

# CHANGING DOCTORAL EDUCATION AT UNIVERSITY OF MARIBOR

## *Lessons Learned*

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# Reform of higher education in Europe

## Bologna process in Europe

- 1999: Vision of a common higher education area.
- 2000-2005: Harmonization of the principles: the concept of EHEA.
- 2006-2010: Building of EHEA: implementation of agreed principles at national levels.
- 2011-today: EHEA Consolidation: a full and coherent implementation of the main principles at national and institutional levels.

## Doctoral Studies in Europe

- 2003 - Berlin Communique.
- 2005 - Salzburg Principles 1.
- 2007 - Establishment of the EUA Doctoral Education Commission (CDE).
- 2010 - Salzburg 2 recommendations.
- 2011 - 7 principles of innovative doctoral education.
- 2015 – Taking Salzburg forward
- 2015-today: Doctoral education a key contributor to knowledge society.

# Doctoral studies in Europe: the main changes since 2003

- Abandoning the "master - apprentice" model and moving towards **organized doctoral education**.
- **Common definition of a doctorate** : "A New Contribution to Top-Level Knowledge with Original Research".
- **Doctoral education**: not just for the needs of universities (reproduction), but "**for the needs of the knowledge society**".
- **Mobility** and the need for a "**common framework**" ("Bologna"; Dublin descriptors; qualifications frameworks).
- **Research ethics** (use and abuse of bibliometric data).
- **Critical Mass**: Postgraduate / Doctoral / Research Schools.
- **Advantages**: research environment, interactive community, interdisciplinarity, transferable skills, etc.
- **Disadvantages**: danger of "pedagogization" of doctoral studies.

# Salzburg principles 1 (2005)

1. The central component of doctoral education is **the advancement of knowledge with the original research**.
2. Integration into institutional strategies and policies (**inter-sectorial cooperation**).
3. **The importance of diversity (individualization)**.
4. Doctoral candidates as **researchers in the early work period**.
5. **Key role of supervision and evaluation**.
6. Achieving **critical mass**.
7. Duration of doctoral study (**usually 3-4 years**).
8. Promoting innovative structures (**interdisciplinarity**).
9. Increasing mobility (**internationalization**).
10. **Ensuring adequate funding**.

## Salzburg principles 2 – EUA-CDE (2010)

1. **The doctorate must be based on the candidate's original research!**
2. **Supervision** of doctoral candidates is pivotal to doctoral education!
3. Doctoral education is **institutional responsibility** and requires a concerted effort!
4. **Institutional autonomy** in the selection of goals and strategies and the establishment of suitable structures for doctoral education (95% of EUA members have established one or more doctoral schools since 2010).
5. **Individualized doctoral education** (flexibility).
6. Institution responsible for **professional education** of doctoral candidates (transferable skills).

# Salzburg principles 1 and 2

- **Supervision must be a joint effort** with clearly defined and resolved responsibilities of the main supervisor, supervision group, doctoral candidate, doctoral school, research group and institution **that enables the individual development of the doctoral candidate.**
- **Ensuring the professional development of supervisors is institutional responsibility**, and can be organized through formal training or informally by exchanging experiences between supervisors.
- **The development of a common supervision culture shared by both supervisors, heads of doctoral schools and doctoral candidates must be a priority for doctoral schools!**
- **Supervisors must be active researchers!**

# 7 principles of Inovative Doctoral Education (EUA-CDE 2011)

1. **Research excellence** (critical mass).
2. **Attractive institutional environment.**
3. **Interdisciplinary research opportunities.**
4. **Cooperation with industry** and other relevant employment sectors.
5. **International cooperation** (double / joint degrees, mobility).
6. **Transferable skills.**
7. **Quality assurance** ("process-oriented QA").

