Chapter Sixteen

Tapping into National Funding Opportunities: Challenges and Policy Recommendations

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During the last 10 years, German funding agencies like the German Academic Exchange Service (DAAD), the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG), and the Federal Ministry for Education and Research (BMBF) have developed a growing interest in the establishment of structured international research cooperation. Research funding programs such as International Research Training Groups (IRTG), "Strategic Partnerships" and "Thematic Networks" and Käte Hamburger International Centers in the Humanities (DAAD, BMBF) are meant to strengthen the international visibility of German research through the promotion of international research cooperation. In this sense, all of these programs serve the goals and objectives Germany's (Foreign Science Policy) as defined by the Federal Foreign Office.

The German Foreign Office's "Initiative for Foreign Science Policy" provided substantial additional funding, especially for the natural sciences. This included support for the internationalization of nonuniversity research institutes, such as those belonging to the Fraunhofer-Gesellschaft, the Max Planck Society, the Helmholtz Association of German Research Centers and the Leibniz Association. Moreover, to increase the global visibility of Germany's contribution to international cooperation in science and technology, German Houses of Science and Innovation have been set up in New York, São Paulo, Moscow, New Delhi, and Tokyo. They are meant to further the cooperation with research partners worldwide and to serve as door openers on the spot. Concomitantly, we can observe a change of funding policies. Whereas 30 years ago individual research projects or international research tandems were the dominant funding formats of the DFG or DAAD (e.g., the former Transcoop Program, now administered by the Humboldt Foundation), today both organizations invest more money in the support of structured international research involving multiple cooperation partners. Furthermore, applications are more successful and receive a larger amount of financial support if they aim at creating large, long-term research infrastructures at the home institution and abroad. This change in the German funding system (funding of individual research projects to funding of research structures) very often goes hand in hand with the promotion of specific content and research themes. For example, the European Framework Programs as well as the recently launched Trans-Atlantic Platform (T-AP) in social sciences and humanities research, a partnership among 15 research funding agencies from Europe and the Americas, envisage to enhance transnational research collaboration by following a subject-specific funding policy.¹

Partnership Building—An Incremental Process

However, research-oriented partnership building, at least in the humanities and social sciences, is an incremental process that depends on the academic interests and profiles of individual key players and their willingness to tap into and match different funding opportunities. Structured international research cooperation like strategic partnerships, thematic networks, or International Research Training Groups cannot be arranged by top-down strategic planning alone. Instead, they are investigator-driven out of existing bilateral or trilateral research cooperation. Common research interests that might form the basis for subject-oriented international cooperation are often identified through the partnered attendance of workshops and international conferences. As a rule, international cooperation projects already have a history of individual and common research funding on a lower or less structured level.

Case Study: International Research Training Group—Diversity: Mediating Difference in Transcultural Spaces

Today, the International Research Training Group "Diversity" (Trier- Montreal – Saarbrücken) is a well-functioning collaborative entity and a prime example of an initiative where funding was required by both countries, Germany and Canada. Ultimately, the researchers involved were able to secure funding; however, it took more than 10 years to develop and secure funding from both countries. The following is a synopsis of how the IRTG developed over time and the gradual process of intensification and extension of international research cooperation tapping funding sources on different levels and addressing different funding schemes.

The IRTG "Diversity" grew out of several individual research projects and different international programs and is based on intense and long-standing interdisciplinary research cooperation among the three universities involved. The institutional pillars of the cooperation are the Center for Canadian Studies (University of Trier), the Center for Quebec Studies (Saarland University) and the DAAD-sponsored Canadian Center for German and European Studies at the Université de Montréal.

Since the late 1990s, the three centers have cooperated in the organization of different conferences, workshops, and visiting professorships. Out of this scholarly exchange, the three universities identified the topics of multiculturalism, transculturalism, and diversity as a possible common research field, and continued to explore the theme in common workshops, seminars, and research projects.

