

STRENGTH IN UNITY

TOWARDS A FUTURE-READY MARITIME SINGAPORE

SUSTAINABILITY / INTEGRATED REPORT 2016



ABOUT THIS REPORT

The Maritime and Port Authority of Singapore (MPA) has been producing its Sustainability/Integrated Report since 2014. This third edition showcases MPA's steadfast progress on its sustainability journey. This report was prepared in accordance with Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) at the Comprehensive option and is aligned to the principle-based International Integrated Reporting <IR> Framework issued by the International Integrated Reporting Council (IIRC).

This Annual Report, together with the Financial Report that is published separately, covers material information pertaining to all MPA's operations during the financial year from 1 January 2016 to 31 December 2016. Together, the Annual Report and the Financial Report constitute the Integrated Report <IR>. [102-45, 102-50]

For this Annual Report, MPA's material sustainability issues were identified based on the principles set out in the materiality standards of AccountAbility1000,

GRI Standards and the IIRC. Facilitated by an independent sustainability expert, these issues were reviewed by MPA's Senior Management at the Sustainability Steering Committee meeting. At the review, MPA's Senior Management concluded that there were no significant changes to MPA's material sustainability issues for Financial Year 2016. As an industry frontrunner in sustainability reporting, MPA is working towards having its Sustainability/Integrated Report assured in the medium term. [102-46]

There were no significant organisational changes during the current reporting period. [102-49]

We welcome your feedback on this report. For any feedback or enquiries, please contact Ms Brenda Kwong at brenda_kwong@mpa.gov.sg.



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CHAIRMAN'S FOREWORD

Amidst a challenging global environment, Singapore's maritime and shipping scene remained both dynamic and vibrant in 2016.

The port of Singapore continued to see strong traffic growth. Annual vessel arrival tonnage increased by 6.3%, reaching 2.66 billion gross tonnes. Singapore retained its No. 1 bunkering port spot, with bunker volumes sold rising 7.7% to 48.6 million tonnes. The total cargo tonnage handled last year increased by 3.0 per cent to 593.3 million tonnes.

Singapore's container throughput held steady at 30.9 million twenty-foot equivalent units (TEUs) in 2016, despite tough global conditions. The global container shipping market had buckled under the double pressure of a weak global economy and lower trade volumes. Shifting carrier alliances added further uncertainty.

Against this challenging backdrop, we won the Best Seaport Asia award at the 2016 Asian Freight, Logistics and Supply Chain Awards for the 28th year running. World Economic Forum's The Global Economic Report 2015-2016 pegged Singapore as having the world's second-best port infrastructure while UNCTAD ranked Singapore as the world's second-most connected country, based on port connectivity, for the second straight year.

The Singapore Registry of Ships (SRS), which celebrated its 50th anniversary in 2016, is among the world's five largest ship registries. MPA continues to grow the fleet, which reached 88 million gross tonnes in 2016, and improved its rankings in the Tokyo and Paris MOU White Lists.

These accolades spur us on to continually invest in our infrastructure and future-proof Maritime Singapore.

Singapore's strong maritime performance over the past 20 years testifies to how far we have come. Our achievements have been possible because of our people and our stakeholders.

Singapore's International Maritime Centre (IMC) has also continued to see new entrants and expansions in the container and bulk sectors. Among them was mega carrier CMA CGM.

Because a quality workforce is vital in driving Maritime Singapore's growth, we are developing the Sea Transport Industry Transformation Map for jobs and skills, innovation, productivity and internationalisation. These efforts will help to further future-proof Maritime Singapore.

Singapore's strong maritime performance over the past 20 years testifies to how far we have come. Our achievements have been possible because of our people and our stakeholders. I would like to take this opportunity to thank them for their efforts and commitment in helping to drive the growth of Maritime Singapore. In particular, I would like to thank my fellow Board members and my colleagues at MPA for their hard work and contributions in 2016. I am confident Maritime Singapore will continue to thrive under the able leadership of Mr Niam Chiang Meng as Chairman of MPA.

Mr Lucien Wong
Chairman, MPA

CHIEF EXECUTIVE'S FOREWORD

2016 was another eventful year for the shipping industry due to increased volatility, persistent excess capacity and depressed rates on the back of slower global growth. Despite these choppy waters, MPA continued to work alongside our stakeholders to strengthen Maritime Singapore as part of MPA's Future Ready Framework.

Last year, Singapore continued to attract a diverse range of maritime businesses. Over 130 international shipping groups and 5,000 maritime establishments are now based in Singapore, with new players joining our International Maritime Cluster or IMC. Our maritime cluster employs more than 170,000 people, contributing 7% to Singapore's Gross Domestic Product.

Nevertheless, Maritime Singapore still faces a battery of challenges, including increasing regional competition, industry consolidation from mergers and acquisitions, the move towards mega vessels and mega alliances, greater trade protectionism, additional international and national regulations, and technology disruptors.

Against this backdrop, it is vital that Singapore plans long term and invests in our port and IMC's long-term competitiveness. We will stay focused on our core fundamentals, and leverage on our strengths, such as sound governance, a pro-business environment, and a strong emphasis on safety, security, efficiency and reliability.

To lend a helping hand to the industry, MPA is providing short-term economic relief through port dues concessions. An additional 10% concession on port dues has been granted to container vessels while bulk carriers now also enjoy a 10% concession. These concessions have been extended until 31 December 2017.

For the long haul, Singapore remains committed to investing for the future to sustain our lead as a global hub port with one of the largest transshipment volumes. The Tuas Terminal development entered Phase 1 of its construction last year. MPA will drive new technologies and productivity initiatives in the Next Generation Port. Innovative next-generation port equipment systems and processes such as the Next Generation Vessel Traffic Management System, and other e-port services and autonomous systems will be deployed to maximise operational efficiency and productivity. To develop innovative and cutting-edge technological solutions for PSA's existing and future terminal operations, we are supporting the PSA Living Lab and Automated Guided Vehicle system which will be used at the Tuas Terminal.

Singapore is similarly leveraging on technology to improve bunker deliveries. Last year, we launched the Technical Reference for Bunker Mass Flow to support the mandatory use of the mass flow metering system for marine fuel oil deliveries here from 1 January 2017.

Additionally, Singapore is preparing to be LNG bunker-ready by 2020. We are developing the technical reference for LNG bunkering and working to harmonise global standards with other key bunker ports.

