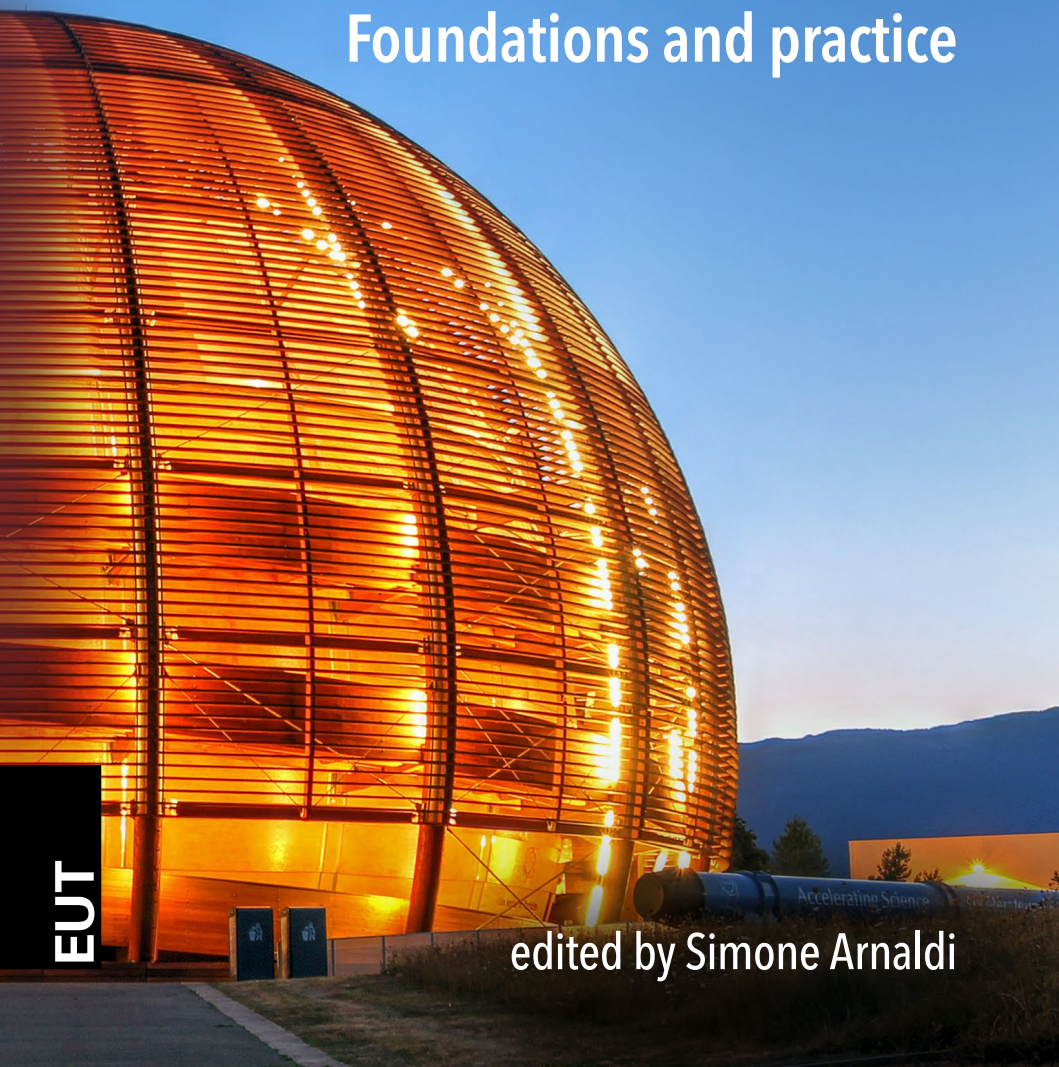
SCIENCE DIPLOMACY

Foundations and practice



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edited by Simone Arnaldi

What is science diplomacy? Why is it important in a world marked by global challenges such as climate change and confrontation between great powers? What knowledge can be mobilised to study this emerging field of practice and research? The chapters in this volume provide initial answers to these questions, examining different aspects of science diplomacy, both from a theoretical point of view and by presenting real world case studies. The intent of the book is to offer an introduction to an increasingly important theme in the relations between science, society and politics. Consequently, it is addressed to all those (students, researchers, decision-makers) who are approaching science diplomacy for the first time.

Simone Arnaldi is associate professor of sociology at the University of Trieste. His main research interests concern responsible innovation, science policy and science diplomacy. His publications include: *Co-creation and responsibility in techno-scientific innovation from below* (in Italian, Mimesis Edizioni, 2023, with Stefano Crabu and Paolo Magaudda) and *Responsibility in science and technology. Elements of a social theory* (Springer VS, 2016, with Luca Bianchi).

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Introduction

Simone Arnaldi

What is science diplomacy? Why is it important in a world marked by global challenges, such as climate change and confrontations between great powers? What knowledge can be mobilized to study this emerging field of practice and research? The chapters in this volume provide initial answers to these questions. Each chapter is devoted to exploring a different aspect of this issue, both from a theoretical perspective and by presenting case studies on science diplomacy «in action».

While in itself not new, the topic of science diplomacy has recently received considerable attention. The importance of science and technology in public policy and international relations (Krige and Barth, 2006; Simon, 2019; Weiss, 2015; Weiss, 2005); the interconnections, including competitive ones, between state and non-state actors, multiplied by globalization (Turekian et al., 2015); and the overbearing emergence of complex and multifaceted global challenges — such

as climate change, food security, pandemics, and migration — that require science-based policy responses have motivated a growing interest in the mutual influence of science and diplomacy (Kaltofen and Acuto, 2018), thus facilitating «the emergence of science diplomacy» (Flink and Schreiterer, 2010: 3) as a specific «area of international relations where science and foreign policy interests intersect» (Ruffini, 2017: 3).

