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PIER71™ Smart Port Challenge 2025 Launches with Expanded Global Outreach
More than S$130 million raised in venture funding since 2018

The Maritime and Port Authority of Singapore (MPA) and NUS Enterprise, the entrepreneurial arm of National University of Singapore (NUS), jointly launched the 9th edition of the PIER71™ Smart Port Challenge (SPC) 2025 today. This global competition invites startups to develop innovative solutions addressing challenges in the maritime industry.

2. SPC2025 was officially launched by Mr Teo Eng Dih, MPA Chief Executive, Dr Tan Sian Wee, NUS Senior Vice President (Innovation & Enterprise), and supporting partner Plug and Play, represented by Mr Jupe Tan, Managing Partner APAC, at Echelon 2025 – Asia's premier tech and startup conference. The PIER71™ event drew over 200 international startups, venture capitalists, and maritime partners. The opening ceremony also featured a panel discussion *"Scaling Smart: Maritime Startups, Strategic Capital, and Global Growth",* which provided valuable insights for startups navigating today's complex investment landscape. Please refer to Annex A for the SPC2025 launch programme.

Applications Open for PIER71™ SPC2025: Global Roadshows

3. To broaden its global outreach, PIER71™ will conduct 15 roadshows across 13 cities[1] in June, in partnership with its global innovation network. Locations include the United States, Europe, South Korea, China, and India. This will be the first time roadshows are held in Los Angeles and Boston (US), Germany, the United Kingdom, and the Netherlands, as well as in China and India.

4. SPC 2025 features 15 challenge statements spanning four focus areas: Maritime Green Technologies, Smart Shipping, Next-Generation Ports, and Digitalisation (see Annex B), supported by over 20 innovation partners[2]. Shortlisted startups will participate in a 10-week SPC Accelerate programme, which now offers a more targeted mentorship structure.

[1] PIER71™ Smart Port Challenge in-person roadshows scheduled in June across 13 cities – China (Guangzhou, Shenzhen), Europe (Hamburg, London, Rotterdam), South Korea (Busan, Seoul), India (Chennai, Mumbai), Singapore, and the United States (Boston, Los Angeles, San Francisco).
[2] Innovation partners sponsoring the SPC2025 challenge statements include American Bureau of Shipping (ABS), AL Group, BW Epic Kosan, CMA CGM, Columbia Group, Det Norske Veritas (DNV), Equatorial Marine Fuel Management Services, Golden Ocean, Inchcape Shipping Service, Jurong Port, LR OneOcean, Marina Offshore, Mitsui O.S.K. Lines (MOL) Asia Oceania, NCS, Orient Maritime Group, Pacific International Lines (PIL), PSA Singapore, PSA Ventures, RightShip, RINA, SeaTech Solutions International (SSI) Singapore, Teekay, Wilhelmsen Ships Service, ZEBOX.

Participating startups will receive tailored guidance, hands-on workshops, and opportunities for market validation based on their specific stage of development.

5. Upon completion of the programme, participants may apply for support from MPA's Maritime Innovation and Technology (MINT) Fund for proof-of-concept, pilot projects, and product development. The top startups will be awarded cash prizes at the SPC2025 Great Circle finals in November 2025. Startups can submit their proposals at https://pier71.sg by 11 July 2025.

66 Grant Recipients, S$130M Raised, 27 Solutions Deployed to Date

6. Five maritime technology (MarineTech) startups from SPC2024 were supported, bringing the total number of grant recipients to 66, with over 27 innovative technologies already deployed in the maritime industry following successful trials. The latest round of startup grant recipients will support the development of a virtual fuel sensor (VFS), an intelligent document processing (IDP) platform for maritime documentation, an AI/ML platform to optimise commercial operations, and trials of next-generation batteries for maritime applications, including sodium-ion and lithium-sulphur solutions. Please see Annex C for information on the five startups.

7. Since its inception in 2018, PIER71™ has supported close to 150 startups, which have collectively raised more than S$130 million in venture capital. In 2025 alone, four alumni – Seadronix, Clear Robotics, STAX Engineering, and Groundup.ai – secured a combined total of S$34 million in investment funding. Seadronix raised S$15 million in Series B funding – the largest amount raised by any PIER71™ startup to date – to expand global deployment of its AI-powered autonomous ship navigation technology.

8. Mr Teo Eng Dih, MPA's Chief Executive, said, "The Smart Port Challenge is a valuable platform to advance innovations for the maritime sector bringing new ideas and solutions for development leading to industry pilots. The engagement and exchange of insights between industry and startups in tackling real-world problem statements strengthens Singapore's maritime innovation ecosystem and helps accelerate the development of practical solutions. We look forward to the innovative solutions that will emerge from SPC 2025."

