THE AZORES AND THE CHALLENGES OF SCIENCE DIPLOMACY

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First of all, I'd like to thank the organisation for the opportunity to be here. Secondly, I want to highlight the importance of these meetings in building what we can call our Atlantic civilisation.

My communication aims to elucidate some fundamental aspects of scientific diplomacy, and then to consider some of the challenges facing the Azores in this new field of International Relations.

The scientific-technological progress and the internationalization of research and higher education systems have contributed to a greater relevance of science and technology as a vector of traditional diplomacy and, simultaneously, to the reinforcement of the role of non-traditional actors of international relations in the so-called "science diplomacy". Science diplomacy represents both an opportunity and a challenge for States that are called upon to adapt their foreign policy instruments to a reality in which political boundaries, due to the deepening of globalization, are increasingly porous and in which there is a growing importance of soft power over hard power (Varela et al, 2017).

On the one hand, the area of science and technology is a privileged space for strengthening cooperation between states affected by cross-border problems that require concerted science-based solutions; on the other hand, scientific knowledge and technological development have become decisive factors in the growth of economies, the well-being of societies and obtaining competitive advantages over external state competitors. The object of science diplomacy is therefore characterised by the coexistence of two apparently antagonistic elements - cooperation and competition (Moreira, 2006).

In the case of Portugal, this problem presents itself, on the one hand, as an opportunity, since the internationalisation of national scientific and technological resources can contribute to the country's economic and social development, not least to mitigate what Prime Minister António Costa called "a skills deficit that has prevented us from growing more and at more constant levels since the beginning of this century" (Costa, 2017a: 13); on the other hand, it proves to be a challenge insofar as it calls for a strategic approach that enables both international co-operation aimed at solving common problems and strengthening external standing in the face of competition from other states.

On one side, the issues that science diplomacy concerns are transnational and therefore require an international relationship. There seems to be a generalised understanding of the reduced importance of political borders - national and regional - in this context (El Hassan, 2012) and, in

particular, of the limitations of state action, which cannot solve multifaceted and multinational problems in scientific or diplomatic isolation (Carnahan, 2012). On the other, these issues are eminently technical. Most of the defining challenges of the 21st century - from climate change to food security, from poverty reduction to nuclear disarmament, from pandemics to cybersecurity - have important scientific dimensions.

Consequently, the object of science diplomacy is made up of issues in which the purposes of two disciplines - diplomacy and science - seem to converge. Science diplomacy seeks to strengthen the symbiosis between the interests and motivations of the scientific community - for whom international cooperation is often motivated by a desire to access the best people, research platforms and new sources of funding - and the diplomatic community - for whom science provides networks and channels of communication that can be useful in supporting broader political objectives (The Royal Society, 2010).

As science diplomacy is a recent concept, its theoretical framework is poorly systematised and the available literature, predominantly of North American origin, is still relatively limited. The broad scope of science diplomacy is worth highlighting, with science and its applications being central to practically all the major global challenges. In any case, the notion of science diplomacy as an interface between two autonomous fields - science and diplomacy - and two autonomous policies - foreign policy and science policy - is common to the formulations analysed.

In light of the concepts of hard power - the use of military and economic means to coerce the behaviour of other nations - and soft power - the use of common interests and values to attract, persuade and influence (Nye, 2004), we can say that science has always enabled the development of hard power capabilities, such as military technology. However, science diplomacy makes it possible to harness the soft power of science as a national asset, namely by positioning science as a universal activity that transcends national interests.

Conventional diplomacy, military power and political and economic coercion have lost some of their traditional power in international relations. Today, attractiveness, credibility and performance are becoming increasingly important for a country's international positioning. In this sense, cultural diplomacy and development co-operation are areas of intersection with science diplomacy.

Science diplomacy as an interdisciplinar field of research aims to observe, analyse, conceptualize, and explain the multiple ways by which research and international affairs interrelate. Although it is a prominent field of knowledge, it is highly contentious, with a few but nonetheless growing attempts to define it and to frame the narrative in epistemic terms (Polejack, 2022).

