German Center for Research and Innovation New Delhi - An Instrument of German Science Diplomacy in India

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This article provides an overview of the Indo-German Center for Research and Innovation (DWIH) New Delhi, an instrument outlined in Germany's 2020 Science Diplomacy Strategy. It delves into the institutional structure and activities of the DWIH, highlighting its unique position as a research-led branch of Germany's science diplomacy efforts. Additionally, it situates the DWIH within the broader context of Germany's science diplomacy and internationalisation policy frameworks, as well as in the German stakeholder network of Indo-German research and innovation cooperation.

Policy Framework

Although international research cooperation and mobility have been practised for decades, the concept of science diplomacy has gained significant attention over the past fifteen years, both on a theoretical and practitioner level and has become prominent in public policy.[1] Science diplomacy[2] posits that science can and should systematically contribute to diplomatic efforts and foreign policy. In 2020, Germany adopted its Science Diplomacy Strategy, based on the Research and Academic Relations Policy (Initiative Außenwissenschaftspolitik)[3], aiming to establish Germany as a world-leading hub for research and to develop international networks for academics and researchers since 2009. The science diplomacy policy has a broader scope, recognising the role of science in fostering international relations and addressing global challenges.[4] The strategy emphasises cooperation between foreign policy, science, citizen science, and science communication. Expanding and defending academic freedom, enhancing Germany's profile as a leading country for science and innovation globally, strengthening and expanding institutional networks as well as academic exchange, and contributing to meeting the SDGs are core principles of this strategy.

The Federal Foreign Office oversees the Science Diplomacy Strategy, while the Ministry of Education and Research (BMBF) leads the strategy for "Internationalisation of Education, Science and Research." The internationalisation strategy addresses the necessity for joint research and academic relations policy, location marketing and joint presence structures abroad, among other instruments.[5] Currently, the BMBF's science diplomacy efforts are centred on building trustful partnerships (Connect), providing evidence-based advice to policymakers (Inform), and creating conditions for independent science, research and teaching (Enable) through research cooperation and academic mobility.[6] Various German funding and research institutions have also embraced science diplomacy, reflecting on their roles in position papers.[7]

Indo-German Cooperation - German Stakeholder Network

Indo-German academic and research cooperation has a long history, predating the formal establishment of internationalisation and science diplomacy concepts. Milestones include supporting the establishment of the Indian Institute of Technology (IIT) Madras in 1959, opening the German Academic Exchange Service (DAAD) office in 1960, the Inter-Governmental Agreement on Cooperation in Scientific Research and Technological Development in 1974[8], establishing the Indo-German Center for Science and Technology in 2010 and opening the Max Weber Forum for South Asian Studies in 2021.

The activities of the German stakeholder network centre around individual mobility schemes through scholarships and fellowships, joint higher education, and research cooperation projects, along with establishing an institutional presence in India. Over the last 20 years, numerous German universities and research organisations have opened liaison offices in India, providing a solid foundation that supports the development, coordination, and execution of academic mobility and research initiatives. They also serve as advisories to the policymakers in their institutions. The German stakeholder network in India comprises multiple players on different levels.

- Government presence and initiatives: Besides science counsellors in the German embassy and consulates, the federal government supports the Indo-German Center for Science and Technology (IGSTC), a joint initiative focusing on facilitating Indo-German R&D networking through substantive interactions among government, academia, and industry. Multiple states maintain liaison offices with a broad scope and a strong focus on economic relations and occasionally university and research cooperation.
- Intermediary organisations/funding organisations**:** Currently, two intermediary institutions have offices in India. The German Research Foundation (DFG) promotes and funds cooperation research projects in fundamental research, whereas the focus of the German Academic Exchange Service (DAAD) is on academic mobility and cooperation between universities. Its portfolio includes scholarships for individual mobility, funding for higher education cooperation projects, supporting German studies and the alumni network. Furthermore, the DAAD is responsible for promoting Germany as a destination for study and research and provides expertise on academic cooperation. The Alexander von Humboldt Foundation offers individual mobility schemes for senior researchers but has no office in India.
- Non-university research institutions: The Fraunhofer Gesellschaft and the Max Planck Society have liaison offices in India to facilitate programmes for their institutional network in Germany. The recently established Max Weber Forum for South Asian Studies conducts research in humanities and social sciences in India. It promotes cooperation through publications and academic events.
- Universities: Seven universities, including the Technical University of Munich, the University of Heidelberg, the Technical University of Dresden, and the Freie Universität Berlin, have liaison offices in India to support exchange and cooperation programmes and oversee the promotion of their home institutions.
- Industrial research: Over the last decade, German companies like Siemens and BASF have founded R&D research units in India, conducting applied research in dedicated centres.

While the government and intermediary/funding organisations follow a broader, cross-institutional scope, research institutions (universities, non-university institutions, and industrial units) adopt a narrower approach, focusing on the aims of their respective institutions. Compared to the government's top-down approach, intermediary institutions like the DAAD and DFG are academic-led and operate more bottom-up, as they are independent organisations with German higher education institutions as their members.

