



JOINT MEDIA RELEASE

Singapore, 30 May 2024 | For Immediate Release

Smart Port Challenge 2024 Expanding Reach Globally

The Maritime and Port Authority of Singapore (MPA) and NUS Enterprise, the entrepreneurial arm of the National University of Singapore (NUS), launched the Smart Port Challenge (SPC) 2024 today. The annual event to attract start-ups with innovative technology-driven solutions to help address the industry's key challenges, was held during the InnovFest x Elevating Founders 2024, the official start-up event of Asia Tech x Singapore.

2. Dr Amy Khor, Senior Minister of State, Ministry of Transport and Ministry of Sustainability and the Environment launched SPC24 at the event attended by more than 200 international start-ups, venture capitalists, corporations, and participants. Please refer to [Annex A](#) for the SPC2024 launch programme.

3. Organised by PIER71™¹, SPC2024 will for the first time concurrently launch in Singapore and several overseas partner markets. PIER71™ will leverage the extensive network of BLOCK71 and MPA's new regional offices and organise six international roadshows in key maritime hubs across Asia, Europe, and North America in June 2024, to attract a wider audience of global start-ups, innovators, and venture capitalists to participate in SPC. Apart from forging new networks and partnerships, the roadshows aim to create greater awareness of the vibrant technology and innovation ecosystem, and investment opportunities in Singapore. PIER71™ also hopes to encourage overseas start-ups to incubate and develop their cutting-edge technologies and solutions in Singapore.

Launch of Smart Port Challenge 2024

4. SPC2024 unveiled 14 challenge statements focusing on four key areas: maritime green technologies; smart shipping; next generation ports; and digitalisation, which includes artificial intelligence, cybersecurity and cloud technologies. These

¹ Port Innovation Ecosystem Reimagined @ BLOCK 71 (PIER71™) was jointly established by MPA and NUS Enterprise to grow Singapore's maritime innovation ecosystem.

challenge statements reflect the key issues facing the global maritime industry and the diverse opportunities that start-ups can participate in to shape its future. Please refer to Annex B for the challenge statements.

5. Shortlisted start-ups will undergo a 12-week PIER71™ Accelerate programme and may be eligible for MPA Maritime Innovation and Technology (MINT) grant funding of up to S\$100,000 for proof-of-concept or pilot projects, and up to S\$250,000 for new product development. They will also receive support through PIER71™'s global network of partners. The top three winners for SPC2024 will be awarded with cash prizes at the finals in November 2024. Start-ups interested in participating in SPC2024 can find more information and submit proposals through PIER71™'s website at <https://pier71.sg>. The deadline for submission is 8 July 2024.

Five Start-ups Awarded MINT Grants

6. At the event, MPA awarded five outstanding maritime technology (MarineTech) start-ups which participated in SPC2023, with grants totalling S\$250,000 from the Maritime Innovation and Technology (MINT) Fund. The number of start-ups under PIER71™ has grown from 17 in 2018 when PIER71™ was launched, to more than 100 today. MPA will continue to work with its partners to reach the goal of 150 MarineTech start-ups in Singapore by 2025.

7. The grants will support the five start-ups in developing prototypes and solutions, including a platform for optimisation, evaluation and verification of biofuel blends, a mobile platform for real-time vessel activity monitoring in port, a cybersecurity solution for networks on board a vessel, a digital tool for enhanced ship inspection and auditing, and a digital twin for container depot operations. Please refer to Annex C for information on the five start-ups.

Quotes by MPA and NUS

8. Mr Kenneth Lim, MPA's Assistant Chief Executive (Industry & Transformation), said, "The PIER71™ Smart Port Challenge continued to be a relevant platform for innovation in the maritime sector. By attracting diverse solutions from start-ups, SPC promotes innovation and helps accelerate the development of cutting-edge technologies through collaboration with the industry. I am excited about the international roadshows for SPC2024 and look forward seeing more novel solutions to address the industry's challenges."

