



MPA
SINGAPORE

Bunkering in Singapore

IBIA Annual Convention 2015



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Bunker Services Department
Port Services Division

Agenda

Singapore : The Top Bunkering Port in the World



Growth of Singapore Bunker Industry



Singapore's Regulatory Model

“Whole of Government” approach
Singapore's Bunkering Standards
Regulatory Framework
Enforcement & Regulatory Checks



MPA Bunker initiatives

Mass Flow Metering Project
LNG Bunkering Development
Electronic Bunker Delivery Note
New Generation Bunker Tankers

Growth of Singapore's Bunkering Industry





Maritime Port Authority of Singapore



A Statutory Board under the Ministry of Transport



Air



Sea



Land

Maritime Singapore



Contributes to
7%
of Singapore's GDP

home to more than
5,000
maritime companies

employs
170,000
people

WHAT MAKES
SINGAPORE'S PORT
ONE OF THE WORLD'S BUSIEST?

130,000 VESSELS
enter our port annually

At any one time, there are about
1,000 VESSELS
in our port

A ship leaves or arrives Singapore every
2-3 MINUTES

It's **WELL-CONNECTED**...

Connected to more than
600 PORTS in
120 COUNTRIES

...and **EFFICIENT**

TOP FOUR
container ports
in 2013 (TEUs)

Shanghai	Singapore	Shenzhen	Hong Kong
33.6 million	32.6 million	23.3 million	22.4 million

32.6 million
containers are loaded and unloaded in a year

Put end-to-end, these containers measure
198,730km

That's enough to go
around the world
5X!

More than
1,066 TONNES
of cargo are handled every
MINUTE

That's the total weight of
22 BLUE WHALES!



Vision

A leading maritime agency driving Singapore's global maritime aspirations

Mission

To develop and promote Singapore as a **premier global hub port** and an **international maritime centre**, and to advance and safeguard Singapore's **strategic maritime interests**



MPA
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Bunker Services Department



