



MARINETECH START-UP PLAYBOOK

Re-imagining and transforming the maritime industry
to address digitalisation and decarbonisation

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Hello there!

As Singapore grows as a MarineTech Start-up Hub, this playbook serves as a handy guide to the key facets of our ecosystem. Whether you are a new start-up, an established one, a Singapore-based or foreign team, an entrepreneur new to maritime or a veteran, or even a maritime company looking to spin-off a start-up, we hope this consolidation of our key resources will help you better navigate the ecosystem. As a city state with its historical roots as a trading hub, and situated in the confluence of major East and West shipping lanes, Singapore is a vibrant maritime nation, and opportunities abound. We hope you will find something that suits you and supports your development here!

Warm Regards,

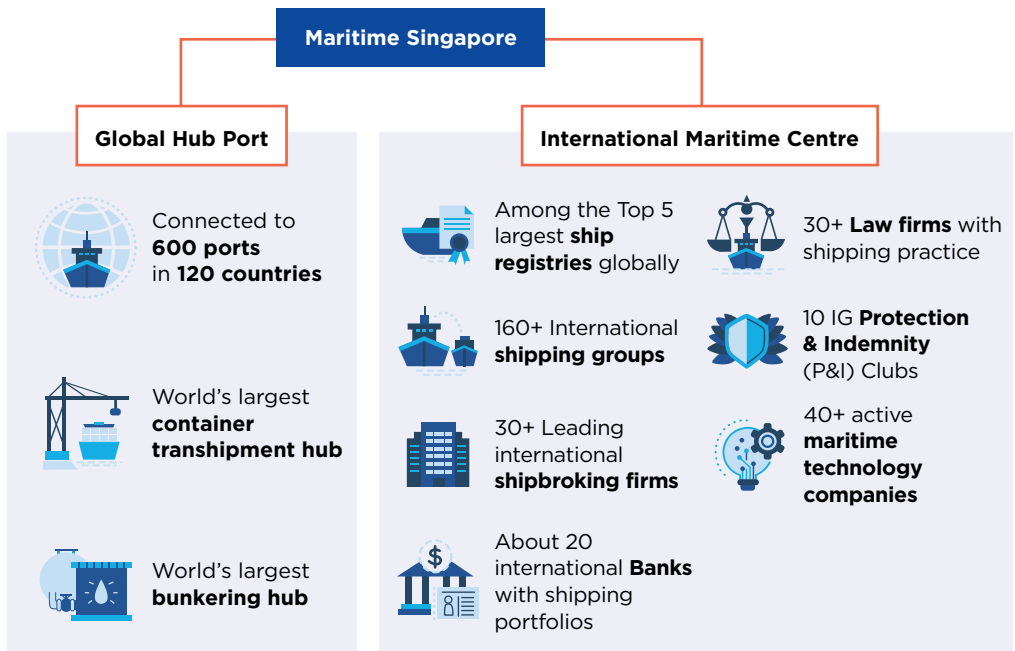
Mr Ng Yi Han

Director (Innovation, Technology and Talent Development)
Maritime and Port Authority of Singapore (MPA)

A World Class Maritime Singapore

A Premier Global Hub Port and Leading International Maritime Centre

With connection to more than 600 ports in 120 countries, Singapore boasts the largest container transshipment hub in the world. In fact, by the time you finish reading this playbook, another five ships would have sailed into the bustling hub. Singapore is the perfect place for young start-ups to start their adventure into the maritime industry.



“Singapore aspires to be the Silicon Valley of the maritime world,

where ideas and talents come together to develop innovative maritime solutions that can transform the industry and create new opportunities for our companies and workers. To do so, **we must have the pioneering spirit and sense of adventure that run in the blood of seafarers:** willing to leave our comfort zones and take calculated risks, never giving up when we encounter challenges and setbacks, and always looking to discover new lands and that pot of gold under the rainbow.”

Mr Chee Hong Tat

Senior Minister of State, Ministry of Transport, Singapore



“Innovation has always been the success factor of Maritime Singapore and is essential as the global maritime industry transforms.

Start-ups inject new ideas, talent and new growth opportunities to the sector, and we are heartened by the many successful collaborations over the years. We launched this playbook as part of our effort together with our partners to create an enabling environment for you to realise your ideas and find new business opportunities. Come join us on this exciting journey and re-imagine the maritime sector together!”

