

## Deliverable

### D5.6 Training feedback forms/report

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#### ABSTRACT

In this deliverable, we present the approach to the S4D4C training workshops on science diplomacy, the results of the feedback forms and the conclusions drawn in the form of recommendations and lessons learnt. The recommendations are addressed to different stakeholder groups (scientists/academics, scientific institutions; diplomats/international and regional organisations) and also related to the curriculum. The report highlights the need to raise awareness, build trust and increase cooperation, networking and joint learning possibilities for science diplomacy, including train-the-trainers programmes. It concludes with a generic model of a 3-day science diplomacy training workshop.



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## List of Abbreviations

AAAS	American Association for the Advancement of Sciences
COP	Conferences of the Parties
CU	Charles University Prague (S4D4C partner)
DA	Diplomatische Akademie Wien, Vienna School of International Studies (S4D4C partner)
DLR	German Aerospace Center/ Project Management Agency (S4D4C partner)
DZHW	German Centre for Higher Education Research and Science Studies (S4D4C partner)
EASAC	European Academies' Science Advisory Council
ENP	European Neighbourhood Policy. The countries covered include Algeria, Morocco, Egypt, Israel, Jordan, Lebanon, Libya, Palestine, Syria, Tunisia in the South and Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine in the East.
ETIA	Environmental technology and international affairs
EUSDR	European Union Strategy for the Danube Region
FECYT	Spanish Foundation for Science and Technology (S4D4C partner)
IAEA	International Atomic Energy Agency
ICTP	International Centre for Theoretical Physics
MFA	Ministry/Ministries of Foreign Affairs
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Cooperation Agency
TWAS	The World Academy of Sciences (S4C4C partner)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNOOSA	United Nations Office for Outer Space Affairs
ZSI	Zentrum für Soziale Innovation (S4D4C coordinator)

## **Executive Summary**

Throughout its work and research, S4D4C collected information on existing online training courses and offline (in-person) workshops on Science Diplomacy in order to create and organize the curriculum for its own training sessions. It became clear that there are still only a few organisations like TWAS and AAAS that offer such training sessions regularly, although in the recent years, there are more and more stand-alone workshops being offered in different parts of the world. However, none of the established workshops are geared towards the European Union strategies and needs, which is the main focus for S4D4C's trainings.

Two S4D4C training workshops were designed to be inclusive and address a wide number of experts from diplomats, embassy staff and counsellors or attachés, science advisors, representatives or managers of international organizations as well as scientists working in research institutes, universities or enterprises.

The consortium prepared two different training curricula for the workshops that took place (1) in Trieste at The World Academy of Sciences (TWAS), from 21-23 October 2019 and (2) in Vienna at the Diplomatische Akademie Wien (DA), on 25-27 November 2019. The events, organized with a similar methodology, were designed with a slightly different target group in mind: the workshop at TWAS was anticipated to have a higher ratio of scientists while the one at DA was directed to a more diplomatic audience.

Feedback from both workshops was positive. Presentation material (based on S4D4C research and development) will be prepared for publication and open access for use by interested parties.

## **1 Introduction**

Training opportunities for science diplomats are limited and fragmented depending on the governance context. Even when there are workshops on science diplomacy at some diplomatic academies and universities, they often use a broad, global and sometimes outdated scenario without considering the specific opportunities and challenges of the EU and without considering recent changes in both the diplomatic community and the world of science.

Through the S4D4C workshops, the European Union is finding its own way and style of fostering science diplomacy, establishing a community that grows beyond the interactive events.

The first workshop took place in Trieste, Italy, from 21-23 October 2019 and was hosted by S4D4C partner TWAS – The World Academy of Sciences. The second workshop took place in Vienna from 25-27 November 2019 hosted by S4D4C partner Diplomatische Akademie Wien – Vienna School of International Studies (DA).

## **2 Methodology and institutions**

### **2.1 Outline**

In accordance with the S4D4C consortium, the workshops were organized with the goal to provide participants with the opportunity to understand the state-of-the-art of Science Diplomacy in Europe, provide them with the necessary skills to work in science diplomacy, as well as showcase some examples of science diplomacy in action e.g. through panel discussions and research-based case studies developed by the consortium.

Workshops had to be interactive, present different types of sessions, i.e. lectures, simulation exercises, group work, and provide participants with time and opportunity to network and exchange work related experiences.

The leading institutions chosen for the organization of such workshops, The World Academy of Sciences (TWAS) and the Vienna School of International studies (DA), involved the S4D4C partners as well as the local environment in the cities where the trainings were held in the development and execution of the 3-day events.

### **2.2 The World Academy of Sciences (TWAS)**

TWAS was founded in 1983 by a distinguished group of scientists from the developing world, under the leadership of Abdus Salam, the Pakistani physicist

and Nobel laureate. They shared a belief that developing nations, by building strength in science and engineering, could build the knowledge and skill to address such challenges as hunger, disease and poverty. From the start, the Academy had essential support from Italian scientists and political leaders. Today, TWAS Fellows (more than 1,200) are some of the world's most accomplished scientists and engineers, and provide the foundation for all of the Academy's work.

TWAS established its Science Diplomacy programme in 2011, working closely with the American Association for the Advancement of Sciences (AAAS), supported by the Swedish International Development Cooperation Agency (Sida), the Italian Ministry of Foreign Affairs, UNESCO, and with partners in Brazil, China, Hungary and other nations on projects and events that require both science and diplomacy for success.

