Embassy
of the Federal Republic of Germany
Washington

Key Note by German Ambassador Andreas Michaelis
FUTURE FORUM: Science Diplomacy in an Era of Technological Disruption
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Good Afternoon,

VP DAAD Dr. Muriel Helbig

Bloomberg Distinguished Professor, 2003 Nobel Laureate in Chemistry, Johns Hopkins Science Diplomacy Hub Co-Director Dr. Peter Agre

Director of Technology Partnerships, US Department of State, Dr. Eugene Bae

Director DAAD North America; Director German Center for Research and Innovation DWIH New York, Christian Strowa

Members of the Scientific Community,

Esteemed Guests,

Friends and Colleagues,

Ladies and Gentlemen,

Allow me to start with a personal remark because I really have to say I love this concept of science diplomacy. I would even love another concept even more which is scientific diplomacy. After more than 35 years in this job, I have to admit very often we were not particularly scientific and not particularly evidence based in the approaches. However, with regard to the objects we were dealing with very often, we were indeed looking at science. I had the privilege of negotiating the Iran Nuclear Agreement over a period of many years and that was an occasion where suddenly the question of enrichment our aspect of centrifuge technologies became important in a diplomatic context. So for me up to the point of today I must say I had a fairly restricted concept of science diplomacy which really involved very specific objects diplomacy would be dealing with. But, I think we have to say as the world navigates an increasingly complex and interconnected global landscape, science diplomacy has emerged as a vital tool for fostering collaboration, managing competition, and addressing the challenges posed by technological innovation.

In times of growing political polarization, when dialogue often seems strained, we must recognize the unparalleled potential of science diplomacy to act as a bridge between nations.

Transatlantic partnership in science holds immense importance for Germany and the United States because we are looking at a sector of true win/win in this important relationship. It is our wish to identify and develop as many win/win sectors as possible to future proof our relationship in an increasingly competitive international environment. If you ask the question: Why does Germany

matter for the US; I can give you many answers. The answer we look at in more detail today is: Because of science Germany matters!

In an era marked by global crises and geopolitical tensions, the need for greater transatlantic collaboration has never been more pressing.

Our partnership, deeply rooted in a shared history, must evolve to meet the rapid changes facing our societies. The demographic shift is leading to far more diverse and varied societies in both our countries. And that is a good thing. The transatlantic glue is not made of heritage but of a convergence of values and interests.

Over the years, transatlantic cooperation has developed a truly global focus. It goes far beyond a specific Atlantic geography. Take, for instance, the rise of the Indo-Pacific region as the geopolitical and economic center of gravity in the 21st century, take global climate change, and look at the emergence of new technologies – all these issues transcend national and regional boundaries.

Research and education know no borders. Research and education thrive on collaboration and diversity of thought. Our universities and research institutions must serve as beacons of cooperation, academic freedom, democracy, and pluralism—values that form the bedrock of our societies.

Science enables us to address the common challenges of our time—be it climate change, public health, or technological transformation. Today, more than ever, we must look to science and education as forces that unite us, rather than divide us.

Ladies and Gentlemen,

What is our understanding of science diplomacy?

Our definition of science diplomacy encompasses three aspects: Connect – Inform – Enable

1) Connect:

Joint study and research bring people and societies from different cultures closer together. It also fosters mutual understanding. Cultural differences become less important as joint work is based on international scientific standards. Trainees and researchers from Germany and around the world become “ambassadors” of their home countries through cooperation in international projects that are based on mutual trust. In this way they promote tolerance and openness.

The German Government therefore supports international education and science collaborations in many countries, thus making a significant contribution to civil society exchange.

2) Inform:

We are facing diverse and multiple challenges of a global, regional, and local nature. This was particularly apparent during the COVID-19 pandemic that politicians are dependent on reliable data and research results in order to make informed policy decisions. Research is therefore an important foundation for policy that is based on knowledge: It provides information on causes and effects. It can also identify concrete needs and options for political action. Many challenges can only be solved through international cooperation. This is why we cooperate with our partners around the world in

the global knowledge society and in doing so open up international perspectives for Germany. The German Government funds innovative research projects with international teams and supports the training of researchers and skilled workers around the world in order to drive the development and implementation of innovations. Education and research and development thus provide an important contribution for creating more prosperity in society.

3) Enable:

Science transcends borders. As part of its science diplomacy activities, the German Government supports the establishment of international research infrastructure, promotes the mobility of trainees, students and researchers, and provides funding and support towards future skills and technologies.

The freedom of science is firmly established in Article 5 (3) of the German constitution. However, in most of the world's countries, freedom of science and research is not a fundamental right, and in many countries abuses and restrictions by government and business are commonplace.

Germany and the United States have been working together successfully in science and technology for many years. The German-American bilateral agreement on science and technology was concluded 14 years ago. Since 2010, we have strengthened ties between our countries and consistently broadened the scope of scientific cooperation.

We are working together in various fields like climate and energy research, ocean and arctic research, trust in science, and research security and integrity.

