



From left: Jayson Goh, MD Airport Operations Management of CAG; Lee Seow Hiang, CEO of CAG; Beh Swan Gin, Chairman of EDB; Thien Kwee Eng, Assistant MD of EDB; Bernard Siew, Vice President Airport Operations Management of CAG

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Changi Airport launches Living Lab to create next generation of solutions for the airport

SINGAPORE, 5 January 2017 – Changi Airport is set to transform its operations for the future, with a new S\$50 million programme to drive innovation over the next five years. In partnership with the Singapore Economic Development Board (EDB), Changi Airport Group (CAG) has launched the '*Changi Airport Living Lab Programme*'. The programme will see CAG collaborating with innovation-driven companies and start ups, to

develop and demonstrate new technology solutions, in a live airport environment.

Even though Changi Airport has pioneered many new and first-in-the-world facilities and services to enhance the airport experience, CAG recognises the importance of increasing its pace of innovation to strengthen the airport's competitiveness. This is imperative in an increasingly complex operating environment where travellers' needs are fast changing. CAG hopes to partner companies and start ups to capture the many opportunities emerging in the burgeoning air travel market. With the support of the Civil Aviation Authority of Singapore, the Living Lab Programme is a platform for CAG, and partners in the airport community (including government agencies, ground-handlers, concessionaires, security providers and cleaning companies etc.) to co-create, test and demonstrate new solutions to future proof the airport.

There are several technology areas that CAG believes are ready for innovation and adoption in the airport:

1.Automation and robotics – opportunities to optimise scarce manpower resources and empower the airport workforce to operate at higher efficiency and productivity levels.

2.Data analytics and the Internet of Things (IoT) – opportunities to enable a more accurate and real-time perspective of airport operations. This will allow Changi Airport to better optimise its operational processes, and power smarter decision-making. Consumer analytics will offer deeper insights into travellers' habits and preferences, thereby strengthening the airport's lifestyle product offerings.

3.Non-intrusive security technologies – opportunities for Changi Airport to greatly enhance the passenger experience and reduce the stress of undergoing security clearance, while strengthening safety and security standards.

4.Smart infrastructure management – opportunities to leverage new technologies such as sensors, IoT, smart controls; to optimise infrastructure resources.

Changi Airport has already started working with partners to test solutions in

some of these areas to achieve a more seamless and positive experience for passengers and visitors to the airport. For example, it has been running prototype trials for autonomous cleaning robots to clean the vast tracts of floors in the airport terminals. It is also exploring the use of automated guided vehicles to ferry passengers between terminals. Another example is taxi queue analytics, whereby sensors are used to determine the number of people in taxi queues and the estimated wait time. This would allow the airport to provide travellers with better advice on ground transport options during peak periods, as well as alert taxi drivers about impending demand for taxis at the airport.

Through this programme, Changi Airport aims to forge win-win collaborations with its innovation partners. Currently, there are more than 55 million passengers passing through Changi Airport each year, generating over S\$2 billion in concession sales. CAG believes that this is a rich eco-system that companies can tap on to test, refine and demonstrate their solutions. Start ups can also find an opportunity in the Living Lab Programme to collaborate with Changi Airport to develop and ultimately deploy their solutions. These successful collaborations would give companies a head start in accessing new market opportunities and exporting their solutions internationally.

Mr Lee Seow Hiang, CEO of CAG said, “Building innovation today is critical to transforming our business and operations for the future. We look forward to partnering established companies and enterprising start-ups to develop cutting-edge technologies for the airport. Through our Living Lab collaborations, I believe that we can add value to our partners in helping them scale up their solutions for real-world applications.”

Dr Beh Swan Gin, EDB’s Chairman said, “We are pleased to partner Changi Airport Group on this new programme which will see them collaborate with industry players to develop and test next generation airport solutions. The Living Lab is aligned with EDB’s goals of fostering a vibrant eco-system of technology providers driving innovation and creating new businesses from Singapore.”

About Changi Airport Group

Changi Airport Group (Singapore) Pte Ltd (CAG)
(www.changiairportgroup.com) was formed on 16 June 2009 and the

corporatisation of Singapore Changi Airport (IATA: SIN, ICAO: WSSS) followed on 1 July 2009. As the company managing Changi Airport, CAG undertakes key functions focusing on airport operations and management, air hub development, commercial activities and airport emergency services. CAG also manages Seletar Airport (IATA: XSP, ICAO: WSSL) and through its subsidiary Changi Airports International, invests in and manages foreign airports.

Changi Airport is the world's sixth busiest airport for international traffic. It served a record 55.4 million passengers from around the globe in 2015. More than 360 retail stores and 140 F&B outlets are situated across three terminals to cater to passengers and visitors. With over 100 airlines providing connectivity to 320 cities worldwide, Changi Airport handles about 6,800 flights every week, or about one every 90 seconds.