### **2.3 The Vienna School of International Studies (DA)**

The DA, the oldest still existing diplomatic academy in the world, has long-standing experience in embracing both diplomatic and scientific curricula with the aim of preparing students and public civil service officials with international background for leadership positions. For more than ten years, the DA has been offering an academic masters programme on "Environmental technology and international affairs" (ETIA), thus targeting the professional sphere of scientific diplomacy. Graduates from this ETIA programme, which is co-organised by the DA and the University of Technology/Vienna, choose careers in international organisations, companies dealing with aspects linked to the circular economy and public service (e.g. Ministries of Foreign Affairs, Ministries for the Environment or for Science, etc.).

The DA also includes courses on digital diplomacy and invites scientists from a broad range of expertise for specific presentations linking science and diplomacy. Such courses are offered to students and in the context of Executive Training Programmes for international organisations and governments.

The Horizon 2020-project on S4D4C is an enriching addition to the DA's regular courses and a motor for the further development of the DA in the area of science diplomacy.

### **2.4 Involvement of partners and stakeholders**

Several S4D4C partners (CU, DA, DLR, DZHW, FECYT, TWAS and ZSI) were involved in one way or the other in the provision of training materials, curriculum development as well as execution of the training through lectures or moderation of discussions. Furthermore, the science diplomacy eco-system of Trieste and Vienna were involved in showcasing state-of-the-art examples and to bring "science diplomats" to the workshops for panel discussions and question and



answer sessions. While these parts of the programme are difficult to replicate, the principle is important as a methodology for science diplomacy trainings.

### **3 The workshops step by step**

#### **3.1 Definition of target groups and launch of the call**

A joint call for applications was prepared by TWAS and the DA. The call identified the target group and the geographical criteria. Both workshops were designed for scientists, diplomats, policymakers, research institution administrators, representatives from NGOs as well as other applicants who are working at the interface of science, technology and foreign policy and/or pursue a career in science diplomacy; however, ratios for the workshops were slightly different:

##### **Target group for Trieste/TWAS**

- 80% scientists and researchers; 20% diplomats, policymakers, public service officials; adequate mix of junior (less than 3 years of experience), mid-career and senior participants (more than 10 years of experience)

##### **Target group of Vienna/DA**

- 75% diplomats, policymakers, public service officials; 25% scientists and researchers; adequate mix of junior (less than 3 years of experience), mid-career and senior participants (more than 10 years of experience).

##### **Geographical criteria for TWAS and DA**

- Nationals and/or residents of a European Union Member State + Iceland, Lichtenstein, Norway, Switzerland (= EU+MS4)
- Nationals of a partner country of the European Neighbourhood Policy (ENP)

In both cases, S4D4C aimed to achieve a good gender balance (among both participants and speakers), as well as a good balance between participants from major European countries, from EU countries that are often less represented, and ENP countries.

The DA took care of the collection of applications through their online application management system. The applications allowed for three options: select the TWAS-Trieste workshop, select the DA-Vienna workshop, or select both.

The call was announced on 26 April 2019 simultaneously on the S4D4C, TWAS and DA's websites. The announcement was also widely distributed via the TWAS and DA networks, as well as by other S4D4C partners.

The call was initially planned to end on 10 June 2019 for Trieste and 20 June for Vienna, but the deadline was postponed to 10 and 20 July respectively, in order

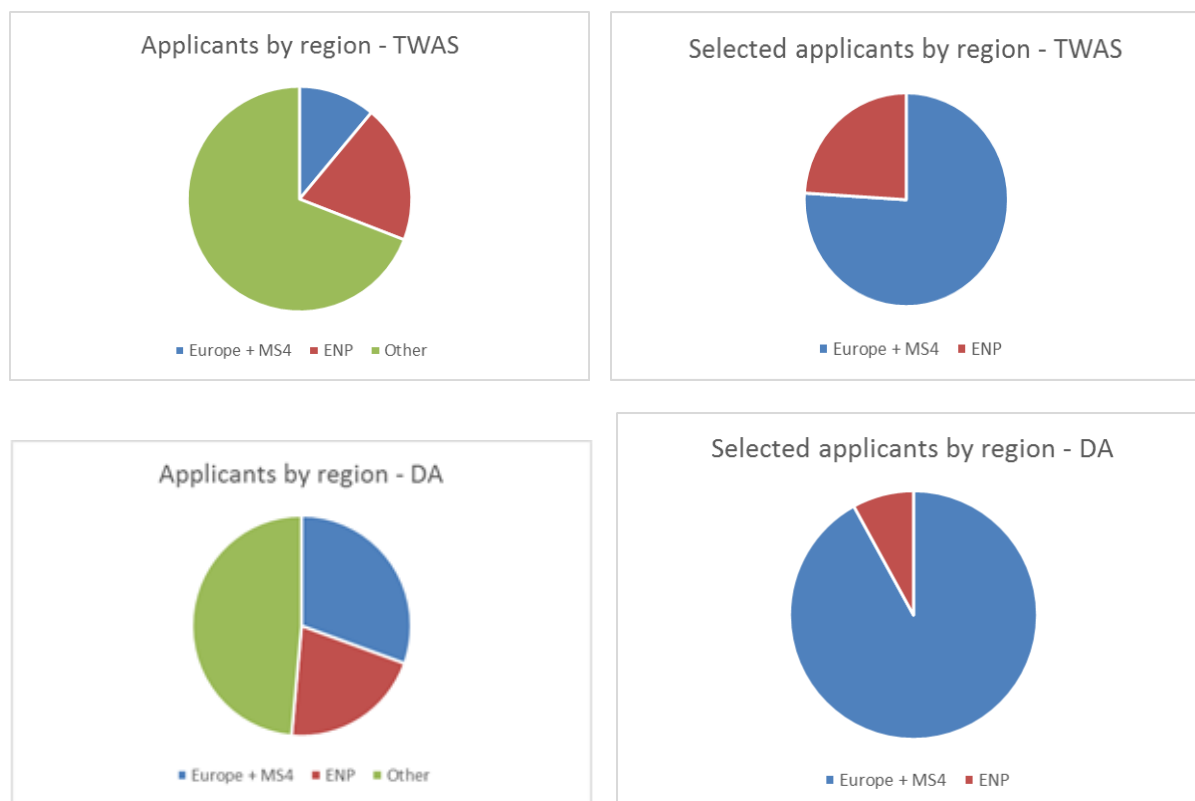
to allow for more applications from the targeted countries. Indeed, up to the original deadline many applications were ineligible as they were coming from applicants who were neither citizens nor residents of the target countries.

