

Short version

The Alexander von Humboldt Professorship, which is financed by the Federal Ministry of Education and Research under the International Research Fund for Germany, facilitates long-term, path-breaking research at universities and research institutions in Germany. Researchers from abroad can be nominated for this international award if they are world leaders in their field and are expected to continue producing academic results that will sustainably shape Germany's international competitiveness as a research location as a consequence of the award. The award funds, usually totalling €5 million for academics in experimental disciplines and €3.5 million for researchers in theoretical disciplines, are granted for a period of five years. Nominations may be made by German universities, represented by their presidents or rectors; non-university research institutions may also submit nominations jointly with an eligible German university.

This evaluation covers the period 2008-2015 and refers to 50 award winners of whom 44 had assumed their professorships and eight had already completed the funding phase before the beginning of 2016. By means of 14 case studies, 26 questionnaires (online survey) and six supplementary interviews, 36 of these 44 award winners were surveyed. Moreover, both in the context of the case studies and the online survey, representatives of the universities and research institutions with which a total of 30 Humboldt Professors are affiliated were also included in the evaluation. Bibliometric analyses trace the development of cooperation in the respective research group, department, institute and with external partners.

On this basis, the evaluation documents the remarkable success of the Alexander von Humboldt Professorship – International Award for Research in Germany programme. **In accordance with the programme goals, it has been possible to recruit eminent international research stars for Germany.** In many cases, the Humboldt Professorship, which can be awarded during ongoing appointment procedures, is the conclusive factor in a nominee's decision to accept a professorship in Germany. The generous funding for the professorship, the degree of freedom in the use of funds that come with the award and the concomitant special status enjoyed by Humboldt Professors at their German universities allow universities to make candidates offers that, to a large extent, can hold their own internationally. Some award winners take a cut in salary to come to Germany, sometimes for personal reasons, but sometimes because of the scope for creativity opened up by a Humboldt Professorship. An important pull factor for many award winners that is specific to the Humboldt Professorship Programme is the opportunity it offers to expand their range of action. As a result, it is interesting to note that even smaller universities have entered the orbit of this programme and been able to compete. In this way, the Matthew Principle that so often holds sway in research funding and states that those who are already provided for will receive more, has been broken at institutional level.

In addition to holding chairs in a faculty, many Humboldt Professors are also anchored in a "centre", which they either build up themselves, or where they are responsible for establishing a new focus. Usually, these projects are part of the university's structural strategy. In the case of Humboldt Professors who are nominated jointly by a university and a non-university research institution, the question as to whether they are integrated successfully has to be asked twice. The information gleaned from the case studies shows that even if the non-university institutions are able to offer a significantly more attractive research environment than the host university¹, integration in university structures still works very well

¹ E.g. Max Planck Institutes or large-scale federal research facilities

and **the universities can achieve significant added value as a result of the structural coupling of the Humboldt Professorship with the research resources of a non-university institution**².

Half of the Humboldt Professors are German nationals; it has also been possible, however, to integrate a substantial number of the foreign researchers in Germany, as well. Most Humboldt Professors engage in various kinds of networking both within the university and in Germany as a whole. Furthermore, the close networking between researchers in Germany and the international research community is reflected in the international diversity of the award winners' research groups and the bibliometric data. The results of the survey show, moreover, that the majority of Humboldt Professors embark on new collaborations with partners abroad after they have taken up their professorships³, especially in the context of joint publications and organising workshops and conferences.

In the initial years (2008-2012), the **proportion of women nominees was very low**: every year, two or three women were nominated in comparison with 16 to 32 men. The Humboldt Foundation took this situation seriously and proactively introduced a number of countermeasures – not without success: **since 2013, the situation has improved considerably**. The number of women nominated has now grown to seven per year, and since 2013, 45 percent of new Humboldt Professorships have gone to women, up from only three percent in the period 2008 to 2012.