In terms of R&D, we are working with Classification Societies to conduct more marine-related research, supported by the Maritime Innovation and Technology Fund and additional funding from the Singapore Maritime Institute.

As part of Maritime Singapore's Future Ready vision and aligned with the economic restructuring drive by the Committee on the Future Economy, MPA formed a high-level International Maritime Centre (IMC) 2030 Advisory Committee to review Singapore's IMC development strategy and identify new growth areas to enhance our long-term competitiveness and value proposition.

In addition, to support the recommendations of the Committee on the Future Economy, which released its report in 2017, MPA will develop an Industry Transformation Map or ITM covering innovation, productivity, skills and internationalisation for the Maritime Sector. This will pave the way for the maritime sector in Singapore to embrace many of the new developments that are impacting industries worldwide as they adapt to Industry 4.0, with growing use of digitalisation, data analytics and deployment of intelligent and automated systems to enhance competitiveness and productivity.

To support the above efforts, MPA has also reviewed the Maritime Cluster Fund (MCF) so that it can better address industry needs for business expansion, manpower development, productivity enhancement and technology adoption.

Ensuring that the maritime sector continues to attract a fair share of the national talent will be a key challenge for the sector's transformation effort. Greater emphasis will be given to cultivating a quality workforce able to support Singapore's growth as a vibrant and competitive Global Hub Port and IMC. MPA has set aside \$12 million under the Maritime Cluster Fund-Manpower Development (MCF-MD) to raise co-funding for selected courses as part of our efforts to ensure Singapore has the right future skills. We have also introduced new manpower programmes such as internship reimbursement, and maritime career conversion schemes. More funding will be set aside if necessary.

In addition, MPA collaborates closely with our MaritimeONE partners to raise the profile of maritime careers. Working together with Singapore Maritime Foundation (SMF), we set up a new Maritime Singapore Connect (MSC) Office last year to raise awareness of and provide Singaporeans with easy access to maritime education, training and job opportunities. The MSC Office has already embarked on a series of outreach

MPA will develop an industry transformation map covering innovation, productivity, skills and internationalisation for the maritime sector. This will pave the way for the maritime sector in Singapore to embrace many of the new developments that are impacting industries worldwide as they adapt to industry 4.0, with growing use of digitalisation, data analytics and deployment of intelligent and automated systems to enhance competitiveness and productivity.

activities. MPA also launched the Maritime Youth Festival – our first dedicated youth platform where we work closely with our partners and youths to co-create activities.

Looking back at our key achievements, our port continued to garner awards and accolades in 2016. In October, MPA achieved the Singapore Quality Award (SQA), which recognises organisations with world-class standards of performance. MPA's SQA is all the more significant as we received it on our 20th anniversary. It is the culmination of two decades of efforts from our people – both past and present.

MPA emerged tops as the most business-friendly Government agency in the annual Pro-Enterprise Ranking survey of business customers of regulatory agencies for the 5th consecutive time. We are gratified to have attained and maintained this ranking, and will continue to work closely with and help our customers in these challenging times.

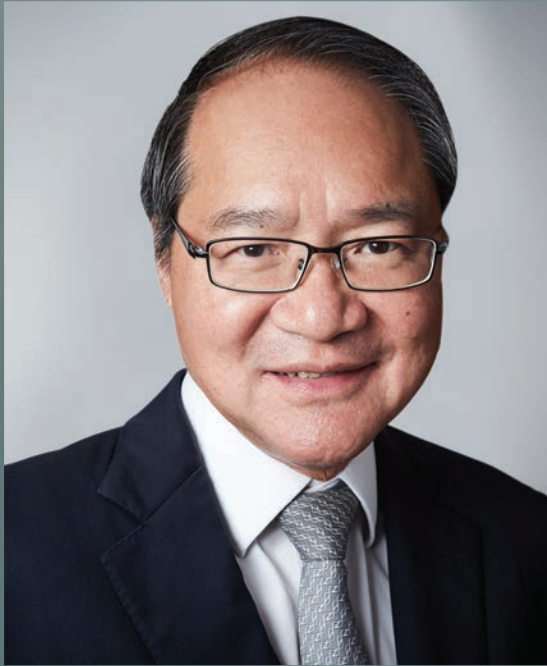
2016 also saw Pasir Panjang Terminal Phases 3 & 4 development being named one of Singapore's Top 50 Engineering Achievements.

Our journey of excellence, however, does not stop here. 2017 will be another pivotal year, and MPA remains unswerving in our commitment to do our utmost to deliver a strong and sustainable Maritime Singapore for the benefit of the industry and all our stakeholders.

Mr Andrew Tan
Chief Executive, MPA



BOARD OF DIRECTORS



Mr Lucien Wong (Chairman)
Chairman and Senior Partner
Allen & Gledhill LLP

Mr Lucien Wong relinquished his post as Chairman of MPA on 15 December 2016. Mr Niam Chiang Meng takes over the appointment with effect from 16 December 2016



Mr Niam Chiang Meng
Deputy Chairman
(1 July 2016 – 15 December 2016)
Maritime and Port Authority
of Singapore



Mr Andrew Tan
Chief Executive
Maritime and Port Authority
of Singapore



Mr Carl Krogh Arnet
Chief Executive Officer
BW Offshore Limited



Mrs Quek Bin Hwee
Deputy Chairman
PricewaterhouseCoopers LLP

BOARD OF COMMITTEES

INVESTMENT COMMITTEE

Chairman

Mr Lucien Wong (till 15 Dec 16)
Mr Niam Chiang Meng (from 16 Dec 16)

Members

Mr Niam Chiang Meng
(from 1 Jul 16 till 15 Dec 16)
Mr Andrew Tan
Mr Vincent Lien
Mrs Quek Bin Hwee
Mr Wong Weng Sun

Secretary

Director (Corporate Development)
/CFO

AUDIT REVIEW COMMITTEE

Chairman

Mr Vincent Lien

Members

Mr Carl Arnet
Mr Luke Goh
RADM Lai Chung Han
Mrs Quek Bin Hwee

Secretary

Assistant Director (Internal Audit)

WELFARE COMMITTEE FOR SEAMEN

Chairman

BG (NS) Ishak Ismail

Members

Mr Kam Soon Huat
Mr Esben Poulsen
Mr Teo Choo Wee

SSA

Capt Anuraj Singh
Deputy General Manager
Maritime Human Resources
NYK Shipmanagement Pte Ltd

