

Research Project

Institutionalization of Science Diplomacy in Central, Eastern and
Southeastern European Countries

FINAL REPORT

**CONNECTING SCIENCE AND DIPLOMACY IN CENTRAL,
EASTERN AND SOUTHEASTERN EUROPEAN COUNTRIES:
INSTITUTIONS, KNOWLEDGE AND PROFESSIONAL TRAINING**

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EXECUTIVE SUMMARY

The report titled *Institutionalization of Science Diplomacy in Central, Eastern, and Southeastern European Countries* addresses the intersection of international scientific cooperation and diplomacy in a region that has historically received limited attention in global science diplomacy (SD) discourse. The report examines the roles of institutions, the essential skills and competencies, and the professional training needed to build and enhance SD capacity among the Member States of the Central European Initiative (CEI). It provides actionable recommendations to institutionalize and strengthen SD practices to promote regional collaboration, global competitiveness, and the integration of science into foreign policy.

Context and Objectives

SD is increasingly recognized as a strategic tool for addressing global challenges such as climate change, public health crises, and technological advancements. It facilitates international cooperation, promotes national scientific assets, and integrates science into policymaking. However, much of the academic and policy discourse has focused on global science leaders like the United States, leaving regions like Central, Eastern, and Southeastern Europe under-explored.

This research, conducted by the University of Trieste, Italy, in collaboration with the Executive Secretariat of the CEI and financially supported by the Autonomous Region of Friuli Venezia Giulia contributes to bridge this gap. It focuses on three key areas: institutional and organizational frameworks for SD, especially within Ministries of Foreign Affairs (MFAs); the skills and knowledge required by diplomats and civil servants engaged in SD; training programs to equip these professionals with essential competencies.

Methodology

The study employs a qualitative approach based on semi-structured interviews with 13 respondents from 12 CEI Member States. These individuals, including diplomats and civil servants working in MFAs, shared insights into their professional and educational backgrounds, their roles in SD activities, and the organizational challenges they face. This multidimensional analysis provides an initial overview of SD practices in the region.

Key Findings

1. Current Activities in Science Diplomacy: The research classifies the reported SD activities into three dimensions, as defined by the Royal Society and AAAS (2010) framework:

- **Diplomacy for Science:** Activities aimed at fostering international scientific collaboration, such as organizing conferences and promoting access to scientific infrastructures.
- **Science for Diplomacy:** Leveraging science to improve international relations and national image through bilateral agreements and global initiatives.
- **Science in Diplomacy:** Integrating scientific expertise into policymaking and international advisory forums.

The study reveals that “diplomacy for science” is the most represented category among the respondents, highlighting efforts to facilitate partnerships, innovation, and access to resources.

2. Skills and Competencies: Effective SD requires a mix of traditional diplomatic skills and scientific knowledge:

- **Horizontal Skills:** Communication, adaptability, networking, and strategic analysis.
- **Scientific Literacy:** General understanding of scientific issues to engage with experts.
- **Regulatory Knowledge:** Legal and policy expertise in areas such as intellectual property and research security.

Participants emphasized the importance of balancing these skills, noting a preference for generalist competencies while recognizing the value of specialized knowledge in certain contexts.

3. Institutional Challenges: SD structures vary significantly across CEI Member States, from formalized units within ministries to ad hoc, decentralized arrangements. Key barriers include: insufficient inter-ministerial coordination; limited resources and specialized roles, such as science attachés; gaps in training and career incentives for professionals in SD. Despite these challenges, embassies and diplomatic networks play a pivotal role in promoting national science and facilitating international scientific collaborations.

4. Training and Development Needs Participants highlighted a lack of structured training opportunities in SD, both pre-service and in-service. Suggested solutions include: interdisciplinary programs combining diplomacy and science; targeted workshops, seminars, and summer schools; recruitment of scientific experts to fill specialized roles within diplomatic structures.

Recommendations

The report outlines six recommendations to institutionalize and enhance SD practices in the region:

1. Enhancing Institutional Frameworks: Establish coordination mechanisms for SD policy; Create dedicated SD units or assign liaison roles within ministries; Appoint a national Chief Scientist or define central SD coordination mechanism.

2. Integrating SD into Diplomatic Functions: Embed SD into the structure of Ministries by establishing dedicated units or assigning specific mandates to existing departments, such as those focused on cultural and economic diplomacy; Develop national SD strategies aligned with foreign policy objectives; Expand the network of scientific attachés in strategic embassies.

3. Promoting Regional Collaboration: Participate in SD-related and science policy networks to share expertise and best practices; Encourage higher education and research institutions to join EU initiatives.

4. Building Human Capacity: Develop interdisciplinary training programs for diplomats and scientists; Create career incentives to retain expertise and promote specialization.

5. Bridging Science and Diplomacy: Establish platforms for dialogue between scientists and diplomats; Leverage scientific diasporas to strengthen partnerships and national capacities.

6. Raising Awareness and Advocacy: Promote the significance of SD through public campaigns and success stories tailored to engage the scientific community; Inform policymakers about SD's strategic value and its role in global competitiveness.

Conclusion

The CEI report underscores the potential of SD as a transformative tool for addressing regional and global challenges. By institutionalizing SD practices, investing in human capital, and fostering regional collaboration, CEI Member States can enhance their international standing in this field and contribute to a more integrated approach to science and diplomacy. The recommendations provide a roadmap for achieving these goals, ensuring alignment with global trends and promoting sustainable development in the region.

I. INTRODUCTION

I.1. Context of Science Diplomacy

The impact of technological advancements on global affairs and the challenges facing humanity have highlighted the vital role of collaboration between science and diplomacy (Kaltofen and Acuto 2018, 8). This collaboration has become essential for international efforts to harmonize public policies based on credible and widely accepted scientific evidence (Turekian et al. 2015; Simon, 2019). Over time, this has blurred the once-clear divide between science and diplomacy, fostering the rise of “science diplomacy” (Flink and Schreiterer 2010). Commonly abbreviated as SD, science diplomacy occupies a unique space within international relations, where the goals of science and foreign policy intersect (Ruffini 2017, 3).

The concept of SD has been framed in various ways, offering distinct interpretations. A widely recognized framework provided by the Royal Society and the American Association for the Advancement of Science (AAAS) outlines three core aspects of SD: scientific advice to foreign policy activity (science in diplomacy); facilitation of international scientific cooperation (diplomacy for science); the use of scientific cooperation to improve international relations between states (science for diplomacy) (Royal Society and AAAS 2010, 32). In summary, SD represents a reciprocal relationship: diplomatic efforts can promote scientific progress and innovation, while scientific endeavours can help resolve diplomatic tensions and foster international cooperation.