Vision

Singapore: A Premier Bunkering Port

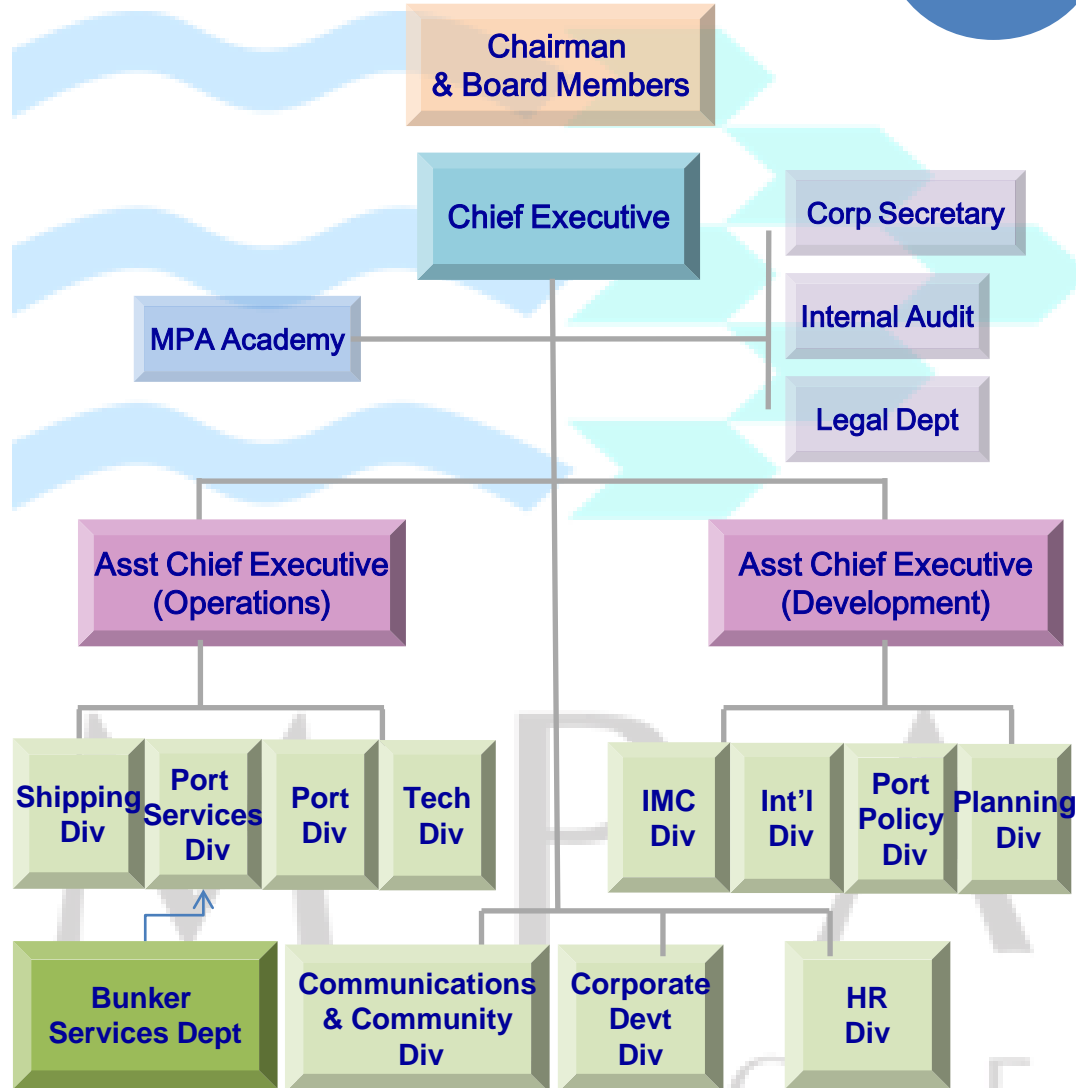
Mission

To be a Safe and Trusted Bunkering Port

Objectives

Promote and strengthen Singapore as a **safe and trusted bunkering port**

Safeguard the **integrity and reputation** of the Port of Singapore with regard to bunkering





