

International Activities of the French Academy of Sciences:

Understanding the Role of Academies in Deploying Science Diplomacy

An InsSciDE Case Study

Pascal Griset

Sorbonne Université (Sirice-CRHI), France

The strategy of diversification of a national science diplomacy can be supported by the academies which structure a significant part of a country's scientific life. Academies' international activities offer a channel for the initiatives taken by state diplomacy. Beyond the network constituted by their members, national and foreign, since the last quarter of the 20th century academies have typically become actors pursuing their own international policy combining universal values and the will to promote the science of their own country.

In order to rely on this resource, national diplomacy (or in the future a European Union diplomacy) must understand the specific characteristics of these institutions, which are the result of a long-term historical construction. Several features have evolved considerably since the latter part of the 20th century. Diplomats will do well to become familiar with their academies' culture, recognize their specific objectives and take into account their strengths and weaknesses regarding international action. The example of the French Academy of Sciences cannot be generalized to all such institutions. Its ability to network with other academies and other institutions and its various initiatives in the international sphere, give us a vantage point from which to indicate the main elements structuring the international action of these unique actors of science diplomacy.

Keywords:

French Academy of Sciences, diplomacy, national academies, networks, human rights

Image credit: Académie des sciences



International Activities of the French Academy of Sciences:

Understanding the Role of Academies in Deploying Science Diplomacy

The strategy of diversification of a state's science diplomacy can be supported by the action of the national academies. In order to rely on them, national diplomacy – or in the future a European Union diplomacy – must understand the specific characteristics of these institutions, which are the result of a long-term historical construction. While the example of the French Academy of Sciences cannot be generalized, its involvement with many institutional interlocutors and partners in international affairs makes it an enlightening example in the science diplomacy space.

The first science academies were created in Europe in the 17th century. The Accademia dei Lincei, founded in 1603 in Rome, was the first among them, followed in 1660 by the Royal Society in London. The Académie des Sciences was created in Paris in 1666 by Colbert, minister of Louis XIV. Academician Bernard Le Bovier de Fontenelle wrote in 1707: "Monsieur Colbert ... knew that the sciences and the arts alone would suffice to make a reign glorious; that they extend the language of a nation perhaps more than conquests; that they give it the empire of the mind and of industry, equally flattering and useful; that they attract to it a multitude of foreigners, who enrich it by their curiosity, take on its inclinations, and attach themselves to its official interests with foreign learned societies."



Portrait of Bernard de Fontenelle circa 1705-1750. M. Dossier after H. Rigaud. Source: © The Trustees of the British Museum

Internationalization: A challenging reorganization supported after a time by the Ministry of Foreign Affairs

Over the centuries, the French Academy of Sciences has enjoyed international influence created by specific initiatives towards international counterparts, as well as through direct links established by its members or bilateral member exchanges. These activities however did not take root in permanent structures or committees. A change began in the 1970s-1980s when the number of proposals from national academies of science or scientific institutions to establish closer relations with the French Academy of Sciences increased very significantly. Some of them – and this was radically new – proposed to sign cooperation agreements.

The International Relations Committee (CORI), composed of six members elected by the academicians, was created in this light in November 1982. The committee was entrusted with the very institutional relations with the International Council of Scientific Unions (ICSU). However, its competence covered a much wider field, rich in potential initiatives. The founding text states: "It elaborates the proposals to be presented to the Academy concerning initiatives and directives likely to assert the points of view of the French scientific community within the [ICSU]. The relations with any international or foreign scientific institution and the study of any provision likely to increase the international influence of the Academy and of our country, in particular with the French-speaking countries and the developing countries, also fall under its attributions."

The first contacts were made with foreign academies in order to organize and formalize their cooperation with the French Academy of Sciences. After three centuries of informal relations the Royal Academy did not wish "to conclude a formal agreement,"

while being eager to "increase [the] exchanges without delay." The signature of conventions institutionalizing inter-academic relations nevertheless developed rapidly. Ten agreements with foreign academies were signed between 1982 and 1988.

