PROMOTIONS-KOLLEG NRW

A New Cross-University Structure for Doctoral Training

Promotionskolleg NRW

Rainer Herpers, Martin Sternberg, Johanna Gelberg

CDE Annual Meeting, Lausanne, June 6th 2025

German University System

- **2-track University System**
  - „Classical“ Universities (#109)
  - Universities of Applied Sciences (#215)
    (since more than 50 years)
    - Study prog. predominantly in Engineering & Computer Science, Business Administration, Health & Social Sciences, Design & Media Sciences (and few others)
    - Decentral organization in member 16 states
    - Mandated to conduct research since 1990/2000/2002
    - until 2022 doctoral education in cooperation with class. U.s
- **20 Universities of Applied Sciences in NRW**
  - 230 000 Students (aca. year 23/24, 33%, Statistik.NRW)
  - 44.843 Graduates (in 2023, 50%, Statistik.NRW)
  - 4450 Professors (as of 01.12.2023, Statistik.NRW)

Fachhochschule Südwestfalen
University of Applied Sciences

HSBI Hochschule Bielefeld
University of Applied Sciences and Arts

HOCHSCHULE HAMM-LIPPSTADT

PROMOTIONS-KOLLEG NRW

Technische Hochschule Georg Agricola

Technology Arts Sciences TH Köln

TH OWL
TECHNISCHE HOCHSCHULE OSTWESTFALEN-LIPPE
UNIVERSITY OF APPLIED SCIENCES AND ARTS

HSPVNRW

EVANGELISCHE HOCHSCHULE RHEINLAND-WESTFALEN-LIPPE
Protestant University of Applied Sciences

Rheinische Fachhochschule Köln
University of Applied Sciences

FH AACHEN
UNIVERSITY OF APPLIED SCIENCES

Hochschule Niederrhein
University of Applied Sciences

Westfälische Hochschule

Hochschule Bochum
TECHNIK WIRTSCHAFT GESUNDHEIT

HOCHSCHULE RHEIN-WAAL
Rhine-Waal University of Applied Sciences

20 Universities of Applied Sciences
230 000 Students
4450 Professors

FH MÜNSTER
University of Applied Sciences

Hochschule Bonn-Rhein-Sieg
University of Applied Sciences

Hochschule Düsseldorf
University of Applied Sciences
HSD

Fachhochschule Dortmund
University of Applied Sciences and Arts

KatHO NRW
Aachen | Köln | Münster | Paderborn
Katholische Hochschule Nordrhein-Westfalen
Catholic University of Applied Sciences

HRW
HOCHSCHULE RUHR WEST
UNIVERSITY OF APPLIED SCIENCES

Facts & Figures I

PROMOTIONS-KOLLEG NRW

Historical Review

2016: GI NRW gains experience in cooperative doctorates and establishes frameworks for doctorates at UAS

2020: Establishment of the Graduate School of Applied Research Northrhine-Westfalia (**PK NRW**)

2022: Awarding the right to confer doctorates

2023: Start of enrolment and acceptance procedures, official start of the doctoral programmes

2025: First doctorates completed (10/24, incl. publication 01/25)

Structure

- 20 Universities of Applied Sciences (in NRW)
- 8 Research departments, offering
- 10 doctoral programmes
- 1 central administration and coordination unit (Bochum)

Dr. Vanessa Mai, first graduate of PK NRW, awarded with the Best-UAS-Dissertation-Prize of Germany 2025

Facts & Figures II

PROMOTIONS-KOLLEG NRW

State of June 1st, 2025

- **Statistics**
  - 320 doctoral candidates enrolled
  - 244 doctoral candidates in doctoral prog. accepted,
  - 170 cooperative doctoral candidates
  - 334 professorial members
  - 178 associate professors
  - 13 applications for acceptance rejected, 11 doctorates canceled
  - 2 successfully completed, 10 doctoral procedures opened
  - Team of 20 science manager in the administrative unit