Initiatives Since 1997



CP60

CP77

Accreditation Scheme for Bunker Suppliers

Certification of QMBS

Waiver of Port Dues for Double-Hulled Bunker Tankers

SS524

SS600

Enhanced Bunker Licensing Regime

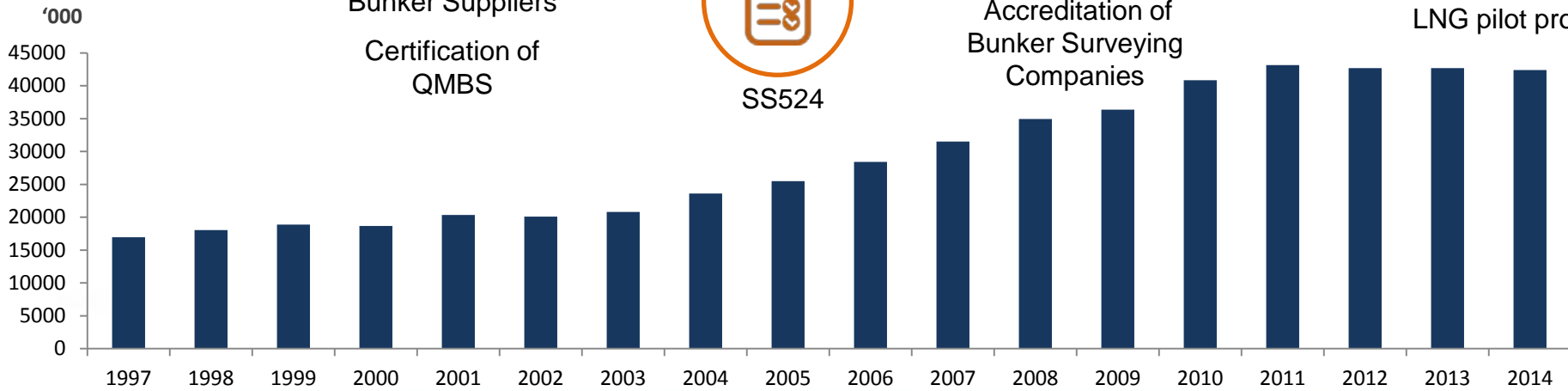
Accreditation of Bunker Surveying Companies

