The Dawn of Innovation Diplomacy

Secretary Pedro Ivo Ferraz da Silva
Ministry of Foreign Affairs, Brazil
Co-Founder and Executive Coordinator, São Paulo Innovation and Science Diplomacy School - InnSciD SP



Japan did not invent robots. Nor did it conceive the tiny electronic components that make these machines operate autonomously and, in some cases, in a human-like fashion. Yet, the 'Land of the Rising Sun' has gained global notoriety as a powerhouse in automated manufacturing and the semiconductor industry. Over the last 70 years since World War II, the country managed to build up the image of high-technology heaven, with its compact and resourceful electronic gadgets, super-speed trains, jaw-dropping video games, ubiquitous and colourful vending machines and, cross-cutting all these verticals, ultra-efficient fabrication methods. How come?

To some extent, this refers to physical and historical factors. Social scientists suggest that Japan's insular geography and the absence of labour immigration have pushed its industry inevitably towards automation. Plus, it is said that the prevailing Shinto religion, which attributes a soul to both living and non-living objects, contributed to societal acceptance of machines in everyday life. This may all sound intuitive and culturally interesting, but the country's astonishing development is most and foremost a consequence of pragmatic industrial policies, which aimed first at absorbing foreign high-end technology, and later mastering and adapting it to novel uses.

The former Japanese Ministry of International Trade and Industry (MITI) played the central role in this endeavour. Since 1949, when it was founded, it has conceived and implemented effective policies to increase the technological level, and thus the added value, of the country's industry. One of the earliest and most successful missions was setting up the national semiconductor sector, which had a spillover effect on many other segments that today comprise Japan's economic might. Through a well-thought mix of strategic acquisition of US-American intellectual property, high-tech foreign direct investment, trade and production subsidies and a focused research consortia model, the MITI has made Japan gradually move from cheap transistorized electronics to complex microchips and then up to large automated and semi-automated equipment. Though the transistor and the integrated circuit were born in the West coast of the United States, they found their fullest expression in terms of the organised manufacturing sector and innovative consumer product offering in Asia's Far Eastern Island.

What MITI practised until 2001, when it was merged into the less specialized Ministry of Economy, Trade and Industry (METI), could be classified as 'Innovation Diplomacy' *avant la lettre*. The orchestrated effort of the Japanese government consisted in exploring a wide variety of international engagement mechanisms

(FDI, IP licensing, trade facilitation, etc.) in order to increase the innovative capacity of the country. Japan's diplomatic channels with other nations - in this case, specifically, the United States - were employed to harness economic benefits for its market and industry.

MITI's far-reaching industrial policies have anticipated many of the practices that the novel concept of 'Innovation Diplomacy' entails. In short, Innovation Diplomacy can be understood as the set of practices that lie at the intersection between innovation and foreign policy, and is employed to enhance national innovation capabilities and promote cooperation for common benefit[1]. Despite its long-lasting applications, Innovation Diplomacy has just recently been put forward as a discipline and as a specialised area of foreign policy. Pioneering articles by Kirsten Bound[2] and Jos Leijten[3] have described it as a field of diplomatic action that emanated from the more traditional domain of Science Diplomacy, but has differed from it by developing specific principles, targets and methods.

On broad and simplistic terms, the difference between Science Diplomacy and Innovation Diplomacy has been equaled to the distinction between 'collaboration' and 'competition'. While scientific diplomacy or simply Science Diplomacy would be targeted towards fostering common research endeavours among academic institutions, laboratories, individual scientists of different countries to achieve common knowledge goals, Innovation Diplomacy would predominantly consist of individual strategic enterprises that aim at building up a technological competitive advantage. Under this conceptual differentiation, a typical example of a Science Diplomacy initiative is the launch of a bilateral or plurilateral call, in which scientists of the countries involved are encouraged to get together and apply for funds for research projects in predetermined priority areas. It is assumed that the results of the research conducted collaboratively would bring tangible and intangible benefits to all parties. And an emblematic illustration of an Innovation Diplomacy effort is the role performed by trade promotion agencies to facilitate the access of national technological products in foreign markets, thereby strengthening the position of their respective industries in global value chains.

