

Bunker Industry Digitalisation Plan

Industry Briefing Deck

Official (open)

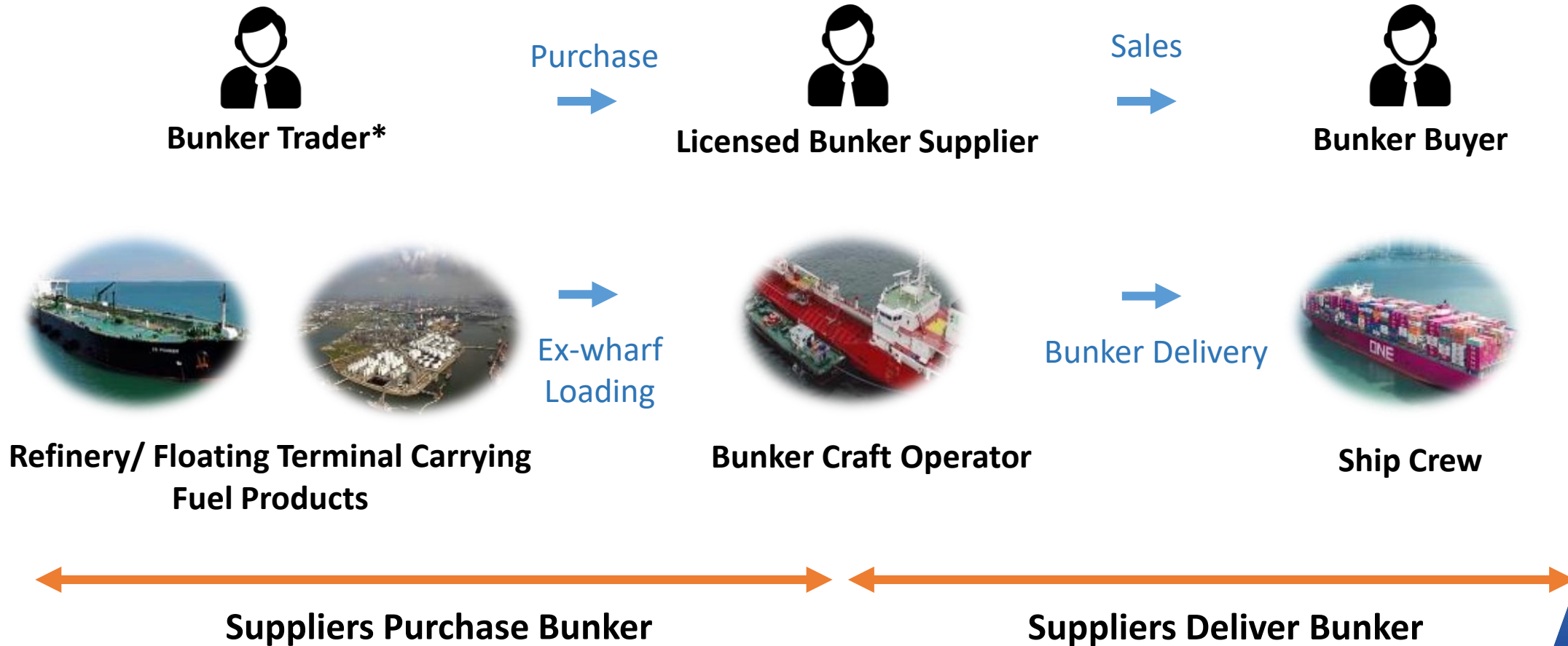
Objectives

- a. Accelerate digitalisation of Singapore's bunkering operations
- b. Build industry confidence and wider acceptance of electronic processes and documentations for bunkering in Singapore

Scope

- a. B2B – industry to develop and test their commercial as well as operations solutions that enhance services, operations efficiency and transparency, end-to-end from oil terminals to receiving ships
- b. B2G – industry to develop and test their existing secured systems (e.g. MFM system) for submission of bunker and event data to MPA via **digitalBunker@SG**
- c. Development of new hardware – industry to develop new hardware to enable automated and secured data transmission from MFM systems to MPA

Workflow, Industry Value Chain and Key Stakeholders



*Consists of international traders and MPA-licensed bunker suppliers

Pain Points to be addressed under Bunker Digitalisation CFP (in bold)

S/N	Pain Points	Approach
A	Sales Contracts are not standardised and digitised (delivery)	<ul style="list-style-type: none"> Industry TBD
B	Purchase Contracts not digitised (ex-wharf flow)	<ul style="list-style-type: none"> Industry TBD
C*	Banks lacked ability to check authenticity of document, e.g. bunker BL/ CQ covered under Letter of Credit	<ul style="list-style-type: none"> Existing work under AFA Call for JIP to develop & pilot solutions for B2B purposes
D	Risk of duplicate financing of customer draw down of Letter of Credit	<ul style="list-style-type: none"> Existing work under AFA and TFR
E*	Frequent changes to barge bunkering and loading schedule	<ul style="list-style-type: none"> Call for JIP to develop & pilot solutions for B2B purposes

