



Deutscher Akademischer Austauschdienst
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Science Diplomacy for a Multipolar World

System rivalry, confrontation, and global crises

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Science Diplomacy for a Multipolar World

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February 24, 2022, when the Russian war of aggression against Ukraine began in the morning hours, has been described on the same day as a caesura in European history. Shortly thereafter, it also became tangible as a caesura in German foreign, security and defence policy: In his speech on February 27, Chancellor Olaf Scholz stated a “turning point” had arrived.

The German Bundestag and the federal government initiated a departure from the fundamental principles of German foreign policy of the past decades: support for unprecedented sanctions against Russia, the end of the energy partnership including the Nord Stream 2 gas pipeline; extensive arms deliveries to Ukraine; a special fund of 100 billion euros for the Bundeswehr; and a clear commitment to NATO’s two-percent target. If 1989 marked the end of the more than forty-year Cold War with the Soviet Union, 2022 brings the end of a more than thirty-year era of globalization with the attempt to integrate Russia and the entire post-Soviet space.

Immediately after the war began, German academia also reacted with determination to the Russian war of aggression: universities and scientific institutions developed a plethora of aid programs for Ukrainian students and researchers who had fled, as well as devising strategies for maintaining higher education and research in Ukraine itself. At the same time, German universities and scientific institutions put joint projects with Russian institutions on hold and massively restricted exchanges between German and Russian students, doctoral candidates, teachers, and researchers.

Four months later, as the brutality and destruction of the war in Ukraine continues unabated, it is clear that neither will the war be a fleeting episode in European history, nor will its impact on international scientific relations be short-lived. This raises the question of what long-term impact the current geopolitical fissures will have on international academic exchange and scientific cooperation in the future.

In view of the gigantic global challenges in the Anthropocene – from pandemics to issues of world food security to the consequences of climate change – the need for all states of the world to act together as a global community of responsibility is stronger than ever. But how can a global community of responsibility function in science when a new world (dis)order and a substantial intensification of systemic rivalries on our planet with accompanying new and comprehensive aggressions can be observed?

Specifically, what does German science diplomacy aim at in the face of these challenges? What principles can and must guide it in the future? Which alliances should be strengthened, which should be put to the test? These questions quickly make it clear that international academic exchange and scientific cooperation are more urgent than ever in these times because we are dependent on the successful shaping of our common future on this planet. At the same time, international academic exchange and scientific cooperation have become more complicated and risky. Therefore, there is a need for clear principles to guide the design of a science diplomacy in the new era, which the DAAD proposes below based on its global expertise.

1. Science Diplomacy is more important than ever!

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The war in Ukraine has shown that it has not been possible to permanently integrate Russia into a sustainable partnership through economic, cultural, or scientific exchange. The positive effects of the German-Russian Roadmap for Science Cooperation set up in 2018 pale in the face of the primacy of geostrategic power and war policy set by the Russian president. At this point, the German science diplomacy has not been able to have a de-escalating effect, let alone contribute to the liberalization of Russian politics over the past years. This observation is not limited to Russia: Where the fall of the Berlin Wall and reunification from 1989 onward still fuelled hopes for humanity's fundamental striving for democratic structures, autocratic regimes have been gaining strength in many countries for years. This means that the idea that "the West" could achieve its foreign policy goals through mere persuasion and increased (especially scientific) cooperation must give way to reality.

However, neither German science diplomacy in general nor the internationalization activities of German universities and research organizations in particular were and are based on the claim to serve as an extended, "soft" arm of foreign and security policy. German science diplomacy hardly ever served as "soft power." Scientific

autonomy and a low degree of state control, federalism, and a historically conditioned reluctance of scientific actors to make political demands have given rise to a partnership-based approach to scientific exchange with dialogically negotiated objectives, for which the concept of "science diplomacy" seems more appropriate. This is all the more true since the international cooperation of German science has followed and still follows primarily science-immanent – and not geopolitical – objectives. "Science Diplomacy" is an approach that is oriented toward discourse, understanding and an intercultural competence building that goes beyond the actual target of cooperation. This approach of science diplomacy has produced a multitude of visible effects to date, also because it is not aimed at direct political influence.

