## SPEECH BY DR LAM PIN MIN, SENIOR MINISTER OF STATE FOR TRANSPORT AND HEALTH, AT THE SINGAPORE MARITIME TECHNOLOGY CONFERENCE, 25 APRIL 2018 (WEDNESDAY), 9.00AM, AT MARINA BAY SANDS EXPO AND CONVENTION CENTRE

Mr Daniel Bjarman-Simonsen, State Secretary of the Norwegian Ministry of Trade, Industry and Fisheries,

Mr Niam Chiang Meng, Chairman, Maritime and Port Authority of Singapore,

Ambassadors,

Distinguished Guests,

Ladies and Gentlemen,

Good morning. It is my pleasure to join you at this Singapore Maritime Technology Conference.

## Innovation and R&D to Propel Maritime Singapore

- 2. Singapore has come a long way since our humble beginning as an entrepot. Today, we are the world's busiest transhipment hub with excellent connectivity to the rest of the world. We are also widely recognised as a leading international maritime centre, with many maritime businesses and a vibrant maritime ecosystem.
- 3. With the rise of digitalisation, the landscape is changing very rapidly. The entry of non-traditional players like Amazon and IBM and start-ups like VesselBot is beginning to disrupt the status quo. The industry's rules of engagement are also changing due to new technologies such as blockchain, artificial intelligence and autonomous technology. Increased digitalisation also brings new cyber risks that can disrupt shipping and its role as a reliable carriage of world trade.

# Encouraging Innovation

- 4. To continue to remain relevant and competitive, we have to innovate and reinvent ourselves. This is why innovation is a key focus of our Sea Transport Industry Transformation Map (ITM). The ITM articulates our vision and ambition, and encapsulates specific initiatives to drive innovation. This includes the Maritime Transformation Programme and the Maritime Technology Acceleration Programme announced earlier this year. The MPA Living Lab, which was set up last year, provides innovators and industry players a real operating environment at the port to conduct trials for their projects. These initiatives will support the development of maritime technologies and spur the test-bedding of innovative ideas.
- 5. To facilitate the exchange of ideas, which can come from within and outside the industry, the Maritime and Port Authority of Singapore will form a network of digitalisation champions from maritime companies, and link them up with innovators and start-ups. In June this year, MPA will organise the Smart Port Challenge and the

Maritime Innovation & Technology Fund Call for Proposals for innovators and startups to work on challenge statements put up by the industry. We hope this will open up new ideas, possibilities and collaboration. I encourage you to participate in these activities.

## **Fostering Collaboration**

- 6. We will also continue to work closely with our stakeholder groups industry, research institutes and international partners to co-create solutions. To this end, MPA and its partners will sign five memorandums this morning.
- 7. First, MPA, Keppel Offshore & Marine, and the Technology Centre for Offshore and Marine Singapore (TCOMS) will be signing a memorandum of understanding (MOU) to jointly develop remotely controlled or autonomous vessels for harbour operations such as towing, berthing and mooring.
- 8. Second, MPA will be signing a memorandum of intent with eight classification societies to share data about Singapore-registered ships. This data will be made available at the Singapore Maritime Data Hub to further open up opportunities for innovation and data-driven solutions.
- 9. Third, NUS Enterprise and PortXL will be signing a MOU to grow the maritime start-up ecosystem and international networks and provide promising start-ups the help they need to bring their ideas to commercialisation. This MOU is supported by MPA and PortXL's partners such as the Port of Rotterdam.
- 10. Fourth, MPA and Wartsila will sign a MOU to promote the development of technologies on digital acceleration, cyber-physical security, and intelligent vessel and port operations.
- 11. Last but not least, MPA and the Research Council of Norway will be renewing their existing MOU to continue the good cooperation in maritime R&D and education. This is the seventh term we are doing this, with a good working relationship for the last two decades.
- 12. The signing of these MOUs marks another step in our efforts to build up know-how in maritime technologies and R&D capabilities. The partnerships encapsulated within the MOUs not only strengthen the linkages between the maritime cluster and other clusters, and also Singapore's position as a place for maritime R&D.

#### **Harnessing Technology to Reinvent Ourselves**

13. On its part, the Government will leverage technology to sharpen Singapore's competitive edge. You would be aware that we are building a next-generation 65-million TEU container terminal in Tuas on the western end of Singapore. I am happy to update that Phase 1 of this mega project is progressing well, and the contract for Phase 2 reclamation will be signed later today. The new Tuas Terminal will incorporate the use of new technologies and automation to enhance operational efficiency and overcome Singapore's manpower constraints.

- 14. To continue to manage the increasing vessel traffic in our port and waters safely and efficiently, we will also enhance our vessel traffic management capabilities and support the development of enabling technologies. Various projects are underway. MPA is working with Kongsberg Norcontrol and ST Electronics to develop the Next Generation Vessel Traffic Management System, which will incorporate the use of technologies such as predictive analytics and machine learning.
- 15. MPA is also supporting the development of enabling technologies, such as the joint efforts by an A\*STAR-led consortium to apply data analytics to maritime navigation and Simplus, a local company to develop simulation models for predicting traffic hotspots. We look forward to working with more like-minded partners.

#### Conclusion

- 16. Let me conclude. I spoke about a number of initiatives and projects ranging from helping maritime start-ups grow to fostering collaboration amongst industry players. They are not disparate initiatives. They are parts of a larger effort to create the environment and ecosystem in Singapore for maritime enterprises to thrive. With your support, I am confident that Maritime Singapore will remain vibrant and competitive.
- 17. I wish you a fruitful conference. Thank you.

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