PSA Corporation

Mr Lee Siak Quee
Assistant Vice President
Keppel Terminal

Jurong Port Pte Ltd

Captain Hemant Gupta
Senior Manager
Operations Department



Mr Esben Poulsson
President
Singapore Shipping
Association



Mr Wong Weng Sun
President & CEO
Sembcorp Marine Ltd



RADM Lai Chung Han
Chief of Navy
Republic of Singapore Navy



Mr Kam Soon Huat
General Secretary &
Chief Operating Officer
Singapore Organisation
of Seamen



Mr Luke Goh
Deputy Secretary (Trade)
Ministry of Trade and Industry



Mr Vincent Lien
Director
Wah Hin & Company Pte Ltd



BG (NS) Ishak Ismail



Mr Teo Choo Wee
Executive Director
Fleet Division
Pacific International Lines (Pte) Ltd

Seamen's Missions

Rev Peter Manimuthu
Port Chaplain
Mission to Seafarers

Rev Schmidt Christian
Port Chaplain
International Lutheran Seamen's Mission

MPA

Director (Corporate Development)/CFO
Director (Shipping)

Secretary

Deputy Director (Shipping 2)

REGISTRATION COMMITTEE

Chairman

BG (NS) Ishak Ismail

Members

Mr Luke Goh
Mr Kam Soon Huat
Mr Teo Choo Wee

Secretary

Director (Shipping)

MINT FUND STEERING COMMITTEE

Chairman

Mr Wong Weng Sun

Members

Mr Andrew Tan
Mr Carl Arnet
RADM Lai Chung Han
Mr Esben Poulsson

SENIOR PERSONNEL BOARD

Chairman

Mr Lucien Wong (till 15 Dec 16)
Mr Niam Chiang Meng (from 16 Dec 16)

Members

Mr Niam Chiang Meng
(from 1 Jul 16 till 15 Dec 16)
Mr Andrew Tan
BG (NS) Ishak Ismail
Mrs Quek Bin Hwee

Secretary

Director (Human Resource)

SENIOR MANAGEMENT



1

1. Capt Khong Shen Ping
Dean of MPA Academy

2

2. Ms Yvonne Chan
Director, Corporate Development
Division/Chief Financial Officer

3

3. Mrs Ong Seok Bin
Director, Human Resource Division

4

4. Ms Angela Png
Director, International Division

5

5. Ms Bernice Yeoh
Director, International Maritime Centre Division

6

6. Mr Tan Cheng Peng
Director, Port Policy Division

7

7. Ms Tan Beng Tee
Assistant Chief Executive (Development)



8

8. Mr Andrew Tan
Chief Executive

9

9. Capt M Segar
Assistant Chief Executive (Operations)

10

10. Dr Parry Oei
Director, Port Services Division

11

11. Mr Tan Suan Jow
Director, Shipping Division

12

12. Mr Daknashamoorthy s/o Ganasen
Director, Operations Division/Port Master

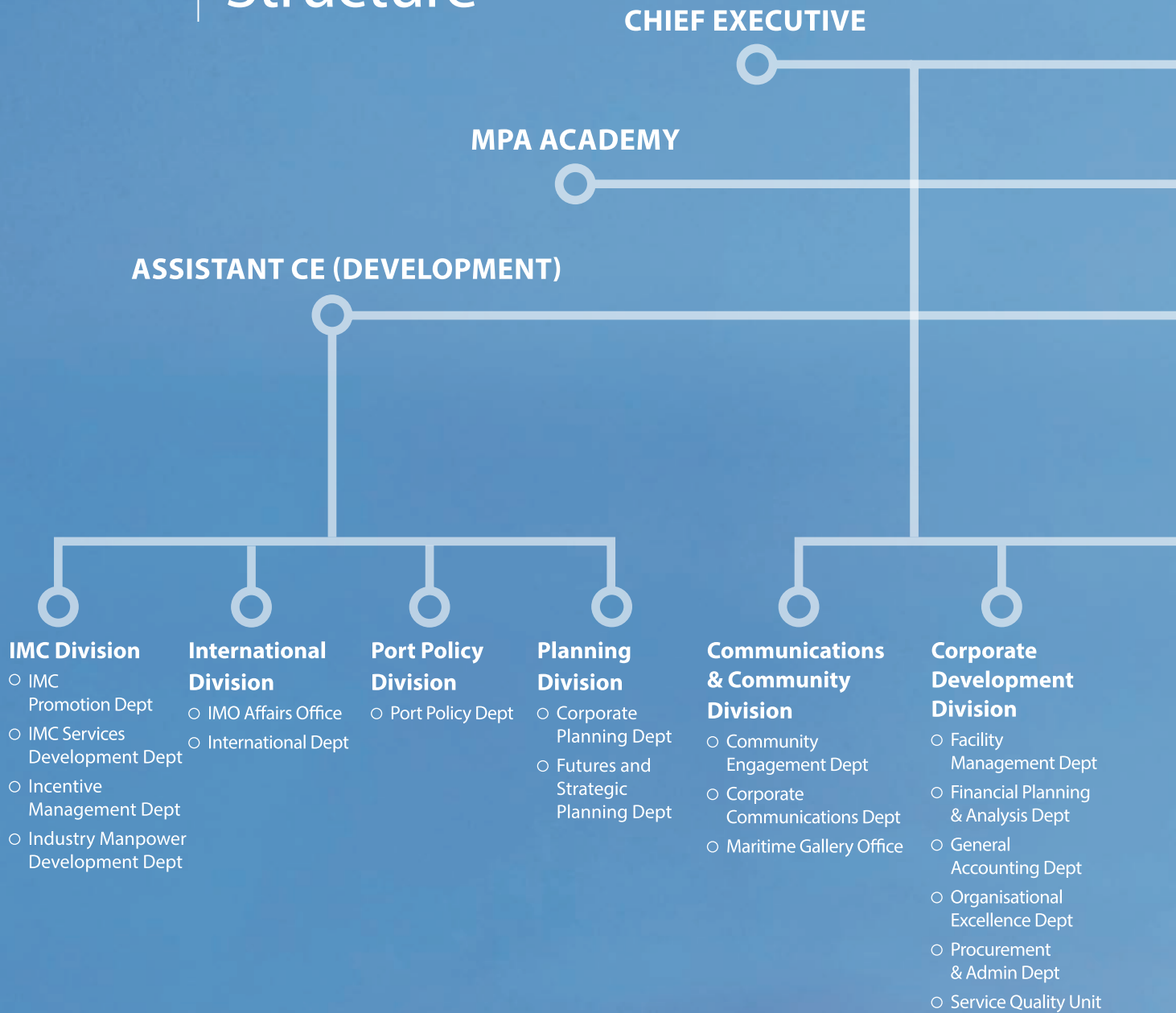
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13. Mr Tham Wai Wah
Director, Technology Division