The German Colombian Peace Institute CAPAZ, for example, provides an open forum for peace research and conflict prevention between Colombia and partners abroad. CAPAZ sets impulses that are accepted and shaped in the scientific community and carried from there into civil society. In East Asia, the Centres for German and European Studies, which are funded according to the "matching funds" principle, regularly organize conferences between young scientists from

Japan, South Korea and the People's Republic of China, who would hardly come together without the common denominator of Germany and Europe.

Alumni and alumnae of German universities hold key positions in politics, science and business in many countries, act as bridge builders and actively keep channels to Germany and Europe open through their network and experience. It is effects like these that are more urgent than ever to increase the effectiveness of political diplomacy in times of increasing system rivalry.

In addition, under the changed framework conditions, other effects that have driven the German science diplomacy for years are now many times more significant:

- The broadening of personal horizons, the improved academic qualification and the increased intercultural competence of individuals are in many respects proven effects of the international exchange of students as well as of scientists.
- The global interconnection of the working world will take on a different form in the future, but it will not have been fundamentally ended. Thus, the ability of workers to operate in an international professional environment will remain decisive. What's more, as political relationships become more complicated, the ability to work together peacefully and productively on cross-border projects and international teams will become even more necessary.
- The same applies to the effects of international academic exchange on science itself. Thus, international exchange contributes to the improved quality of scientific knowledge and to the improved usability of this knowledge for social and technological innovations: through a higher diversity of perspectives, through the international division of labour, and through the higher scope of personal and institutional networks.

Achieving such an added value of international cooperation for scientific progress will become even more urgent in the future in view of the pressure on science to innovate in response to the major societal challenges that lie ahead.

- Study abroad and joint scientific projects create long-term reciprocal ties between people and between institutions. The social and organizational ties, the sympathies, and loyalties between partners form interstate cohesion forces and, especially in the context of frozen political relations – as is currently the case in the relationship between Germany and Russia – mark pillars on which bridges can be rebuilt in the (albeit distant) future.
- Finally, in times of escalating crises and conflicts, new tasks arise for international scientific exchange: In the future, it must contribute even more to protecting students and scientists who are in distress because of their scientific work or their political values. It must strengthen university and scientific systems in post-conflict countries and support their reconstruction. At the same time, in the face of global rivalries, Germany's existing partnerships worldwide must be deepened and further developed, also in order to link countries with Europe that are undergoing a transformation with an uncertain outcome.

In view of all these potential effects, an international academic policy as science diplomacy is today more than ever an opportunity to shape a sustainable, peaceful future. The new era of foreign policy aggression and systemic confrontations sharpens the meaning of international academic policy in terms of science diplomacy, increases its reach, and accentuates its urgency.

2. Science Diplomacy must be actively designed!

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First of all, it must be stated self-critically: The long-held assumption that value-based cooperation necessarily has positive effects has now been proven wrong. Today, German science diplomacy can no longer assume that international contacts between students, scientists, and between universities and scientific institutions fundamentally contribute to tolerance and mutual understanding, to added value for all participants, or even to the promotion of liberal, democratic values. The opportunities offered by international scientific exchange can only be realized – especially in cooperation with politically challenging partners – within the framework of sensitive negotiation processes and by weighing up the risks; in this case, however, their value is all the more important.

For such a consideration, it must first be noted that authoritarian regimes also seek to immunize their scientific systems against liberalization tendencies. Faced with claims to freedom – even if they come from the scientific community – they usually do not react by relinquishing their claims to power, but often with increased repression and restrictions. Even in the cross-border expansion of their claims to power, they cannot be stopped by the international interconnectedness of their

scientific system. This has become all too clear in the case of Russia.

Science diplomacy must therefore recognize that scientific exchange can become a currency of geostrategically oriented power politics, in that scientific knowledge transfer is used to maintain and expand power, or that the suspension of academic relations is deliberately used as a threat and deterrence scenario. We must accept, even if it is difficult for us: scientific exchange is not “good” in every constellation and it does not always naturally serves “Western” values, interests and the spread of peace, freedom and democracy.

These insights underpin a transformation in foreign policy thinking that had already been evident since the late 2010s and that was fully brought to public attention by the war in Ukraine. In this context, systemic rivalry with China had first spurred the awareness that international academic exchange does not necessarily contribute to strengthening and expanding the European and German system of values. Moreover, it became apparent that the returns from academic exchange can also be unilaterally turn out to the advantage of states that represent other value systems and legal systems.