More recently, a more nuanced narrative about SD has been emerging, which acknowledges that many definitions of SD overlook the critical role that national interests play in such initiatives, failing to adequately acknowledge the political and power dynamics inherent in the field (Ruffini 2017). Some alternative definitions, however, address these (geo)political aspects more explicitly. For example, Gluckman et al. (2017) categorize SD actions based on the scope of the interests they serve, identifying three types: (a) actions focused on advancing a nation’s specific needs, (b) actions targeting shared cross-border concerns, and (c) actions aimed at addressing global challenges and needs.

Similarly, Flink and Schreiterer (2010) emphasize the nature of the activities undertaken to achieve these goals. They identify three categories of initiatives: (1) those that aim to

secure access to researchers, funding, resources, and markets in science, technology, and innovation (*Access*); (2) those that promote a country's R&D achievements to attract international collaboration, talent, and investment (*Promotion*); and (3) those that seek to exert influence over public opinion, policy decisions, and leadership in other nations (soft power) (*Influence*).

The competitive dimension of SD is particularly evident in approaches that prioritize innovation over scientific research cooperation. The concept of innovation diplomacy, for instance, highlights international competition to link new knowledge with markets and investors to generate returns through trade, investment, and technological advancements (Leijten, 2017). This perspective underscores the centrality of competition as a driving force in modern SD efforts.

Finally, SD is characterised by an asymmetric attention to different SD initiatives and approaches on the country and regional level. While significant attention has been directed toward the initiatives of leading global scientific and technological powers like the United States, considerably less focus has been placed on the experiences, strategies, and approaches to SD in other parts of the world, including Eastern and Southeastern Europe. Within this region, academic studies predominantly centre on a limited number of countries — for instance, Poland (Łuszczuk 2015, Szkarłat 2020) and the Czech Republic (Olšáková 2024) — while research addressing the broader region remains scarce (Arnaldi et al. 2021, Lombardo 2023).

This report seeks to fill this gap by examining the current state of SD in this area, as perceived by its key stakeholders: diplomats from the region or those engaged in activities within it. The analysis focuses on three critical dimensions deemed fundamental to advancing the institutionalization of SD in these countries: (1) institutional and organizational frameworks within Ministries of Foreign Affairs and national governments more broadly; (2) knowledge and skills essential for diplomats and civil servants to effectively engage in SD initiatives; (3) professional training programs designed to equip these individuals with the necessary expertise and competencies.

By addressing these aspects, the report aims to contribute to a deeper understanding of the dynamics shaping SD in Eastern and Southeastern Europe.

I.2. Objectives and Methodology of the Research

This research, titled “*Institutionalization of Science Diplomacy in Central, Eastern, and Southeastern European Countries*”, was conducted by the Department of Political and Social Sciences at the University of Trieste in collaboration with the Executive Secretariat of the Central European Initiative (CEI-ES) and with the financial support from the Autonomous Region of Friuli Venezia Giulia (Italy).

The study explores institutional models and knowledge needs for SD in Central, Eastern, and Southeastern European countries. The primary objective was to gather insights and perspectives from diplomats and civil servants working in Ministry of Foreign Affairs, embassies and diplomatic representations, diplomatic institutes and academies, therefore addressing the leading professionals in the field of SD. The aim was to understand how the connection between science and diplomacy can be fostered and developed further, contributing to the conceptualization and implementation of SD in the region.

The analysis employed a qualitative approach based on semi-structured interviews (see Annex 1) with 13 respondents from 12 countries in the Eastern and South Eastern European region, and beyond, all sharing the status of Member of the Central European Initiative (CEI), including Albania, Bulgaria, Croatia, the Czech Republic, Hungary, Italy, Moldova, North Macedonia, Romania, Serbia, Slovenia, Ukraine. As specified above, respondents were either diplomats or civil servants working at embassies, Ministries of Foreign Affairs, or Diplomatic Academies and Institutes.

The research examines organizational aspects, the range of activities undertaken, and the goals set by different entities, while also identifying advantages and challenges related to competencies, staffing and training. Overall, the study offers a multidimensional perspective of the diplomatic landscape in the region, with a particular focus on the practices adopted and developed within the realm of SD. The collected data explores the diverse educational and professional backgrounds of participants, as well as the distinct approaches to SD adopted by various CEI countries. It underscores the varied ways in which institutions, expertise, and training in this field are connected across the region.

I.3. Educational and professional profiles of respondents

A notable diversity in academic paths was identified among respondents, though nearly all, except for one, possess educational backgrounds rooted in the social sciences and humanities. Most participants have expertise spanning disciplines such as political science, economics, communication, journalism, international relations, law, languages and literature. Only a single respondent comes from the natural sciences.

This predominance of training in social sciences and humanities, combined with advanced academic paths and high levels of professional experience, indicates a strong capacity for understanding global and political dynamics. However, it also highlights a limited presence of scientific specializations.

Regarding their career trajectories, most of the participants pursued a dedicated path in diplomacy, working consistently in this field from the beginning of their professional lives. The more limited number of respondents who transitioned to diplomacy frequently came from academic backgrounds, having previously worked as professors or researchers before moving into roles within the diplomatic or ministerial sectors.

II. ACTIVITIES IN SCIENCE DIPLOMACY

II.1. Current Activities

To simplify the analysis by using a shared approach to the categorization of SD activities, this report adopts the framework proposed by the Royal Society and the American Association for the Advancement of Science (2010). As briefly discussed in the introduction, this approach breaks down SD into three complementary dimensions, providing a straightforward structure for exploring its key activities: diplomacy for science, in which diplomacy facilitates international scientific cooperation; science for diplomacy, in which science contributes to improving international relations between states; and science in diplomacy, in which science provides support for policy-making, namely political decisions and the formulation of strategic foreign policy. Scientific relations between countries cannot be established without a diplomatic dimension, which refers to the active nature of SD as a means for states to promote, directly or indirectly, their interests on the global stage.

Taking this approach as a point of reference to map the main activities carried out by the respondents, as well as the relevance and experience in the field of SD within the structures in which they operate, Table 1 summarizes the main activities which were identified in the interviews.

In general, diplomacy for science has emerged as the most represented category among the respondents, characterized by numerous initiatives aimed at facilitating bilateral and multilateral scientific cooperation through seminars, conferences, international partnerships, support for research projects, and promoting national scientific infrastructures. All of this is mainly made possible using diplomatic networks established abroad, which contribute to the creation of opportunities for science and the building of a diplomacy based on knowledge and scientific collaboration.

In this context, one respondent highlights that the main activity of the ministerial body where they work, is providing financial support to diplomatic networks for projects showcasing national excellence and facilitating the incoming visits of international experts to national scientific institutions and to large, advanced research infrastructures located in the country's territory (Interview 1, Ministerial Staff).