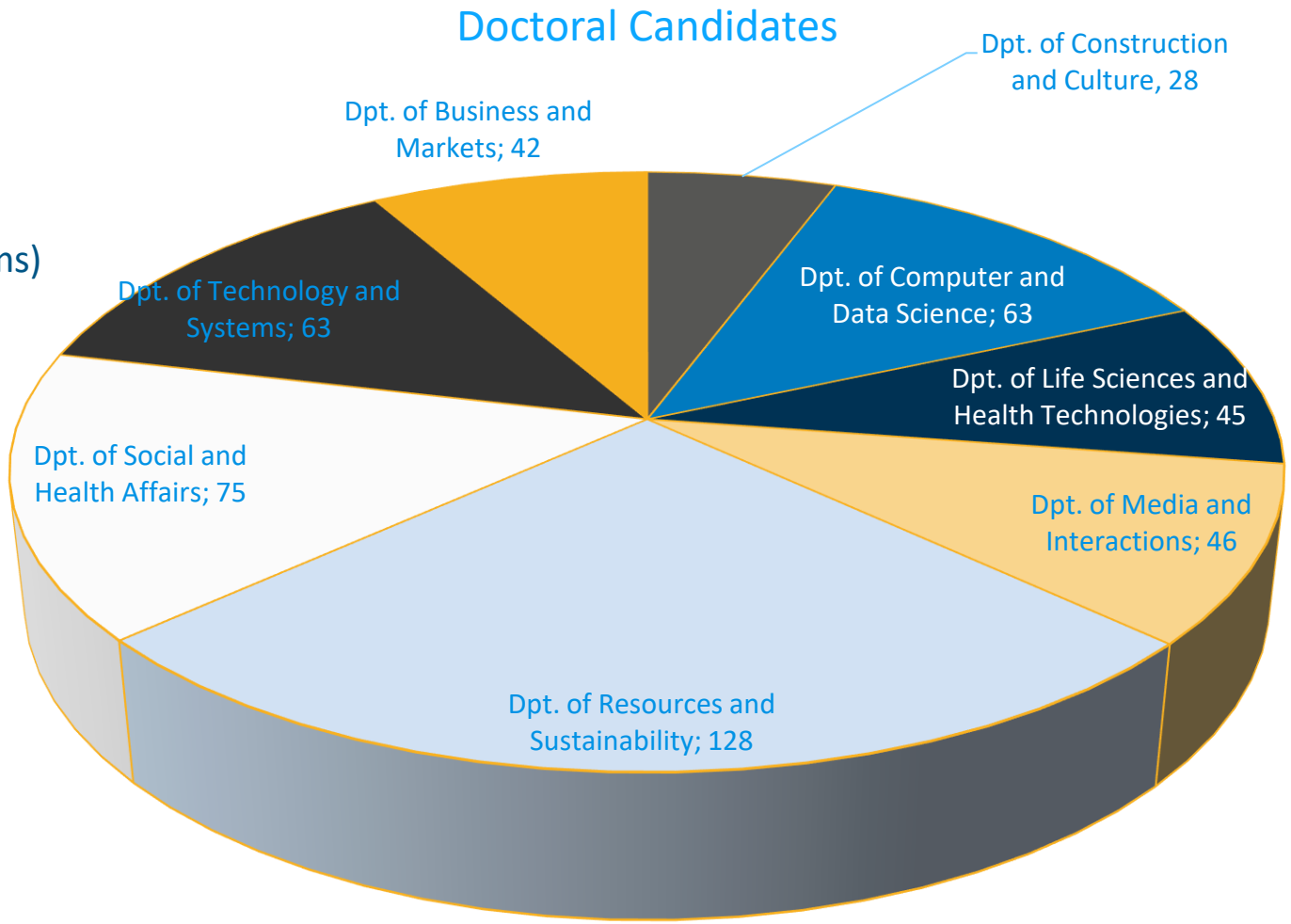
- **Proportion of females**
  - Professorial members: 25,4 %
  - Associate professors: 28,4 %
  - Doctoral candidates: 36 %