### 3.2 Response to call and selection of participants

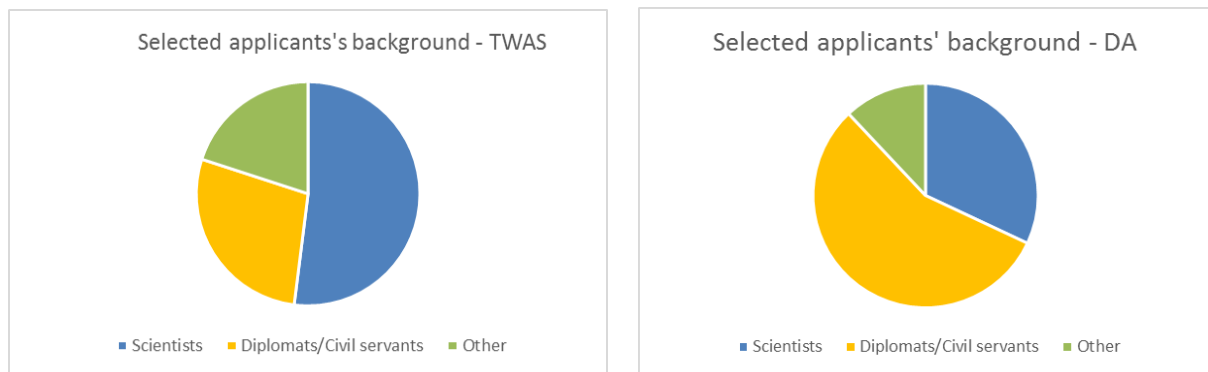
The call has been very broadly disseminated and answered. For the TWAS, testament to its broad connections with developing countries, over 400 applications were received, but about 300 of those were ineligible as they came from non-target countries, while the DA received over 200 applications with some 110 coming from non-target countries. Applicants that were not EU citizens, but EU residents were included in the EU+4 category.

Participants were selected by a commission composed by the three partner agencies TWAS, DA and DLR. The selection process took into account the professional background and the inclusion of ENP countries. Attention was also paid to ensuring gender balance.

The final list of selected candidates was endorsed by the project coordinator, Ms. Elke Dall (ZSI).



**Figure 1: Geographical distribution of applicants and selected trainees**



**Figure 2: Background of selected trainees**

### 3.3 Execution of workshop 1 at TWAS

#### a) Location

In Trieste the workshop has been held at the Adriatico Guesthouse located within the campus of the International Centre for Theoretical Physics (ICTP: a UNESCO Category II Centre) where participants also lodged in beautiful sea-view rooms.

The workshop took place in one of the main conference rooms, but other rooms and locations were made available for small group work and simulation exercise breakout sessions. Posters representing all S4D4C case studies were displayed and visible outside the main conference room throughout the workshop, offering participants an overview of all case studies produced by the consortium and creating possible conversation starters among guests.

#### b) Summary of the programme

The title given to the workshop "*Science meets diplomacy: a new European perspective*" embodies the goal behind it: bringing science and diplomacy closer together and offering an overview of the European science diplomacy policy.

TWAS organized an interactive workshop with the support of international experts from the consortium as well as external renowned experts in science communication and diplomacy.

The workshop opened with an introduction to Science Diplomacy and the International Science System, in order to provide a general understanding of the setting, the actors and stakeholders involved.

Within the programme, TWAS chose to introduce and present the S4D4C cases of "*Research standards and integrity in international settings: linking research communities from the EU and abroad*" and "*Water diplomacy: using pre-emptive diplomacy tools to face global challenges*". The cases were presented through a short explanatory lecture and a simulation exercise.

In the first case, two people simulated a scientific negotiation through different scenarios. For example, the discussion between two professors, or between one professor and an administrator, or between one female professor and a male one etc. The case appealed to several participants who claimed to have lived similar work situations without realizing the impact and preconceptions linked to the title and position of the attendees.

The water case simulation exercise was based on the Program on Negotiation at Harvard Law School, on negotiating boundary crossing water conflicts. Although the game was originally planned for several hours of negotiation, the session leader was able to adapt it for the purposes of the workshop. After a brief

description of the case and the various stakeholder involved, participants split into small groups. Discussions were very lively and all groups managed to present their result in the wrap-up session.

Climate change was presented through a video on geo-engineering and a session on Solar Radiation Management, a proposed climate-control technique that is controversial, but that offered a perfect setting for practicing the negotiation skills that had been introduced.

The programme included a half-day visit to a local research centre, the Elettra Sincrotrone Trieste ([www.elettra.trieste.it](http://www.elettra.trieste.it)), an Italian synchrotron facility, where the participants heard first-hand about international scientific collaborations and how the institute deals with its many international partners and bilateral relations, e.g. with India. The tour was followed by a dinner in Trieste, offering further networking opportunities among participants.

During the last day, European science diplomacy policy was discussed, together with a roundtable on careers in Science Diplomacy, a session that included the science attaché of Italy to South Africa.