When researchers decide to make Germany the main focus of their lives at an average age of 49, personal considerations play a role. In this context, dual career options are important. Although no special funding is earmarked for this, with the support of the Alexander von Humboldt Foundation and German universities several award winners have managed to find appropriate positions for their partners. In some cases, use was made of the administrative lump sum. It proved more difficult to provide support if the partner did not work in academia.

The question about integration in the science system effectively presents itself a second time when financing for the Humboldt Professorship comes to an end. The award winner's position at the university is defined by the appointment negotiations; after five years, however, certain aspects usually need to be revisited. In some cases, certain points that had originally been discussed were no longer valid and some Humboldt Professors came up against unexpected barriers and, to some extent, a lack of transparency in decision-making processes. The Humboldt Foundation was informed about these difficulties and, in August 2016, modified the selection regulations⁴.

In order to maintain the level facilitated by the Humboldt Professorship it is essential to acquire **additional third-party funding**, at the latest when the sponsorship comes to an end. The online survey reveals that the Humboldt Professors often raise further third-party funding (averaging €1.35 million) during the period sponsored by the Humboldt Foundation.

On the basis of six interviews held with award winners whose sponsorship has already come to an end, relevant patterns can be derived: **Humboldt Professors do not lose their reservations about certain aspects of the German science and university system**. They specifically mention the importance of personal/political connections and the lack of transparency in decision making and, following on from this, the amount of bureaucracy required to safeguard decisions which restricts, or at least impinges on,

² See Section 3.4, p. 45f.

³ See Figure 5, p. 34.

⁴ See Alexander von Humboldt Professorship International Award for Research in Germany. Selection regulations, as of August 2016, "Section Organisational integration at the host university", p. 9.

the flexibility of scientific structures. There is also criticism of the very low percentage of women amongst the professors, particularly in the natural sciences, which may curb their willingness to become more involved. The award winners' willingness to engage with and establish themselves in Germany's research landscape despite these obstacles is evidence of the programme's enormous potential for lasting benefit.

There are, however, **clear indications that Germany's research potential is being sustainably reinforced by mobilising academic expertise from abroad.** All the Humboldt Professors whose Humboldt financing has come to an end have remained in Germany even without the privileges associated with this sponsorship. Especially the award winners who have built up or shaped centres together with their universities soon enjoy international visibility and become attractive partners for national and international collaborative research projects. Many researchers from abroad are highly motivated by the prospect of making a structural impact in Germany, indeed, many of them see it not only as an opportunity but also as a duty. International recruitment is taken for granted, even by the award winners who are German nationals. At some universities, this has triggered local impetus towards greater internationalisation which, in its turn, reinforces Germany's research potential in the long run by mobilising expertise from abroad.

The Humboldt Professorship has been successful in giving leverage to academic prioritisation at universities and research institutions in Germany. The key to this lies in coupling a high level of flexible funding and the concomitant freedom it gives top researchers on the one hand, with the commitment and strategic development of the universities on the other. In contrast to other prioritisation tools, the Humboldt Professorship focusses on individuals, not merely optimising elements of the system such as collaborations, networks or institutions). Providing funding for use at the discretion of individual people – that is, without traditional project planning specifications – enables them to respond flexibly to opportunities, something that is much more difficult in large joint research projects.

Prioritisation and commitment on the part of the nominating universities and research institutions are one of the pre-conditions for the award of a Humboldt Professorship. The nominee's qualifications and the universities' commitment are equal criteria in the selection process. This brings on board not only the "provider" of academic expertise but also the user, and places the emphasis on the latter's strategic interests – irrespective of promising short-term output. The study shows that the reason the approval rate of over 30 percent is so high – in comparison with the success rate of 13.3 percent for ERC Advanced Grants⁵ – is that the nominating institutions undertake a very precise pre-selection and only submit a nomination for a Humboldt Professorship if they believe their candidate has a good chance of success. Whilst there is no guarantee that a Humboldt Professor and the relevant university or research institution will fit together perfectly, in the vast majority of cases, Humboldt Professors can be very successfully integrated into these structures. Moreover, one of the clear findings revealed by the case studies was that the Humboldt Professorship encourages prioritisation across area boundaries and academic disciplines.

