

Study on Austrian actors, networks and activities in the field of science diplomacy.  
**Bringing Austrian science diplomacy to the next step: Challenges, state of play and recommendations.**

**Final report**

Laure-Anne Plumhans, Elke Dall, Klaus Schuch

Centre for Social Innovation (ZSI)

September 2021

## Executive summary

This study examines science diplomacy in Austria. ZSI was commissioned by the BMBWF between February and September 2021 to research how science diplomacy is currently understood and implemented and how the concept can be better anchored and promoted in Austria. Using literature and desktop research, an online survey, interviews and a focus group, this report answers the following key questions: how does the Austrian science diplomacy ecosystem look like, who are its actors, what are the challenges and how could they be addressed?

Science diplomacy is a concept for which there are different and sometimes contradictory definitions. Scientific researchers describe the concept with case studies and observe lived practices, but the concept is often used without a clear definition and remains conceptually fuzzy. Often science diplomacy refers both to achieving national interests and global ones: Those two goals can be hard to reconcile and whether the emphasis is put on one or the other, some actors may be more or less involved. This can also be observed in the Austrian context.

The complex task of presenting the current practical implementation of science diplomacy was carried out in this study in a survey that includes more than 150 actors and ranks them according to their importance in the system. Interviews with representatives of these organizations revealed that the term is well known. The actors note that they are already carrying out activities in the direction, and are also interested in intensifying this. However, there are concerns about using the term without a specific context. Accordingly, the concept is often not explicitly mentioned in institutional presentations and activities, and practices are often in other contexts.

Furthermore, actors in the system are of course aware of each other, but there is no exchange on the topic of science diplomacy in particular. The corresponding (explicit) competencies and financial resources are lacking.

This study also includes case studies that look at other countries' approaches: Perspectives from Japan, Finland, and Switzerland on science diplomacy are described. These and outstanding practices from other countries, as well as interviews and findings from a focus group with Austrian stakeholders, inspire five recommendations that conclude the report.

1. Science diplomacy should be described, especially by governmental actors, in specific contexts (with corresponding priorities and goals) and integrated accordingly in strategic documents.
2. Information about relevant Austrian Outposts (Team Austria) should be summarized in a platform and the capacities to actively support science diplomacy should be strengthened.
3. Networking within Austria and exchange of information on the topic could be achieved through regular "round tables".
4. Financial incentives could be provided in the format of a fund supporting science diplomacy activities (e.g. to address the Sustainable Development Goals) and / or through an explicit award for science diplomacy.
5. Knowledge of the concept should be improved through appropriate training opportunities and awareness raising.

## Introduction

Science diplomacy is a powerful yet contested concept that has entered the public and academic discourse in the last decades. While its practice predates the coining of the term, "science diplomacy" is now used by many different actors in the scientific community and from the public sector. Several member countries of the European Union have started to create specific policies, strategies, networks, incentives, departments in ministries, etc. This includes Austria, which is already implementing some initiatives.

If science diplomacy is understood as "*the use of scientific collaborations among nations to address the common problems facing 21st century humanity and to build constructive international partnerships*" (Fedoroff, 2009), science diplomacy has a promise to deliver: to create and strengthen alliances between countries based on scientific knowledge and exchange, and to build capacities to jointly address global challenges. To harness the potential of science diplomacy, the Austrian Federal Ministry of Education, Science and Research (BMBWF) has commissioned this study to better understand how to foster science diplomacy practices in Austria.

Based on a multi-method approach, the Centre for Social Innovation (ZSI) aims to answer several key questions to improve science diplomacy practices, namely: how does the Austrian science diplomacy ecosystem look like, who are its actors, what are the challenges associated with science diplomacy and efforts to foster it in the Austrian context and how could they be addressed?

To answer these questions, we first (chapter I) outline our understanding of the challenges associated with science diplomacy. We discuss the shortcomings related to the concept, the difficulties of identifying and subsequently engaging stakeholders and the issues related to funding and capacities. This section highlights the challenges that need to be addressed to foster science diplomacy in Austria.

The second section (chapter II, page 7) describes the Austrian science diplomacy ecosystem. Its general characteristics such as the prevalent understanding of science diplomacy, the extent of involvement in different activities characterised as science diplomacy as well as the fields and areas of involvement, through which activities and with which geographical focus, are presented. We then move from the general characteristics of the ecosystem to the specific institutions at its core (page 14). In annex B, we provide a more detailed description of selected institutions' science diplomacy activities. This section illustrates the varying degree of involvement of different institutions in the ecosystem and provides an assessment of which institutions and sectors already play a role in the ecosystem and of those who have the potential to be more engaged. It sets the basis to understand which actions can be taken in the Austrian context.

In the third section (chapter III, page 16 and following), we compare the Austrian experience with three other countries that have taken various strategies to promote science diplomacy. By looking at Finland, Switzerland and Japan's approaches to science diplomacy we learn from their attempts to solve similar challenges as faced by the Austrian ecosystem.

In the fourth and final section of this report (chapter IV, page 26 and following), operational and instrumental options to further advance science diplomacy in Austria are explored. We highlight different possibilities that Austria could choose from. Finally, the report concludes with a short summary of the findings and reiterates the key recommendations to bring science diplomacy in Austria to the next step (page 38).

## **Mixed Method Approach**

This study was implemented by a research team at the Centre for Social Innovation (ZSI) between February and August 2021. It investigated the Austrian science diplomacy ecosystem in order to identify its main stakeholders, its characteristics and potential challenges. To do so, a mixed method approach was taken which took place in several steps presented below. In addition, the content of this study has been informed by desktop research and our previous expertise in science diplomacy.

- 1) The first step of the study was dedicated to the setting up of a mapping of the different institutions of relevance for the ecosystem. To establish the mapping, we first defined the different categories and the core criteria necessary for an institution to be included in the mapping. The institutions were selected through desktop research and snowballing. The mapping sets the basis for the next steps of the study: the survey, the interview and the focus group. Each of those steps furthered the content of the mapping and refined the information collected. In total, 157 institutions/departments were mapped. The mapping greatly informed the analysis of the Austrian ecosystem presented under section II.
- 2) The second step was to conduct a stakeholder survey titled "The Austrian Science Diplomacy Landscape" for which we received 70 complete answers. The survey was circulated to 196 contacts on May 12, 2021 and was officially closed on June 11, 2021. The survey informed especially sections I and II of this report. The questionnaire is available in annex C.
- 3) In parallel to the second step, we conducted 13 semi-structured interviews with Austrian stakeholders. The aim of the interviews was to elaborate on the activities conducted by the institutions, their needs and challenges and to establish their connection to other relevant organisations. The interviews informed sections I, II, and IV of this report. The list of interviewees is available in annex A.
- 4) On July 6, 2021, we conducted a focus group with six key stakeholders of the Austrian science diplomacy ecosystem. At this event, we discussed several challenges and options for Austria. This process informed sections I, IV and V of this report. The list of participants is available in annex A.
- 5) In the course of July, we conducted three semi-structured interviews with experts of the science diplomacy ecosystem of Japan, Finland and Switzerland which informed – together with extensive desk research - section III of this report. The list of interviewees is available in annex A.

Those five steps were supported by desk research on science diplomacy practices and instruments of relevant institutions and countries under investigation. Key stakeholders and participants were given the opportunity to comment on the interim report (section II of the report).

## I. Problem statement

There is currently no consensus on how to define the term "science diplomacy". Attempts at definitions are accused of being imprecise, normative, or overly idealistic. A criticism regards the catch-all effect of science diplomacy definitions, which encompass a lot of activities without much precision. According to our respondents, science diplomacy initiatives should rest on a clear definition and concrete goals to prevent the use of science diplomacy as a "buzzword" without substance. However, what those goals should or even could be is often not further specified. Given the complexity of engaging with science diplomacy, the desire of stakeholders to clarify priorities is understandable. Yet, the concerned stakeholders need, at this point, to engage in a process of co-creating these priorities as well as the interfaces that can be activated to improve Austria's approach.

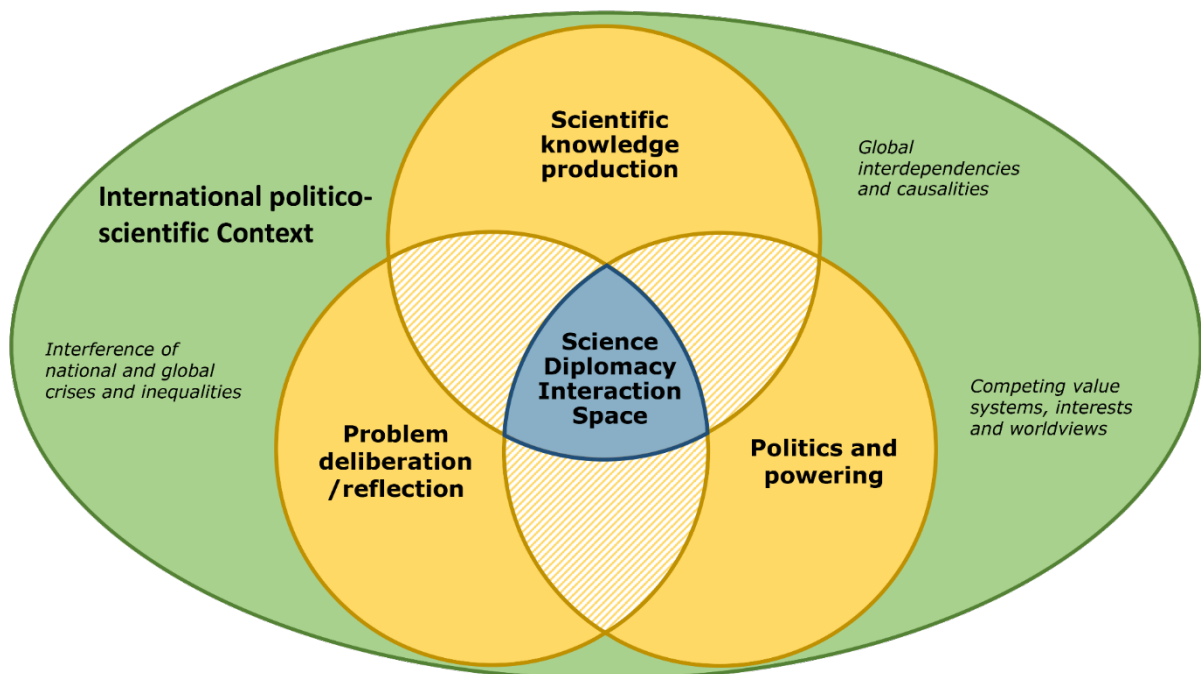
Science diplomacy can also raise conceptual concerns as it is used to serve two seemingly opposite narratives. One that describes science diplomacy as a way of solving global challenges together through international cooperation and the other which sees the value of research and innovation in achieving foreign policy goals, national standing and international competitiveness. In the scholarly debate, lots of attention is given to the taxonomy of science diplomacy developed by AAAS/Royal society that describes science diplomacy along three dimensions:

1. Science in Diplomacy: informing foreign policy objectives with scientific advice
2. Diplomacy for Science: facilitating international science cooperation
3. Science for Diplomacy: using science cooperation to improve international relations between countries (AAAS/Royal Society, 2010).

An interesting point of criticism is pointed out by Flink who finds the definition problematic on several grounds, one of them being that by bringing "science for diplomacy" and "diplomacy for science" together, the definition *"holds that diplomacy should foster international collaborations of scientists to support their (allegedly) non-political interests of advancing knowledge, while at the same time its advocates want to instrumentalize scientists for political purposes"* (2020, p. 365).

This aspect is also very present in the practice of science diplomacy. The struggle between those two narratives was clearly highlighted by Austrian stakeholders. Other countries reviewed also integrate this dichotomy in their science diplomacy initiatives. A combination of these two narratives, which include also different notions and values of competition/collaboration, seems difficult and needs to be explored in different contexts in practice. A too rigid focus on national interests can alienate certain actors from taking part in science diplomacy initiatives. Thus, the framing of science diplomacy in either way determines which actors will take part in the respective activities.

In addition, the practices of science diplomacy have generally been under-analyzed (Rungius, 2018; Flink, 2020). This makes the identification of relevant instruments and actors in science diplomacy a difficult task, which ultimately hampers the impact of science diplomacy initiatives. A way around this limitation is to see it as an “interaction space”. It implies looking at the practices as interactions that bring together science and policy actors in an interface with moving borders depending on the context and topic at hand. The idea of an interaction space is used by several scholars in the science diplomacy literature such as Aukes et al.(2021) and Kaltofen & Acuto (2018). Aukes et.al inspire themselves from previous literature such as the multiple streams framework of Kingdon (2011) or from the areas of collective action of Benz et al. (2007). Following their conceptualisation, the interaction space refers to the intersection of three realms of practices, illustrating the variety of actors and the different moments at which their activities intersect and become “science diplomacy”. These three realms are “politics and powering”, “scientific knowledge production” and “problem deliberation/reflection”. The intersection is understood as a “window of opportunity”. This highlights that actors relevant for science diplomacy are not by definition engaged in science diplomacy but can be, depending on context. The interaction space is exemplified in *Figure 1* below.



*Figure 1: Science diplomacy interactions' space Aukes et. al (2021)*

Depending on the specific framework conditions and contexts. In principle, everyone who at some point interacts on global problems, scientific results and in decision-making / power relations regarding those aspects is relevant. This common issue of

identification is made trickier by both a lack of awareness about science diplomacy as a concept and its often implicit practice. Few institutions in Austria use "science diplomacy" explicitly. This creates two types of challenges: First, institutions that wish to connect more on science diplomacy topics may not know where to start and with whom to connect. Second, other institutions that are not aware of the concept also do not encounter it and may not find a common ground for connections with other institutions.

Despite this identification problem, the Austrian ecosystem of science diplomacy relevant institutions is relatively aware of who the other players in the field are. Yet, how and on which ground collaboration could take place remains generally undefined by stakeholders.

Science diplomacy relies on the inclusion and collaboration of a broad range of actors and therefore reaching out to key institutions is essential. On top of the awareness and (self)-identification problem, some institutions relevant for science diplomacy were harder to reach within the scope of this study. This relates in particular to the inclusion of higher education (HE) institutions and international organisations. This is partly due to the framing problem described above: by highlighting the national interest of science diplomacy initiatives, it naturally excludes institutions that have international mandates. For HE institutions, "science for diplomacy" can be perceived as a way to exploit science for foreign policy goals, which would be incoherent with the allegedly cosmopolitan nature of science.

In addition, one of the most common barriers that hinder the development of science diplomacy activities (explicit or implicit) lies in the lack of capacity and funding to develop effective activities. Institutional representatives sometimes express the wish to foster such activities in their institutions but are concerned about lacking the personnel capacity to do so in a way that could be sustained and based on content. The upgrading of capacities is necessary to avoid overburdening a few interested individuals whose work can vanish if they take on new roles or change organisations (which is a common feature in both the academic and diplomatic sectors).

Several challenges in the study and implementation of science diplomacy have found resonance in the Austrian context. In the following sections we make suggestions to address some of these shortcomings. First, by providing an overview of the science diplomacy stakeholders in Austria in the following chapter. Next, we highlight how Austria situates itself vis-a-vis countries that share similar challenges and describe key learnings from those countries' experiences. We then analyse different options that could be considered in the Austrian context to inform science diplomacy efforts. From those observations, we draw a list of recommendations, which - based on our analytical findings - aim at providing a pathway for Austria.

## **II. The Austrian science diplomacy ecosystem**

In this section, we describe the general characteristics and the specificities of the Austrian science diplomacy ecosystem. The Austrian ecosystem is diverse, composed of institutions with varying interests and involved with science diplomacy at different scales. Many stakeholders recognised some of their institution's activities provided in

the definitions of science diplomacy presented in the survey. The work of those institutions indeed often falls in the practices that we assign to science diplomacy. Many are regularly engaged internationally, on various topics of relevance for addressing global challenges and a substantial share conducts activities related to the internationalisation of science or is engaged in some form with policy advice.

Most institutions of the ecosystem are knowledge institutions and governmental organisations. Governmental stakeholders, namely the BMBWF and the Ministry of European and International Affairs (BMEIA), are especially involved with science diplomacy. Some level of coordination between the ministries already exists even if there is no common strategy on science diplomacy. They are considered as important actors of the ecosystem by stakeholders, and their leading role could have an impact on the direction that science diplomacy endeavours take in the future.

Higher education institutions (HE) are by nature central to science diplomacy. While their involvement is largely implicit they often recognise the practices of their institutions as science diplomacy, especially when presented with the global challenges narrative of science diplomacy. However, their relative engagement with science diplomacy activities depends on the institution and its thematic priorities. A substantial share of HE institutions contacted did not take part in our survey or interviews which limits the assessment of their involvement with science diplomacy.

In general, while science diplomacy is mostly practiced rather than formally referred to, our study shows that institutions are aware of the term and are interested in further collaboration on the topic of science diplomacy and find the practices associated with the term relevant to their work.

*Figure 2* below summarises key characteristics of Austrian science diplomacy. The next sub-chapters elaborate further on the Austrian science diplomacy ecosystem.





Figure 2: Austrian Science Diplomacy in keywords

## 1. General characteristics of the Austrian science diplomacy ecosystem

### a. The understanding of science diplomacy in the Austrian context

The key definition used in this study is the definition of Fedoroff (2009). This definition was given to respondents of the survey together with a second definition developed by the American Association for the Advancement of Science (AAAS) and the Royal Society in 2010.

Based on these definitions respondents (i.e. those that received and answered our survey; see Figure 3) were asked the following question: "To which extent do you consider your organisation or department to be practicing science diplomacy?"

Regardless of the definition, most stakeholders qualified their organisation as practicing science diplomacy.

