

BUSINESS INNOVATION SYMPOSIUM (E6)

New space at the national, international, and overall industry levels: innovation, entrepreneurship & investment at the macroscopic level of analysis (3)

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THE NEXT WAVE OF NEWSPACE FOR SPACE COMMERCIALIZATION - AFTER TWO NEW
SPACE LAWS IN JAPAN

Abstract

Now space commercialization is a big wave all over the world. Smallsat constellations have brought a manufacturing revolution and scale merit into space as well as creating innovative technologies and applications. 3D printing in space and manufacturing in space has been started, which will enable to assemble large space structure on orbit. Killer apps from microgravity expect to contribute to our quality of life as well. Reusable vehicles, on-orbit service, next-gen propulsion and so on also have contributed to a technology revolution. Furthermore, new technologies which connect space based data information with big data, cloud, IOT, AI, what is called digitalization. 3D printing, nanotechnology, new materials, etc are also focused as cross cutting areas for economic expansion. Many of these new technologies and applications are core competencies for Japanese industry.

Now the space commercialization wave has been expanding to beyond LEO business creation. A new business ecosystem to use space is expected to create and broaden a borderless industry blast off for space commerce. The OECD Space Forum regards NewSpace as being both innovation and revolution for space economy expansion. New players and investments have joined to expand and create with synergies, collaborations and business flows in all directions beyond the dedicated space industry.

In Japan, the space commercialization big wave has finally come. New players have entered the sector such as space venture companies, non-space companies and even venture capital companies. Furthermore, traditional space companies have sought for global space competitiveness and started new space business to capture new markets using space. Several space venture companies have gotten a certain amount of funding for their businesses. Now a new business ecosystem has been formed in the space industry, including PPP. Two new commercial space laws have been passed in 2016 that have driven space commercialization in Japan. In this paper, the new space ecosystem in Japan and new products and services will be introduced, which will create new space markets and expand existing markets as well. The new Japanese space laws will be discussed and compared with their counterparts overseas.