Table. 1. Classification and key examples of current activities in SD in CEI Member States

Diplomacy for science	<ul style="list-style-type: none"> • Organizing seminars, conferences, and workshops to promote regional and international scientific cooperation; • Financial support for organizing scientific projects and visits by international scientific experts; • Developing partnerships between research institutes and universities to foster cooperation in SD; • Promoting national scientific infrastructures to foreign partners; • Coordinating the efforts of diplomatic missions abroad to improve access to advanced technology markets.
Science for diplomacy	<ul style="list-style-type: none"> • Using science to improve a country's international image through bilateral scientific treaties; • Collaborating with foreign countries to promote science as a tool for international relations and dialogue, for example in Africa and Latin America; • Engaging scientific diasporas as a means to strengthen ties between countries; • Participating in scientific networks and working groups to influence international policy collaboration and coordination; • Promoting women scientists in collaboration with relevant international organizations to align with foreign policy priorities.
Science in diplomacy	<ul style="list-style-type: none"> • Participating in science advisory forums to contribute to the creation of research and innovation policies, especially at the EU level; • Coordinating policies to facilitate the movement of researchers and knowledge, especially within the EU; • Involving scientific experts in international forums as part of the science advisory system; • Engaging in international forums to promote international and global research initiatives.

On the other hand, one scientific attaché emphasized the embassy's commitment to developing partnerships between national universities and research institutes and the countries in which they operate, with the aim of promoting scientific innovations and new

technologies on specific topics of economic and environmental relevance, among others (Interview 11, Embassy Staff).

Similar activities are organized by other countries as well and highlight the key role played by embassies in fostering bilateral cooperation and promoting globally relevant themes such as water resource management and sustainable development. Organizing conferences, workshops, and capacity-building activities through embassies accredited abroad in collaboration with various countries, are framed as part of a national forward-looking approach to innovation and competitiveness in the emerging field of artificial intelligence (Interview 2, Ministerial Staff). Part of this strategy hinges also upon the support of international scientific ventures, such as, for instance, the International Research Centre on Artificial Intelligence (IRCAI). At home, Diplomatic Academies play an active role in socializing young diplomats to globally relevant issues such as environmental protection and law (Interview 4 and 5, Diplomatic Academy Staff).

Regarding science for diplomacy, respondents emphasized how science can be used to improve the international image of their country and strengthen bilateral relations, for example using bilateral scientific treaties to improve the international perception of their country (Interview 6, Ministerial Staff) or collaborating with other countries, for instance in Africa and Latin America, to enhance their country's reputation as a reliable scientific partner (Interview 2, Ministerial Staff). SD activities, such as using scientific communities abroad to strengthen international ties and leveraging scientific soft power, underscore the perception of the effectiveness of science in improving a country's international standing.

Moreover, the direct involvement of diplomats in visits to international research centres was highlighted, turning them into true “ambassadors of science” once they are back in their posts, capable of promoting international scientific cooperation as a foundation for building strong relationships with other countries. Organizing training events for research managers of foreign countries (Interview 9, Embassy Staff) is a significant example of how science becomes a tool of diplomacy, enhancing skills and creating bridges for international scientific collaboration, fostering open and constructive dialogue, and building trust between countries.

Reconnecting with the scientific diaspora is also seen as a significant tool to strengthen the national scientific ecosystem and to amplify the country's capacity for active participation in international scientific dynamics, fostering knowledge sharing and technology transfer.

The use of science to promote public diplomacy, for example, through support for sustainable development goals and water diplomacy, exemplified by respondent 2 (Ministerial Staff), shows how science can be a powerful tool for promoting crucial foreign policy issues and stimulating cooperation on global challenges.

Science in diplomacy was mentioned primarily in relation to participation in international forums and the shaping of research and innovation policies, demonstrating the importance of science in global policy-making discussions. Several respondents stated that they are actively involved in building a new framework for SD at the European Union level, as well as being part of the EU SD advisory network.

An example of these networks and forum is the European Research Area (ERA) Forum and contributing to the formulation of policies to facilitate the free movement of researchers which “is one of the coordination bodies which the Commission uses to coordinate research and innovation policy.” (Interview 10, Embassy Staff) This activity demonstrates a concrete commitment to influencing scientific policies and contributing to governance structures for science in diplomacy.

The same respondent also highlighted the function of the ERA Forum as a site for the activities of a “global cooperation subgroup”, contributing to the European SD framework:

[w]e have this European research area, and we have a kind of policy agenda which is changed every three years. I am the delegate of [name of the country] there at the moment, already working there for five years, and one of the strengths is really science diplomacy. Now we will be finishing quite nice report recommendations on how to create a kind of European science diplomacy framework. (Interview 10, Embassy Staff)

Finally, several respondents emphasized their involvement in negotiations for the development of EU initiatives, specifically within the Horizon Europe research and innovation framework program. They highlighted the importance of promoting academic and scientific cooperation between the research organizations, such as academies of sciences, of different countries and facilitating access to international resources for science, technology and innovation, such as knowledge and findings, research staff, infrastructures. These elements are seen also key components for the development of a modern diplomatic infrastructure

capable of using scientific evidence in policy formulation, thereby fostering the construction of knowledge-based diplomacy.

II.2. Objectives of Science Diplomacy

Regardless of the type of activity carried out, as noted in the introduction, the objectives of these activities can differ, and SD is not exclusively tied to cooperative aims. To account for this diversity, we adopted the framework proposed by Flink and Schreiterer (2010), which categorizes SD activities based on three distinct strategic goals: access to scientific resources, promotion of national science systems, and influence on the international community and other countries. These objectives, distinct but often coexistent, represent different views of SD's goals, and their relative importance differentiate the various national approaches to the field.

Access to Scientific Resources

This category focuses on enhancing access to foreign and international scientific infrastructure and expertise. Some respondents emphasized the importance of attracting foreign talents to work in their countries. For instance, one respondent (Interview 1, Ministerial Staff) emphasises SD's potential to attract highly skilled foreign researchers to harness scientific resources, enhance national excellence, and shift international science dynamics in their country's favour.

Another example is the focus on maintaining direct contact with the local scientific community to meet their needs and support national research. These efforts are crucial for optimizing the use of national scientific resources, fostering openness, and sharing information to contribute to global scientific progress (Interview 9, Embassy Staff).

Similarly, the interviews highlighted the need to foster greater mutual understanding between the academic and diplomatic communities. This strengthened collaboration seeks to incorporate science into diplomacy, ensuring that scientific expertise is accessible for policy formulation and implementation when needed, such as during key EU negotiations and policymaking processes.

Promotion of National Scientific Assets

This objective emphasizes strengthening research capacities and representing national science internationally. With regard to this, another respondent (Interview 11, Embassy Staff) described the key role of the national diplomatic network in organizing events that foster collaboration between science and industry, creating synergies between research and economic development.