With limited human and material resources at its disposal and wishing not to overlap its initiatives with those of the *Centre national de la recherche scientifique* (CNRS) and the Ministries of Research or Foreign Affairs, CORI decided to concentrate its efforts on developing relations with "high-level personalities who can have an impact on collaboration between the research organizations of [two selected] countries." For this purpose, it began to develop projects with the cultural services of French embassies abroad, which often were ready to give financial support to initiatives ratified by the two respective national academies. The number of exchanges of lecturers and the organization of colloquiums thus multiplied.

In 1992, under the initiative of Minister Roland Dumas, the Quai d'Orsay (Ministry of Foreign Affairs, MFA) exchanged more closely with the Academy and provided it with specific resources enabling it to create a Department of International Relations (DRI). The MFA opened a budgetary line of 400,000 francs, increasing to 600,000 francs in 2002. With four project managers in 2003, the DRI was able to organize its "bilateral colloquia". It supported summer schools in countries such as Romania, Vietnam and India. The DRI also allocated travel grants and fellowships to foreign researchers living in France. The proliferation of bilateral relations within Europe led academies to engage in multilateral structures intended to better organize inter-academic work.

These means and this organization gave a greater scope to the actions of the Academy. In December 1997, for instance, it signed an agreement with the United States National Academy of Sciences, the first ever signed between the two academies, although the French Academy had been created in 1666 and the American Academy in 1863. Rapid urbanization, the water cycle and education were identified as major topics for exchange.



Source: Academy of Sciences, Facebook 15 February 2016

The actors

First and foremost are the academicians, especially those involved in the Academy's international activities. They are few in number. Beyond their role in academic organizational structures, their personal profile shapes their actions and must be well-known in order for them to be seen as relevant actors. Indeed they intervene most effectively at the crossroads between the Academy's institutional network and their personal networks that are primarily scientific and professional, but also political or even more broadly socio-cultural. The philosophical and even religious sensibilities of the academicians are another variable that can sometimes be significant. Each of them thus offers a personal network connected to the Academy's action. The effectiveness of the Academy, while not reduced to the sum of what its members bring to it, depends in part on these personal resources and in a variable manner depending on the issue, whether it concerns access to information or the capacity to influence.

The Academy against the French national interest: The "delicate" question of human space flight

In the 1980s France committed very important means to the Hermes spaceplane project, and mobilized its diplomatic services to seek for this project the support of European member states. The Academy of Sciences could logically be regarded as a fulcrum. However, this was not to be. A report of the Academy of Sciences clearly dissociated itself from the choices of the French government, doubting the utility of a human presence in earth orbit. The Academy questioned the impact of piloted flight on France's scientific and technical development and recommended the choice of automated systems. Taking the point of view of the French researchers, it called for "assurance that the means intended to prepare human flights in space will not be taken from the means currently allocated to the whole of scientific research." The media effect was explosive. *France-Soir* titled on 6 December 1988: "Man in space is money lost! ... Robots would do better for less money, says the head of space research of the Academy of Sciences." The article continued: "Indignation under the dome: the 'Immortals' usually so wise are angry." This stand was particularly badly received within the French space industry given that at the same time, French astronaut Jean-Loup Chrétien was in orbit in the Mir station.

Later, with remarkable consistency given the criticism heard over its supposed lack of support for national ambition, the Academy put the heat on the European Space Agency's research laboratory for the International Space Station. On 12 December 1990, *Le Monde* specified, astonished: "the Lady of Quai Conti [a

reference to the Academy's historic headquarters] chose to visit her wrath on one of the most consensual themes of the decade: the European space policy. No doubt some teeth will grind when reading the three acid pages that the Academy has just published on the European Columbus program." The frontier between "scientific" and "industrial" points of view was clearly drawn, although national interest was at stake with French companies involved in the aerospace industry. Such controversies highlight that the Academy of Sciences was not "subject" to the orientations of national diplomacy. If, to a large extent, the interests of the Ministry of Foreign Affairs and the Academy converged, the radically different positions on crewed flight demonstrated that convergence was neither pre-ordained nor automatic.