14

14. Mr Toh Ah Cheong
Advisor, Technology Division

MPA's Organisation Structure



**CHAIRMAN &
MEMBERS OF AUTHORITY**

**CORPORATE SECRETARY
INTERNAL AUDIT DEPT
LEGAL DEPT**

ASSISTANT CE (OPERATIONS)

ADVISOR (TECHNOLOGY)

**Human
Resource
Division**

- HR Business Partnering
- HR Planning & Services
- Talent Attraction & Development

**Operations
Division**

- Marine Environment & Safety Dept
- Marine Licensing & Permits Dept
- Operations Planning & Pilotage Dept
- Ops Policy Unit
- Vessel Traffic Management Dept

**Port Services
Division**

- Ancillary Services & Inspection Dept
- Bunker Services Dept
- Hydrographic Dept
- Marine Fuel Development & Promotion Dept

**Port Systems
Division**

- Emergency Preparedness Dept
- Electronics & Communications Dept
- NGP Systems Dept
- Safety Inspectorate Dept
- Security Dept

**Shipping
Division**

- Flag State Control Dept
- Port State Control Dept
- Ship Regulation & Development Dept
- Ship Investigation Dept
- Registry Dept
- Seafarers Management Dept
- Training Standards Dept/ISC

**Technology
Division**

- Engineering & Planning Dept
- Information Technology Dept
- Research & Technology and Industry Development Dept
- Tuas Port Development Dept



About MPA

The Maritime and Port Authority of Singapore (MPA) was established as a statutory board under the Ministry of Transport (MOT) on 2 February 1996. The formation of MPA brought together functions that were previously performed by the National Maritime Board, Marine Department and regulatory departments of the former Port of Singapore Authority. In 2004, the promotion of commercial shipping was moved from IE Singapore to MPA. With this, MPA became a one-stop agency for matters pertaining to port and maritime matters.

Employing a workforce of over 650, and operating solely and headquartered in Singapore, MPA performs the roles of Port Authority, Port Regulator, Port Planner, International Maritime Centre (IMC) Champion and National Maritime Representative. MPA works closely with industry partners and other agencies to enhance safety, security and environmental protection in Singapore's port waters, facilitate port operations and growth, expand the cluster of maritime ancillary services, and promote maritime R&D and manpower development.

MPA's Efforts in Developing the Maritime Industry

Situated along a vital shipping lane, Singapore has among the world's busiest waterways. About 1,000 ships ply its waters at any one time. Known for providing high quality and reliable services at competitive prices, the Port of Singapore attracts more than 130,000 vessel calls annually. In 2016, the Port of Singapore retained its position as one of the world's busiest ports with vessel arrival tonnage growing 6.3% to reach 2.66 billion gross tons. Singapore remained the world's top bunkering port with 48.6 million tonnes in total bunker sales.

The Singapore Registry of Ships (SRS), administered by MPA, is amongst the world's top five ship registries. It is the preferred quality flag for a growing base of international ship owners who recognise and prize SRS' efficient services, high operational and pollution control standards, and good safety record.

Staying Tops Globally

RANK 1ST	Singapore
RANK 2ND	London
RANK 3RD	Hong Kong
RANK 4TH	Hamburg
RANK 5TH	Rotterdam

Xinhua-Baltic International Shipping Centre Development Index Report

Source: 2016 Xinhua-Baltic ISC Development Index

RANK 1ST	Singapore
RANK 2ND	Hamburg
RANK 3RD	Oslo
RANK 4TH	Hong Kong
RANK 5TH	Shanghai

Menon Economics Report: Leading Maritime Capitals of the World

Source: Menon Economics (2015)

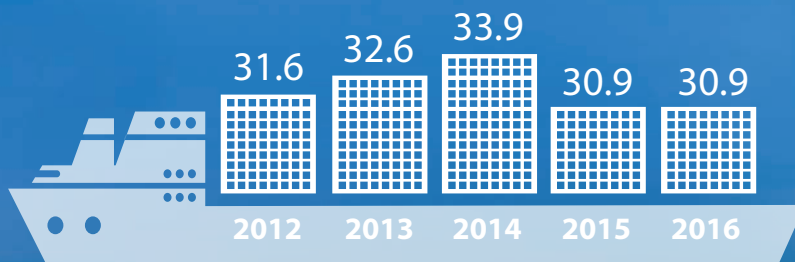
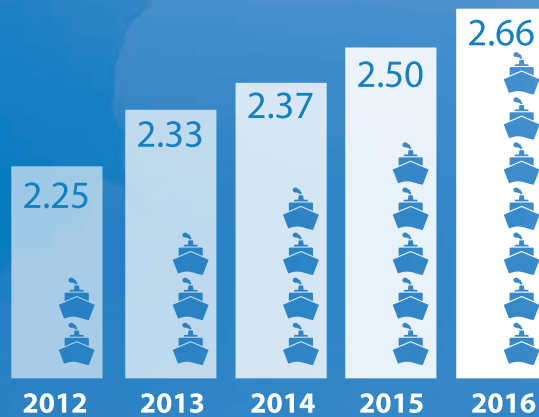


Port of Singapore named 'Best Seaport in Asia' for 28th time

2016 Performance Summary

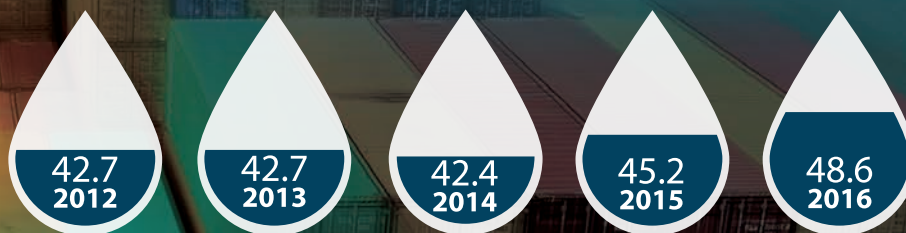
Maritime Performance

Vessel Arrival Tonnage (billion gross tonnes)



