



SPACE GENERATION
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Policy Brief

Key Actors in Commercial Space Policy: Beyond the US and China

NCAC Task Force, Space Generation Advocacy & Policy Platform

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Introduction

Our [previous NCAC brief](#) on the US and China illustrated the roles of these main actors in the commercial space industry. Here, I present some additional key players—namely Canada, Japan, Russia, India, and the EU—that are developing commercial space policy frameworks within the current challenging geopolitical context. I present the principal commonalities and differences across their approaches, with a specific focus on the status of global privatization and the promotion of cross-contamination in the industry.

Canada

Canada's Space Policy Framework [1] is highly focused on commercialization. Canada prefers to promote efficient and cost-effective solutions from industry innovators by investing public funds into private companies. One such example is the RADARSAT Constellation Mission, which employs circa 300 highly skilled workers in 125 companies all over the country [2]. However, promotion of innovation by private companies is balanced by regulatory infrastructure, such as the Remote Sensing Space System Act (RSSSA) [3] which specifically regulates the licensing of all satellite-based services operating remote sensing technologies to ensure security and safety.

Japan

In its Space Security Initiative [4], Japan envisions a virtuous cycle between commercial space technology and the security sector to foster the development of its domestic space and defense industrial bases. For example, the Japan Coast Guard promotes the use of commercial telecommunication satellite constellations in order to increase communication capacity while also improving their ability to respond to jamming. As part of its industrialization efforts, the Japanese government shares costs in the initial stage of development in order to incentivize the industry to commercialize their technology. Government-identified "critical technologies" are promoted for domestic production in order to keep the industry's supply chain stable. The agile governmental acquisition of space systems incorporating the latest technologies proposed by the private sector is facilitated by the Ministry of Defense. Japan has identified several key technical challenges [4]: downscaling the size of various satellite sensors, improving autonomous satellite operations, and decentralizing ground systems.



Russia

Russian space commercial policy is outlined in the 1993 “Law of the Russian Federation on Space Activities” (the “Law”) [5]. Although it is decades old, privatization is proposed as a major mechanism for rebooting the post-Soviet Union space ecosystem. Specifically, the Law proposes a licensing regime for private entities through the Space Program of Russia, which sits at the intersection of the Russian Space Agency and the Ministry of Defense. In 2020, a new set of regulations was released through a federal decree to improve safety and sanitation requirements, employment contracts and qualifications, quality control systems, research programs, and information protection systems [5]. There is an intention to establish a “compulsory insurance coverage” [6] to all organizations and citizens launching from Russia. Whenever they are not allocated in the national budget, funds to finance private space activities are given by the Russian Space Fund via tax exemptions, voluntary insurance payments and voluntary contributions. International cooperation with select nationals is fostered to allow foreign investments into the development of the private sector. Efforts in this direction are found in the new 10-year cost-efficient unified Federal Space Program by 2026 [7, 8].

India

Growth of the Indian private space sector—part of the national government strategy [9]—is being encouraged by giving citizens the opportunity to directly consume space-based assets. More specifically, non-governmental entities are being encouraged to be interoperable with governmental ones. For example, they are able to file International Telecommunication Union (ITU) applications [10] to acquire orbital resources that are useful for their business purpose. Ease of doing business is guaranteed by the Indian National Space Promotion & Authorisation Centre (IN-SPACe) by the development of space industrial clusters and start-up accelerators, as well as by the prioritization of access to public funds and by the technology transfer from the Indian Space Agency (ISRO). IN-SPACe also regulates the dissemination of high resolution satellite data. The end-to-end process of commercialization of publicly funded space-based technology is undertaken by NewSpace India Limited, representing the public sector and responding directly to the Department of Space, whose main goal is to prevent the overlapping of stakeholders’ responsibilities.

European Union

The first Space Industrial Policy for the EU was released in 2007, as part of the Resolution on the European Space Policy [11]. Emphasis was given to the principle of “fair return”, i.e. the opportunity of Member States to get rewarded proportionally to the amount of their investment in space, as well as to the empowerment of Small and Medium Enterprises. Non-discriminatory access to public funded infrastructure is guaranteed by the European Space Agency (ESA) and thus the risk of monopolies is limited. Among the challenges to implementation is the



development of a coherent data policy and the establishment of public-private partnerships. One of the main benefits of having an EU-level space policy is that multiple Member States can jointly finance programmes that otherwise would be too ambitious for individual countries, e.g. Copernicus [12]. The EU hopes that the increasing synergy between the civil and military sectors generates significant benefits to mitigate the existing gaps among Member States and sets the ground for a potential EU Space Law [13].

Conclusions

In this brief, I have analyzed some key actors –Canada, Japan, Russia, India and the EU– that all recognize the increasing importance of developing and sustaining the private sector’s growth in the space industry. Canada promotes predictability and transparency within an international open market, Japan draws a virtuous cycle between private companies and the military, Russia smoothens international conflict of rules to attract foreign investment, India gets ready to trade orbital resources with non-Indian parties, and the EU establishes public-private funding schemes to join more ambitious space programmes. A flourishing space business ecosystem supports the détente of geopolitical divergences while positively impacting state economies.

Author Bios



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