A second respondent (Interview 2, Ministerial Staff) also underscored embassies' fundamental role in promoting national and European science through activities involving direct collaboration with foreign partners. These examples reflect the respondents' perception of SD as a set of activities aimed to improving the visibility of national science, positioning their countries on the international scientific stage.

Influence

The enhancement of national visibility on the international stage is seen also as a strategy for improving countries' international status (Interview 8, Ministerial Staff) and for influencing other countries and the international community (Interview 2, Ministerial Staff). Cooperation with other European countries and the creation of collaboration networks to address global scientific issues are seen as elements of this strategy and examples include forming regional clusters in fields such as theoretical mathematics and pharmacology, involving experts from various countries on a European and regional level (Interview 4, Diplomatic Academy Staff).

Other respondents stressed the organization of events like seminars, conferences and study visits to bring international experts to their countries, promoting knowledge dissemination and creating positive influences on other states.

So, if a group of scientists, experts, or academics goes to present the results of our science abroad, our embassy can organize everything, invite the partners from the host country. They can also organize incoming visits to bring experts from the countries where the embassy works to [name of the country]. Here, we can organize a trip for them, [to] a city where we can show all our facilities, present the best we have, and I think it's something that often surprises scientists who might not be from Europe, but from the other side of the world, and don't expect

to find researchers, universities, and centres of excellence at such a level here in the heart of Europe. This is the goal, which then leads to cooperation and beautiful results (Interview 1, Ministerial Staff).

Some countries see these events and activities as part of a longer-term strategy to build durable partnerships in the host countries of specific embassies. This approach attempts to generate “mutual benefits” by recognizing local priorities and, at the same time, supporting strategically significant areas such as artificial intelligence as well as building ties with key geographical areas.

In regions where we are not very present, such as Latin America or Africa, where we don't have many embassies, we are still regarded as a knowledgeable and trustworthy partner, without perhaps the colonial or other baggage [that could hinder cooperation]. [...] In Africa, we bring scientific knowledge, such as expertise in artificial intelligence or other issues. And we collaborate with countries like Germany or France, who have larger networks. We may not have the extensive network, but we have the know-how. So, we contribute our expertise to the networks [that exist]. [...] Otherwise, we wouldn't be involved. I think this is a kind of outreach that is very, very useful. (Interview 2, Ministerial Staff)

By connecting researchers to these initiatives, countries foster lasting relationships with partners who have the potential to become key players on the international scene, ensuring collaborations and strengthening both parties' capabilities:

A partner that will naturally grow in skills, capabilities, and relevance... a solid partner that will continue to work as a recognized priority for this country. (Interview 11, Embassy Staff)

III. ORGANIZATIONAL ASPECTS OF SCIENCE DIPLOMACY

III.1. Organizational Modalities

This section illustrates the place of SD within the institutional structures of the countries involved in this research, especially within their Ministries of Foreign Affairs. The place of SD varies greatly between countries, ranging from formalized and institutionalized structures within specific departments, to flexible models in which SD is integrated within other diplomatic functions, to contexts where SD is managed marginally and without a specific designation. The differences observed reflect the adaptation of organizational modalities to national priorities and the ability of ministries to integrate SD into their activities.

In some cases, SD is clearly institutionalized and formally placed within specific departments. Sometimes, SD is located under a department or office responsible for economic relations and economic diplomacy, which is responsible for both economic and scientific relations (Interview 1, Ministerial Staff). In other countries, SD is clustered with cultural diplomacy in departments that are responsible for both (Interview 1, Ministerial Staff; Interview 9, Embassy Staff). In other contexts, SD is not formally institutionalized in a department but is assigned to an “Ambassador at large”, that acts with a transversal role across the MFA’s functions and connects MFAs with other competent ministries (Interview 2, Ministerial Staff). Across the government, SD is also present in other ministries, primarily in the Ministry of Research and the Ministry of Education. However, other sectoral ministries can be involved for their respective mandate, such as agriculture or defence (Interview 1, Ministerial Staff). Some countries show a lack of a dedicated and formalized structure for SD in the MFA, highlighting a less structured approach and fewer resources specifically dedicated to SD within the ministry. This relatively unstructured approach may depend from the fact that SD is not centralized within the Ministry of Foreign Affairs but is primarily managed by the Ministry of Research or Ministry of Science or Education, where an international cooperation department plays the main role in coordinating international science and research policies (Interview no. 12, Diplomatic Academy Staff), while the Ministry of Foreign Affairs acts in a supporting role (Interview 6, Ministerial Staff).

When the relationships with the diplomatic networks are concerned, embassies are acknowledged to play an essential role in SD to promoting national science and facilitating

international collaborations (Interview 1, Ministerial Staff; Interview 3, Diplomatic Academy Staff). Embassies support conferences and seminars, offer financial support, and act as vehicles for promoting national educational and scientific opportunities, disseminating information provided by domestic institutions that can attract researchers or PhD students or diffusing scientific results of national research institutions abroad (Interview 1, Ministerial Staff). In this context, embassies are supported by MFAs and Diplomatic Academies, for instance by providing data on relevant scientific and research opportunities and capacities in their home country (Interview 4, Diplomatic Academy Staff), promoting the educational and scientific system to international partners.

Where scientific attachés are present, their network within accredited embassies abroad is seen as a key resource for expanding diplomatic skills in the scientific field and their number have been expanded in recent years (Interview 11, Embassy Staff). Actions to encourage coordination, exchange of information and good practices, for instance by organizing an annual conference are implemented (Interview 11, Embassy Staff; Interview 9, Embassy Staff).

In some countries, scientific attachés typically come from the research world and already possess an international background, which the ministry leverages. Similarly, in other countries, the network of scientific attachés is scant or absent altogether. In some cases, respondents note that their countries have no science attaché, except for the regular representatives in Brussels and at other international organizations in Geneva (Interview 7, Ministerial Staff). Sometimes this can be a result of the lack of distinct place for science, which is part of other diplomatic domains and that, therefore, is seen as not requiring a specific network of science attachés (Interview 6, Ministerial Staff). Nonetheless, respondents from countries where a network of science attachés is not present express interest in expanding these capacities in the future by involving individuals specialized in the scientific field to further strengthen their national diplomatic network (Interview 2, Ministerial Staff) or by establishing dedicated science attachés at least in strategic embassies such as those in Brussels and Geneva.