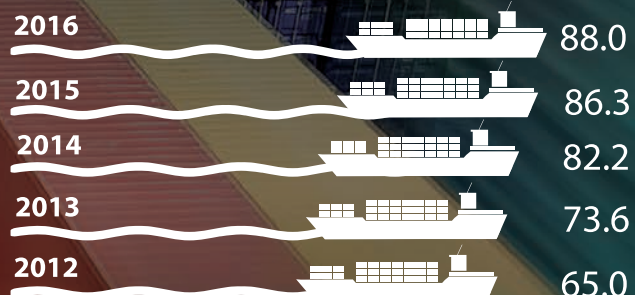
Container Throughput (million TEUs)

Cargo Throughput (million tonnes)



Bunker Sales Volume (million tonnes)

Singapore Registry of Ships (million gross tonnes)

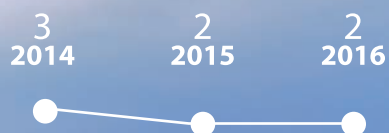


Our People



Average
Training Hours
(hours/employee)

Turnover
Rate (%)



Number of
Workplace Incidents

Number of
work-related fatalities

2012 - 2016



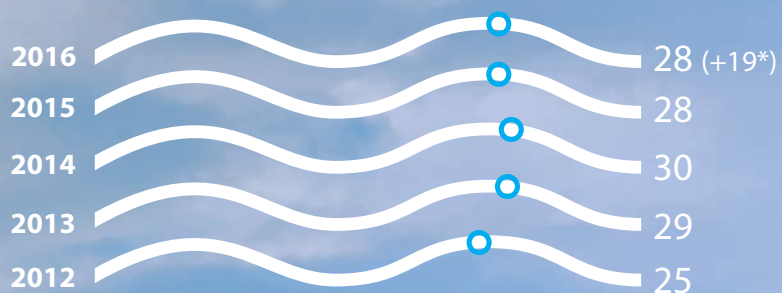
Environmental Sustainability



Electricity Consumption ('000 kWh)

Water Consumption ('000 Cu M)

* 19,000 Cu M of water was used for scheduled façade cleaning



GHG Emissions (TCO₂)



Mapping Key Material Issues

MPA's Approach to Sustainability

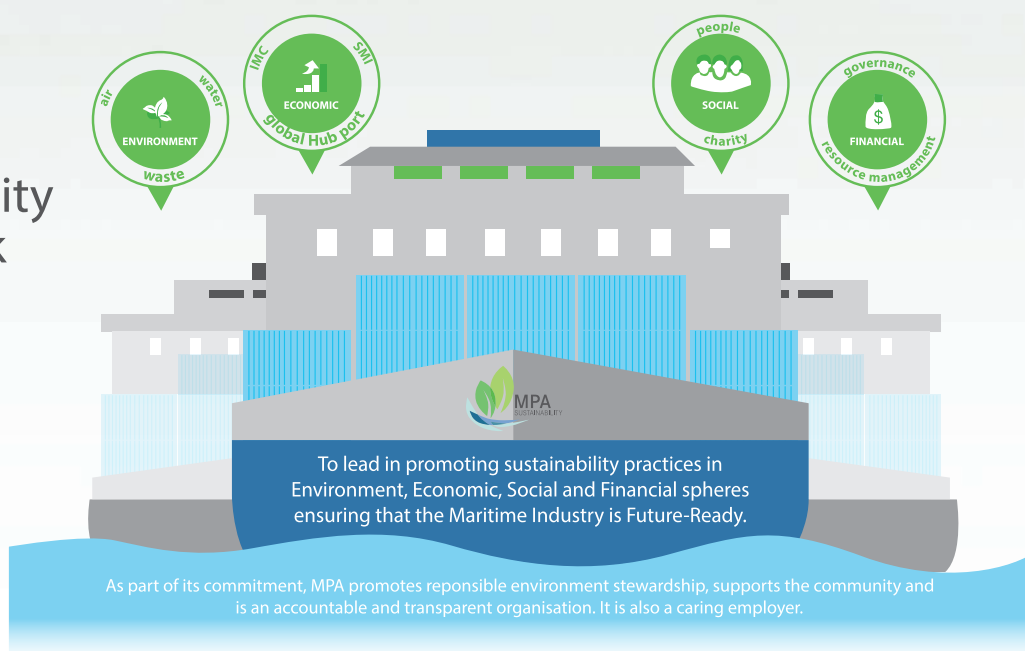
As a leading maritime agency, sustainability is integral to MPA's operations and organisational strategy. MPA adheres to the Precautionary Principle and takes the lead in promoting good sustainability practices within the maritime community. This ensures that the maritime industry positively impacts society, the economy and the environment, thus enhancing Singapore's position as a clean, efficient and safe port.

In line with its sustainability focus, MPA formulated its Future Ready Framework in 2014. Comprising 6 external and 3 internal thrusts, the framework sets MPA's long-term strategic direction, and integrates key

sustainability principles throughout the organisation. It drives the organisational mindset towards building a Future Ready Maritime Singapore that is both competitive and sustainable.

To elevate MPA's Board and Management commitment to environmental and social issues, the MPA Sustainability Office was formed in 2014. The office, which drives both internal and external sustainability efforts, reports directly to MPA's Chief Executive (CE) and regularly updates the Board on the progress of initiatives and Key Performance Indicators (KPIs). Its core objectives are to foster a culture of good governance, prudent resource management, and conscientious environmental and social practices.

Sustainability Framework



To lead in promoting sustainability practices in Environment, Economic, Social and Financial spheres ensuring that the Maritime Industry is Future-Ready



[102-46]

MPA has applied the AA1000 AccountAbility Principles Standard to identify and prioritise sustainability issues that are material to the organisation and its stakeholders. MPA has also applied the principles of the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) and the International Integrated Reporting <IR> Framework of the International Integrated Reporting Council (IIRC) to determine its key material issues.

These issues were first identified in 2014 through an extensive materiality assessment with direct involvement by MPA's Senior Management, including the Chief Executive. In early 2016, these key material issues were reviewed by MPA's Senior Management, including the Chief Executive, and re-assessed to remain relevant, with subsequent mapping to MPA's Future Ready Framework. These key material issues were last reviewed in November 2016 at the Sustainability Steering Committee meeting chaired by the Chief Executive with direct involvement of MPA's Senior Management. At the review that was facilitated by an independent

sustainability expert, it was concluded that MPA's key material issues remained relevant and valid for the current reporting period.

