within the agreed-upon time. If a supervisor is appointed after the date of admission, this supervisor must sign the agreement immediately after their appointment as supervisor.

About a Code of Conduct

Should we strive for binding regulations or rather voluntary guidelines? Binding regulations

- protect the doctoral candidate
- strengthen transparency and ensure fair treatment of candidates.
- ensure legal compliance.

BUT

- can be seen as top-down intrusion,
- reduce motivation to deliver a sound quality culture
- may develop a pure compliance culture, where the letter but not the spirit of the rules is followed.



About a Code of Conduct

Many institutions have opted for a mix:

- ❑ **Rules and regulations** contain explicit responsibilities such as good conduct of research, knowledge of university regulations, a minimum amount of communication between supervisors and supervisee and – at times – responsibilities concerning the financing of the doctoral candidates.
- ❑ **Voluntary Guidelines** promote the development of an integrated understanding of good supervision among supervisors and doctoral candidates. They can contain examples of good practice and can be a useful tool for the professional development of supervisors.⁶

References and further reading

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