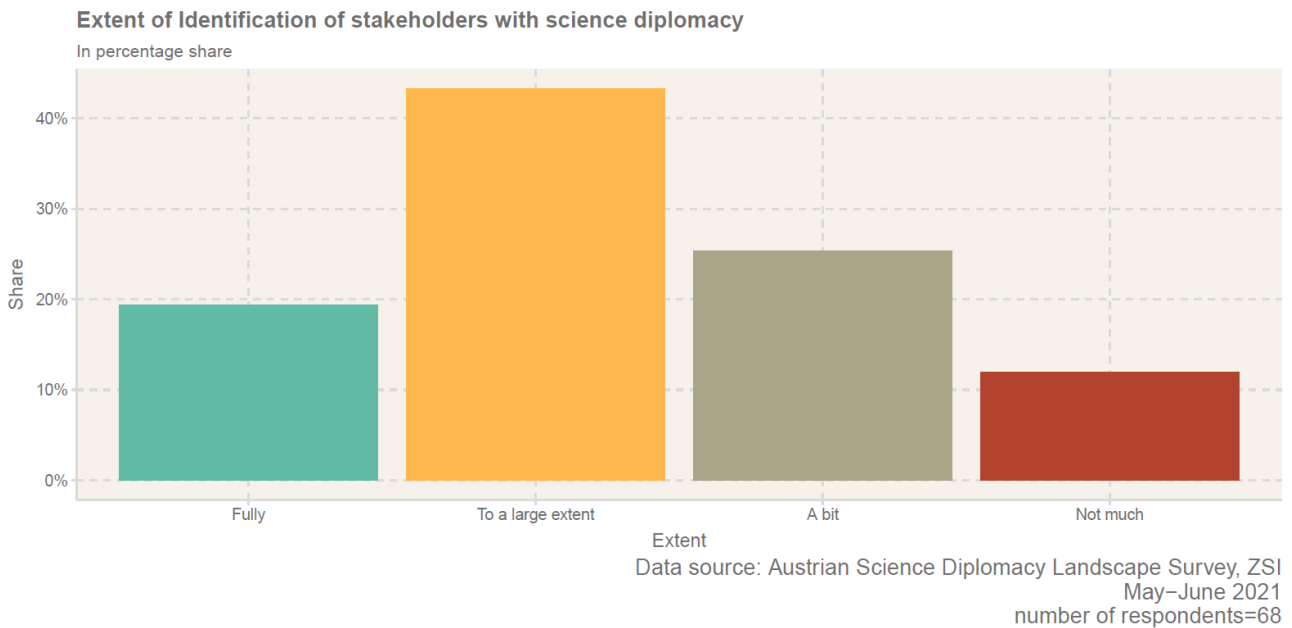


Figure 3: Extent of identification of stakeholders with science diplomacy

We could neither observe in the survey nor in the interviews an explicit rejection of the term “science diplomacy” although some concerns have been expressed about the instrumentalisation of science for foreign policy goals, and the independence of institutions in that regard. The community has been interested and generally positive to bring the two worlds of science/innovation policy and foreign policy closer together.

#### b. Size of the science diplomacy ecosystem

The desktop research and additional information gathered via the survey and interviews contributed to the mapping of science diplomacy relevant institutions in Austria. Few institutions are already explicitly active in and referring to the field of science diplomacy (we call these our primary target or “group 1”) while many more institutions are implicitly active, have already appeared as science diplomacy actors in one or the other constellation, use science diplomacy instruments without explicitly naming them and can be involved in further activities (“group 2”).

The mapping exercise focused on these two groups, even if some potentially interested institutions (“group 3”) were also mapped when some activities practiced by the institutions could be considered as science diplomacy. However, those institutions were not mapped systematically. For example, all universities are science diplomacy stakeholders to some degree due to their nature as knowledge institutions. Yet, they don’t all always practice science diplomacy. These institutions that could be involved as part of the larger category (e.g. “universities”) were not generally entered given that this approach would encompass too many institutions.

We have mapped 157 institutions based on this approach. Each institution is relevant for science diplomacy to varying degrees and makes use of science diplomacy practices differently. As described, the classification of an institution in either group depends on a few criteria such as the type of activities undertaken by the institution, whether it makes explicit use of the term science diplomacy, the geographical scope of the

institution and its connection to other relevant organisations. Out of the 157 institutions, we identified 27 using the terminology “Wissenschaftsdiplomatie” or “science diplomacy” already explicitly on their websites, in reports or at recorded and publicly available presentations.

Some of these institutions are large and just because, for example, a small group of researchers is dealing with science diplomacy, it does not mean that the whole institution has subscribed to a science diplomacy mission. Yet, these units are a starting point for structured discussions on the topic.

Approximately 20% of the institutions mapped use the term “science diplomacy” explicitly. This question of explicitness/implicitness relates also to the extent to which institutions mapped are aware of the term science diplomacy and identify with science diplomacy relevant activities.

Despite the lack of clarity and definitions the term “science diplomacy” is generally known by stakeholders. As Figure 4 shows, most respondents (57.4%) replied positively, while 20.6% declared “having heard of the term” but not being “fully familiar” with it, only 22% of the respondents replied that they had “never heard of it” but were interested nonetheless.

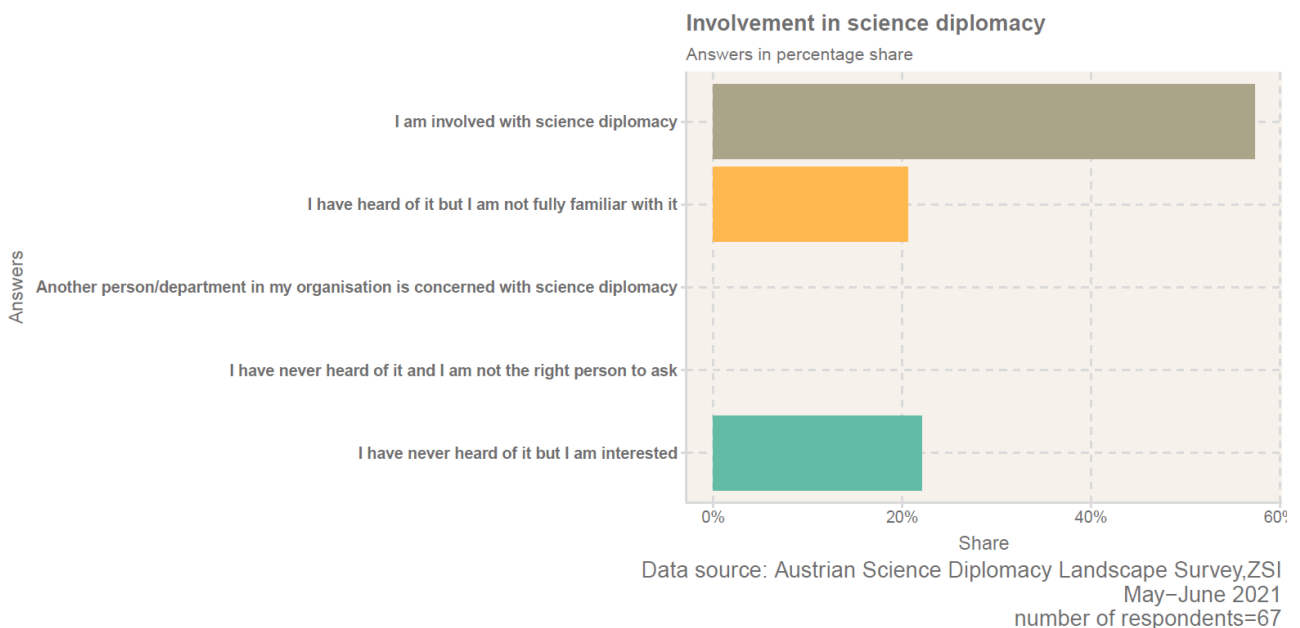


Figure 4: Involvement in science diplomacy

### c. Characteristics of the institutions

The institutions composing the science diplomacy ecosystem are of various nature, have different thematic foci and operate at different scales. In the following, we will outline the types of institutions involved and their thematic foci.

#### *Sectoral representation*

The biggest share of institutions mapped is research institutions, which compose 73.9 %, as opposed to non-research institutions which together represent the remaining 26.1%. HE institutions (21.7%), non-profit research institutions (20.5%) and governmental research stakeholders (20.5%) represent the largest share of institutions

mapped. In the non-research category, governmental stakeholders are the most common type of institutions and represent 14.3% of the mapped institutions. Governmental stakeholders constitute a substantial part of the mapping, with both research and non-research institutions adding up to a value of 34.8%. International organisations and businesses that are not conducting research are the least common type of institutions.

Unsurprisingly, science diplomacy is a field that is populated by governmental actors and by research performing institutions who are active to varying degrees internationally. Our efforts to complement these key actors with representatives from civil society were not successful. It became clear that their positions in the ecosystem are not central. With regards to businesses, while they were not excluded from the mapping exercise, we mostly mapped under this category research institutions such as Johanneum Research and Christian Doppler Research Association.

*Thematic foci*

In the mapping, we allocated each institution to either one or more broad thematic priorities. Those are, based on the interest of the client, "Tech-diplomacy", "Green diplomacy", "Health diplomacy", "Cross-cutting" (which was allocated to institutions that work on a variety of topics and have a more general agenda such as science internationalisation or development) or "Other".

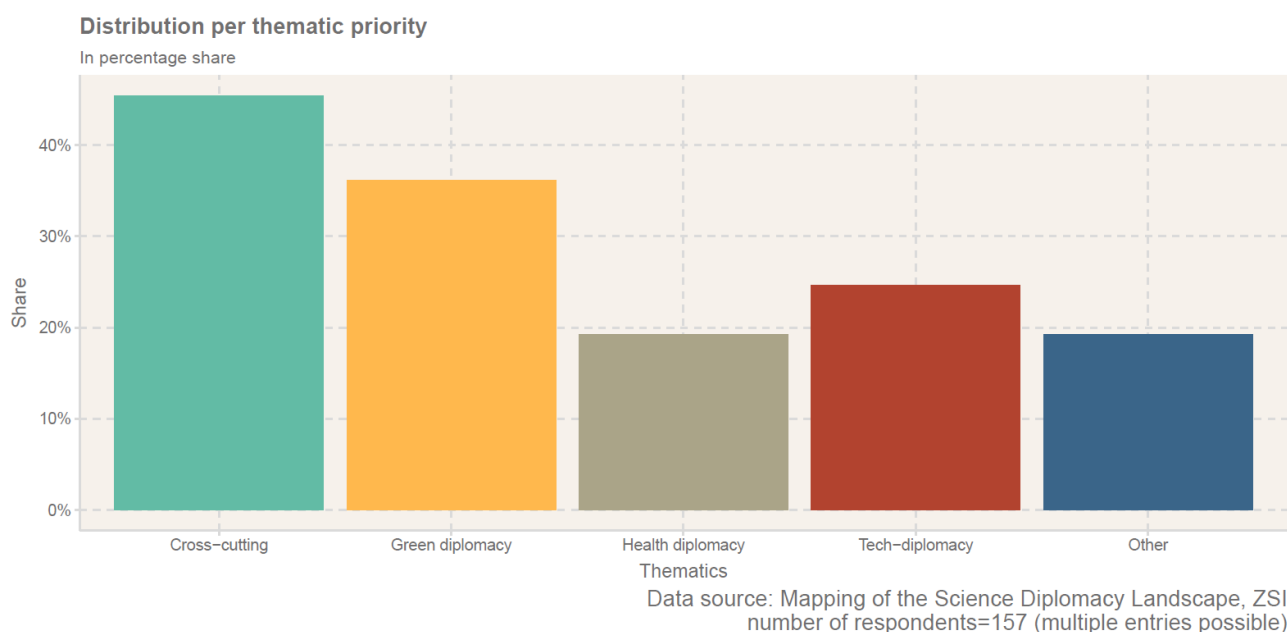


Figure 5: Distribution per thematic priority

In the survey, we also asked respondents to select from a list of key fields pertinent to address global challenges, the ones relevant to the work of their organisation. Respondents could select as many fields as appropriate.

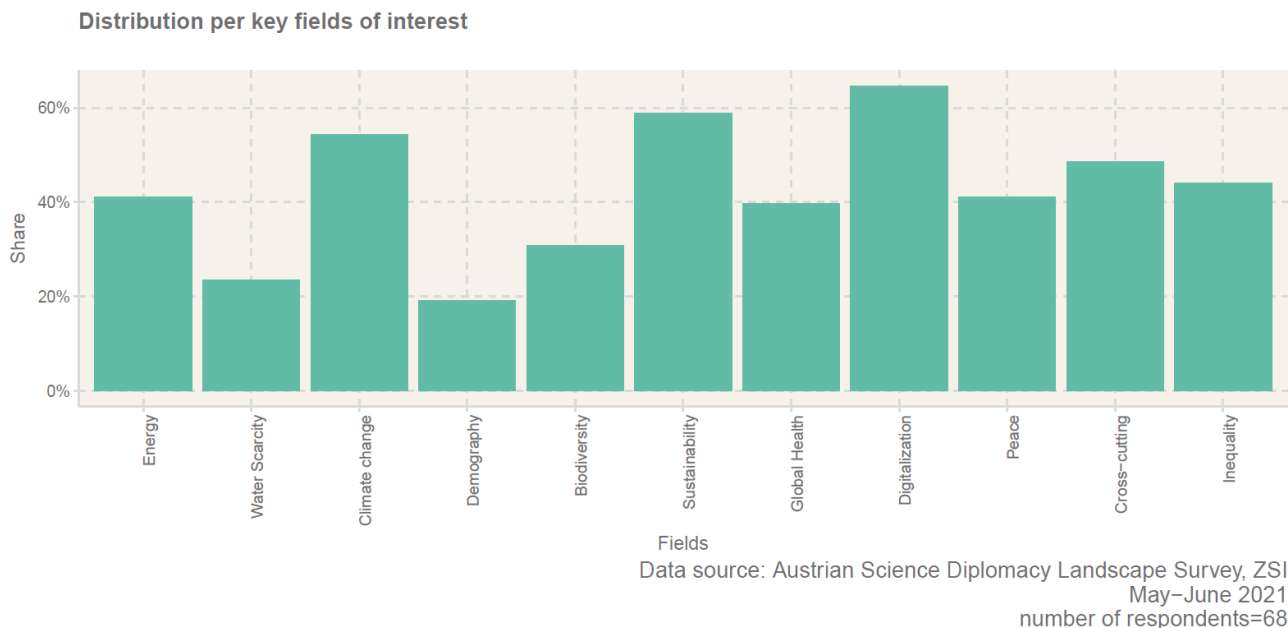


Figure 6: Distribution per key fields of interest

Figure 6 shows that digitalization was picked the most often together with topics related to Green diplomacy such as energy, climate change and sustainability. The “cross-cutting” option was also amongst the top picked options closely followed by “inequality”. At the other end of the spectrum, we find “demography” and “water scarcity”.

#### **d. Activities conducted by institutions in the ecosystem**

Science diplomacy refers to certain types of activities and practices that were investigated in the survey and through desktop research. 25.2% of all institutions mapped have been identified as participating strategically in international networks and conferences. This is obviously one of the lesser complicated activities and a “natural” practice for many scientific institutions. Other practices need more resources and are thus also less common, for example: “the establishment of relevant departments focused on the internationalisation of science and / or international policy advice” (15.3%), “the drafting of strategies and policy for the internationalisation of science” (11.7%) and “development of policy briefs and scientific works on global challenges commissioned by/directed to policy makers”(11.45%). Among the least common activities identified are those who make use of science diplomacy explicitly (9.4%).

While science diplomacy can take place at different levels, the international interconnectedness of institutions is a key element of the science diplomacy ecosystem. Indeed, the results from the survey show that most institutions have a high level of connection with organisations outside Austria (see Figure 7).

### Regularity of institutions' interactions with organisations outside Austria

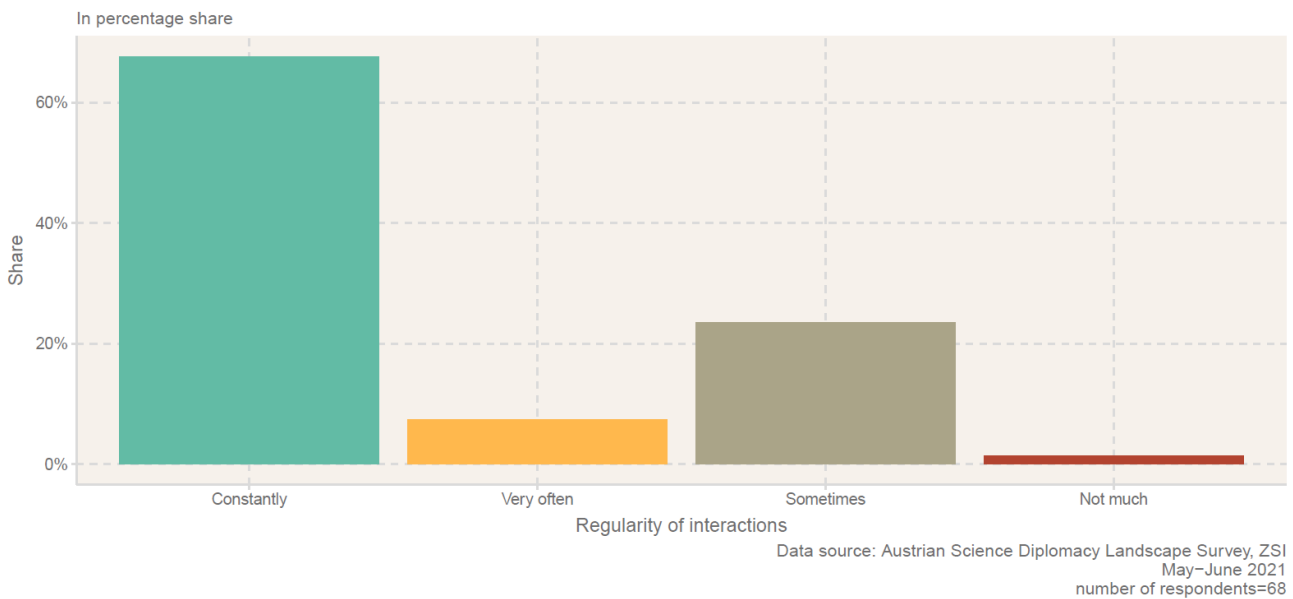


Figure 7: Regularity of interaction with organisations outside Austria

All respondents' organisations interact with institutions based in other European countries. Around half of the stakeholders also engage with North America and Asia (see Figure 8). Less frequently mentioned are countries and organisations based in Latin America and the Caribbean (LAC) and in Oceania. Several entries were possible and while more than half of the respondents reported interactions also outside of Europe, 38.6% of institutions solely connect within Europe.