9. Dr Tan Sian Wee, Senior Vice President (Innovation & Enterprise), NUS, said, "The future of maritime innovation is anchored in global connectivity, convergence, and ever-deeper industry integration. Since its launch in 2018, PIER71 has catalysed more than 110 innovation opportunities in partnership with over 60 leading maritime corporates. With Singapore recognised as the world's top maritime centre for the 11th consecutive year, our innovation ecosystem is poised to make a global impact. By joining forces with industry stakeholders across the ecosystem, we are building a resilient and sustainable maritime future—one that is innovative, collaborative, and ready to navigate the challenges and opportunities of tomorrow."

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About PIER71™

Founded by the Maritime and Port Authority of Singapore (MPA) and the National University of Singapore (NUS), through its entrepreneurial arm NUS Enterprise, PIER71™ (Port Innovation Ecosystem Reimagined at BLOCK71) aims to grow Singapore's maritime innovation ecosystem. PIER71™ boosts innovation in the maritime and maritime-related industries by attracting talents, creating opportunities for the exchange of knowledge and ideas, attracting investments into startups and accelerating ventures.

PIER71™ designs and delivers programmes to uncover opportunities within the industry and supports entrepreneurs from ideation to acceleration of their ventures. PIER71™ provides access to various markets, demand drivers, technology solution providers, investors and more. PIER71™ also represents a budding and increasingly vibrant ecosystem of stakeholders who are keen to digitalise and create the next wave of maritime innovation.

For more information, please visit https://pier71.sg

About Maritime and Port Authority of Singapore (MPA)

MPA was established on 2 February 1996 with the mission to develop Singapore as a premier global hub port and international maritime centre, and to advance and safeguard Singapore's strategic maritime interests. MPA is the driving force behind Singapore's maritime and port development, taking on the roles of maritime and port regulator and planner, international maritime centre champion, national maritime representative, and a champion of digitalisation and decarbonisation efforts at regional and international fora such as at the International Maritime Organization and the International Organization for Marine Aids to Navigation. MPA partners industry, research community and other agencies to enhance safety, security, and environmental protection, facilitate maritime and port operations and growth, expand multi-domain capabilities, and support the cluster of maritime ancillary services and manpower development. MPA is responsible for the overall development and growth of the maritime multi-domain and the Port of Singapore.

For more information, please visit www.mpa.gov.sg

About National University of Singapore (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 16 colleges, faculties and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established more than 20 NUS Overseas Colleges entrepreneurial hubs around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, research centres of excellence, corporate labs and more than 30 university-level research institutes focus on

themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

For more information on NUS, please visit www.nus.edu.sg.

About NUS Enterprise

NUS Enterprise, the entrepreneurial arm of the National University of Singapore (NUS), plays a pivotal role in advancing innovation and entrepreneurship at NUS and beyond. We actively promote entrepreneurship and cultivate global mind-sets and talents through the synergies of experiential learning, active industry partnerships, holistic entrepreneurship support and catalytic entrepreneurship outreach. Our initiatives and global connections support a range of entrepreneurial journeys and foster ecosystem building in new markets. We provide expertise and connections to create successful spin-offs and translate innovations into the marketplace through industry collaboration. These initiatives augment and complement the University's academic programmes and act as a unique bridge to industries well beyond Singapore's shores.

For more information, please visit https://enterprise.nus.edu.sg.

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Annex A: Smart Port Challenge 2025 Launch Programme

Time	Programme Outline
11:30am – 11:40am	**Opening Remarks by Mr Teo Eng Dih, Chief Executive, MPA**
11:40am – 11:45am	**Launch of Smart Port Challenge 2025 by:** 1. Mr Teo Eng Dih, Chief Executive, MPA 2. Mr Tan Sian Wee, Senior Vice President (Innovation & Enterprise), National University of Singapore 3. Mr Jupe Tan, Managing Partner APAC, Plug and Play Singapore
11:45am – 11:55am	**PIER71 and Smart Port Challenge 2025 Innovation Opportunities** Mr Ian Ho, Senior Manager, Maritime Innovation Ecosystem, MPA **Description:** Introduction to PIER71 Smart Port Challenge 2025, showcasing key opportunities in the call for innovative solutions for the maritime industry.
11:55am – 12:20pm	**Panel Discussion – Scaling Smart: Maritime Startups, Strategic Capital & Global Growth** **Moderator: Dr. Akanksha Batura Pai**, Executive Director, Sinoda Shipping Agency **Panelists:** • **Ms. Tan Xin Hui**, General Partner, Paragon Ventures • **Mr. Leon Lim,** CEO & Founder, Groundup.ai • **Ms. Nidhi Gupta,** CEO & Founder, Portcast **Description:** Panel Discussion on scaling startups and unlocking investment opportunities in the maritime sector. Startups and VCs will share their insights and perspectives on successful fundraising, scaling strategies in Singapore as a strategic maritime innovation hub
12:20pm – 12:30pm	**Closing Remarks by Dr Tan Sian Wee, Senior Vice President (Innovation & Enterprise), NUS**

