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The Role of German Universities in Academic Engagement with China

Matthias Stepan, Ilker Gündoğan, Rosa Schmidt-Drewniok and Jörn-Carsten Gottwald

Abstract

This article examines how German universities engage in “science diplomacy” in their evolving relationship with the People’s Republic of China. Based on the Stiftung Mercator-funded project “Universities as Actors in Dialogue with China” (Hochschulen als Akteure im Dialog mit China), the study integrates interaction-oriented policy research, organizational actorhood, and science diplomacy scholarship to conceptualize universities as composite yet strategic actors. Empirically, it combines extensive document analysis with 49 semi-structured interviews with university-based researchers and administrators in the Ruhr and Frankfurt Rhine-Main regions. The findings reveal a broad, decentralized configuration of cooperation that includes student exchanges, joint curricula, research laboratories, and even a German campus in Hainan, yet provides limited institutional oversight of informal projects and scant internal coordination. Since the advent of Xi Jinping’s more intrusive science and security agenda, interviewees report increased politicization, securitization and regulatory complexity, heightening concerns about academic freedom, intellectual property leakage and dual-use research risks. Although many German universities identify primarily with “diplomacy for science” and “science for diplomacy,” few regard themselves as ‘diplomats’ proactively engaging in “science in diplomacy.” Capacity constraints, federal fragmentation, and ambiguous national policies further hinder systematic risk management, although due-diligence tools are increasingly being used. The study concludes that disengagement from China would undermine global problem-solving and that differentiated, transparency-oriented strategies — clarifying red lines, strengthening China competence and knowledge, and EU-level policy coordination — are essential if German universities are to remain credible bridge-builders while safeguarding academic integrity in an increasingly contested geopolitical environment.

Keywords: German-Chinese higher education cooperation; Science Diplomacy; Academic Freedom; International Research Collaboration

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Introduction

In an era of increasing globalization and scientific interconnectedness, universities play a crucial role in fostering international cooperation. This is particularly true for academic relations between Germany and the People's Republic of China (PRC), two key players in global science, education and research. German universities have long been important participants in these exchanges, actively shaping collaborations ranging from student mobility and joint degree programs to large-scale research projects and institutional partnerships. However, these relationships exist within an increasingly complex (geo)political, economic and societal framework that has become more challenging in recent years (Fischer 2017).

Despite deep economic integration, German–Chinese relations have become strained, with changing political and economic interests and strategies affecting academic cooperation. The return of geopolitics to international relations is emphasizing security and redefining the framework for technological and scientific collaboration. In China, tighter political control in the Xi Jinping era has led to more restrictions on civil society engagement, limiting the space for open dialogue and international academic exchange (Lang and Holbig 2018). At the same time, growing concerns in Germany about academic freedom, the protection of intellectual property, and the potential military applications of civilian research conducted with Chinese partners have fueled debates about the future of these partnerships. As a result of these developments, many in German universities increasingly perceive the PRC as a “difficult” partner (DLF 2022a). The increasing politicization and securitization of international research cooperation and the political scrutiny of science diplomacy pose significant challenges for universities, researchers and policymakers alike (HRK 2020). How are German higher education institutions adapting to these fundamental changes?

The research project “Universities as Actors in Dialogue with China” (Hochschulen als Akteure im Dialog mit China, HADCh), funded by the Mercator Foundation, explored the dynamics, challenges, opportunities and possible paths for future German–Chinese academic cooperation. The project was based on extensive document analysis and expert interviews with university representatives in two major German metropolitan regions: the Ruhr area and the Frankfurt Rhine-Main region. By examining the structural conditions, interaction processes and outcomes of these collaborations, the study provides a nuanced understanding of the role of German universities in science diplomacy with China.

The findings highlight the broad spectrum of activities within German–Chinese academic partnerships. These range from student exchange programs and collaborative research projects to the establishment of joint research laboratories. While these initiatives offer significant potential for strengthening bilateral relations and promoting scientific excellence, they also underscore the need for clear guidelines and regulatory frameworks to address issues such as intellectual property protection, academic freedom, and ethical research standards. Universities

increasingly face the challenge of balancing the benefits of international cooperation with the need to mitigate risks in a rapidly evolving (geo)political environment.

Moreover, the study shows that German universities are not passive participants in international knowledge production, but active agents in shaping science diplomacy. As science diplomacy becomes a contested and highly politicized field, universities and researchers must increasingly navigate political expectations, institutional constraints and personal considerations. The project's findings underline the importance of diversifying international partnerships, developing best practice guidelines and enhancing China competence within academic institutions. At the same time, there is a growing need to promote structured dialogue and coordination between and within German universities to ensure a more strategic approach to cooperation with Chinese partners.

This paper presents the key findings of the HADCh project and provides a comprehensive analysis of the current state and future prospects of German–Chinese higher education cooperation. By providing empirical evidence, it aims to contribute to a more informed and balanced debate on the role of universities in international academic engagement with China. As global challenges such as pandemics, public health crises and climate change increasingly require cross-border scientific collaboration, the study underlines the need to maintain and strategically shape academic exchanges in a way that upholds fundamental research values while adapting to changing (geo)political conditions.