The Indo-German Center for Science and Technology (IGSTC) and the Merian Center for Advanced Studies play special roles as joint initiatives of the Indian and German governments. The IGSTC is policy-driven, with a strong representation of policy stakeholders on its board, while the Merian Center follows a bottom-up approach, being led by a university consortium and hosted by an Indian institution.

Besides the institutions with an organisational presence, the cooperation network on the German side

is comprised of a more extensive set of institutions involved in cooperation projects and the exchange of scholars. The network of German institutions involved in Indo-German cooperation is vast and segregated, with different institutions having distinct roles and purposes.

DWIH New Delhi – Mission, Structure and Core Activities

The German Centre for Research and Innovation (Deutsche Wissenschafts- und Innovationshaus, DWIH) New Delhi plays a distinguished role within the German stakeholder network[10]. As a science and innovation centre, it represents a new policy instrument that Germany, along with other innovative countries like Switzerland, Denmark and the UK, has established over the last fifteen years.[10] The DWIH New Delhi, part of a network of six centres worldwide, is strategically located in hubs with high relevance for research and science cooperation. Founded between 2010 and 2023, the DWIHs serve as distinct instruments of the Research and Academic Relations Policy (2009) and the Science Diplomacy Strategy (2020). They are also mentioned in the Internationalisation Strategy of the German government. The DWIH network is funded by the Federal Foreign Office and managed by the DAAD.

The strategic framework of the DWIHs[11] is set by a board of trustees and a program committee in Germany, which includes representatives of three ministries, industry associations, intermediary organisations (DFG, DAAD, AvH), non-university research institutions, and the association of German universities (HRK). On the local level, an advisory board supports the DWIH in designing its activities. This local advisory board can join German research and innovation institutions, such as universities, research institutions, intermediary organisations or companies. These institutions must be present with an office (main supporters) or be highly interested in cooperation with the host country (associated supporters).

This participative structure on central level in Germany and on local levels is unique and enables continuous dialogue and exchange between science and policy. Given the high representation of research and academic institutions, DWIHs are research-led while systematically integrating the policy perspective. The core mission of the DWIH is to represent German science, research, and innovation across the board and promote cooperation with Germany at its respective locations.

The DWIH New Delhi, established in 2012, comprises a large part of the German stakeholder network in India. The DWIH New Delhi currently has 23 supporters[12], of which 17 have offices in India. Firstly, it enables continuous dialogue and knowledge exchange among different actors in the German stakeholder network. Secondly, it serves as a gateway to Germany and India, offering guidance and access to both countries' innovation and research landscapes. Thirdly, it provides a platform for dialogue and exchange on selected topics between multiple actors in India and Germany, moving beyond bilateral institutional approaches.

Key activities of the DWIH New Delhi are:

- **Knowledge and Advice**: The DWIH provides information and advice on the R&D systems of India and Germany through its website, social media, and events such as the biannual Indo-German Research Day. This event facilitates discussions on science policy and management and offers participants access to information on funding and institutional cooperation possibilities.
- **Dialogue:** The DWIH creates thematic dialogues between international stakeholders in research, politics, and industry. For example, the "Indo-German Forum: Sustainable Urban Mobility" 2023 brought together researchers, decision-makers, and professionals from both countries to present research projects and discuss solutions for sustainable urban mobility covering topics such as governance, integrated mobility and energy systems, but also technology diffusion and adaption.
- **Connect**: The DWIH strategically connects innovators, researchers, and science managers from Germany and India to enhance cooperation. For instance, over the last three years, the "Incubators Connect" project has been bringing together managers of incubation and innovation centres from both countries to discuss cooperation models and pilot new formats in international technology transfer.

- **Expertise:** Leveraging its activities and networks, the DWIH New Delhi provides expertise in international cooperation for science administrators and policymakers. In 2023, the DWIH director, Dr Katja Lasch, co-chaired the Alliances group in the G20-Startup Engagement group, contributing inputs for the group's communiqué.

The DWIH New Delhi's activities focus on topics such as science diplomacy and policy, climate change and sustainability, technology transfer, and science-based entrepreneurship. In a 360-degree approach, the DWIH builds Indo-German networks around these topics based on its supporter structure, always addressing German interests and integrating Indian perspectives. Its activities target scientists, researchers, science managers, and policymakers in Indo-German research cooperation.

Conclusion

The DWIH New Delhi is a vital instrument of science diplomacy, enabling and enhancing international cooperation in research and innovation. It is a research-led initiative by the German government that integrates science and policy perspectives through its unique participative structure. One strength of the DWIH New Delhi is its multilateral and network approach, moving beyond singular institutional interests in bilateral research cooperation. It brings together the German academic and research stakeholders in India under one organisational umbrella and facilitates continuous exchange amongst its supporting institutions. By establishing and enlarging networks, it promotes Germany as a leading country for science and innovation in India, continuously fostering dialogue, facilitating knowledge exchange, and contributing to the broader realm of German science diplomacy.

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