Annex B: Smart Port Challenge 2025 Challenge Statements

Digitalisation	
1	How might we minimise personnel risk during onboard inspections in hazardous, confined, or structurally unsafe environments?
2	How might we enable shipping companies to meet cybersecurity regulations and standards, secure operational systems, and empower crew to better manage cybersecurity risks and incidents?
3	How might we develop lightweight, scalable, and network-agnostic solutions to remotely monitor and detect cybersecurity anomalies, vulnerabilities, events or incidents?
Maritime Green Technologies	
4	How might we develop an effective system for collecting, cleaning, and recycling ship waste or garbage (e.g. used cotton gloves, rugs, and mooring ropes)?
Smart Shipping	
5	How might we enable pervasive, high-bandwidth connectivity for maritime vessels, particularly in steel-enclosed zones (e.g. engine, cargo control crew rooms) to enable smart ship operations and digital services?
6	How might we leverage digital tools to achieve near real-time insights, predictive optimisation, regulatory compliance, and empower ship operators to enhance energy efficiency, without requiring major operational disruptions or high capital investment?
7	How might we design flexible, scalable and engaging crew training solutions that empower seafarers with varying skills and languages to adopt energy-efficient practices and be confident with digital tools on ships?
8	How might we create a safer pilot/crew transfer solution that reduces reliance on ladders and minimises climbing-related risks?
9	How might we improve situational awareness on and around ships, to enhance safety and security of ship voyage and operations in port?
10	How might we reduce human error at sea by unlocking real-time insights into crew behaviour, competence, and potential health risk beyond periodic training or testing, and support necessary intervention?
Next Generation Ports	
11	How might we develop operationally safe and environmentally friendly hull cleaning and biofouling management solutions for vessels in the Port of Singapore, minimising operational downtime, reducing costs, and addressing the challenges of waste collection, disposal and recycling?
12	How might we make cargo hold cleaning or discharge on bulk carriers safer and more efficient?
13	How might port service providers collect and manage garbage from vessels efficiently and cost effectively while overcoming the current challenges of high manpower, expense, and low efficiency?
14	How might we help the first responders develop more efficient and lightweight oil and chemical spill detection solutions that can be easily deployed, operate reliably in Singapore's tropical maritime port water conditions, and provide timely actionable information for incident response teams?
15	How might we enable faster validation and testing of new automation/robotic solutions for stevedoring operations while reducing the need for extensive physical prototyping and field testing?

Annex C: Recipients of Maritime Innovation and Technology (MINT) Grant

S/n	Startup	Industry Partner(s)	Project Title	Project Description
1	Cetasol Pte Ltd Ethan Faghani CEO Ethan.faghani@cetasol.com	PSA Marine	Development of Virtual Fuel Sensor for Marine Segment in Singapore	Development to enhance CetaFuel, a Virtual Flow Sensor (VFS) prototype designed for real-time fuel consumption monitoring in maritime vessels. This testbed will validate its accuracy, adaptability and reliability across diverse operational conditions.
2	Mely.ai Pte Ltd Edward Ko CEO Edward.ko@mely.ai	Crimson Logic, Freight Links, PSA International	Accelerating Supply Chain Digitalisation	Intelligent Document Processing (IDP) platform powered by AI/ML to improve data extraction from Bills of Lading and invoices, reducing errors, mitigating compliance risks.
3	Nexus Ocean AI Pte Ltd Shail Barthwal CEO Shailbarthwal@nexusoceanai.com	Pacific International Lines (PIL)	Commercial Maritime AI Operator	Integrating AI-augmented solutions to enhance operational efficiency targeting maritime commercial operations firms to reduce paperwork, email management and improve data access.
4	SgNaPlus Pte Ltd Brandon Lee CEO and Cofounder Brandon.lee@sgnaplus.com	Gennal engineering	World's first safe and sustainable Sodium ion battery for maritime use	Validating the safe use of sodium ion battery in the maritime space, addressing the need for a low-cost maritime energy storage and safe battery solution.
5	ThioSpark Energy Pte Ltd Dr R Prasada Rao CEO Dr.prasadarao@thiospark.com	Midwest, Seaforrest	Prototype Lithium Sulphur batteries for Maritime applications	Solid-state lithium-sulphur battery technology offering greater safety and energy density, demonstrating potential application in batteries for harbourcraft.