



# About Doctoral Education

*BY LUCAS ZINNER, November 2017*



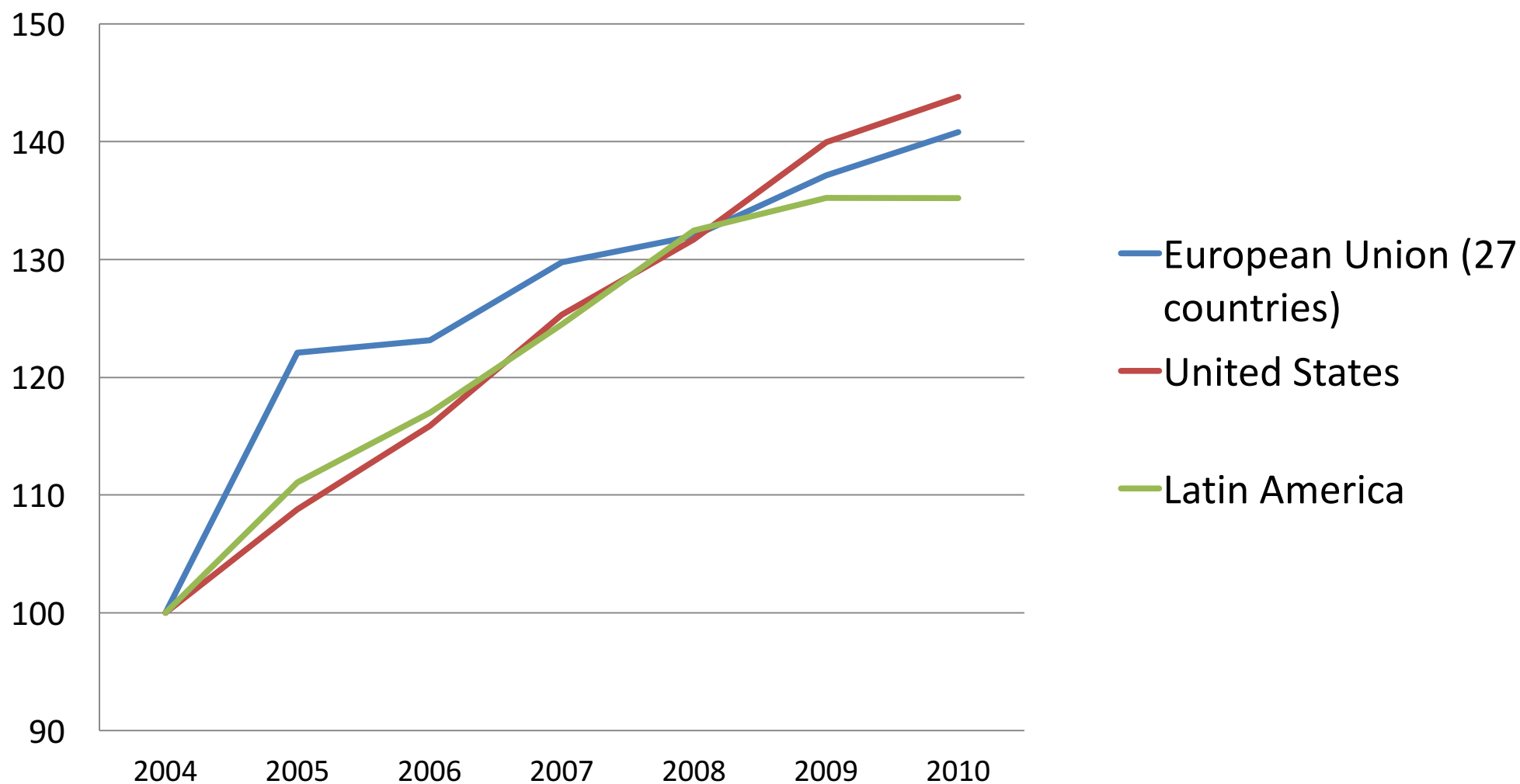
## PhD's in Europe

- 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**

## Global challenges

- Massification: globally growing number of doctoral candidates
  - » Requirements for management and organization
  - » Quality assurance of process and "end product"
- Internationalization and diversification
  - » Mobility of doctoral candidates and competition for talents
  - » Heterogeneity of doctoral students population
  - » Harmonization of standards / expectations
- Diversity of career paths
- Performance related indicators such as #publications, time to degree, completion rates