The crisis in Afghanistan in 2021 and the increasing restrictions on scientific freedom in numerous states have additionally called into question the effectiveness of foreign science policy initiatives.

Political impact claims of science diplomacy are therefore more than ever in a complex set of tensions: Of course, the repressive, aggressive, and power-political actions of governments do not necessarily reflect the will of their people, and encounters with political dissenters can have a lasting impact on the individual. However, it would be both naive and dangerous to believe that the decline in freedom and the political rejection of Western values that can be observed in many places is only a last gasp before a new generation ushers in a democratic awakening. On the contrary, an exodus of Western-influenced and oriented scientists can already be observed, not only from Russia, which is likely to make the situation in the home countries even more precarious in the future.

What does this mean for the German science diplomacy of the 2020s? On the one hand, a strengthening of the effectiveness, the urgency, the opportunities that science diplomacy holds. On the other hand, a changed view of its concrete design, which takes into account the complicated context of science diplomacy in the new era.

In 2021, the DAAD drafted the conceptual framework of an “international academic realpolitik” with this in mind. For even before the Russian invasion of Ukraine, it was clear that relations in foreign science policy must also be shaped under the conditions of an intensifying global system rivalry and the corresponding instrumentalization of science for geopolitical goals in this system conflict. Yes, international scientific exchange does not necessarily contribute to democracy and peace, but more than ever it is part of a national, European, and transatlantic security policy and must be shaped as such. Internationally networked science can have positive effects for German security policy – by contributing to the development of solutions to global challenges such as climate change, natural disasters, pandemic preparedness, and conflict

prevention, and by using its international expertise to provide knowledge-led policy advice.

In order to implement “international academic realpolitik” in accordance with the direction outlined in the DAAD publication “Taking increased responsibility in a globally networked world”, five action guiding principles are necessary for orientation. Science diplomacy in the new era is:

a) value-based and value-conscious

The personal international contact of students as well as of scientists will be a chance in the future to give room for and visibility to German and European values outside Europe. These personal contacts are a great opportunity, especially in those countries that subject their analogue and digital media to strong control and where access to a liberal understanding of science, society and politics is more difficult.

At the same time, it can no longer be assumed that values such as freedom of science and scientific integrity are conveyed “by themselves” via academic exchange – for example, based on the assumption that science only functions if it feels committed to these values. Rather, it is evident that science, at least in certain disciplines, can be conducted successfully even with limited academic freedom and without a participatory structure.

German science diplomacy must therefore explicitly address its own scientific and societal values wherever it wants to convey its idealistic foundations.

This requires students and scientists at German universities, and even more so officials in the German science system, to make consistent use of leeway in personal contact and public appearances to express their values and convictions. Helping to shape the civil society dialogue requires German actors to be even more aware than before of being part of German civil society – and to be willing and able to act as science diplomats abroad.

In individual cases, this may require courage and the willingness to persevere with the partner, but also to engage in conflict. Science diplomacy after the “turning point” must also provide platforms where actors from German and European universities and research institutions can communicate and exchange ideas about their role in civil society dialog. At the same time, German science organizations should also state more strongly than in the past in their cooperation agreements that respect for academic freedom is a non-negotiable basis for the partnership. With a clear commitment to democratic values, we potentially gain credibility with those who suffer from the loss of academic freedom and further restrictions on their fundamental rights.

In the face of escalating global conflicts, giving expression to Europe’s scientific values and representing them proactively also means that universities and scientific institutions today are increasingly assuming humanitarian responsibility: for students and researchers in need both in Germany and in countries of the Global South, which are paying the toll for the numerous crises of these days to a greater extent than, for example, the countries of the European Union. Assuming humanitarian responsibility requires – as is currently the case in Ukraine and Afghanistan – commitment, resources, and regulatory leeway, which the German science system and German science policy must make permanently available as part of a science diplomacy after the “turning point”. In doing so, they must also find answers to the question of how humanitarian responsibility and academic qualification and quality demands can be communicated and balanced.