# Taking Salzburg forward (EUA-CDE 2015)

- Doctoral education **is central to the mission of universities.**
- **Open science, open education and social media** enabled by widespread **digitalisation** making **research increasingly global!**
- Doctoral candidates have become **more diverse in terms of origin, age and experience.**
- **Research integrity and ethics standards are urgently needed!** A research culture characterised by rigour, resilience, originality, critical thinking, independence and the ability to create new knowledge
- These challenges require institutions to adapt approaches, guidelines and recommendations in order to prepare researchers for research environments that are **very different from those of their supervisors.**



# The default structure of doctoral education in the EU

## Elements of the PhD doctoral training



Taught elements = selected lectures, seminars

Professional elements = skills development and training

Research element = PhD research project

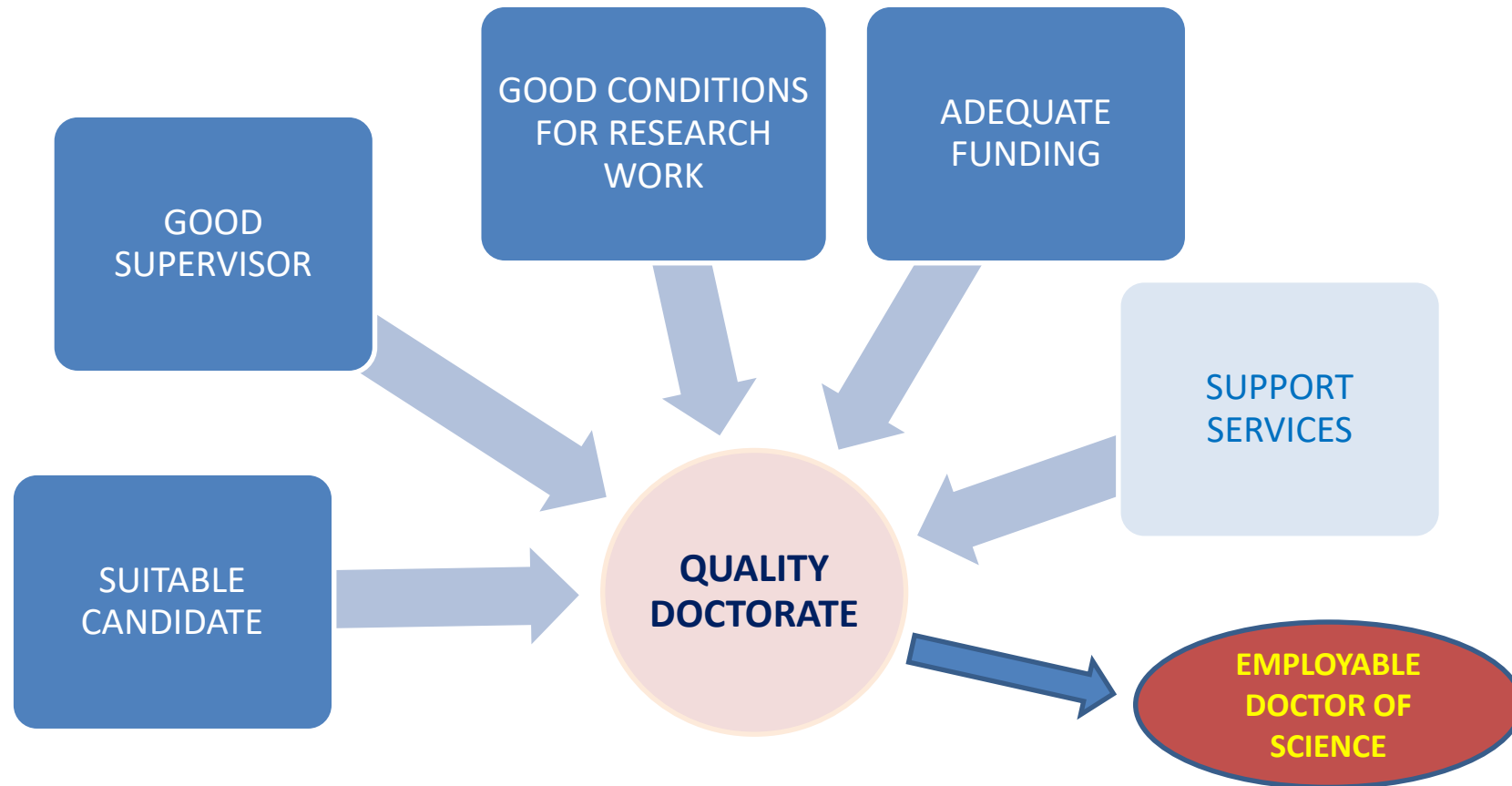
# Doctoral studies at the University of Maribor today