For a final recap session, designed to review workshop presentations and to test what the participants had taken on board, the Mentimeter tool was introduced by an S4D4C colleague from FECYT. Mentimeter, which engages participants through an app, is a fast and innovative way to evaluate a training and to ensure wide participation and enjoyment via competitive scoring.

For further details on the workshop, please see the Agenda in Annex I.

### **c) Evaluation**

Following the workshop, participants were asked to complete a questionnaire-style evaluation form to assess the value of the programme.

TWAS received 18 evaluation forms, 13 from female and 5 from male participants, representing 78% of the total number of attendees.

On a scale from 1 to 5 (1 being 'not at all', and 5 being 'to a very large extent'), expectations were met to a very large extent for 5 participants. Twelve participants answered with a 4 ('a lot'), while only one participant gave a 3 ('average').

Based on the evaluations received, the general comments from participants in person as well as from the Twitter feeds, the overall evaluation of the workshop was **very good**.

The variety of the topics presented as well as the quality of the speakers were judged very positively. Overall, the workshop has provided a great opportunity to

foster the discussion on Science Diplomacy, reflect on its concepts and dynamics, and to showcase some of the work that the S4D4C consortium has been doing.

The balance between lectures and participants' engagement through simulation exercises and interactive sessions was considered very enriching to the overall programme.

Depending on participants' expectations and background, one or the other session was preferred. With the majority of participants coming from the scientific arena, the session on negotiation skills as well as the simulation exercises were very much appreciated. The presentation of the science diplomacy cases prepared by the S4D4C consortium received very high appreciation, with evaluations rating from "a lot" to "a large extent".

Both TWAS and S4D4C colleagues covered the event via their social media accounts, as did a number of participants.

Many participants shared that they would have liked more **time for discussion** and **peer-to-peer learning**. At least three participants would have liked to have more feedback (concrete examples) on how Science Diplomacy works and how it has been beneficial to the parties and on how to use Science Diplomacy in foreign policy. One participant pointed out that there was no discussion on "research integrity" and where it could affect science diplomacy – although it is difficult to include all possible topics in just a 3-day workshop.

Another person would have liked to have more time for participants' contributions or questions and how to apply Science Diplomacy in their constituencies. Initiatives could have been discussed and prepared in groups. Indeed, TWAS had considered such working session, but for time constraints - an extra half a day of training would have been needed - it was decided not to include such activity. Other requests and suggestions were received during the workshop. The organizers responded to such feedback throughout the training session, answering questions in tutor-led sessions and social/informal parts of the day.

For a more detailed summary of the evaluations and feedback received, please see the table below.

EVALUATION SUMMARY – TRIESTE WORKSHOP					
	Nothing/ Not at all	A little	Average	A lot	Very much / To a very large extent

How would you assess that your understanding of science diplomacy has improved after participating in this course?			2	13	3
To what extent your understanding of the international science system has improved?		2	8	7	1
To what extent did your understanding of the work of embassies, science policy and funding agencies has improved?		1	10	5	2
To what extent did your understanding of decision making processes and about how to partake in the policy making processes has improved?		1	3	11	2
Do you feel you have increased your own awareness/competency/mastery of science diplomacy-related skills?			4	10	4
Please rate the session on science communication			2	8	8
Please rate science diplomacy cases				13	4
Did you identify potential areas for future EU science diplomacy activities?		3	5	7	4
Did you learn about career opportunities in science diplomacy?		1	4	10	3
How useful was the course in networking and establishing contacts with other participants?			1	10	7
Have your expectations regarding the training been met?			1	13	4

**Table 1: Evaluation results of the Trieste workshop**

### 3.4 Execution of workshop 2 at the DA

#### a) Location

The workshop, which was organized in the format of an international conference, was held at the premises of the Diplomatiche Akademie Wien – Vienna School of International Studies (DA). The conference rooms were equipped with state-of-the-art technology and full conference services were provided. Participants lodged in a modern hotel in the vicinity of the DA.

#### b) Summary of the programme

The interactive workshop in Vienna “*Science Diplomacy Dynamics – Opening Science! Opening Diplomacy!*” aimed at strengthening the role of science diplomacy in diplomacy, science and policy making bringing together diplomats, policymakers and scientists and giving them room for community, trust-building and networking. The guiding theme of the workshop, as the title suggests, was the approach to open science and open diplomacy in order to invite participants to reflect on the necessity of building trust and openness on both sides.

The Austrian Minister of Foreign Affairs and the DA agreed to organize the annual FMSTAN/SPIDER conference in conjunction with the S4D4C-workshop, thus creating synergies and possibilities for networking. On the first evening of the

workshop, the Director of the Museum of Natural History invited participants of both conferences to a reception and an in-depth high-level exchange on “Challenges for Science Diplomacy in the Current Geopolitical Environment”.

The S4D4C workshop opened with a presentation of the historic site of Ephesos, which – over more than a century – linked the work of scientists and diplomats in the context of research, trade and politics.

As the audience in this workshop was largely from the diplomatic/government community, a presentation from TWAS on the ‘Global Science Ecosystem’ was presented and well appreciated. The presentation itself had been trialled during the Trieste workshop and modified following feedback from the largely scientific audience there.

A simulation exercise took place during the presentation on “*Open Science Challenges in Global Health*” with a fictional yet realistic setting related to the World Health Organization’s General Programme of Work (GPW) and the West African Ebola outbreak. This exercise was framed by the two S4D4C case studies on infectious diseases and “*Open Science Diplomacy*”. For this purpose, the workshop participants were divided in six groups, representing the various stakeholders of a task force meeting. Each group received confidential instructions not to be shared with others outside their group. In the course of the workshop the groups applied individual strategies to accomplish their goals. At the end of the task force meeting, a debriefing session in the plenary took place to collect learnings from the session.