The question of human rights:

A diplomatic role assumed despite initial hesitations

In 1778, taking note of initiatives by individual members in support of scholars deprived of their freedom, the academician Jean-Claude Pecker proposed that the Academy launch a collective approach through the creation of a Human Rights Commission. This proposal opened significant debate. What balance could be established between science and "politics"? Internally, the academicians underlined "the importance of the problem" but also: "the caution and discretion that the Academy must exercise". The question was considered "political", a word tinged with mistrust. Wasn't the Academy in danger of stepping out of its true role?

After several plenary exchanges and despite some reluctance, a Committee for the Defense of Scientists (CODHOS) was nonetheless formed in May 1978 to address "human rights violations of which Men of Science are victims". Its members decided to concentrate their "action on individual cases, rather than dealing with actions involving too many people." The first files examined were those of B. Levitch and S. Kovalyov (USSR), J.L. Massera (Uruguay), and E. Pasquini (Argentina).

However, the question of coherence between this initiative and more classical Academy actions was quickly raised. In 1978 while the mock trial of physicist Yuri Orlov was taking place in Moscow, the simultaneous election by the Academy of three Soviets as associate members opened a broad discussion. What formal declaration could explain this election – a solution suggested by some – without giving the impression of trying to justify itself to the Soviet regime, an issue emphasized by others? A vote was held to choose between alternative wordings for a telegram to be sent to the president of the Academy of Sciences of the USSR: "an expression of the emotion felt by the Academy" or "the emotion expressed by many colleagues."

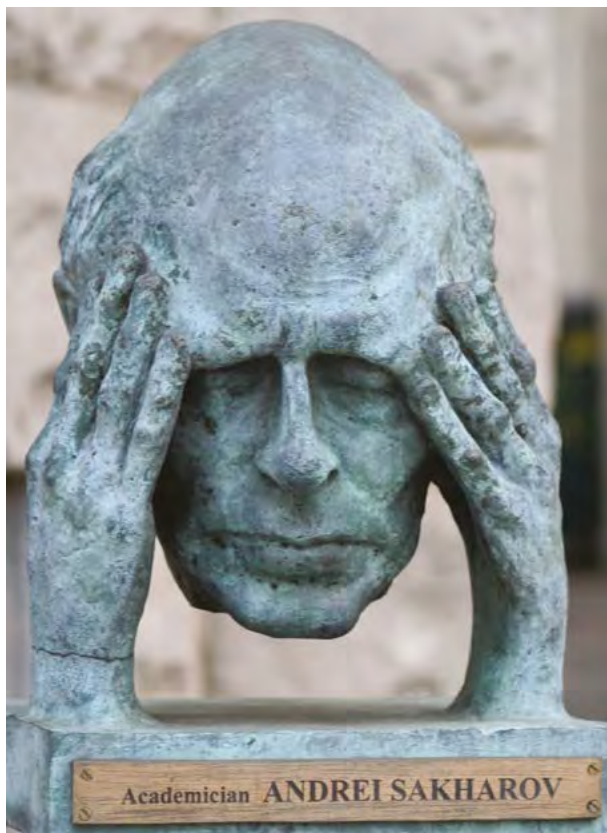


"Bridge Outside the Louvre", leading to the Institut de France, seat of the Academy of Sciences and four other academies. Photo by Nan Palmero, Creative Commons Attribution 2.0 Generic License.

By forty votes to 13, the first formulation committing the Academy in its entirety was chosen. When dissident scientist Andrei Sakharov, recipient of the Nobel Prize for Peace in 1975, was sentenced to internal exile in 1980 the Academy again sent a telegram to inform that president of its "... deep emotion...", and to tell him: "... that the measure which strikes the physicist Andrei Sakharov can only harm the continuation and development of scientific relations between [our] two countries". In the spring of 1982, Pecker and another physicist and academician Louis Michel went to Moscow to personally deliver to Sakharov the invitation from the Academy of Sciences for the official celebration of his election as a foreign member.