b) responsibility-driven

One of the fundamental values of a new science diplomacy is the commitment to a sustainable, intergenerational future. Actors in such a science diplomacy see themselves as members of a “global community of responsibility” (cf. “Taking increased responsibility in a globally networked world”). International academic relations must be used to address the major challenges facing our world, such as climate change, the decline of biodiversity and the threat of pandemics. Because of their global dimension, these challenges can be addressed particularly effectively in the context of internationally networked study and research activities. Science diplomacy after the “turning point” must accordingly also be systematically integrated into foreign climate policy, global health policy and other fields to which it can make substantial contributions. Responsibility orientation also means maintaining cooperation with as many countries in the world as possible, even in the context of new geopolitical confrontations – as far as possible – and shaping it in a value-based and risk-reflective way (see point e). Even under difficult conditions, German science diplomacy continues to seek leeway for articulating and elaborating common concerns and for students, scholars, and scientists to work together in partnership on pressing issues for the future. It is precisely these issues that can build bridges between countries that otherwise see themselves as competitors or rivals. Thus, we must and want to remain in exchange with challenging partners and not lightly assume “red lines” for cooperation. The fact that in exceptional escalations of interstate confrontations the basis for cooperation is no longer given – as is currently and foreseeably the case with the Russian Federation – remains unaffected by this.

c) interest-driven

It is not only authoritarian states that pursue a science and innovation policy agenda with the internationalization of higher education and science. Especially in the relationship with states that self-confidently use science diplomacy for power-political and geostrategic reasons, academic, scientific, and science-political interests must also be clearly defined and made explicit on the German side. Science diplomacy after the “turning point” is also interest politics.

Therefore, an interest-driven science diplomacy needs the courage to act self-confidently as well as to analyse others’ and one’s own motivations and strategies for action. Thus, our international cooperation should continue to be based first and foremost on fairness and trust; however, it is not altruism, but serves concretely named purposes.

For Germany, this kind of interest orientation can mean taking even greater account of the specific innovation needs of the German economy and society. This includes, for example, using cooperation in higher education and science in an even more targeted way to gain science-based qualifications and scientific results in the area of academic fields of the future, especially digital technologies.

An interest-oriented science diplomacy should also address the issue of the shortage of skilled workers in Germany and abroad. In this context, it is important to meet the demand for highly qualified specialists both in Germany and in its partner countries, especially in the Global South, not only by training international students at German universities or by attracting particularly qualified academics from abroad. The cross-border networking of specialists and the optimal preparation of university graduates for the requirements of an international professional career in a globalized world must also be decisively ensured. The science diplomacy of the Federal Republic of Germany should not have to focus on the trade-off “brain drain vs.

brain gain”. Rather, it should be able to commit itself to cross-border brain circulation and the international networking of qualified specialists, optimized for the needs of its own labour market and the labour markets of partner countries, for which the right framework conditions must be created.

An interest-oriented science diplomacy is also committed to winning over countries and regions for liberal values in which global competitors are intensively involved. Here in particular, scientific exchange can also help to carry democratic values into civil society, win friends for Germany and Europe, and support political transformation processes.

Again, of course, such political effects cannot be achieved as a matter of course; but in many countries of the Global South, the chance of achieving them is greater than the risk of failing them.

d) regionally differentiated

Today, science diplomacy can less than ever be designed with the same goals and measures everywhere in an undifferentiated manner for all world regions. Rather, the possible goals of our science diplomacy – its intended contributions (a) to civil society dialogue in partner countries, (b) to sustainable solutions to global challenges, (c) to meeting German interests such as innovation needs or the consolidation of friendships and intergovernmental ties – must be concretized on a region-specific basis and its measures modulated accordingly. This is relevant for all instances that translate science diplomacy into concrete academic internationalization strategies: for universities, for science organizations, as well as for the federal government.

In this context, region-specific strategic orientation of science diplomacy is always moving within an area of conflict between cooperation and competition. Proven partners are often

among the toughest competitors in a given research field. For this reason alone, it cannot be a matter of preferentially or even exclusively cooperating with “like-minded” partner institutions and regions in the future.

The opening up of new, less established cooperative relationships lies in the logic of international competition and globally networked knowledge production. Falling back on long-standing, supposedly low-risk connections would impoverish relationships and reinforce inequalities worldwide. At the same time, it is obvious that reliable partnerships should be especially cultivated in troubled times. A special role is played here by the European Higher Education and Research Area, whose strengthening and further integration is the guarantor of the continuing importance of European science on a global scale.