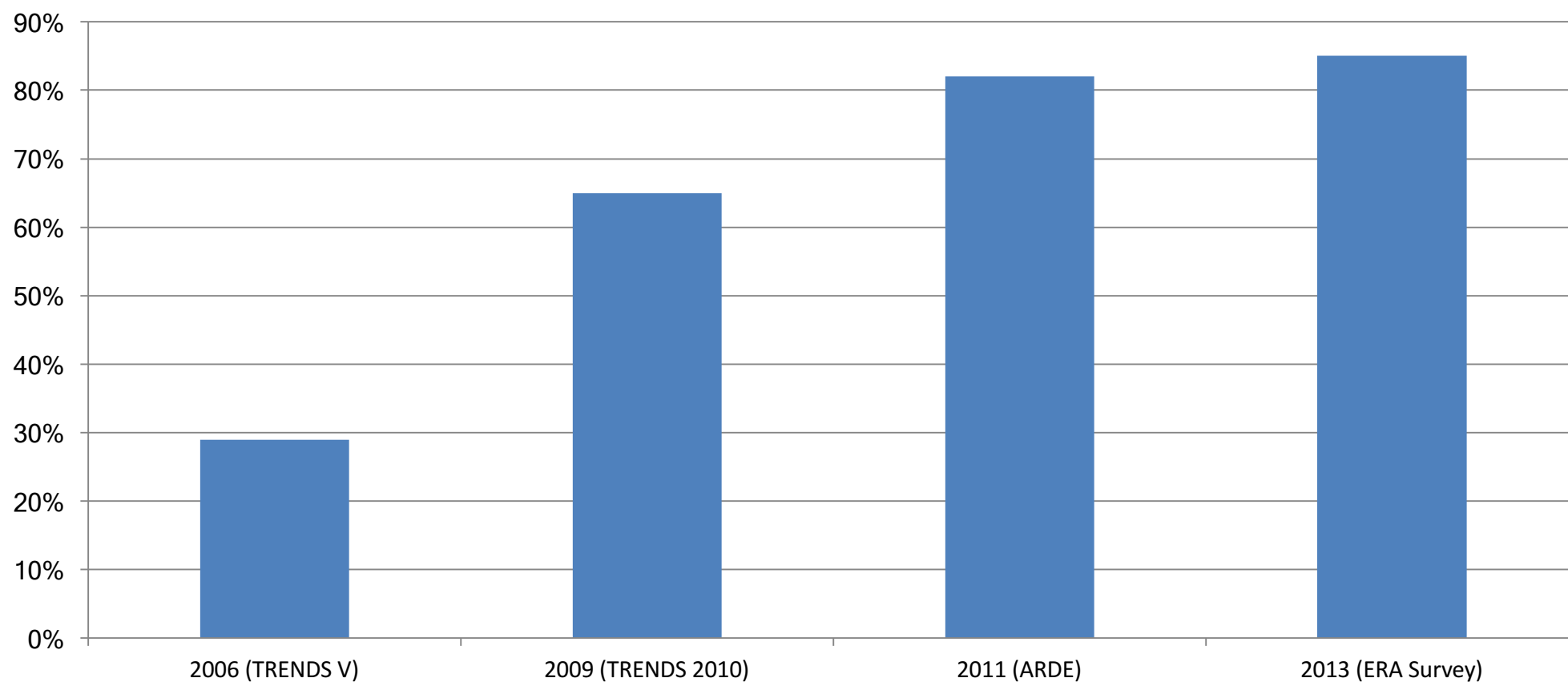
### Growth in doctorates awarded in the EU, USA and Latin America 2004=100



## Trends

- The demise of the Master:Apprentice model
- The rise of the Co/Team-supervision
- The rise of the Cohort model
- The rise of the Structured PhD
- The rise of the Skills Agenda
- The rise and development of Graduate/Doctoral/Research Schools

