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International Relations and Space: The European Approach

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Space Policy Program



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PROMOTING COOPERATIVE SOLUTIONS FOR SPACE SECURITY

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Ifri
27 rue de la Procession
75740 Paris Cedex 15 – FRANCE
Tel: +33 (0)1 40 61 60 00
Fax: +33 (0)1 40 61 60 60
Email: accueil@ifri.org

Ifri-Bruxelles
Rue Marie-Thérèse, 21
1000 – Brussels – BELGIUM
Tel: +32 (0)2 238 51 10
Fax: +32 (0)2 238 51 15
Email: info.bruxelles@ifri.org

Website: ifri.org

On 13 September 2012, Ifri and Secure World Foundation (SWF) organized their annual space conference under the banner “International relations and space, the European approach.” Gathering experts from academic and governmental institutions, both from Europe and outside the continent, the event sought to explore the challenges and opportunities of Europe’s international relations in space.

Introduction: Why Do Europe’s International Relations in Space Matter?

Space and international relations mutually influence each other. First, international relations have been shaping space activities since the beginning of the Space Age, and this trend became even more obvious since the end of the Cold War. Indeed, the paradigm change in international politics in the early 1990’s (global political and economic liberalization) had an impact on the global space scene; there has been an increasing number of actors engaging in space activities, while simultaneously there is a diversification of their nature (public and private actors, non-governmental organizations, international organizations). More generally, space activities are mirroring the major issues and debates at stake in international relations: competition vs. cooperation, unilateralism vs. multilateralism, polarity of the international system (is the world unipolar, bipolar, or multipolar?), globalization and international trade or global governance, and so forth. Second, space activities are also shaping international relations to a certain degree. Space assets became indispensable tools used to tackle a number of transnational challenges, such as global warming, the fight against terrorism, the proliferation of weapons of mass destruction (WMD), and development issues.

In this broader context, Europe needs to define an adequate strategy for international relations and international cooperation in space, focusing on two poles: interests and values. International space cooperation serves European interests regarding both Europe’s space policy (space cooperation is a pragmatic tool to implement ambitious programs such as space exploration or the International Space Station – ISS) and Europe’s more general foreign policy objectives (international space activities foster a climate of political cooperation and helps responding to Europe’s political priorities like climate change, sustainable development, humanitarian aid, and security in the broad sense). At the same time, Europe’s space activities illustrate its role and position in the international system. Europe is still an international actor in its construction, and is in search of its specific international identity (is Europe a normative, a civilian, a civilizing or simply a weak power?).

Specifically, Europe is facing several challenges in developing a strategy for international relations and international cooperation in space. In the short- to medium-term, Europe needs to adapt to the emergence of new actors in space like China, India, South-East Asia, Africa, and Latin America, and to cope with the consequences of the economic crisis. In the long-term, it needs to find an adequate balance between cooperation and autonomy, enhance its internal cohesion, and remain a credible cooperation partner for established spacefaring nations.

Where does Europe stand now?

Four years after the publication of the European Union (EU) document entitled “Elements for a European Strategy for International Relations in Space,”¹ and two months before the crucial European Space Agency (ESA) Conference at Ministerial Level, the Ifri/SWF conference intended to explore the progress made by and the future options for Europe in terms of international relations and space. The event followed three guiding principles: combining internal and external perspectives (with European and non-European speakers), combining policy and operational aspects with the goal of shedding light on high politics as

¹ Commission of the European Communities. Commission Working Document. European Space Policy Progress Report. COM (2008)561 final. 11 September 2008.

well as the daily implementation of international cooperation, and combining geographic and thematic approaches.

Three major points emerged from the event. First, Europe is a very specific actor in the international space landscape, and its internal characteristics have an influence on its international role. Second, a successful strategy for international relations in space rests on a fragile balance between cooperation and competition. Finally, international relations in space are a three-level game taking into account high politics, the definition of a general strategy and the concrete implementation of the strategy through adequate programs.