Theoretical Framework and the Method

In order to do justice to the complexity of German–Chinese university cooperation, the project pursued an explorative research approach. It was guided by an interdisciplinary perspective that combines theoretical and conceptual approaches from interaction-oriented policy research (Mayntz and Scharpf 1995), organizational research (Braun 2001; Fumasoli et al. 2019) and international relations, more precisely science diplomacy (Flink 2019; Rungius and Flink 2020; Stepan and Schmidt-Drewniok 2022), which is becoming a priority for the European Union in a changing geopolitical and scientific–technological context (DGRI 2025). These combined views allow universities to be seen not only as educational and research establishments, but also as active agents of international dialogue.

The two central aspects of the study are “science diplomacy,” that is, the intended contribution of universities to dialogue with China, and “actorness,” meaning the capacity of universities to play an appropriate role in science diplomacy. Following the research on international “X-diplomacy,” science diplomacy is defined as the deliberate attempt by state and non-state actors to use science, scientists and non-academic staff at universities, as well as scientific events and meetings, to address foreign actors and publics with the aim of strengthening international relations and/or overcoming tensions that have arisen through dialogue, preferably with an outcome that corresponds to one's own normative judgements, or at least to create

and deepen an understanding of the other side's problem or position (Gündoğan 2023). "Actorness" or "organizational actorhood" refers to the ability of an organization, in this case higher education institutions, to be politically active or to be able to act strategically (Drieskens 2017; Elken and Røsdal 2017).

In the project we define this actor quality according to the criteria of structure, centrality, identity, competencies, orientation and capacity (Fumasoli et al. 2019; Bloch 2021). The extent to which universities possess such actor quality is controversial. Braun (2001: 249), for example, describes the German university as a "loose organizational cluster, but not a target-oriented organization." The external relations of researchers are seen as difficult to manage. Accordingly, HADCh follows Scharpf's (2000: 97) "double perspective on corporate actors": The external perspective sees universities as complex composite actors with specific resources and the ability to use these resources strategically. In this perspective, universities are scientific actors and important for diplomacy. The internal perspective defines universities as institutional structures in which actors interact with each other and carry out actions that are then attributed to the universities. Here, actors at different organizational levels of universities are involved in science diplomacy, including the rectorate, faculties, institutes, researchers and university administration.

The concept of science diplomacy highlights the role of universities not only as centers of research, teaching, knowledge exchange and education, but also as key actors in shaping international relations and cooperation (Flink and Rüffin 2019). In this capacity, higher education institutions act both as complex, composite actors and through their individual members within different sub-organizations, engaging in all three dimensions of science diplomacy. They contribute by generating and providing knowledge as a basis for diplomatic engagement (Dimension 1: Science for Diplomacy), they operate within frameworks established by diplomatic agreements that shape their opportunities for cooperation (Dimension 2: Diplomacy for Science), and they actively engage in diplomacy themselves by fostering international scientific cooperation and serving as platforms for dialogue and exchange (Dimension 3: Science in Diplomacy) (DGRI 2025).

Universities compete not only with each other, but also with other social groups with their own interests and normative underpinnings for access to policy-makers, who often favor scientists whose positions coincide with their own (Renn 2011). In addition, concepts and values such as rationality, evidence or freedom of research and science, which are often assumed to be universal, are interpreted and organized differently in different education systems (Marginson 2014; Anonymized Interviews). Particularly in autocratic political systems such as the PRC, the subordination of science to clear ideological and political objectives is a problem for representatives of German universities and policy-makers, and is not compatible with the idea of free science (Perry 2020; Pringle and Woodman 2022). The separation between military and civilian research, which in Germany, for example, is reflected in different laws, internal university guidelines and ethical codes, as well

as in the structures of research funding for example, the German Research Foundation—Deutsche Forschungsgemeinschaft, DFG—does not fund projects that explicitly serve military purposes), has been formally abolished in China since 2017 to allow for greater integration and use of resources between the two spheres (SC 2017). These different interests, logics and values pose major challenges for science diplomacy and increase demands on the actorness or organizational actorhood of German universities in dialogue with China.

This brings the internal perspectives of universities to the fore. The work of Braun (2001) or Fumasoli et al. (2019) offers insights into the institutional logic and organizational behavior of universities, which in particular shed light on internal dynamics, decision-making processes and their impact on cooperation relations. This perspective makes it possible to understand the peculiarities and challenges that German higher education institutions face in developing and maintaining international partnerships in the federally organized German education system, and to illuminate the tension between national problem-solving approaches and organizational realities on the ground.

The project relied on a combination of qualitative and quantitative research methods, using the project and funding databases of the DFG-GEPRIS, the German Academic Exchange Service, the Chinese Academy of Sciences, the German federal government and the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF) to identify and evaluate official cooperation agreements. Interviews were conducted with key figures in the case regions and accompanied by complementary in-depth interviews in other regions of Germany, workshops with focus groups and document analysis. At the beginning of the project, the research team developed a catalogue of guiding questions, which included questions addressed at the university level as well as at the level of the individual researcher. Depending on the context or category of respondent, questions were selected accordingly.

