

Recommendations for doctoral projects in cooperation with universities of applied sciences, non-university research institutions, and companies

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Introduction

The Bavarian Higher Education Act reserves the right to grant doctorates exclusively to **universities**, with few exceptions. Each doctoral candidate prepares his or her dissertation there, under the supervision of an supervisor at the university, generally as an employee of the university or a recipient of a scholarship, fellowship or grant from the university. Further details are governed by the specific doctoral degree regulations of the universities.

Non-university research institutions (such as the Max Planck Society, the Helmholtz Association, and the Fraunhofer-Gesellschaft), **universities of applied sciences**, and a number of companies (collectively referred to herein as "partners") offer their employees or scholarship holders the opportunity to engage in scholarly and scientific work as part of research projects and, in cooperation with a university, to write a dissertation. In an "**institutional cooperation**,"¹ too, the doctoral project is guided by a supervisor from the university awarding the degree. A professor from a university of applied sciences or non-university research institution can also be included in the doctoral project as a second supervisor and, later on, as a reviewer with equal status. A contact person within the company who has academic qualifications can be designated to act as a mentor for the doctoral project.

The fundamental rules governing doctoral research are the university's **doctoral degree regulations**, in the then-applicable version thereof. These regulations take precedence in the event of any conflict with the rules set out in this guide. Because a doctoral process that takes place through institutional cooperation involves the interests of multiple parties, careful coordination of content and overall conditions is needed, as is unambiguous clarification of the roles that apply in the doctoral process, which should be done early on, when the groundwork for the cooperation is still being laid.

These recommendations were developed and coordinated within a Munich-wide working group among the institutions entrusted with awarding doctorates and the responsible parties from the universities

Technical University of Munich and Universität der Bundeswehr München,
the universities of applied sciences

Munich University of Applied Sciences and Technische Hochschule Ingolstadt,
and the companies

Audi AG, Siemens AG and Infineon Technologies AG.

They represent a shared understanding of what constitutes good cooperation and clarify where and when there is a specific need for coordination on subjects such as identifying topics, supervision and publication of research findings. Further rules and regulations and any agreements that may already be in place with partners, such as those setting down rules on IPR and employment, are not affected by this guide. The goal is to use the principles and best practices outlined to improve the cooperation among all parties involved in doctoral projects in

¹ This guide concerns doctoral projects that take place through institutional cooperation between universities and non-university research institutions, universities of applied sciences or companies. Depending on how the arrangement is structured, the doctoral process may involve bilateral cooperation between a university and a non-university research institution, university of applied science, or company, or trilateral cooperation among all three. When we speak of "cooperative doctoral projects," we also mean arrangements in which the doctoral candidate is an employee or scholarship holder of the higher education institutions, but cooperates with a partner as part of a research project.

institutional cooperation and to safeguard or enhance the quality of scholarly and scientific projects.

Recommendations

1. Research project and dissertation topic

A doctoral project that takes place through institutional cooperation is typically embedded in an overarching research project. As a general principle, this project may have a broader horizon that extends beyond the specific dissertation, and multiple parties may be involved. Cooperative arrangements that extend beyond a doctoral project are agreed on in a separate cooperation agreement between the parties.

- *The research project must be defined at an early stage, with the participation of all concerned, and in all events before the doctoral process starts.*
- *The specific dissertation topic is subsequently assigned by the university supervisor supervising the project, who works in close coordination with the participating university of applied sciences supervisor and mentor and (if already known) the doctoral candidate to do this. The content and scope thereof must meet the highest academic and scientific standards.*
- *Should the doctoral candidate also be working on the overarching research project beyond the dissertation topic, it is necessary to create a clear separation in terms of content and time between this project and the dissertation topic.*
- *Supervising academic and scientific projects is among a university supervisor's original tasks. As a basic principle, no separate remuneration is provided for this. Rules on work performed beyond supervising the candidate or the actual doctoral project should be set out in a separate agreement, for example in an overarching research project.*
- *Longer-term cooperation (at least for the duration of the doctoral process) between the partners is desirable, as it forms the framework for the doctoral project.*

2. Identification of candidates and confirmation of supervision

Any partner can propose a suitable doctoral candidate. In many cases, the candidate is already involved during the process of identifying a topic.

- *The final confirmation of supervision for a doctoral candidate is issued by the university professor or senior researcher who will act as the candidate's future supervisor. Dissertation topics and supervision inquiries submitted by candidates without prior coordination between the partners are typically rejected.*
- *After confirmation of supervision has been issued, the doctoral candidate and employer set out the rules for their cooperation under employment law in a separate agreement. The university supervisor may be mentioned in the doctoral candidate's employment contract.*

3. Supervision agreement, admission to doctoral research and commencement of the doctoral project

The formal prerequisites and conditions that apply to admission to doctoral research are set out in the relevant university's doctoral degree regulations.

- *The doctoral candidate enters into a supervision agreement with his/her supervisor.*
- *The contact person on the partner's side should be included as a mentor or second supervisor of the doctoral project and be mentioned in the supervision agreement.*
- *It is the doctoral candidate's responsibility to perform all of the necessary administrative steps immediately at the start of the doctoral project, as these steps may take time in individual cases, such as if it is necessary to recognize a foreign degree.*

4. Integration into the academic environment and subject-specific qualification

The doctoral candidate must be integrated into the academic environment at the university to an adequate degree and must participate in subject-specific qualification activities and measures. The degree-awarding institutions may set specific rules for this.

