

Singapore

# Public sector 5G trials under way at Sentosa with autonomous road-sweeping trucks, augmented reality experiences



A first batch of public sector 5G trials at Sentosa have kicked off, with government agencies testing out projects such as sweeping trucks and augmented-reality educational games. Jeraldine Yap reports.



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SINGAPORE: A first batch of public sector 5G trials at Sentosa have kicked off, with government agencies testing out projects such as autonomous road-sweeping trucks and augmented-reality (AR) educational games.

Ten trials have started. The Government aims to have 15 live trials by public agencies running in Sentosa by the end of the year, and at least 30 by the first half of 2023.

"The testbed catalyses the public sector's adoption of 5G connectivity ahead of the nationwide [5G roll-out in 2025](#) by enabling agencies to trial use cases that improve operational effectiveness and deliver citizen-centric services," said the Government Technology Agency of Singapore (GovTech), Sentosa Development Corporation (SDC) and Singtel in a joint media release on Tuesday (Oct 19).

One of the projects currently under way is the National Environment Agency (NEA) and Nanyang Technological University (NTU)'s trial of autonomous road-sweeping trucks.

"5G's high bandwidth and low latency are beneficial for streaming live camera feeds from the vehicle to the off-site operator, as well as transmitting haptic feedback and vehicular commands," said the release.

"These trials would enable an off-site operator to play the role of the on-board safety driver, a current requirement for autonomous vehicle trials, in the eventual deployment of autonomous vehicles on public roads."

The Building and Construction Authority (BCA) are also working with construction firm Gammon to trial the use of 5G for construction applications.

This includes fully autonomous robots with mounted 3D laser scanners for remote tracking of work progress, leveraging augmented reality technology for real-time

quality control on building installations, and using drones with live video feeds for site inspection.

BCA's programme director of the digitalisation department Tan Kee Wee said that 5G technology has "opened up" many possibilities for the built environment sector to further leverage robotics and automation.

"Such applications typically require a large amount of data to be transmitted in real-time which 5G would be able to support," said Dr Tan.

"We are excited to see the results of these trials on how 5G technology can improve site productivity and safety, transforming the way we build."

Assistant chief executive of SDC Michael Ma said: "The range of 5G trials will play an important role in identifying opportunities where infrastructure-light 5G technology can be leveraged not only to achieve greater productivity and efficiency in SDC's management of the Sentosa precinct, such as in transport, security, and cleaning operations, but also to enhance Singapore's tourism offerings, including Sentosa's range of unique leisure experiences.

"Such offerings could include edutainment featuring immersive 5G augmented reality (AR) experiences at Sentosa's nature and heritage trails. We are pleased to partner Singapore Tourism Board to trial the gamification of the Fort Siloso area, with a joint technical study to begin by the end of this year."

According to the release, Sentosa provided "a unique environment as an ecosystem of leisure experiences and businesses" for organisations to study and trial the viability of innovative prototypes and solutions.

*Source: CNA/ad*