A categorical distinction was made between research and administration respondents. The research group consisted mainly of professors, but also included a small number of research associates (Wissenschaftliche Mitarbeiter). The group of administration respondents consisted of heads and staff of international offices, coordinators of international affairs at universities, and deans and vice-deans of faculties at German universities. Non-documented background interviews were conducted with a number of respondents on request.

A total of 49 semi-structured interviews were conducted in two case regions—the Ruhr area and the Frankfurt Rhine-Main Region (see Table 1). The structure of the interviews allowed for a flexible response to new developments or changes in the context of cooperation. Examples include the lifting of pandemic travel restrictions and the provision of new information and advice.

Table 1: Interviews with University Staff from Research and Administration

Case region	Number of interview partners TOTAL	Number of interview partners RESEARCH	Number of interview partners ADMINISTRATION	Number of interviews	Number of universities
Ruhr area	28	19	9	26	8
Frankfurt Rhine-Main	21	11	10	19	9
Complemented by: other regions	4	3	1	4	3

Source: Authors’ illustration

German–Chinese University Cooperation: The Macro Perspective

German–Chinese higher education cooperation is characterized by a broad and diverse range of partnerships covering numerous disciplines and fields, from the humanities and social sciences to engineering at technical universities and universities of applied sciences. With more than 1,300 formal partnerships, as well as informal networks and initiatives, forms of cooperation range from promoting the exchange and mobility of students, researchers and lecturers, to the development of joint curricula and degree programs, joint research projects and long-term joint laboratories or even entire institutes (HRK 2020). The Chinese–German University of Applied Sciences (Chinesisch–Deutsche Hochschule für Angewandte Wissenschaften, CDHAW) and the Chinese–German University College (Chinesisch–Deutsches Hochschulkolleg, CDHK) are examples of long-term, structured cooperation between German university consortia and Chinese university partners. In 2023, Bielefeld University of Applied Sciences became the first German university to open a campus in China without a Chinese partner (HSBI 2023). The idea of outsourcing standard ideology courses to foreign partners could not be realized at Hainan Bielefeld University of Applied Sciences. Chinese students seeking a degree in China are required by the Chinese higher education law to take compulsory courses in China Studies—political–ideological education—which are currently provided by Chinese partner institutions (Bundestag 2025; Anonymized Interviews). Despite many initial challenges for this university project, the presence of a German higher education institution in Hainan, as part of a drive to further internationalize higher education, opens an important new channel for EU–China cooperation (Gottwald and Taube 2024).

The impetus for such cooperation is generated by a number of factors. They are often part of universities' internationalization strategies and benefit from the excellence of Chinese and German universities in the international context. In addition, economic interdependencies or joint efforts to tackle (global) challenges, such as climate change, play an important role in deepening bilateral relations in the higher education sector. International research cooperation can form the basis for the joint development of solutions. Collaboration between scientists from both countries also helps to strengthen the economic and technological capacities of the two countries. In this context, interviewees in both case regions pointed to the catalytic role of Chinese politics, whose industrial and innovation policies have both contributed to the expansion of cooperation and increasingly caused friction under changing (geo)political conditions (Anonymized Interviews).

Many interviewees stressed the need to teach students about internationalism and interculturalism. One interviewee said that he “does not believe in ‘change through trade,’ but in ‘change through exchange’” (Anonymized Interview). Accordingly, the mobility of students and academics is seen as important. While the number of Chinese students in Germany increased steadily until the outbreak of the COVID-19 pandemic, the number of German students in China increased moderately but steadily (see Figure 1). In its 2024 report, the DAAD referred to around 39,000 students from China in Germany (DAAD 2024). It also pointed to the significant contribution of Chinese PhD researchers, scientists and visiting scientists from China to German higher education institutions. According to an analysis by the OECD and the Federal Statistical Office, about 29% of Chinese students who started studying in Germany between 2006 and 2011 were still in Germany ten years later (Destatis 2022). The number of Chinese visiting scholars in Germany and German visiting scholars in China was uneven but at a high level until the outbreak of the pandemic (see Figure 2). These figures demonstrate the attractiveness of both higher education systems for international talent and the willingness of researchers in both countries to cooperate. This mobility not only promotes scientific and cultural exchange between the two countries, but also strengthens mutual understanding and bilateral relations at both personal and institutional levels.