On the last day S4D4C participants met with high-ranking experts in the Vienna-based headquarters of the International Atomic Energy Agency (IAEA) and the United Nations Office for Outer Space Affairs (UNOOSA). Several topics were discussed, including technological advances in outer space, coping with space debris, satellites used for development cooperation projects (droughts, fires, floods, pollution, etc.), IAEA-research and projects for medical purposes, including the eradication of infectious diseases.

For further details on the programme please see Agenda in Annex II.

### **c) Evaluation**

As with the Trieste workshop, a post-event evaluation questionnaire was circulated to participants. The DA received 20 evaluations from the 25 participants.

In general, the quality of the interventions, the possibilities to network with the FMSTAN/SPIDER members and the expertise from the Vienna-based International organizations have been very highly appreciated. The interactive training session on “*Open Science Challenges in Global Health*” was valued as an



opportunity to deepen skills and knowledge regarding science diplomacy and to work in a simulated diplomatic negotiation framework.

Some participants commented on the short time for preparation and the busy time schedule, others would have appreciated more time for group discussion. However, the overall evaluation of the workshop, based on the results of the questionnaires, was **very good** and inspiring result for the organisers.

Best practice examples such as the ETIA programme and the keynote presentation on links between archaeology and diplomacy as well as the presentations at the United Nations Office Vienna were highly valued. Furthermore, the diversity of the participants' professional backgrounds and the possibility for open discussion were perceived as very positive. Some comments emphasized the "outstanding meeting in an absolutely outstanding diplomatic institution with outstanding people".

For further details, please see the evaluation summary in Table 2 below.

EVALUATION SUMMARY – VIENNA WORKSHOP					
	Nothing/ Not at all	A little	Average	A lot	Very much / To a very large extent
How much did you know about Science Diplomacy before the workshop?	1	8	7	2	2
How would you assess that your interest and understanding of science diplomacy has changed after participating in this course?		2	6	9	3
To what extent has your understanding of the international science system improved?		3	2	14	
Did you learn how to (better) use scientific evidence in diplomatic settings and negotiations?		4	8	6	1
To what extent did you learn what are the new trends in Science Diplomacy?			6	11	2
Did you learn how open science could contribute to Science Diplomacy?		1	4	11	3
What is your overall impression of the Panel Discussions?	1		1	8	8
What is your overall impression of the Interactive Role Play?		1	7	7	3
Did you network with scientists?		2	5	7	5
Did you network with diplomacy stakeholders and policy makers?			3	8	8
Have your expectations regarding the training been met?	1		1	14	4
How did you like the program format (simulation games, topical sessions etc.)			3	9	7
How did you like the evening program in the Natural History Museum on 25 November?	1		6	6	5

How useful was the course in establishing or strengthening contacts during the meeting?	1		3	8	6
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**Table 2: Evaluation results of the Vienna workshop**

## 4 Recommendations and Lessons Learnt

Thanks to the evaluation questionnaires, the discussions at the events as well as bilaterally with participants, we have been able to gather several recommendations, some of them quite general and some more specific for scientists, for diplomats or related to the curriculum of the workshop itself.

### 4.1 General recommendations

- Continuation of the project and its initiatives and recommendation to colleagues. **S4D4C is a much-needed initiative to raise awareness** and increase the cooperation and networking possibilities both among diplomats and scientists.
- **Train-the-trainers programmes for science diplomacy** should be developed. (In fact, TWAS has an ongoing parallel activity exactly on this topic).
- It can be emphasised that scientific experts cannot only be found in science academies and other academic/research institutions and think-tanks, but also be in a broad range of civil society organisations.

### 4.2 Recommendations for scientists/academics and scientific institutions

- **Build trust** with diplomatic stakeholder groups through interaction in capitals or abroad (diplomatic missions, embassies, consulates).
- **Break the silos!** Science can drive diplomacy and vice-versa. The world is interlinked and demands solidarity of both stakeholder groups. One world and one space is all we have.
- **Presentation and negotiation skills trainings** should be offered in all universities/research institutions to enable students/researchers to represent their projects, compete for grants and to interact with the diplomatic community in a professional way.
- **Networks between scientists can be strengthened through cooperation with diplomatic delegations in the context of global challenges.** Example: United Nations Framework Convention on Climate Change, Conferences of the Parties COP.

- Start **foreign language training** early on.
- **Familiarize yourself with** substrata of (foreign) **languages used in the international context**. Example: "UNese", "Brussels talk".
- **Speak up!** Scientists need to have a clear voice and a distinct message to be heard and understood by policy makers and the public in general.
- When communicating with non-scientists, choose **language that is understandable** for non-scientists in order to facilitate political decision-making and avoid misunderstandings.
- Engage in **intercultural, presentation and negotiation trainings**.
- Basic knowledge of international organisations relevant for the respective expertise should be made available to students and researchers also through **study visits**.
- **Diplomatic training institutions should include scientists** (social sciences and humanities as well as natural sciences) **and scientific programmes into their academic offers**.
- Request and/or offer **scholarships and shadowing programmes** for young scientists and young diplomats interested in science diplomacy.

#### 4.3 Recommendations for diplomats/international and regional organisations

- Science diplomacy can **contribute to nation branding** in a positive way.
- **Respect scientific integrity!**
- **Break the silos!** Diplomacy can drive science and vice-versa. The world is interlinked and demands solidarity of both stakeholder-groups. One world and one space is all we have.
- Most European nations have an **academy of sciences**. This can be a first **point of call for diplomats when searching expert science advice**.
- **Build trust** with scientific stakeholder groups through interaction in capitals and/or abroad (diplomatic missions, embassies, consulates). Diplomats should network with the scientific community from the beginning of their career. **Meetings between high-potentials** in the area of science (Young Scientist Award-winners) and young diplomats should be arranged.