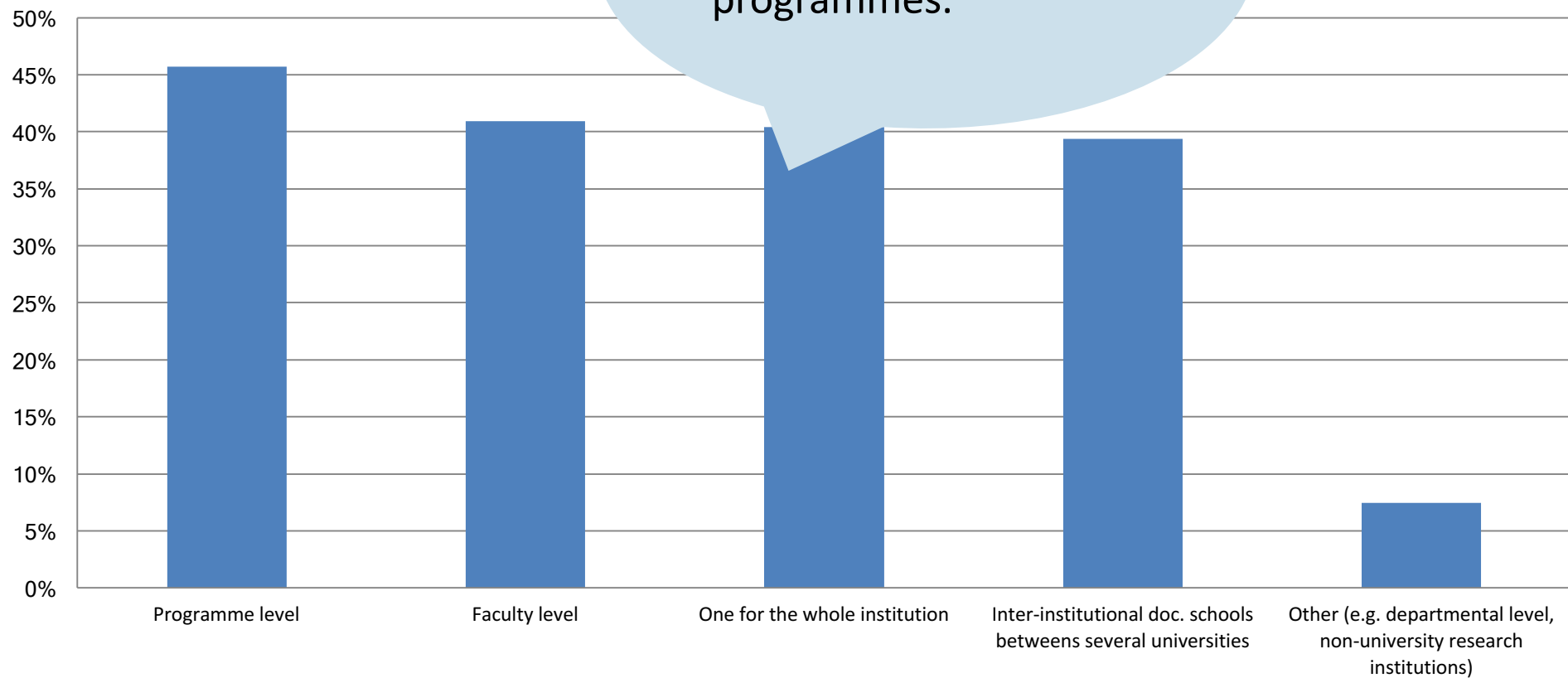
# The rise of Doctoral Schools





# The rise of Doctoral

There is no stringent definition of schools or programmes.



What are the structural measures  
supporting a good doctoral program?  
Which are maybe more hindering than  
helping?



universität  
wien

The good old days of  
the doctorate



Quelle: WIKIPEDIA



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

Yields to increasing

- Structurization
- Collectivization



# Structuring Programmes and processes

- Methodically poorly prepared beginners to the doctorate;
- High drop-outs and long student durations;
- Questionable supervision quality
- Unclear quality requirements for dissertations
- Isolation of doctoral students
- Production of niche expertise yielding to potential over-qualification to the job market ...?

→ Structured Programmes as a sign of institutional responsibility

## 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.

## Context in Austria. University development plan 2016-2021 (2015)

*"Based on the relevant **international standards** published by the European Commission or the EEA 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)

Universities are requested for the *"further development of the content and **administrative structures**: submission of an exposé; Public presentation of the dissertation project; Conclusion of a dissertation agreement, including time and work plan; Supervision by a team; Personnel separation of supervision and accompaniment of the dissertation and its assessment."* (ibid)

## Structured doctoral education defined as...

...the establishment of procedures or structures and commitment which, on the one hand, **ensure the quality of the research**, on the other hand ensure an **optimal and adequate scientific supervision** of the candidates, with the aim of securing independent, high-quality academic research by the candidates, embedding them as equitably as possible into the institutional research environment and leading them to a completion through active supervision.