1st approved MFM system

MFM for MFO by 2017

Licensing of bunker surveying firm in 2017

LNG pilot project



Singapore's Regulatory Model





“Whole-of-Government” Approach

- Public issues becoming increasingly more complex and multi-dimensional
- Allow government to tap on **diverse knowledge, viewpoints and ideas** from across the public sector, with officers from different agencies coming together to **broaden and deepen policy development**, and to deliver services to citizens in a more **synergistic** way.

“ The Government must deliver services efficiently, but efficiency alone is not enough. The Government must ensure that its policies are effective- by implementing the right policies, and devoting resources to the right priorities. This means consulting widely on its policies, adopting the right regulatory approaches, and responding flexibly to new challenges.”

Lee Hsien Loong,
Prime Minister of Singapore, 2005

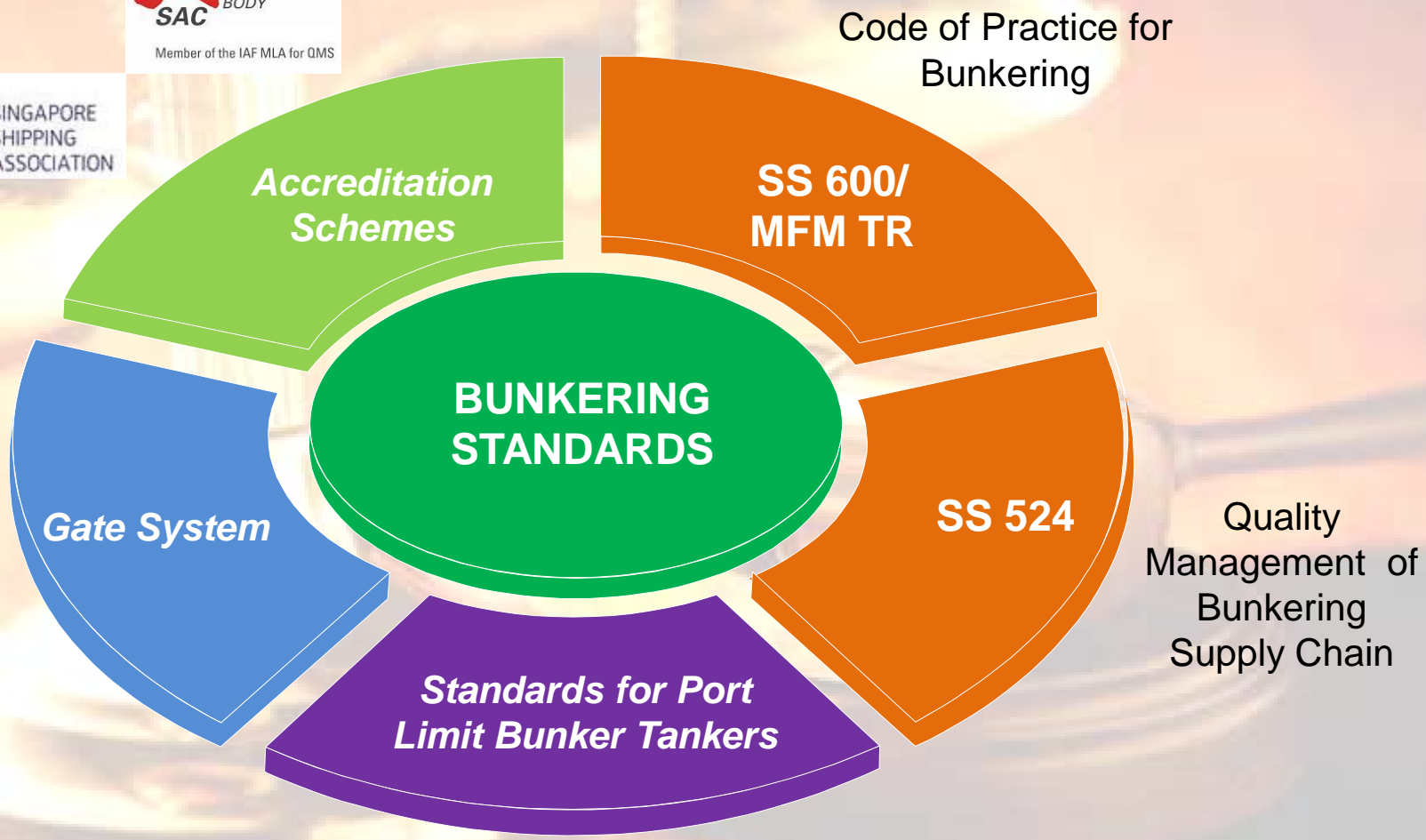


“Whole-of-Government” Approach

- Partners in developing the bunkering sector in Singapore:



Regulatory Framework



Regulatory Framework



59 Licensed Bunker Suppliers 

59 Licensed Bunker Craft Operators 

227 Bunker Tankers 

330 Licensed Bunker Surveyors 

63 Accredited Bunker Surveying Companies 



Upcoming Initiatives



Licensing of Bunker Surveying Company



OBJECTIVES

- Raise standards of bunker surveying companies;
- Greater oversight on bunker surveying companies and bunker surveyors
- Accompanied by a demerit point system for bunker surveying companies



Present Situation	Licensing Criteria
<ul style="list-style-type: none">• No licensing regime• Bunker surveying companies need to be accredited by SAC as conforming to ISO/IEC 17020.• Licensed bunker surveyor have to be employed by accredited bunker surveying companies.	Accreditation to ISO/IEC 17020
	Company incorporated in Singapore with minimum paid-up capital requirements of \$50k
	Applicant to have professional Indemnity Insurance coverage
	Directors and shareholders to meet MPA's "fit and proper" criteria