S/N	Pain Points	Approach
F	Inconsistent practices in issuance of Bill of Lading	<ul style="list-style-type: none"> Industry TBD
G	Industry standards at loading side lacked enforcement	<ul style="list-style-type: none"> To promote the adoption of SS600, Code of Practise for Bunkering, at terminals
H*	BDN and 12 other ops-related documents not digitised	<ul style="list-style-type: none"> Call for JIP to develop & pilot solutions for B2B purposes
I*	Regulatory reporting is only available via data entry on portal	<ul style="list-style-type: none"> Call for JIP to develop & pilot solutions for B2G purposes MPA's digitalBunker@SG to enable automated regulatory reporting
J	Onerous checks on BDN traceability	<ul style="list-style-type: none"> Industry TBD

Three Development Scope – A, B and C

A. B2B: Industry applications and digital solutions to be developed

Examples of applications & solutions to be developed



Digital Documents, Certificates, Signature



Analysis Of MFM Profiles For Anomaly Detection



Optimisation of Terminal and Barge Scheduling & Utilisation



Quantity to be confirmed by cargo officer and ship crew (and bunker surveyor if engaged)

Bunker Supplier's System



(Testing with Common Data Infrastructure)

B. B2G: Automated data submission to MPA regulatory system



MPA server to receive Bunker & Event data

C. Development of Hardware: Industry hardware and software development for industry to submit data directly, securely to MPA and stakeholders

Transmitter to enable digital submission for every bunker operation

Bunkering data sent to customers & stakeholders



Bunkering data sent directly to MPA

Bunker Data from MFM systems



Data Logger



Mass Flow Meter

Event Data from industry applications

AIS



Other data sources

Source Data

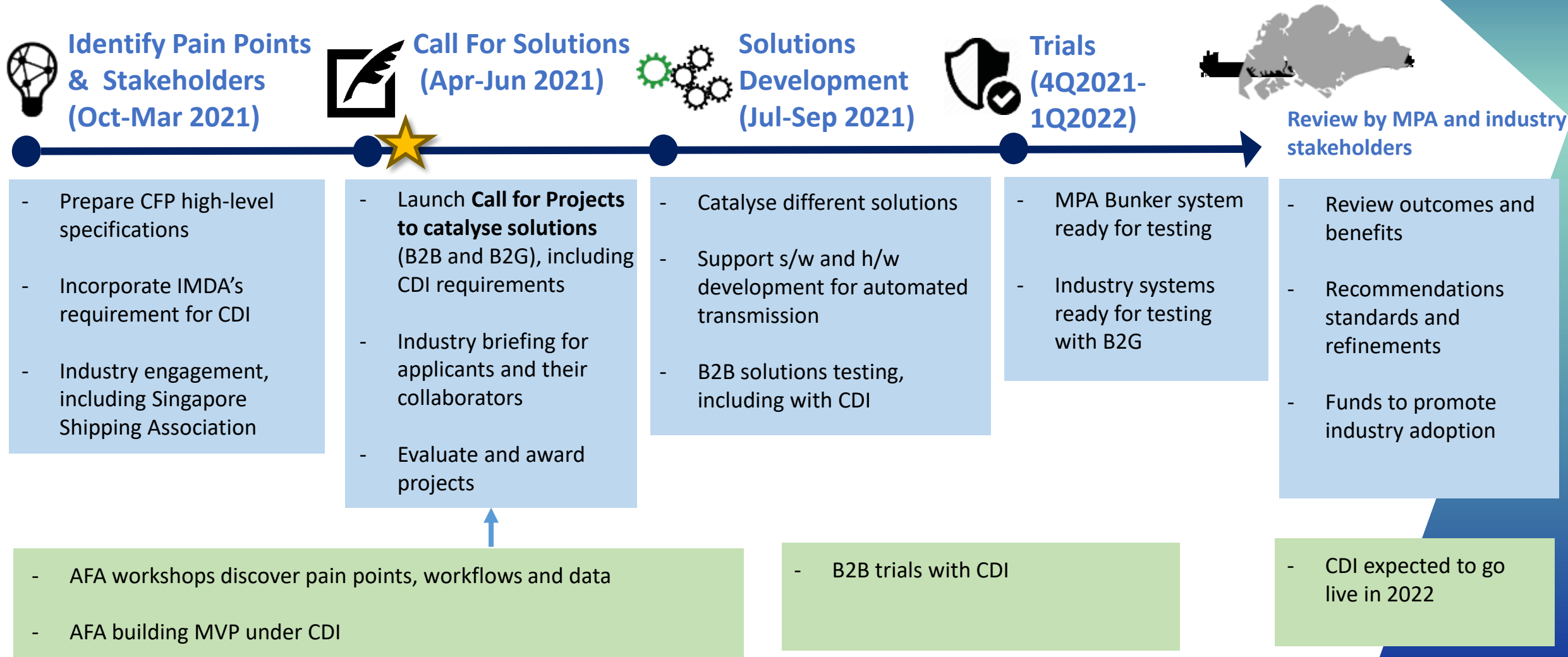
Potential bunker documentations that can be digitalized