### Distribution of institutions' international interactions per continent

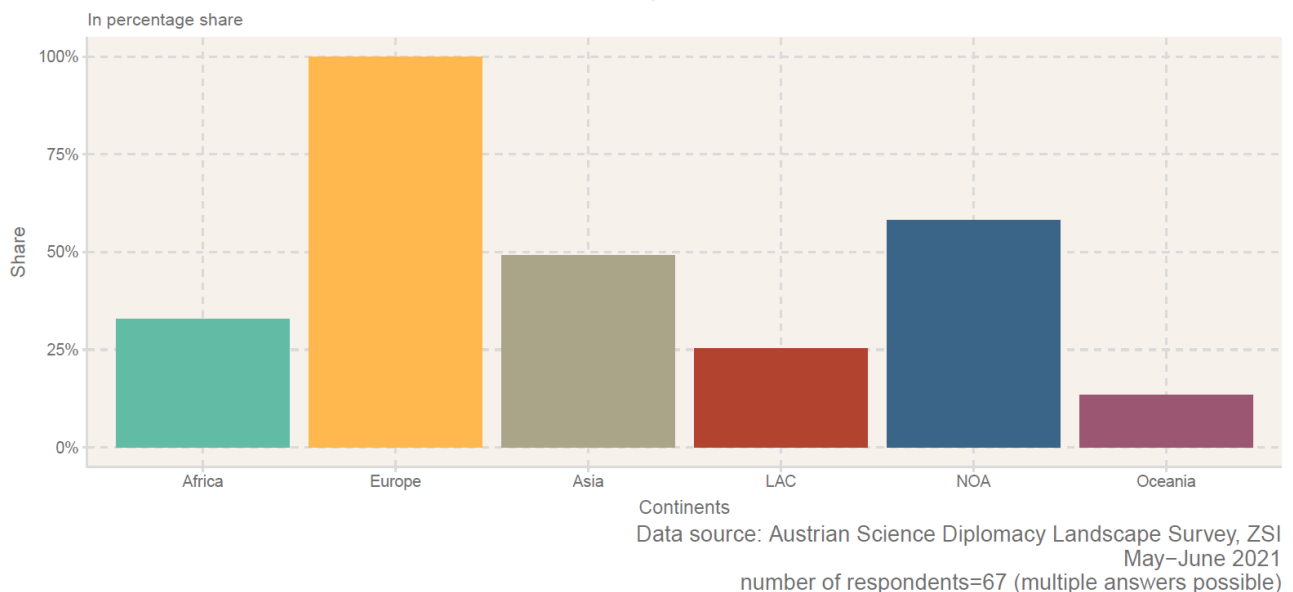


Figure 8: Distribution of institutions' international interactions per continent

## 2. The science diplomacy institution in Austria

We provide here an overview of the most important organisations of the Austrian science diplomacy ecosystem. We have identified them through desk research, the



Figure 9: The Austrian Science Diplomacy Ecosystem

The ecosystem analysis shows a wide variety of institutions based in the research sector. A smaller set of actors is positioned in the area of international relations. It is connected to a cluster of « boundary spanning » organisations who promote for example international cooperation in research – based on different objectives, missions and funding sources – which are highly relevant for the boundary spanning activity of science diplomacy. In the annex B we describe a few actors that are representative of the ecosystem. The descriptions provided there are not meant as an exhaustive list of of institutions’ activities and interactions. Rather, it highlights those relevant for science diplomacy.

### III. Comparative approaches

In this section, we highlight the approaches of three countries with which Austria shares similar challenges and could potentially learn from, namely Finland, Switzerland and Japan. Each of those countries has, like Austria, a well-developed science and technology ecosystem and has been applying science diplomacy explicitly. Both Finland and Switzerland also share a relatively similar population size and population density. Switzerland and Austria are also both landlocked mountainous regions. For each country, we first provide key information on the country, few R&D indicators, and highlights of its approach to science diplomacy. The R&D indicators used are the country’s R&D intensity<sup>2</sup> and the number of researchers per 1000 employees<sup>3</sup>, both from OECD data. The short presentation is followed by a detailed description of the science diplomacy approach of the country, resulting from desk research and semi-structured interviews.

From the three countries investigated in this section, we find several interesting initiatives and ideas, similar interests but also challenges. Our findings identified difficulties relating to 1) integration and streamlining of practices, 2) diverging understanding and approaches to science diplomacy depending on different ministries, 3) a concern for scientific freedom and neutrality and 4) the issue of funding. Solutions devised to face those issues are either in place or being developed. Some have been identified as relatively effective, while the impacts of others are difficult to estimate.

---

<sup>2</sup> Gross domestic expenditure on R&D (GERD) as percentage of GDP see <https://www.oecd.org/sti/msti.htm> , data for 2017

<sup>3</sup> “Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems, as well as in the management of the projects concerned. This indicator is measured in per 1 000 people employed and in number of researchers”, see: <https://data.oecd.org/rd/researchers.htm>; latest data available.



## 1. Finland

**Inhabitants:** 5.5 million

**R&D intensity:** 2.7% (as compared to 3.1% for Austria and 2.4% as the OECD average).

**Number of researchers per 1000 employees (headcount):** 14.97 (as compared to 11.58 for Austria and 8.9 as the OECD average).

**Official strategy on science diplomacy:** No, however it is currently under discussion.

**Highlight:** Involvement of stakeholders and mix of bottom-up and top-down approach.

**Thematic foci:** Environment, Technology & Innovation and Arctic research.

**Main challenge:** Coordination and integration of initiatives and narratives.

Science diplomacy as a term is seldom explicitly used in Finland, and no governmental strategy, which addresses science diplomacy directly, exists. However, science diplomacy is an interesting topic for several entities such as the Ministry of Foreign Affairs, the Ministry of Education, Science and Culture of Finland and the Ministry of Economy and Employment. This interest has given rise to the report "Towards an enabling science diplomacy", published in May 2021 by the Prime Minister's Office and written by Frisky & Anjoy<sup>4</sup> and the Finnish Academy of Science and Letters.

In this report, science diplomacy in Finland was assessed through a broad survey covering different ministries and recommendations for activities were derived. The science diplomacy approach in Finland, as found in the report and confirmed during the interview, is fragmented and is not based on a common definition. Depending on the actors involved, science diplomacy is either defined through the prism of science for foreign policy matters, as a way to promote science internationally, or as a necessity to solve global challenges. In this context, Finland still has to settle who could coordinate and take the lead of science diplomacy initiatives in the country. In the interview, it was mentioned that a possibility could be to involve the Prime Minister's Office to enable a more cross-cutting approach to science diplomacy.

Science diplomacy in Finland is thus developing and is on the radar of several institutions both in the governmental sector and in the science and research sector. Researchers and scientists are well integrated into the development of science diplomacy relevant activities in Finland. The continuous involvement of knowledge institutions into the policy development is an interesting feature of the Finnish approach to science diplomacy.

Thematically, Finland has a specific regional interest in the Arctic region, where some successful examples of science diplomacy activities have taken place. The country is generally interested in using science diplomacy for solving environmental challenges. SGDs are leading science diplomacy activities in Finland. The Finnish University

---

<sup>4</sup> <https://www.frisky.fi/references/>

Partnership for International Development (UniPID<sup>5</sup>) provides an example of a HE institutions network specifically set up to upgrade their capacities to contribute to global challenges through interdisciplinary studies and research. In addition, technological development such as AI and 6G are also thematic priorities for Finland.

The regional interest of Finland concerning science diplomacy follows three different logics: one of scientific excellence, one of diplomatic nature and one of thematic interest. Although Finland has a global orientation, most cooperation takes place with other European countries. The question of whether science diplomacy should be oriented and approached rather at the EU level than the national level would be answered differently depending on who is asked. An EU coordinated science diplomacy approach would be beneficial to pool resources and foster broad engagements for science internationalisation and policy, but at the same time, a strong national approach to science diplomacy could foster the international standing and competitiveness of Finland. To address strategic, regional and thematic interests, several instruments exist that foster, while not yet in an integrated way, science diplomacy activities.

One interesting instrument is the "Better Together for a Better World" report that in 2017, determined a set of goals to foster the internationalisation of higher education and research in Finland. The aim of this report reflects the twofold goals of science diplomacy often taken by national organisations: contributing to solve global challenges and positioning the country as frontrunner in the global stage.<sup>6</sup> This report tackles topics of high relevance for science diplomacy, even if it does not mention it explicitly, and has been at the source of other relevant instruments such as the 'Team Finland' Knowledge Network, the Flagship Programme and the establishment of the international forum.

The Team Finland Knowledge Network was initiated by the Ministry of Education, Science and Culture (OKM) and runs jointly with the Ministry of Foreign Affairs. The network is composed of HE institutions and research specialists located at Finnish embassies in several locations: Abu Dhabi, Buenos Aires, Moscow, New Delhi, Beijing, Pretoria, Singapore and Washington. Their role is to monitor foreign science policies, to find cooperation possibilities for Finnish knowledge institutions and to promote them. The network has been recognised as an efficient instrument for researchers and HE institutions that find it easier to collaborate with embassies as counselors can act as a connecting point for them also to the other specialists in the embassies. The network is well known among the scientific community and application for such positions are mostly coming for the research sector.

The network is funded by HE institutions, OKM and partly from the Finnish National Agency for Education. The steering committee consists of representatives from HE institutions, OKM, MFA the ministry Economy and Employment, the Academy of Finland and Business Finland. The strong inclusion of HE institutions contributes to the awareness of the network among the knowledge community.

---

<sup>5</sup> <https://www.unipid.fi/>

<sup>6</sup> Interview material, more can be found here <https://minedu.fi/en/international-strategy-for-higher-education-and-research>

The Flagship Programme is a funding scheme aiming to achieve social impact through the internationalisation of science and the involvement and collaboration of multiple actors. The Flagship Programme is about “scientific excellence that creates impact”<sup>7</sup>. The programme is articulated around 10 flagships with a thematic foci linked to societal challenges respectively, hosted at several knowledge institutions in Finland and organized by the Academy of Finland. It aims to bring cross-sectoral collaboration at the national and international levels. Ethical and security questions sometimes arise on whether cooperation is wished with authoritarian undemocratic countries to which there is no general solution.

Another interesting approach linked to the “Better Together” report is the Forum, a constellation of Finnish knowledge institutions and networks that is entrusted with the implementation of policies. This approach fosters the active involvement and participation of knowledge institutions in the making and implementation of policies for the internationalisation of their institutions. The forum has issued a list of recommendations for the implementation of the Better Together strategy, which explicitly refers to science diplomacy.<sup>8</sup> OKM is also part of the Strategic Forum for International scientific and technological Cooperation (SFIC), whose vice chair is Tiina Vihma-Purovaara.

Science diplomacy is thus a known concept and is practiced and understood by knowledge institutions in Finland. Research and HE organisations, while concerned about their independence vis-a-vis governmental strategic goals, are relatively well involved in the discussions and initiatives relevant for science diplomacy.

The scientific community has also been at the forefront of Arctic diplomacy due to its geographical location and expertise in the field through multiple research centres on Arctic research. Finland is part of the Arctic Council<sup>9</sup> and has been at the origin of its establishment, as it initiated the cooperation between countries to protect the environment of this region.<sup>10</sup> The Arctic region is a known example of science diplomacy (Berkman, 2014), which Finland has helped shape along the years. Actors involved are the scientific community and the Ministry of Foreign Affairs (MFA). Over the years, the Finnish chairmanship has focused on sustainable development of the Arctic region, technological development and science based policymaking<sup>11</sup>.

The Finnish Ministry of Foreign Affairs, in addition to its involvement in the Arctic region and with the Team Finland Knowledge Network, also has been involved with other science diplomacy relevant initiatives. For example, the MFA has hosted an event on

---

<sup>7</sup> Interview with Tiina Vihma-Purovaara.

<sup>8</sup> [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162059/OKM\\_2020\\_14.pdf?sequence=4&isAllowed=y](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162059/OKM_2020_14.pdf?sequence=4&isAllowed=y)

<sup>9</sup> <https://arctic-council.org/en/>

<sup>10</sup> <https://arctic-council.org/en/about/states/finland/>

<sup>11</sup> <https://arctic-council.org/en/about/states/finland/>

big data for foreign policy<sup>12</sup> and its permanent mission in Geneva<sup>13</sup> is dedicated to science and technology.

It can be summarized, that science diplomacy is well underway in Finland and offers some interesting approaches, which – among other things – result in a good level of engagement of Finnish knowledge institutions. However, despite the good practices presented above, Finland is also struggling with similar challenges as Austria when trying to explicitly integrate science diplomacy, namely; different interests, fragmentation of initiatives, funding and conceptual hesitations. In addition, during the interview, the question of how to involve NGOs and private businesses, while at the same time having a national framing, was raised. Austria can learn from the Finnish approach concerning stakeholder engagement and should keep an eye on the Finnish development with regards to science diplomacy as it faces similar challenges.

## 2. Switzerland

**Inhabitants:** 8.7 million

**R&D intensity:** 3.2% (as compared to 3.1% for Austria and 2.4% as the OECD average).

**Number of researchers per 1000 employees (headcount):** 9.20 (as compared to 11.58 for Austria and 8.9 as the OECD average).

**Official strategy on science diplomacy:** No, but several documents and strategies include science diplomacy explicitly.

**Highlight:** Swissnex network

**Thematic foci:** Digitalization, peace and security.

**Main Challenge:** Integrating different perspectives on science diplomacy.

Switzerland is an active actor in the field of science diplomacy. The country makes explicit use of the concept of science diplomacy as part of its foreign policy strategy (2020-23) and of the International Strategy on Education, Research and Innovation of the Federal Council. The country has a long history of integrating science as part of its foreign policy as already in 1958 it appointed its first science counselor to the United-States. Since then, science diplomacy in Switzerland has developed through several key instruments presented below, which have received appraisal and attention by the stakeholders interrogated during the course of this study. Switzerland is also often a discussed in academic case studies (Flink & Schreiterer, 2010; Langenhove et al., 2017; Ruffini, 2017; Schlegel, 2014).

Two ministries are involved with science diplomacy in Switzerland: the Federal Department of Foreign Affairs (FDFA) and the Swiss State Secretariat for Education,

---

<sup>12</sup> <https://www.diplomacy.edu/calendar/data-diplomacy-big-data-foreign-policy>

<sup>13</sup> <https://finlandabroad.fi/web/geneve/science-and-technology>

Research and Innovation (SERI). The ministries share responsibilities for a few initiatives. Further cooperation on the topic might take place in the future. <sup>14</sup>

The approach to science diplomacy differs depending on the ministry. While FDFA is more concerned with science *in* and *for* diplomacy, SERI is involved with fostering diplomacy *for* science. This can be explained by the different scope of action and concerns regarding the independence and neutrality of science. Similarly, the thematic priorities of science diplomacy in Switzerland depend on the ministry and the employed instruments. Nonetheless, the topic of digitalization clearly stands out.

In terms of geographic priorities, the EU is of course the main point of interest for Swiss institutions and further references were made to large countries such as the US, India and Brazil<sup>15</sup>. Instruments, such as the Swissnex network (see below) support the science diplomacy ecosystem in Switzerland along the lines conceptualised by AAAS/Royal Society.

Diplomacy for science is mostly achieved by the Swissnex network, which is an initiative of SERI. Swissnex is composed of five offices abroad in key cities relevant for science and innovation. On top of the offices, the Swissnex framework also encompasses Swiss science and technology attachés and offices in embassies and as such provides a rather comprehensive structure of science and technology representation abroad. Swissnex connects with and informs knowledge institutions, private enterprises and individuals about the opportunities available to them in their respective locations. The network is often praised in the literature and by practitioners of science diplomacy. Austrian actors also mentioned Swissnex as an interesting example multiple times. Indeed, Swissnex is a relatively large network, which was initiated two decades ago and is relatively well known and used by knowledge institutions in Switzerland. The particularity of the network compared to other examples is that it is financed only partly by a governmental body (SERI). Indeed, to benefit from its services, some institutions pay a fee or contribute financially to Swissnex activities.

Swisscore is also an interesting platform practicing diplomacy for science. The platform was initiated by both Swissnex and SERI. It provides knowledge institutions and individuals with information on all EU funding opportunities and scientific and student exchange and acts as a representation for science and technology to the EU in Brussels.

A key document highlighting the science diplomacy approach of SERI is Switzerland's International Strategy on Education, Research and Innovation. In the strategy, science diplomacy is referred to as a way to "*use international cooperation between scientists to initiate or improve intergovernmental political dialogues*" (Strategy of the Federal Council, 2018, p. 22). Two goals are identified in the strategy: to promote the attractiveness of Switzerland as a location of excellence and to support the engagement of Swiss actors internationally. The strategy clearly sets out that those initiatives should respect a bottom-up process. Digitalization and space affairs are both mentioned as key areas of interest.

---

<sup>14</sup> Interview Niccolo Iorno

<sup>15</sup> Foreign policy strategy 2020-2023

Science *in* diplomacy and science *for* diplomacy is a concern of FDFA. One of the most important instrument is the foreign policy strategy (2020-23), which articulates the ministry's strategy towards science diplomacy. The concept is mentioned in the context of achieving the following targets: digitalization, prosperity, peace and security and multilateralism. In the chapter on peace and security, science diplomacy is understood as useful "... where dialogue between policy-makers breaks down, science can help establish sustainable relations. Issues of common concern can be addressed through scientific cooperation between states, which in turn fosters trust and establishes or enhances international partnerships." (Federal Department of Foreign Affairs, 2020, p. 9). In this context, science diplomacy is used for engaging with countries with whom diplomatic relations can be difficult. This is exemplified by the Swiss involvement in The South East European International Institute for Sustainable Technologies (SEEIIST), as a way of promoting peace in the region. Prosperity is the next objective stated in the strategy. In this regard, science diplomacy is framed as a way to promote Switzerland's excellence in the fields of science and research.

Another point of interest is the advancement of digitalization and the promotion of Geneva as a hub for digitalization and technology. This aspect is highly related to the last point of interest in the strategy, namely, multilateralism. Geneva is conceived as "a global forum for sharing science and technology applications" that should be harnessed (Federal Department of Foreign Affairs, 2020, p. 32). Two initiatives are worth mentioning: the Geneva Science and Diplomacy Anticipator (GESDA) and the Geneva Science Policy Interface (GSPI). Both contribute to the country's 'science for diplomacy' efforts. GESDA is a newly established organisation by the government of Switzerland, the city and the canton of Geneva. The initiative brings together several actors from academia, civil society and international relations and diplomacy. The purpose of the organisation is to identify scientific breakthroughs and to contribute to solving global issues through interactions of actors. The Anticipator puts Geneva and its international organisations as the centre of its activities. Thus, several members of diverse international organisations such as CERN, the Red Cross, UNDP, ILO, ... are taking part in the activities of the anticipator.

The GSPI is an independent organisation supported by FDFA. It fosters the connection between scientific institutions and global governance organisations in Geneva to contribute to the formation of evidence based policies in the face of global challenges. To do so, the GSPI provides knowledge brokering and network brokering activities. For the latter, grants are made available for collaboration between academia and intergovernmental organisations. To foster "knowledge brokering", policy briefs that are jointly worked-out by scientists and diplomats and then disseminated among policy circles. These policy briefs address several topics relevant for global challenges.

Science diplomacy in Switzerland is well articulated and several initiatives are being taken in that regard. The key ministries investigated here approach science diplomacy as a political tool and a way to further achieve international standing. It was highlighted during the interview that the ministries, due to their thematic foci, can approach science diplomacy from different angles. However, the extent of collaboration on the topic of science diplomacy within the ministries is planned to be further promoted<sup>16</sup>. The

---

<sup>16</sup> Interview Yoichiro Matusmoto

Swissnex network undeniably represents a good practice in the realm of science diplomacy activities and the country's promotion of Geneva as a global hub could be of particular interest for Vienna, another UN location. In this context, it was recognised during the interview that it is sometimes hard to attract the participation of international organisations when initiatives are set-up by national agencies. It was pointed out that both Austria and Switzerland host intergovernmental organisations that are more research and technically oriented than other UN locations (such as in NY). Therefore, both countries could pull resources in trying to harness this similarity for the greater good.

### 3. Japan

**Inhabitants:** 126.1 millions

**R&D intensity:** 3.2% (as compared to 3.1% for Austria and 2.4% as the OECD average).

**Number of researchers per 1000 employees (headcount):** 9.85 (as compared to 11.58 for Austria and 8.9 as the OECD average).