The issue of human rights prompted the Academy of Sciences to work in a more organized way with its counterparts and with various NGOs. At the international level, CODHOS also played a significant role in the establishment of an informal but active network of major academies committed to the defense of human rights. Coordination between the French and American committees became effective from 1982, followed the next year by settling similar cooperation with the Swedish Academy of Sciences. Over time, a larger scope and contribution to global initiatives were established by cooperation with the ICSU committees on the "free circulation of scientists" and "safeguard of the pursuit of science". Coordination with scientific organizations was gradually supplemented by joint actions with organi-

zations specifically focused on the defense of human rights. Over the course of time, CODHOS diversified the reach of its activities in relation to political changes in the world. CODHOS' latest online report (2019) mentions the cases of researchers living in Bahrain, China, Hungary, Iran, Sudan, Turkey and Vietnam.



Andrei Sakharov. Photo by David, Creative Commons Attribution 2.0 Generic License.

International initiatives in the face of a new geopolitical order

The beginnings of structured international action had come about in the context of the Cold War. The fall of the Berlin Wall, the strengthening of "emerging" powers and the opening up of China created in the 1990s a new situation which, by diversifying modes of interrelation, offered the Academy new spaces for action and new challenges.

The fall of the Berlin Wall and resulting hopes as well as uncertainties raised the question of relations with the countries of the former Soviet bloc. In 1992 representatives of various scientific institutions met in London to consider the relations that should in the future be maintained with Russia. This resulted in the creation within the Academy of a group for "East-West relations," whose title underlines how difficult it

Independence and long-term support for interactions

Within the framework of diplomatic initiatives, academies are valuable conduits and sources of knowledge that are not sufficiently mobilized. The fact that the Academy of Sciences has built up more visible and competent communication in the social space also makes it, beyond a more traditional vision of influence, a potential ally for the public diplomacy of France.

Academies generally lack endowment, and joint actions with diplomatic services would be facilitated if regular funding were earmarked at ministerial level. To be effective, however, such support must respect two principles. The first is the absolute respect of academic independence. The second is that it must be long-term. While perhaps difficult to be met without reserve on a yearly basis, these two conditions can be guaranteed when specific themes are clearly identified and agreed, enabling a real co-construction of actions that contribute to ongoing strategies related to e.g. development or the environment. National diplomacy must accept that on certain issues, the academic initiatives are not those it would have chosen. The richness of the collaboration can only flourish if this freedom is accepted.

was to adapt perceptions to such a radical change.

North-south was also concerned. In January 1997 a permanent committee, COPED (Committee for Developing Countries), was created within the Academy of Sciences in order to better contribute to the development of the InterAcademy Panel.

The era also confirmed the rapprochement with China. The scientific relations of the Academy with Beijing had until then been carried out through the exclusive intermediary and the sole impetus of the Franco-Chinese Foundation for Science and its Applications (FFCSA). This foundation gradually moved closer to the Academy in such a way that it became possible to envision joint projects and close collaboration. Following two meetings in Beijing in 2008, the Academy of Sciences and the Chinese Academy of Sciences signed a cooperation agreement in Paris at the end of that year.

Relations with Africa were also crucial. Yves Quéré, Delegate for International Relations since 1992, was invited to the 1996 inauguration of the Academy of Sciences of South Africa taking place just two years after the election of President Nelson Mandela. The "Science and developing countries - French-speaking sub-Saharan Africa report" laid the foundation for new initiatives aimed at the region. The Academy offered to assist countries wishing to set up an organization comparable to its own. This was the case with Algeria for example. In 2014 Mohamed Mebarki, Minister of Higher Education and Scientific

Research, and Catherine Bréchnignac, Permanent Secretary of the French Academy of Sciences, signed a memorandum of understanding on cooperative partnership actions to finalize the process of creation of the future Academy of Sciences and Technologies of Algeria.

Networking academies

Whether at worldwide or European scale, the creation of “global” academies not linked to any governmental structure was a challenge for the Academy of Sciences and all its counterparts that existed with strong links with their respective governments.