9. Professor Chen Tsuhan, NUS Deputy President (Innovation and Enterprise), said, "Our collaboration with MPA will further broaden the impact within the growing maritime innovation ecosystem in Singapore and beyond. By leveraging NUS' robust resources and talent, along with our extensive global BLOCK71 network, we are committed to nurturing an environment that supports start-ups and innovators from all

over the world, whether they are establishing themselves in Singapore or expanding overseas. With the support of MPA's regional directors worldwide, this partnership extends valuable resources and growth opportunities to maritime talents and start-ups, driving innovation and leaving a lasting impact on the maritime industry.”

– End of release –

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 start-ups 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 port and maritime development, taking on the roles of port authority, 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. MPA partners industry, research community and other agencies to enhance safety, security and environmental protection in our waters, facilitate maritime and port operations and growth, expand the cluster of maritime ancillary services, and develops maritime digitalisation and decarbonisation policies and plans, R&D and manpower development. MPA is responsible for the overall development and growth of the maritime domain and Port of Singapore. In 2023, Singapore's annual vessel arrival tonnage crossed 3 billion Gross Tonnage and remains the world's busiest transshipment hub, with a total container throughput of 39.0 million 20-foot equivalent units (TEUs).

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: Launch of Smart Port Challenge 2024 Programme

Time	Programme
10:00 am	Doors Open Obtain badges at Registration <i>(Media to be seated at Innovfest stage by 10:20am)</i>
10:30 am	Welcome Remarks by Guest-of-Honour Dr Amy Khor Senior Minister of State Ministry of Transport and Ministry of Sustainability and the Environment
	Smart Port Challenge Launch by Dr Amy Khor, accompanied by <ol style="list-style-type: none"> 1. Ng Yi Han, Director (Innovation, Technology & Talent Development), MPA 2. Thomas Ting, Director (Technology & Innovation), MPA 3. Prof Chen Tshuan, Deputy President (Innovation and Enterprise), NUS 4. Prof Benjamin Tee, Vice President (NUS Enterprise, Ecosystem Building), NUS <p>MPA Regional Directors will do a live dial-in and share about their scope of support and geographical coverage to support PIER71™'s international outreach efforts:</p> <ol style="list-style-type: none"> 1. Desmond Tay, Americas 2. Loh Sin Yee, Europe 3. Chong Lee Fee, China 4. Samuel Soo, Japan & Korea
10:50 am	Keynote Speech by Ann Carpenter, CEO and Co-Founder Braid Theory <i>Title: Embracing Transformative Change</i> <p>Ann Carpenter is dedicated to fostering the global blue economy entrepreneur ecosystem. As CEO of Braid Theory based in San Francisco, USA, Ann is responsible for strategic partnerships worldwide. She also advises startups in ocean/maritime, energy, and blue biotech. Braid Theory, a venture advisory firm, provides end-to-end services to support early-stage science and engineering-led companies. Additionally, Ann is a Managing Partner of Portugal-based incubator, Innofuse Blue. She serves on the boards of Smart Freight Centre, Ocean Exchange, and Ocean Community.</p>
11:05 am	Smart Port Challenge 2024 Challenge Statements unveiled

11:15 am	<p>Panel Discussion on Navigating innovation: Global collaboration and Maritime Opportunities</p> <p>Description: As the maritime startup ecosystem thrives globally, from hubs in Singapore, Europe, the United States, to emerging centers in South America, fostering cross-border collaboration becomes increasingly imperative. Join us for a captivating panel discussion as we explore the challenges and opportunities confronting maritime startups on their journey to global success. In a landscape where sustainability and innovation reign supreme, the urgency of cross-border collaboration cannot be overstated. Embark with us as we navigate the complexities of global maritime opportunities and shared challenges, charting a course toward a more sustainable and prosperous future for the entire maritime community.</p> <p>Moderator: Calvin Chu, Eden Strategy Institute</p> <ol style="list-style-type: none"> 1. Ms. Ann Lee Carpenter, CEO, Braid Theory 2. Ms. Miho Kurosaki, Vice President, Asia Pacific, Energy Impact Partners 3. Mr. Collin Ng, Chief Technology Officer, Equatorial Marine Fuels Management 4. Dr. Hanson Lee, CEO, Green COP
12:00 pm	End of Stage event