Europe Is a Specific Actor in Space

Europe is neither a state, nor a classical intergovernmental organization, but an actor of its own kind. This has consequences on its international space activities and implies both structural strengths and weaknesses. It also means that for the continent, international cooperation starts *within Europe*.

Europe's structural strengths

Europe is first a group of highly capable and experienced sovereign states on the international scene (27 for the EU, 19 for ESA). This gives Europe an important political weight and advantages to set up global standards or regulations. In addition, due to its diversity, Europe is entitled to represent something close to the "common interest" rather than particular interests. Finally, Europe is highly experienced in multilateral negotiations.

Europe can also play the role of an agenda setter, as it can quickly react to emerging issues. Two cases in point are the European proposal of a Code of Conduct (CoC) for space activities, and Europe's role in global environmental stewardship through space. The CoC is an example of how international cooperation could minimize costs and conflicts. Space is indeed congested and competitive, which increases the potential for accidents and thus explains the greater need for rules that guide state behavior. The current space treaties seem inadequate to deal with this issue. Moreover, major space powers disagree on how to shape new norms, as demonstrated by the stagnation at the Conference on Disarmament. In this environment, the EU gave an important impetus to the discussion by proposing a CoC resting on Transparency and Confidence Building Measures (TCBMs). The idea of a CoC, intended to break the current deadlock on space security discussions, was supported among others by the U.S. After weighing the pros and cons of such an initiative, the United States joined Europe and other spacefaring nations in January 2012 in agreeing to use the EU's draft in order to develop such a code. This is a testimony of Europe's ability to shape the international space agenda.

The second example of Europe's agenda-setting abilities – environmental stewardship through space – is more of a long term effort. Global consciousness of the fragility of the "system Earth" started to rise in the 1970's-1980's. Europe developed an integrated approach to environmental policy in the late 1980's. Furthermore, it made an early link between Earth observation from space and environmental policy objectives, with the development of numerous instruments and spacecraft in the 1990's (Envisat, Spot, VGT, Meteosat, etc.) and the launch of Global Monitoring for Environment and Security (GMES) in 1998. Europe believed that global environmental information will, more than ever, be at the core of the decision-making process of political entities wishing to play a role in world affairs. As such, it was a precursor and contributed to enhance global awareness for environmental concerns and the crucial role of space assets to understand and mitigate the effects of climate change and environmental degradations.

Europe also prides itself with being a normative power. One of its foreign policy objectives is in particular to export its underpinning values, defined as a commitment to multilateralism and diplomacy and peaceful conflict resolution, among others, which could also be

considered as universal values. In addition, Europe believes that norms are a better tool to affect the behavior of other international actors, as opposed to power games. Applying its norms specificities to the space sector, Europe should focus on the link between space and soft power. Three major aspects of soft power through space could be to “unite” (fostering a common sense of “Europeanness” within the continent), to “ignite” (fostering economic growth through space and insisting on the socio-cultural benefits of space exploration and exploitation), and to “invite” (engage China and the United States, as well as other spacefaring nations, in line with Europe’s general foreign policy goals). Specifically, the most suitable issue area to exercise European soft power in space would be space exploration.

Europe’s structural weaknesses

Europe’s uniqueness also implies a number of burdens and weaknesses. Composed of various institutional actors, Europe sometimes lacks the necessary coherence on the international scene. There are important differences of opinions, interests and strategies among EU and ESA Member States. In addition, the financial and budgetary situation is not the same in each country and, more generally, space is not considered a strategic priority everywhere. As a result, the decision-making process can be slowed down substantially as it takes time to reach a consensus.

The complex architecture of European space governance illustrates these issues. Space is gaining an increasingly important political status in Europe, and thus an increasing number of institutional actors are becoming involved in space activities. In the field of international relations, there are several tiers of actors involved: EU and ESA Member States (through their foreign ministries or national space agencies), ESA, and EU institutions (European Commission, Council, European External Action Service). This creates a situation that some commentators have compared to a “zoo” with a multiplication of institutional actors without clear competence attributions. This situation leads to a lack of Europe’s visibility on the international scene, and reduces Europe’s credibility in the eyes of potential partners.