The World Academy of Sciences (now abbreviated as UNESCO-TWAS), known as the Academy of sciences for the developing world, was created in 1983 without direct links to the national academies. Faced with such an initiative, the latter had to become more visible and cooperate better. In October 1993, the French Academy of Sciences joined other delegations representing some sixty academies at a meeting called in New Delhi by the Indian National Science Academy (INSA) to address issues of world demography and development. In January 1995, again in New Delhi, this initiative was consolidated with the creation of a global network of science academies called IAP (InterAcademy Panel on international issues), to which 72 national academies belonged, alongside members TWAS, the African Academy of Sciences, the Federation of Asian Academies (FASAS), and the International Council of Scientific Unions (ICSU). Headquarters were established in Washington, D.C., with the Delegate for International Relations of the US Academy of Sciences and the President of INSA as co-chairs. The low visibility of European academies was corrected in 2016 by bringing together three established networks of academies of science, medicine and engineering, namely IAP, the InterAcademy Medical Panel (IAMP) and the InterAcademy Council (IAC); one of the two co-presidencies was based in Paris.

The creation of integrated European academies represented another challenge for the national academies. These new institutions, Academia Europaea (1988) and the European Academy of Letters, Sciences and Arts (1990), decided to bypass national academies and to co-opt their members directly in all the European states. Their operation and effectiveness were quickly brought into question. Academician (and director of the Atomic Energy Commissariat) Robert Dautray, despite the fact that he belonged to not only the French Academy of Sciences but also Academia Europaea, considered that the new academies were condemned, by their huge scale, to be less useful than national Academies.

Nevertheless, single and centralized bodies could become potential rivals for the national academies. The major national academies focused their effort on the creation in 1994 of ALLEA (All European Academies), stabilizing it by fostering the election of a President to be supported by a permanent secretariat in Amsterdam. Today it gathers over 50 academies, from a total of more than 40 EU Member States and non-EU countries.

Founded in 2001, the European Academies' Science Advisory Council (EASAC) is a network complementary to ALLEA. It brings together the National Academies of Science of the EU Member States, Norway, Switzerland and the United Kingdom to provide independent science-based advice on important challenges for Europe.

Which diplomatic space for Europe?

Through their many initiatives, the Academies of Science of the Member States are well represented in the international scientific arena and in the public debate. More generally, the establishment of networks such as ALLEA or EASAC, which are already called upon for scientific advice and expertise, could be natural allies for a European science diplomacy structured by its values and by the desire to take up global challenges. Synergies already exist and could no doubt be developed on the basis of respect for academic independence. The European External Action Service (EEAS) could thus involve the academies more than it does at present in the work of the science counselors in the delegations. The international action of European academic networks and, depending on the theme, that of national academies, could be encouraged by providing them with greater resources, financed by the Commission. This would encourage long-term action and the affirmation of a common vision. A long-term association of the academies in the process of defining the main lines of European science policy would link them more strongly to its dissemination at international level. This co-construction would have indirect effects in terms of influence and would contribute, within the framework of public diplomacy, to gaining the support of public opinion. ALLEA's decision in 2022 to join the European University Association and Science Europe in the European Commission's core group working on reforming research assessment shows that this direction is relevant. Clearly, the academies and their networks are assets still insufficiently valued for the emergence of a shared science diplomacy for Europe.

Conclusions

The Academy of Sciences has long taken a very significant, albeit discreet, role in France's science diplomacy, even before this terminology was recognized. The structuring of this action took place from the 1980s on the basis of very modest funding, supported irregularly by the Ministry of Foreign Affairs. The Academy has nevertheless taken a significant place in international scientific relations. It is part of the networks built up since the 1980s, defending the original model of the Academies of Science. This ties them to their national governments while ensuring their independence. By engaging in the creation of networks of European academies, it furthermore promotes science diplomacy shared by European countries. On March 2, 2022 the Academy of Sciences, on the proposal of CODHOS, published a recommendation concerning the consequences of the war of aggression pursued by Russia in Ukraine.