Departments & Doctoral Candidates

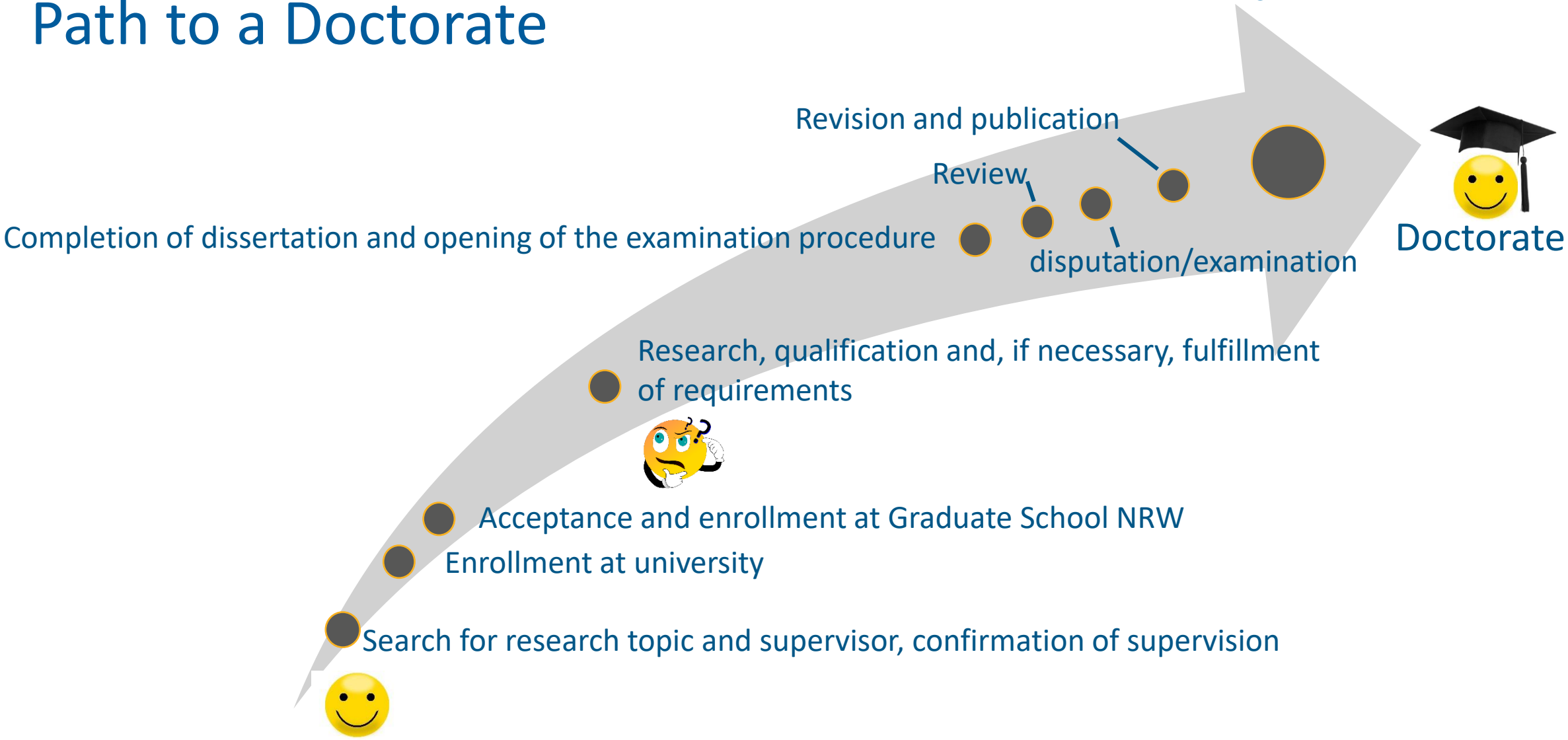
490 doctoral candidates (incl. cooperative doctoral programs)

- Department of Construction and Culture: **28**
- Department of Computer and Data Science: **63**
- Department of Life Sciences and Health Technologies: **45**
- Department of Media and Interactions: **46**
- Department of Resources and Sustainability: **128**
- Department of Social and Health Affairs: **75**
- Department of Technology and Systems: **63**
- Department of Business and Markets: **42**

State of June 1st, 2025



Path to a Doctorate



Doctoral Programs - Content

PROMOTIONS-KOLLEG NRW

- **On a scientific and interdisciplinary overarching topic, designed for three years**
- **Participation in doctoral program mandatory**
- **Compulsory and elective courses**

- **Mandatory items**
  - Lecture series or doctoral seminar of the doctoral program (usually seven dates)
  - Good Scientific Practice (GWP)
  - Ethics and responsibility in science and society
  - Two presentations in the colloquium
  - Presentation at external scient. symposium
  - Other mandatory elements depending on the doctoral program

- **Elective items**
  - Qualification programs offered by PK NRW, e.g.
    - Individual organization and development
    - Scientific communication
    - Career entry and career planning
    - Specialist method workshops
  - National and international training visits
  - Scientific publications (mandatory in some progs.)
  - Integration into academic teaching
  - Participation in national and international research conferences (mandatory in some progs.)
  - special achievements in science transfer
  - ...

Supervision by Thesis Advisory Committee

PROMOTIONS-KOLLEG NRW

Thesis Advisory Committee (3 supervisors):

(1) Professional supervisor

Prof. Member of the department

(2) Additional professional supervisor

Prof. Member | Prof. Member (of PK NRW) | Ext. Professor

(3) Additional supervisor / Mentor

Prof. Member | Assoc. Professor | Ext. Professor

In general:

- TAC of 3 supervisors
- Current research activities of the supervisors (i.e. membership in PK NRW)
- Suitable experience in supervising doctoral procedures (supervision beyond one full doctoral procedure + review + examination), at least one of the 3

Aiming at:

- High quality standards on supervision as crucial factor for successful doctorates of a high scientific standard
- legal certainty für docoral candidates at an early stage (TAC signs a supervision agreement within max. 6 months after acceptance)

