



Alex Garth
alex.garth@adhesivepr.com.au
Adhesive PR

Jamie Wong
PR.sanz@sony.com
Sony Australia & New Zealand

Sony and Mitsui Succeed with World's First Successful Operation of Standalone 5G Enabling Dynamic Spectrum Access System
Announce partnership for studying commercial potential, aiming to contribute to sustainable society by supporting efficient use of limited spectrum resources

Australia, Sony Group Corporation ("Sony," Headquarters: Tokyo, Chairman, President and CEO: Kenichiro Yoshida) and Mitsui & Co., Ltd. ("Mitsui," Head Office: Tokyo, President and CEO: Kenichi Hori) jointly announced today that they have achieved the world's first^{*1} successful operation of Sony's Dynamic Spectrum Access (DSA) technology^{*2} in a standalone 5G^{*3} environment. Along with this success, the two companies have signed a memorandum of understanding to enter a partnership to study the commercial potential for this technology and ways to use it to support effective use of spectrum resources.

Background

Technological innovations such as Wi-Fi and 5G have allowed for ever-growing wireless use in industrial applications, resulting in an explosive increase in data traffic. On the other hand, spectrum (radio frequency) resources are limited, and the strain on these resources is becoming an issue. DSA technology is expected to help solve this problem by helping to optimise the use of radio frequency resources. It provides for centralised management of radio frequencies via a real-time resource management database, replacing the traditional method of managing each frequency band separately. This allows spatio-temporally underutilised spectrum to be allocated for use by new operators and users, while protecting incumbent operator networks and their users from harmful interference.

Practical implementation of DSA technology is already under way in Europe and the United States, with spectrum assignment for 4G/5G in certain regions and locations, along with infrastructure development, making it a growing global trend.

Accompanying this kind of diversification occurring in radio frequency resource assignment methods, new use cases and innovation in various industry applications, as well as automated spectrum management using DSA technology, are also being explored, leading Sony and Mitsui to join forces in looking into the commercial potential.

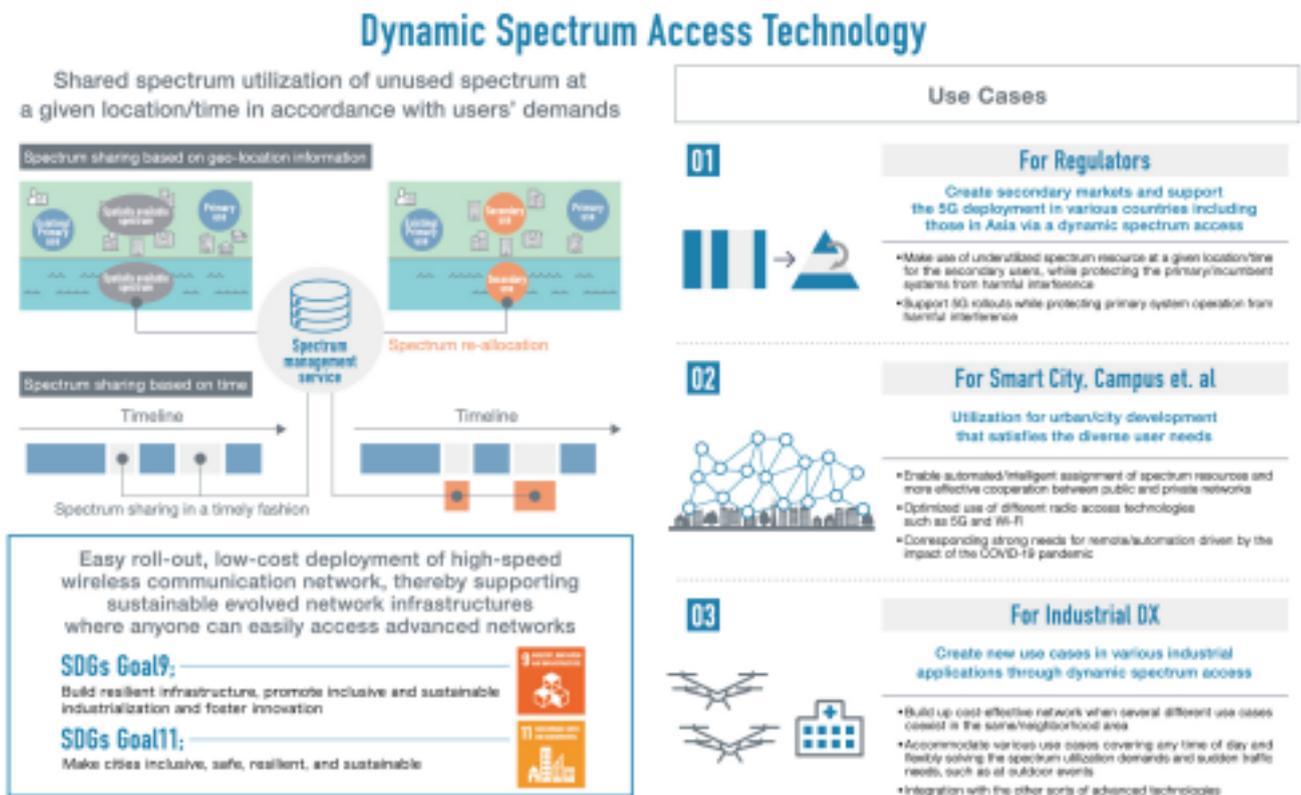
Sony and Mitsui track records and the partnership goals

