Fact Sheet

ANNEX F

DIGITAL SERVICES LABORATORY

IMDA has identified that in the Digital Economy, there are industry-level digitalisation challenges and national strategic interest areas which could benefit from faster intermediation. These could be where industry-scale transformation requires significant resources to develop solutions, overcome digitalisation barriers, and positively disrupt cross-business processes.

IMDA is setting up a programme called the Digital Services Laboratory (DSL) to bring relevant parties together (i.e. Research Institutes (RIs), Institutes of Higher Learning (IHLs), technology providers and industry, and end-user companies) to address this. It will do so through sharing early-stage development risks faced by industries in the development of new technology solutions and strengthening technology translation. In the process, DSL will build new technological capabilities and train a strong pipeline of tech talent.

For a start, DSL will focus its efforts on the services sector, which accounts for 72%[1] of Singapore's GDP and has uneven digitalisation across the industry verticals. Specifically, DSL will look at the segments within the Built Environment, Lifestyle, Modern Services and Trade & Connectivity clusters. An initial set of projects are listed in **APPENDIX A**.

What is the Digital Services Laboratory

The DSL team, comprising coders, engineers, data scientists, data architects, technical business development officers and other specialists, will work with government agencies, IHLs and RIs to leverage their capabilities, and translate them for deployment into industry.

Industry talents will be co-opted during projects to ensure knowledge transfer to industry as well as build a ready pool of technical talent equipped on future-ready technologies. To spread the benefits of developed technologies, IMDA intends to work with industry partners

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[1] Singstat – Singapore Economy

to proliferate solutions across the ecosystem. For example, IMDA-created technologies – such as Artificial Intelligence libraries[2] – can be made available for free and open-source where appropriate.

Project Selection

Projects will be selected by a cross-agency team comprising IMDA, A*STAR, Enterprise SG and DI.SG. Project selection is based on various criteria such as whether there are ecosystem-level economic benefits (either on the supply or demand side), and/or alignment with national strategic interests. Selected projects are granted up to 70% in funding and in-kind support.

These projects typically fall into one or more of the following areas:

- Multi-Stakeholder Involvement: No sole industry champion and economic impact shared across multiple stakeholders potentially straddling different sectors. DSL will come in as a neutral convener to bring relevant parties together, and architect the multi-disciplinary technology solution.

- ICM Industry Development: Problem statements with early-stage technologies identified to have the potential to build up ICM industry capabilities;

- Capabilities to accelerate business innovation: Helping industry move away from traditional applications and towards agile microservices applications such as Cloud Native Architecture[3].

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[2] Please refer to the "Open-source Artificial Intelligence Libraries" factsheet for more information
[3] Please refer to the "Services 4.0" factsheet for more information

About Infocomm 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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Appendix A

Exploratory DSL Projects

	Auto In-Mall Distribution	Intelligent Data Centres	National Speech Corpus
Situation and Challenges	Menial last-mile delivery activities require significant manpower and manual delivery of goods No clear industry stakeholder to initiate transformation of the logistics chain Economic impact is spread across multiple stakeholders	Data centres need better prediction of power usage, failure prediction, load bearing etc. to maximize capacity No easily accessible technology to enable predictive capabilities for data centres' power fluctuations and use	Few speech corpora available for locally-accented English Limits speech application growth in Singapore High developmental costs and difficult justification for commercial entity to create a large shared locally-accented English corpus
Value Proposition	Developing a multi-modal automated delivery system could free up deliveries beyond the work day and free up manpower	Intelligent Sensing Toolbox could compile multiple-variable systems and monitor them (such as via outlier identifications) to predict data centre power use and fluctuations	A National Speech Corpus can improve accuracy of speech applications for the local context and lower overall costs of development, through a common digital infrastructure layer
Beneficiary	Logistics Service Providers, Retailers, Mall Operators and ICM players	Data Centre operators and ICM players	ICM players developing applications using speech as an interface