**Official strategy on science diplomacy:** yes in 2008, but then integrated into the Science Technology and Innovation (STI) strategy.

**Highlight:** Long experience with science and technology advisors to the Ministry of Foreign Affairs.

**Thematic foci:** Sustainable Development Goals (SDGs), Security

**Main Challenge:** Coordination among actors of science diplomacy.

The importance of strengthening science and technology diplomacy in Japan, as well as the basic concept and measures to take, were put forward in 2008 by the Council for Science and Technology (CST) with a report titled "Toward the Reinforcement of Science and Technology Diplomacy"<sup>17</sup>. This report provides the basis for initiatives set up in the early 2010s, such as the Science and Technology Diplomacy Task Force and the creation of the Science and Technology Advisor to the Foreign Ministry. Science diplomacy in Japan developed out of a concern for maintaining a key position on the science and technology global scene (Sunami et al., 2013). Today, the three core objectives of Japanese science diplomacy are to 1) ensure security by developing and promoting research integrity, 2) boost the economy by fostering global research collaboration for innovation and 3) use STI to contribute to solving global issues.<sup>18</sup> Thus, the approach of Japan binds both global and national interests. The definition often used is the AAAS/Royal Society taxonomy published in 2010

Several ministries implement and use science diplomacy in Japan. The most visible actors are the Ministry of Foreign Affairs (MOFA) and the Ministry of Education, Sports,

---

<sup>17</sup> [https://www8.cao.go.jp/cstp/english/doc/s\\_and\\_t\\_diplomacy/20080519\\_tow\\_the\\_reinforcement\\_of.pdf](https://www8.cao.go.jp/cstp/english/doc/s_and_t_diplomacy/20080519_tow_the_reinforcement_of.pdf)  
(provisional translation)

<sup>18</sup> Interview Yoichiro Matusmoto

Science and Technology (MEXT). Relevant ministries and agencies are involved in science diplomacy and officially integrated into a structure of consultations as presented in Figure 10 below.

## Japan's S&T Diplomacy Network

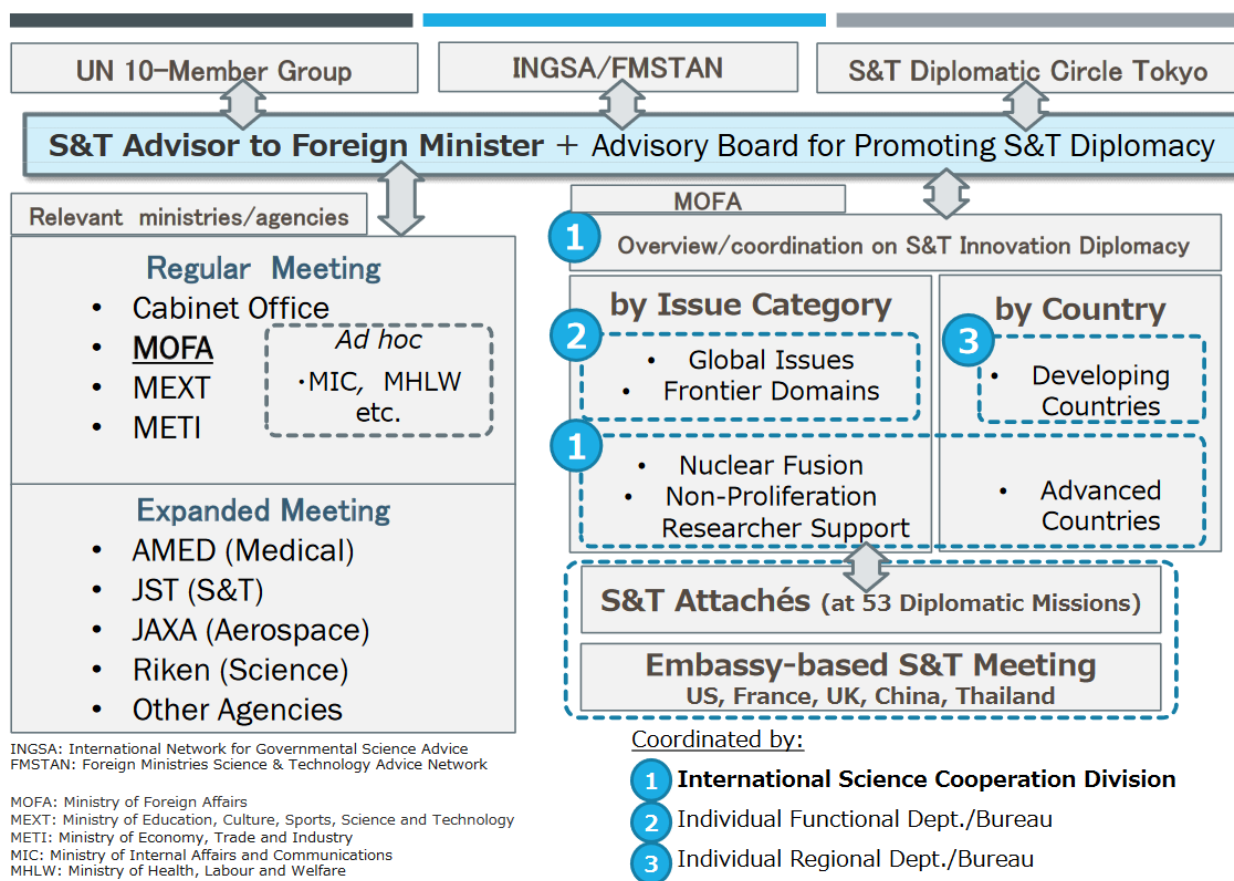


Figure 10: Japan S&T Diplomacy Network (Source: Interview/MOFA)

One of the major funding agency involved with science diplomacy is the Japan Science and Technology Agency (JST), which coordinates several activities together with MEXT. More specifically, both actors have been active in promoting science diplomacy through several funding and exchange programmes. Two umbrella programmes promote science diplomacy practices. For example, The Strategic International Collaborative Research Programme is a research funding programme, which aims to support international research projects with leading countries and regions and in research fields that have been strategically prioritized by MEXT. The programme is supported by workshops that promote international research cooperation. The programme is framed as relevant for overcoming global problems and targets various fields (i.e. Marine science, Biomedical research, Agriculture, Disaster risk management, etc). It funds international research projects that can be used for joint research undertakings but also for the exchange of researchers.



Another funding programme that incorporates science diplomacy is the Science and Technology Research Partnership for Sustainable Development (SATREPS). The programme promotes joint international research projects on global issues as for example energy, environment, management of bioresources or prevention of catastrophes<sup>19</sup>. SATREPS is targeted at developing countries. Other activities from the JST are worth mentioning such as the Sakura Science program and the Accommodation for foreign researchers scheme that both aim to facilitate the visit of foreign researchers in Japan<sup>20</sup>.

MOFA is promoting science diplomacy and technology mostly through the work of its science advisor, currently Yochiro Matsumoto and the Co-Advisor Mitsunobu Kano. They take the lead and connect science diplomacy initiatives and actors in Japan, especially from a foreign affairs perspective. The previous and first advisor, Teruo Kishi, paved the way for science and technology diplomacy in Japan and was involved in various activities. He submitted recommendations to the then Foreign Minister for several intergovernmental occasions such as the Tokyo International Conference on African Development, G7/G20 and the UN STI Forum. He also published and lectured on S&T Diplomacy and Japan's STI policies, participating also in collaborative outreach events called "SIP-Caravan". Additionally, he also expanded networks such as FMSTAN and INGSA, of which Japan was one of the lead initiators, together with New Zealand, the UK and the US.

Since the start of his position in 2020, Mr. Matsumoto took charge of renewing the members of the advisory board for the promotion of S&T diplomacy. It now includes more female scientists, younger researchers as well as experts with a background in the private sector. The board aims to advise the MFA on current issues of relevance and focuses on 1) interlinkages between STI and security; 2) planetary health: STI for food system transformation; 3) international collaboration in AI and the digital field; and 4) strengthening the STI foundation in Japan to support Science and Technology Diplomacy. In addition, Mr. Matsumoto and his team often organise STI seminars to improve the STI literacy of the diplomats and engage actively with INGSA and FMSTAN.

As laid out in the 2008 report and the relevant policy documents issued later, Japan's approach is to strengthen cooperation with developing countries to solve global issues, while at the same time increasing collaborations with so-called "advanced economies", that are leaders in STI. This approach is still relevant as was confirmed during the interview. Science and technology diplomacy in Japan has been in practice for more than one decade and has evolved to include more activities out of the priorities sketched by the central government. However, it was recognised during the interview that relevant ministries, while having opportunities to meet and exchange, still sometimes operate in silos which makes the integration of science and technology diplomacy into a comprehensive framework challenging. In addition, the network of S&T attachés in diplomatic missions could be utilized better and engaged in various initiatives more actively. It is the wish of the S&T advisor to further connect key actors and to fully

---

<sup>19</sup> [https://www.jst.go.jp/global/english/area\\_of\\_research.html](https://www.jst.go.jp/global/english/area_of_research.html)

<sup>20</sup> <https://www.jst.go.jp/EN/international/index.html>

harness the existing opportunities for STI development in Japan. This also should be followed by financial commitment and funds to support STI initiatives.

## **IV. Exploring options for Austria**

In this section, we explore the possible options for Austria to advance science diplomacy. Which key elements should be addressed? What kind of enabling initiatives/instruments are needed? To answer these questions, we inspire ourselves from best practices abroad to address the challenges mentioned at the beginning of this report. The content of this section has been developed through our investigations of different practices and from the focus group discussion.

### **1. Clarifying the definition and its objectives: A strategy for Austria**

It was highlighted by stakeholders interviewed that science diplomacy activities ought to rest on clear definitions, and that concrete objectives should be specified. In the report "Wissenschaftskonzept der Auslandskultur", the BMEIA <sup>21</sup>clarified that science diplomacy *"is about combining foreign policy and science and advancing national interests or solutions to global challenges with the help of science"* (Denise Quistorp, 2019, p. 7). The BMBWF, while not defining science diplomacy, does provide on its website a description of the aims that are pursued by the ministry's use of science diplomacy.<sup>22</sup> There is no document or strategy that defines what it means in the Austrian context for all ministries and stakeholders.

Establishing a clear definition and goals provides clarity for stakeholders on what can be expected from the governing bodies when they promote activities explicitly under the term of science diplomacy. The continuous use of the term without attempts to clarify it might lead to even more confusion. When taking into consideration concerns regarding science as presumably "neutral" undertaking being (mis-)used for foreign affairs purposes, a clear statement on what is meant with the term and its associated instruments is a first step to approach relevant actors. As highlighted during the focus group, science diplomacy could be used as a form of "national branding" for Austria, promoting its scientific excellence and willingness to contribute to global challenges. However, during the focus group participants also highlighted that science diplomacy could – when dealing with global challenges – be tackled most efficiently at the EU level. Yet, developing a clear strategy can further place Austria as a visible player at the EU level.

*What are the options?*

Several options can be considered by Austria to define and prioritize its objectives. A few choices have to be made with regards to 1) the instrument used for this definition exercise (official science diplomacy strategy or integration into broader STI / foreign policy strategy) and 2) the actors involved (ministries, stakeholders). Below we describe a few examples of different ways to address those two points.

---

<sup>21</sup> Read more on the BMEIA and the BMBWF in annex B

<sup>22</sup> <https://www.bmbwf.gv.at/Themen/Forschung/Forschung-International/Science-Diplomacy.html>

The "Wissenschaftskonzept der Auslandkultur" can be compared to the French document on science diplomacy, which is similarly set up by the MFA as an attempt to explain what science diplomacy is, why it is important and how it is practiced already<sup>23</sup>. Those papers are not yet strategies, delimiting clear objectives or actions to be undertaken. They are driven mainly by one actor and therefore have limits in terms of outreach.

Another option is to include science diplomacy as part of a foreign diplomacy strategy (like in Switzerland) and/or within the STI strategy of the country (Japan, Switzerland). This approach gives visibility to science diplomacy, as it is bundled together with other objectives that may not be relevant for science diplomacy. In addition, if integrated into several documents differently, it brings less clarity to external stakeholders. However, each strategy can cross-reference and encompass points that have been made by the other ministry while still adding its own approach (i.e Switzerland).

Some other documents, such as the Panamanian version<sup>24</sup>, go further and define the objectives and instruments that will be used to reach them. The strategy is put together jointly by the MFA and the Research and Education Ministry. A fully integrated, cross-cutting approach makes it possible to present a vision of science diplomacy for the country.

Beyond the integration of governmental actors, an option taken by Finland with regards to its "Better Together" strategy has been to include stakeholders in the implementation and monitoring process. Similarly, a definition exercise can also take the option to include stakeholders in the drafting and implementation process.

All the examples proposed above make use of an official document to communicate science diplomacy, albeit in different formats. However, this definition exercise can also be done without the publication of an official document: It can be about different sectors deciding to come together and systematically making use of the same definition and objectives when referring to science diplomacy. This option however, makes science diplomacy visible only to stakeholders that are part of the process and does not make a clear statement to the world.

#### *What stands in the way?*

Choosing a definition and objectives has a clarifying but also excluding effect. By choosing to frame science diplomacy activities in one direction or the other, some organisations may not find themselves in the definition. International organisations for example, will not easily be involved in anything titled "Austrian Science Diplomacy". This framing problem is also valid when considering the inclusion/exclusion of concepts such as innovation diplomacy. Indeed, innovation diplomacy evokes values such as competition while science is more linked to ideals of cooperation. In addition, a strategy could include thematic priorities that can further delimit the realm of action. Refinement

---

<sup>23</sup> See „Science diplomacy for France“ [https://www.diplomatie.gouv.fr/IMG/pdf/science-diplomacy-for-france-2013\\_cle83c9d2.pdf](https://www.diplomatie.gouv.fr/IMG/pdf/science-diplomacy-for-france-2013_cle83c9d2.pdf)

<sup>24</sup> <https://mire.gob.pa/images/PDF/Lineamientos%20de%20la%20Estrategia%20de%20Diplomacia%20Cientifica%20-%20Rev%2031%20de%20mayo%20de%202019.pdf>

exercises would determine the scope of action and could create more grounded activities.

Finally, attempts to find a common position between ministries may prove to be complicated as seen in the Finnish case. Different ministries may emphasize certain elements more than others, and consensus then can be hard to find.

**Recommendation:** The governmental actors (i.e. in particular BMEIA and BMBWF) could explore, potentially together, different definitions of science diplomacy using concrete objectives and priorities. This includes discussing how to define science diplomacy and how to use the term consistently in the respective contexts. Furthermore, they are invited to consider whether a science diplomacy strategy could be developed.

## 2. Making use of the Austrian outposts: Team Austria

During the course of this study, the Swissnex network has been repeatedly recommended. This network (see full description p. 20) receives quite some attention since it is 1) rather big, 2) present in several countries and 3) well institutionalised and around for several years already. Measuring the success of initiatives such as Swissnex is rather complicated as it can be tricky to assess the value of connections and exchanges that take place<sup>25</sup>. Nonetheless, Swissnex is well known among the community and recognised as a “success story” of science diplomacy.

The two Offices of Science and Technology (OSTA)<sup>26</sup> are dealing with similar agendas to Swissnex. The Washington office is set in a particularly vibrant region for Austrian STI as Open Austria(OA), the Research and Innovation Network Austria (RINA) and the Austrian Scientists & Scholars in North America (ASCINA)network are also based in the United States. OSTA Washington organises yearly the Austrian Research and Innovation Talk (ARIT), a conference that fosters networks between those actors in Northern America and with institutions at home.

Different than OSTA, Swissnex also includes scientific attachés that are dispatched in embassies around the world. Thus, Swissnex follows the approach to connect all Swiss actors relevant for STI located either in capital cities (science counselors) or in cities of relevance for STI (the five Swissnex offices). In Austria, a non-capital oriented approach is for instance taken through the activities of OA<sup>27</sup>. The Austrian science attaché to the EU also represents a key element of the Austrian STI representation abroad; however, its mandate is more on creating policy opportunities than connecting stakeholders. In addition, a few science attachés dispatched in different embassies and the cultural fora are also practicing science diplomacy. Science attachés’ locations are currently not easily identifiable for the interested public. In addition, the Austrian Economic Chamber

---

<sup>25</sup> Interview with Niccolò Iorno

<sup>26</sup> see annex B

<sup>27</sup> See annex B

(WKO) also provides guidance on STI (although rather concerned with business links) and the Austrian Agency for International Cooperation in Education and Research (OeAD)<sup>28</sup> has representation offices abroad. Therefore, elements of a potential network of several STI Austrian actors abroad exist, yet the network is far less explicit and linked. Some actors are connected with one another (i.e. OSTA Washington and OA), but a common platform such as Swissnex that would provide a comprehensive framework does not exist. Such a platform would be useful to promote the work of these actors in Austria and make sure that Austrian researchers and knowledge institutions know whom to address when wanting to “internationalise” their activities. The necessity to increase the visibility of STI related outposts has been recognised in the Austrian STI pact (Bundesregierung, 2020).

#### *What are the options?*

Several schemes exist to make Austrian representation abroad better integrated and more visible to its potential clients. Several countries, such as Finland, the UK and of course, Switzerland, have developed STI attaché networks.

- The network of attachés option: bringing attachés under one umbrella

The UK example, the “Global Science and Innovation Network” (SIN), is a network of science counselors dispatched in UK’s embassies and consulates. Most are located in capital cities, while a few are located in cities such as Milan, Los Angeles and Sao Paulo. The network has a dedicated webpage<sup>29</sup>, a blog about its activities<sup>30</sup> and is present on social media.

The Finnish “Team Finland Knowledge Network” has STI counselors in several embassies and is only present in capital cities. The network has been given a few pages on the OKM website<sup>31</sup> and most counselors are active on Twitter. The network is well known by the HE institutions in Finland which are also part of the steering committee making decisions and allocating funding to the network. Like for the SIN, one counselor is responsible for one location.

In this option, one umbrella term is structuring the work of the attachés and potential clients can easily find the attachés. This approach of grouping information provides an overview of available services by attachés. Yet, in the case of Austria, outposts also include other actors.

- The network of networks options: bringing all offices and attachés under one umbrella

While STI counselors are one per embassy, the offices can be slightly larger: for example, the Swissnex office for Boston and New York counts nine employees. Swissnex provides an easily understandable platform for those wishing to connect with either science counselors in certain countries or with the offices. The advantage here is its

---

<sup>28</sup> See annex B

<sup>29</sup> <https://www.gov.uk/world/organisations/uk-science-and-innovation-network>

<sup>30</sup> <https://blogs.fcdo.gov.uk/global-science-and-innovation-network/>

<sup>31</sup> <https://minedu.fi/en/team-finland-knowledge-network>

centralization: one website gives an overview of the locations and responsible persons in each of those locations. Swissnex does active outreach activities. As mentioned before, Swissnex offices are chosen by the steering committee, which includes Swiss HE institutions as well as funding agencies and business and foundations representatives. This involvement of key stakeholders is relevant as it ensures interest in the actions of the offices, awareness and use of the services available. This scenario fits the profile of the Austrian outposts structure as it is composed of multiple relevant actors abroad.