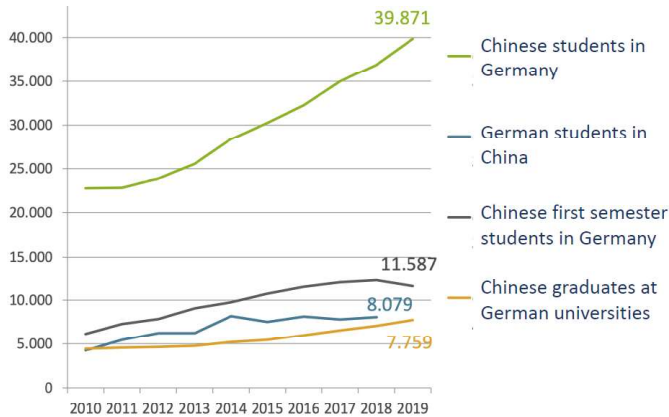
However, despite these exchanges, German–Chinese university cooperation also faces a number of challenges, particularly with regard to the protection of intellectual property and the associated undesirable transfer of knowledge and technology, the dual-use problem in joint research projects, the safeguarding of academic freedom as understood and protected by the German constitution (Basic Law), and navigating an increasingly complex geopolitical context (DLF 2022b). Interviewees described an increase in political pressure from both sides:

Chinese colleagues reported “political training courses.” Until a few years ago, Germany was a very popular premium partner. Skepticism affects everyone, including Germany. There is also a lot of pressure on the German side. The German side has become more reserved and cautious. Politically this is

understandable, but scientifically I think this is a lose-lose situation. (Anonymized Interview)

This situation calls for a balanced approach that safeguards academic integrity while fostering productive and mutually beneficial partnerships.

Figure 1: Mobility of Students before the COVID Pandemic



Source: DZHW (2021)

Figure 2: Mobility of Scholars before the COVID Pandemic



Source: DZHW (2021)

In addition, German–Chinese scientific cooperation is increasingly hampered by different and sometimes conflicting legal frameworks, such as data export laws in China (CAC 2022). These challenges require careful consideration and strategic planning by the participating universities in order to maximize the benefits of cooperation while minimizing the risks. The development of clear legal requirements, criteria and guidelines for cooperation can help to overcome these challenges and promote long-term and productive cooperation between German and Chinese universities.

From this macro perspective, German–Chinese higher education cooperation offers a picture of diversity, heterogeneity and change. Contrary to a public debate dominated by security considerations and de-risking, the interviews paint a picture of researchers and administrators who continue to see academic cooperation as an important bridge for the exchange of knowledge, cultural understanding and scientific innovation (Anonymized Interviews). However, in order to ensure the integrity and success of these international education and research partnerships, cooperation structures need to be continuously reflected upon and adapted to changing (geo)political and societal circumstances. Corresponding initiatives and measures at the national level in Germany are reflected in efforts within the universities to improve their processes and strategies (Anonymized Interview). However, the analysis of the two case regions reveals considerable deficits when it comes to doing justice to the importance of universities for science diplomacy in the face of limited resources and lacking organizational procedures (Anonymized Interview).

German–Chinese University Cooperation in the Ruhr Area and the Frankfurt Rhine-Main Region

The HADCh project has focused on universities in two major metropolitan regions in Germany: the Ruhr area and the Frankfurt Rhine-Main region. Both regions are characterized by a high density and diversity of universities and research institutions with a wide range of forms of international university cooperation with China. Cooperation and agreements can be found at different levels. The degree of formalization, intensity and duration of higher education cooperation between German and Chinese actors varies. Often it is committed individuals such as university presidents and individual academics who drive forward German–Chinese higher education cooperation. In this project, only those agreements that are clearly linked to an organizational unit of the higher education institution and are set down in writing have been taken into account. Visiting professorships, research stays or fellowships, guest lectures and joint publications were not included (see Table 2).

Furthermore, these regions represent different characteristics within Germany: the Ruhr area with its industrial transformation into a knowledge and research region and the Frankfurt Rhine-Main region as an important financial and educational center. Both regions are home to BMBF-funded projects for the regional networking

of China expertise as well as BMBF-funded projects for the promotion of independent expertise on China (BMBF 2020; 2021). The analysis of the case regions thus provided an opportunity to complement developments at the macro level with an illustrative examination of actors, capacities, processes and cooperation patterns at the organizational and individual levels.

Table 2: Agreements at Different Levels

Level	Form of the agreement and content of the exchange
University	University partnership, agreements or memoranda of understanding on cooperation in exchange, teaching and research, membership of university consortia
Faculty	Agreements or memoranda of understanding on cooperation in exchange, teaching and research
Chair/section/institute	Agreements or memoranda of understanding on cooperation in teaching and research
Individual researcher	Visiting professorships, research stays or fellowships, guest lectures, co-publications

Source: Authors' Illustration

Case Region 1: Ruhr Area

In the Ruhr area, universities have developed strong networks and partnerships with Chinese counterparts based on their long experience in international cooperation (see Table 3). Prior to the COVID-19 pandemic, cooperation between German universities in the Ruhr area and their Chinese university partners enabled several hundred people to visit each other's countries each year to deepen their knowledge and understanding of the host country and its society. Researchers and administrators alike emphasized that exchanges between the two sides have reached such a scale that it is almost impossible to keep track of the full range of participants. In addition to official programs supported by research collaborations or scholarships, there are many forms of individual mobility that are difficult or impossible for universities to monitor. In the words of one respondent, "anything that has to do with money can be found," but in the words of another respondent, many activities resemble a "private pleasure" to which university administrations have little or no access (Anonymized Interviews).