MPA's assessment of its key material issues is informed by feedback from its continuous engagements with its multiple stakeholders during the Financial Year (covered in "FY2016 Stakeholder Engagement Activities"). As an early mover on Sustainability and Integrated Reporting and recognising its ability to influence the maritime industry and the public sector to undertake sustainability reporting, the MPA Sustainability Office also organises and participates in sessions to share its sustainability journey and sustainability best practices with industry and the rest of the public sector. The feedback received is being used to further develop and refine MPA's sustainability journey.

MPA's Chief Executive reviews and approves MPA's annual Sustainability/Integrated Report and ensures that all material topics are addressed.

Overview of 6 Key Material Issues [102-47]

Safe, Efficient and Sustainable Shipping

As a future ready global hub port, MPA must manage multiple risks and uncertainties reliably to maintain its position as one of the world's leading ports. This material issue demonstrates the central importance of MPA addressing these risks in the area of safety, efficiency and sustainability, by assessing MPA's incident rate, internal safety systems and ranking on international maritime lists such as the Tokyo and Paris MOU.

Environmental Sustainability

MPA has a significant positive influence on the environment, through its role as regulator and the influence that MPA brings to Singapore's maritime industry. This material issue addresses this impact and how MPA uses its influence to bring positive change. It also addresses the direct impact that MPA's operations have on the environment through MPA's use of electricity, water and MPA's carbon footprint.

Financial Sustainability

MPA is a self-funded statutory board. In order to be financially viable in the long-term, MPA needs to ensure a sustainable revenue stream. This material issue addresses the importance of maintaining a competitive business through tracking MPA's economic performance.

Economic Contribution

MPA employs over 650 people, and makes a significant contribution to Singapore's overall economy. MPA is an industry champion, dedicating itself to raising the profile of Maritime Singapore locally and internationally. This material issue addresses MPA's commitment to ensuring that its business goals and responsibilities extend to proactively strengthening local, national and regional prosperity. This material issue considers MPA's indirect economic impacts, both locally and globally, and MPA's role in building a vibrant IMC eco-system.

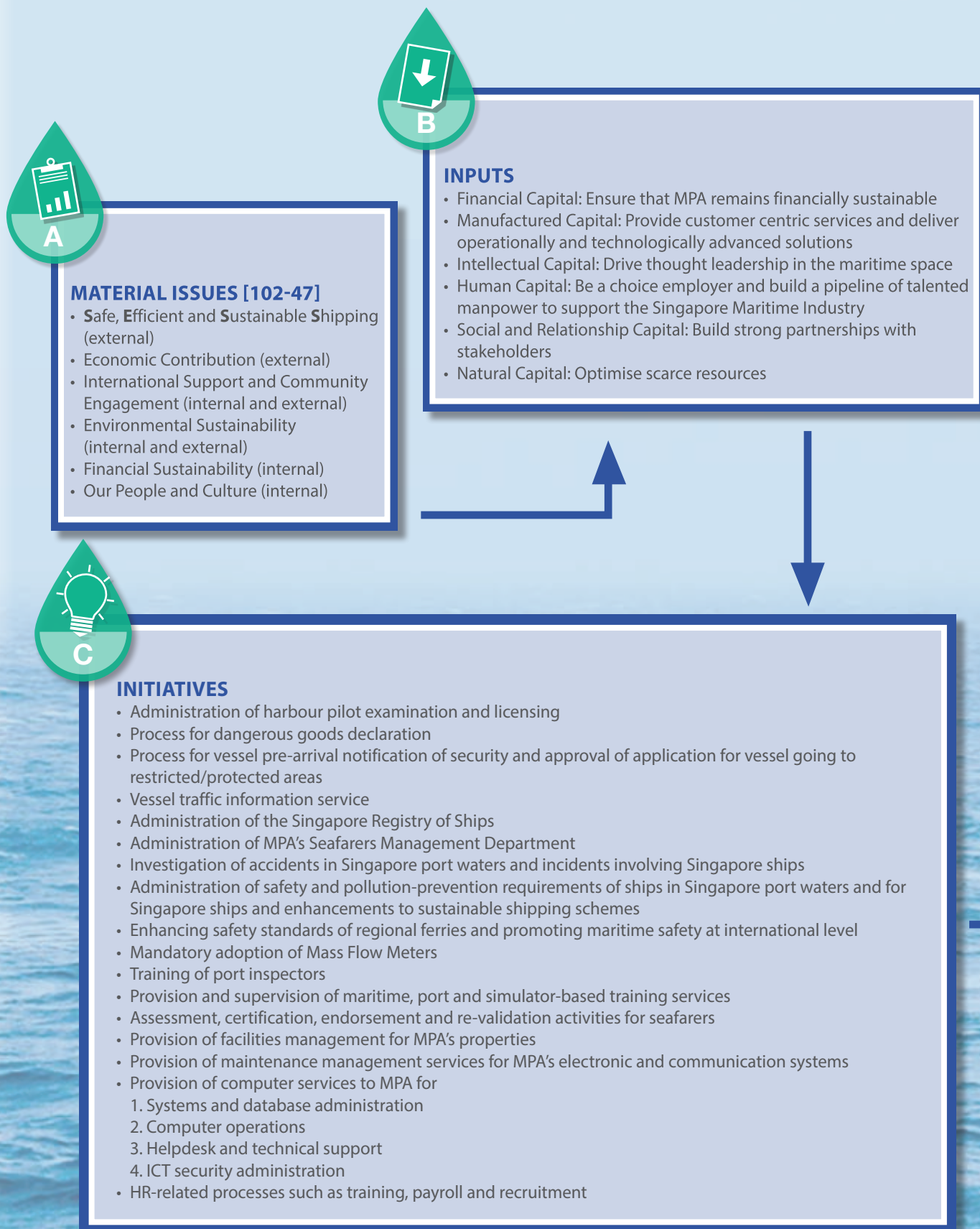
International Support and Community Engagement