Ms Quah Ley Hoon

Chief Executive, MPA



Getting Started

In this sea of opportunities, this playbook can offer you navigation to customer access initiatives, funding for your ideas, support for your talent, and test-beds for your new projects.

Key Partners in the Network



Access to Customers

Finding the right customers is crucial. We collaborate with our partners to curate and match demand with supply for innovative solutions for the maritime industry in Singapore, home to over 5,000 firms.



MPA Initiatives



Call for Proposals (CFP)

We issue an annual CFP for specific technologies and opportunities. You could join other start-ups, research institutes and more to develop technology solutions together.



Maritime Innovation Process

Together with industry associations and key partners, we create a platform for maritime firms to work with different solver communities to tackle industry challenges.



Circle of Digital InnOvators (CDO) and Circle of Human Resource InnOvators (CHROs) Network

We work with CDOs from more than 50 maritime firms. This includes roadmap development, starting projects with solver communities, and working with CHROs to enable transformation from within.



Networking and Knowledge-sharing

We host technology conferences during the Singapore Maritime Week to bring together key industry decision makers from the maritime community, solver communities and government agencies. Leading industry technology adopters are also invited to share insights at our events.



Start-Up Accelerator Programmes

Incubators and accelerators provide useful networks and expertise.



Port Innovation Ecosystem Reimagined @ BLOCK71 (PIER71™)

Established by MPA and NUS Enterprise, the entrepreneurial arm of the National University of Singapore (NUS), PIER71™ is a catalyst for innovation in the maritime industry. It supports tech start-ups and entrepreneurs like you through initiatives such as an annual Smart Port Challenge, a specially curated and mentor-guided market validation and customer discovery programme, and other activities to uncover opportunities and accelerate ventures.

Eastern Pacific Shipping (EPS) — Techstars

Focused on green and technology-driven growth, it offers an intensive three-month mentorship-based programme, which includes a demo day to pitch to industry experts.

**Eastern Pacific
Accelerator
Powered by Techstars**



ONE
OCEAN NETWORK EXPRESS

Ocean of Opportunities (O3) Challenge

Backed by Ocean Network Express, the challenge offers mentorship, industry exposure, and a boot camp to work on a proof-of-concept with corporate partners.

PSA unboXed

Offers access to an extensive network of PSA expertise, resources and opportunities to unbox your ideas into a sustainable business with a go-to-market strategy.



RAINMAKING

Rainmaking Trade & Transport Programme

An innovation platform focusing on decarbonisation and supply chain resilience, that produces commercial partnerships. Start-ups work with corporate partners on pilot or venture plans.

“The Singapore MarineTech ecosystem has a very supportive and conducive environment for start-ups to grow their ideas into sustainable businesses. PSA unboXed is proud to be a go-to partner for ideation and industry validation, by offering trials for start-ups to testbed solutions on live port operations. We are excited to continue our dialogue with start-ups and other ecosystem players — to spark new innovations for the wider ports, maritime and supply chain industry.”

Mr Ong Kim Pong

Regional CEO of Southeast Asia, PSA International



For maritime companies interested to spin-off start-ups, **Startup SG Accelerator** can provide support on programmes and nurturing of start-ups.

Access to Capital

Government agencies and private sector partners have various channels to support your development. **Startup SG Tech** provides funding support for deep tech commercialisation.



Government Grants

Maritime Innovation & Technology (MINT) Fund – MINT-STARTUP

If you have completed PIER71™ or relevant local maritime acceleration programmes, you can apply for a grant of up to S\$100,000.

Start-ups can also benefit from other schemes under the MINT Fund as a collaborator.

Maritime Cluster Fund (MCF) – Productivity

Applicable for your customers, it aims to improve business productivity by enhancing processes and workflow or by developing and adopting technology.

Industry Digital Plan (IDP)

Applicable for your customers, it supports adoption of pre-approved digital solutions for the ship agency, harbour craft and bunkering sectors.



“In its ambitious trajectory to being THE maritime start-up capital of the world, Singapore has made tremendous strides as a magnet for capital, talent and activity. From regulatory sandboxes and accelerators to a fast-developing maritime VC scene, combined with core capabilities as a global hub port and international maritime stakeholders across the value chain, the MPA has orchestrated an environment for entrepreneurs to bring their ideas to life, to transform an industry that forms the backbone of global trade.”