The **Humboldt Professorship has a high level of additionality.** A large percentage of the award winners in the written survey confirm, for example, that the appointment would often not have come about without the Humboldt Professorship. Indeed, only 23 percent of the rejected nominees were subsequently appointed by the nominating institution without a Humboldt Professorship. The impact on

⁵ See <https://erc.europa.eu/projects-and-results/statistics>, accessed on 9.11.2016

universities' prioritisation and visibility in these priority areas can be ascribed to a large extent to the Humboldt Professorship.

Recommendations

1. Continuation of the programme in the existing format

Humboldt Professors at both large and smaller universities have set new accents in the German research landscape, in the most diverse subjects and often at interdisciplinary intersections. These accents continue to develop and reinforce the international integration of research institutions in Germany as well as the level of top academic research. The programme combines generous funding and a particularly high level of flexibility in the use of funds with the trust invested in the researchers chosen and a binding commitment on the part of the universities that appoint the professors. The results of this evaluation show that it is thanks to its straightforward and therefore all the more effective design, its clear focus, efficient processing and its well-proportioned budget and duration that this programme has generated such successes.

→ We therefore recommend continuing the programme in the current form and at the same level.

2. Greater attention to be paid to the phase after sponsorship comes to an end

The Alexander von Humboldt Professorship is an award, which recipients continue to hold after the financial support associated with it comes to an end. In the coming years, the number of Humboldt Professors who fall into this category will increase. In our opinion, the point of transition into the continuation of the professorship on the one hand and the longer-term significance of Humboldt Professors on the other deserves more attention in order to make greater use of the potential for a sustainable impact.

→ We recommend systematically focussing on, and not just "passing over", the transition to the continuation phase: in addition to the award winners' final report, the Humboldt Foundation should require the universities to submit an official statement reporting on the strategic importance of the Humboldt Professorship in relation to the structural concept included in the nomination package and explaining how this cooperation is to be continued, what is to be retained and what changed.

→ Over and above personal contact to the host institutions, we see a need to systematically provide the public with information about the Humboldt Professors, looking both backwards and forwards. We therefore recommend following and documenting the real success of Humboldt Professors in the media. Preparations for tenth anniversary celebrations at the end of 2018 could be a hook to prepare such documentation in the context of a pilot project. Having discussed the results with the Humboldt Professors and the university presidents a decision could then be made on the most appropriate formats for regular PR activities.

→ In the context of sponsorship for a Humboldt Professorship coming to an end, a new networking format amongst the award winners might be envisaged that would facilitate exchange between the award winners and possibly also other colleagues and stakeholders on scientific, science policy and cultural policy matters.

→ We recommend exploiting the potential for critical thinking which is generated first and foremost by the award winners' international experience as feedback for the German research landscape. The experience of and with Humboldt Professors shows that these researchers, who have already been successful in other countries and other cultural contexts, retain their independence in Germany and thus become "markers" in the system.

3. Increased use of annual reports and final reports as feedback loops

To close this evaluation, we should like to venture the hypothesis that the Humboldt Professorship actively intervenes in current trends. Freedom and flexibility of the type allowed by the Humboldt Professorship are extremely rare. The fact that, in most cases, it is possible to grasp this freedom and use it constructively is to the credit of the Humboldt Professors and their host institutions. The Humboldt Professors and their research groups document their activities as well as the results they generate in annual reports and final reports. Although these reports are read carefully and often commented on, the award winners do not regularly receive such detailed feedback.

→ We therefore recommend the Humboldt Foundation to process and respond to this feedback, even on an individual basis, and to use this form of communication to progress further along the path towards a "learning programme".