A further problem, which is typical for Europe, is the potential contradiction between norms and interests. On the one hand, Europe presents itself as the champion of the sustainable use of space. On the other hand, it adopts a pragmatic approach towards international cooperation, seeking in particular to establish a strategic partnership with the United States and China. These two countries, however, might occasionally have different approaches to space security than Europe. The United States finally endorsed the idea of a CoC after years of internal review. At the same time however they advocate for a more offensive approach towards space security than Europe (including offensive counterspace capabilities). On its side, China is promoting its own Treaty (the “Treaty on Prevention of the Placement of Weapons in Outer Space, or the Threat or Use of Force Against Outer Space Objects” [PPWT]), an initiative that might not be compatible with the EU CoC proposal. Finally, budget cuts and austerity measures in several states has also forced Europe to adopt a more pragmatic approach to space activities.

International cooperation starts within Europe

As a consequence of Europe’s multilayered space picture, international cooperation starts within the continent. First, this applies to the governance of the European space policy itself. A clear distribution of responsibilities and work packages between the various actors should be ensured. In addition, capabilities and resources should be pooled in an efficient way. The Lisbon Treaty provides the EU with a legal basis to do so, as space is dubbed a shared competence of the EU and its Member States in the text. While the debate over the respective roles of the EU, ESA and the Member States (the “space triangle”) are still ongoing, certain Member States advocate for clear solutions. For example, Germany argues that the European Space Policy should be jointly developed by the EU and ESA, while being implemented by the three actors of the “space triangle.” At the same time, the EU should be in charge of space-related legislation and with the development of downstream markets for applications, while ESA should focus on the foundations (science, technology, launchers,

human and robotic exploration), and Member States should have complementary responsibilities in the three fields (applications, foundations, legislation).

Second, intra-European cooperation should also focus on non-ESA European states, especially in central and Eastern Europe. Many of those states already have cooperation agreements with ESA, and constitute natural candidates for ESA membership. Poland is a good example in this respect, as it recently signed an accession agreement with ESA to become a full Member State. Building upon a long legacy in space (participation in Intersputnik and Interkosmos, United Nations Committee on the Peaceful Uses of Outer Space [UN COPUOS] membership and more recently EU space-related activities), Poland is expecting significant benefits from its ESA membership, like building up effective governmental structures for space policy, developing national space programs, participating in space-related EU and European Defense Agency (EDA) projects, and developing its local space market. At the same time, Poland's participation will be beneficial for the European space policy from a financial perspective, as Poland's contribution to ESA will amount to €31.2 million in 2013, and its planned contribution over the 2014-2020 period is €495 million. It will also help from a political perspective in that Poland can help balance the dominant influence of the "great" space players in Europe, better integrate central and eastern European countries to the European space effort, and foster the development of downstream markets in this area.

Finding a Balance between Cooperation and Competition

Beyond the specific situation within the continent, the major challenge for Europe's international relations in space is to find an adequate balance between cooperation and competition. A central concept in this respect is autonomy, which is necessary both to compete with other spacefaring nations and to be a credible cooperative partner. Moreover, the issue of cooperation/competition should not only be considered from a Eurocentric perspective, but also from outside Europe.

Striving for strategic autonomy

Strategic autonomy is the major conceptual pillar of the European space policy. It can be approached both as an objective and as a tool. As an objective, autonomy should be targeted in strategic areas, meaning areas that are vital for the very existence of Europe in space. The most obvious of these sectors is launchers, as an independent access to space is a critical matter of sovereignty. In an environment dominated by fierce competition (Russian, U.S., Chinese, Indian, and Japanese launchers all have commercial ambitions), it is crucial for Europe to keep its capabilities through the fielding of its three launchers from Kourou (Ariane 5, Soyuz and Vega). Technological progress and industrial policy are other areas where Europe should strive for autonomy. Space is indeed a sector with a high innovation potential, and this research and development effort should be maintained in order for the European space industry to survive in a highly competitive environment. Similarly, space is a driver for economic growth as space applications provide socio-economic benefits to European citizens. Europe should maintain its comparative advantage in space by supporting public investments in the space sector in the long run. In all these areas, international cooperation is possible, but remains limited.