Mass Flow Meter for MFO delivery

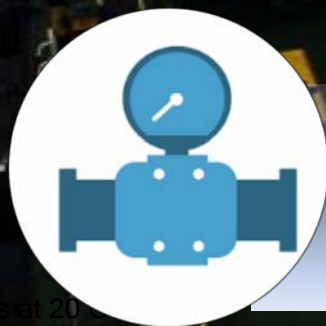


Leveraging on technology towards increasing **productivity** and **efficiency**

38 bunker tankers approved to-date*

60 bunker tankers to complete tests by Dec 2015

>100 bunker tankers to completed test by July 2016



Towards mandatory adoption at 1 Jan 2017

MFM 8 stage approval process



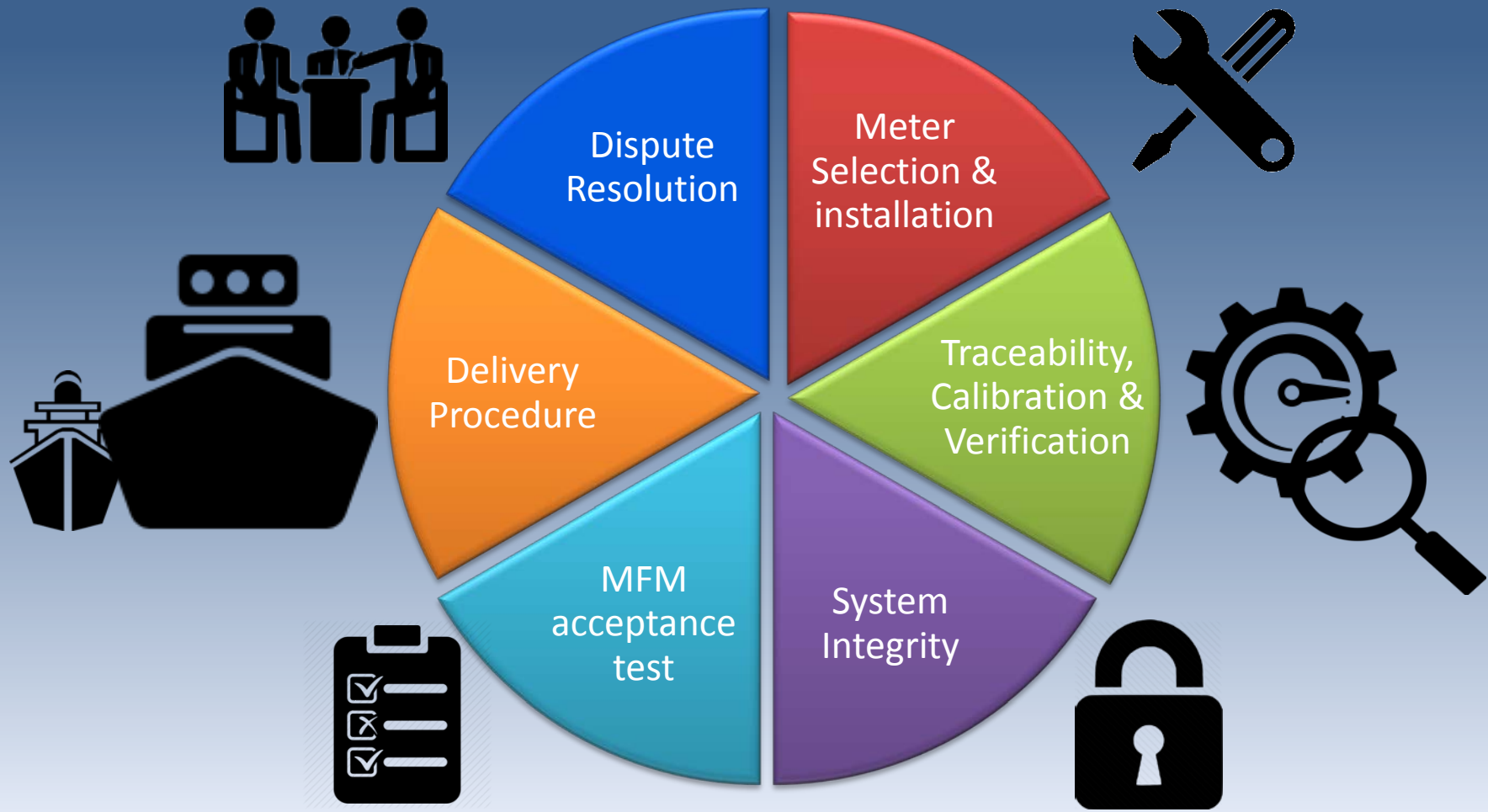
S/n	Certification stages	Details	Endorsing party
1	Procurement of MFM system	<ul style="list-style-type: none"> •Registration with MPA (with submission of purchase order) 	MPA
2	Arrival of MFM system	<ul style="list-style-type: none"> •Complete water calibration •Submission of documents to WMO by MFM vendors 	
3	WMO approval	<ul style="list-style-type: none"> •Level 1 and 2 approval 	WMO, SPRING Singapore
4	Installation of MFM system	<ul style="list-style-type: none"> •Dock at shipyard/gas-free at anchorage 	
5	System Commissioning	<ul style="list-style-type: none"> •Development of tanker specific delivery procedure •Sealing of MFM system 	MPA
6	Official Acceptance test	<ul style="list-style-type: none"> •3 full runs (Loading & Delivery with MPA chartered bunker tanker) 	MPA, Test coordinator and test surveyor
7	Data Verification of test result	<ul style="list-style-type: none"> •Test data verification 	NMC, A*STAR
8	MPA approval of custody transfer	<ul style="list-style-type: none"> •Checking of documents •Lump sum payment of incentive, if applicable 	MPA