Annex B: Smart Port Challenge 2024 Challenge Statements

Maritime Green Technologies	
1	Managing ammonia risk
2	Improving crew safety in handling methanol as a fuel
3	Enhancing charging and battery performance
4	Developing next generation wind assist technology to improve fuel efficiency
Smart Shipping	
5	Strengthening situational awareness
6	Securing critical business data
7	Man overboard in port waters
8	Shipboard sensor kit for harbour craft
Next Generation Ports	
9	Enhancing connectivity for digital port services
10	Improving autonomous truck performance
11	Building a circular ecosystem
12	Remote pilotage
Digitalisation (Artificial Intelligence, Cybersecurity, Cloud)	
13	Building maritime cybersecurity resilience
14	Improving charging optimisation using predictive modelling

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

S/N	Start-up	Industry Partner(s)	Project Title	Project Description
1	<p>3Y Energy Pte Ltd</p> <p>Mr. Zong Yichen, CEO Mob: 8291 4588 mpezong@nus.edu.sg</p>	PS Energy Group	Developing an integrated platform for the evaluation, verification and optimisation of biofuel blends	To develop a comprehensive biofuel testbed on the performance and emission in real engine that can accommodate the wide compositional spectrum of biofuels. This testbed allows comprehensive testing of biofuel blends under realistic conditions, optimizing engine parameters for efficiency, emissions reduction, and safety.
2	<p>Logipeace</p> <p>Ms. Tomoko Kamiya, CEO Mob: 9482 1463 tomoko.kamiya@logipeace.com</p>	FourPride, Jurong Port	Streamline Communication and Have Real-Time Operational Overview of Vessel Activities in Port	To develop a mobile platform to provide real-time operational updates and integrate real-time data from digital and analogue sources, to provide an overview of vessel activities in port
3	<p>MicroSec Pte Ltd</p> <p>Andrew Woo Schill, Head of Growth Mob: 9735 2692 andrew@usec.io</p>	Pacific Carriers Limited	Maritime Edge of OT Security and Cyber Compliance for In-Vessel Networks	A cybersecurity operational technology solution for in-vessel networks, to provide comprehensive visualisation of all cyber-related assets on each vessel, ensure alignment with regulatory requirements, and conduct risk assessment.

S/N	Start-up	Industry Partner(s)	Project Title	Project Description
4	<p>Nautisense</p> <p>Preeti Prabhu, CTO Mob: 96577680 preeti.prabhu@nautisense.tech</p>	<p>Studio 30 50, BW Group</p>	<p>Improving on-site ship inspection and auditing process</p>	<p>A digital tool to improve on-site ship inspection and auditing processes, by streamlining information, digitising tools, providing contextualisation, instant report generation, and automation and integration.</p>
5	<p>Sealor Tech Pte Ltd</p> <p>Steve Yeo, CEO Mob: 9818 9561 steveyeo@nus.edu.sg</p>	<p>Eng Kong Holdings Limited</p>	<p>Digital Twin for Container Depot</p>	<p>A digital twin for container depot operations, encompassing digital twin prototype, artificial intelligence, and computer vision technologies.</p>

Translations

Maritime and Port Authority of Singapore (MPA)	新加坡海事及港务管理局
National University of Singapore (NUS)	新加坡国立大学
NUS Enterprise	国大企业机构
Smart Port Challenge	智慧港挑战
PIER71™ (Port Innovation Ecosystem Reimagined @ Block 71)	PIER71™计划
Maritime Innovation & Technology (MINT) Fund	海事创新与科技基金
Mr Kenneth Lim Assistant Chief Executive (Industry & Transformation) Maritime and Port Authority of Singapore	林勤成 副局长（产业与转型） 新加坡海事及港务管理局
Professor Chen Tsuhan, Deputy President (Innovation and Enterprise) National University of Singapore	陈祖翰教授 常务副校长（创新与企业） 新加坡国立大学