Industrial Doctorates

Precepts of good academic practice

I. Background
The financing of the German university system has changed markedly in the past 20 years. Between 1995 and 2011, basic funding from government sources rose by 42% while external funding tripled. Concurrently, external funding has become integral to various types of reward and incentive systems. Particularly in the so-called MINT subjects external funding has assumed vital importance.

In line with the overall rise in external funding, the proportion of grants from non-public sources has also increased. Business and industry support German universities financially to the tune of more than 1.4 billion euros annually. Partnering between business and academe is advantageous and indispensable for both partners. The international strength and visibility of the MINT subjects in no small measure derives from this partnership. At the same time, it behooves us to point out undesirable developments in this successful partnership and to insist on improvements. In this spirit, the undersigned tackle a set of issues in this paper that impinge on the area of the so-called industrial doctorate.

II. Industrial doctorates
The organization of doctoral studies in the MINT subjects differs substantially from that of doctoral programs in other disciplines, which are primarily governed by traditional doctorates pursued by students working in relative isolation under the supervision of a university professor and by structured university doctoral programs. Uniquely in the MINT disciplines, in addition to individual doctoral study and university doctoral programs, a large number of – mostly internationally active – firms in Germany invite applications to their own “doctoral programs” that hold out the promise of a ticket to a first job to qualified masters degree holders. Participants in such programs are given positions in the companies that typically last three years with the prospect for follow-on employment. The topic for the doctoral thesis is frequently predetermined and defined within the firm. Universities and
professors are expected to accept the topic and provide academic supervision. Frequently, this expectation is buttressed by externally funded contracts or consultation agreements with the respective supervising chair or the university. The self-evident right of the examiner to openly scrutinize and revisit the data and sources of a dissertation is frequently ruled out by confidentiality clauses. Some firms are reputed to employ several hundred in-house doctoral students.

For the “supervising” university professor to reject a doctoral candidate thus becomes problematic because it will do considerable harm to the doctoral student’s career prospects. That is because the firm’s hiring commitment not infrequently hinges on the student earning the degree. Professors and universities not prepared to confer doctorates according to these parameters often will find themselves out of the running for projects funded by firms, which instead will turn to competing departments in Germany or foreign university and post-secondary technical colleges.

The problem described also exists in modified form for bachelors and masters degree programs.

**III. Precepts of good academic practice for industrial doctorates**

The undersigned consider the depicted practice as no longer tenable for the university. The university is not an (indirectly) funded supplier of the MINT job market. It alone is the vehicle for the doctoral examination process and desires to be recognized and respected as such by its partner. Hence, the undersigned formulate the following precepts for good academic practice.

1. Initial registration for the PhD degree legally and factually is uniquely reserved for the university.

2. It is the university (faculty, university professor) that has the legal right to assign a doctoral thesis topic. Should an industrial partner be interested in research work on topics these shall first and exclusively be proposed to the university. The practice of first assigning topics as part of an in-house doctoral program and then having the doctoral student find his or her own thesis supervisor is not acceptable.
3. Thesis topics linked to a duty of confidentiality or long-lasting restrictive clauses are in principle unacceptable. This applies particularly to doctoral theses. It is integral to the laws of science that all data and facts on which a thesis is based must be verifiable.

4. Should the work of an industrial doctorate program be carried out within an enterprise, great importance attaches to the university mentor having a designated academically-qualified interlocutor available.

5. Honorary professors who work or have worked for firms and who have an interest in the industrial doctoral program and the research performed under it should not have a role in either mentoring or making decisions on thesis performance in connection with said program.

6. In the event doctoral program supervision is carried out as part of an existing or agreed-on external funding, the doctoral examination process and third-party funding must be kept separate content-wise, intellectually, and financially. This is especially true when there exists a parallel outside consulting assignment by the faculty member with a firm. In this context, the so-called “splitting ban”, i.e., the prohibition on conflicts of interest between a main and a secondary occupation, as well as the criminal offence of acceptance of a gift or benefit by a public official (§ 331 German Criminal Code) must be borne in mind. Legal rulings under § 331 German Criminal Code have assigned special importance to the transparency principle relative to the externally funded research to be performed under the main occupation. Especially from the faculty member’s perspective, this can be achieved by having the university authorize the acceptance of “benefits.” It is therefore advisable for all faculty members in the event of a linkage between a doctoral program undertaking and external funding to review all decision-relevant facts with the university’s administration and obtain its authorization to accept any possible “benefits.”

IV. The courage to say no

All faculty members are encouraged and called on to give up working with firms that are not prepared to respect and abide by the basic academic rules developed above even if it means the loss of external funding.

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Members of the working group:

Dr. iur. Hubert Detmer, Esq.
Acting Director, German Association of University Professors

University Professor
Dr. iur. Volker Epping
President, Hannover University

University Professor
Dr. rer. nat. Dr. h.c. mult. Rainer Gadow
Institute for Manufacturing Technologies of Ceramic Components, Stuttgart University
Chairman, Baden-Württemberg State Association in the German Association of University Professors

Dr. iur. Michael Hartmer, Esq.
Chief Executive, German Association of University Professors

University Professor
Dr. rer. nat. Hans-Ulrich Heiß
Chairman, Association of the Faculties of Engineering and Information Science of the Universities

University Professor
Dr. iur. Bernhard Kempen
President, German Association of University Professors

University Professor
Dr.-Ing. Markus Lienkamp
Institute of Automotive Technology, Munich Technical University

University Professor
Dr. iur. Wolfgang Löwer
Department head, Institute for Public Law, Bonn University
Chairman, Nordrhein-Westfalen State Association in the German Association of University Professors

University Professor
Dr.rer.nat. Helmut J. Schmidt
President, Kaiserslautern Technical University