Based on Code Of Practice For Bunker Mass Flow Metering, SS648:2019

1. Bunker Delivery Note
2. Meter reading record form
3. Meter totaliser report
5. Bunker requisition form
6. Stock movement logbook
7. Note of protest
8. Survey Statement of Fact
9. Pre-delivery safety checklist
10. Certificate of Quality
11. Bill of Lading/ Certificate of Quantity

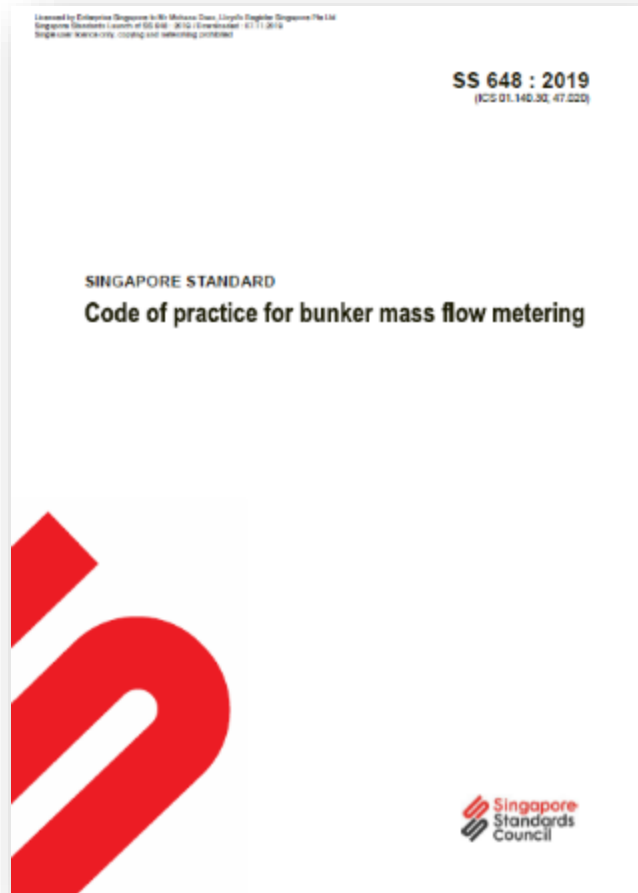


Programme timeline & synergy with AFA CDI



MPA works with SSA, ESG and industry to accelerate market adoption and standards development

1. Standards creation/ amendments for electronic workflows



2. Industry incentives to promote market adoption



Voluntary Listing for Discovery of Project Partners

- e. For applicants interested in the listing, please write in to **MINT@mpa.gov.sg** for more details on the requirements
- f. Only complete information with company's consent can be listed

Profile of Technology Solution Provider	
Company Name	
Brief description of interested scope and pain point(s) (max 200 words)	
Brief description of proposed solution(s) (max 200 words)	
Type of partner(s) and support required (max 100 words)	
POC and contact information	

Profile of Solution Provider	
Company Name	
Brief description of interested scope and pain point(s) (max 200 words)	
Role & contribution(s) to project	
Type of partner(s) and support required (max 100 words)	
POC and contact information	

CALL-FOR-PROPOSAL FOR DIGITAL BUNKERING

Invitation to submit proposals for development, enhancement and pilot digital bunkering solutions:

- a. Industry Solutions (B2B)
- b. Automated & Secured Regulatory Reporting (B2G)
- c. Development of New Hardware for Automated and Secured Data Transmission from MFM system

Timeline

Application start date	: 20 April 2021
Industry briefing	: 11 May, 1000hrs (SG time)
Briefing registration deadline	: 7 May, 1800hrs
Application deadline	: 10 June, 1800hrs
Expected project award date	: 31 July

For briefing registration and clarifications, please contact
MINT@mpa.gov.sg

View CFP document at:



Scan the QR Code

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For Information