According to the experts interviewed, cooperation with China has contributed to the internationalization of universities. However, China is only one important—but by no means the most important—partner for the participating universities. In the light of the COVID-19 pandemic and changing political conditions, many interviewees pointed out that countries and regions other than East Asia and/or within East Asia, such as Japan, South Korea or Taiwan, had become more important. For example, one interviewee said he had noticed a shift away from the PRC towards Taiwan. Collaboration with Taiwan is easier because there are fewer uncertainties and fewer internal university regulations to consider. In addition, Taiwanese universities are very advanced in many fields of research. The prospects for increased collaboration with the PRC after the end of the COVID-19 pandemic and the associated travel restrictions were assessed as skeptical to negative (Anonymized Interviews).

Table 3: Cooperation between Universities in the Ruhr Area and China

Name of the university	Number of collaborations		Consortia
	HADCh	HRK	
Ruhr University Bochum	24	9	CDHK
University of Duisburg-Essen	15	15	
International School of Management	10	5	
TU Dortmund University	9	3	
Fachhochschule Dortmund - University of Applied Sciences and Arts	7	6	
FOM University of Applied Sciences for Economics and Management	7	4	
Folkwang University of the Arts	3	2	

Ruhr West University of Applied Sciences	3	3	
Georg Agricola University of Applied Sciences	2	2	
Westphalian University of Applied Sciences	2	1	CDHAW
Bochum University of Applied Sciences	1	1	CDHAW

Source: Authors' Illustration

The role of universities as bridge builders, promoting not only academic exchange but also cultural dialogue and mutual understanding between Germany and China, deserves special mention. In personal discussions with university administrators and scholars, however, it became clear that there is only a low level of identification with the term science diplomacy and that the universities in the Ruhr area are generally rather passive, reserved or even absent in the public debate on the organization of exchanges with China. Only a few experts with many years of experience in university cooperation with China on the basis of official agreements see a clear role here that goes beyond the individual level of researchers. In the past, China knowledge or competence and cooperation with China at German higher education institutions tended to be personal, uncoordinated and non-institutionalized (Stepan et al. 2018). They were also characterized by strong, long-standing personal contacts with Chinese individuals, some of whom had or still have very successful careers in the Chinese national science and innovation system and in state-owned enterprises (Anonymized Interviews). Overall, there is a strong fragmentation of university cooperation with China and China expertise in the Ruhr area, characterized by decentralized federal structures and individual experiences of cooperation.

No evidence of financial dependence on cooperation with China could be found. China's contribution to raising third-party funding and as a source of financing for research projects and positions was assessed as low to non-existent. Rather, positive effects on the demand for study places were mentioned, which, however, do not have direct positive financial effects as in the Anglo-Saxon system (Anonymized Interviews).

For most of the university administrators interviewed in the Ruhr area, China is part of a broader debate about how to deal with illiberal states. In this context, there are awareness-raising efforts, references to the due diligence of science and research, and an assessment of risk management in exchanges with China. Concrete organizational implementation seems to be more crisis-driven and less institutionalized. Only one university administration had set up an explicit China group at the time of data collection, but its further activities remained open after an

acute crisis situation had been overcome. Many university leadership units stated that they had no overview of activities with China (or other international partners), and within faculties there was often little exchange of information or internal coordination. In the interviews conducted, researchers in STEM disciplines in particular indicated that they would like to avoid political issues as far as possible and only discuss “factual issues” related to research with Chinese partners. This suggests that the political implications of exchanges and joint research projects are largely ignored, although German researchers are aware of the political dependencies and instructions that Chinese scientists are subject to in the Chinese science and innovation system (Anonymized Interviews).

Some university administrators and researchers feel overwhelmed by the situation. They stated that there is “simply too much information” to get a comprehensive picture. The majority of interviewees expressed a wish for greater coordination and concentration of resources within Germany and the EU in the context of cooperation with China (Anonymized Interviews). At the same time, a “saturation” of offers and discussions on the subject is perceived. There is therefore a need for a more structured and coordinated China competence in Germany with visible points of contact for all stakeholders, including those who do not belong to the “usual suspects” who make use of such offers. In the meantime, there are China competence centers dedicated to strengthening China competence in Germany, such as the BMBF-funded measure Regio China. Nevertheless, there is a feeling that much has been missed in recent years (Anonymized Interviews).

For our interviewees, exchange with colleagues outside the university who work in the same field (research) or in the same function (administration) is more relevant than exchange within university management or the faculty. However, measures to improve the level of information and internal coordination are being pursued by almost all universities in the Ruhr area, albeit with varying degrees of intensity and depth (Anonymized Interviews).

Case Region 2: Frankfurt Rhine-Main

The interviews and data collection in the Frankfurt Rhine-Main region, an important and highly interlinked financial and educational center spanning the three federal states of Hesse, Rhineland-Palatinate and Bavaria (see Table 4), largely confirm the findings of the interviews in the Ruhr area. The interviews with university researchers and administrators at various levels underlined individuality and personal commitment as the driving forces behind cooperation with Chinese partners. In most cases, the central and sometimes pivotal role traditionally played by professors in the German university system determines the intensity and scope of cooperation with China (Anonymized Interviews).