#### *What stands in the way?*

Funding is a key issue: the more elaborate the network, the more funds have to be freed. The Swissnex network is partly financed by private/non-governmental funds, which is one of the ways to sustain its services and activities. In Austria, the establishment of an office e.g. in Brussels has been contested by several stakeholders. Networks that bring together multiple funding bodies can be hard to coordinate and can prove to be rather inflexible. For example, during the OA interview, it was highlighted that there should not be too many constraints in terms of mandate and activities as to allow the offices to grow organically depending on needs.

**Recommendation:** The creation, promotion and expansion of a structured, inclusive, and clear framework of Austrian STI outposts: "Team Austria".

The following elements could be considered in the elaboration of the framework:

- The Austrian STI representation abroad could be centrally represented via a common platform. This platform could provide information on the different representations of interested parties (OSTA offices, OA, cultural forums, specific WKO activities, international offices of the OeAD, and science attachés in embassies). It could also include diaspora networks such as ASCINA and include contacts of interested embassies even if they do not have cultural forums/science attachés.
- In addition, information regarding the available STI counselors in EU delegations could be shared and promoted on the platform, especially when no Austrian equivalent exists in a specific country.
- Promoting the work of the outposts to stakeholders would increase the reach of their activities. This can be done via a national awareness campaign or through the inclusion of knowledge institutions in the shaping of the platform and activities. Austrian presence abroad and services offered could be decided upon by key stakeholders together: this can ensure the use and awareness of the offered services. In general, further exploring whether offices such as OA or OSTA could be extended in size and to other locations is desirable.
- Coordination efforts could be undertaken by several interested ministries.

### **3. Establishing and supporting networks at home: A roundtable as a basis for further action**

Science diplomacy networks have been developing in the last few years; some of them use explicitly the term science diplomacy, but not all. The geographical scope and objectives of those networks are diverse. We find STI diaspora networks, city-led science diplomacy networks, or cross-border alliances on science diplomacy.

In the case of Austria, we can mention a few important networks which link actors in Austria such as Climate Change Centre Austria (CCCA) or Universities Austria (Uniko). Austrian institutions participate at the international level in the INGSA/SPIDER/FMSTAN<sup>32</sup> networks. Those are good practice examples of networks/associations making use of science diplomacy principles. Networks are useful because they foster connectivity between relevant actors and allow the pooling of resources. To promote science diplomacy, networks can provide visibility and enable the connections of interested actors with one another. In addition, "Internationalisation at home" is a key objective of the Austrian STI strategy for 2030 and its associated Pact (2021-2023). In this section, we explore what kind of explicit science diplomacy networks could be considered in Austria.

*What are the options?*

- City-based networks

Austria's capital is the location of many reputable Austrian scientific organisations and also hosts a variety of international institutions that are relevant for science diplomacy. Other cities hosting international hubs have taken the approach to create connections between the city's knowledge institutions and inter-governmental organisation on the topic of science diplomacy.

The Barcelona SciTech DiploHub, for example, concretely aims at fostering ties and opportunities between STI actors in Barcelona, and promotes Barcelona's image as a leading city in terms of innovation and science. The network brings together knowledge institutions, non-profit organisations, public institutions and private corporations relevant for science diplomacy in Barcelona. The hub organises summer schools and brings global stakeholders to Barcelona around the topic of science diplomacy. Maybe influenced by the Catalan separation dynamics, it also has initiated "diplomatic circles" which bring diplomatic missions and international organisations together with the city's policy makers and academic circles through periodic visits, encounters and policy briefings.

Another example is the Geneva Science and Diplomacy Anticipator (GESDA). Based in Geneva, it connects various actors and stakeholders of the city with the ambition to address key global challenges such as "Quantum Revolution & Advanced Artificial Intelligence", "Eco-regeneration & Geoengineering" or "Science & Diplomacy".

---

<sup>32</sup> INGSA is the International Network for Government Science Advice and is at the initiative of both the Foreign Ministries S&T Advice Network (FMSTAN) and the Science Policy in Diplomacy and External Relations (SPIDER) network, which has a clear focus on science diplomacy.

City based networks are interesting as they remove the focus point from the national orientation to the more internationally oriented one of global cities. As seen previously, international organisations can be reluctant to engage themselves in initiatives, which are clearly linked to a national strategy. GESDA, by taking on topics related to global challenges, enables connection between key institutions from the international ecosystem with national knowledge institutions.

Focusing on a city may exclude valuable stakeholders in the rest of Austria. Nonetheless, it is a way to harness the richness of the Viennese international ecosystem, if the narrative goes beyond national interests and country self-promotion.

- National networks

Apart from the city oriented networks, examples of explicit science diplomacy networks which aim to connect actors "at home" are rather rare or respectively more implicit. The Finnish UniPID network is a noteworthy example of an implicit science diplomacy network. The network 1) connects HE institutions with one another in an interdisciplinary manner 2) engages with policy makers by participating in meetings with ministries, and provide opportunities for information sharing and networking between sectors and 3) has as a prime focus the contribution of Finnish HE institutions to solving global challenges. The activities of the UniPID include funding, the organisation of events convening both researchers and policy-makers and educational services such as online sustainable development courses in HE institutions. Such thematic oriented approach to science diplomacy is an option to consider. It structures the work of the network around key areas of global importance for which the institutions show intrinsic interest and as such builds national capacities and critical masses to engage at an international scale.

In the Austrian context, several options are potentially possible. The idea to start with a roundtable of key stakeholders has received positive support from all interviewees. If successful, a regular platform should be operationalized in order to bring key actors from the foreign policy field and the research area closer together to identify priorities and joint activities. To sustain and support these activities a small secretariat infrastructure should be centrally financed. Another way is to start from pre-defined key pilot projects that have already a clear geographical and thematic focus. This thematic focus could be inspired by the UniPID approach. Choosing a thematic priority of global relevance could be a way to integrate some intergovernmental organisations together with knowledge institutions. This would effectively promote "internationalisation at home". In either way, a platform should be set up with a secretariat of a few persons working to coordinate and facilitate the work.

- Cross-border networks in the EU

Science diplomacy networks also exist beyond national or city boundaries. A few are found in the EU context such as the European Union Science Diplomacy Alliance and SFIC. Each of those initiatives has specific aims and engages various actors. The European Union Science Diplomacy Alliance<sup>33</sup> was launched by the Horizon 2020

---

<sup>33</sup> <https://www.science-diplomacy.eu/>



S4D4C<sup>34</sup>, InsSciDE <sup>35</sup>and EL-CSID<sup>36</sup> to grow the science diplomacy momentum consolidated by the three projects. The current members of the network are mostly research and research development-oriented institutions and as such present an interesting set of actors working to foster the knowledge about and the practice of science diplomacy. This is a good example of “bottom-up” science diplomacy initiatives. With ZSI as founding chair of the initiative, there is already a strong network node based in Austria and eventually further Austrian stakeholders could be included and the activities strengthened.

SFIC is an advisory forum bringing together EU members states, the European Commission and associated countries to address international scientific cooperation. SFIC has several working groups, one of them being the “Task Force on Science Diplomacy”, which aims at exploring the development capacities of science diplomacy in the EU and with third countries. SFIC is currently chaired by Martina Hartl from the Department for International Research Cooperation and Science Diplomacy of the BMBWF. SFIC is a good example of cross-country collaboration by governmental actors on international scientific cooperation and science diplomacy. Through the current Austrian chairmanship, Austria is well integrated into the EU science diplomacy discussion.

*What stands in the way?*

The key issue of establishing a network on science diplomacy is to allow at the same time broad participation while being specific enough to enable concrete actions and initiatives to arise.

Another issue relates to funding and corporate involvement. Large networks could benefit from private endowments or large investments, if they are sustained. GESDA and SciTech DiploHub are partly financed by the city where they are hosted in and supported through private funds which raises the question of agenda setting and private sector influence.

Our results show that actors would like to cooperate on concrete topics and harness synergies while avoiding a stark increase of resources needed and competing with other organisations.

**Recommendation:** Setting-up a roundtable with key stakeholders would set the base for a science diplomacy network at home and abroad.

At the beginning, priorities for joint activities should be set. A round table, not an expensive intervention in itself, enables interest groups to be involved at an early stage and gives them the opportunity to design the network according to their needs. Suggestions that could lead to a common understanding include:

- To discuss how to best use Austrian offices and foreign policy outposts in other countries to support STI policy and science diplomacy, how to

---

<sup>34</sup> <https://www.s4d4c.eu/>

<sup>35</sup> <https://www.insscide.eu/>

<sup>36</sup> <https://www.el-csid.eu/>

improve and promote their services and what stakeholders expect from a "Team Austria" and EU Delegations as mentioned in recommendation 2.

- To discuss specific geographical science diplomacy priorities such as Austria's "regional expertise" in the Balkans and in the Danube region and how to further improve the instruments, supporting in particular regional networks addressing challenges such as climate change, demographic change or infectious diseases which are global by nature but have a strong macro-regional component as well.
- To address how to better include Austria's science in international diplomatic fora dealing with thematic priorities related to the SDGs, to jointly identify important events (e.g. COP26), explore how Austria is represented there, prepare and coordinate with stakeholders and provide relevant knowledge on how science diplomacy can be supported.
- To address the topic of how to engage at the EU level in relation to science diplomacy.
- To brainstorm with the stakeholders about different geographical approaches, for example in particular on STI interactions with autocratic /non-democratic states, how to strengthen academic freedom and research integrity, and elaborate on whether there is a need for more information for STI stakeholders wishing to engage in those countries.

Ultimately, the roundtable sets the basis for the establishment of a more formal science diplomacy-networking platform. This platform, co-created by stakeholders, would benefit from the support of a secretariat to organise its activities.

#### **4. Providing dedicated financial support: A Science Diplomacy Fund**

Funding is essential for any initiatives and unsurprisingly, when asked about further engagement with science diplomacy practices, stakeholders often mentioned the issue of funding and capacity. This is a question shared by many countries that have devised different strategies to help stakeholders engaging with science diplomacy. In Austria, several funding and support mechanisms exist which implicitly promote science diplomacy engagement (Danubius Awards<sup>37</sup>, Austrian Prize for Development Research<sup>38</sup>, Cooperation development research programme<sup>39</sup> and the Intercultural Achievement Award<sup>40</sup>). More and explicit science diplomacy funding could be envisaged

---

<sup>37</sup> <http://www.idm.at/projekte/preise/danubius-young-scientist-award>

<sup>38</sup> <https://oead.at/en/expertise/development-cooperation/prize-for-development-research> see also annex B

<sup>39</sup> <https://oead.at/en/cooperations/international-he-cooperations/cooperation-development-research/> see also annex B

<sup>40</sup> <https://www.bmeia.gv.at/en/european-foreign-policy/international-cultural-policy/dialogue-of-cultures-and-religions/intercultural-achievement-award/>

in Austria to increase the capacities of actors to engage and their awareness of science diplomacy in general.

In addition, we find that funding opportunities that aim to strengthen interconnectedness at home would be especially relevant in the Austrian context: it could provide a way to harness the richness of the international ecosystem present in Vienna, identified earlier as a sector less involved. Here again funding matters.

*What are the options?*

A fund for science diplomacy in Austria could take different forms. The options presented below could be mixed to create the best result for the Austrian context. In addition, Austrian governmental institutions could decide to go for several options.

- Rewarding internationalisation practices in key thematic areas: Extending the current model

Such funding options and awards exist in Austria on the topic of development research. Additional funding could be established on other key issues such as climate change, global health or digitalization. Three examples provide inspiration: The Finnish Flagship Programme, the Japanese STAREPS and UniPID. The first example has launched calls on 10 key thematic areas (AI, 6G, cancer research, bio economy, etc.), each creating its own cluster of expertise. The idea behind this is to promote excellence in a strategic field and collaboration between national and international stakeholders. Despite this commitment, the extent to which those networks engage in the internationalisation of their activities seems to depend on the project<sup>41</sup>.

SATREPS is a funding tool aiming to achieve the SDGs through collaboration with developing countries. The scheme makes explicit reference to science diplomacy as one of its objectives. Those thematically oriented funding options foster science diplomacy practices in areas strategically identified.

UniPID, among other activities, financially supports the scientific community when interacting internationally on issues related to the SDGs. The network offers grants supporting international events organisations, and for the preparation of research projects and networking activities. In addition, it provides researchers with international contacts and supports their endeavors in applying for external funding through information sharing and training opportunities.

- The foreign diplomacy oriented option: The Science Diplomacy Fund

The Science Diplomacy Fund<sup>42</sup> (SDF) of the Dutch Research Council (NWO) in the Netherlands stands out for its explicit intention to promote science diplomacy. It allocates funds through an annual call for proposals aimed at knowledge institutions in the Netherlands. The remaining part is allocated to activities organised by NWO together with Dutch representations abroad in specific countries. The fund is especially dedicated to promoting relations with countries that the Netherlands wishes to intensify its

---

<sup>41</sup> Interview with Tiina Vihma-Purovaara.

<sup>42</sup> See: <https://www.nwo.nl/en/researchprogrammes/science-diplomacy-fund-sdf>

relationship with. Therefore, this fund takes a strategic country based approach as opposed to the funds above which have a thematic orientation.

The Danube region could be an area of special interest to Austria. The work of the ministries as well as actors such as the Institute for the Danube Region and Central Europe (IDM), the Centre for Social Innovation (ZSI) or the Donau Universität Krems(DUK)<sup>43</sup> in that regard are acknowledged and Austria is recognised as a key link between the Danube and Balkan regions and the EU. Austrian stakeholders, as shown in section II, are well connected outside the EU. However, fewer connections are reported with regions such as Latin America and Oceania. A geographically oriented funding such as the Dutch Science Diplomacy Fund, would need to prioritize countries of interest: this differentiation can be different depending on the body initiating the fund. In the case of the SDF, the countries were strategically selected from a foreign affair's perspective.

- The internationalisation at home option: The GSPI model

Grants offered by the GSPI in Switzerland also encourage science diplomacy practices. The "Impact Collaborating Programme" of the GSPI provides grants to projects that bring together actors from intergovernmental institutions and from academia located in Geneva. The grants are awarded to projects that bring together science and policy at the international level. The grants are a good way to increase collaboration between relevant actors, and could be especially relevant as a way for Austria to include the Viennese ecosystem of intergovernmental organisations.

- The science diplomacy communication campaign option: Raising the profile of science diplomacy

Another example is the prize "Raising the Profile of Education and Science Diplomacy"<sup>44</sup> initiated by the German Federal Ministry of Science and Education. This prize aims to increase the visibility of international scientific and educational cooperation by rewarding individuals that engage in such activities. The winners are required to widely communicate their activities in the year that follows the reception of the award.

*What stands in the way?*

The most obvious barrier is the allocation of public funding and capacity to enable those activities to take place. Another difficulty arises from choosing which thematic and/or geographic focus will be the subject of the fund if any: this will of course depend on the institutional level at which the initiatives take place, at the level of one or more ministries, involving different funding agencies or other partners....

---

<sup>43</sup> See description of the IDM; ZSI and DUK' s science diplomacy activities in annex B

<sup>44</sup> [https://www.education-science-diplomacy.de/esd/de/home/home\\_node.html](https://www.education-science-diplomacy.de/esd/de/home/home_node.html)

### **Recommendation:**

- 1) Exploring additional funding opportunities that would be targeted at topics of relevance for science diplomacy, enabling the development of globally relevant clusters of expertise.

This could entail:

- Choosing a few key thematic priorities, i.e inspired by the SDGs.
  - Providing opportunities for cross-sectoral engagement by granting funds to projects uniting knowledge institutions and international organisations and Austrian embassies.
  - Integrating elements for international cooperation through the organisation of events, travels and exchange.
  - Incorporating science diplomacy explicitly either in the title of the fund or in its objectives to raise the profile of science diplomacy endeavours in Austria.
  - Including requirements of results dissemination.
- 2) Putting together an explicit science diplomacy award requiring recipients to actively communicate abroad and at home about the nature of their work, and as such also promote science diplomacy practices.

## **5. Raising the knowledge about science diplomacy**

All above mentioned recommendations target specific needs to further develop science diplomacy in Austria. Each recommendation aims to raise the knowledge of science diplomacy. By clarifying the term, structuring and expanding science diplomacy activities, bringing stakeholders together and investing in science diplomacy activities, Austria can actively promote the concept and – even more importantly - practices of science diplomacy. Science diplomacy is an already used concept by both the BMBWF and the BMEIA, therefore its explicit use should be continued and the previous recommendations help to further ground the use of the concept of science diplomacy in clear and visible activities.

*What are the additional options?*

While a lot is already being done, a few other activities can further “raise the knowledge of science diplomacy in Austria”. Those can take the forms of:

- Science diplomacy training in science education
- Science in residence programme within the foreign ministry or embassies
- Events dedicated to raising awareness of outpost activities such the creation of a Journal or a newsletter on science diplomacy that could include interviews and Q&As with ambassadors and STI attachés (written or video content).
- Twisting existing newsletters and information exchange on cooperation in specific geographical areas or thematic fields to include more explicit inspiration for science diplomacy activities

In addition, training options can be developed together with the DA. The DA is able to provide tailored introductory trainings for the scientific community related to diplomacy and science diplomacy in particular, both in English and German. The programme can focus on specific issues such as health, green or tech diplomacy. Results from the S4D4C project in which DA and ZSI were involved can serve as starting points. Specific areas can also be addressed with international experts.

#### *What stands in the way?*

Such activities are “low hanging fruits” but are useful to spur more interests in science diplomacy. There is still room for a more strategic approach and further inspiration provided to the stakeholders to better understand and to better coordinate many of the relevant activities that already take place. This is also in the line of current activities being organized at the EU level. Therefore, not much really “stands in the way” to implement some of the activities aiming to raise the knowledge of science diplomacy: they can be adapted to the needs and resources of the actors undertaking them.

**Recommendation:** Engaging in awareness raising activities and stakeholder exchanges on the topic of science diplomacy. Several activities launched by Austrian stakeholders in North America (engagement with EURAXESS on Science Diplomacy by the Austrian S&I Attaché or the ambassador engaging with AAAS on the topic, networks such as ASCINA and RINA discussing the topic, events such as ARIT and the creation of dedicated organisations and positions such as OA to name just a few) provide tools that can be eventually contextualized and replicated in other regions.

## **Concluding remarks**

This report has investigated how science diplomacy in Austria could be brought to the next step to deliver its promise to “create and strengthen alliances based on scientific knowledge and exchange to strengthen capacities to jointly address global challenges.”

