



POLICY BRIEF

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Swiss science diplomacy – strategies, instruments and implications for international cooperation

Main findings

Engagements in science diplomacy benefit Switzerland by

- Enhancing its international reputation in education, research and innovation (ERI)
- Strengthening its international cooperation
- Advancing sustainable development for the national and global benefit
- Strengthening Switzerland's contributions and position in multilateralism

To strengthen Swiss science diplomacy, its definition and the use of the terminology need to be aligned across the relevant Federal Council strategies and well-balanced in terms of both actors and domains. Moreover, the networking and exchange of Swiss science diplomacy actors needs to be improved and a Swissnex Africa strategy has to be developed.

Stakeholders contributed

Federal Department of Foreign Affairs (FDFA); State Secretariat for Education, Research and Innovation (SERI); Swiss Agency for Development and Cooperation (SDC); Geneva Science Diplomacy Anticipator (GESDA); Science in Diplomacy Lab (SiDLab); Spiez Laboratory; Swiss Academies of Arts and Sciences (a+)

Science diplomacy, as described by the UK Royal Society and the American Association for the Advancement of Science (AAAS) in 2010,¹ is a means to advance foreign policy objectives, the science itself and to solving global challenges. Three categories of science diplomacy can be distinguished: (i) **science in diplomacy** – informing foreign policy objectives with scientific expertise and evidence; (ii) **diplomacy for science** – facilitating international science cooperation through international relations; and (iii) **science for diplomacy** – using scientific cooperation to improve international relations between countries.

In Switzerland, science diplomacy was formally adopted across multiple strategies of the Federal Department of Foreign Affairs (FDFA) in 2019, and several science diplomacy instruments were created and supported since. Science diplomacy remains high on the Swiss as well as the European Union's agenda and is increasingly instrumentalized in low- and middle-income countries (LMICs).

Drawing from insights from the Federal Council and stakeholders operating at the intersection of international relations and science, the Brief outlines the key instruments of the Swiss science diplomacy ecosystem, identifying both gaps and opportunities. An additional deep-dive explores the contributions and potential areas for advancement of Swiss science diplomacy in bilateral relations with LMICs.² This policy brief and its recommendations are primarily addressed to the FDFA and the State Secretariat for Education, Research and Innovation (SERI).

Editorial

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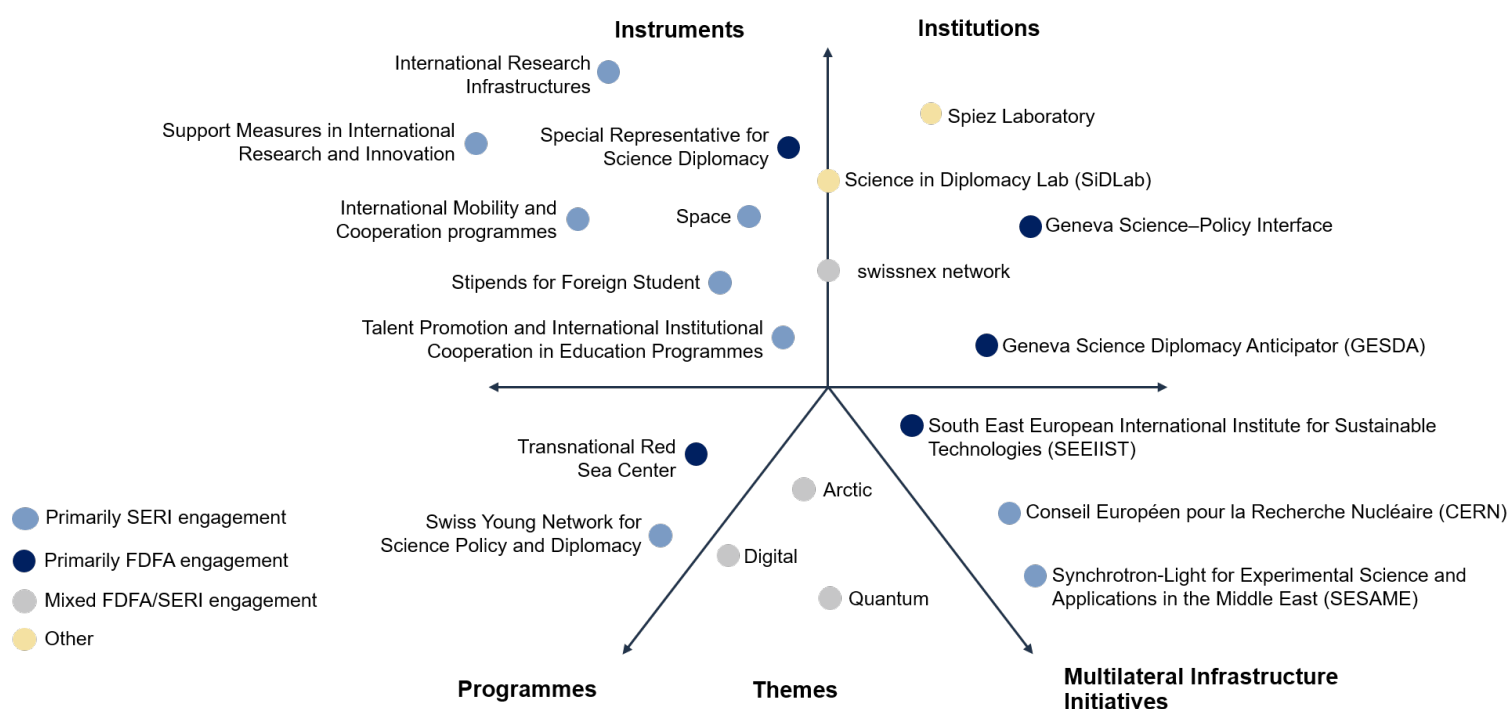
Commission for Research Partnerships with Developing Countries (KFPE) and Centre for Development and Environment (CDE), Switzerland.