- **Science diplomacy**, although practiced in many areas, in many forms and over many years, is a new concept in international relations for many countries and **should thus be made visible in international cooperation projects and strategies**.
- Scientists with expertise in negotiations should be invited to **support in the context of international/regional negotiations**, including in the context of EU-Council Presidency meetings, international summits and conferences. Continuity is needed in this context. It is easier to broker compromises and find agreements in international negotiations when detailed and correct information is readily available. Example: Negotiations on global health at the WHO headquarters in Geneva.
- **Scientists as advisors and/or members of diplomatic delegations.** Evidence-based information is also needed for state-of-the art political reporting. Example: Scientists can support diplomats in finding reliable information on complex topics, analysing and “digesting” it - before passing it on in the form of reports.
- Diplomats should **“be approachable”** for and network with representatives of the **science diaspora**. Example: Establish a database of scientists or roster of experts living abroad / in the host country of a diplomatic mission. Organise workshops, brainstorming events, social gatherings with diaspora scientists to strengthen their links with their home countries, to assist them with their concerns, stimulate mobility – and to gain access to their academic and/or scientific institutions.
- **Diplomats should also ask for, reserve and raise funds for scientific cooperation**, including by working together with donors from the private sector.
- **Regional networks can be a good basis for scientific cooperation.** Examples: Danube Strategy (EUSDR), Organisation Internationale de la Francophonie, European Academies’ Science Advisory Council (EASAC), Young European Ambassadors.
- **Scientific advisors should provide input into bilateral cooperation as well as development strategies.** Examples: Bilateral agreements between two states. Development cooperation programmes between a donor country and developing countries.
- Diplomats have to be open-minded, curious and fast learners throughout their career, in the sense of life-long learning. Diplomats need to **stay on top of digital developments and new communication methods** such

as social media in order to react quickly and accurately to emerging issues.

- Diplomats with **knowledge about scientific advances** gained in their own country can represent and lobby for the interests of their country in a more efficient and professional way.
- **MFAs should recruit scientists having received training in international relations across a broad set of fields**, from economy and law to humanities and natural sciences. In addition, **scientific advisors** directly assist political decision-makers such as ministers or heads of governments.
- **A coordinated approach towards science diplomacy should be encouraged by the European Union and its Member States.** The new “Horizon Europe” programme will create strategic advantages for Europe and should thus be widely advertised and used.
- The **UN Sustainable Development Goals (SDGs) are a solid basis for tackling global challenges through scientific cooperation** and the scientific evaluation of SDG projects. Examples: SDGs on clean energy, climate action, global health, life below water, life on land.

#### 4.4 Recommendations related to the curriculum

- **Extension of the workshop programme** to allow time for people to get to know each other better.
- **Deepen the available job opportunities discussions**, as well as a specification on how scientists could go from theory to practice and become real science diplomats.
- Include a **session for participants to share their own experiences and expertise.**
- Offer a session on “**how to build a Science Diplomacy programme**” within a specific context.

### 5 Generic workshop agenda

Indeed, taking into account this last ‘Recommendation’ point, S4D4C partners have reviewed the two training courses, attempting to identify what worked best and how these might be integrated into a ‘generic’ three-day Science Diplomacy workshop training agenda. The details of what such a generic agenda might look like are presented here:

	Morning	Afternoon
Day 1	Welcome; Introductions (meet-and-greet/ icebreaking); General overview of Science Diplomacy; Overview of goals of workshop.	How science and/or diplomacy work in practice; Case studies of Science Diplomacy.
Day 2	Interactive sessions on topics such as 'Communication', 'Negotiation skills', etc.	Simulation exercise – putting skills reviewed in the morning session into practice via role-play.
Day 3	Visit to a suitable nearby Science Diplomacy institution/structure	Roundtable/ discussion panel session(s) on topics such as careers in Science Diplomacy, how to take forward lessons learnt from the workshop, etc.; Final recap session; Closure.

## 6 Conclusions

The practice of science diplomacy is not new: from the archaeological site of Ephesos used by Emperor Franz-Joseph I to increase the prestige and power of the Hapsburg Empire, to the modern use of Cuban doctors to increase the country's influence and prestige around the world, many examples can be found (and were illustrated in the workshops).

Science diplomacy is being “refurbished” and given a more structured approach, its value rediscovered. Governments have to avoid politicizing the research as much as researchers have to maintain integrity. Evidence-based information is crucial for policy makers as well as for political reporting and journalism. The benefits of a sound cooperation between both parties are huge and for all to enjoy.

The high number of applications, both from European and non-European countries shows the growing interest in Science Diplomacy and mostly the continuous need for people, scientist and governments to cooperate to solve global challenges.