To take upon this task, several interrelated barriers that ought to be addressed have been identified: The conceptual issues related to defining and framing science diplomacy and its use, the identification of relevant actors and their engagement, and the lack of capacity and funding. The Austrian science diplomacy ecosystem analysis that followed identified the main characteristics and stakeholders practicing science diplomacy explicitly and implicitly. This exercise enabled us to assert that there are several engaged and interested institutions in Austria which are aware of who the other actors in the fields are. The interconnectedness between those institutions vary, and bilateral connections are prevalent. The Austrian science diplomacy ecosystem, while not yet fully integrated, presents the capacities and interest to be further engaged with science diplomacy.

To promote their science diplomacy ecosystem, countries facing similar challenges as Austria have taken different approaches to advance science diplomacy, some of which are relevant for Austria. However, no recipe for promoting science diplomacy exists which can be replicated entirely from one country to another. Initiatives and ideas from

Japan, Finland, Switzerland, Spain, the UK, the Netherlands, Germany, or Panama were presented in this report as inspirational options which could be adapted to fit the reality of the Austrian context.

From this investigation we made five key recommendations:

- 1) science diplomacy should be described, especially by governmental actors, in specific contexts (with corresponding priorities and goals) and integrated accordingly in strategic documents,
- 2) information about relevant Austrian Outposts (Team Austria) should be summarized in a platform and the capacities to actively support science diplomacy should be strengthened,
- 3) networking within Austria and exchange of information on the topic could be achieved through regular "round tables".
- 4) financial incentives could be provided in the format of a fund supporting science diplomacy activities (e.g. to address the Sustainable Development Goals) and / or through an explicit award for science diplomacy, and finally 5) knowledge of the concept should be improved through appropriate training opportunities and awareness raising.

Our findings and recommendations are in line with the Austrian STI strategy 2030 and its associated STI-Pact (2021-2023). Several objectives and action points set out by those documents particularly resonate with our recommendations such as the promotion of "Internationalisation at home", the positioning of Austria as a key actor on the EU stage, the strengthening of Austria's research capacities with regards to key "top thematic fields" and the extension of networking capacity and visibility of Austrian STI outposts. (Bundesregierung, 2020A).

The suggested recommendations contribute to the achievement of the goals set out by the STI strategy and increase the awareness of science diplomacy practices and intend to streamline and structure how science diplomacy is addressed in Austria. This in turn will bring more clarity and confidence to science diplomacy related activities, necessary to solve the "common problems facing 21st century humanity and to build constructive international partnerships" (Fedoroff, 2009).

## Content

Executive summary .....	2
Introduction.....	3
I. Problem statement .....	5
II. The Austrian science diplomacy ecosystem.....	7
1. General characteristics of the Austrian science diplomacy ecosystem.....	9
2. The science diplomacy institution in Austria .....	14
III. Comparative approaches .....	16
1. Finland.....	17
2. Switzerland.....	20
3. Japan.....	23
IV. Exploring options for Austria .....	26
1. Clarifying the definition and its objectives: A strategy for Austria.....	26
2. Making use of the Austrian outposts: Team Austria.....	28
3. Establishing and supporting networks at home: A roundtable as a basis for further action.....	31
4. Providing dedicated financial support: A Science Diplomacy Fund .....	34
5. Raising the knowledge about science diplomacy .....	37
Concluding remarks .....	38
List of Acronyms.....	41
List of Figures .....	45
References .....	46
Annexes.....	49
A. List of contributions .....	49
B. Descriptions of the institutions in the ecosystem .....	50
C. Questionnaire: The Austrian Science Diplomacy Landscape Survey .....	64



## List of Acronyms

AAAS	American Association for the Advancement of Science
AIT	Austrian Institute of Technology
ALLEA	All European Academies
ADA	Austrian Development Agency
ADC	Austrian Development Cooperation
AQ	Agentur für Qualitätssicherung und Akkreditierung Austria (Agency for Quality Assurance and Accreditation)
AMPF	Austrian Marshall Plan Foundation
APPPEAR	Austrian Partnership Programme in Higher Education and Research for Development
ARIT	Austrian Research and Innovation Talk
ASCINA	Austrian Scientists & Scholars in North America
BMBWF	Bundesministerium für Bildung, Wissenschaft und Forschung (Federal Ministry of Education, Science and Research)
BMDW	Bundesministerin für Digitalisierung und Wirtschaftsstandort (Federal Ministry for Digital and Economic Affairs)
BMEIA	Bundesministerium für europäische und internationale Angelegenheiten (Federal Ministry of European and International Affairs)
BMK	Bundesministerin für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie (Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology)
BOKU	Universität für Bodenkultur (University of Natural Resources and Life Sciences)
CBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
CCCA	Climate Change Centre Austria
CERN	Conseil Européen pour la Recherche Nucléaire (European Council for Nuclear Research)
COP26	Climate Change Conference 26
CST	Council for Science and Technology (Japan)
DA	Diplomatische Akademie Wien (Vienna School of International Studies)

DKU	Donau Universität Krems
DRC	Danube Rectors Conference
EASAC	European Academies Science Advisory Council
EUREKA	European International Network for application oriented Research and Development
FDFA	Federal Department of Foreign Affairs
FFG	Österreichische Forschungsförderungsgesellschaft (Austrian Research Promotion Agency)
FMSTAN	Foreign Minister Science & Technology Advisers Network
FWF	Fonds zur Förderung der wissenschaftlichen Forschung (Austrian Science Fund)
GBA	Geologische Bundesanstalt (Geological Federal Institute)
GESDA	Geneva Science Diplomacy Anticipator
GSPI	Geneva Science Policy Interface
HE	Higher Education
IAEA	International Atomic Energy Agency
IDM	Institut für den Donaauraum und Mitteleuropa (Institute for the Danube Region and Central Europe)
IIASA	International Institute for Applied Systems Analysis
INGSA	International Network for Governmental Science Advice
JESH	Joint Excellence in Science and Humanities
IST	Institute for Science and Technology Austria
JR	Joanneum Research
JRC	Joint Research Centre
JST	Japan Science and Technology
Kobü	Kooperation Büros (Cooperation offices)
LAC	Latin America and the Caribbean
LBG	Ludwig Boltzmann Gesellschaft (Ludwig Boltzmann Society)
MFA	Ministry of Foreign Affairs
MEXT	Ministry of Education, Culture, Sports, Science and Technology (Japan)

NWO	Nederlandse Organisatie voor Wetenschappelijk Onderzoek (Dutch Research Council)
OA	Open Austria
ÖAW	Österreichische Akademie der Wissenschaften (Austrian Academy of Science)
OeAD	Österreichische Agentur für Bildung und Internationalisierung (Austrian Agency for International Cooperation in Education and Research)
ÖFSE	Österreichische Forschungsstiftung für Internationale Entwicklung (Austrian Foundation for Development Research)
OIIP	Österreichisches Institut für Internationale Politik (Austrian Institute for International Affairs)
OKM	Opetus- ja kulttuuriministeriö (Finnish Ministry of Education and Culture)
OMI	Open Medical Institute
ÖRHK	Österreichisch-Russische Historikerkommission (Austro-Russian Historical Commission)
OSCE	Organization on Security and Cooperation in Europe
OSTA	Office of Science and Technology Austria
RINA	Research and Innovation Network Austria
SATREPS	Science and Technology Research Partnership for Sustainable Development
SDGs	Sustainable Development Goals
SEEIIST	South East European International Institute for Sustainable Technologies
SERI	State Secretariat for Education, Research and Innovation
SFIC	Strategic Forum for International scientific and technological Cooperation
SGS	Salzburg Global Seminars
SKÖTH	Ständige Konferenz österreichischer und tschechischer Historiker zum gemeinsamen kulturellen Erbe (Permanent Conference of Austrian and Czech Historians on the Common Cultural Heritage)
SPIDER	Science Policy in Diplomacy and External Relations
STEM	Science, Technology, Engineering and Mathematics

STI	Science, Technology and Innovation
TU Vienna	Technische Universität Wien (Vienna University of Technology)
TWAS	The World Academy of Sciences
UniPID	University Partnership for International Development
Uniko	Österreichische Universitätenkonferenz (Universities Austria)
UVIE	Universität Wien (University of Vienna)
VCDNP	Vienna Centre for Disarmament and Non-proliferation
WKÖ	Wirtschaftskammer Österreich (Austrian Economic Chambers)
WTZ	Wissenschaftlich-Technische Zusammenarbeit (Scientific & Technological Cooperation)
ZSI	Zentrum für Soziale Innovation GmbH (Centre for Social Innovation)

## List of Figures

<i>Figure 1: Science diplomacy interactions' space Aukes et. al (2021)</i> .....	6
<i>Figure 2 Flash card on Austrian Science Diplomacy</i> .....	9
<i>Figure 3: Extent of identification of stakeholders with science diplomacy</i> .....	10
<i>Figure 4: Involvement in science diplomacy</i> .....	11
<i>Figure 5: Distribution per thematic priority</i> .....	12
<i>Figure 6: Distribution per key fields of interest</i> .....	13
<i>Figure 7: Regularity of interaction with organisations outside Austria</i> .....	14
<i>Figure 8: Distribution of institutions' international interactions per continent</i> .....	14
<i>Figure 9: The Austrian Science Diplomacy Ecosystem</i> .....	16
<i>Figure 10 Japan S&amp;T Diplomacy Network (Source: Interview/MOFA)</i> .....	24

## References

- AAAS/Royal Society. (2010). *New frontiers in science diplomacy*.
- Aukes, E., Wilsdon, J., Ordóñez-Matamoros, G., & Kuhlmann, S. (2021). *Global resilience through knowledge-based cooperation: A New Protocol for Science Diplomacy*. S4D4C. [https://www.s4d4c.eu/wp-content/uploads/2021/02/The-New-Protocol-for-Science-Diplomacy\\_S4D4C-Policy-Brief.pdf](https://www.s4d4c.eu/wp-content/uploads/2021/02/The-New-Protocol-for-Science-Diplomacy_S4D4C-Policy-Brief.pdf)
- Benz, A., Kuhlmann, S., & Sadowski, D. (2007). Governance – A Political Science Perspective. In D. Jansen (Hrsg.), *New Forms of Governance in Research Organizations* (S. 3–29). Springer Netherlands. [https://doi.org/10.1007/978-1-4020-5831-8\\_1](https://doi.org/10.1007/978-1-4020-5831-8_1)
- Berkman, P. A. (2014). *Stability and Peace in the Arctic Ocean through Science Diplomacy*. 6.
- Bundesregierung. (May 2020). FTI-Pakt 2021-2023.
- Bundesregierung. (May 2020A). FTI -Strategie 2030.
- Denise Quistorp. (2019). *Wissenschaftskonzept der Auslandskultur*. BMEIA-Austria Kultur.
- Federal Department of Foreign Affairs. (2020). *Foreign Policy Strategy 2020-2023*.
- Fedoroff, N. (2009). Science Diplomacy in the 21st Century. In *Cell* (Bd. 136, S. 9–11).
- Flink, T. (2020). The Sensationalist Discourse of Science Diplomacy: A Critical Reflection. In © Tim Flink, 2020 | [doi:10.1163/1871191X-bja10032](https://doi.org/10.1163/1871191X-bja10032)This is an open access article distributed under the terms of the CC BY-nc 4.0 license.The

*Hague Journal of Diplomacy* 1 (Brill, S. 359–370).

[https://brill.com/view/journals/hjd/15/3/article-p359\\_7.xml?language=en](https://brill.com/view/journals/hjd/15/3/article-p359_7.xml?language=en)

Flink, T., & Schreiterer, U. (2010). Science diplomacy at the intersection of S&T policies and foreign affairs: Toward a typology of national approaches. *Science and Public Policy*, 37(9), 665–677.

<https://doi.org/10.3152/030234210X12778118264530>

Government of Japan. (2011). *Science, Technology, and Innovation 4th Basic Plan*.

Kaltofen, C., & Acuto, M. (2018). Science Diplomacy: Introduction to a Boundary Problem. *Global Policy*, 9, 8–14. <https://doi.org/10.1111/1758-5899.12621>

Kingdon, J. W. (2011). *Agendas, alternatives, and public policies* (Updated 2nd ed). Longman.

Langenhove, L. van, Institute of European Studies at the Vrije Universiteit Brussel (IES-VUB), United Nations University Institute on Comparative Regional Integration Studies (UNU-CRIS), European Commission, & Directorate-General for Research and Innovation. (2017). *Tools for an EU science diplomacy*. Publications Office.

Ruffini, P.-B. (2017). What Is Science Diplomacy? In P.-B. Ruffini, *Science and Diplomacy* (S. 11–26). Springer International Publishing.

[https://doi.org/10.1007/978-3-319-55104-3\\_2](https://doi.org/10.1007/978-3-319-55104-3_2)

Rungius, C. (2018). *S4D4C State-of-the-Art Report*. [https://www.s4d4c.eu/wp-content/uploads/2018/08/S4D4C\\_State-of-the-Art\\_Report\\_DZHW.pdf](https://www.s4d4c.eu/wp-content/uploads/2018/08/S4D4C_State-of-the-Art_Report_DZHW.pdf)

Schlegel, F. (2014). Swiss Science Diplomacy. *Science & Diplomacy AAAS*.

<https://www.sciencediplomacy.org/perspective/2014/swiss-science-diplomacy>

Swiss Federal Council. (2018). *Switzerland's International Strategy on Education, Research and Innovation*.

Sunami, A., Hamachi, T., & Shigeru, K. (2013). The Rise of Science and Technology Diplomacy in Japan. In *Science & Diplomacy*.



# **Annexes**

## **A. List of contributions**

### **Interviews:**

Andreas Obrecht, OeAD. Interview. Conducted by Elke Dall, May 2021.

Arnold Obermayr, BMEIA. Interview. Conducted by Elke Dall, May 2021.

Elena Sokova, VCDNP. Interview. Conducted by Laure-Anne Plumhans, June 2021.

Elisabeth Grabenwegner and Florian Pecenka, Permanent Representation of Austria to the European Union. Interview. Conducted by Elke Dall, June 2021.

Friedrich Faulhammer, DUK. Interview. Conducted by Elke Dall, June 2021.

Maria Weber, AQAustria. Interview. Conducted by Elke Dall, June 2021.

Martin Rauchbauer, OA. Interview. Conducted by Laure-Anne Plumhans, June 2021.

Niccolò Iorno, FDFA. Interview. Conducted by Laure-Anne Plumhans, July 2021.

Patrick Lehner, LBG. Interview. Conducted by Elke Dall, June 2021.

Reinhard Belocky, FWF. Interview. Conducted by Elke Dall, June 2021.

Sergey Sizov, IIASA. Interview. Conducted by Elke Dall, June 2021.

Sebastian Schäffer, IDM. Interview. Conducted by Laure-Anne Plumhans, June 2021.

Susanne Keppler-Schlesinger, DA. Interview. Conducted by Elke Dall, September 2021.

Thomas Biebl, SGS. Interview. Conducted by Laure-Anne Plumhans, May 2021.

Tiina Vihma-Purovaara, OKM. Interview. Conducted by Laure-Anne Plumhans, July 2021.

Yoichiro Matusmoto. MOFA. Interview. Conducted by Elke Dall and Laure-Anne Plumhans, July 2021.

**Written inputs received by:**

Arnold Obermayr, BMEIA.

Elisabeth Grabenwegner and Florian Pecenka, Permanent Representation of Austria to the European Union .

Maximilian Huck, DA.

Sergey Sizov, IIASA.

Simone Poetscher. OSTA Washington.

Veronika Wittmann, JKU.

**List of participants to the focus group:**

Arnold Obermayr, BMEIA.

Johannes Gadner, FTE RAT

Klaus Schuch, ZSI.

Martina Hartl, BMBWF.

Thomas Schreiner, MedAustron

Veronika Wittmann, JKU.

**B. Descriptions of the institutions in the ecosystem**

**Governmental Stakeholders**

**The Ministry of European and International Affairs (BMEIA)**

*Relevance and activities*

The BMEIA is a key stakeholder in the Austrian science diplomacy landscape and has been recognised as such by most other key institutions. The ministry has a dedicated unit (V.3.b) for science cooperation and science diplomacy. The unit acts as a facilitator related to science and foreign policy. The unit supports diplomatic representations (Embassies and Cultural Forums) in their cooperation with relevant government departments and scientific institutions in Austria. The diplomatic representations, especially the Cultural Forums, promote and showcase Austrian scientific excellence abroad, provide connections between scientists and support the creation of international networks in the field of science. The BMEIA/General Directorate for International Cultural Affairs has issued a public report titled "Wissenschaftskonzept der Auslandskultur"<sup>45</sup>. Thematically, the unit is also responsible –among others - for study centres abroad (such as the Austrian Centers<sup>46</sup>) and matters related to the Offices of Science and Technology (OSTA). It helps in facilitating scholarships and school issues, exchange of lecturers and professors, students and teachers; scholarship programmes, university partnerships and supports negotiations on university degrees, and youth cooperation. The unit is part of the INGSA/FMSTAN/SPIDER network and the network of science Advisors and Science Diplomacy Coordinators in EU Ministries of Foreign Affairs. The BMEIA also supports scientific cooperation with Russia through the Sochi Dialogue<sup>47</sup> and the Austrian-Russian Historical commission (ÖRHK)<sup>48</sup>.

#### *Connection with other institutions*

The Ministry of Foreign Affairs (MFA) cooperates with major actors of the science community in Austria such as the Ministry of Education, Science and Research (BMBWF), the Ministry for Digital and Economic Affairs (BMDW) and the Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) but also universities, academies and scientific institutions.

### **Open Austria (OA)**

#### *Relevance and activities*

Open Austria is based in Silicon Valley and works in the field of Tech diplomacy. According to Martin Rauchbauer, the Austrian Tech ambassador, Tech diplomacy is the "dialogue between nations states and tech companies about future technologies (artificial intelligence, blockchain, quantum computing)<sup>49</sup>". Tech diplomacy and science diplomacy are not exactly the same thing but in essence, science diplomacy is necessary to practice Tech diplomacy. OA interacts with scientists and constructs partnerships with and for them, in that sense they practice a form of "diplomacy for science". As part of the BMEIA they often have to connect to topics related to science diplomacy. While OA

---

<sup>45</sup> [http://bmeia.v2.t3.world-direct.at/fileadmin/user\\_upload/Zentrale/Kultur/Publikationen/Wissenschaftskonzept\\_DE.pdf](http://bmeia.v2.t3.world-direct.at/fileadmin/user_upload/Zentrale/Kultur/Publikationen/Wissenschaftskonzept_DE.pdf)

<sup>46</sup> <https://cms.bmeia.gv.at/en/european-foreign-policy/international-cultural-policy/scientific-and-technical-cooperation/austrian-centers/>

<sup>47</sup> <https://www.bmeia.gv.at/europa-aussenpolitik/aussenpolitik/europa/osteuropa/sotschi-dialog/sotschi-dialog/organisation/>

<sup>48</sup> <https://bik.ac.at/das-institut/oesterreichisch-russische-historikerkommission-oerhk/>

<sup>49</sup> Survey, own translation.

was originally oriented towards innovation promotion in Silicon Valley, it now also includes topics related to the ethics of technology development and digitalization.