The Academy of Sciences has thus moved from an international role based on the individual action of its members to a structure that allows it to take its place as an institution, and, in a collective manner, in international relations. This action has been particularly visible on a number of specific themes but remains handicapped by a lack of structural resources. Since the 1980s, debates within the Society have highlighted the tensions between scientific ambition and values and the contingencies of politics. They emphasize that a diplomatic contribution of the Academy can only be materialized by strictly respecting its independence and supporting its action on themes chosen in such a way that its values are respected. The organization of the Academy of Sciences' international activities does not mean that the role of the academicians has been completely absorbed into the collective. More numerous and younger, thanks to the institutional reforms carried out since the beginning of the century, the academicians of science form a diverse community made up of men and women who are jealous of their independence and have a personal vision. Any action carried out in partnership with the institution must carefully take these specificities into account.

Stakeholder Takeaways

For diplomatic services	For academies	Overall
<ul style="list-style-type: none">• Academies' contributions to science diplomacy result from a variety of trajectories.• Academies' decisions to act must be rooted in consensus, which can take time to build.• Beyond official roles and procedures, it is essential to build up informal links with members of the academy who play a driving role in light of their professional network and/or their convictions.• A working relationship with the academy can be established through an approach that respects the culture of the institution and takes into account the lack of means that often weighs on its action.	<ul style="list-style-type: none">• As science diplomacy involves more and more numerous and diversified actors, both at the national and European levels, academies move to promote their original assets and thus differentiate themselves.• Academies' place as the voice of science is no longer self-evident and their actions must be made visible by focusing on clearly identified fields. These actions are best structured in a way to be sustainable across changes in governance and material resources.• These tools also come with problems.	<ul style="list-style-type: none">• Very diverse and unique actions can be implemented by academies and diplomatic services in partnership.• The discreet diplomacy based on the privileged international links woven by the academies and their members can constitute a precious resource especially in times of crisis.• At the other end of the spectrum, through their recent but constant involvement in communication with the public, academies can be associated with the most innovative forms of public diplomacy. Here, the inter-academic networks that they have built up constitute an important additional asset.

Study Questions

- Which national or European foreign policy goals could be well-served by cooperation with academies of science, medicine, engineering, etc., or by networked academies?
- Which new initiatives could be imagined in a partnership between an academy of sciences and national diplomatic services? Or between national or regional/global academies, and centralized or decentralized European diplomacy?

Endnotes

- Sites of interest:

<https://www.academie-sciences.fr/en/>

<https://allea.org>

<https://easac.eu>

- Cover image: Academy of Sciences, Facebook 12 November 2019.

www.facebook.com/AcadSciences/photos/2531795960434136

Please cite as:

Griset, Pascal (2022) International activities of the French Academy of Sciences: Understanding the role of academies in deploying science diplomacy. In Mays C, Laborie L, Griset P (eds) *Inventing a shared science diplomacy for Europe: Interdisciplinary case studies to think with history*. Zenodo. doi.org/10.5281/zenodo.6600894

This work is licensed under **CC BY-NC-ND 4.0**

Attribution-NonCommercial-NoDerivatives 4.0
International



Read all our science

diplomacy case studies!

Visit: zenodo.org/communities/insscide

Pascal Griset

Pascal Griset is professor of modern history at Sorbonne Université (Sirice-CRHI: Sorbonne, identities, international relations and civilizations of Europe - Center for research on history of innovation). He was trained as a business historian and his research focuses on innovation, research policies, and research organizations in France and Europe. Coordinator and principal investigator of the H2020 project InsSciDE (Inventing a shared Science Diplomacy for Europe), he was formerly director of the Institute of Communication Sciences (ISCC; 2013-2018).



Selected Publications

(with Greffe F) (2015) *Une compagnie en son siècle : 350 ans de l'Académie des sciences*. Le Cherche-Midi, Paris

(2020) Innovation diplomacy: A new concept for ancient practices? *The Hague Journal of Diplomacy* 15(3):383-397. doi.org/10.1163/1871191X-BJA10036

(2019) La diplomatie scientifique entre logiques nationales et ambitions de l'Union européenne : Quelles convergences, quel rôle pour la France ? *Revue Politique et Parlementaire* 1092. www.revuepolitique.fr/la-diplomatie-scientifique-entre-logiques-nationales-et-ambitions-de-lunion-europeenne-queelles-convergences-quel-role-pour-la-france/