- Signed supervision agreement within 6 months
- 1 compulsory progress report per annum (guaranteed supervision)
- Min. 1 additional contact person in the department (coordinator), one central ombuds person, central office of the PK NRW

Criteria for Membership of Professors/Supervisors

PROMOTIONS-KOLLEG NRW

- **Member of one of the 20 supporting Universities of Applied Sciences (NRW)**
- **Publications or equivalent academic achievements** (~1 peer reviewed per a)
  - Special characteristics of the discipline are taken into account
  - Assessment by peers
  - Qualitative aspects also count
- **Third-party funding** (€100.000/€50.000 per a)
  - Research-related
  - Competitively acquired
  - run via university accounts - notice of approval
- **Doctoral candidate supervision experiences** (>1 of all functions completed)
  - At the UAS or university, other federal states, also abroad, also informally (with proof)

Doctoral Phases at PK NRW
Structure & Principles

PROMOTIONS-KOLLEG NRW

(referring to Salzburg Principles)

- **I. Independent Research & Application Focus**
  - Core: Dissertation (monograph or cumulative), supplemented by qualification elements & colloquia
  - Strong application-oriented research across diverse areas of research
  - Career focus: Majority aim for non-academic career; supported through interdisciplinary training
- **II. Embedded in a Collaborative Network**
  - Joint doctoral organization of 20 UAS in NRW
  - 10 programs reflect institutional research priorities & labour market needs
  - Ongoing program evaluation & responsive development
- **III. Diversity & Integration**
  - Unique model, not based on Anglo-Saxon study formats
  - Team supervision (3 professors, incl. mentor)
  - Participation in traditional university networks; cotutelle doctorates welcomed but challenging
- **IV. Early-Stage Researchers**
  - Doctoral candidates seen as researchers, not as students
  - Autonomy in research design; intensive guidance from supervisors
  - Qualification elements understood but selectively welcomed

Doctoral Phases at PK NRW
Implementation & Innovation

PROMOTIONS-KOLLEG NRW

(referring to Salzburg Principles)

- **V. Supervision & Evaluation**
  - Comprehensive supervision agreement within 6 months
  - Covers responsibilities, integration, funding, review, family-work balance
  - Annual review; tailored and evolving document
- **VI. Achieving Critical Mass**
  - Collaboration ensures viable, rich research environments
  - Supports both small and large universities
  - Under-enrolled programs may be discontinued
- **VII. Duration & Flexibility**
  - Standard: 3 years with milestones (agreement, synopsis)
  - Frequent extension due to work or family obligations
  - Mentors guide time management and life balance
- **VIII–X. Innovation, Mobility & Funding**
  - Emphasis on interdisciplinary and transformative research
  - Built-in mobility via structure; joint programs nationally/internationally
  - Funding: State + university levies; 16 funded positions support at-risk doctorates

Keypoints of the Doctorate at PK NRW

PROMOTIONS-KOLLEG NRW

Doctoral degrees	▪ **Dr. phil., Dr. rer. pol., Dr. rer. nat., Dr.-Ing.** ▪ Depending on the subject of the dissertation and depending on the department and doctoral degree regulations
Doctoral examining committee	▪ Each department has a **doctoral examination committee**
Enrollment and re-registration	▪ At the beginning of the doctorate and then every semester both at the „**home**“ **university** & at **PK NRW** ▪ Initially limited to one year (admission, supervision agreement, exposé)
Support team	▪ **Three persons**, usually two professorial members of the PK NRW, **one professor** must have **extensive supervisory experience**, professors who exercise the Right to confer a doctorate at their home institution are possible ▪ Associate professors can act as **mentors** or provide **specialized** supervision ▪ **Supervision agreement** (mandatory)
Appraisal	▪ **at least 2 reviewers**, at least one of whom must have experience in reviewing doctorates ▪ **Half of the reviewers must not** be **members of the supervisory team** or have cooperated scientifically ▪ Ratings between **"sufficient" & "excellent"**; the latter only if all sub-ratings are "excellent"
Examination	▪ **Reviewers** and at least one other **professorial** member of the PK NRW or from an institution or university authorized to award doctorates ▪ **Disputation between 90 and 120 minutes**

Future Challenges

- **Specific profile of UAS dissertation**
- **Coordination of research in 20 UAS for stronger innovation**
- **Increase of doctoral candidate‘s interest in broader qualification**
- **Fair and adequate access to PK NRW for professors of UAS**
- **Facilitation of international cooperation**
- **Reduce drop out rate of doctoral candidates**

PROMOTIONS-
KOLLEG NRW

Thank you for your Attention!

Promotionskolleg für angewandte Forschung in Nordrhein-Westfalen

Konrad-Zuse-Straße 10
44801 Bochum, Germany
www.pknrw.de