A Baseline of Achievements Needed for Becoming a Professor within the German Academic System

Cyrill Stachniss

Abstract

What is needed to become a professor? This article summarizes what is often regarded as a minimum baseline in terms of achievement within selection committees at German universities. My goal is to give a brief guideline for early career researchers on their way towards becoming a faculty member.

Introduction

What is needed to become a professor in Germany? Often, you get foggy answers, especially when asking young researchers and those who want to become one. So my intention for writing this article is to share this knowledge and shed light on what is often considered a secret by young researchers and postdocs and – more importantly – give them a guideline early in their career so that they can plan their actions towards achieving what is often considered a "baseline of achievement" for being appointed. With "baseline of achievement", I refer to a set of key performance indicators so that if you are above the numbers mentioned below, people will stop arguing that you are in general not qualified for a professor position - no guarantees, but it is a quite good estimate.

I focus here on the first appointment as a professor, most likely a so-called W2 position in Germany. Similar standards may hold for W1 evaluations or when handing in your habilitation but that depends somewhat more on the university you are working at. For W3 positions, you want to put the bar higher, especially with respect to past merits and leadership experience.

What are the key criteria by which professors are appointed?

The selection committee agrees on a list of criteria before the applications are sent in. In most cases, the list will look very similar to this one:

- 1. Quality of the research profile and past merits
- 2. Fit to the position/call
- 3. Teaching quality

Given this list, the key question is, what are minimum requirements for these three criteria such that an application will be considered? I mention that because to meet these minimum requirements, you want to plan your career quite some time ahead. From my experience, a solid baseline is set roughly in the form of the following achievements – exceptions are, of course, always possible as the selection depends on the committee.

1. Quality of the research profile and past merits

"Your publications and self-acquired third-party funds are the currency."

Publications: Make sure that the majority of your papers have been published in peer-reviewed, high-ranked journals in your field. Depending on your discipline, solid conference papers may count as well but journals are always better. As a rule of thumb for a postdoc, I recommend publishing at least 1-2 papers per year as first or last author, plus maybe 2 papers per year without being first or last author. If you stayed after your Ph.D. in the

same lab, make sure you have a few papers without your Ph.D. supervisor on the author list. Additionally, more and more people want to see a minimum h-index. Depending on your field, this absolute minimum threshold will vary somewhere between 10 and 15. Furthermore, you want to have at least 300-500 citations (assuming Google Scholar) and an upwards pointing gradient.

Third-party funding: What counts are the projects for which you are the principal investigator. You should have at least one project, acquired as the first PI, with a budget of more than 200.000 Euro. Depending on the university, the selection committee might only consider DFG-funded projects. Often, EC funding counts as well but DFG money is often seen as more prestigious, at least within the more conservative universities. You should have at least one of such projects, better two but that depends on the time after your Ph.D. If you received an ERC grant, you are clearly above the threshold, the same holds for being a successful DFG Emmy-Noether group leader.

2. Fit to the position/call

"You are expected to become successful, to integrate well, and to bring the discipline/institute/faculty/university forward."

Research topic fit: Do the research topics investigated by the candidate match the ones mentioned in the call? This is often a yes/no decision. Thus, it may be wise to be not too narrow and broaden your expertise during your postdoc time. However, you cannot influence the topics mentioned in the call, so it is hard to plan a fit ahead of time. However, make sure you know the direct colleagues, the institute, the current key projects (DFG: EXCs, SFBs, FORs), the faculty, and the university as a whole when applying.

Fit as a person/leader: As a professor, you are expected to have a vision, to know what matters and is considered a success, to guide students, and to have the ability to deal with and support your colleagues. Thus, make sure you have basic leadership skills. You should have experience in supervising MSc students, maybe even co-supervising Ph.D. students, you should be able to handle and resolve conflicts, and – quite importantly – you should know how your current boss or other professors are being evaluated on the higher level. Show that you are goal-oriented and follow such measures.

3. Teaching quality

"You need to form the next generation of researchers and workforce, teach them well."

The ability to teach often counts somewhat less than the first two criteria. As a rule of thumb, make sure you have taught at least one lecture for a whole semester completely on your own before applying. So, start teaching early and this should not be a problem. Some universities will ask you to give a test lecture at the interview. My experience is that more than 50% of the candidates perform well, so teaching is often not a critical point for candidates with some experience.

Conclusion

In sum, develop a vision, become a leader with an independent research profile, publish well, get your third-party funding, and learn to teach. Good luck on this exciting path forward!

Note that this document reflects my personal view and observations – based on my work in 15-20 commissions at the University of Bonn as well as several other institutions within the last 6 years.

Cyrill Stachniss, University of Bonn, Germany, March 2020