## "Science Meets Diplomacy: A New European Perspective"

21 – 23 October 2019

Kasler Room, Adriatico Guesthouse  
The World Academy of Sciences, Trieste

### Day 1 - Monday, 21<sup>st</sup> October

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|-------|---|
| 08.30 | <b>Registration</b>   |
| 09.00 | <b>Welcome – Opening Speech</b><br><b>Prof Mohamad Hassan</b> , TWAS President, Key Note Address<br><b>Prof Romain Murenzi</b> , TWAS Director, Welcome Speech<br><b>Dr Peter McGrath</b> , Science Diplomacy Coordinator, TWAS; and<br>representative of the S4D4C Consortium                        |
| 9:30  | <b>What is Science Diplomacy? An Icebreaker Session</b><br><b>Dr Lorenzo Melchor</b> , EU Science advice and diplomacy officer, Spanish<br>Foundation for Science and Technology (FECYT)  |
| 10.00 | <b>Coffee Break</b>   |
| 10:30 | <b>The World of Diplomacy and its Approach to Science</b><br><b>Mr Clemens Mantl</b> , Consul General of the Republic of Austria to Milan   |
| 11.30 | <b>Science Communication</b><br><b>Dr Nico Pitrelli</b> , Science writer and trainer, International School of<br>Advanced Studies, SISSA  |
| 12.30 | <b>Group Picture (Terrace)</b>  |
| 12:45 | <b>Lunch</b>  |
| 14:00 | <b>Case Study – Research standards and integrity in<br/> international settings: Linking research communities from<br/> the EU and abroad</b><br><b>Dr Tim Flink</b> , Senior Researcher, Humboldt-Universität zu Berlin and<br>German Centre of Higher Education Research and Science Studies (DZHW) |
| 15:30 | <b>Coffee Break</b>   |
| 16:00 | <b>The International Science System</b><br><b>Dr Peter McGrath</b> , Science Diplomacy Coordinator, TWAS  |
| 17:00 | <b>Introduction to next day (video on Geoengineering)</b>   |
| 17:30 | <b>End of Day 1</b>   |

## Day 2 - Tuesday, 22<sup>nd</sup> October

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- 08:30      **Workshop on Negotiation Skills**  
**Ms Maria Josten**, Strategy and Monitoring Division, German Aerospace  
Centre/Project Management Agency (DLR-PT)
- 09:30      **Simulation Game on Solar Radiation Management**  
**Dr Peter McGrath**, Science Diplomacy Coordinator, TWAS
- 10:30      **Coffee Break**
- 11:00      **Simulation Game on Solar Radiation Management (cont.)**  
**Dr Peter McGrath**, Science Diplomacy Coordinator, TWAS
- 12:30      **Lunch**
- 14:00      **Transportation to Elettra, Synchrotron Facility**
- 14:30      **Visit to Elettra, Synchrotron Facility**  
**Dr Andrea Lausi**, Head, Xpress beamline  
**Dr Michele Bertolo**, International Projects Cluster Coordinator  
**Dr Loredana Casalis**, Head, NanoInnovation Laboratory
- 17:00      **Trieste Tour – Free Time**
- 19:30      **Participants' Dinner**  
Pier The Roof, Trieste
- 22:00      **End of Day 2**



### Day 3 - Wednesday, 23<sup>rd</sup> October

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- 08:30      **The European Perspective on Science Diplomacy: Where We Are and Where We Are Going**  
**Dr Marga Gual Soler**, Adviser to the Horizon 2020 European Science Diplomacy Cluster
- 09:15      **Case Study – Water Diplomacy and its Future in the National, Regional, European and Global Environment; and Simulation Game on the Indopotamia River Basin**  
**Dr Eliška Černovská**, Assistant Professor, Institute of International Studies, Faculty of Social Sciences, Charles University in Prague
- 10:30      **Coffee Break**
- 11:00      **Roundtable: Careers in Science Diplomacy**  
**Dr Pierguido Sarti**, Italian Science Attaché, Pretoria, South Africa  
**Dr Marga Gual Soler**, Advisor to the Horizon 2020 European Science Diplomacy Cluster  
**Dr Lorenzo Melchor**, EU Science advice and diplomacy officer, Spanish Foundation for Science and Technology  
**Ms Sheila Perosa**, International Affairs, TWAS
- 12:45      **Lunch**
- 14:00      **Debriefing, Evaluation and Closing**  
Science Diplomacy Brainstorming Project  
Workshop Quiz  
Closing Remarks and Certificates
- 15:30      **End of Day 3 and of Workshop**

## **S4D4C – Science Diplomacy Workshop**

### **Science Diplomacy Dynamics – Opening Science! Opening Diplomacy!**

**25 – 27 November 2019**

**Diplomatische Akademie Wien – Vienna School of International Studies**

### **Programme**

#### **Sunday, 24 November**

*Day of Arrival*

**Check-In at Hotel Motel One – Staatsoper**

Elisabethstraße 5, 1010 Wien

#### **Monday, 25 November**

08.30-09.00

**Meeting Point at the Hotel Lobby – Motel One  
Staatsoper**

Joint walk to the Diplomatische Akademie Wien

09.00-09.30

**Registration & Morning Coffee**

Favoritenstraße 15a, 1040 Wien

09.30-10.30

**Welcome**

*Susanne KEPPLER-SCHLESINGER* (Deputy Director,  
Diplomatische Akademie Wien [DA])

**Opening Keynote**

*Sabine LADSTÄTTER* (Director of Austrian Archaeological  
Institute [ÖAW] and Excavation Director in Ephesos)

10.30-11.00

**Coffee Break**

11.00-12.30

**Panel Discussion**

**Diplomacy meets Science – New Dynamics, New  
Trends**

*Bernhard FATTINGER* (Minister Plenipotentiary (Health),  
Health Attaché at the Permanent Mission of Austria to the  
United Nations in Geneva)

*Margit BRUCK-FRIEDRICH* (Ambassador of Austria to the Slovak Republic)

*Johannes CALISKAN* (Attaché for Scientific and Academic Cooperation - Institut Français d'Autriche)

*Maria JOSTEN* (Senior Scientific Officer, German Aerospace Centre/Project Management Agency [DLR])

*Moderator: Elke DALL* (Senior Researcher and Project Manager, Centre for Social Innovation [ZSI])

12.30-13.00 **Group Picture (Festive Hall or Garden)**

13.00-14.00 **LUNCH**

### **Working Sessions Day 1**

#### **Open Science Challenges in Global Health**

14.00-15.30 **Science Diplomacy, Open Science, Global Health**

*Maria JOSTEN* (Senior Scientific Officer, German Aerospace Centre/Project Management Agency [DLR])