- **Accessibility of doctoral studies** – HE law: any candidate with completed second level education from any field can be enrolled - there is no real possibility of selecting suitable doctoral candidates!
- Survey of doctoral students (February-March 2015):
  - **Large majority** of doctoral students **have no previous research experience.**
  - **Many** doctoral students are **not included in research projects** during the doctoral studies!
  - **Only a minority** of doctoral students **have experience in international mobility during** the doctoral studies!
  - Doctorate students **welcome additional training in transferrable skills.**

# How we did it?

- Considering the strategic decisions of the UM Senate and the generally established principles of doctoral education in Europe in reforming the doctoral education at UM – discussions 2013-2018, new regulations adopted in 2018.
- Taking into account the views of all stakeholders and providing flexible solutions.
- Systematization of unified support services and common content (transferable skills) for doctoral education at UM.
- Strengthening the internationalization of doctoral study programs and the mobility of doctoral candidates.
- Systematic transfer of quality supervision practices to younger supervisors.
- Establishment and continuous monitoring of the quality indicators for doctoral education and appropriate adaptation.
- **Arrangement of stable funding of doctoral education at the national and institutional level – not yet realised.**

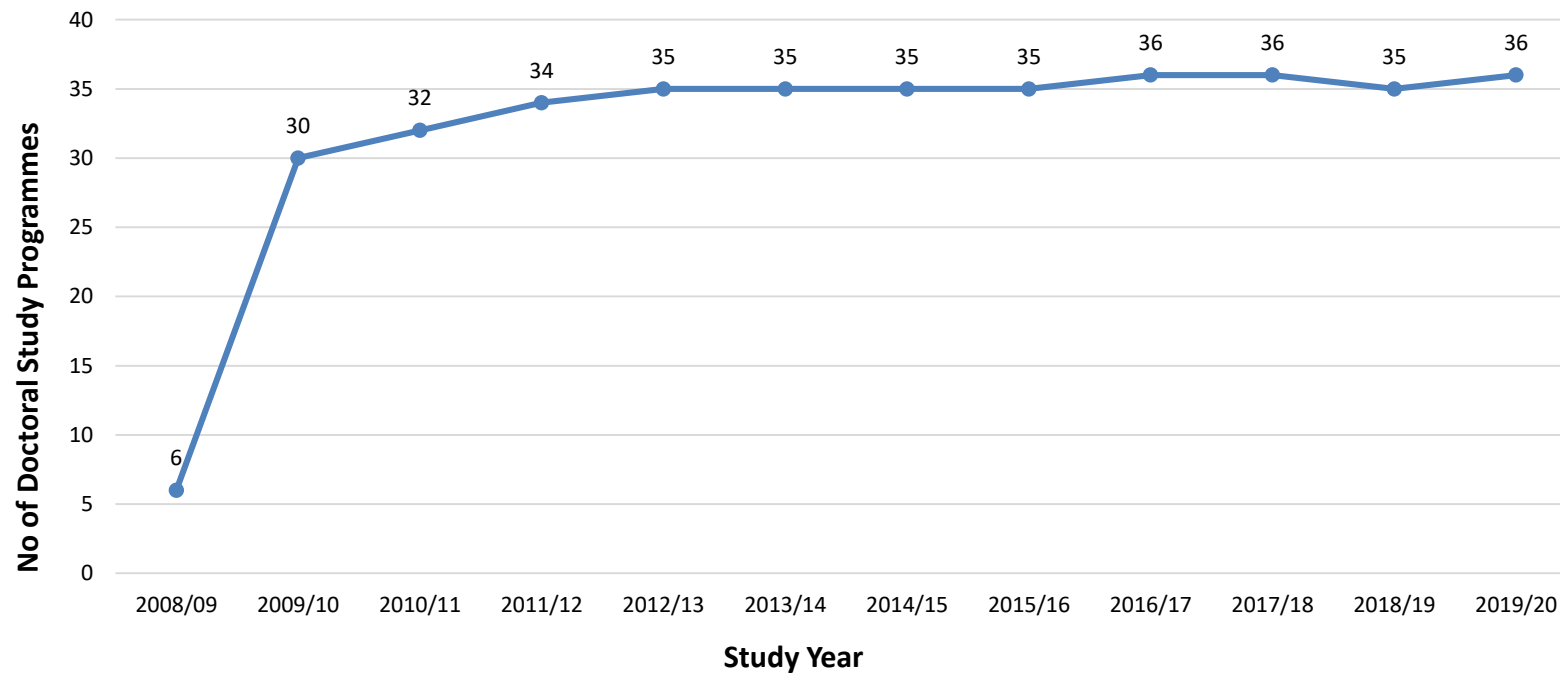
# What was our goal in reforming the doctoral studies?



