



InsSciDE Work Package 8:

Space: European science diplomacy for cooperation in a global space competition

Case Study n°8.3	Strengthening Scientific Cooperation and Visibility of Europe Labs: The European Space Agency Council, the Space Council and Microgravity Labs
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Abstract

Choices in European Space policies have always reflected the will to cooperative in achieving significant technical and scientific projects of geostrategic interest. The creation of the ESA aimed at overstepping the problems that remained unsolved by the division between organizations devoted respectively to launchers and satellites (ELDO/ESRO). Recently, European Union-level ties have been reinforced in order to reach a “United Space in Europe” (2016). However there is no linearity in the integration of national policies into a single European policy. A long-term analysis of shared objectives and dissonant priorities offers a means to learn from both failures (Hermes Space plane) and successes (Franco-Russian manned flight missions, and the cautiously built and finally efficient collaboration on the ISS). Studying ministerial-level Council transactions since the 1970s, our InsSciDE case will examine the role and practices of transdisciplinary experts as key actors in broad scientific and industrial integration and the construction of international scientific communities. It will investigate how the development of Outer Space exploration was supported by symbolism transported notably by the media, tracing how European scientists have defended their experiments to space agencies, policy makers, and public opinion with such hybrid politico-educational objects as physics experiments planned for Spacelab.

The historical analysis of space diplomacy in Europe, by underlining the evolution and expression of decision-making processes through various times and contexts, will provide useful insights for inventing a shared science diplomacy for Europe that could embrace in the most efficient way the divergent interaction of cooperation and competition in space affairs.

Introduction

The strong capacity of Europe to develop, since the very beginning of the Space Age, a truly independent and autonomous space policy thanks to an institutionalized organization of scientific, industrial and technical cooperation between regional, not to mention international, partners, offers a highly valuable case for the study of European science diplomacy. Indeed, from the ESRO/ELDO era to the creation of ESA and its current activity, choices in European space policies and prospects have always combined the will to communally achieve significant technical and scientific projects, that could not be conducted on a singular national scale. These policy choices have also favored geostrategic interests dictated both by regional diplomacy and the international, not to say global, context (from the Cold War to the participation in the ISS). Such a complex dialectic, closely articulating cooperation and competition, should be analyzed within the ongoing process of political integration at a supranational level.

Following the lead of John Krige's work on the construction of a unique regional identity through the creation of a strong political, technical, scientific and industrial network, we intend to explore and discuss the original



path Europe followed in the acquisition and development of space capacities. Since the ties between the European Union and the European Space Agency have been reinforced through the Framework Agreement of 2004 and confirmed with the recent Resolution “Towards Space 4.0 for a United Space in Europe” on 2 December 2016, a long-term analysis on the evolution of space policies would certainly offer a clearer and much relevant view, detailing shared objectives and dissonant priorities. Our case study will also deliver insight on how the conception of manned flight Europe has developed since the 1970s into a flexible strategy based on bilateral cooperation with extra-European actors in order to acquire knowledge through embedded laboratories and experiments, or launches of European astronauts in American or Russian infrastructures.

Thus, we will take cooperation and competition as a key interplay: within a context of diplomatic competition, European space activities could either lead to successful scientific cooperation (Franco-Russian manned flight missions, Spacelab) or be radically compromised (Hermes space plane). A cautiously built diplomatic consensus can result in a model of efficient outer-space collaboration, implying a broad scientific and industrial integration as well as the construction of international communities of scientists and engineers (the International Space Station).

Actors

To understand the mechanisms used by science diplomacy in the construction of European space policies, we propose to focus on a specific series of events: The Council of ESA at Ministerial Level since 1977, preceded by the European Space Conference of ESRO / ELDO and completed by the Space Council since 2004. The Council associates ministers representing the European Union and ESA Member States, to effect an overall European space program. These conferences are showcases of active and ongoing science diplomacy, since they are the place where its practitioners meet, but are also the gathering point of diplomatic imperatives and possible means of cooperation on various scales. This privileged object of study will allow us to analyze practices and actors through observing discourses, composition of delegations, cultural practices of involved ministers, hierarchy between scientists and diplomats in the task groups, and interactions with other instances of negotiation (such as the Council of ESA at Delegate Level). One of the main concerns of the case study will be to identify precisely and analyze the role of transversal actors, those moving for instance from the scientific community to the political arena of dialogue.

Fields and disciplines, interfaces with technology

Additionally, the conferences on which our study focuses exemplify how regional political competition and scientific cooperation can generate, on a global scale, a coherent space policy that contributes to fully integrating Europe as an independent and supranational actor on the geopolitical world stage. The case study thus aims at using approaches and conceptual frameworks that belong both to the history of technology and the history of international relations. Along with the conduct of doctoral research at Sorbonne University, our review should not only offer a critical analysis for the understanding of diplomatic and decision-making processes at ESA, but also undertake the comprehensive exploration of what the development of closer ties between EU and ESA in terms of techno-scientific and space related policies would encompass.

Networks and communication

Studying ministerial-level Council transactions since the 1970s, the case will examine the role and practices of transdisciplinary experts as key actors in broad scientific and industrial integration and the construction of international scientific communities. It will investigate how the development of Outer Space exploration was supported by symbolism transported notably by the media, tracing how European scientists have defended their experiments to space agencies, policy makers, and public opinion with such hybrid politico-educational objects as physics experiments planned for Spacelab. How scientists, politicians and institutions communicate around highly valuable technological programs will be treated as a significant issue.



Politics and policies

Competition and cooperation are the two main points around which a specifically European science diplomacy in principle should revolve, raising many questions: how did a state of competitive cooperation lead both to a successful program like Spacelab and to the stalemate, then abandonment, of such an ambitious technological program as the space plane Hermes? By which diplomatic means were divergent or even conflicting visions harmonized and intertwined within a unified intergovernmental space policy? What does the creation of a Space Council (2004) at the European level mean in regard to the growing implication and influence of the European Union on European intergovernmental space affairs?

Disciplinary/methodological approach

This case study will rely on archival material linked to the preparation and execution of ESA Council at ministerial level since 1977, and on a series of interviews with major actors and diplomatic practitioners. To tackle this question, the case study will focus on 4 main aspects:

- 1/ Understanding the interaction of French and German visions regarding human spaceflight within the negotiating arenas of ESA, by analyzing the differences and similarities of bargaining strategies used in the promotion and adoption of two programs, that have known dramatically different destinies: Spacelab and Hermes space plane.
- 2/ Analyzing diplomatic dynamics linked to the Europeanization of major technological programs, from the national scale to the industrial and managerial integration on regional level, using the example of Hermes space plane.
- 3/ Measuring the power of the scientific and industrial communities to influence the decision-making process in Europe, questioning the nature of their involvement in the delegations in charge of the preparation of ESA Council at ministerial level.
- 4/ Identifying the political impact of bilateral and multilateral technological space cooperation on the international level, from the on-board experiments to the flights of European astronauts. How do they contribute to the visibility of Europe as a legitimate space power?

Essential bibliography

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