Autonomy can also be understood as a tool. Indeed, in certain transversal areas, cooperation is the only feasible path. To remain a credible cooperation partner however, Europe needs to be a respected technological leader, or at least to have mastered initial capabilities in certain areas. In this perspective, seeking autonomy is not an end in itself, but rather a means towards international cooperation. A case in point is space exploration. Given the technological and financial challenges of manned and robotic space exploration, bilateral or multilateral cooperation is a natural option to choose. A positive example in this respect is Europe's heavy participation in the ISS, which was made possible by its recognized

technological and scientific experience in areas like a corps of highly skilled and trained astronauts, past experience with Columbus, and construction of the Automated Transfer Vehicle (ATV) and of the Cupola. On a more negative note, the progressive withdrawal of the United States from the joint ExoMars mission can be attributed at least partly to a lack of proven track record in planetary landing for Europe. Another area where Europe sought for autonomy and is now in position to be a credible cooperation partner is Earth observation. No single country can afford to monitor the whole “system earth” from space, thus international cooperation and open data sharing are absolute necessities. Europe managed to become a global leader in this field, through numerous ESA missions and through the ambitious program GMES. Finally, security in space and from space is another area where cooperation is needed to tackle issues that are transnational and global by nature. Here again, Europe managed to build credible capabilities (CoC for security in space, International Charter for Disaster Monitoring for security from space) and is thus in a favourable position for any potential cooperation.

Europe as a pole of attraction and/or repulsion

The debate on cooperation/competition is guiding Europe’s choices in terms of international space cooperation, but it is also crucial to consider the position of potential partners in space. For fruitful cooperation to take place, it is not sufficient to know which partners Europe wants, but also which partners want Europe. As a matter of fact, the cooperation/competition dilemma is also valid in other spacefaring nations when they weigh their decision to cooperate with Europe. Depending on the actors, Europe can be seen either as a pole of attraction or as a pole of repulsion.

On the positive side, Europe remains an attractive model for two important regions in the world: eastern/central Europe and Africa. The short- to mid-term objective of almost all the central and eastern European countries is to fully contribute to the European space policy, by becoming a member of ESA, participating in space-related EU FP7 projects, or both. For these countries, participating in the European space policy is seen as a step towards their European integration. In addition, it could enhance public awareness for space matters, as well as the strategic character of space applications. For African countries, the benefits of space cooperation with Europe would be more tangible, focusing on the use of space applications. Examples include: the use of space for water management, monitoring of natural resources, monitoring of maritime and coastal areas, aviation safety, fluvial navigation, and land management (this latter through satellite navigation). To foster this cooperation with Africa, the European Commission (EC) included a space dimension in its initiatives towards the African continent. Specifically, two large-scale projects were launched: GMES for Africa and European Geostationary Navigation Overlay Service (EGNOS) for Africa.

On the negative side then, Europe can also be considered more skeptically by other spacefaring nations. Some actors have difficulties understanding the complex nature of Europe’s space governance and are reluctant to consider Europe a real actor on the international space scene. Despite growing cooperation with Europe in the field of space and security, the United States, for example, considers the multiplication of institutional actors within the European space policy to be a real challenge. Similarly, India is not convinced by Europe’s CoC initiative, as it considers the text to be highly idealistic and to lack enforcement and verification mechanisms. In addition to the content of the text, India has criticized the diplomatic process of promoting the CoC, as it feels that Europe was not inclusive enough. As a result, the CoC may be seen by some emerging spacefaring nations as a Western ploy to limit their spacefaring activities. This perception mirrors the fragile nature of Europe’s position on the international space scene. While ESA is a well-established actor in the space landscape, the recent rise of the EU may be more difficult to grasp for external observers.

