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Insight

Switzerland signs the Artemis Accords: What next for the Swiss space sector?

On 15 April 2024, Switzerland became the 37th country to sign the Artemis Accords. [1] In this blog, we take a closer look at the Accords, how they fit into Switzerland's space policy, and possible business and regulatory developments in the Swiss space sector.

1. What are the Artemis Accords and what do they provide?

The Artemis Accords are a series of non-binding bilateral agreements forming part of the <u>Artemis campaign</u> launched by NASA and the US Department of State and aimed at exploring space, establishing a permanent presence on the Moon and facilitating human missions to Mars. The Accords establish a "common vision [and] set of principles, guidelines, and best practices to enhance the governance of the civil exploration of outer space", i.e., on or around the Moon, Mars, comets and asteroids. [2]

Under the Accords, signatory parties commit to conduct space activities in accordance with

- the commitments undertaken with the outer space treaties, [3] to which Switzerland is a party; [4]
- best practices adopted by the space agencies of signatory countries; and
- the principles enshrined in the Accords themselves. [5]

The Accords reiterate that signatory countries will conduct their space activities for peaceful purposes and abide by principles of transparency, interoperability, sustainability, deconfliction, co-operation, and good faith, among others. [6] The Accords also envisage the conclusion of various agreements [7] with NASA and other signatory countries to ensure that its principles are observed and applied in the context of the Artemis missions. [8]

The Artemis Accords are not exempt from criticism. From a legal perspective, introduce some controversial provisions. For instance, Section 10 provides that extraction and utilisation of space resources does not constitute "appropriation" of those resources and therefore does not violate the Outer Space Treaty. [9] And, politically, both the Accords and the Artemis mission have been opposed by China and Russia for being too US-centric and undermining the multilateralism of the outer space legal regime. [10] It has also been observed that the Accords opportunistically neglect the increasingly relevant role of private enterprises, leaving the regulation of their activities to implementation agreements and national legislation. [11]

Criticism notwithstanding, 38 countries have now signed the Artemis Accords, including major and aspiring space-faring countries such as the United States, the United Kingdom, France, Germany, Italy, Japan, South Korea, India, Brazil, Argentina, and Canada,[12] and their implementation is ongoing. As of 2023, NASA alone had entered into more than 50 binding and non-binding Artemis-related agreements with signatory countries and space agencies, each of which provide for different types of commitments in respect of one or more Artemis missions.^[13]

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2. How do the Artemis Accords fit into Switzerland's space policy?

The 2023 Swiss Space Policy (revised in April 2023) defines Switzerland's strategic priorities and corresponding areas of activity in the space sector.[14] It indicates that Switzerland's space sector is populated by highly specialised companies (start-ups, SMEs, large companies, and universities) active in Europe and internationally as part of larger supply chains. These companies mainly focus on:

- manufacturing of high-precision devices and niche products;
- design, manufacturing and operation of satellites;
- · management and development of space infrastructures; and
- scientific research, innovation and R&D on commercial use of space applications.[15]

While the Swiss space policy confirms Switzerland's commitment to cooperation with all stakeholders at the international and European level, [16] it also recognises that increasing geopolitical tensions and heightened control over space technology will probably make such co-operation with other countries more difficult" and even negatively impact Switzerland's chances of "participat[ing] ... in European space-related programmes". This, in turn, may lead to a competitive disadvantage of Swiss companies vis-à-vis their competitors. [17]

Although Switzerland could already – albeit indirectly – contribute to the Artemis program through the European Space Agency (ESA), [18] signing the Artemis Accords helps to addresses such concerns. Joining the Accords will increase Switzerland's involvement in space-related programmes within and beyond Europe, thereby helping it to establish itself as an independent, reliable partner for space missions, maximizing its ability to access space infrastructures and preserving the competitiveness of its space sector. [19]

3. Future developments and challenges

While signing the Accords may not produce immediate effects on the Swiss space industry, their implementation will likely increase the visibility and attractiveness of the Swiss space sector in the medium and long term. Alongside other signatories, Switzerland can now benefit from the Accords and their implementation agreements by taking part in long-term space programmes. This, in turn, will support the growth of governmental and non-governmental space actors, as well as bolstering trade, investments and technology sharing with other signatory countries.

Together with new business opportunities, the Accords also constitute a key intermediate step towards Switzerland's next policy milestone: the development of a national framework and, specifically, a national space law. [20]

We understand a first draft of a national space law is currently being prepared and should be submitted for public consultation within a year. This aims to create a national legal framework for the UN space treaties ratified by Switzerland, providing an authorisation and supervision mechanism for space activities (e.g., satellite operation, scientific research); supply goods and services related to those activities (e.g., manufacturing of specific components, insurance, financing); a liability regime; and a register for space objects. The law is also expected to incentivise "developments in science, technology" and contribute to the "coordination of the ... funding instruments and procurement mechanisms so that procedures can be sped up and redundancies avoided".

[21] Whether the draft law will regulate the ability for non-governmental actors to prospect, extract and utilise space resources (in the same way that other

Artemis signatories have done), [22] remains to be seen.

It is likely that both the implementation of the Artemis Accords and the space law will raise regulatory challenges, such as changes to licensing and authorisation processes and minimum requirements. At the same time, increasing political tensions among the US, China and Russia, alongside the strategic, dual-use nature of space technology and data, will increase national security concerns and intensify regulatory checks and approvals – as has been the case for most space-faring nations in recent years. [23] It will therefore be important for space companies to carry out targeted risk assessments and review contractual arrangements to ensure compatibility of their operations with new regulations.

