



## Accelerating Asia-Pacific Space Economies Through Regional Partnerships

*By Brandt Manbuni and Mark Bryan Manantan*

### Abstract

Many Asia-Pacific countries have grown their outer space industries in recent years, resulting in a spectrum of space economies at differing levels of maturity across the region with potential complementarities that could catalyze further development of this crucial sector. This article highlights several key takeaways from a recent virtual event on "Accelerating Asia-Pacific Space Economies Through Regional Partnerships: Challenges, Opportunities, and Best Practices." First, as commercial interests are increasingly driving space development, states are articulating distinct space strategies to try to facilitate innovation by the private sector while also protecting their own national security interests. Second, while there are promising opportunities for cooperation among states and between the public and private sectors, there is still much work to be done in establishing shared rules, norms, and standards of behavior. Third, dynamics in the outer space domain are strongly shaped by the broader context of geopolitical competition among states, which presents challenges to some kinds of collaboration and highlights the need to build trust among multiple stakeholders.

## INTRODUCTION

A wide range of Asia-Pacific countries have grown their outer space industries in recent years, and there now exists a spectrum of space economies at differing levels of maturity across the region, with potential complementarities that could synergize and catalyze the further development of this crucial sector. However, regional partnerships are an underexplored area for many of these emerging space economies.

On September 5, 2023, the Daniel K. Inouye Asia-Pacific Center for Security Studies, the Center for Indo-Pacific Affairs at the University of Hawai'i at Mānoa, and Pacific Forum International jointly organized a virtual public event on "Accelerating Asia-Pacific Space Economies Through Regional Partnerships: Challenges, Opportunities, and Best Practices," an official side event to the 29th Asia-Pacific Regional Space Agency Forum. This event brought together experts to exchange perspectives on the principal challenges inhibiting regional partnerships from playing a catalyzing role accelerating space economies, comparative regional partnership experiences and models that may helpfully inform future efforts guiding space policy, and the most promising regional partnership opportunities for the future in the Asia-Pacific across different space sectors.

This article highlights several key takeaways from the event. First, as commercial interests are increasingly driving space development, states are articulating distinct space strategies to try to facilitate innovation by the private sector while also protecting their own national security interests. Second, while there are promising opportunities for cooperation among states and between the public and private sectors, there is still much work to be done in establishing shared rules, norms, and standards of behavior. Third, dynamics in the outer space domain are strongly shaped by the broader context of geopolitical competition among states, which presents challenges to some kinds of collaboration and highlights the need to build trust among multiple stakeholders.

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## NEW COMMERCIAL FRONTIERS AND NATIONAL SPACE STRATEGIES

The successful moon landing of the Chandrayaan-3 highlights a dawning new era for humankind's capabilities in space. Even as India celebrates this achievement, it is looking to commercialize and broaden its blooming space industry. With US companies like SpaceX leading the way, commercial interests are becoming the primary driver of space-related development, and what was once exclusively the realm of government is now increasingly viable for the private sector. Access to space not only opens pathways for the next generation of Information and Communications Technologies but also serves as a gateway to new mineral resources found on the Moon or asteroids that could potentially reshape the global economy and overcome constraints on Earth.

With the increased interest in space, states are starting to articulate their approaches to space development. India and the United Kingdom have recently released their National Space Strategies, providing much-needed guidance and regulatory clarity that could support space industrial policy. From China, Japan, Korea, and Australia, to relatively new players like Indonesia and Singapore, many Asia-Pacific nations are expanding their commercial ambitions in space. A common challenge for governments lies in implementing national space strategies that can accommodate the current pace of innovation while maintaining appropriate guardrails on space capabilities and technologies. Given that no one country or company has a monopoly on space expertise, some have leading advantages within specific areas, and the supply chains for key complex components are distributed internationally.



## OPPORTUNITIES FOR PARTNERSHIPS IN THE BURGEONING SPACE DOMAIN

Public-private partnerships are enabling robust national space industries to develop across the globe in which the power and resources of the state harness the agility and risk appetite of the commercial sector. Although enterprise-level collaboration is thriving, friction persists stemming from national security, and commercial interests increasingly color space innovation. Another source of contention is the lack of universal coordination or adoption of shared rules, norms, and standards on state behavior. To remedy this, international cooperation at the state level should ensure that commercial space development can continue to achieve a sustainable trajectory and shape an operating environment that incentivizes positive-sum outcomes.

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Coordinated traffic management of satellites and other in-orbit systems is one obvious place to start, to reduce near-term risks of collisions and miscommunications for all parties in space. Establishing common frameworks around space-based mining and manufacturing also offers prospects for collaboration due to brewing long-term ambitions for space economies centered around lunar basing and industrial development. The success of the 2020 Artemis Accords was a key step towards these ends, though notably diminished by abstentions from Russia and China, who denounced the multilateral agreement as quite US-centric. Due to the impasse, the US has since proposed its own competing vision for lunar governance.

## POLITICAL HEADWINDS AND THE LIMITS OF INTERNATIONAL COOPERATION

The current strained geopolitical relations are highly reflected in the emerging domain of space. As major progress towards international cooperation in space is not permissible in the near to medium term, states are cooperating through multilateral arrangements such as the US-Japan-ROK trilateral or the Quad. Unfortunately, these trends only reinforce the notion of space as a new domain for competition rather than cooperation.

Cuts to space programs and commitments have not been uncommon among other countries, arising from a failure to recognize the economic implications of the space economy. For example, Australia's recent efforts at cultivating a leading commercial space industry have been set back by budget reductions and competing political priorities. The challenging capital environment has also put a damper on long-range arenas like space, making it more important that public investment fuels progress until private funding returns.

Even international collaboration has its limits—especially within a dual-use critical sector like space, states will always insist on maintaining control over varying base levels of industrial capabilities, depending on their own national interests and security needs. However, the focus should remain squarely on building consensus for common frameworks in cooperation and governance, especially as ASEAN countries and other emerging players expand their space industries and capabilities. To this end, trust remains the key ingredient to building partnerships that can accelerate progress toward robust space economies.

*To watch the video of this public event, visit <https://youtu.be/ukEBO1ak-5A>.*

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