It is only in the context of the emerging security policy debate on cooperation with China that university administrators are assuming a more active role, in most cases in the sense of limiting cooperation. Risk assessment and management are becoming

increasingly important parts of university procedures in the region. However, very few universities have a sophisticated system for recording, monitoring and controlling cooperation partnerships with Chinese actors. Again, many measures seem to depend on the situation and the priorities of the university administration (Anonymized Interviews).

Table 4: Cooperation between Universities in the Frankfurt Rhine-Main Region and China

Name of the university	Number of collaborations	Consortia
Johannes Gutenberg University Mainz	15	
Goethe University Frankfurt	12	
Technical University of Darmstadt	10	CDHK
Frankfurt School of Finance and Management	8	
Darmstadt University of Applied Sciences	5	
Justus Liebig University Giessen	5	
Frankfurt University of Applied Sciences	4	
RheinMain University of Applied Sciences	3	CDHW
Fulda University of Applied Sciences	2	
Aschaffenburg University of Applied Sciences	1	CDHW
Bingen Technical University of Applied Sciences	1	CDHK, CDHW
Fresenius University of Applied Sciences	1	

Source: Authors' Illustration

The central importance of personal contacts, which could only be partially maintained during the COVID-19 pandemic, was often pointed out. The changed political conditions in China were also seen as a challenge for future cooperation. As in the Ruhr area, a very positive picture of the development of the quality of

scientific research in China in recent years prevailed among the interviewees (Anonymized Interviews).

However, generalizations about “the Chinese,” “Chinese culture” and “the way science is organized in China” were quite common (Anonymized Interviews). Experienced researchers often tended to romanticize their own networks and overestimate their own skills in dealing with external and internal advice and training services. Not in all cases does a deeply rooted culturalist perspective on Chinese colleagues and their research ethics seem to have led to a critical reflection on one’s own competences and ways of working in the face of rapid technological, political and social change in China and on China as an important actor in global science (Anonymized Interviews).

Risk awareness and the protection of one’s own research results are central aspects of cooperation with Chinese partners in order to avoid an unwanted transfer of knowledge and technology to China. Nevertheless, there are still researchers who, despite a “queasy feeling,” do not use a separate laptop in China or do accept USB sticks as gifts because they believe that “everything important” is “stored” in their minds (Anonymized Interview). This attitude suggests a sense of superiority on the part of these individuals, who are convinced that only they are capable of accurately interpreting and understanding their research findings.

As one administrator explained: “Some professors have been doing this for years and they think they know better and the International Office has no idea. But the International Office has an interest in preventing harm” (Anonymized Interview). Overall, however, these are the exceptions. The safe handling of data and raising awareness of how to deal with politically sensitive issues was an important issue for most interviewees.

In particular, respondents from universities of applied sciences in Germany were more sensitive when Chinese delegations visited and individual Chinese students and researchers involved in military research applied for positions. In this context, it was mentioned that access to security-related research projects and information was not granted (Anonymized Interviews). Regarding the application of a Chinese PhD student, it was noted that he had applied for a PhD position in mathematics despite having “no experience in mathematics.” His thesis was on attack drones. The university reported this to the Federal Office for the Protection of the Constitution. The applicant then applied to five other universities in Germany and failed the screening process. He was denied a visa (Anonymized Interview).

It is striking, however, that many of the researchers interviewed often see the concrete consequences as a challenge for others: “The others have problems, I do not.” Clear rules to protect Chinese colleagues, staff and students tended to play a subordinate role in the perceptions of the interviewees. Negative incidents were perceived as a series of “individual cases”—and often externalized as a challenge (Anonymized Interviews).

Here too, as in the Ruhr area, university representatives reported being overburdened, with “extremely little time and a lot of information to process” in order to “deal with the issue in a decisive manner” (Anonymized Interview). One university has therefore decided to conclude a service contract with an external provider “who takes care of the risk analysis, the preliminary examination and the visa problem” (Anonymized Interview). However, most universities do not have the financial resources to purchase external advice and services.

In addition, interviewees consistently reflected changing demand for exchanges with China, in particular reduced student demand for China-related programs and content, and pointed to growing interest in cooperation with other East Asian countries such as South Korea and Japan, as well as neighboring EU countries (Anonymized Interviews).

Key Findings of the Case Studies

The case studies of the Ruhr area and the Frankfurt Rhine-Main region provided important insights into the many facets and the potential of German–Chinese university cooperation. Overall, and especially among the group of professors, there is little awareness of being part of science diplomacy through the often individual activities of cooperation with China. The university administration is perceived as an obstructive actor that at best supports these activities and provides legal backing, but at worst makes cooperation more difficult or, according to one explicit accusation, monopolizes it. Given the politicization and, to some extent, securitization of German–Chinese scientific relations in recent years, there is a degree of skepticism among both researchers and administrators as to how the generally recognized need for further cooperation with China in the field of science can and should be put into practice. The dimension of science engaging in diplomacy itself is supported by very few respondents (Science in Diplomacy), while the dimensions of science as a (potential) bridge to diplomacy (Science for Diplomacy) and that diplomatic relations affect their opportunities for cooperation (Diplomacy for Science) are both strongly supported.