In 2009, the common exploration gained momentum during a workshop on joint and double degree programs in the humanities and social sciences, organized together with DAAD New York. Common research interests in the field of diversity and governmentality turned out to become the basis for the establishment of a German– Canadian research consortium in the developing field of historical oriented research on multiculturalism and diversity. This was followed by several additional workshops from 2009 to 2011.

In 2011, a draft proposal to establish an IRTG was submitted to the DFG. Like all German programs, it not only required proof of long-standing and solid research cooperation, but also proof of substantial contributions from the international research partners. A parallel grant proposal was submitted to the Canadian Social Science and Humanities Research Council (SSHRC).

In 2012, the full proposal was finally accepted by the DFG, and after additional Canadian peer reviews and an assessment interview in Canada, the Canadian grant proposal was finally also accepted for funding in April 2014. SSHRC granted money for a 7-year period, and the DFG provided funding for a period of 4.5 years. Today, this first German–Canadian IRTG in the humanities and social sciences is financed by both national funding agencies, as required by both DFG and SSHRC in their respective, though not completely identical, funding schemes.

Matching Funds—Brake or Accelerator for International Research Cooperation?

The principle of providing matching funds is a core requirement of many international funding agencies. International research cooperation requires researchers to secure substantial financial and material contributions from their international partner institution. Researchers thus are requested to identify the funding schemes of different funding institutions that might match their national program. This is not an easy task, since almost all national funding agencies follow their own policy objectives. The incompatibility of programs together with a lack of agreements between national funding agencies, especially between those in Europe and North America, result in double applications, evaluations, and peer reviews. As the example of the IRTG diversity has shown, securing matching funds might become rather complicated.

The DFG has established special funding agreements with the Canadian Natural Science Research Council, the Russian Foundation for Basic Research, the Korea Science and Engineering Foundation, and the respective Brazilian and Mexican funding agencies. However, cooperative funding mechanisms between Germany and Canada in the field of humanities and social sciences are still lacking. This has created a situation of high risk for the cooperating partners. Furthermore, the lack of interagency streamlining and cooperation demands a lot of creativity and flexibility in identifying funding lines. Last but not least, the absence of interagency funding agreements produces a situation in which scholars interested in international cooperation have to double the process of proposal writing. The time invested in the proposal writing and on-site evaluation process could better be used by focusing everyone's energy on the implementation of the project after the proposal is accepted for funding from one side.

Using the example of the IRTG "Diversity" and taking the political priorities for the support of larger international cooperation structures into account, the following questions need to be discussed: Can top-down initiatives to develop structured international research partnerships facilitate international research cooperation? How can funding organizations and institutions of higher education help to tap and match different funding opportunities? How can they engage the funding institutions of possible international partner universities to cooperate on similar lines? And how can we solve the problem of dual application procedures, especially in the humanities and social sciences? In the following sections, I discuss these questions by examining an example of possible best practices and formulating some ideas for possible future policy initiatives in the field of cooperative funding of international research collaboration.

The Identification and Development of International Research Cooperation: Bottom-Up and Top-Down Approaches

A prominent example of top-down politically framed international research cooperation programs are those developed by the European Commission in order to support the creation of a common European Research Area. Dating back to the 1950s, European research policy very much focused on the implementation of a common science and technology policy. With the first European Framework Program established in 1984 as the main research-related policy instrument of the European Union, the European Commission intended to establish balanced scientific and technological development in Europe. In a classic top-down approach, the Framework Program determined the scientific and technological objectives to be achieved, the criteria for selection of research activities, and the corresponding priorities as well as financial implications. In general, project proposals must be submitted in response to specific research calls. The content of a project must match the objectives expressed in one of the specific areas of focus of a given Framework Program. Moreover, the partners involved must satisfy all of the eligibility criteria, and their proposal must meet the scientific, thematic, and formal requirements set forth in the call for project proposals. As an instrument, the Framework Programs were and are designed to further the development of more integrated research within the European Union.