For some other spacefaring nations, their view of Europe as a cooperative partner is guided by a mixed combination of shared interests and competition. Russia is a long-lasting partner

for Europe in space, in particular in the areas of launchers and manned spaceflight. At the same time, however, Europe is seen as a competitor in the commercial realm (Russia shows increasing commercial ambitions not only in the launch market but also in the satellite manufacturing business) and in the field of space security (Russia's PPWT was initially perceived as a direct competitor to the CoC). China displays a similar pattern. By supporting the PPWT it is a rival of Europe, but at the same time, China is seeking to be recognized as a respectable cooperation partner, and Europe seems to be a logical choice to achieve that (given the U.S. reluctance to cooperate with China in space). Japan could also be an ideal partner in space for Europe since both entities share a lot of common approaches and concerns, but the country is currently too much turned towards the United States for such a partnership to materialize in the near future.

Conclusion: International Relations in Space Are A Three-Level Game

Europe's international relations and international cooperation in space are the policy outcome of complex processes taking place at three different levels: taking into account global political developments, identifying general guiding principles for an international strategy for space, and implementing this strategy through concrete programs.

Taking high politics into account

High politics considerations have to be taken into account when determining Europe's priorities for international relations in space. Geopolitical priorities and trends have to be considered, both from a thematic and geographic perspective.

As for the relevant actors on the space scene, Europe will first have to cope with the strengthening of the "G2," meaning the United States and China's leadership. The United States remains the biggest military power in the world, but China is rising and intending to catch-up with its rival (the so-called "Grand Harmony" strategy). The heart of world politics is shifting from the Atlantic to the Pacific Ocean, and Europe should prevent a strictly bilateral "condominium" of China and the United States to emerge. To do so, Europe should continue to focus on the United States as its first priority. This is based on the existence of common values, existing interdependence at the industrial level, and the heritage of space cooperation on the two sides of the Atlantic. At the same time, Europe should build strong ties to China, as the current inability of the United States to work with China on space matters creates a historic opportunity for Europe. Finally, Russia could also offer an interesting "balancing" cooperation prospect for Europe. Besides the evolution of established spacefaring nations, the rapid rise of emerging countries is another factor to consider. Nations such as India or Brazil, for example, are increasingly seeking to assert their role on the world scene, including in the field of space activities. Europe should seize cooperation opportunities with such actors when they arise in order not to be marginalized.

Transnational thematic issues should also be taken into account when devising a strategy for international relations and international cooperation in space. These include climate change, the fight against terrorism, the proliferation of weapons of mass destruction, and development issues.

Towards an integrated European strategy for international relations in space

An integrated European strategy for international relations in space should be framed in a way that identifies general objectives and guiding principles. Two important points in that respect are the need to derive socioeconomic benefits for Europe from international space cooperation (including at the industrial level), and the need to support European values and European foreign policy goals through international space cooperation.

In addition, the governance architecture should be clarified, especially since the two major space actors in Europe, ESA and the EU, are both conducting international relations activities in space. Their roles are different though, as the EU is in the process of defining a general political framework for Europe's international relations in space, while ESA's international relations activities are more closely tied to its programs and less to broader policy considerations.

The programmatic level

The last level of analysis to be taken into account is the programmatic level. Indeed, many decisions regarding space cooperation are taken on a pragmatic basis in order to support existing programs. Indeed, it is better to have programs without a strategy than a strategy without programs. Past experiences proved that space cooperation almost always starts with science. Cooperation is often the best path for science missions as it helps to reduce costs, enhance the scientific value of the mission in most cases, share risks, combine complementary competences, and promote open data policies for scientific purposes.

All in all, the three aspects are important to understand Europe's international relations in space. Decisions regarding international cooperation are often not the result of long-term and rational planning, but rather of pragmatic moves to adapt to evolving circumstances.