

CALL FOR JOINT INDUSTRY PROJECTS TO BUILD A RESILIENT AND COMPETITIVE MARITIME SECTOR POST COVID-19

Background

MPA and SSA have launched an open call for Joint/Collaborative Industry Projects (JIP) to encourage our technology community, maritime stakeholders and adjacent sectors to forge innovation partnerships to address the challenges & opportunities as a result of COVID-19 on disrupted global supply chain, affected services and operating models within the maritime sub-sectors, and submit innovation proposals.

Desired Outcomes

The project must address the objective of this call to build a resilient and competitive maritime sector or sub-sectors (i.e. port, harbour craft community, shipping and maritime services), and build new/enhanced industry capabilities. It should include measurable outcomes in terms of enhanced safety, productivity and cost saving, and qualitative benefits in terms of enhanced workforce resilience, operations resilience and customer services resilience.

Scope of Collaboration

We like to invite interested technology developers in collaboration with maritime stakeholders to submit proposals and lead the JIP execution. The potential topics for JIP are given in Annex A, but the applicant is free to propose any innovation project that will contribute to the objective stated above. These could also include the use of technologies such as AI, cloud, robotics, wearables and smart/remote technology to minimise human contacts. The lead applicant should engage relevant industry stakeholders to validate its idea/proposal and solicit participations and contributions from at least two (2) JIP members in the submission.

MINT Fund Criteria and Funding Support

The Maritime Innovation & Technology (MINT) Fund will provide funding support level of up to 50% or (for impactful projects) up to 70% of the qualifying project costs.

The MINT Fund's eligibility and evaluation criteria can be found on MPA website (<https://www.mpa.gov.sg/web/portal/home/maritime-companies/research-development/Funding-Schemes/mint-fund-criteria>)

and the application form is given in this link:

<https://www.mpa.gov.sg/web/portal/home/maritime-companies/research-development/call-for-proposals/CFP2020>)

Timeline

Application Start: 25 May 2020

Application Deadline: 10 July 2020

Expected Project Commencement: 1 September 2020

Expected Start of Trial: 1Q 2021

POTENTIAL TOPICS FOR JOINT INDUSTRY PROJECTS

JIP #1: Tele-consultation and medication for seafarers

Industry Problem/Opportunity:

Currently, seafarers may not have access to quality and cost-effective medical services (doctor, medicine, and medical equipment) when working on long voyages. While captains and first officers are trained to provide basic medical care, they will have to communicate with a doctor on shore over phone/emails for more complex cases and may not have the most suitable medical supplies. The access to quality consultation and diagnostic, and timely delivery of medication is an industry problem. Due to heightened restrictions, the cost and time to obtain “fit to travel” certificate are also substantial. We can aspire to be a maritime hub for digital medical services for seafarers.

Potential Scope:

Collaboration among medical technology provider(s), medical service providers, ship supplies logistics companies and shipping companies to pilot a project on cost-effective and high-quality tele-consultation with video augmented by vital signs measurement and delivery of medications when the ship calls at the Port of Singapore. For future development, the project can also explore how rapid test kits (screening and/or confirmation), when mandated by public health authorities, could help shipping companies to ensure health of the crew (i.e. fit to travel/work) before embarkation/diseembarkation.

Expected Outcomes & Benefits:

- a. Efficient and cost-effective digital medical services, certification and delivery of medical supplies from Singapore.
- b. Singapore is reputed as a maritime nation that cares for seafarers' wellbeing and strives to provide better services.

Estimated Timeline:

6 months

JIP #2: Enhanced customer services and minimal touchpoints at our piers

Industry Problem/Opportunity:

Currently, there are over 20 passenger launch operators and counter services at Marina South Pier (MCP) and Westcoast Pier (WCP) serving the community (B2B and B2C) that provide crucial services to calling ships, such as shipping agents, crew change, ship supplies, ship inspections and bunker surveyors. Pre-Covid-19, the passenger launch sector handled hundreds of transactions a day and these transactions still require a lot of human to human interactions in the booking, scheduling/confirmation, storing/retrieval of items, and payment processes at the human counters. While there have been existing efforts to digitalise/automate the services at the piers, most counter services are still manual. It is an opportunity to enhance/automated the pier services and increase their resilience to disruption.

Potential Scope:

Collaboration among harbour craft technology provider(s), launch boat operators and shipping companies/agents to pilot a project to automate and digitalise processes of the launch services.

- a. Open platform development to enable any solutions/systems from the launch operators to interoperate on mobile devices or kiosks (i.e. not another launch booking system).
- b. Universal display panel(s) at the pier for information on arrival/departure time and other information about the launch services.
- c. Any other relevant services which is/are agnostic to any solution providers or launch operators.

Expected Outcomes & Benefits:

- a. More efficient launch services of the piers translate to better port services in Singapore whether crew changes, ship supplies, bunkering, agents and others.
- b. Improve productivity and lower manpower cost for launch operators.
- c. Accelerate digitalisation, preserving and enhancing value in the sector.

Estimated Timeline:

6 months

JIP #3: Solutions and standards development for remote ship inspection and survey

Industry Problem/Opportunity:

The ability to perform various surveys, inspections and audits remotely. Class Societies, service engineers and ship superintendents are practically cut off from boarding vessels and carrying out their traditional duties during the limitations imposed by the Covid-19 lockdowns across the globe. The response has largely been to defer these activities, which introduces two major risks:

- (a) Key observations are not made timely, which could compromise equipment, machinery or processes to an extent that raises risks on board.
- (b) If activities are only deferred, the industry risks an insurmountable aggregation of tasks that cannot practically be carried out once normal operation is resumed.

Potential Scope:

While different short-term means are required to address this challenge, the opportunity from a technology-driven point of view could be to generate technology standard for hardware and supporting software to capture activities on board (e.g. wearable cameras and voice recording devices) and provide augmented reality aided information from shore to ship within the same physical platform. This could be combined with a standard reporting platform that can be used on any vessel for any activities whether related to audits, class surveys, navigation & communication equipment inspections or the like.

Today vessel owners find many proprietary approaches and solutions proposed by different service providers. It is too costly to embrace more than one solution and impossible to integrate with the ERP owned by ship operators if more than one solution is to be adopted. An open and standard approach regardless of the work tasks would have significant industry value across the ecosystem.

Expected Outcomes & Benefits:

- a. Improve productivity, lower costs and reduce physical exposure for ship inspections, surveys, audits and troubleshooting.
- b. Potential to set equipment standards for remote ship inspections and surveys.

Estimated Timeline:

Nil