#### *Connection with other institutions*

Open Austria collaborates with several Austrian universities such as the Technical University of Vienna (TU Vienna), the University of Vienna (UniVie), FH St.Pölten and the Diplomatische Akademie (DA). With regards to other governmental stakeholders, the organisation has close professional and personal links with the Office of Science and Technology (OSTA) in Washington. OA also collaborates with the cultural forum hosted within the premises of the embassy in Washington, but mostly for the organisation of cultural events in relation to the Art+Tech lab project<sup>50</sup>. The connection with the BMBWF is regarded as too limited and a wish to further connect with the ministry was mentioned by OA. OA also interacts with the Austrian Economic Chambers (WKO) and the Austrian Institute of Technology (AIT).

### **The Ministry of Education, Science and Research (BMBWF)**

#### *Relevance and activities*

The BMBWF is recognised as one of the main actors in science diplomacy. The ministry has among its tasks the promotion and the internationalisation of science and research and has a department for "International Research Cooperation and Science Diplomacy". The ministry makes use of the term science diplomacy explicitly on its website and is interested in developing science diplomacy endeavours in Austria.

The activities of the ministry with regard to science diplomacy include among others, setting-up of international bilateral agreements on scientific cooperation, the promotion of research on the international stage, fostering higher-education and research networks, and thriving for the development of research opportunities internationally. The ministry also has a specific focus on collaboration with developing countries<sup>51</sup>. Two activities of the ministry are particularly relevant in that regard: the Austrian Prize for Development Research<sup>52</sup> and the Cooperation Development Research funding programme<sup>53</sup>. The award(s) are given every two years to institutions or individuals that have demonstrated noteworthy scientific achievements in development research. The Austrian Agency for International Cooperation in Education and Research (OeAD) is responsible for awarding the prizes funded by the BMBWF. The aim of the prizes is to give better visibility to development research of global relevance. The "Cooperation Development Research" provides funds to cooperation projects between Austrian knowledge institutions and institutions in countries of the Global South. The focus is set on the achievement of the Sustainable Development Goals (SDGs).

The ministry also promotes scientific cooperation and excellence in the Danube region, which is a priority region for Austrian Science Diplomacy, for example via the Danubius

---

<sup>50</sup> <https://www.open-austria.com/art-tech-lab>

<sup>51</sup> <https://www.bmbwf.gv.at/en/Topics/Research/Research-international/Science-diplomacy.html>

<sup>52</sup> <https://oead.at/de/expertise/entwicklungsforschung/entwicklungsforschungspreis/>

<sup>53</sup> <https://oead.at/en/cooperations/international-he-cooperations/cooperation-development-research/>

award(s)<sup>54</sup>. It is a joint initiative of the ministry and the Institute for the Danube Region and Central Europe (IDM) rewarding scientific achievements related to the Danube region. The Danubius award also includes the Danubius Young Scientist Award, granted to several young scientists from the Danube region. One key requirement is relevance beyond national borders.

In addition to those activities, the BMBWF is a very active part of the Strategic Forum for International Scientific and Technological Cooperation (SFIC), which also includes a "Science Diplomacy Taskforce". SFIC is currently chaired by Martina Hartl from the Department for International Research Cooperation and Science Diplomacy of the BMBWF.

#### *Connection with other institutions*

The BMBWF is jointly responsible with the BMEIA for OSTA Washington. The BMBWF is also connected with all the other governmental actors, e.g. the Permanent Representation of Austria to the European Union. The Ministry sends an attaché for Education, Science and Research to the Permanent Representation and they represent Austria in the corresponding Council working groups. Evidently, close interactions exist between the Ministry and the Austrian research performance and research funding organisations. Some ad-hoc interactions also take place with Open Austria.

### **Offices of Science and Technology Austria (OSTA)- Washington and Beijing**

#### *Relevance and activities*

OSTA offices are currently run by BMEIA (Beijing) and BMBWF/BMEIA (Washington). Both institutions are based within the respective embassies. They aim to foster ties and dialogue between Austria and the concerned countries in relation to science, technology and research. The constellations of the ministries involved, the location of the offices within the embassies and their stated mission make OSTAs an evident actor of the science diplomacy ecosystem. The tasks of both institutions differ from each other due to the clearly different – especially political – given framework conditions.

**OSTA Washington** has initiated several activities relevant for science diplomacy. One of the most noteworthy is the Austrian Research and Innovation Talk (ARIT), a conference that aims to foster networks and knowledge exchange between key Austrian actors based in North America.

OSTA also hosts the Research and Innovation Network Austria (RINA). OSTA Washington's mission is to "*build bridges for research and innovation between Austria and North America*"<sup>55</sup>. OSTA does not only focus on supporting a network of Austrian researchers and innovators and representing Austrian interests in Science Technology and Innovation (STI), but also uses the term science diplomacy explicitly in its activities as it is part of the office's work programme.

From a science diplomacy perspective, OSTA Washington fulfills its mission by facilitating knowledge exchange and maintaining professional relationships with key STI

---

<sup>54</sup> <http://www.idm.at/projekte/preise/danubius-young-scientist-award>

<sup>55</sup> <https://www.ostaustria.org/>

stakeholders in North America on a policy, funding, and strategic level. OSTA establishes ties with key stakeholders from host countries, but also with local EU representations. This enables OSTA Washington to represent European STI interests in North America jointly at scientific conferences (e.g. AAAS), or at the Science Diplomat Dinner, which OSTA Washington is hosting in collaboration with the Science Diplomats Club in Washington DC in 2021.

In addition, OSTA Washington monitors, analyzes, and documents trends in STI in North America, and highlights a major annual topic, such as "Science, Technologies, and Innovations for a Sustainable and Competitive Future" in its science communications efforts. Based on Austria's topical priorities, OSTA Washington also organises high-level delegation visits (e.g. Minister Faßmann's planned delegation visit to Washington, DC in 2021), which in turn open doors for STI collaborations between Austria and North America.

In 2021, OSTA Washington also entered into a collaboration with the National Science Policy Network, and participated in the Embassy Experiential Learning Program which seeks to support early career researchers who aspire to careers in Science Diplomacy. A group of 6 post-docs and PhD students is currently being mentored by OSTA Washington.

**OSTA Beijing**'s agenda, as it has been recognised in an evaluation of the office conducted in 2019, was much occupied with the organisation of delegation trips.<sup>56</sup> At that time OSTA Beijing was still a joint undertaking of BMEIA, BMBWF, the Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) and the Ministry for Digital and Economic Affairs (BMDW). Under this particular umbrella, OSTA Beijing also invested much work on the supervision and promotion of joint calls and engaged in networking activities and outreach events in China. Since the beginning of 2021 the Director of the Cultural Forum is also Director of OSTA Beijing. By combining culture and science, OSTA's scope of action was shifted. The cultural forum /OSTA's newly launched program "Let's talk future" is dedicated to global issues of the future. Invited artists and scientists from Austria and China are looking through different lenses, namely a cultural and a scientific one, when contemplating one and the same subject. From the perspective of sustainability, climate change and digitization are particularly on the cultural forum/OSTA-agenda for 2021/22. The program includes a dialogue and a podcast series. The cultural forum/OSTA cooperates with various new partners beyond Beijing.

*Connections with other institutions*

## **Washington**

The ARIT conference is an important hub bringing together several actors such as the FWF, the FFG, the Austrian Marshall Plan Foundation, ASCINA, The Austrian council (RAT) as well as the Austrian universities and research institutions and OA with the Austrian research community in North-America. From the nature of its setting, OSTA is in contact with its directing ministries as well as with Austrian Higher Education institutions.

---

<sup>56</sup> i.e. FFG and Chinese Academy of Science.

## **Beijing**

The aforementioned OSTA evaluation conducted in 2019 showed that networking is challenging in the Chinese university and technology environment. This situation concerning China has not improved since then. The cultural forum/OSTA has reported on this several times. However, especially against this background, the close cooperation of KF/OSTA has proven to be a door opener. Connections between OSTA and Austrian science institutions are growing since.

## **Science and research attaché at the Permanent Representation of Austria to the European Union**

### *Relevance and activities*

The Permanent Representation of Austria to the EU plays a role in the science diplomacy ecosystem via the science and research attaché to the Permanent Representation. While the term might not be explicitly used in day-to-day work, the practices are certainly those of science diplomacy. The Permanent Representation work is made of negotiation and discussion in the Council working group that also includes the identification of allies and networking activities. Science diplomacy is in this context not explicitly mentioned but experienced. The work of the attaché is inherently European and international and influenced by daily politics. New thematic topics of relevance can easily pop up and one has to adapt to new topics of interest. "Health" issues caused by the pandemic and the "twin transition" (digital and green transformation) are recurrently addressed.

### *Connections with other institutions*

The inputs given to shape the position of Austria in Council discussions come from the responsible ministries, most prominently the BMBWF, BMK and BMDW. When discussing research and education, the attaché is in direct connection with the BMBWF which has the coordinating role on those topics involving other parts of the government. BMEIA plays especially a role when discussions are relevant for relations with third country cooperation outside of the European Union.

The role of the Permanent Representation is to represent the interest of the Republic of Austria and does not represent the interests of individual institutions. Therefore, most institutional collaborations happen with the ministries. However, in certain contexts, key stakeholders share their inputs with the ministries or directly with the Permanent Representation. For example, some direct contact occurs with OeAD, Universities Austria (Uniko) or the FWF during the negotiations for the Research Framework programme. Such contacts happen mostly at times when a new framework programme is under negotiation. The permanent representation is interested to be in touch with the research performing organisations, also in relation to science diplomacy – although individual representation is not possible.

## **Austrian research funding and promotion institutions**

### **The Austrian Research Promotion Agency (FFG)**

#### *Relevance and activities*

One of the objectives of FFG is to promote Austria as a research innovation hub on the « global market »<sup>57</sup>. This involves engaging with various actors of the science policy ecosystem. The FFG is an important actor as some of its activities are directly linked to practices associated with science diplomacy. The FFG is part of several international networks such as the EUREKA network<sup>58</sup>. The FFG does not make use of the term science diplomacy explicitly.

#### *Connection with other institutions*

The FFG has been recognised as a science diplomacy relevant actor by other institutions in the survey and interviews. In the area of science diplomacy we identified FFG as rather connected to policy making institutions in Austria such as the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), the Federal Ministry for Digital and Economic Affairs (BMDW), and the BMBWF.

### **The agency for education and internationalisation (OeAD)**

#### *Relevance and activities*

The OeAD is an important science diplomacy stakeholder in Austria. The agency has been mentioned several times by respondents to our survey and during the interviews. OeAD assessed itself as practicing science diplomacy “to a large extent”. The work of the OeAD is focused on the internationalisation of science, research and education. The APPEAR<sup>59</sup> programme of the Austrian Development Cooperation (ADC), which is implemented by the OeAD is especially relevant as it supports cooperation between universities in Austria and in partner countries relevant for ADC. The cooperation is based on solving global challenges and contributing to the SDGs. The creation of impact through the dissemination and exploitation of research results is increasingly important. In addition, the AFRICA UniNet network of the OeAD (on behalf of the BMBWF in cooperation with BOKU Vienna) promotes specifically knowledge cooperation between Austrian and African higher education institutions. Another similar initiative of the OeAD is the Asia-Pacific UniNet network. The OeAD also supports Austrian lecturers at different locations (Ukraine, China, Azerbaijan, Uganda,...). The OeAD Science Cooperation Offices in Lviv (Ukraine), Shanghai (China) and Baku (Azerbaijan) cooperate with local institutions in the fields of science, education and culture.

#### *Connection with other institutions*

Given the nature of the work of the OeAD, the agency is well connected to universities and universities of applied sciences and supports numerous programs of the BMBWF. The OeAD also collaborates with the BMBWF and geographically relevant Austrian embassies.

### **The Austrian Science Fund (FWF)**

---

<sup>57</sup> <https://www.ffg.at/en/FFG/objectives-and-mission>

<sup>58</sup> European-international network for application-oriented research and development (R&D)

<sup>59</sup> Austrian Partnership Programme in Higher Education and Research for Development, more information [here](#).



The FWF, as the central funding organisation for basic research in Austria, is a type of actor that is generally thought of when considering science diplomacy. The FWF has agreements with partners from other countries which are based solely on scientific relevance. Therefore, while being an important actor when considering what is done in terms of international scientific cooperation, the position of the FWF is rather distant vis-a-vis science diplomacy and the world of foreign affairs. Nevertheless, accepting a broad definition of the term, the FWF is also aware of its role in the ecosystem and acknowledges the necessity to improve some links within the Austrian science diplomacy network.

#### *Connection with other institutions*

The FWF has a structured exchange of information with the BMBWF but no other type of strategic policy collaboration in Austria. The FWF formally interacts with the BMEIA only in a few cases of with embassy staff (e.g. negotiating with funding agencies from some more sensitive countries). The FWF is also part of several networks and organisations relevant for science diplomacy; namely "Science Europe<sup>60</sup>" - which connects and represents European research funding agencies and the "Global Research Council<sup>61</sup>" - an international network of research funding organisations. FWF is also active in ERA-nets and the Belmont Forum, an international partnership for the mobilization of funds for environmental research<sup>62</sup>. FWF would be interested to use Austrian offices abroad (Permanent Representation to the EU, OA or others) more strategically.

### **Higher Education Institutions (HE)**

"Universities" or "universities of applied sciences" clearly came out as a generally highly important category in the survey, with respondents most of the time not specifying further which ones. Nevertheless, some universities were mentioned explicitly, such as the Vienna University of Natural Resources and Life Sciences, the University of Vienna or the Donau University Krems. The interviewees also mentioned other HE institutions as cooperation partners but no HE institution beyond those three cited above was mentioned several times. Overall, 35 HE institutions and departments were mapped out while only nine responded to the survey.

The limited participation of HE institutions in the survey does not dis-qualify them as irrelevant. They are centres of knowledge creation and therefore could be potentially actors of science diplomacy. It was quite often mentioned that collaboration in the field of science diplomacy occurs with specific individual researchers rather than with departments or faculties. For example, while the Johannes Kepler University Linz (JKU) in itself has not been identified as an active actor in science diplomacy, research staff in the Institute for Modern History and Contemporary History works on topics related to science diplomacy and has expressed interest in advancing science diplomacy in Austria. Among the respondents, most considered science diplomacy as falling under

---

<sup>60</sup> <https://www.scienceeurope.org/>

<sup>61</sup> <https://www.globalresearchcouncil.org/>

<sup>62</sup> <https://www.belmontforum.org/>

the activities practiced by their institutions to some degree. Only two of them qualified their institution as practicing science diplomacy to a low extent (not much or a bit). What is interesting to notice here is that respondents were keener to identify their institution as a science diplomacy stakeholder when considering the first definition from Fedoroff. This indication helps to understand the reticence that HE institutions may have when grappling with the concept of science diplomacy, as illustrated by a comment from the Technical University of Vienna (TU Vienna) respondent referring to the second definition *"Science should be more committed to education and knowledge than to diplomatic politics. It does not seem desirable for universities to become compulsorily involved in global political objectives. Scientific cooperation can improve international cooperation, but the universities should not be used as a driving force for political objectives."*

During the interview, it was pointed out that universities lack incentives to follow more concrete steps towards science diplomacy and that maybe the concept in itself is too elusive and all encompassing. Below we highlight how three universities approach and relate to science diplomacy.

### **University of Natural Resources and Life Sciences, Vienna (BOKU)**

BOKU has been identified multiples times as a relevant stakeholder of science diplomacy and as a partner of key institutions. BOKU is part of several university networks, including the Africa Uninet, which is particularly relevant in the context of science diplomacy. This focus on global challenges has been corroborated by interviews that highlighted the many years of experience of the BOKU in international scientific projects on the "Grand Challenges", SDGs and Capacity Building. The Centre for Global Change and Sustainability of the BOKU is an interesting department as it conducts international scientific endeavors that specifically address global challenges. The centre developed together with the Climate Change Centre Austria (CCCA) the Platform for European and International Climate Research (commissioned by the BMBWF). The platform enables networking between key initiatives at the local, national and international levels.

### **University of Vienna (UniVIE)**

Several departments at the University of Vienna were contacted to take part in the survey. Among them, two answered our survey with differing results. The University of Vienna, being Austria's biggest university has been recognised as a key stakeholder by others. Substantial connections to science diplomacy are nevertheless difficult to identify.

The Institute for Slavonic Studies, for example, describes itself as involved explicitly with the concept of science diplomacy and practices science diplomacy through some of its activities. The institute is in contact with the embassies of several countries and has established an exchange with experts from its target countries. Individual researchers are particularly active, e.g. by taking on positions in international fora and networks, e.g. the science and education cooperation Austria - Czech Republic of the BMBWF and the Czech ministry for education, youth and sport, the Scientific Council and the Academic Assembly of the Czech Academy of Sciences or other institutions. The institute hosts the Austro-Czech commission and the Permanent Conference of Austrian and Czech Historians on the Common Cultural Heritage (SKÖTH). Science diplomacy is explicitly used in the context of the SKÖTH. The Institute for Slavonic Studies is an

interesting player in the ecosystem as it exemplifies a type of science diplomacy, where science is not understood narrowly as only being constituted of Science, Technology, Engineering, and Mathematics (STEM) disciplines. Such approaches could be shared and discussed with other institutes focused on area studies.

## **Donau Universität Krems (DUK)**

### *Relevance and activities*

The DUK is another relevant actor of the ecosystem. While science diplomacy is regarded as a generally interesting topic for the university (especially in the definition of Fedoroff), as a university for continuous education the topic of internationalisation of science was originally not a top priority. However, in the last years steps have been taken for a more strategic approach to the topic. The university is involved in international networks and is currently developing a strategy that will increase the university's international focus with key geographical areas of interest. This new strategy aims to develop structural connections with regions that go beyond individual initiatives and incentivises participation in Horizon Europe. Despite this new development, internationalisation still remains fragmentary and the way universities are currently "rewarded" does not incentivise internationalisation enough. However, while the DUK is still finding its role in science diplomacy interface, the interview confirmed DUK's interest to continue its efforts and to be involved in the science diplomacy ecosystem.

### *Connection with other institutions*

The university is rather well connected with other relevant actors. It collaborates with the Centre for Social Innovation (ZSI) on the topic of transdisciplinarity and is part of the Danube rectors' conference and is as such also connected to the Institute for Danube Region and Central Europe (IDM).

Regarding its interaction with governmental stakeholders, it maintains a close relationship with the BMBWF. Interactions with the BMEIA occur mostly through events.

The DUK aims to develop its international connection with specific regions, for which the connection with the OeAD has proven fruitful. As part of the Africa UniNet, the University also wishes to develop its connection in Africa. A strong base for collaboration exists with Northern America.

## **Other research performing institutions (Non HE)**

Similar to research performing universities, such institutes are sometimes driven by a clear geographical focus that makes it necessary to engage with the respective political landscape (e.g. IDM), sometimes they are driven by active engagement and personalised contacts of the leadership or individual researchers and sometimes by internationalisation strategies and targets.