MFM Standards Development

MFM Working group tasked to develop **Technical Reference**

- Target to be published in **Jan 2016**



Mass Flow Meter Delivery

Bunker Profile of operation

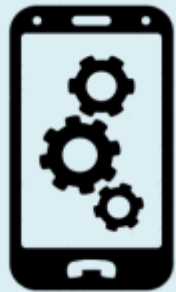


Mass Flow Meter Benefits

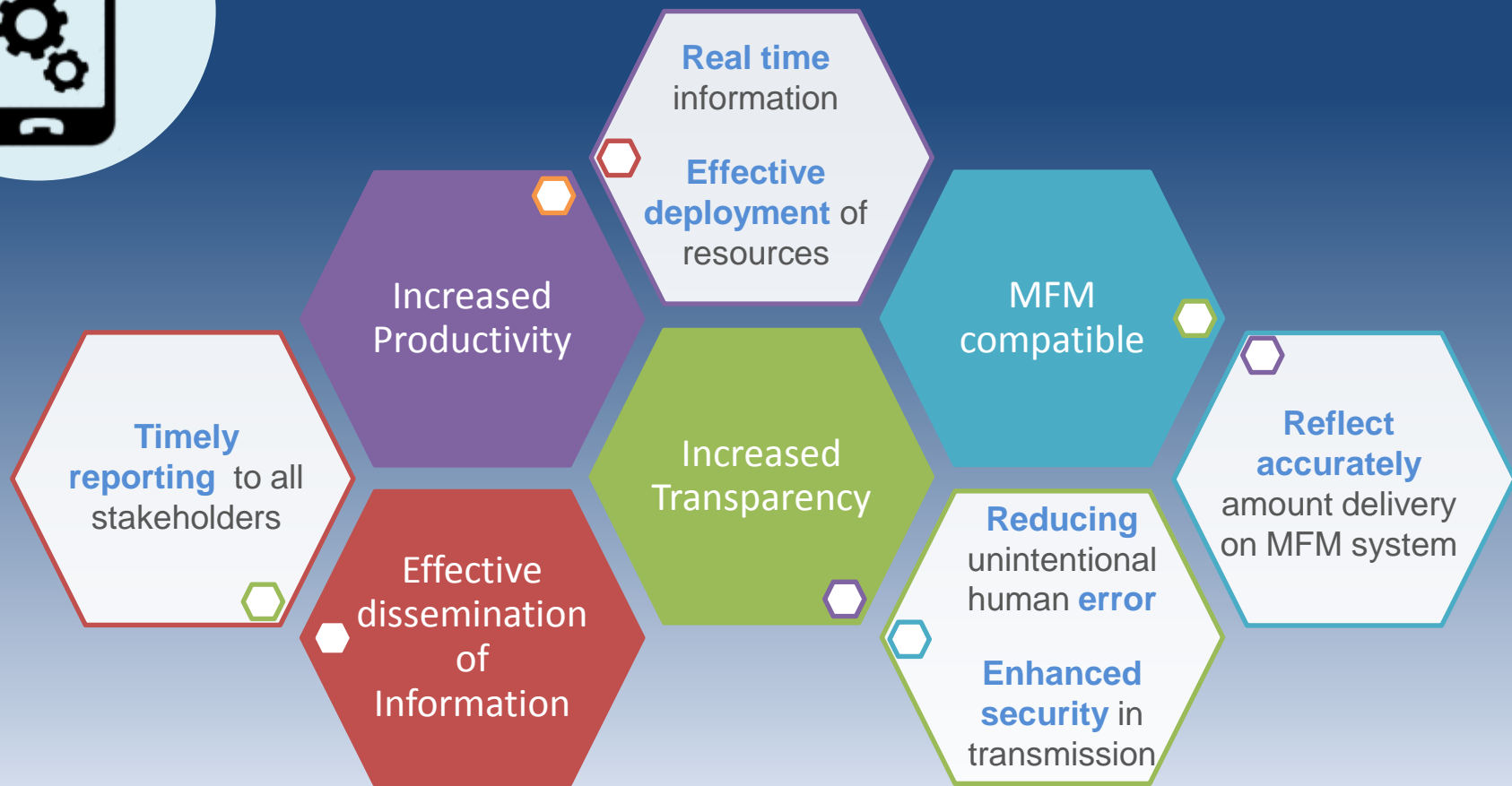


- **Enhance transparency** of the bunkering process
 - Critical parameters are displayed and recorded in real time to allow users to address abnormality on-site and reduce chances of disputes on quantity
 - Automated measurement of bunkers delivered reduces possibility of human error in calculation
- **Achieve greater efficiency** in bunkering operations