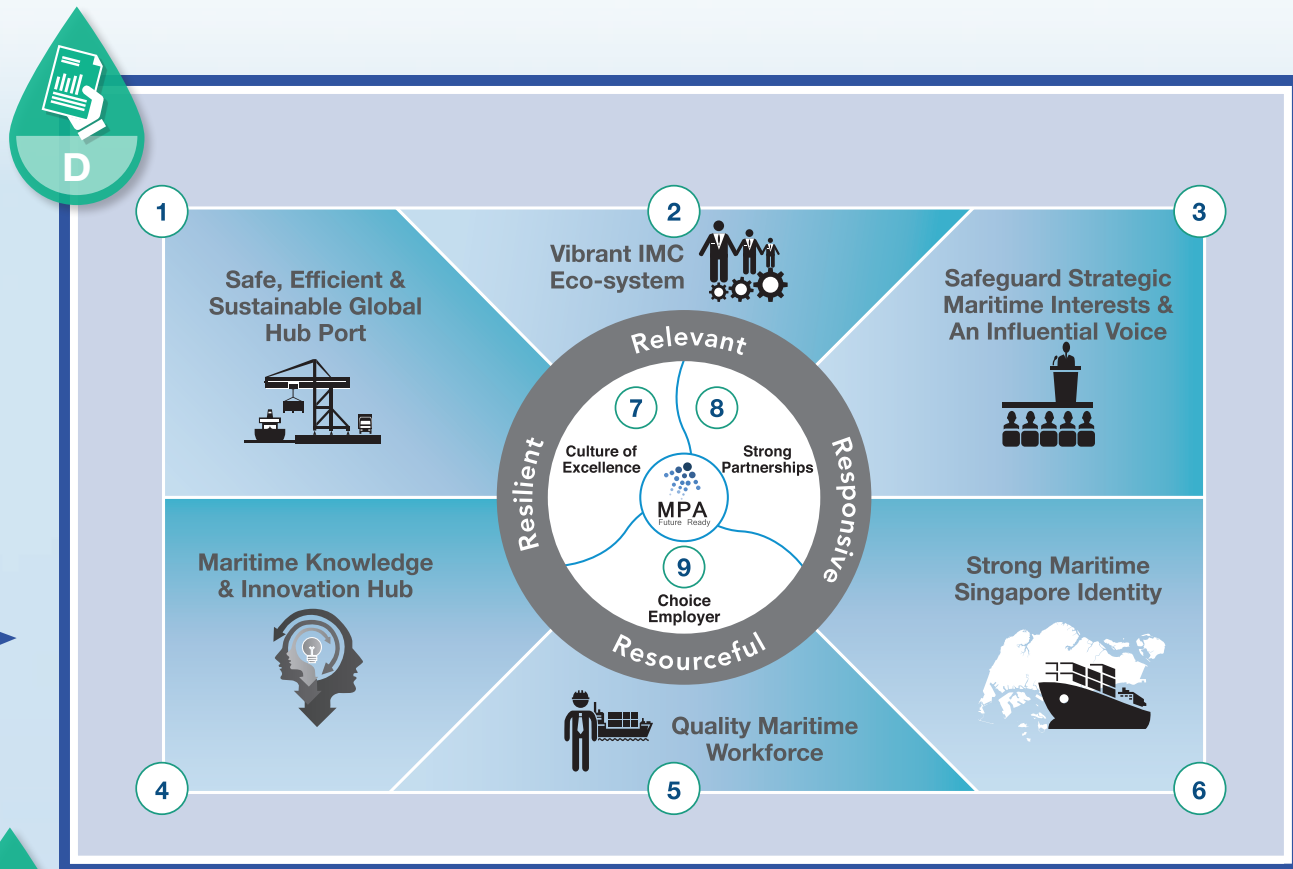
A key mission of MPA's is to continue to enhance Singapore's maritime industry. This material issue addresses the impact of local and international partnerships on MPA's operations by considering MPA's engagement with and contributions to the local community and initiatives to strengthen partnerships with the international maritime industry.

Our People and Culture

MPA reinforces its competitive advantage as a world-class port through building an efficient and rewarding workplace. This material issue addresses the maintenance of a skilled and productive workforce to meet the current and future needs of MPA through MPA's various initiatives, including strong emphasis placed on employees' continuous learning and development, and constant employee engagement.

MPA's Business Model - Future Ready Framework





KEY PERFORMANCE INDICATORS (KPIs) (TRACKED MONTHLY, QUARTERLY AND ANNUALLY)

- Get the basics right by establishing better safety and risk management practices (1,3,5)
- Drive higher productivity in our port (all)
- Promote environmental sustainability in our port (6)
- Lead in setting industry standards (all)
- Ensure adequate port infrastructure (1,2)
- Develop the Next Generation Port (all)
- Anchor and grow key players in the Singapore maritime ecosystem (all)
- Ensure a conducive environment for maritime businesses (all)
- Be an active voice in regional and international platforms (3)
- Strengthen relationship with international counterparts and the maritime community (3,5)
- Ensure effective implementation of relevant international regulations and conventions (all)
- Promote maritime thought leadership (3,5)
- Encourage research and development and nurture a culture of innovation (all)
- Drive sectoral manpower strategies (all)
- Promote maritime careers by increasing the profiling of maritime careers to targeted groups (4,5)
- Reinforce Singapore's position as a choice venue for major maritime events (all)
- Enhance strategic outreach and engagement (all)

Safe, Efficient & Sustainable Global Hub Port

chapter 01

As the lead maritime agency, MPA is working tirelessly to enhance further the quality, efficiency, and safety standards of Singapore's port operations. We are also working to fortify Singapore's world-class hub port status and its long-term competitiveness by investing in cutting-edge port facilities.



EFFICIENCY

Staying Ahead of Competition

The Port of Singapore is among the busiest in the world, attracting 140,000 vessel calls annually. Its quality, efficiency, competitiveness and reliability have made it the preferred international port of call. To further strengthen the Port of Singapore as a world-class hub port and to enhance its longer-term competitiveness, MPA is continually enhancing navigational safety in Singapore waters, boosting its efficiency and capacity, and promoting sustainable port development.

MPA aspires for the Port of Singapore to be a world class hub port which is highly competitive, safe and environmentally sustainable. On this front, MPA is working closely with maritime industry stakeholders on measures to enhance the Port of Singapore's longer-term competitiveness. MPA is also progressing on efforts to consolidate future container operations at our Next Generation Port in Tuas. The vision is to build a smarter port, leveraging on new technologies, and embarking on simulation studies to optimise operations. As a leading bunkering port, Singapore will also be the first port in the world to fully adopt Mass Flow Meters (MFM) when mandatory adoption kicks in on 1 January 2017. This will ensure that Singapore remains the choice bunkering hub, with quantity and quality assurance.