Photos source

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SWISS SCIENCE DIPLOMACY ECOSYSTEM

The Swiss science diplomacy ecosystem is multifaceted and expansive in its **components**, **objectives** and **dimensions**. Systematically identified and comprehensively described within the framework of our Swiss science diplomacy study,² this policy brief reports on the main observations. We have identified 20 Swiss science diplomacy elements that can be grouped into **five components**: science diplomacy *Instruments*; *Institutions*; *Programmes*; *Themes*; and *Multilateral Infrastructure Initiatives*. The FDFA and SERI are the main administrators or supporters of those components.



Why does Switzerland participate in science diplomacy? **Objectives** related to cooperation, creating common interests and influence were of highest relevance to the the actors. They included (i) the development of international knowledge circulation; (ii) addressing global challenges and promote the common interests of humanity; and (iii) improving Switzerland’s participation in international decision-making. The swiss science diplomacy objectives thereby feed into the new *raison d’être* of science diplomacy – the solving of global challenges. In contrast, attraction and access related objectives were given lower priority. These would include, for instance, attracting foreign investment in R&D infrastructure, foreign scientific resources and talent and to stop/reverse the brain drain of scientists.

Swiss activity extends to **all dimensions** of science diplomacy outlined by the AAAS/Royal Society.¹ SERI, for instance pursues primarily ‘diplomacy for science’ leveraging diplomatic channels to create conditions conducive to collaborative scientific endeavours and innovation. The FDFA supported Transnational Red Sea Center and the multilateral infrastructure initiatives such as CERN or SESAME are often cited for their ‘science for diplomacy’ aspects, being regional science projects that help building diplomatic bridges. Switzerland’s internationally recognized engagement with the Biological and Chemical Weapons Conventions through its Federal Institute for Nuclear, Biological and Chemical Protection – the Spiez Laboratory – epitomizes the concept of ‘science in diplomacy’. In addition, Switzerland had a pioneering role in conceptualizing “anticipatory science diplomacy” – anticipating the opportunities and challenges of emerging issues and technological developments to harness them for a sustainable and universally inclusive future.