In such a complex and fragmented environment, disputes among space actors may be unavoidable. While the Artemis Accords are silent on this issue, national courts and international arbitral tribunals are dealing with an increasing number of space-related disputes, particularly those concerning contractual performance; regulatory and national security measures negatively impacting foreign investment; and export restrictions.[24]

Space actors (especially commercial enterprises) should ensure they have effective dispute-resolution mechanisms in place. Switzerland is well placed to become a hub for space activities – as is Swiss law in providing effective and practical solutions to such issues and resolving space-related disputes.

References

- [1] Swiss Federal Department of Economic Affairs, Education and Research, International space cooperation: Switzerland signs Artemis Accords (15 April 2024), available at: https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-100719.html. The English version of the Artemis Accords is available at: https://www.nasa.gov/wp-content/uploads/2022/11/Artemis-Accords-signed-13Oct2020.pdf?emrc=653a00.
- [2] See Artemis Accords, Section 1.
- [3] See Artemis Accords, Preamble.
- [4] Namely the 1967 Outer Space Treaty, the 1968 Rescue Agreement, the 1972 Liability Convention, and the 1975 Registration Convention.
- [5] See Artemis Accords, Section 1.
- [6] See Artemis Accords, Sections 3-12.
- [7] For instance, intergovernmental agreements, memoranda of understanding, statements of intent, framework agreements or implementing agreements. Artemis Accords, Section 1; NASA Office of Inspector General, NASA's Partnerships with International Space Agencies for the Artemis Campaign (2023), available at https://oig.nasa.gov/docs/IG-23-004.pdf, p. 11 (Table 3); Konark Bhandari, "Are We There Yet? The Artemis Accords, India, and the Way Forward", Carnegie India, available at https://carnegieindia.org/2023/03/28/are-we-there-yet-artemis-accords-india-and-way-forward-pub-89375.
- [8] See Artemis Accords, Section 1.
- [9] Artemis Accords, Section 10. This is consistent with the US position on the matter. As observed by Bartóki-Gönczy, B and Nagy, B, Introductory Note to the Artemis Accords, 62 International Legal Materials 888 (CUP, 2023), p. 889, the basis of the debate is that Article II of the 1967 Outer Space Treaty ("Outer space ... is not subject to national appropriation by claim of sovereignty, by

means of use or occupation, or by any other means") leaves room for different interpretations as to the meaning of appropriation.

[10] See Bartóki-Gönczy, B and Nagy, B, Introductory Note to the Artemis Accords, 62 International Legal Materials 888 (CUP, 2023), p. 888; Gross M., The Artemis Accords: International Cooperation in the Era of Space Exploration, Harvard International Review (27 Jan 2023).

[11] Id.

[12] See the Artemis official website, available at: https://www.nasa.gov/artemis-accords/.

- [13] See, e.g., NASA Office of Inspector General, NASA's Partnerships with International Space Agencies for the Artemis Campaign (2023), available at https://oig.nasa.gov/docs/IG-23-004.pdf, p. 12 (Table 4) and p. 65 *et seq.* (Table 7).
- [14] The Swiss Federal Council adopted the Space Policy on 19 April 2023 following the recommendations of the Federal Commission for Space Affairs and of the Space Division of the State Secretariat for Education, Research. See https://www.sbfi.admin.ch/sbfi/en/home/research-and-innovation/space/swiss-space-policy.html.
- [15] See, e.g., Swiss Space Policy, pp. 6-8. See also Switzerland in space: Cutting-edge research and high-tech solutions for everyday life, pp. 18-23, available at: https://www.eda.admin.ch/deza/en/home/sdc/publications/alledeza-publikationen.html/content/publikationen/en/eda/wissenschaft/Die-Schweiz-im-Weltall.
- [16] Switzerland is a member and/or active within the UN Committee on the Peaceful Uses of Outer Space (COPUOS), the International Telecommunication Union (ITU), ESA, and the EU Agency for the Space Programme (EUSPA). See Swiss Space Policy 2023, pp. 13-14.
- [17] Swiss Space Policy 2023, p. 11.
- [18] Switzerland is one of the founding members of ESA.
- [19] Swiss Space Policy 2023, p. 11.
- [20] Swiss Space Policy 2023, p. 21.
- [21] Swiss Space Policy 2023, p. 21.
- [22] See also national regulations in the United States, Luxembourg, the United Arab Emirates and Japan, which recognise in principle the ability of private parties to extract resources from celestial bodies.
- [23] Switzerland itself has been considering the opportunity of introducing a foreign investment screening mechanism. See Investitionsprüfgesetz: Bundesrat verabschiedet Botschaft, 15.12.2023, available at https://www.seco.admin.ch/seco/en/home/seco/nsb-news/medienmitteilungen-2023.msg-id-99460.html.
- [24] See, e.g., Emily McConaughey, Nicole Chalikopoulou, Space Law and Arbitration and a not-so-outlandish Space Odyssey, 40 ASA Bulletin 3/2022 (September), pp. 554-555; Jan Frohloff, Arbitration in Space Disputes, in *Arbitration International* 35(3), September 2019, pp. 309–329.