

## Tenure Track: The Royal Road to Professorship?

Wolfgang A. Herrmann\*

The question mark was included deliberately. In light of the wide variety of university systems and disciplinary cultures, there is no “royal road” to professorship. Yet international best practices in academic recruiting and talent development appear to converge on the career path known as “tenure track.” Although the concept of a tenure track is foreign to the traditional approach here in Germany, the potential benefits of integrating it into our system are unmistakable.

Viewed as a whole, the German university system is highly capable. In training experts in specific disciplines, it rivals the best schools in the world. “German engineering” is a strong international brand. Young people educated in German universities are in high demand at the top research institutions abroad. The innovative power of German industry is unquestioned.

Nevertheless, our traditional structures in most cases will not withstand the dramatic transformations underway in science, industry, and society. We are experiencing intensified competitive pressures. Germany’s skilled workers are not being trained for the German market alone. Only in a small fraction of cases are German inventions made into industrial goods in Germany. New and expanding markets, especially in Asia, exert an increasing influence on the entire world economy. Facing such changes, Europe is beginning to summon the strengths of its cultural diversity to collectively develop a new eco-

nomic power. What will be decisive, of course, is the availability of talent. But talented people are more mobile than ever before, and they seek out the most promising environment for their own development. Large research programs of the European Union are taking on this challenge with massive financial investments.

The German university system has also entered into a new dimension of competition. Universities that still allow themselves to be treated as subordinate state agencies have already lost the future, because their best talents migrate outward and are not replaced by equally strong contributors. On the other hand, a more competitive model for academia is on the rise here: the entrepreneurial university, ready for action, which takes its agenda into its own hands, systematically broadens its financial basis, and focuses on recruiting, rewarding, and retaining the best talents.

The central competitive instrument of the universities is an internationally compatible recruitment and career system. Here the Technische Universität München (TUM) is leading the way: “TUM Faculty Tenure Track” involves promotion of the best within the system; it means that at TUM, the road to full professorship stands open for talented young scientists through sustained achievement. Thus, by placing performance in the foreground, we overcome the German system’s static narrowing of the path for academic appointments.

In practical terms, this is what “tenure track” means at TUM: Entry as assistant professor (at the W2 salary level; compensation levels of the “W” scale are



Wolfgang A. Herrmann  
President, Technische  
Universität München

specified in laws that are binding nationwide) with the possibility to qualify within six years for the next step—associate professor—and subsequently to advance to full professor (both at the W3 level). The salaries, work environments, and resources are differentiated according to individual performance and shaped by discipline-specific market demands. On the other hand, it is inherent in the nature of this competitive system that with inadequate qualification for promotion after six years, the employment at TUM ends (“up or out”).

Qualified young faculty members who have joined TUM as assistant professors know the expectations and criteria they must meet in the evaluation that accompanies the six-year tenure-track phase (transparency principle). Also, they are integrated into a mentoring and support system that, not least, facilitates a constant exchange with their colleagues across the entire portfolio of disciplines and subjects (TUM Tenure Track Academy). The assessment criteria are not confined to research; they obviously must also embrace the teaching performance and make allowance for career- and family-related circumstances. The teaching workload of the assistant professor amounts to five contact hours per week (instead of nine); the balance will be borne by tenured professors as a contribution for the good of the faculty as a whole. Science-related special situations (founding of startup companies, for example) are likewise taken into account, and are an identifying feature of the entrepreneurial university.

[\*] Prof. W. A. Herrmann  
Technische Universität München  
Arcisstrasse 21, 80333 München (Germany)  
E-mail: praesident@tum.de

**A**ppointment to an assistant professorship is bound up with a series of preconditions; among these, international experience (activity abroad) is imperative. Also advantageous is a candidate's prior success in winning third-party support for his or her independent research program (e.g., the Emmy Noether and Heisenberg programs of the Deutsche Forschungsgemeinschaft; Lichtenberg Professorships from the Volkswagen Foundation; Sofja Kovalevskaya Awards from the Alexander von Humboldt Foundation; Rudolf Mößbauer Tenure Track Assistant Professorships from the TUM Institute for Advanced Study; ERC Starting Grants from the EU), as this reflects the judgment of scientific review panels.