Indeed, there are currently at least two accepted taxonomies of science diplomacy in academia. The first attempt to categorize science diplomacy came after a meeting held by the Royal Society and the American Association for the Advancement of Science (AAAS) (2010). In their report, science is related to diplomacy in three ways: science in diplomacy, science for diplomacy and diplomacy for science. The first, science in diplomacy, deals with the role of scientific advice in international decision-making, as with the Intergovernmental Panel on Climate Change (IPCC) informing the United Nations Framework Convention on Climate Change (UNFCCC), which is a cogent and compelling example. In the alternative, science for diplomacy stands for the bridging of communities from different countries around joint and collaborative research endeavours, such as the Conseil Européen pour la Recherche Nucléaire (CERN) in Switzerland, or in our case, the current project, promoted by the Portuguese government, for a convention to set up an

international research centre for the Atlantic (Atlantic International Research Centre - AIR Centre), based in the Azores and networked with other Atlantic infrastructures, which takes the form of an intergovernmental organisation (Presidency of the Council of Ministers, 2016). Finally, it is argued that by building international relations around scientific research practices, scientific communities would benefit from enhanced visibility, funding, and capacity development schemes. The last of these is called science diplomacy.

However, these three very different taxonomies don't tell the full story or capture the malleable nature of the concept. For instance, Gluckman, Turekian, Grimes, & Kishi (2018) proposed three new categories based on the interests of countries of being involved in science diplomacy practices. To these authors, the classification suggested by the Royal Society and AAAS ignored the forces that these interests would play in driving science diplomacy. Thus, they propose that science diplomacy could be framed in actions designed to (i) directly advance a country's national needs, (ii) address cross-border interests, and (iii) meet global needs and challenges. According to their proposition, this scale of interests would determine how science diplomacy operates and which drivers will propel the relationship between research and international relations.

The debate around the usefulness of such taxonomies points to the fact that the most important features of science diplomacy are not being discussed and that there is a general lack of empirical evidence to support such claims (Epping, 2020). Issues such as power disputes, industrial espionage, and the misuse of science and scientists are among such critical features underlying science diplomacy (Flink, 2020; Ruffini, 2020a). Not surprisingly, science diplomacy has been a term increasingly present in political statements (Legrand & Stone, 2018; Moedas, 2016; Pandor, 2017). In fact, Ruffini (2020b) advocates that most of the available literature on the theme comes from political perspectives rather than scientific evidence. Therefore, despite the promotion of science diplomacy as a beneficial tool to foster better international engagement, evidence is lacking on the drivers and products of such interaction (Flink & Rüffin, 2019). Consequently, research is needed to unveil the social phenomena related to science diplomacy from multiple areas of expertise.

In this sense, the Azores, as a political-administrative region with competences to participate in international relations, intends to affirm itself as an Atlantic platform and interface for scientific research in the areas of the deep ocean, climate change, renewable energies and space, along with the renewed geostrategic centrality that it can play in the new configurations of security and defence in the Atlantic. It is therefore important to consider the main constraints and challenges that this mission faces, in order to direct the efforts and resources available to achieve these objectives.

International experience has highlighted that the first step to develop science diplomacy strategies is to ensure that a strategic reflection on science diplomacy continues at the highest level, in tight coordination between government and non-state actors. Indeed, it is crucial to take an adaptive policy approach as the relationship evolves. This is critical to maintain and develop adequate communication channels, identify further needs for support (institutional, financial, training needs, etc.) and clarify roles and strategy (Lacerda, Heitor & Mauduit, 2023).

Building on recent research on science diplomacy together with the metaphor of 'Triple Helix' of university-industry-government relations and considering related international dimensions, our analysis shows that those new relationships must consider accommodating new configurations

of knowledge production by establishing alliances with an increasingly large range of 'knowledgeable' institutions (Nowotny et al., 2001).

Bringing civil servants and diplomats together with scientists and innovators from the region and the diasporas, as well as other relevant stakeholders, can create the necessary conditions to explore the full potential of the opportunities arising from "top-down" and "bottom-up" initiatives.

And that's a way we need to go. Thank you.

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