However, interviews in both regions reinforced doubts about the quality of universities as actors (actorness). Coordination within universities, between researchers and administrators, but also within faculties and among colleagues, was in almost all cases not yet fully developed and institutionalized. Discussion forums and committees were generally little used, especially by researchers who had been working in and with China for some time.

In addition, the steering capacity of university administrators is very limited where there are no funds flowing through university accounts and no formal cooperation agreements in place. This situation was identified as a challenge by a number of interviewees, as it makes it difficult to systematically record a university’s China-related activities. The extent to which such non-formalized cooperation between university professors and other researchers is covered by the freedom of research

and teaching seems questionable. Some state university laws, such as that of North Rhine-Westphalia, contain a paragraph explicitly stating that freedom of research and teaching “does not exempt from loyalty to the constitution” (NRW 2025: § 4). In North Rhine-Westphalia, the state government can “prohibit or impose conditions on university cooperation [between German universities located in North Rhine-Westphalia and Chinese partners] if the cooperation between the educational institution and the cooperating university represents a danger to public safety or order, in particular if it conflicts with the foreign interests of the state” (NRW 2025: § 75).

Nevertheless, the institutional context of universities seems to create a field in which many individual behaviors are difficult to register and rule violations difficult to punish. As one university administrator explained: “We in the administration cannot prohibit university cooperation with China or other countries, even if we wanted to, we can only raise awareness. Freedom of research is upheld by the university’s legal department. External control laws would have to be demonstrably and specifically violated in order to be able to intervene, which is not usually the case. The ethics of the individual scientist is the bottom line” (Anonymized Interview). Exchanges and collaborations between German researchers and Chinese industrial companies seem to encounter similar difficulties and are rarely recorded systematically (Anonymized Interviews).

Despite doubts about the consistent actor quality of German universities, the results underline their role as composite actors actively participating in international dialogue and as key actors in shaping bilateral science, education and research relations between Germany and China. The case studies illustrate the importance of careful planning and implementation of higher education cooperation with China. They also illustrate the need to establish clear frameworks, criteria and guidelines that take into account the interests of both sides and ensure meaningful and mutually beneficial cooperation.

It is noticeable that, compared to other European Union member states such as the Netherlands, there is hardly any interdisciplinary exchange or even joint research cooperation with or about China in the case regions between the STEM disciplines and social and humanities research on China in Germany. This may be due to the fact that there are certain reservations between these groups of researchers within Germany, as one interviewee expressed, for example, that “natural scientists are certainly a bit naïve when it comes to dealing with China” and that they have “sometimes stumbled into cooperation with China” (Anonymized Interview). On the other hand, many researchers in the natural sciences are aware that their colleagues in the social sciences and humanities tend to deal with political issues related to China, which could jeopardize their own cooperation. Others complained that China scholars in Germany are often “more historically and culturally oriented” and rarely deal with the economy and politics of modern or global China (Anonymized Interviews).

Challenges and Opportunities at Different Levels in Germany

The Federal and State Politics Levels

University cooperation between Germany and China opens up many opportunities that go far beyond traditional academic exchange. It provides a platform for dialogue and targeted knowledge transfer in times of global challenges such as climate change, sustainable development and public health. The opportunities offered by German–Chinese university cooperation therefore lie above all in the possibility of contributing to the global common good through education and research. Through joint research projects and initiatives, German and Chinese scientists can develop innovative solutions that have a positive impact on societies worldwide. Moreover, the mobility of students and researchers between the two countries strengthens intercultural competence and prepares the next generation for a highly networked and globalized workplace, despite growing (geo)political frictions in recent years.

According to the analysis of the interviews and documents, the greatest risks at the national level include a growing black-and-white approach to relations with China and the resulting polarization, as well as a growing demand for easy solutions, such as the termination of all cooperation, as in the case of Russia. “For many who have no relationship with China, cooperation is too risky. I cannot deal with these fears alone,” said one interviewee (Anonymized Interview). At the other extreme, freedom of research and science is used to justify any university cooperation with China until a crisis situation arises (Anonymized Interviews).

The generally welcomed increased consideration of security policy aspects in national politics threatens to make it increasingly difficult to take a differentiated view of university cooperation with China in Germany. As one interviewee explained, it is difficult to “draw clear ‘red lines’ because there are usually ‘grey zones.’ It is important to be aware of these ‘grey zones’” (Anonymized Interview). Although there are some very different perceptions at the university level, there are no clear red lines in dealing with China at the political and legal levels. However, some researchers indicated that they would personally define red lines for themselves, for example “if China supports the Russian side [in the Russian war of aggression against Ukraine],” even when, as in this case, such red lines are not clear (Anonymized Interview).

In addition, some university administrators criticized the lack of legal certainty provided by the legislature and advocated “a decision from Berlin or Brussels” to set the framework for cooperation with China (Anonymized Interview). This is compounded by the traditional difficulties of coordinating central policies and services in Germany’s federal system, where responsibility for higher education is devolved to the Länder, severely limiting the scope for national solutions.