**T**UM Faculty Tenure Track is coupled with the Max Planck Society (MPG) to form the initiative MaxPlanck@TUM, which is aimed at engaging and promoting another talent pool, namely the young scientists of the MPG. This means that young scientists who are MPG group leaders (as in the Minerva Program) but have not yet been offered permanent positions at the MPG may be integrated into TUM as assistant professors. In this way, the TUM/MPG professors gather further teaching experience and can lead their own doctoral candidates to completion of their PhD theses.

**I**n the period 2013–2020, TUM will create a total of 100(!) additional tenure-track professorships in order to set the new system in motion. The expected effects include considerably lowering the average age of the faculty (at present around 500 professors), broadening our research portfolio, and accentuating our internally competitive culture.

**D**espite this fundamental innovation in the domain of genuine start-to-finish tenure-track appointments, TUM will also in the future appoint professors at higher entry levels: Established, successful scientists with high potential for future achievement will be hired as associate professors, with permanent status at the W3 level. The same goes for internationally leading scientists who will be recruited as full professors.

**T**he planning horizon is constructed so that 30% of the full/chair professorships (W3) that become vacant, as well as all of the traditional (permanent) W2 professorships that will be running out, will be converted into the tenure-track contingent. Thus in the future there will only be temporary W2 professorships (assistant professor), while professors in the remaining categories are employed on permanent contracts. The effort to master recruitment of young talents with so-called junior professorships (W1) is being discontinued.

**T**UM Faculty Tenure Track stands and falls with a quality-management system that enables bold decision-making. The essential principle is: Place evaluation and decision-making in different hands. In both cases, discipline-specific expert competence is combined with critical distance. All participants are guided by the "TUM Faculty Recruitment Code of Conduct". The TUM Appointment and Tenure Board consists of experienced scientists (ten from the TUM, one from the MPG) who are barred from participation on other appointment committees. Like the Code of Conduct, the formal procedures by which TUM is initiating its new recruiting and career system are spelled out in a publicly accessible document.

**T**he main features of the TUM Faculty Tenure Track program have proven themselves over the course of decades at elite universities in other countries. However, one must take cultural differences between disciplines into account. Thus one could say, albeit somewhat simplified, that the German engineering sciences are more strongly oriented to industry and practice, which certainly is a great strength; top universities in the United States (such as CalTech, Stanford, and MIT) pursue a more methodological direction with strong coverage of the fundamentals. With this insight, TUM Faculty Tenure Track is expected to bring us further forward in the technical disciplines.

**F**or chemistry, the advantages are plain to see. Excellent young researchers at top universities abroad avoid German chemistry departments, because even

with the best performance they would be stuck in the conventional W2 professorship, or would have to change universities in order to advance. There is a corresponding lack of internationality among the faculty members. Here the "real tenure track" will reaffirm the reputation of chemistry at TUM (12th place worldwide according to the 2012 Shanghai Ranking), because we have cleared away a major obstacle in the competition for the best minds. Now the framework conditions that we offer are no worse than in the chemistry departments of Harvard, Stanford, and Berkeley. Admittedly, it may challenge our courage to part company with those whose performance fails in the end to come up to the standards for promotion. In the old system, that is, with a W2 professorship for life, this corrective factor is unknown. But simply offering a young W2 professor permanent "civil servant" status at the same level is not internationally competitive; that prospect is like starving halfway along the career path.

**T**he bottom line: Every change to the traditional German education system takes effort and must overcome many bureaucratic hurdles (and state ministries). Thus a widespread tenure-track process will probably become effective only slowly, but is certain for the universities who are willing to become competitive. Of course, as well as courage, money is also required in order to finance the rising extra costs. This funding needs to be generated. There are many possibilities for this, including appropriate and therefore efficiency-oriented savings and a reasonable overheads policy. I expect that in around 15 years, we will have an extensive tenure-track system as in the end, no state will want to see its universities deteriorating. One expected (political) countermovement will come from the prevalent mentality of job security: sacked after six years? That's awful! However, this exact point has been a success or failure for the tenure-track system worldwide. Until all German universities adhere to international best practice, the differences in performance between institutions will become greater.