For its regional strategic orientation, science diplomacy needs knowledge about academic and political framework conditions in individual countries and regions more than ever. It needs this knowledge in order to be able to make knowledge-based judgements about the goals and likelihood of success of collaborations, but also in order to make the exchange with partners interculturally sensitive. Science diplomacy gains this knowledge from within itself, from the stays and presence of its actors in the countries of the world. At the same time, this knowledge must be shared and put up for discussion to an even greater extent as part of a stringent further development of formats for continuing education and personal exchange.

e) risk-reflexive

Value-, responsibility- and interest-orientation are not mutually exclusive, they aim in the same direction: towards a – regionally specific – reflection of the effects and opportunities that international academic exchange holds. The subject of this reflection is in particular the question whether these effects and opportunities can be realized at all or whether there are effects that counteract desired effects. In other

words, a science diplomacy after the “turning point” can no longer assume that it will have a positive effect per se; it must carefully weigh opportunities and risks. There may be contexts in which exchange and cooperation entail more risks than not engaging in exchange and collaboration.

The first step in weighing risks is to clarify whether there is any leeway at all for civil society to play a part in shaping the world or for the achievement of global or individual goals, or whether this scope will disappear as a result of political framework conditions. Further risks have already been named many times in the field of research and can be assigned to the category of undesired knowledge transfer; for example, in connection with “dual use” and the proliferation or violations of intellectual property rights and data protection. More recently, the European Commission has described the spectrum of such risks in terms of defending against “foreign interference”; the DAAD already described these risks in 2020 in a publication entitled “Keine roten Linien. Wissenschaftskooperationen unter komplexen Rahmenbedingungen” (No red lines. Scientific cooperation under complex conditions).

Practice also shows that it is not always in our hands whether dialogue and cooperation can continue. Political upheavals sometimes have a direct impact on scientific exchange. Either the withdrawal from a given country proves necessary for security reasons, or it takes place due to political repression. In most crisis constellations, security risks and political repression overlap. Before the German scientific community can decide whether to withdraw from cooperation, facts are already being created by the other side. In these situations, it is not we who set limits, but they are set for us. Conversely, it can follow from the reflection of opportunities and risks in certain countries or regions that a limitation or temporary termination of academic cooperation from our side is the painful, but situationally appropriate decision. This decision – as well as its concrete design – cannot be made in advance (as a “red line”) but must be made in each specific individual case.

3. Conclusion: Science Diplomacy in the 2020s

Science diplomacy must acknowledge the challenges imposed on it by non-scientific power-political considerations. And yet, more than ever, it can claim far-reaching – and at the same time realistic – validity and impact: A “new” science diplomacy in this sense contributes to civil society dialogue, to a sustainable development of society and economy, to the redemption of German interests. It aligns these goals differently from region to region and weighs the opportunities and risks of international cooperation against each other. In an increasingly disorderly multipolar world, it contributes to the negotiation and implementation of multilateral partnerships. On this basis, the restriction and severance of scientific relations are also instruments of foreign science policy, albeit still only in the sense of a last resort. With its value-based and value-conscious, responsibility-oriented, interest-driven, regionally differentiated and risk-reflective orientation, the future science diplomacy does not see itself as a one-sided power-political intervention. Rather, it opens up a space for specific international negotiations of academic, scientific, and political positions and goals between partners (sometimes also competitors) on equal terms. Understood in this way as a practice of intergovernmental negotiation and oriented toward reciprocity, science diplomacy is a “diplomatic” activity.

It is in precisely this sense that the approach to international academic policy described here should continue to be understood as an approach to “science diplomacy”. This approach accepts:

- that international exchange and scientific cooperation are not pursued by everyone in this world with the same interests and objectives;
- that foreign science relations are shaped by all science diplomacy actors as part of the general foreign policy of the Federal Republic of Germany, national interests, European values, transatlantic security interests;
- that we have entered a phase of world history with a new quality of systemic confrontation, in which, in view of the planetary challenges of the Anthropocene, the global community of responsibility must also be activated and mobilized by science in the best possible way. Reformulated in this way as diplomatic practice, science diplomacy continues to contribute to securing peace in the future. Integrated into the broader foreign and security policy framework of interstate relations, its outlined effects have a considerable and still increasing conflict-preventive character. Only by using censorship and massive force can this preventive effect be nullified and destroyed.

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