Its hybrid nature makes science diplomacy an activity that crosses the boundaries between science and foreign policy. On the one hand, it finds justification in the public image of science as a universalistic and non-partisan institution capable of looking at problems and finding solutions in a rational, transparent, and disinterested manner (Ziman, 1996). On the other hand, diplomacy—as a «nonviolent approach to the management of international relations characterized by dialogue, negotiation, and compromise» (Turekian et al., 2015: 4) — is inseparable from the protection and promotion of special interests, albeit pursued through «persuasion, not coercion» and seeking to achieve «a balance of results that allows each side to return home with at least some degree of satisfaction» (Fréchette, 2013: xxxiii). In the field of science diplomacy, these universalistic and pluralistic aspects coexist and balance each other differently depending on whether the activities deployed pursue exclusively national interests, issues of transnational significance, or genuinely global needs and challenges (Gluckman et al., 2017). This political dimension is ineliminable and is what makes science diplomacy different from international scientific cooperation, as it does not focus on scientific advances as such but frames them within a broader strategy of national or international foreign policy objectives (Turekian et al., 2015).

What, however, are the activities classified under this label? As will be mentioned several times in the chapters of this

volume, many, often divergent definitions of this field have been proposed. For example, it has been said that «a country's science diplomacy refers to all practices in which actions of researchers and of diplomats interact» (Ruffini, 2017: 16). But what forms do these interactions take? A now «classic» definition, though not the only one possible, was proposed by the Royal Society and the American Association for the Advancement of Science (AAAS). It distinguishes three main dimensions of science diplomacy: supporting from a scientific–technical perspective the definition and achievement of foreign policy objectives (science in diplomacy), facilitating international scientific cooperation (diplomacy for science), and using international scientific cooperation to improve relations between different countries (science for diplomacy) (Royal Society and AAAS, 2010). In other words, this definition implies a two-way relationship between science and diplomacy in which the latter is used as a tool to facilitate scientific progress, while the former becomes an instrument of foreign policy.

This book sheds light on some aspects of these relations between science and diplomacy, bringing together contributions that, in its first part, introduce the topic of science diplomacy, and in the second part, present some successful initiatives in the field being promoted or supported by research institutions and international organizations based in the Italian region of Friuli Venezia Giulia.

In the first chapter, Pierre-Bruno Ruffini introduces the topic of science diplomacy and presents an overview of this field of studies and practices. Using examples from the history and current state of international relations, Ruffini outlines the main features of this concept, highlighting the main objectives pursued by states that engage in this field: at-

traction, cooperation, and influence. In the second chapter, Mitchell Young examines the relevance of science diplomacy in European Union (EU) policies. Young notes how science diplomacy has become an increasingly important tool in the foreign policy portfolio of the EU, which has made significant investments in this field. This chapter describes EU-led science diplomacy activities and outlines their current developments to illuminate the potential and specificity of a European strategy. In the third chapter, Simone Arnaldi explores the link between science diplomacy and science policy. In particular, the author identifies similarities between certain aspects of the discourse on science diplomacy (the representation of the scientific community, the relationship between scientific knowledge and the purposes of its use, the multistakeholder nature of activities in this field) and some models of science policies proposed in the scientific literature.

The second part of the volume opens with a chapter by Mounir Ghribi, who describes the 5+5 Dialogue Initiative on Research, Innovation, and Higher Education, a transnational policy platform that represents a successful example in the field of science diplomacy. As evidence of this success, Ghribi notes how the 5+5 Dialogue has effectively fostered relations between public policy, industry, and academia in Western Mediterranean countries, helping to disseminate a scientific, evidence-based policy approach to sustainable development. In the next chapter, Alessandro Lombardo illustrates the science diplomacy initiatives of the Central European Initiative (CEI), an intergovernmental forum for regional cooperation in Central and Southeastern Europe. Lombardo sketches a brief history of the CEI and of regional cooperation as a policy tool. He then analyses the effects of the activities implemented by this organization on the multiple divisions in this region of Europe and highlights

their impact on strengthening cohesion along the eastern and southeastern borders of the European Union. The second part of the volume continues with a chapter by Peter F. McGrath, who examines the science diplomacy initiatives implemented by The World Academy of Sciences (TWAS). Aiming to contribute to the achievement of the 17 United Nations Sustainable Development Goals (SDGs), these initiatives consist of promoting the international mobility of scientists along the South–South axis, raising their awareness about the impact of scientific research on the SDGs and enhancing the civic engagement of researchers in support of the scientific communities in the countries where they work and live. The final chapter, by Giorgio Paolucci, describes the genesis of SESAME (Syncrotron-light for Experimental Science and Applications in the Middle East), the Middle East's first synchrotron light research infrastructure, which is based in Jordan and has been realized through the collaboration of Cyprus, Egypt, Jordan, Iran, Israel, Pakistan, the Palestinian National Authority, and Turkey, under the auspices of UNESCO (United Nations Educational, Scientific and Cultural Organization). Reviewing the history of SESAME, the chapter demonstrates the diplomatic potential of international scientific collaboration, highlighting how, in this case, it has promoted international cooperation among political authorities in a region of the world characterized by very high geopolitical tensions.

Taken as a whole, this book, which stems from a collaboration between the Department of Political and Social Sciences of the University of Trieste, the Executive Secretariat of the Central European Initiative, and the Autonomous Region of Friuli Venezia Giulia, aims to provide an initial response to the lack of introductory materials and content in this area

of research, especially for an Italian audience — a context in which the topic of science diplomacy is still relatively neglected. I therefore hope that the volume will be a useful tool for those who intend to study these issues.