# Different layers for quality assurance measures

## **Legal framework**

- University Act
- University regulations
- Curricula (and sometimes internal procedural guidelines)

## **Organizational level**

- Doctoral school (s): form the organizational and stable framework
- Doctoral programs: deliver the content

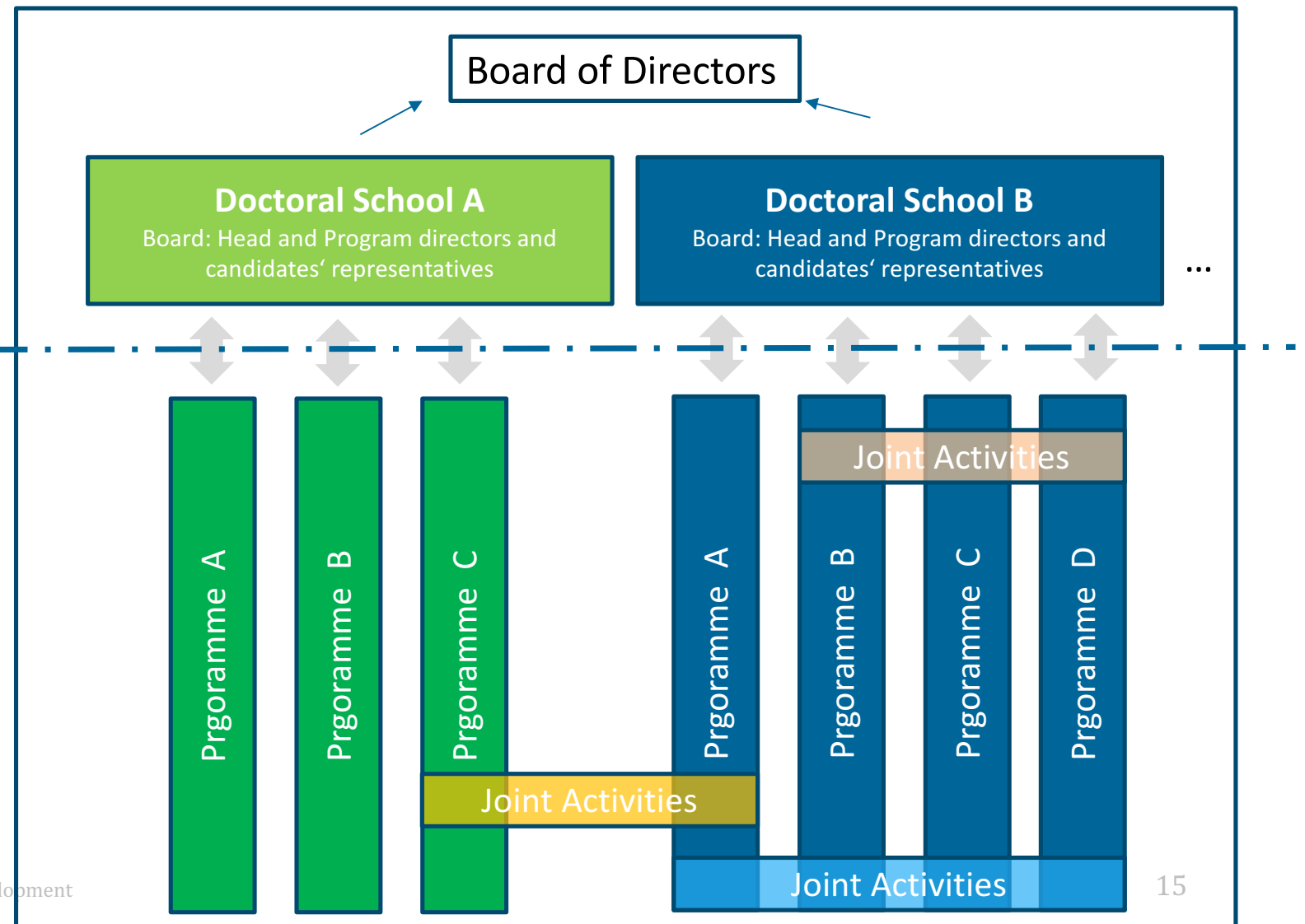
# Organizing Doctoral Education based on international good-practices



universität  
wien

Strategy  
coordination  
Administration  
incl. enrollment

Selection  
Training  
Quality Assurance



## Structure through schools and programmes

- Programmes have a mission.
- Programmes ensure scientific socialization.
- The scientific support is provided in the programmes.
- Programmes secure a critical mass and promote peer culture and self-organization forms of the doctoral candidates.
- Programmes are the first level of quality assurance from the selection of doctoral candidates to monitoring with appropriate feedback mechanisms.
- Programmes are geared to international/disciplinary standards.
- Programmes drive the content and are thus profiling for the faculties.

## Summary

“A structured PhD generally includes the research training of a conventional degree, together with other elements that **keep students on track and help to prepare them for a variety of post-PhD careers**. Students have **multiple advisers and administrators to guide** them, receive **formal training in scientific and soft skills** and have **opportunities for travel and interdisciplinary study**. In principle, they receive **a broader education than any single supervisor could provide.**”

Cited from *Graduate students: Structured study*, Nature 493, 259-261 (2013)

