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WORKSHOP REPORT

SCIENCE AND TECH DIPLOMACY: CHALLENGES AND OPPORTUNITIES OF EMERGING TECHNOLOGIES IN FOREIGN RELATIONS





Imprint

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Introduction

Emerging technologies such as AI, quantum technology or gene editing pose challenges and opportunities to foreign policy and diplomacy. The development of such technologies has become a geopolitical factor and an area of competition and rivalry between countries. At the same time, emerging technologies also have the potential to make important contributions to solving global problems.

The workshop discussed the role of science and tech diplomacy in addressing both the opportunities and the challenges of emerging technologies and underscored the importance of engaging with the foreign policy and societal implications of emerging technologies proactively. It raised awareness of these technologies and their current and future impacts on international cooperation. It fostered much needed dialogue between the various communities involved in order to avoid working in silos. In interactive sessions experts discussed future developments – including policy challenges, societal impacts, and geopolitical implications – using foresight and anticipation methodologies.

The workshop brought subject experts in AI, quantum technology, and gene editing as well as anticipation and foresight experts together with diplomats, policy makers, and science diplomacy scholars. It was organized in a hybrid format, including 35 experts on-site and 40 experts online. Highly interactive and practical sessions, both on-site and online, discussed challenges and opportunities of emerging technologies and highlighted the potential of anticipation and foresight methodologies. The various stakeholders were able to formulate their needs, share their perspective, and align on next steps.



The discussion identified the following challenges:

- The terminological landscape is increasingly complex and actors need to clarify how they are using terms such as science diplomacy, digital diplomacy, and technology diplomacy. While some argue for a clear distinction between terms, others understand science and technology as part of the same continuum. The field of AI, but also other emerging technologies, show the interconnectedness between science and technology.
- Emerging technologies also highlight the tension between open collaboration and scientific freedom on the one hand and security interests and economic competition on the other.
- In fact, the field of science and tech diplomacy is faced with an increasing tension between cooperation and competition. Science and tech diplomacy therefore needs to balance be-tween serving national interests (such as competitiveness) and tackling global challenges such as managing public goods and global commons in a collaborative way.
- The benefits, costs, and risks of emerging technologies are highly unevenly distributed across various actors, which makes cooperation and coordination through science and tech diplomacy efforts crucial. This needs to happen along the technological lifecycle.
- Emerging technologies raise a number of ethical concerns, which necessitate further awareness raising, discussion, and alignment among relevant stakeholders.
- Geopolitical tensions are particularly visible in the field of emerging technologies. Even countries that share similar values might have diverging agendas and are competing with each other in certain technological areas.
- In the field of emerging technologies, EU member states sometimes have diverging policies, which creates challenges for formulating a common foreign policy.



The discussion also highlighted opportunities:

- The EU has a competitive advantage. The freedom of research in Europe, the availability of knowledge, and excellent networks and infrastructures make the EU an attractive partner for international collaboration.
- In the field of emerging technologies, the EU has the potential to offer both scientific solutions and governance solutions, thus making contributions to advancing the technologies but also guiding their applications and governance on the basis of shared values.
- Clearly articulated values, principles, and standards can increase the attractiveness of Europe for scientists and experts.
- Science and tech diplomacy can serve to raise ethical issues around emerging technologies and foster trust in these.



The following potential next steps and actions were discussed:

- A clear science diplomacy agenda at EU level will be crucial for member states and the EU to ensure economic growth and security and to harmonise various actions. A clear vision and a clear mission will also be integral for EU member states in developing their own science and tech diplomacy strategies and further strengthening their capacities.
- Efforts should be undertaken to reduce the time lag between breakthrough innovation and regulation.
- The challenges and opportunities raised by emerging technologies need to be addressed proactively. Anticipatory and foresight approaches are crucial in supporting possible actions in this field and should be integrated more firmly into science and technology diplomacy activities. Formalised units and structures dedicated to anticipation and foresight within ministries of foreign affairs and international organisations are useful in supporting these efforts.
- Different communities and stakeholders, including scientists, technologists, diplomats and policymakers as well as science diplomacy scholars, need to be brought together and the communication between them needs to be facilitated through various formats such as workshops and informal spaces for exchange.
- Knowledge exchange and training opportunities regarding emerging technologies need to be expanded. Beyond diplomats and policy makers, other relevant stakeholders such as technologists, science and technology diplomacy brokers, scholars, policymakers, industry, as well as the media and citizens should be proactively included.



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