Of course, the proposed distinction is essentially theoretical. In reality, Science and Innovation Diplomacy are not as clear cut as their conceptualization tends to imply. Governments that collaborate, e.g. in a multilateral health scientific endeavour do always envisage to develop some sort of national strategic leverage. And many market penetration processes of technological products or solutions are only successful when they are integrated into broader bilateral give-and-take programs, such as startups exchanges, in which both parties cooperate to obtain mutual advantages. Therefore, the 'collaboration-competition' binome should be merely understood as a conceptual framework that helps us understand where the focus of each of the two broader areas lies. An additional formal distinction, which can be regarded as a corollary to the previous, is to think of Science Diplomacy as pertaining to the domain of international engagements related to fundamental and applied sciences, whereas Innovation Diplomacy would be linked to activities associated with societal and market dissemination of novel technologies and solutions.

To shed light upon this yet recent debate, the Institute of International Relations and the Institute of Advanced Studies of the University of São Paulo (IRI and IEA-USP, respectively) in Brazil, supported by the São Paulo Research Foundation (FAPESP), organised the very first worldwide academic course in August 2019 that dealt with the two diplomatic domains: the 'São Paulo Innovation and Science Diplomacy School', or 'InnSciD SP' (www.innscidsp.com). During 10 days, 80 graduate students from 36 countries from all regions in the world gathered in São Paulo and had the opportunity to listen to and interact with a varied group of academic professors, entrepreneurs, executives, governmental officers on the multitude of topics related to both areas. In the Science Diplomacy trail, lectures and panels dealt with the history of the intersection between science and foreign affairs; the role of scientific data in the climate change regime and in international trade; how shared scientific infrastructure can advance diplomatic relations among

countries; and national and subnational science diplomacy initiatives. On the Innovation Diplomacy trail, topics ranged from the internationalization of technology companies and innovation ecosystems to attract FDI in R&D, and also included the international IP regime, international technology transfer agreements, role of science and technology diasporas, and the Internet governance structure. The second edition of the school took place virtually in August 2020, with a similar number of international students and speakers.

One of the main outcomes of InnSciD SP so far has been the 'São Paulo Framework of Innovation Diplomacy', a landmark document that was crafted by the lecturers, panelists, organisers and students of the school and puts forward a definition of Innovation Diplomacy and presents a non-exhaustive list of its practices.

Interestingly, and slightly deviating from the above-mentioned pioneering articles, the framework considers that Innovation Diplomacy pertains both to the domain of national strategic activities (i.e. the 'competitive' realm) and that of global cooperative actions (where 'collaboration' prevails). Each of the two dimensions comprises a set of practices, that may be performed by state and non-state actors, although some of them may be more relevant to certain parties than to others. Hence, the 'strategic' dimension involves actions such as 'access to foreign innovations', 'negotiation of technology transfer', 'mobilization of ST&I diasporas to meet national needs' and 'identification of foreign innovation best practices to improve national policies'. In the 'cooperative' domain, activities like 'defining common legal frameworks to promote innovation', 'fostering stakeholder participation in international networks', 'creating international innovation databases and benchmarks' and 'encouraging global value chain innovation' are listed.

To propound a proper definition for the novel term and a coherent group of practices, the São Paulo framework aimed at encouraging a worldwide debate and also serves as a reference for various actors to implement their own Innovation Diplomacy strategy. The intention was to consolidate it as a proper priority sector within the large palette of diplomatic activities, building on previous historic evidence, such as those of Japan's MITI, and taking into account its idiosyncrasies, when compared to more traditional fields such as Science Diplomacy.

As it was shown, Innovation Diplomacy has a past, and yet it hides a horizon of abundant opportunities, which has just started to be unveiled by recent efforts to conceptualise and organise it. The increasing number of stakeholders shows that an intriguing future lies ahead of us!

References

1. INNSCIDSP (2019) São Paulo framework of innovation diplomacy. São Paulo: IRI-USP. IEA-USP. FAPESP, 2019. https://2019.innscidsp.com/sao-paulo-framework-of-innovation-diplomacy/
2. Bound K (2016) Innovating Together? The Age of Innovation Diplomacy. In: The Global Innovation Index 2016. Ithaca, Fontainebleu, Geneva: Cornell University, INSEAD, WIPO, 2016, pp. 91-95. https://www.wipo.int/edocs/pubdocs/en/wipo_pub _ gii_ 2016- chapter4.pdf
3. Leijten J (2017) Exploring the future of innovation diplomacy. European Journal of Futures Research, 5(20). https://doi.org/10.1007/s40309-017-0122-8