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## The Importance of International Research Cooperation: Reflections from Germany

*Peter Strohschneider*

“The Times They Are A-Changin’,” claims a popular Bob Dylan song. This may go for many fields of public life at the moment, but it is certainly no more true than for the world of research and science. It was just one year ago that researchers from the National Science Foundation-funded Laser Interferometer Gravitational-Wave Observatory (LIGO) in Louisiana and Washington State stunned the global public with news that they had for the first time succeeded in measuring gravitational waves, a hundred years after Einstein conceived of their existence. It was at once a spectacular example of scientific achievement and a wonderful example of global science; the first person to register the signals was an Italian postdoc, Marco Drago, based at the Max Planck Institute for Gravitational Physics in Hannover, Germany. Moreover, researchers involved in the German Research Foundation-funded Centre for Quantum Engineering and Space-Time Research and at the gravitational wave detector GEO600 played substantial roles in designing and monitoring this truly global experiment: they built the lasers for the current LIGO facility, and the GEO600 is also part of a transatlantic and global network of detectors that includes the United States, Germany, Italy, and Japan. The spectacular success of the U.S. LIGO team thus also rested on international shoulders.

In our globalizing world, we often take such transatlantic cooperation for granted. The shared commitment for excellence in research, the strong dedication

to both discovery and scholarly innovation, and, of course, an attitude of openness and respect toward international cooperation—all of this has become common currency among American and German research institutions and now drives their collaboration. We also share an appreciation of the freedom that researchers should have to choose their topics free of economic, political, social, or ideological stipulations.

At the same time, however, we cannot close our eyes before the fact that the political and social climate in which global research and science take place is changing. Whether it is the return of anti-pluralistic and less democratic forms of discourse in politics or the rise of an authoritarian and economistic reductionism in public life, the core values and principles of our societies and institutions are eroding.

Turkey, where the government has clamped down on its universities, is a striking example of this trend. We also see noticeable tensions in our own societies—national populism is on the rise not just across Europe but also the United States, as reaffirmed by the latest U.S. election. It is borders and walls now, not cross-border exchanges that more and more voices in our societies demand. Indeed, it seems that our status as open societies, ones that value the rich cultural multiplicity of viewpoints inherent in a peaceful and cosmopolitan Western world, is being called into question.

These developments are alarming, and they may have quite tangible implications for our research systems. We all know how quickly ignorance can translate into a general distrust and hostility toward science, and toward values of reason and reflexivity. We also know, in turn, that truly innovative research presupposes the openness of our societies toward the new, the foreign, the unusual, and the unfamiliar. If this were to now change: How would the research enterprise be able at all to furnish our societies with truly innovative and original knowledge—with the new and unfamiliar? Modern science and research are unthinkable without a climate of opportunity, one that provides researchers the freedom to pursue new ideas that may at first sound unconvincing to others, but which lead to new insights and thus create new, truly original knowledge.

Under such circumstances, it is imperative that we defend the freedom of research and build new structures of cooperation. The global race for talent, the rising costs of research infrastructure, the rollback toward an ideology of economistic reductionism and exclusive “impact-orientation” in public research policies around the world, the need to organize effective framework conditions enabling scientific breakthroughs that really change the way we think and act—all of these cut across our systems and increasingly demand common responses. Instead of renationalizing our research and funding strategies, we therefore have to actively take steps to develop a shared and thorough vision of transatlantic partnerships in the twenty-first century: What are fields of common interests? Where do we want to take our research collaboration in the years ahead? And what

modes—funding, infrastructure, and the like—do we need to make cooperation successful?

Strengthening transatlantic cooperation will have six practical benefits. First, it opens access to the objects of research: no historian could examine German history without access to German archives, no researcher interested in the forms of biodiversity on Californian almond plantations could investigate the issue without fieldwork on the ground in the United States. Second, partnerships may also be a way to bridge and share the mounting costs of research infrastructure and to facilitate research collaboration in specific fields of research, such as infectious diseases. Third, they act as a bridge, enabling researchers to come into contact with one other in order to pave the way for new collaborative projects across and between all fields of the sciences and the humanities. Fourth, partnerships can also be about establishing common standards; this is a field where the Global Research Council has been very active in recent years, also by way of its regional conferences, and it is also a field those of us at the German Research Foundation take very seriously. Fifth, partnerships and joint programs that enable collaboration among researchers enable scientists and scholars to familiarize themselves with other research systems, institutions, and funding opportunities. And, finally, international collaborative programs can serve mundane, but certainly important national interests by acting as instruments to recruit young and promising researchers from abroad, and they may also have a political function insofar as they may contribute to building soft power and engaging in soft diplomacy.

Building effective partnerships, however, will work only if we are very clear about what our partnerships address. If they are about building shared research infrastructures, we have to talk about what distinctive funding instruments would best serve this goal. If the purpose is to bring researchers together to create a climate of opportunity and foster really innovative ideas, we have to find common approaches that work across the whole spectrum of academic disciplines in the sciences and humanities, as well as across national borders. If we talk about standards, we have to agree on common policies and codes of conduct. And, of course, we have to find ways to implement all of these ideas.

It would be naive to assume that transatlantic research cooperation itself—however it is defined—would contain or prevent the rise of national populism. That is the core task of a civil and democratic society. Nonetheless, transatlantic exchange—of people and ideas—can be a stimulus for societies that seek to move beyond the rules of resentment and the harshness of xenophobia. This might not be much, but it is certainly not nothing. And in today's political and social climate, it is undoubtedly worth speaking up for.