*Katja MAYER* (Senior Researcher, ZSI and Elise Richter Fellow, Department of Science and Technology Studies, University of Vienna)

*Michaela TOLD* (Independent Consultant, Visiting Lecturer Global Studies Institute, University of Geneva; former Executive Director, Global Health Centre, the Graduate Institute)

15.30-15.45 **Coffee Break**

15.45-17.00 **Getting into the Topic**

*Maria JOSTEN*

*Katja MAYER*

*Michaela TOLD*

#### **Evening Programme at the Museum of Natural History**

Lecture Hall, Burgring 7, 1010 Vienna

18:00 **Meeting Point at the Hotel Lobby – Motel One Staatsoper**

Joint walk to the Museum

18.30-19.30 **Reception with Snacks and Drinks in the Lower Cupola Hall**

Organized by the Federal Ministry for Europe, Integration and Foreign Affairs [MFA] together with FMSTAN/SPIDER Network



- 19:30-19:45     **Welcome and Introduction to the Natural History Museum**  
*Christian KÖBERL* (Director General, Natural History Museum)
- 19:45 – 20:00     **Science Diplomacy Reloaded. The Aesthetics and Dynamics of a New Element in Austrian Foreign Policy**
- Keynote**  
*Teresa Indjein* (Director General for Cultural Policy, Austrian Federal Ministry for Europe, Integration and Foreign Affairs)
- 20:00 – 20:15     **IIASA as a Trust-BUILDER between Nations**
- Keynote**  
*Albert VAN JAARSVELD* (Director General, International Institute for Applied Systems Analysis [IIASA])
- 20:15 – 21:40     **Panel Discussion**
- Challenges for Science Diplomacy in the Current Geopolitical Environment**  
*Sir Peter GLUCKMAN* (Chair of the International Network for Government Science Advice [INGSA], President-elect of the International Science Council) [tbc]
- Barbara Weitgruber* (Director General for Scientific Research and International Relations, Austrian Federal Ministry of Education, Science and Research (BMBWF))
- Lassina ZERBO* (Executive Secretary, Comprehensive Nuclear Test Ban Treaty Organization [CTBTO])
- Anatoly TORKUNOV* (Rector of the Moscow State Institute of International Relations)
- Vaughan TUREKIAN* (SPIDER Co-Chair, Executive Director of the Policy and Global Affairs Division of the US National Academies of Sciences, Engineering, and Medicine)
- Aminata SALL DIALLO* (Special Advisor to the Minister of Higher Education and Research of Senegal)
- Moderator: *Leena SRIVASTAVA* (Deputy Director General for Science, International Institute for Applied Systems Analysis [IIASA])
- 21:40 – 21:45     **Closing Remarks**  
*Christian KÖBERL* (Director General, Natural History Museum)



## Tuesday, 26 November

- 09:00-10:00     **Topical Session: The International Science System**  
*Peter McGRATH* (The World Academy of Sciences [TWAS])
- 10:00-10:30     **Coffee Break**
- 10:30-12:00     **Panel Discussion**  
  
**The Role of Science in Diplomatic Curricula – and the Role of Diplomacy in Scientific Curricula**  
*Emil BRIX* (Director, DA)  
  
*Brigitte GERSTMANN* (ETIA Student year 2018, DA)  
  
*Jan Marco MÜLLER* (Acting Chief Operations Officer, IIASA)  
  
*Clemens MANTL* (former Director of the Office of Science and Technology Austria [OSTA], Washington DC)  
  
*Susanne KEPPLER-SCHLESINGER* (Deputy Director, DA)  
  
*Moderator: Paul YILLIA* (Research Scholar Water Program, IIASA)
- 12:00-12:10     **Joint Group Picture (Festival Hall or Garden)**
- 12:10-13:30     **Networking LUNCH together with FMSTAN/SPIDER Participants**  
  
**Working Sessions Day 2**  
  
**Open Science Challenges in Global Health**
- 13:30-15:00     **Interactive Role Play**  
*Michaela TOLD*  
*Katja MAYER*  
*Maria JOSTEN*
- 15:00-15:15     **Coffee Break**
- 15:15-16:30     **Feedback and Synthesis**  
*Michaela TOLD*  
*Katja MAYER*  
*Maria JOSTEN*
- 18:10             **Meeting Point at the Hotel Lobby – Motel One Staatsoper**  
Joint walk to the Restaurant
- 18:30             **Dinner at Augustinerkeller**  
Augustinerstraße 1, 1010 Wien



## Wednesday, 27 November

**United Nations Office in Vienna: Study Visit**  
**Don't forget to bring your passport/ID Card!**  
Wagramer Straße 5, 1400 Wien

- 08.30           **Meeting Point at the Hotel Lobby – Motel One Staatsoper**  
Joint journey to the UN Office Vienna
- 09:00-09:15   **Arrival and Check-In**  
UN Office Vienna
- 09:20-09:55   **United Nations Office for Outer Space Affairs (UNOOSA): Exhibit Tour**  
*Jorge DEL RIO VERA* (Programme Officer, UNOOSA)
- 10:00-11:00   **Briefing by International Atomic Energy Agency (IAEA)**  
*Jean-Pierre CAYOL* (Programme Coordinator, IAEA  
Department of Nuclear Sciences and Applications)
- 11:00-12:00   **Briefing by UNOOSA**  
*Niklas HEDMAN* (Chief CPLA, UNOOSA)  
*Markus WOLTRAN* (Programme Officer, UNOOSA)
- 13:00-14:00   **LUNCH at the DA**
- 14:00-14:30   **Debriefing and Closing**  
*Susanne KEPPLER-SCHLESINGER* (Deputy Director, DA)
- 14:30-15:00   **Award of Certificates and Reception**