Some countries (Interview 9, Embassy Staff; Interview 2, Ministerial Staff), describe regular and systemic coordination mechanisms between various government bodies, while in others (Interview 6, Ministerial Staff), this relationship depends on the differentiated allocation of responsibilities between different ministries. The respondents, in their

responses, focused on structured and regular relations between the Ministries of Foreign Affairs and other national ministries, especially with the Ministry of Education, the Ministry of Science, the Ministry of Economy, and other government bodies responsible for research and innovation. In some countries, inter-ministerial coordination in the field is supported by regular meetings between the relevant bodies, such as the Ministry of Foreign Affairs and the Ministry for Higher Education, Science, and Technology, showing a high degree of structural integration. These collaborations aim to integrate scientific aspects into various government policies, such as the management of strategic topics like outer space. Coordination is sometimes reinforced by the presence of a specialized unit in the Prime Minister's office, where an office responsible for science and technology operates (Interview 2, Ministerial Staff). In general, inter-ministerial cooperation is considered instrumental to support SD initiatives and to ensuring that the outcomes are shared and made accessible to stakeholders in government (Interview 3 and 4, Diplomatic Institute Staff) and beyond (Interview 9, Embassy Staff).

Finally, the organizational modalities described by the respondents highlight a strong link between government agencies and non-governmental entities, such as universities, research institutes, and scientific associations. These relationships are often crucial in facilitating the interaction between the government and the academic sector, allowing the creation of effective networks and synergies for national development in the scientific field. These collaborations are both aspirational and actual, as well as focused on domestic or international partnerships. For instance, one respondent describes the developing idea of creating regional clusters in specific research sectors which are significant for national economies and societies, highlighting the importance of collaborating not only with other governments but also with research institutes, universities, and private partners (Interview 4, Diplomatic Academy Staff) to build long-term collaborations and to promote innovation in strategic sectors. As a second example, one respondent mentioned the fact that the Ministry of Foreign Affairs interacts with the association of scientists who have studied or worked abroad (Interview 2, Ministerial Staff) to connect domestic research organizations internationally. This initiative helps maintain continuous contact with the scientific diaspora and strengthens the country's ability to be visible and connected globally. Participation in international networks and organizations, such as those operating under of the UN, the EU, and the OECD, further demonstrates this commitment. Science attachés show a close and

ongoing connection with the academic world, too. This connection exists either because they come from an academic background, using their pre-existing research networks to create and facilitate projects and activities between host countries and the national research system (Interview 11, Embassy Staff) or because they perform communication and dissemination activities targeted to universities and research institutes, acting as a bridge between the national and foreign actors and facilitating cooperation between governmental and non-governmental entities (Interview 9, Embassy Staff).

III.2. Organizational Changes for capacity-building

After detailing the current organizational arrangements in SD, the respondents assessed the shortcomings of the structures in which they operate and the ways to improve the institutional approach in order to enhance their countries' overall performance in SD. Examining their opinions, four main organizational dimensions emerged: internal ministry relations and the localization of SD; relations with the diplomatic network; relations with government entities and relations between government entities and non-governmental organizations.

The respondents emphasized the importance of improving inter-ministerial coordination by creating centralized roles to guide efforts in SD and forming advisory groups to provide high-level scientific support to the government. With regard to this, one respondent singled out the establishment of a “Chief Scientist” in the Prime Minister's office to centralize the management of resources and scientific activities, improving coordination between different ministerial structures:

I would say [that] if you have a chief scientific consultant in the prime minister's office, for example, that would be responsible only to the prime minister and who could have then the authority to kind of put together all the other stakeholders in the country, that could be relevant.” (Interview 2, Ministerial Staff)

Another respondent supports the “Ambassador at large” model to address emerging diplomatic fields, such as SD. This approach allows for flexible, horizontal arrangements that can evolve into bigger and more structured departments:

So, in the Ministry of Foreign Affairs, we are currently developing the function of “Ambassador at large” [...], which we do not have so far [...] and then in one, two years maybe to create some small department that will be kind of support to [the] ambassador. (Interview 12, Diplomatic Academy Staff)

Other respondents suggested creating specific career paths for science diplomats to ensure continuity, encourage specialization in this sector, and prevent the loss of expertise due to staff turnover. As emphasized by one respondent:

I really think that once I leave this job then everything might be lost. Then it's a question of how fast the new person is going to fit in various levels of interaction. Solutions would favour more specific training for science diplomats. That will turn both scientists and diplomats, that would guide them through a career path that would favour and motivate them to be active in science diplomacy and have a career path for science diplomats. (Interview 7, Ministerial Staff)

Furthermore, there is a need for a general increase in the number of human resources specialized in the field of SD to effectively manage the growing volume of activities and responsibilities related to this field. From a ministerial perspective, there is a need to expand diplomatic positions to include roles such as scientific consultants, special envoys for SD, and technology ambassadors to improve effectiveness in managing the cooperation activities (Interview 8, Ministerial Staff). The need to establish national strategies to use SD as a tool for developing peaceful relations is also emerging, particularly in an unstable and insecure geopolitical context:

We have a changing geopolitical context, unstable, and insecure environment. Science diplomacy cooperation can be utilized for developing peaceful relations between countries. (Interview 3, Diplomatic Academy Staff)

Many respondents highlighted the need to expand the network of science attachés in embassies to improve scientific representation abroad. Existing economic attachés can

cover scientific topics, but it is suggested that dedicated scientific roles should be expanded for greater effectiveness (Interview 10, Embassy Staff). In addition to this, a respondent (Interview 10, Embassy Staff) proposed, based on the Estonian model, to integrate science attachés not only in embassies but also in various ministries, to strengthen the uptake of science-based policy-making at home: “the Estonians once established posts of science attaches not in other countries, but in other ministries.”

Inter-ministerial cooperation emerged as a central aspect to improve the effectiveness of SD. Yet, these activities remain often informal and ad hoc, based on personal contacts rather than structured mechanisms (Interview 12, Diplomatic Academy Staff). Because of this, it was emphasized that, for example, formal agreements between ministries, such as the Ministry of Foreign Affairs and the Ministry of Science (which often operates as a central actor in SD), should be consolidated to foster greater synergy between science and diplomacy:

We just need more cooperation within our government system, between ministries, more efficient models of exchanging information, more efficient models of activating all the knowledge we accumulate across the system at one place. We have treaties on cooperation with different ministries, but at this point we don't have such treaty with the Ministry of Science. (Interview 6, Ministerial Staff)

Improving inter-institutional coordination is also considered essential to address complex challenges such as research security and the protection of a country's technological sovereignty (Interview 3, Diplomatic Academy Staff). The improvement of horizontal coordination between different departments and ministries is seen as important to avoid duplication and disconnections, creating smoother collaborations between various entities and functions related to science (Interview 2, Ministerial Staff). The same respondent proposed developing specific funds, such as a “Scientific Fund” and a “Cultural Fund,” in collaboration between different ministries, aiming to facilitate participation in conferences and international projects, with particular attention to young researchers, thus promoting both the development of scientific skills and integration into the global scientific community. Formalizing the cooperation through the appointment of a dedicated science diplomat could serve as a focal point for inter-ministerial coordination, involving the Prime Minister's Office

or President's Office, universities, and research institutions. This could eventually lead to legal agreements that establish a structured, long-term framework for SD:

But I think the next development could be the appointment of someone in the Ministry of Foreign Affairs as a science diplomat who will start to build on science diplomacy coordination, which could include, of course, apart from two ministries, also Prime Minister's office, President's office as well, because they are both responsible for foreign policy and some different science-related institutions, like universities. So, to create some kind of focal point, but more operative, more coordinative because so far we do not have it. (Interview 12, Diplomatic Academy Staff)

Regarding strengthening relationships with non-governmental entities, another respondent proposed creating permanent discussion platforms between scientists and diplomats to foster dialogue and continuous interaction in SD activities (Interview 8, Ministerial Staff). The same respondent also suggested increasing the involvement of diverse scientific experts, from various schools of thought, to address socio-economic issues in a multidisciplinary manner: "it is crucial to involve representatives from various scientific schools in solving pressing socio-economic problems of today." (Interview 8, Ministerial Staff) Other respondents agree that MFAs play a facilitating role for cooperation between higher education institutions and research organizations (Interview 4, Diplomatic Academy Staff): "I have the idea of having several meetings with university directors and proposing to them to give more importance, not only to student exchanges but also to research exchanges." The same respondent highlights the role of diplomatic academies to build these relations, as sites to host meetings, workshops and seminars, thus facilitating direct interaction of the diplomatic world with the academic sector. When this relationship between the diplomatic and scientific communities is discussed, the lack of structured engagement of diplomats with scientists is highlighted (Interview 13, Diplomatic Academy Staff). To create more robust and more institutionalized opportunities for mutual engagement, there is a need to ensure greater involvement of scientific communities in inter-ministerial coordination, by formalizing cooperation between MFA and national academies of sciences and universities through instruments such as memoranda of understanding, and creating national or regional

frameworks to facilitate science-policy collaboration in terms of SD. The same respondent stressed out the need of educational reforms to introduce SD training at universities, raising awareness and preparing future diplomats to engage effectively with the scientific community and to prepare for joint problem-solving in global policy challenges such as pollution, migration, and food safety (Interview 13, Diplomatic Academy Staff)

IV. SKILLS AND COMPETENCIES FOR SCIENCE DIPLOMACY

IV.1. Key skills in science diplomacy

In the final part of the report, the analysis of skills and competencies considered essential by the respondents for effectively carrying out the role in the development of SD is presented. The highlighted competencies can be divided into several specific profiles, ranging from transversal and relational skills such as communication, adaptability, and networking, to technical and regulatory skills such as understanding legal regulations, strategic analysis ability, and specialization in various scientific fields.

The respondents primarily emphasize the use of transversal, or generalist, skills, which have emerged as an essential component for the practical implementation of traditional diplomatic functions, such as representation, negotiation and diplomatic reporting. For example, the ability to communicate effectively is a common element across all profiles and is repeatedly highlighted: “the most important skills for performing professional duties include communication skills” (Interview 8, Ministerial Staff). Communication, therefore, emerges as a crucial aspect of the diplomatic profession, considering that diplomats must be able to communicate effectively both internally and externally. Similarly, other respondents (Interview 1, Ministerial Staff) mention the ability to “communicate” and the need to organize seminars and meetings where diplomats can participate actively, highlighting the importance of knowing how to transmit information appropriately and connect with other experts. The same respondent emphasizes that diplomats must be “universal,” meaning capable of adapting to various, constantly evolving roles. This universal

aspect clearly involves the use of competencies such as flexibility and open-mindedness, alongside management skills and a strong “ability to understand others”: “being able to understand others, a certain type of empathy [...] a good manager should be someone who is open to new information, new experiences.” Previous experience and adaptability to different contexts are considered fundamental competencies, underlining the importance of broad knowledge acquired in various professional fields. One respondent (Interview 10, Embassy Staff), serving as a scientific attaché, adds the importance of “academic curiosity” as a crucial characteristic for success in SD, indicating the need to actively explore and understand new areas of knowledge. The same respondent emphasizes the competency of strategic analysis and forecasting scientific trends as crucial for scientific diplomats: “try to catch what's going on, what's the state of the art, what's beyond the state of the art, forecast the future”, meaning being able to grasp “the state of the art and what goes beyond.” This analytical aspect implies continuous monitoring and a proactive vision to anticipate future changes and identify strategic collaboration opportunities for one’s country. Therefore, having a “good overview” of the entire diplomatic mission of the country and knowing how to adapt the information to the context is important. These skills are essential for positioning one's country advantageously in relation to international scientific developments and for conveying relevant information to political decision-makers. The ability to create and maintain a network of contacts is another competency identified as relevant (Interview 1, Ministerial Staff), who describes the need to “connect one expert to another,” highlighting the role of the science diplomat as a facilitator between different actors. Networking skills are crucial for linking researchers, government entities, and non-governmental organizations, creating the conditions for effective multi-stakeholder scientific collaboration.

Legal competencies are less emphasized but remain fundamental for SD, especially in an international context, as “in-depth analysis of the regulatory framework” is crucial for understanding national and international legislation and managing efficiently commercial activities related to research. Regulatory competencies help ensure that science initiatives comply with legal requirements, for instance at the EU level, and facilitate the protection of intellectual property. This profile of competencies is particularly relevant for scientific diplomats who must negotiate collaboration agreements in specific scientific sectors and promote technology transfer (Interview 8, Ministerial Staff). Moreover, legal competences play a particularly important role in the protection of sensitive information and the

management of intellectual property. As stated by one of the respondents (Interview 3, Diplomatic Academy Staff), “the issue of research security must be there on how to preserve the technological sovereignty.” However, the lack of awareness and legal competencies among diplomats is a critical element that limits their ability to have access to key knowledge and technology or, on the contrary, to protect the technological sovereignty of their country.