I<sup>4</sup> = Individualisation + Interdisciplinarity + Internacionalisation + Intersectorial cooperation

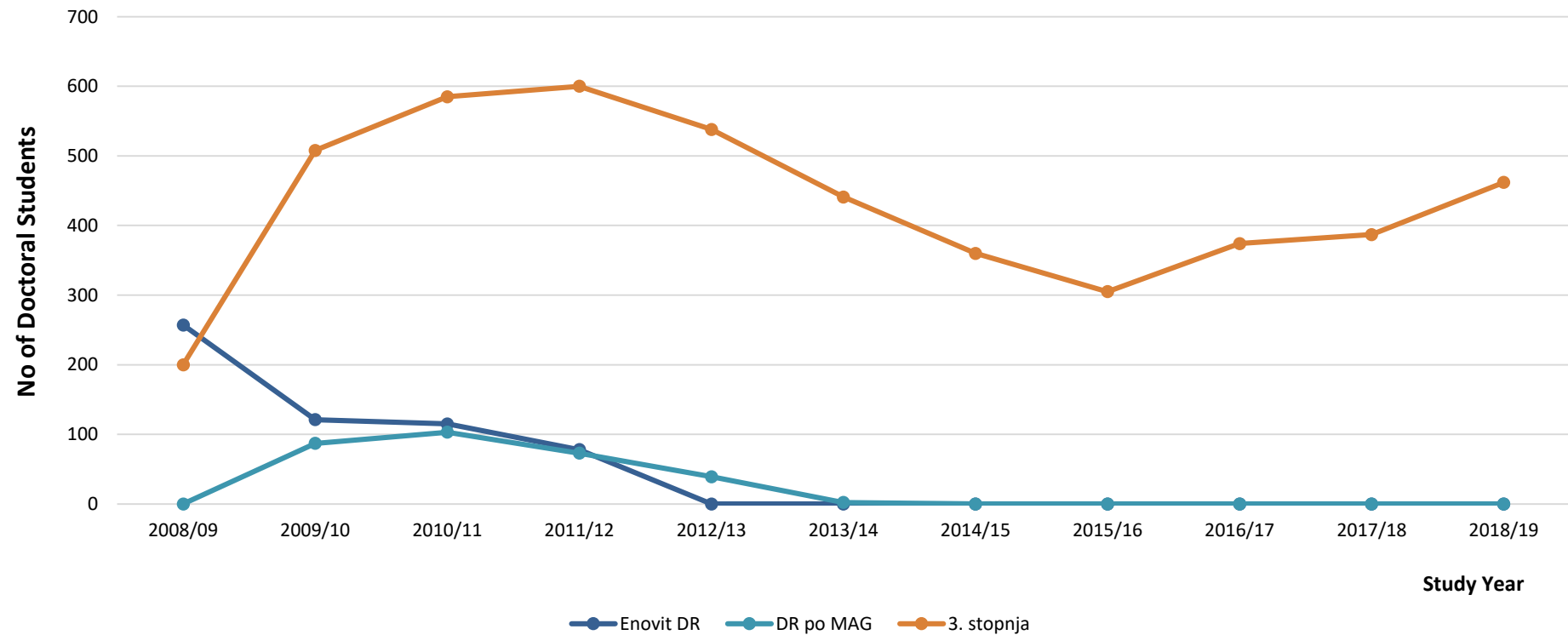
# Doctoral studies at the University of Maribor today

- Bologna reform of doctoral studies - beginning in 2008.
- The first Bologna Doctoral Study Program started in the academic year 2005/06.



