

# THE GROWING SPACE ECONOMY REACHING FOR THE STARS

**GOVERNMENT BODIES AND COMPANIES** looking to enter the space industry need a helping hand.

**Space is changing.** The vast emptiness around our planet has become a new frontier of commercialization as private companies join the public sector in setting up shop in space. Propelled by better technology and dramatically lower costs of placing spacecraft in orbit, private-sector funding of space-related companies exceeded US\$10 billion in 2021, and some analysts predict the space economy will be worth more than US\$1 trillion by 2040.

However, the lack of clear rules and business models for companies eager to join the great space race is a problem. Professional services firm PwC Consulting LLC, part of the PwC global network in Japan, is now working with the private sector, public sector and academia to support businesses looking to reach for the stars.

## LOWERING BARRIERS

“We’ve seen a lowering of the entry barriers to space,” says Luigi Scatteia, a partner at PwC France, based in Paris, who heads PwC’s Space Practice. “With the emergence of small satellites and cloud computing to process satellite data, space has become more accessible than ever.”

PwC’s Space Practice works with governments on space regulations. Surprisingly, some spacefaring countries lack such laws because their missions are launched from other countries. The practice also provides commercial strategy advice to a wide range of companies, including players



▲ Like radio telescopes on Earth, space-related companies are now turning their sights on the vastness of space and business that may come from it.

from the energy, insurance and telecommunications industries.

While a number of high-profile space business startups have dominated the headlines for promoting interplanetary colonization and space tourism, most space-related companies are focused on less sensational missions.

Environmental, social and governance objectives have led to increased use of satellite data for a better understanding of how we are using and impacting our planet, Scatteia notes.

For example, the European Commission’s Farm Sustainability Tool (FaST) mobile app, which PwC France helped implement, uses satellite observation data to promote sustainable farming.

“With FaST, farmers can optimize cultivations by understanding how much

artificial fertilizer to use, both saving them money and reducing environmental impact,” says Scatteia. “With securely geotagged imagery, FaST also supports remote compliance by providing objective crop validation for subsidy claims.”

Despite all the capital and technology being pumped into the industry, it is still challenging to establish a viable space business. Players need large investments and a long-term profitability horizon — two requirements that companies new to the industry struggle to meet, notes Yosuke Enomoto, a PwC manager based in Tokyo who leads the Space Practice in Japan.

## PROVIDING SUPPORT

“In Japan, there’s a trend for large, non-space companies in various industries to enter the

space business, but they lack knowledge and experience. We try to create or support synergies with their existing business to sustain their medium- and long-term visions,” says Enomoto.

“We also work with public agencies to lobby for rulemaking and regulation, while collaborating with academic institutions to promote space business through industry-government-academia partnerships,” he adds.

Japanese companies can leverage their expertise in manufacturing and telecommunications in the midstream and downstream space areas, says Enomoto. He cites a startup that plans to clean up space debris, as well as a telecommunication company that plans to establish a space data centre, which would accelerate satellite data by employing computing in orbit. The possibilities, says Scatteia, are limitless.

“The exploitation of space data offers a lot of potential, and people shouldn’t be driven away by the sector’s complexity,” says Scatteia. “You just need to understand what space can do for you. Businesses need to view space as a strong enabler of basically anything else on market.” ■

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