 - Reduces up to 3 hours or 25% reduction for each bunkering operation
- **Increase productivity** for maritime industry
 - Leads to quick turnaround / Port stay to receive bunker

Electronic Bunker Delivery Note



Digitalising the bunker operation



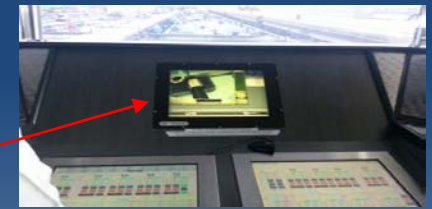


Next Generation Bunker Tanker

Increasing Productivity & reducing dependency on manpower through automation

Automated bunker delivery system

- Valves, pumps, cameras etc
- On-site and off-site monitoring



Class approved Improved Mooring system

- Shorter time required
- Reducing manpower required



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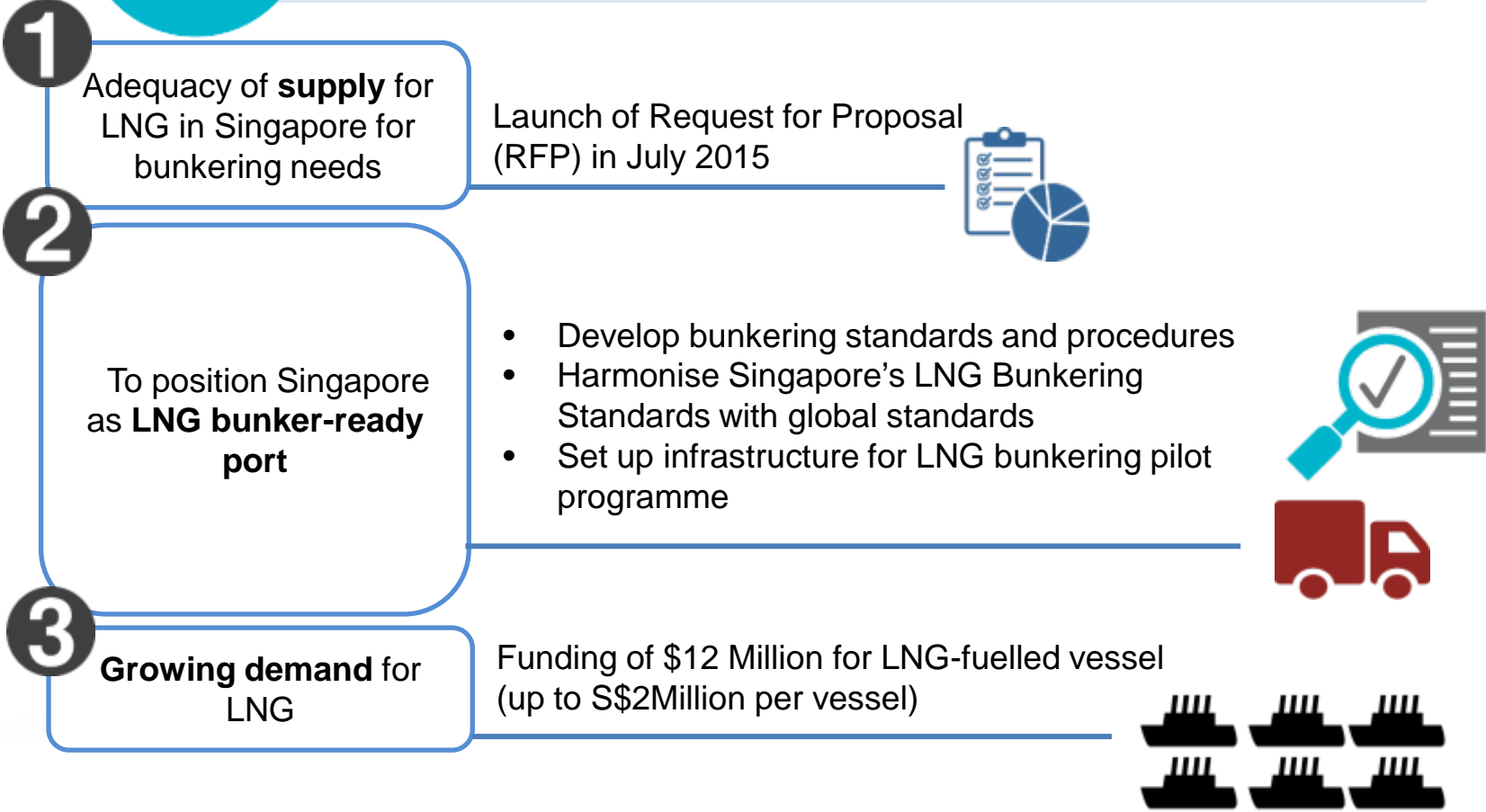