- *The nature and scope of integration into the academic environment and the content of qualification measures must be coordinated between the doctoral candidate, university supervisor and/or contact person or mentor on the partner's side.*
- *In particular, rules must be set regarding how much time must be spent at the participating institutions, personal dialogue with colleagues at the chair and/or involvement in teaching and examination activities.*

5. Publications and confidentiality

International public discussion of the dissertation topic within a specialized sphere, typically through academic and scientific publications and talks by the doctoral candidate, is an integral part of scientific and scholarly work. The relevant doctoral degree regulations set out the minimum requirements that apply to doctoral candidates in this regard.

- *The dissertation topic in the case of a doctoral project conducted through institutional cooperation is chosen, taking into account the anticipated findings, in such a way that it does not require legal protection and findings can be published at any time. The university supervisor and/or contact person and/or mentor are responsible for ensuring this.*
- *As a basic principle, companies affirm the freedom to publish, but in individual cases they may reserve the right to require that written consent be obtained. All company processes surrounding publication must be appropriate in terms of time and have transparent content, and the interested parties must be familiar with them.*
- *If, as part of the cooperation on the research project, it should be necessary to share company-specific or other confidential information, confidentiality may be governed by a nondisclosure agreement. This type of agreement should be signed at the start of the doctoral project if at all possible.*

6. Copyright and rights of use

The findings developed through the doctoral project are published in a dissertation. Solely the doctoral candidate, as the author of the work, holds the copyright to the dissertation.

- *Any transfers of rights must be governed by agreements, for example in the employment contract or the contract regarding the research project.*

7. Rules on good scientific practice and collegial working relationships

The doctoral candidate, university supervisor and contact person or mentor on the partner's side comply with the rules on good scientific practice (see the DFG² guidelines and the relevant rules of the degree-awarding department) and help to ensure that the doctoral process taking place through institutional cooperation is a success by working with each other in a spirit of collegiality and engaging in regular and proactive communication.

- *All interested parties meet at regular intervals to discuss the status of the doctoral project and the next steps. Written determination of the discussion cycle and specification of the content discussed form the basis for this coordination.*
- *Open communication at an early stage is absolutely essential, including in the case of unforeseen events (such as conflicts, changes of supervisor). Internal and external ombudspersons may be contacted by any interested party at any time as needed.*
- *The organizational units involved in the doctoral project (such as the degree-awarding institution, graduate school, the coordinator of the doctoral program at the company) must be involved in the communication process where necessary and kept informed of key milestones and important changes, such as regarding participation in qualification measures.*

² http://www.dfg.de/foerderung/grundlagen_rahmenbedingungen/gwp/

8. Transferable skill training and networking

The doctoral candidate is required to take courses and engage in training measures offered on the higher education institution side (e.g. graduate school) or by the partner (e.g. doctoral training program). Activities such as spending a certain period doing research abroad or attending a conference in a different country may help the doctoral candidate to build a personal network and foster internationalization within the doctoral project.

- *The doctoral candidate is responsible for finding out what qualification offerings exist and whether they may be required.*
- *Where possible, employers are required to give their employees leave to participate in courses and qualification measures.*
- *A stay abroad should be integrated into the doctoral process where sensible and possible.*
- *The partners must coordinate their doctoral programs and offerings together and, where possible, recognize participation reciprocally.*

Parties involved and their roles in the doctoral project

Doctoral candidate: independent, scholarly and scientific work on a dissertation topic within the scope of a doctoral project; where applicable, also work within the partners' (overarching) research project

Supervisor (professor or senior researcher at a higher education institution, typically a university):

Determining candidate suitability, assigning the dissertation topic, supervising the doctoral process in subject-specific terms – assuring the quality of the scholarly and scientific work, providing information on satisfaction of formal prerequisites for admission to doctoral research, ensuring that the candidate is integrated into the academic environment, stipulating/delineating the research project and dissertation topic, coordinating with the mentor and/or second supervisor and/or contact person on the partner's side

Second supervisor (typically a professor or senior researcher at a higher education institution, from a non-university research institution or a university of applied sciences): Participating in assigning the dissertation topic, further subject-specific supervision of the dissertation and, where applicable, integration into the academic environment at a non-university research institution or a university of applied sciences, coordinating with the primary supervisor, particularly stipulating/delineating the research project and dissertation topic

Mentor (typically a contact person at the company who has academic qualifications): Supporting the doctoral project in terms of content, stipulating/delineating the research project and dissertation topic, providing advice on matters relating to transferable skill training and personal development and supporting the swift progression of the doctoral project, providing support in the event of conflict

Contact person on the partner³ side (e.g. superior, department head): Providing administrative support for the doctoral project, coordinating with the supervisor and mentor, stipulating/delineating the research project and dissertation topic, rules under employment law, providing support in the event of conflict

(Primary) reviewer (professor or senior researcher at a higher education institution, typically the university supervisor of the dissertation topic): Examining the candidate according to the university's doctoral regulations

³ If already active as a mentor, this role does not apply.

(Second) reviewer (higher education institution professor or senior researcher at a non-university research institution or a university of applied sciences, typically also the second supervisor at the same time): Examining the candidate according to the university's doctoral regulations, typically with the same rights as the (primary) reviewer

Relevant rules and regulations

- a. The then-applicable doctoral degree regulations of the universities
- b. Bylaws and regulations of participating institutions
- c. Supervision agreement
- d. Employment or scholarship contract
- e. R&D agreement for the overarching research project
- f. Nondisclosure agreements
- g. Rules on good scientific practice
- h. German Copyright Act (Urheberrechtsgesetz)