The University Level

Chinese universities have been and will continue to be important partners for German universities in research and teaching. The rapid development of Chinese science and research will make cooperation even more attractive. Without direct access to research in mainland China, many disciplines will miss out on cutting-edge international research. Despite very restrictive policies in the PRC, there is still great interest in access to international research and international academic education (Anonymized Interviews).

However, many universities face significant capacity problems in implementing existing collaborations and establishing new ones. Legal and political issues are complex, require intensive preparation and follow-up, and usually require external involvement. The merging of military and civilian research in China is hardly reflected in the processes and, above all, in the communications of German universities. There is a considerable risk that, contrary to the statements of many interviewees, a retreat into “unproblematic research” with China will become increasingly difficult, if not impossible (Anonymized Interviews).

Many German universities lack documentation on cooperation with China (Anonymized Interviews). This information gap should be closed by university management and administration in order to gain a better overview within the university and to be able to make well-founded higher education policy decisions. Greater internal transparency and information exchange between German university administrations and researchers on cooperation with China is therefore desirable, especially to protect security-related research.

However, a “completely transparent” university should not be created in order to preserve the integrity of science (Anonymized Interviews). Certain data, for example those provided voluntarily or obtained through due diligence, could lead some university administrators to limit cooperation with China as much as possible in order to avoid risks. Not every risk should be used as an opportunity to restrict cooperation between German and Chinese higher education institutions.

Not all universities are willing or able to invest in new skills and know-how. One of the greatest risks at university level therefore seems to be capacity overload in dealing with China, which is also not a priority challenge for many university rectors. This increases the risk of viewing China as a “difficult country” and of putting new initiatives under a general reservation (Anonymized Interviews).

The Researcher Level

For researchers, cooperation with China continues to provide access to world-leading science in some fields, to a large number of often highly motivated students, and to a high-performance science, technology and innovation system. The Chinese party-state continues to invest heavily in the expansion and internationalization of its research. In particular, the easing of visa regulations for foreigners in China,

including researchers, is currently creating opportunities to strengthen cooperation between Germany and China (CVASC 2024).

In addition to the well-known risks of data security and intellectual property protection, many interviewees perceive increased internal or external pressure to justify engagement in and with China (Anonymized Interviews). Many are also aware of the relatively high costs of carrying out projects with Chinese partners, which threaten to exceed the capacities of individual researchers (Anonymized Interviews). The increased personal risks for Chinese colleagues in China and abroad as a result of the deteriorating political environment is also cited by some as a negative factor against further engagement with China (Anonymized Interviews). However, personal risks still play a minor role.

Conclusion

German universities continue to play a key role in shaping academic cooperation with China. They have to navigate an increasingly complex (geo)political and regulatory environment. Over the past decades, German–Chinese collaboration has contributed significantly to scientific progress, student mobility and institutional partnerships. However, the deteriorating political climate, concerns about academic freedom, intellectual property protection and the securitization of research cooperation are forcing universities to reassess and refine their strategies for engagement with China.

A key finding of this study is that a one-size-fits-all approach to university engagement with China is neither feasible nor desirable. Instead, universities, policymakers and researchers need to develop differentiated strategies that balance the opportunities and risks of these partnerships. Establishing clear institutional policies and guidelines, implementing due diligence measures and strengthening internal risk assessment mechanisms are essential steps in ensuring responsible engagement. At the same time, increased transparency within universities about their international collaborations—without creating an overly restrictive environment—is necessary to facilitate informed decision-making at all levels.

This study underlines the importance of science diplomacy as a tool for promoting dialogue and maintaining academic exchange. German universities should not see themselves as passive actors, but as strategic participants in international academic relations. To this end, strengthening the China competence of university staff, improving inter-institutional coordination and sharing best practices across academic and administrative levels can help higher education institutions to manage their cooperation with China more effectively. Initiatives such as interdisciplinary research partnerships, enhanced coordination at the European level and structured academic dialogue with Chinese counterparts can provide avenues for ongoing engagement.

While the challenges associated with German–Chinese academic cooperation have intensified, this study emphasizes that disengagement is not a viable solution. Scientific cooperation remains essential to address global challenges such as climate change, public health crises and technological innovation. However, partnerships must be carefully structured to ensure academic integrity and security. Universities should proactively define red lines regarding research areas with potential dual-use concerns, while ensuring that Chinese students and researchers in Germany are supported in an academic environment that upholds ethical and professional standards.

At the policy level, greater coordination between German and European actors is needed to provide a clearer framework for higher education cooperation with China. This includes developing common standards for risk assessment, ensuring compliance with international academic standards, and promoting exchange programs that are consistent with democratic values and scientific openness. Supporting initiatives that enhance knowledge sharing and policy advice between universities and policymakers will be crucial in navigating the evolving (geo)political context.

Finally, German universities need to move towards a more structured, transparent and strategically informed approach to engagement with China. The findings of this report suggest that, despite growing political and ethical challenges, well-managed academic engagement can continue to serve as a bridge between Germany and China. With the right institutional settings, risk mitigation strategies and coordinated policies, universities can maintain their roles as key actors in international science diplomacy while adapting to changing global conditions.

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