Implementing LNG bunkering in Singapore



Staying at forefront of developments for all marine fuel and positioning Port of Singapore as a **Sustainable port**



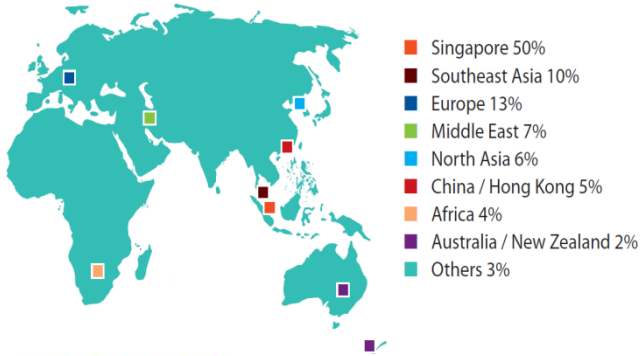
SIBCON 2016 (Early Oct 2016)



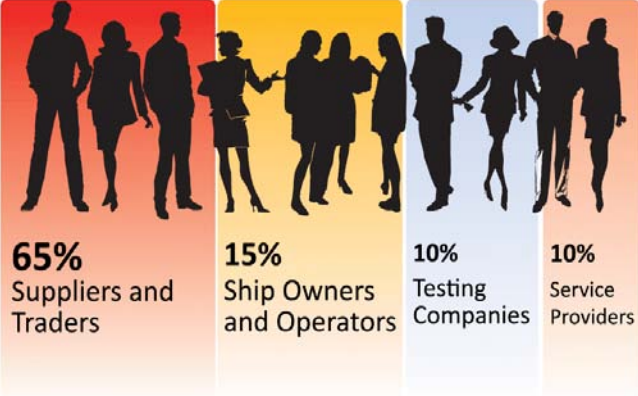
More than 1600 participants
70 countries
53 speakers
45 sponsors & exhibitors



BY AREA



BY INDUSTRY



Overview of the global bunker industry with insight discussion on key topics

Global Sulphur emission cap
LNG bunkering
MFM bunkering and many more



Thank You & See you at SIBCON 2016