The Framework Programs had a clear funding preference in the fields of applied sciences, covering topics such as energy, transport and space, environment, and industry and materials. They prioritized and emphasized research that was relevant to the needs of European industry, to help it compete internationally and develop its role as a world leader in certain sectors. It neglected fundamental research and individual research initiatives. Research had to be pursued in large groups, encompassing many European countries from different geographic and thus geopolitical regions. Taken together, the funding priorities and the cooperation requirements not only created bureaucratic monsters but also produced a scientific "race to the bottom." The neglect of support for high-risk projects was detrimental to the overarching goal of securing the global competitiveness of European research and research institutions.

With Framework Program 7, launched in 2007, the European Commission changed policies. Two years after the launch of the German Excellence Initiative in 2005, which prioritized cutting-edge interdisciplinary research and renounced the policy of formulating thematic priorities, the European Commission launched a program supporting the best in European investigator-driven research. It created the European Research Council (ERC) and new funding lines that exclusively target pioneering and high-risk research ideas pursued by internationally renowned scholars. ERC Advanced Grants, Consolidator Grants, and Starting Grants intend to push and trigger new research ideas in a bottom-up process. ERC Advanced Grants allow exceptional

established research leaders of any nationality and any age to pursue ground-breaking, high-risk projects that open new directions in their respective research fields or other domains. Being investigator-driven, or bottom-up, the ERC approach allows researchers to identify new opportunities and directions in any field of research, rather than being led by priorities set by politicians. This ensures that funds are channeled into new and promising areas of research with a greater degree of flexibility.

These new funding lines have been strengthened in the current program, Horizon 2020. Today, the ERC acknowledges that research innovation is very often driven by individual scholars and scientists who have already established themselves as independent research leaders in their own right. The message behind this change on the European level is that in order to secure global competitiveness of the European Research Area, globally active individual researchers have to be attracted to pursue their research in Europe.

In a somewhat similar way, the Excellence Initiative of the German Federal Ministry of Education and Research and the German Research Foundation aimed at highrisk, pioneering research ideas. These ideas had been developed in a bottom-up process in order to secure the overarching goals of strengthening international cooperation of research and enhancing the international appeal of excellent German universities. In contrast to the ERC programs, however, these proposals in the context of the Excellence Initiative not only had to be "excellent," but they had to be multi- or interdisciplinary in nature and had to integrate a large body of researchers working at the applying institution. Program lines like the "Cluster of Excellence" or the "Graduate Schools" also had to prove how the suggested cooperation projects, sometimes comprising more than 200 scholars and scientists, would produce structural effects for their home institution. The Excellence Initiative thus honored and further strengthened research projects developed out of existing research structures, for example, the DFG-funded Collaborative Research Centers (SFB). The DAAD-BMBF initiative to strengthen international cooperation through funding lines such as "Strategic Partnerships" or "Thematic Networks" follows a similar approach. In contrast to the European Framework Programs, they do not prescribe certain research fields, but they support international research cooperation that grew out of established and highly visible research structures. In addition, applicants have to prove that the envisaged international cooperation will have a long-lasting structural effect on the applying institution, for example, by establishing joint degree programs, through joint supervision of graduate students, or with the help of joint research centers.

The debate about the pros and cons of individual and structural funding² that witnessed a first climax in Germany after the results of the first round of the Excellence Initiative were published in 2006, will certainly go on. From the perspective of science policy and its funding agencies, the structural effects of research funding are without doubt desirable. However, structures also always produce inertia and sometimes even

idleness. It is important that funding programs help universities and other research institutions gauge their performance and encourage them to develop better strategies to establish themselves as more effective global players, especially in light of an ever growing international competition. However, funding programs should avoid the pitfall of structural inertia and instead should keep flexibility and investigator-driven or bottom-up principles as high priorities. Moreover, funding programs should entail components that take into account the fact that the sustainability and dynamism of larger research consortiums, especially those including international partners, very much depend . Individual performance should be honored and not pushed into the background in favor of group performance alone.