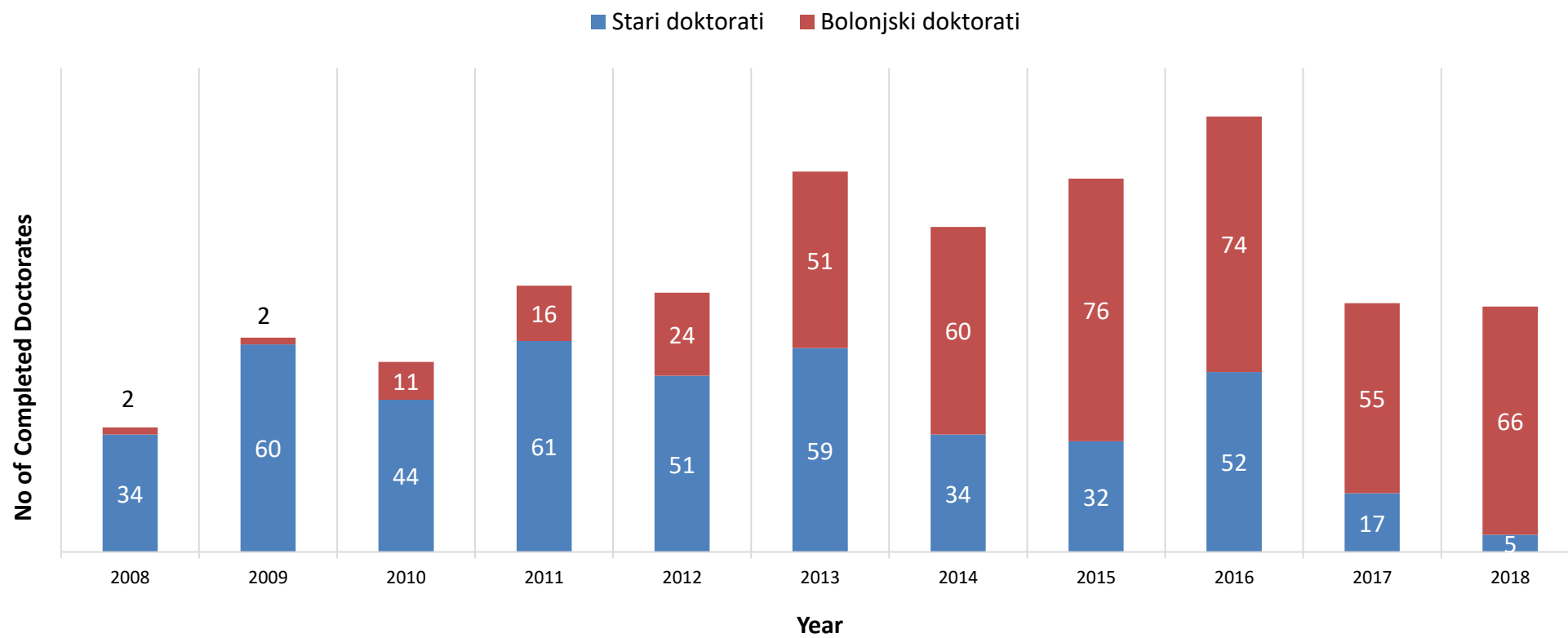
# Doctoral study at UM in numbers

Number of doctoral students enrolled in relation to the doctoral study program type



# Doctoral study at UM in numbers

The number of successfully completed doctoral studies per year



# Questions

- why change doctoral studies at all?
- how to improve the success rate of the students in PhD programs?
- how to attract the best students?
- how to make PhD study programs more attractive?
- should we bother with Joint and double degree doctorates?
- are there funding possibilities for PhD students in EU?
- do differences between western and eastern countries in PhD education matter?