Mitsui is involved in a wide range of industrial domains, employing a multifaceted business approach, including building social infrastructure that uses ICT to drive smart transformation of cities and building sustainable infrastructure to improve quality of life in Asian and other developing nations. Also, through its subsidiary, Mitsui Knowledge Industry Co. Ltd. (MKI), the company is driving the use of "Local 5G," an advanced scheme for implementing local 5G

networks in Japan, in view of the growing need for wireless usage in industrial applications.

Sony has built its track record by engaging in research and development of DSA technology since an early stage. In the world's first case of large-scale practical implementation on the Citizens Broadband Radio Service (CBRS)^{*4} system in the United States, Sony has been approved by the United States Federal Communications Commission (FCC) for commercial operation^{*5} to provide spectrum management services (spectrum assignment, spectrum use authorisation, operational parameter configuration such as maximum allowable transmission power) in the 3.5 GHz band (3GPP B48/n48). Also, based on this approval, Sony has been designated a CBRS SAS^{*6} administrator to operate in the United States and is recognised for holding excellent commercial-level technologies and many vital patents.

Sony and Mitsui aim to build on these strengths to implement an effective spectrum utilisation model and establish cutting-edge business and technology platforms to help achieve this goal across a broad geographic area, which includes not only Japan, the U.S. and Europe, but also Asia and other regions, as they work together to explore various possibilities. Through this project, they aim to create new businesses meeting continuously growing wireless demands that provide a strong contribution to society.



The image is for illustrative purposes only.

*1 As of announcement in August 2021. According to Sony and Mitsui, this research will be implemented with the cooperation of Airspan Networks, Inc, using Airspan Networks' 5G base stations supporting standalone operation.

*2 A technology that consolidates management of frequency bands in a database, assigning available frequency bands in real time while suppressing radio interference, thereby supporting efficient use of limited radio frequency resources.

*3 In contrast to non-standalone methods that run 5G in collaboration with partial 4G technologies, this refers to a method that runs 5G base stations using independent 5G core networks. *4 Citizens Broadband Radio Service (CBRS) is the name of Title 47 Code of Federal Regulation Part 96 and the collective name of wireless services utilizing the spectrum in accordance with Part 96. Part 96 governs

the use of underutilized radio frequency resources in the 3550-3700MHz band primarily assigned to the Department of Defense, fixed satellite services, wireless broadband services, etc. Under Part 96, SAS is defined to manage the use of underutilized radio frequency resources by base stations (CBSD, CBRS device).

*5 Announced to the public by the FCC Public Notice on January 27, 2020. WTB and OET Approve Four Spectrum Access System Administrators for Full Scale Commercial Deployment in the 3.5 GHz Band and Emphasize Licensee Compliance Obligations in the 3650-3700 MHz Band under Part 96

*6 A spectrum sharing management system that supports Dynamic Spectrum Access.

Notes to editor:

Media inquiries: Corporate Communications, Sony Group Corporation

Email: sony@adhesivepr.com.au

Mitsui & Co., Ltd. Inquiry Form:

https://form.mitsui.com/webapp/form/16694_csy_13/index.do