Our cooperation also focuses on critical technologies. These are:

- Artificial Intelligence,
- Quantum Information Science,
- Advanced Manufacturing, and
- Fusion.

Science diplomacy requires dialogue. The Embassy brings together German, U.S., and international stakeholders in science diplomacy. We also recognize the need to highlight the role of underrepresented groups in this area. Uneven representation limits diversity of perspectives, ideas, and innovation when looking for solutions to complex global challenges. That is why we have partnered with the Italian and French embassies in setting up an exciting initiative: the Women in Science Diplomacy Association, or WiSDA for short. It is a pioneering initiative dedicated to promoting diversity and gender equality within the field of science diplomacy. Based in Washington, DC, WiSDA is globally focused on promoting the representation of women at this crucial intersection of science and international relations.

However, it is important to acknowledge that science diplomacy is not without its complexities. On the one hand, it is a field characterized by partnership, collaboration, and shared goals. On the other hand, it is imbued with a sense of competition. This competition is not a drawback—it is, in fact, a feature. It drives innovation, accelerates discovery, and pushes us to define our national and

international interests with greater clarity. For long-term partnerships to thrive, it is essential to articulate these interests openly and transparently. Only by doing so can we navigate the delicate balance between cooperation and competition in a way that benefits all parties involved.

One area where this balance is becoming increasingly important is research security. As nations strive to maintain an open scientific environment that encourages the free exchange of ideas, we are also faced with the need to safeguard sensitive research in the interest of national security on both sides of the Atlantic. The challenge is to strike the right balance—where scientific openness does not compromise security, and where security measures do not stifle innovation. This issue is becoming more pronounced as scientific advancements in areas such as artificial intelligence, quantum computing, and biotechnology take center stage.

These are not only engines of economic growth and societal transformation, but also key arenas where national interests and global cooperation intersect.

As we are moving towards an election in this country and we are getting ready to working with a new US administration, we would very much like to focus on all aspects of economic security and science, because these issues have becoming up in our work recently evermore intensely and we have settled roundtables discussing various technologies and the implied risk. Our approach to it, the German approach to it, is that we would like to arrive at a plain and level plain field that is broadly also governed by relevant frameworks. What will be very difficult for us, we are presuming aspects of economic security that impact on the freedom of science in a way that we only apply our relevant national context or our national policies and interests. So that will certainly be an area where from the first day of the next US administration Germany will be very interested together with its European partners to sit and see how we are moving in a different way. My distinction here is clearly that we have to move away from ad-hoc interventions that are sometimes just imbalanced. We have to find a way of more rules-driven, of a regulated way how we are addressing these issues.

With the ever-accelerating pace of technological innovation, science diplomacy must also evolve. It is no longer enough to simply foster positive scientific exchange; we must also help shape the direction of technological change itself.

Diplomats, scientists, and policymakers must work hand in hand to ensure that the technologies of tomorrow serve the common good, promote sustainable development, and adhere to international standards that reflect our shared values.

As we face new technological disruptions, from AI to renewable energy to advanced medical treatments, it is essential that Germany and the United States continue to lead by example—setting the norms and fostering innovation.

Of course, technological disruption brings with it both challenges and opportunities. It forces us to rethink old paradigms, adapt to new realities, and anticipate the consequences of breakthroughs that, at times, may outpace our ability to fully understand them.

This is why the relationship between diplomats and scientists is so crucial. We must embrace these disruptions with a sense of purpose and responsibility, working together to harness their potential while mitigating their risks.

Germany remains deeply committed to advancing these goals in partnership with the United States. The work of the German Center for Research and Innovation in New York (DWIH NY), supported by the German Federal Foreign Office, is a key player of this commitment. Through its efforts, we are strengthening our ties with U.S. institutions, fostering collaboration in key scientific fields, and creating platforms for dialogue between scientists, innovators, and policymakers.

The DWIH NY stands as a symbol of Germany's dedication to deepening its scientific and educational exchanges with the United States, with a particular focus on emerging technologies that will shape the future of both our nations.

Ladies and Gentlemen,

With this Future Forum today and as we look ahead, it is clear that science diplomacy will continue to play an essential role in shaping the future of transatlantic relations.

In an era of technological disruption, our ability to navigate the intersection of science, diplomacy, and innovation will define the progress we make toward a more prosperous, secure, and sustainable world.

I am confident that, together, Germany and the United States will continue to lead the way—harnessing the power of science not only to overcome the challenges we face but also to seize the opportunities that lie ahead.

This morning a shipment of works of art arrived at my residence. It actually took a year and three months until it finally arrived. It had to be packed and wrapped in a very special way. When we started to unwrap it, I suddenly held a bronze bust of Alexander von Humboldt in my hands. That was part of my office in Berlin. And had now after a separation arrived in the US before, comes in timely given that today I will have the pleasure to speak to you. It was Alexander von Humboldt who in so many ways enshrined the values that are important in science diplomacy. The most important and I want to conclude with this are certainly

Research does not work in isolation.

Research works through cooperation.

And, very important for Humboldt, research works through people.

Thank you very much!