Finally, with regard of topical knowledge related to different scientific fields, according to most of the respondents, science diplomats do not require specialized knowledge of individual fields but rather a broad knowledge that allows understanding general scientific issues and facilitating dialogue between different experts. This position is clearly outlined by one respondent (Interview 1, Ministerial Staff) who describes the need for diplomats to have a general vision of the sciences in order to understand what the issues are and identify the right experts to engage: “because science is so broad that you can never learn everything [...] It is difficult to go into details with training, it's better to be a little, let's say, [knowledgeable] in a broad framework of all possible sectors and then know who the experts are, where to find them” when a specific expertise is needed. This primacy of generalist skills is not universally embraced, as it prevents the development of in-depth knowledge in specific scientific sectors and limits the opportunity to deepen scientific knowledge sufficiently to be truly effective. For instance, another respondent (Interview 6, Ministerial Staff) recognizes the importance of having “better-educated diplomats specialized in all kinds of scientific fields.” These opinions, rather than focusing mainly on the generalist skills required in a diplomatic career, stress the importance of more specialized competencies that allow diplomats to interact effectively with a variety of scientific fields. Another respondent (Interview 8, Ministerial Staff) mentions “understanding the structure of research systems and technology transfer” as an important skill. Overall, one respondent notes that traditional diplomats might find it difficult to specialize in science (“rather than training diplomats in science, it might be better to train science-savvy persons in diplomacy”, Interview 2, Ministerial Staff). An opposite opinion notices that career transitions from the scientific to the diplomatic or policy world may not, in fact, be positive, as they weaken national sciences systems: “once you get scientists out of the science system, then you lose a scientist, their contribution in terms of research is lost, which may not be the best use of resources” (Interview 7, Ministerial Staff). These competing incentives create a sort of a conundrum, as career paths for diplomats are believed to discourage young diplomats to specialize in SD

and to acquire specific competences in the scientific and technological fields: “Why would they want to be [...] constrained into limiting themselves to that field”, thus limiting their career opportunities? (Interview 7, Ministerial Staff)

IV.2. Missing Skills and How to Address Them

Training and recruitment are central aspects in addressing the gaps in the essential skills needed to practice SD. The respondents shared various approaches and proposals on how to improve and recover the skills of staff and to recruit new figures to make the connection between science and diplomacy more effective within their work contexts.

Many respondents emphasize the importance of continuous training and specialization in scientific fields for diplomatic personnel to improve existing skills. Participation in specialized thematic seminars, organized by Diplomatic Academies, are seen as a central method for developing specific and adaptive skills: “participating in various seminars, both economic and scientific, with a certain specialization [...] a seminar with one of the experts in energy, security, or economics” (Interview 1, Ministerial Staff), covering topics relevant to SD such as the green transition and energy security (Interview 6, Ministerial Staff). Other respondents view the creation of a more ambitious training programs as instrumental to provide structured and in-depth preparation for future diplomats in the long term: “solutions are longer-term and they pass through a general approach that would favour more specific training for science diplomats,” such as summer schools and master’s courses (Interview 7, Ministerial Staff). Those who share this opinion acknowledges the importance of developing scientific expertise, such as specialist knowledge in various scientific fields or knowledge-intensive policy domains” develop an expertise and capacity to deal with a much broader range of issues [...] including also climate change, health issues, nuclear disarmament,” demonstrating a strong need to develop integrated skills between diplomacy and science (Interview 3, Diplomatic Academy Staff). On the contrary, another respondent (Interview 12, Diplomatic Academy Staff) highlights that scientists entering SD often lack key traditional diplomatic skills, such as networking, negotiation, and document drafting, which are essential for both bilateral and multilateral engagements. He emphasizes that traditional diplomatic competencies must be the foundation for effective participation in SD, along with specialized scientific knowledge. In sum, targeted training is essential to equip diplomats with knowledge

of global science trends and familiarize scientists with diplomatic protocols and soft skills, which are crucial in diplomatic settings. It was also emphasized that understanding the impact of new technologies and integrating them into diplomatic activities are crucial skills for future diplomats. SD requires diplomats to be technologically aware, capable of adapting to innovations, and skilled in addressing global challenges driven by scientific advancements. (Interview 13, Diplomatic Academy Staff)

An alternative approach to gain specialized scientific competence focuses on the recruitment of new specific figures into the existing diplomatic system and on changing current operations to develop an organizational culture with more developed competences on science, technology and innovation. Regarding this, one respondent (Interview 1, Ministerial Staff) suggests investing in the adaptive capacity of staff, ensuring that skills are distributed among more people to avoid operational gaps. He describes the practice of “rotating people,” so that diplomats can cover for colleagues during their absence: “in case someone is on vacation, the other can also perform the role of the colleague.” Respondent number 2 (Ministerial Staff) suggests instead expanding the diplomatic representation network with specific profiles of scientific attachés to strengthen SD in strategic embassies and promote science abroad effectively: “to have the scientific attachés to help the embassies, to promote science.” Another respondent highlights the importance of associating scientific experts (Interview 3, Diplomatic Academy Staff) such as climatologists and other scientists with a solid scientific knowledge base to include them in diplomatic teams to develop informed positions for international negotiations and contribute to the definition of science-based strategies: “we need to involve climatologists [...] we use science-based expertise in order to develop sound and well-informed positions for participating in international negotiations.” Also, other countries (Interview 6, Ministerial Staff) are considering to recruit scientists from different scientific fields and integrating them into the Ministry of Foreign Affairs: “hire scientists from different fields of science and incorporate them in the system of the Ministry of Foreign Affairs,” to fill the gaps in the existing scientific skills within the ministry.

A common theme that emerged during the interviews is the need to bridge the gap between diplomatic and scientific cultures, integrating the skills of both fields. Respondent number 3 (Diplomatic Academy Staff) describes targeted courses aimed at goal sharing and at providing inter-professional skills, to facilitate interaction between diplomats and scientists:

“to close the gap between science researchers and diplomats [...] provide this inter-professional competence.” In particular, senior academics responsible for international cooperation at universities should be a key target group of these training efforts, to improve their ability to actively contribute to SD: “very, very useful to have some training for these people who are in charge of this international cooperation.” (Interview 4, Diplomatic Academy Staff)

V. CONCLUSIONS AND RECOMMENDATIONS

V.1. Summary of Findings

Science diplomacy (SD) has emerged as a vital field at the intersection of science and international relations, acting as a conduit for cooperation, policy formulation, and the resolution of global challenges. It also serves as a strategic tool for gaining access to international scientific resources and promoting national scientific assets. While global science leaders like the United States dominate the discourse on SD, far less attention has been paid to the approaches and initiatives in Central, Eastern, and Southeastern European countries. This research addresses this gap by exploring the institutional, educational, and professional landscape of SD in this region through qualitative interviews with diplomats operating within it.

The first aspect highlighted by the interviews is the range of current activities conducted in the domain of SD. Adopting the Royal Society and AAAS tripartite framework, the study reveals that the surveyed countries prioritize the following activities in three key areas:

- **Diplomacy for Science:** Organizing seminars, workshops, and conferences to foster regional and international scientific collaboration; developing partnerships between national and foreign universities and research institutions; showcasing national

scientific infrastructures; and facilitating expert visits to leverage diplomatic networks for boosting national scientific profiles.

- **Science for Diplomacy:** Using international agreements and collaborations with scientific diasporas, engaging in global forums and partnerships, and aligning science-related activities with broader foreign policy goals to improve countries' international images and enhance their credibility and relevance on the global stage.
- **Science in Diplomacy:** Participating in international advisory forums, such as those under the European Research Area (ERA), to enhance policy coordination and align national research strategies with international frameworks.