Science diplomacy component	Foreign Policy Strategy	Arms Control and Disarmament	Digital Foreign Policy Strategy	Communication Abroad	Americas Strategy	China Strategy	MENA Strategy	South East Asia Strategy	Sub-Saharan Africa Strategy	OSCE Action Plan
(SD as a strategy)	√	√	√	x	√	x	√	√	√	√
Spiez Laboratory	x	√	x	x	x	x	x	x	x	x
Swissnex network	√	x	√	√	√	√	√	x	x	x
Bilateral programmes	x	x	x	x	√	x	√	√	√	x
GESDA	√	√	√	x	√	x	x	√	x	√
SiDLab	x	x	√	x	x	x	x	x	x	x
SD Special Rep.	x	x	x	x	x	x	x	x	x	√

Science diplomacy is explicitly named in 10 current FDFA strategic documents, as part of the Federal Council strategy. Moreover, six institutions or instruments of the wider Swiss science diplomacy ecosystem are explicitly cited as part of or contributors to the strategy documents. Starting with the oldest, these are (i) the **Spiez Laboratory**; (ii) **Swissnex network**; (iii) **bilateral research programmes**; (iv) **GESDA**; (v) the Science in Diplomacy Lab (**SiDLab**); and (vi) the **Special Representative for Science Diplomacy** (position operational 2021–2023).

MENA, Middle East and North Africa; OSCE, Organization for Security and Co-operation in Europe

SWISS INTERNATIONAL DEVELOPMENT COOPERATION AND SCIENCE DIPLOMACY

Commonly part of the foreign offices, national development cooperation agencies have been rarely singled out in the discussions on science diplomacy, so far. This is despite their specific contributions towards addressing the contemporary global challenges and the increasing investment in evidence and research that many such agencies have made in the last decade. This brief therefore describes the contributions and main partners of the Swiss Agency for Development and Cooperation (SDC) in the science diplomacy context. SDC activities have relevance in all three dimensions of science diplomacy: science for diplomacy, science in diplomacy and diplomacy for science.

Examples of SDC science diplomacy activities

For the **Consultative Group on International Agricultural Research (CGIAR)** network, supported by SDC, two dimensions may apply. First, CGIAR is supported by a multinational mechanism enabling internationally aligned research activities with a global impact (diplomacy for science). Second, evidence generated by the solution-oriented CGIAR research shapes global policy & practice (science in diplomacy).

The **International Centre for Integrated Mountain Development (ICIMOD)**, supported by SDC, is a transboundary project that develops and shares research, innovation and information to solve critical mountain problems and improve livelihoods. The project enables cooperation between member countries with fragile bilateral relations including Afghanistan, China and India, and sets an example of strengthening intergovernmental relations with scientific cooperation (science for diplomacy).

Decades of Ivorian–Swiss diplomatic cooperation have shaped the profile of the **Centre Suisse de Recherches Scientifiques en Côte d'Ivoire (CSRS)**, supported initially by SDC (1980s) and later by SERI. It is now an international, autonomous trust with a strong national and regional standing and impact (diplomacy for science).³ Today, CSRS is a hub for international researchers working on, e.g., biodiversity, health and nutrition, and it hosts prestigious regional and pan-African research initiatives. The Ifakara Health Institute in Tanzania, CETRAD in Kenya and the Water & Land Resource Centre in Ethiopia followed a similar trajectory.

Main partners of SDC in the science diplomacy space



Synergies between SDC and the **SERI** science diplomacy instruments (Swissnex and bilateral research programmes) are created in overlapping geographical priority regions. As indicated for CSRS above, a successive funding strategy is employed, where SDC supports an initial capacity-building phase and SERI funds the research institutions at a more mature stage within its bilateral programmes portfolio.



The **Commission for Research Partnerships with Developing Countries (KFPE)** fosters fair, equitable and effective scientific cooperation between Swiss institutions and LMICs. Such research collaborations are the basis for science diplomacy activities, especially science in diplomacy and science for diplomacy. They provide scientific expertise and evidence and strong and trusted scientific networks that benefit international relations.



By building institutional research partnerships bottom-up, **research and academic institutions in Switzerland** can be instrumental to establishing and supporting diplomatic relationships. Some academic and research institutions have, e.g., offices and networks in countries where Switzerland has no official communication. SDC or Swiss embassies can utilize the scientific networks, partners and civil society to stay connected, also with relevant political actors and therefore maintain informal channels of communication.

