

Annex A: Details of 5G Open Testbeds and Relevant Quotes

The four testbeds are:

- MPA's Maritime Drone Estate
- CLI's Smart Urban Co-Innovation Lab at Singapore Science Park
- IMDA's 5G Living Lab@PIXEL
- GovTech, IMDA, Sentosa, Singtel, 5G Sentosa

Singapore's first **Maritime Drone Estate (MDE)** is now 5G-enabled, following successful pilots of 5G standalone network trials¹ through the partnership between Airbus, IMDA, and M1. Located near Marina South Pier with close proximity to anchorages, enterprises will now be able to test drone technologies at MDE leveraging 5G for maritime applications such as shore-to-ship deliveries and, remote ship inspections.

Mr Thomas Ting, Chief Technology Officer, MPA, said, "With this 5G development at the Maritime Drone Estate, we will now be able to offer the maritime industry the opportunity to trial drone technologies enabled by a new generation of mobile communications. We encourage the industry and solution providers to tap onto the connectivity from the 5G networks at MDE to look into how maritime operations can be transformed."

CLI's **Smart Urban Co-Innovation Lab**² at Singapore Science Park is Southeast Asia's first industry-led lab for smart cities solutions. The testbed will be accessible to the industry to develop 5G-enabled products and services. Organisations can test innovations and commercialise smart city solutions in key industries such as intelligent estates, smart mobility and urban agriculture.

Mr Manohar Khiatani, Senior Executive Director, CapitaLand Investment, said: "At CapitaLand Investment, we constantly innovate to ensure that we are ahead of the curve. Our Smart Urban Co-Innovation Lab at Singapore Science Park brings companies together to co-innovate in a 'real-world' setting. Since its opening in October 2020, the Lab has

¹ <https://www.imda.gov.sg/news-and-events/Media-Room/Media-Releases/2020/IMDA-M1-and-MPA-to-Conduct-Coastal-5G-Network-Trials-with-Airbus-for-Urban-Air-Mobility-Operations>

² [Smart Urban Co-Innovation Lab, Southeast Asia's first industry-led lab for smart cities solutions development, opens in CapitaLand's Singapore Science Park - Infocomm Media Development Authority \(imda.gov.sg\)](#)

supported over 500 companies and onboarded over 70 members into its ecosystem. 5G capability is key to integrate and support the requirements of different industry verticals in a smart city. We are excited to support IMDA's 5G innovation drive and welcome companies to testbed their 5G innovations at the Lab.”

To encourage the development of the 5G ecosystem, network operator M1 is partnering with MPA and CapitaLand to identify and develop commercially ready 5G solutions at their respective testbeds. Focusing on the maritime and smart estate industries, M1 will help to support the development of 5G SA use cases and trials, to provide the necessary support to facilitate the commercialisation of viable solutions.

To grow the innovation community and in support of the infocomm media (ICM) industry, IMDA launched its 28,000sqf PIXEL facility at the One-North innovation district in 2016. **5G Living Lab@PIXEL** was launched in November 2020 to enable businesses including SMEs to experiment with 5G applications and use cases, with a focus on indoor use cases such as in the areas of AR/VR, content streaming and production, and IoT. For more information on companies that has commercialised at 5G Living Lab@PIXEL.

At **5G@Sentosa** testbed, IMDA is working with Singtel to identify potential 5G solution partners to develop 5G tech ecosystem to support trials at the testbed. In this case, government agencies' use cases and island partners looking to transform their businesses with 5G will be matchmake with potential solution partners. Through the IMDA's Accreditation@SGD³ and SG:D Spark⁴ programmes, IMDA will make it easier for 5G solutions developed to be adopted by government agencies.

³ <https://www.imda.gov.sg/programme-listing/accreditation-at-sgd>

⁴ <https://www.imda.gov.sg/programme-listing/sgd-spark>

About Info-communications Media Development Authority (IMDA)

The Infocomm Media Development Authority (IMDA) leads Singapore's digital transformation with infocomm media. To do this, IMDA will develop a dynamic digital economy and a cohesive digital society, driven by an exceptional infocomm media (ICM) ecosystem – by developing talent, strengthening business capabilities, and enhancing Singapore's ICM infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment and enhances Singapore's data protection regime through the Personal Data Protection Commission. For more news and information, visit www.imda.gov.sg or follow IMDA on Facebook IMDAsg and Twitter @IMDAsg.

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