Regarding the goals of these activities, the report identifies a dual focus on cooperation and competition. First, SD activities aim to access scientific resources, such as attracting foreign expertise and maximizing the use of international research facilities. Second, they seek to promote national research capacities and position national science systems favourably on the global stage by connecting centres of excellence with global networks. Lastly, they aim to enhance national visibility and credibility while establishing long-term partnerships in strategic regions, such as Africa and Latin America.

How these activities are organized and their goals pursued varies significantly across the region. SD is institutionalized differently, ranging from formalized structures within ministries to more flexible models integrated into other diplomatic functions. Scientific attachés play a key role in some countries, while others lack such specialized roles entirely, influencing the approaches to engaging with SD in diplomatic networks. While effective SD is widely recognized to depend on collaboration between ministries of foreign affairs, education, and science, respondents frequently lament the lack of formal coordination mechanisms, instead relying on ad hoc procedures.

When it comes to SD skills and competencies, contrasting views emerge on the relative importance of traditional horizontal diplomatic skills versus specialized scientific expertise. Similarly, disagreements exist about whether diplomats should develop scientific knowledge or science-savvy individuals should enter diplomacy. Nonetheless, communication and adaptability are universally valued, along with strategic analysis and networking skills. Legal and regulatory expertise, particularly in areas like intellectual property and research security, is considered essential for negotiating international agreements. Regarding scientific

knowledge, general literacy is preferred over deep specialization, as it enables diplomats to engage with experts effectively and flexibly connect with specialized scientific communities as needed.

Finally, many respondents highlighted insufficient training opportunities in SD, both before and during their tenures. Proposals to address this gap include targeted seminars, summer schools, and interdisciplinary training programs aimed at bridging the divide between diplomatic and scientific communities. Organizational challenges were also identified, such as fragmented coordination and limited resources, which constrain the potential of SD in the region. Furthermore, the absence of specialized roles, such as dedicated science diplomats or attachés, weakens the institutional framework necessary to support effective SD activities.

V.2. Recommendations

This closing section lists recommendations based on the research findings. These focus on two primary domains: organizational arrangements and skills training. The goal is to foster the institutionalization of SD in CEI Member States, enhancing their capacity to engage in this policy domain, promoting regional cooperation, increasing global competitiveness, and integrating science into foreign policy effectively. The recommendations are as follows:

1. Enhancing Institutional Frameworks:

Establish regular coordination mechanisms for SD policy within ministries of foreign affairs (MFAs) and across government bodies. Appointing a national Chief Scientist or creating a central coordinating unit within the Prime Minister's or President's Office can facilitate these efforts. Dedicated SD units, or assigning SD-related liaison roles to existing offices within each ministry, can enhance collaboration among the ministries of foreign affairs, education, and science. Formalizing inter-ministerial agreements can further ensure the long-term effectiveness of these coordination efforts.

2. Integrating SD in Diplomatic Functions:

Embed SD explicitly within cultural or economic diplomacy departments to increase its visibility and prioritization. Develop national SD strategies aligned with broader foreign policy and scientific research goals. Expand the network of scientific attachés in strategic embassies where possible. Integrate scientific expertise into the foreign affairs ecosystem through targeted hiring or training of existing diplomatic staff.

3. Promoting Regional Collaboration:

Actively engage in SD- and Science Advice-related networks to share resources, expertise, and best practices. Strengthen regional cooperation by encouraging higher education and research organizations to form consortia. These consortia can also aim to participate in large-scale EU research initiatives that support international research collaboration.

4. Building Human Capacity:

Develop interdisciplinary training programs that combine diplomatic protocols with scientific knowledge. Introduce these programs into diplomatic academies and professional development courses for civil servants. Collaborate with universities to design joint, multidisciplinary programs targeting both scientists and diplomats in SD-related fields. Create career incentives and pathways to retain expertise and encourage specialization in SD.

5. Bridging the Gap Between Science and Diplomacy:

Establish permanent platforms for interaction between scientists and diplomats, such as forums or working groups, to address global challenges like climate change and public health crises. Leverage scientific diasporas to strengthen international partnerships and national research capacities. This can include creating advisory councils or mentorship programs, as well as encouraging embassies to host or support scientific events, facilitate researcher mobility, and promote national research strengths.

6. Raising Awareness and Advocacy:

Promote the importance of SD through public campaigns targeting the scientific community, emphasizing its role in shaping the research environment and addressing global challenges. Showcase regional success stories to inspire broader participation and investment. Policymakers should be informed about the strategic value of SD, highlighting its potential to improve international standing and economic competitiveness. This can encourage the inclusion of SD in national research and innovation agendas, ensuring alignment with global trends.

ANNEX 1. INTERVIEW GUIDELINES AND QUESTIONS

Introduction of the research project

This research focuses on the institutional models and knowledge needs for connecting scientific collaborations and diplomacy in Central, Eastern and Southeastern European countries. It is addressed to professionals in the field of international scientific cooperation, public policy and foreign affairs to gauge their opinions on how the bond between science and diplomacy can be forged and further developed. The research is conducted by the Department of Political and Social Sciences of the University of Trieste as part of a collaboration with the Executive Secretariat of the Central European Initiative (CEI-ES).

To ensure confidentiality, the communication of the information and opinions collected in the interviews will be drafted in such a way as to not allow, implicitly or explicitly, the linkage between specific statements and the focus group participants.

Your name will therefore not appear next to any of the statements that may be included in the focus group. However, there is the possibility that, in some cases, your field of activity may be indicated next to a quotation from the discussion or a comment related to the discussion's content (for example: 'Participant no. 11, who works as a researcher at an Italian university, notes that...').

This condition applies to both the report that will be shared with the other project participants and any possible publication based on this study, unless you request to include your names and your affiliated institutions.

Further details about the modalities of your participation and our privacy policy have been sent to you along with the invitation.

Questions

0. Would you agree to record the conversation, which will be stored and processed according to the privacy policy and information sheet of the project?
1. Can you briefly describe your professional and educational background?

2. Can you briefly describe your current post and illustrate the main activities that are involved?
3. Can you tell what are the most important skills and knowledge to perform these activities?
4. How do you interpret the expression 'science diplomacy'?
5. Having regard to the activities you perform on your post, how do you think you contribute to your country's science diplomacy?
6. Did you receive specific training on science diplomacy or on science diplomacy-related skills and knowledge before taking the position you currently hold? And after that?
7. Would you be interested in further training opportunities? If yes, what kind of training activities would you be most interested into?
8. Do you think that other persons holding different positions within your institution/organisation could be also interested in training opportunities on science diplomacy?
9. Considering your experience, what organizational arrangements are crucial for to successfully make an impact on your country's science diplomacy?
10. Would you have any comments to add that could help conduct the present research?

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