Tapping and Matching Different Funding Opportunities: National and International Cooperation Initiatives

One of the major organizational challenges in setting up a German-Canadian Research Training Group in the Humanities and Social Sciences was to secure matching funds for the Canadian part of the program. Whereas the DFG has established many cooperation agreements with international funding organizations in the natural sciences and engineering, among them a special agreement with Canada's Natural Science and Engineering Research Council, similar cooperation agreements between funding agencies in the field of humanities and social sciences are still rare. An integrated application procedure and joint assessments of the participating funding agencies or the acceptance of evaluation results from one funding agency by the cooperating international funding agencies have not yet been established in a transatlantic setting. The so-called lead agency process, which has successfully been implemented on the European level could serve as a role model for similar transatlantic agreements (see for example, the agreements between Switzerland, Luxembourg, Germany, and Austria and their respective four research funding organizations: the Swiss National Science Foundation, Luxembourg National Research Fund, DFG, and the Austrian Science Fund).

Within the lead agency procedure it is possible to submit a joint transnational application to a single funding organization (the lead agency) in accordance with the organization's guidelines. The lead agency will review the application and will reach a funding decision in accordance with its national procedures. The funding organizations of the remaining countries participating in the project will typically accept the results of the procedure, adopt the lead agency's decision and, if the application is approved, fund the participant(s) in their countries according to their national guidelines. To support international cooperation initiatives, leading funding institutions should cooperate in implementing common procedures, along the lines established between certain European countries.

Another major problem consists of the restrictions attached to spending funds received from a national funding agency for activities of an international project taking place in a foreign country, so-called cross-border funding. The DFG, for example, excludes the international transfer of German funds. This, together with the fact that DFG funds are administered by the German host university on the basis of the budget regulations of the specific (federal state) in which the university is situated, can produce absurd results with the potential to endanger international cooperation and the international promotion of German research results (e.g., in the context of international conferences taking place abroad). We need more financial flexibility along the "money follows cooperation" line that the DFG has successfully established, for example, within the scope its D-A-CH collaboration, i.e. the collaboration between Germany (D), Austria (A) and Switzerland (CH). The DFG and its partner organizations, the Austrian Science Fund and the Swiss National Science Foundation, have agreed to the mutual opening of the respective funding programs (lead agency process) and cross-border funding (money follows cooperation line) to simplify the mobility of researchers and the execution of cross-border research projects. This initiative that simplifies research cooperation within the European Research Area needs to be broadened to include partners from North America.

Unfortunately, both aspects-the lead agency process and the money follows cooperation line—have not yet been discussed, for example, within the framework of the Trans-Atlantic Platform in Social Sciences and Humanities Research (T-AP) that was launched on the initiative of the former president of Canada's Social Science and Humanities Research Council (SSHRC) in March 2014 to facilitate transatlantic cooperation in the humanities and social sciences. The T-AP is a partnership among 15 research funding agencies from Europe and the Americas. It includes key partners from Brazil, Mexico, the United States, Canada, and Europe.³ The 3-year initiative, supported by the European Union, is a global first among national humanities and social science research agencies. By encouraging transnational research coordination and intensifying communication, the platform intends to pave the way for national agencies to work together and achieve convergence, in terms of research policy, program design, and funding practice.⁴ Unfortunately, key players such as the National Endowment for the Humanities(NEH), the National Science Foundation (NSF) and the Deutsche Forschungsgemeinschaft (DFG) are only associated partners, despite the fact that the latter has identified North America as a problem area when it comes to establishing common rules and regulations for research funding. With the exception of the press release announcing the launch of the program, the DFG website contains no information about this program.⁵

Instead of targeting common organizational problems in administering transatlantic research partnerships, the T-AP started with a political agenda that translates into the establishment of specific research priorities. According to its mission statement "the T-AP seeks to enhance cooperation in key areas of mutual interest and engagement that address 21st century societal challenges involving social sciences and the humanities,"⁶ among them are global challenges such as prosperity and sustainability, or poverty and inequality in an aging society. The platform has made an initial selection of three priority areas for transatlantic research collaboration in the social sciences and humanities:

- 1. *Diversity, (in)equality and differences:* This research theme involves the different ways in which people and communities value, respond to and interact with diversity, inequality, and differences.
- 2. *Resilient and innovative societies*: This research theme covers emerging and evolving responses to the social, political, cultural and economic challenges facing today's society, encompassing areas such as the environment, demographic change, food, health, and well-being.
- *3.* New (path)ways of doing research: This thematic area concerns new ways of doing research, such as the opportunities provided by big data, interdisciplinary collaboration, and co-production of knowledge with nonacademic partners.⁷

With the top-down identification of research priorities and thematic areas for international cooperation, this program to a certain extent follows the line of the old European Framework Programs. The identified thematic areas will be subject of transatlantic workshops bringing together transatlantic researchers, stakeholders, and research funders with the aim of establishing larger collaborative networks and identifying priorities and opportunities for future research cooperation in more detail. That, together with the objective to connect the identified priorities to Horizon 2020 funding opportunities, runs the risk of channeling research into certain directions to the exclusion of new ideas and projects that think out of the box.

Where to Go from Here? Future Policy Initiatives to Internationalize Research in the Humanities and Social Sciences

It is a truism that research and innovation are increasingly interlinked internationally, aided by rapidly developing information and communication technologies. The number of internationally coauthored scientific publications and the mobility of researchers is increasing. Research organizations are establishing offices abroad, and companies are investing outside their home countries, in particular in the emerging economies. Nevertheless, international and especially transatlantic research cooperation in the field of humanities and social sciences is still too much regulated by top-down identified research fields that from a political point of view presumably have a high societal relevance.

Despite the growing number of bottom-up developed international research cooperation, major international funding schemes or cooperation initiatives in the field of humanities and social sciences still follow top-down approaches. They identify relevant societal problems and steer research initiatives into certain thematic directions. Policydriven thematic priorities follow goals and objectives identified as being in the national interests. This political "nationalism" that directs international research projects is mirrored on the budget level. National funding agencies follow a "budgetary nationalism." Transatlantic research cooperation especially suffers from insufficient flexibility and coordination regarding financial and budgetary rules and regulations.

We need a bold approach to improve the effectiveness and efficiency of research funding activities. International partners should be enabled to think out of the box and to cooperate internationally on investigator-driven research topics. Research and innovation in the humanities and social sciences need a funding context in which new ideas can thrive freely. This also includes improving the coordination between national funding programs in Europe and North America on the basis of international agreements. We need to create more supportive structures and abolish the time-consuming procedures of double applications. Finally, we need more budgetary flexibility to overcome the existing "budgetary nationalism" that forces integrated international projects to divide again along national budgetary lines.

NOTES

- ⁴ http://www.transatlanticplatform.com/.
- ⁵ http://dfg.de/download/pdf/foerderung/grundlagen_dfg_foerderung/informationen_fachwissenschaften/ geisteswissenschaften/press_release_trans_atlantic_platform.pdf.
- ⁶ http://www.transatlanticplatform.com/.
- 7 Ibid.

¹ http://www.transatlanticplatform.com/.

² See a summary of the discussion in Christian Bode, Akteure der Außenwissenschaftspolitik: von der Individual- zur Strukturförderung, in Stiftung Wissenschaft und Politik (Ed.), Außenwissenschaftspolitik -Wissenschaftsaußenpolitik, Arbeits- und Diskussionspapier 7/2007, pp. 21–23.

³ São Paulo Research Foundation (FAPESP) (Brazil); Social Sciences and Humanities Research Council (SSHRC) (Canada); Deutsches Zentrum für Luft- und Raumfahrt (DLR) (Germany); Academy of Finland (AKA); International Social Science Council (ISSC) (France); The French National Research Agency (ANR) (France); Consejo Nacional de Ciencia y Tecnolog a (CONACYT) (Mexico); Netherlands Organisation for Scientific Research—Humanities (NWO—Humanities); Netherlands Organization for Scientific Research—Social Sciences (NWO—Social Sciences); Fundação para a Ciência e a Tecnologia (FCT) (Portugal); Arts & Humanities Research Council (AHRC) (United Kingdom); The Economic and Social Research Council (ESRC) (United Kingdom).