VALUE OF SWISS SCIENCE DIPLOMACY & GAPS

Science diplomacy is prominently featured in the current and the 2024–2027 FDFA foreign policy strategy, where science diplomacy is seen central to ERI, security and multilateralism. In the contemporary geopolitical context, science diplomacy is not only an opportunity but an essential strategy for Switzerland. Engagements in science diplomacy benefit Switzerland in several ways, by:

- (1) Enhancing **international reputation** of being a global ERI power – excluded from Horizon Europe and competing with the Anglophone sphere, a strong international reputation is key to attracting and retaining talent and international engagements and for a resilient ERI system
- (2) Strengthening **international cooperation** – in the current politically fragile and economically protectionist context, leveraging scientific expertise and using the universal language of science may further strengthen Switzerland's broader regional and international cooperation and integration at the economic, political, security and societal levels
- (3) Promoting its research and diplomatic expertise within the international partnership to advance **sustainable development** and address the **global challenges** – greater influence and visibility may enable Switzerland to tackle complex global issues more effectively within the partnership, in the implementation, evidence-based policy making, knowledge exchange and capacity building
- (4) Fortifying its position as a **gateway to multilateralism** and driving force to the reforming and strengthening of the multilateral framework

While multifaceted and comprehensive, the Swiss science diplomacy ecosystem and its value could be further enhanced addressing the gaps identified in this brief. The recommendations outlined below, may be primarily addressed, facilitated and/or initiated by the main administrators of the science diplomacy instruments and strategies – the FDFA and SERI.



The Swiss science diplomacy ecosystem – gaps & recommendations

GAPS	RECOMMENDATIONS
Use of the science diplomacy terminology as a strategy and concept is inconsistent between the two main federal entities FDFA and SERI	To agree on a definition of science diplomacy and use the terminology systematically in both respective entities FDFA and SERI, to align internally and externally
The FDFA strategies do not adequately represent the Swiss science diplomacy ecosystem, overemphasising few actors	To seek for a more equal and coherent integration of the key science diplomacy actors & instruments and their respective contributions
Science diplomacy actors and activities are fragmented and are lacking channels for information exchange and networking	To create a shared platform and a forum for Swiss science diplomacy actors to strengthen collaboration and joint initiatives
There is little objective evidence of the value of the Swiss science diplomacy instruments and activities, especially for 'science for diplomacy'	To support and encourage instrument/activity-specific in-depth evaluations To continue a balanced and measured approach in the communication around 'science for diplomacy'
There is no Swissnex Africa office to complement and synergize the strong bilateral activities in ERI and development cooperation	To support a scoping study to i) develop a Swissnex Africa strategy and ii) identify the most suitable settings and/or activity network in Africa

Recent achievements of Swiss science diplomacy

⚡ The Spiez Laboratory's relevant activities are ever more pertinent in the current geopolitical and technological security context. International appreciation of the importance of its work, was expressed by the [2023 OPCW-The Hague Award](#) due to their contributions to advancing arms control and international security through science, research and analysis.

⚡ Swissnex continue to demonstrate the importance of local ERI outposts as feedback and networking mechanisms, in an era of lower-level air travel due to the COVID-19 pandemic and climate change. In 2023, Brazil hosted the largest official Swiss Scientific and Economic Delegation, coordinated by Swissnex and the Swiss Embassy, showcasing cleantech startups and facilitating partnerships. The visit included meetings with key Brazilian research organizations, such as the São Paulo Research Foundation and the Ministry of Science, Technology, and Innovation, leading to identified synergies and support for initiatives such as Amazônia+10.

⚡ GESDA launched an Open Quantum Institute in December 2023, to find solutions to accelerate the implementation of the 2030 Agenda for Sustainable Development. Moreover, GESDA and the SiDLab work towards the reform and strengthening of the multilateral system by the means of research and by enhancing the flow of scientific findings, recommendations and emerging trends and threats into the decision-making of multilateral bodies

References

¹New frontiers in science diplomacy. The Royal Society, American Association for the Advancement of Science; 2010.

²The research article "Swiss science diplomacy: exploring strategies, instruments, current priorities and the role of international development cooperation" is pending publication and available upon request

³Saric et al. Globalization and Health (2018) 14:88 <https://doi.org/10.1186/s12992-018-0406-1>