## **The Austrian Academy of Science (ÖAW)**

### *Relevance and activities*

The ÖAW is one of the institutions most cited by external stakeholders. The academy is a well-connected institution nationally and internationally, it is involved with and has a specific strategy on policy advice and organises international scientific conferences. The ÖAW is involved in several international research cooperation projects and exchange programmes. The ÖAW is connected through exchange programmes to more than 50 countries in the world, such as the Joint Excellence in Science and Humanities (JESH) programme, which is dedicated to early career scientists and involves cooperation with 55 institutions abroad.

Among the many activities of the ÖAW, we find a strong focus on “scientific planning at the international level”<sup>63</sup>. Indeed, the ÖAW’s membership and connections with international academies of sciences and organisations makes it possible for the ÖAW to participate in international scientific policy planning. It does so through memberships in institutions such as TWAS, The European Academies Science Advisory Council (EASAC) and the All European Academies (ALLEA).

The ÖAW makes explicit use of the term science diplomacy in its development plan and in the performance agreement that they have with the BMBWF. In its self-understanding the ÖAW “fully” practices science diplomacy with regard to both definitions offered in the survey.

#### *Connection with other institutions*

The ÖAW partners with and is connected to several institutions within and outside Austria. The academy is the mother organisation of 25 research institutes in Austria, working on a variety of topics. Together with the Austrian Institute of Technology (AIT), the ÖAW consults with the Austrian parliament on questions related to technology foresight<sup>64</sup>. Within the Austrian science diplomacy ecosystem, they are particularly connected to IIASA (as a council member), and some contacts occur between the academy and IDM.

## **Diplomatische Akademie Wien - Vienna School of International Studies (DA)**

#### *Relevance and activities*

The DA has often been cited as a relevant science diplomacy institution in Austria. Indeed, the academy makes use of the term explicitly, has been part of the Horizon 2020 project S4D4C and includes science diplomacy related issues in its education, conference and training activities. The curriculum includes health diplomacy, climate diplomacy, water diplomacy and AI, digitalisation etc. In cooperation with the TU Wien, the DA offers the two-year master’s degree programme in Environmental Technology and International Affairs (ETIA). By linking diplomacy and natural sciences, the ETIA-educates young academics for leadership positions in jobs related to sustainability management. Moreover, the DA organises trainings on science diplomacy for diplomats

---

<sup>63</sup> <https://www.oeaw.ac.at/en/oeaw/international/the-oeaw-international>

<sup>64</sup> <https://www.oeaw.ac.at/en/members/policy-and-society-advice>

and public officials from all over the world. The involvement of the DA focuses on the training of international students, diplomats and public officials.

#### *Connection with other institutions*

The DA, although often cited in the survey as relevant for science diplomacy, is not as often cited as a collaboration partner by other Austrian stakeholders. Some stakeholders report loose cooperation based on co-organisation or respective participation at events or the use of the DA's premises as event location. Currently, the DA and the BMEIA are planning closer cooperation on science diplomacy related issues in the future, e.g. within the framework of a jointly organised stakeholder discussion series. The DA is connected to Fullbright through joint grants opportunities and to ZSI through the S4D4C project. Moreover, the DA promoted S4D4C via national and international networks such as the Austrian Forum of Foreign Policy Think Tanks (FaTT), the European Diplomatic Programme (EDP) and the International Forum on Diplomatic Training (IFDT). In addition, the DA is connected to other universities through joint courses (TU Vienna and the University of Innsbruck).

### **Institute for the Danube Region and Central Europe (IDM)**

#### *Relevance and activities*

IDM contributes to the development of good neighbourly relations and to the promotion of scientific and social dialogue by building and sharing knowledge about the region of Central Europe and along the Danube<sup>65</sup>. To achieve this goal the IDM organises various events and issues publications on key topics related to the Danube region, Central and Southern Europe. The IDM addresses a diversity of actors and interest groups. The institute also hosts the permanent secretariat of the Danube Rectors Conference (DRC), which is a network of universities in the Danube region.

The institute does not make use of the science diplomacy concept and terminology explicitly but some of its activities can be considered as science diplomacy. The discussion of whether science diplomacy could be mentioned explicitly as part of the activities of the IDM is sometimes discussed internally.

#### *Connection with other institutions*

The IDM has a series of institutional cooperation partners, most prominently the BOKU and DUK. The institute collaborates with these and other universities also through connections with individual professors. IDM collaborates with the BMBWF in the scope of the Danubius awards for individual scientific achievements in relation to the Danube region. In addition, it collaborates with the Austrian Institute for International Affairs (OIIP) and the DA. Connection with the funding agencies remains limited to exchange about funding opportunities and the IDM seldom interacts with the ÖAW.

### **Zentrum für Soziale Innovation (ZSI)**

---

<sup>65</sup> Survey answer from Sebastian Schäffer (IDM)

### *Relevance and activities*

ZSI studies science diplomacy as such with an emphasis on analysing international RTI cooperation and explicitly as the coordinator of the S4D4C<sup>66</sup> project (Using science in/for Diplomacy for Addressing Global Challenges) co-funded by Horizon 2020. ZSI is also a founding member of the European Union Science Diplomacy Alliance. Already since early 2000, ZSI is involved in practical science diplomacy activities with the Western Balkans / Danube Region. In its geographical focus is also Latin America, Asia (in particular India, South Korea) and Africa (in particular South Africa).

### *Connection with other institutions*

In the frame of the S4D4C project mentioned above, several activities have also been implemented in Austria (in cooperation with DA and other stakeholders). For example, the large 2019-meeting involved and provided training to several key stakeholders such as INGSA/FMSTAN/SPIDER, BMEIA, BMBWF and international organisations (IIASA, UNOOSA, etc.). This activity was mentioned in the interviews and the organisation profiles several times. Through the partnerships established in the former INCO projects, ZSI has rich contacts all over the world with governmental as well as research performing and research funding organisations. Within Austria, it is embedded in some networks with universities (e.g. with DUK) and cooperates on selected global challenges with a number of Austrian and international universities and non-university research organisations.

## **International organisations based in Austria**

International institutions based in Vienna often practice some type of science diplomacy, and a few institutions explicitly qualify their work as science diplomacy. While those institutions are active and relevant for science diplomacy, their connection to other relevant Austrian institutions is often limited. While some are connected to other international institutions based in Austria, others maintain most entirely connections abroad.

## **International Institute for Applied Systems Analysis (IIASA)**

### *Relevance and activities*

IIASA is an easily identifiable actor in science diplomacy as it makes explicit use of the term and communicates science diplomacy as part of its legacy. When asked in the survey to elaborate why IIASA could be considered as a science diplomacy stakeholder, the dedicated Science Diplomacy Officer at IIASA answered the following: "*My organisation is a 'child' of science diplomacy. It was negotiated by diplomats and established in the Cold War era to build bridges between scientists in Eastern and Western blocks. IIASA is a convener/facilitator of science diplomacy activities and brings systems analysis into science diplomacy. IIASA provides scientific evidence to inform decision makers dealing with complex issues in international policy processes.*"

---

<sup>66</sup> <https://www.s4d4c.eu/>

The website depicts a dedicated section on science. IIASA has included science diplomacy in its most recent strategy (2021-2030). It is currently developing a dedicated science diplomacy strategy.

#### *Connections with other institutions*

IIASA is an international organisation hosted in Austria and as such, its focus is internationally oriented. However, IIASA is in contact with several Austrian stakeholders namely the BMBWF, the BMEIA and the ÖAW. IIASA is also active in Austrian networks such as the Eurasia-Pacific Uninet and Africa-UniNet. The institute also collaborates with the DA. Other connections to Austrian institutions mainly go through research collaborations in areas such as demography, climate change, energy, disaster resilience, big data, advancing methods of systems analysis. IIASA is connected with other international institutions based in Austria. In particular, it reaches out to several organisations from the Vienna international ecosystem such as UNIDO, UNOOSA, the Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO), the International Atomic Energy Agency (IAEA), the Organisation for Security and Co-operation in Europe (OSCE), Energy Community, and members of the Vienna Energy Club. In addition, IIASA, the Austrian Government and UNIDO are co-founders of the biennial Vienna Energy Forum. The institute is also part of several science diplomacy networks such as INGSA/FMSTAN/SPIDER and BRIDGES.

IIASA is well connected internationally through several of its activities. It connects through the BRIDGES network with science diplomacy relevant organisations such as the Joint Research Centre of the European Commission (JRC), The World Academy of Sciences (TWAS), or the European Organisation for Nuclear Research (CERN).

IIASA has been recognised multiple times in the survey and in the interviews as a relevant actor for science diplomacy. It has multiple research connections in different areas with other Austrian institutions with the potential to develop further collaborations in the science diplomacy dimension.

#### **Vienna Centre for Disarmament and Non-proliferation (VCDNP)**

The VCDNP practices and explicitly uses the term science diplomacy when referring to some of its activities. In the words of its Executive Director Elena Sokova, « *The VCDNP regularly organises workshops, seminars and briefings that engage scientists and practitioners from different geographical regions of the world in the discussion of peace and security policy issues. These activities aim to facilitate collaboration between scientists, inform policy, and facilitate dialogue between scientific and policy communities. In addition, the VCDNP offers professional development programs on non-proliferation and disarmament policy issues for graduate students in STEM.* » Those activities make the VCDNP an important science diplomacy actor among international organisation based in Austria. The centre focuses on a wide range of topics related to nuclear non-proliferation, disarmament and nuclear security and aims to bring together the science and the policy side of the topics. VCDNP reaches out both to STEM scientists and political scientists to understand the complexity of a given problem.

#### *Connection with other institutions*

The centre is best connected with other international organisation based in Austria that also have a focus on nuclear non-proliferation, disarmament and nuclear security issues

such as the CTBTO, with which they organise joint trainings for STEM students on policy issues. They also cooperate regularly with the Organisation on Security and Cooperation in Europe (OSCE) and the IAEA.

The centre has some connection to a few departments and professors at the University of Vienna. It also has a few connections with the OIIP. Potentials are seen to further collaborate with universities (i.e University of Innsbruck, TU Vienna) on issues that relate to nuclear safety either on policy topics or on more technical aspects.

## **Salzburg Global Seminar (SGS)**

### *Relevance and activities*

The Salzburg Global Seminar is a good example of an institution for which the concept of science diplomacy is unknown but whose activities could be described as science diplomacy. Indeed, according to the Vice President for Public Affairs, the SGS "acts as a convener of people, trying to find common ground in a polarized world by bringing together different actors on a wide range of important topics. In this way, we practice science diplomacy".<sup>67</sup>

### *Connection with other institutions*

The SGS is connected first and foremost internationally. Although the SGS is interested to act as a "window to the world for Austria" and to be more visible as an organisation in Austria, the connections are not strong at the moment. The SGS collaborates with the University of Salzburg (especially with the American studies department), the FH Salzburg and also with the University of Vienna. Some ad hoc collaborations also happen with several ministries, the WKO, Forum Alpbach and institutions such as 'Teach for Austria'.

## **C. Questionnaire: The Austrian Science Diplomacy Landscape Survey**

### **Privacy and Data Processing**

*Do you agree for your personal data to be stored and used in the context of the study and follow up activities as specified in this privacy statement [\(LINK\)?](#)*

I agree

### **Science Diplomacy: Awareness, self-assessment and use**

*In the context of your work in your organisation, have you ever been involved with the science diplomacy?*

Choose one of the following answers

---

<sup>67</sup> survey



- Yes, I am involved with science diplomacy as a concept and practice
- No, I have heard of it before but I am not fully familiar with the concept nor practice
- No, another person/department in my organisation is concerned with science diplomacy
- No, I have never heard of it but I am interested
- No, I have never heard of it and I believe that I am not the right person to ask

*Would you recommend someone else in your institution that could be contacted?*

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'No, I have never heard of it and I believe that I am not the right person to ask ' at question '2 [Q1]' (In the context of your work in your organisation, have you ever been involved with the science diplomacy? )

----- or Scenario 2 -----

Answer was 'No, another person/department in my organisation is concerned with science diplomacy' at question '2 [Q1]' (In the context of your work in your organisation, have you ever been involved with the science diplomacy? )

----- or Scenario 3 -----

Answer was 'No, I have heard of it before but I am not fully familiar with the concept nor practice' at question '2 [Q1]' (In the context of your work in your organisation, have you ever been involved with the science diplomacy? )

Please choose only one of the following:

- Yes
- No

*Please insert below the contact information of that person.*

Last Name

First Name

Position

Email

Phone Number

*One of the definitions of science diplomacy is:*

*„The use of scientific collaborations among nations to address the common problems facing 21st-century humanity and to build constructive international partnerships “(Fedoroff, 2009).*

*From this definition to which extent do you consider your organisation or department to be practicing science diplomacy?*

Please choose only one of the following:

- Fully
- To a large extent
- A bit
- Not much
- Not at all

*An alternative definition of science diplomacy presented by [AAAS](#), operationalises science diplomacy along three axes:*

- *Science in Diplomacy: informing foreign policy objectives with scientific advice*
- *Diplomacy for Science: facilitating international science cooperation*
- *Science for Diplomacy: using science cooperation to improve international relations between countries*

*From this alternative taxonomy, would consider your organisation or department to be practicing science diplomacy?*

Choose one of the following answers:

- Fully
- To a large extent
- A bit
- Not much
- Not at all

*Can you summarise in a few sentences what makes your organisation a science diplomacy stakeholder?*

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was less than or equal to 'A bit ' at question '5 [Q2]' (One of the definitions of science diplomacy is: „The use of scientific collaborations among nations to address

the common problems facing 21st-century humanity and to build constructive international partnerships "(Fedoroff, 2009). From this definition to which extent do you consider your organisation or department to be practicing science diplomacy? )

----- or Scenario 2 -----

Answer was less than or equal to 'A bit ' at question '6 [Q3]' (An alternative definition of science diplomacy presented by AAAS, operationalises science diplomacy along three axes: Science in Diplomacy: informing foreign policy objectives with scientific advice Diplomacy for Science: facilitating international science cooperation Science for Diplomacy: using science cooperation to improve international relations between countries From this alternative taxonomy, would consider your organisation or department to be practicing science diplomacy? )

Please write your answer here:

*Does your organisation make use of the term science diplomacy explicitly in its work and why or why not?*

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was less than or equal to 'A bit ' at question '6 [Q3]' (An alternative definition of science diplomacy presented by AAAS, operationalises science diplomacy along three axes: Science in Diplomacy: informing foreign policy objectives with scientific advice Diplomacy for Science: facilitating international science cooperation Science for Diplomacy: using science cooperation to improve international relations between countries From this alternative taxonomy, would consider your organisation or department to be practicing science diplomacy? )

----- or Scenario 2 -----

Answer was less than or equal to 'A bit ' at question '5 [Q2]' (One of the definitions of science diplomacy is: „The use of scientific collaborations among nations to address the common problems facing 21st-century humanity and to build constructive international partnerships "(Fedoroff, 2009). From this definition to which extent do you consider your organisation or department to be practicing science diplomacy? )

Please write your answer here:

### **Science Diplomacy: Activities**

*Please tick the statements that correspond to the activities and instruments used by your organisation.*

Check all that apply

- Your organisation has established joint international offices or laboratories with other institution(s) outside Austria.
- Your organisation or department produces policy briefs and/or scientific works for the use of policy makers or commissioned by policymaking institutions.
- Your organisation has a (or more) dedicated department(s) or unit(s) focused on the internationalisation of science or international relations with other relevant organisations.
- Your organisation has a (or more) dedicated department(s) or unit(s) focused on international policy advice.
- Your organisation has set up institutionalised positions that focus on the internationalisation of your research and/or of science in general.
- Your organisation or department has institutionalised international exchange programmes.
- Your organisation or department has issued strategies and/or policies for the internationalisation of the science or for connecting on an international level with other institutions.
- Your organisation or department participates in international networks.
- Your organisation or department organises science diplomacy trainings or workshops.
- Your organisation or department participates in science diplomacy conferences.
- Your organisation or department has a strategy, position paper or official statements on science diplomacy.
- There is an institutionalised department, unit or position that is in charge of science diplomacy within your organisation.

*What is the geographical scope of your organisation?*

Check all that apply

- Global
- Sub-global ( as world regions, grouping several countries)
- National
- Sub-national

*How often does your organisation or department interact with other organisations outside Austria?*

Choose one of the following answers

- Constantly
- Very often
- Regularly
- Not much
- Never

*In the list below, please select the geographical regions that your organisation is involved with on a regular basis.*

Only answer this question if the following conditions are met:

Answer was less than or equal to 'Regularly' at question '11 [Q8]' (How often does your organisation or department interact with other organisations outside Austria? )

Check all that apply

- Africa
- Asia
- Europe
- Latin America and the Caribbean
- North America
- Oceania

*If relevant, insert country(ies) that your organisation or department is specifically involved with on a regular basis.*

Only answer this question if the following conditions are met:

Answer was less than or equal to 'Regularly' at question '11 [Q8]' (How often does your organisation or department interact with other organisations outside Austria? )

Please write your answer(s) here:

*Among the list of key fields to address global challenges listed below, which ones would you say that your organisation contributes to?*

Check all that apply

- Energy
- Water scarcity
- Biodiversity
- Sustainability
- Demography
- Climate change

- Global health
- Digitalisation and transition to new technologies
- Inequality
- Peace and conflict prevention
- Crosscutting
- Other:

### **Science Diplomacy: Further involvement**

*Do you know other institutions in Austria that you consider relevant for science diplomacy?*

Please choose only one of the following:

- Yes
- No

Please indicate the most relevant ones below.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '15 [Q13]' (Do you know other institutions in Austria that you consider relevant for science diplomacy?)

Please write your answer(s) here:

*The next step of the study is to conduct interviews with relevant science diplomacy stakeholders to understand better their needs and wants in terms of science diplomacy. In this context, would you agree to be re-contacted for a short interview?*

Please choose only one of the following:

- Yes
- No

*What would be the best way to contact you or your organisation? Please enter an alternative email address, name and phone number below if relevant.*

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '17 [Q14]' (The next step of the study is to conduct interviews with relevant science diplomacy stakeholders to understand better their needs and wants in terms of science diplomacy. In this context, would you agree to be re-contacted for a short interview? )

Please write your answer(s) here:

First Name

Last Name

Email

Phone Number

*One of the outcomes of this study would be the organisation by the BMBWF of a first science diplomacy roundtable in the second half of 2021 with relevant science diplomacy stakeholders in Austria.*

*In this context, would you/your institution be interested in further participating in science diplomacy-related discussions and roundtables in Austria?*

Please choose only one of the following:

Yes

No



## **ZSI – Zentrum für Soziale Innovation**

Linke Wienzeile 246  
1150 Vienna  
Austria

Phone:  
0043-1-4950442-0

Kontakt:  
[dall@zsi.at](mailto:dall@zsi.at)  
[plumhans@zsi.at](mailto:plumhans@zsi.at)  
[schuch@zsi.at](mailto:schuch@zsi.at)

[www.zsi.at](http://www.zsi.at)