Mr Nakul Malhotra

Vice President of Open Innovation, Wilhelmsen Ships Service



Maritime-Focused Venture Capital Funds

SEEDS Capital

In 2020, SEEDS Capital, the investment arm of Enterprise Singapore, appointed six co-investment partners to invest a total of S\$50 million into the MarineTech start-up industry.

SEEDS Capital Co-investment Partners

INNOPORT



RAINMAKING



Other Maritime-Focused Venture Capital Funds



Access to Talent

The right talent is critical to the success of any start-up. Whether attracting new talent or developing the talent that you have, here are some resources from various government agencies that could help:



MCF-Manpower Development by MPA

This scheme is available for the development of manpower and training in the maritime industry. You can upgrade your expertise through attending our approved training programmes, external or in-house.



TechSkills Accelerator (TeSA) by IMDA, WSG, SSG

Offers programmes to professionals to obtain information and communications technology (ICT) skills and knowledge.



Tech.Pass by EDB

Visa for established tech entrepreneurs, leaders or technical experts to undertake frontier and disruptive innovations in Singapore.



Tech@SG by EDB and ESG

Visa facilitation programme for companies to access talent to establish their core teams in Singapore and capture opportunities here and in the region.



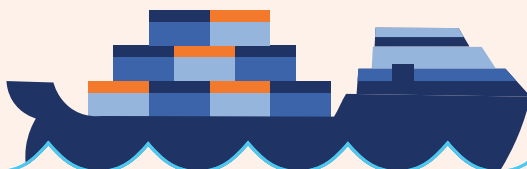
Startup SG Founder by ESG

Provides mentorship and capital support for first-time entrepreneurs.



Startup SG Talent by ESG

Schemes to support talent sourcing and international entrepreneurs.



IMDA = Infocomm Media Development Authority
WSG = Workforce Singapore
SSG = SkillsFuture Singapore
EDB = Economic Development Board
ESG = Enterprise Singapore

If you need help on hiring in Singapore, **EDB's 2021 Talent Guide** provides a useful source of information!

Access to Tech and Test-Beds

To move your product from a prototype stage to being truly commercially-ready, test-bedding is essential in fine-tuning your product. Start-ups could leverage existing patents and intellectual property, collaborate on similar research and development (R&D) projects and tap the **Singapore Maritime Institute's** various R&D strengthening programmes. In addition, you can tap into the expertise of our Singapore Maritime Research Centres of Excellence (COE) and MPA's test-bedding infrastructure.



Maritime Research Centres of Excellence

COE in Modelling and Simulation for Next Generation Ports (C4NGP) @ NUS

Aimed at modelling and simulation of next generation ports and systems.

COE for Maritime Energy & Sustainable Development (MESD) @ NTU

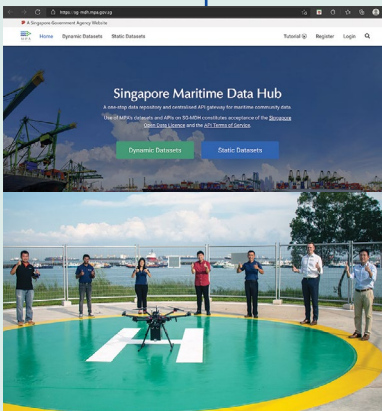
Focuses on development of innovative & sustainable solutions.

COE for Autonomous & Remotely Operated Vessels (CEAOPS) @ TCOMS

Specialises in autonomous surface ships, remotely operated vessels and those equipped with smart systems.

COE for Maritime Safety (CEMS) @ SP

Advances development of new systems to improve overall navigational and operational safety.



Maritime Living Lab

Maritime Data Hub

A one-stop data repository for the development and test-bedding of new digital applications and services for the maritime industry.

Maritime Drone Estate

A 5G-enabled test-bed for drone technologies. It serves maritime applications such as shore-to-ship deliveries and remote ship inspections.

Maritime Innovation Lab

Facilities in actual environment and regulatory support for experimentation and test-bedding of innovative port services and intelligent ship operations.

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If you have any further questions, please contact mint@mpa.gov.sg.