Even as we develop our port, it is imperative that we maintain the highest standards of safety in our port waters. MPA has formed the National Maritime Safety at Sea Council (NMSSC) to spearhead the drive for maritime safety on a national level and ensure our safety efforts are sustainable. MPA is also elevating Singapore's safety efforts to the international level through the inaugural International Safety@Sea Conference.

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Staying tops in Annual Marine Services Survey

To ensure that the Port of Singapore remains competitive both regionally and internationally, MPA conducts the Annual Marine Services Survey to gauge the satisfaction levels of shipmasters and shipping agents on key marine services¹ offered at the Port of Singapore, and better understand and address their areas of concern.

In 2015, the overall satisfaction level of shipmasters with the services provided at the Port of Singapore remained high. A mean satisfaction score of 4.5 out of 5 points was recorded with 97.1% of the shipmasters surveyed saying they were satisfied. Notable improvements were made on pilotage punctuality, accuracy of bunker supplied, and garbage collection service at anchorages. Based on feedback from shipmasters, these improvements stemmed from the use of MFM for bunkering, working with PSA Marine to increase the number of pilots, and extending the garbage collection hours.

The survey also highlighted possible areas of improvement such as reducing chatter on the VHF channels, increasing the number of harbour tugs to avoid service delays, and improving the range and flexibility of e-services available. MPA will continue to work with stakeholders to improve the marine services in the Port of Singapore.

Top 10 Container Ports (Source: Lloyd's List)

1. Shanghai
2. Singapore
3. Shenzhen
4. Ningbo-Zhoushan
5. Hong Kong
6. Busan
7. Guangzhou
8. Qingdao
9. Dubai
10. Tianjin

¹ Vessel Traffic Information Service, Pilotage Service, Tug Service, Hydrographic Services, Bunkering Services, Safety & Security, Water Supply Service, Garbage Collection Service, MPA's Electronic Services.



Quality Bunkering Services

The bunkering industry is an integral part of the global hub port. As the world's leading bunkering port, MPA strives to ensure that Singapore remains the preferred bunkering port for the future. This is achieved through various fronts, including continuous improvement of services, raising bunkering standards, and engagement with international industry partners. Singapore, the world's leading bunkering port, saw bunker sales reach a record-breaking 48.6 million tonnes in 2016.

USING TECHNOLOGY TO IMPROVE BUNKER DELIVERIES

Singapore is leveraging on technology to deliver timelier and more efficient bunkering services. Since January 2017, all marine fuel oil in Singapore is being delivered via MFM, which more accurately measures the quantity of bunker delivered. Delivery speed has also increased, by as much as 15 per cent. With faster and more accurate deliveries, the MFM is a win-win for everyone. In addition, MPA will be extending the use of MFM to distillate fuel deliveries, and has set aside \$500,000 for test-bedding.

LICENSING BUNKER SURVEYING COMPANIES

To enhance the quality of bunker surveying, all bunker surveying companies have to be licensed from 1 January 2017. Previously, they were only accredited by Singapore Accreditation Council. This move raises the standards of bunker surveying companies here and provides MPA with greater oversight of them and their surveyors.

Top 5 Bunker Ports in the World

(Source: Organisation of the Petroleum Exporting Countries (OPEC) World Oil Outlook 2015)

1. SINGAPORE
2. FUJAIRAH
3. ROTTERDAM
4. HONGKONG
5. ANTWERP

SIBCON 2016

Since its inception in 1988, the biennial Singapore International Bunkering Conference and Exhibition (SIBCON) 2016 has grown from strength to strength. The world's largest and most influential bunkering conference has now become a thought leadership platform for trend-setting initiatives such as MFM, LNG bunkering plans, and SS600.

MPA continues to work closely with SIBCON's steering committee of industry experts to identify issues that will spark off greater dialogue among key stakeholders. Several prominent industry stakeholders have spoken at SIBCON, generating robust discussions that has catalysed changes in the pricing, supply and range of bunker products.

SETTING THE STAGE FOR NETWORKING OPPORTUNITIES

SIBCON 2016 was a great networking platform, with nearly 1,600 participants, a significant growth from the 500 delegates who participated at SIBCON 2004. SIBCON provides opportunities for companies to ink business deals or agree on collaboration. Over the years, senior-level meetings have



Minister for Education (Schools) & Second Minister for Transport, Mr Ng Chee Meng, presided over the opening ceremony of SIBCON 2016.

been held to coincide with SIBCON as key executives from around the world gather to attend the world's largest bunkering event.

SHAPING THE DIRECTION FOR THE BUNKERING INDUSTRY

Through SIBCON, Singapore brings together key stakeholders in the bunkering industry to look at adopting new technologies like MFM to improve bunkering efficiency and generate new ideas for sustainable development.



LNG Bunkering

The global maritime industry has been moving towards more sustainable practices through the reduction of pollutants such as SOx. As a responsible member of the international community, the Port of Singapore will be providing cleaner sources of fuel, such as liquefied natural gas (LNG). LNG is already widely recognised as an important next-generation fuel for the maritime sector due to its environmentally-friendly characteristics. This move is also in line with the key strategic thrusts in Singapore's NGP 2030 initiative and Singapore's status as an early adopter will further establish it as one of the global LNG bunker hubs.

TO BE AN LNG-BUNKER READY PORT

Singapore is already taking steps to prepare it to be a LNG bunker ready port when LNG becomes more viable as an alternate fuel. This will enable the port to service a range of vessel types and sizes seeking to use LNG as a marine fuel.

While LNG bunkering is likely to take off with short-sea voyages in its initial stages, MPA hopes to promote greater dialogue and cooperation among global hub ports similarly keen on providing LNG bunkering. To this end, MPA signed an MoU during SIBCON 2016 with the Ports of Antwerp, Rotterdam, Zeebrugge, the Norwegian Maritime Authority, Jacksonville Chambers, the Ministry of Land, Infrastructure, Transport and Tourism (Japan) and the Ulsan Port Authority. The aim is to develop a network of LNG bunker-ready ports across the East-West and Trans-pacific trade routes.

To facilitate the commencement of truck-to-ship bunkering in the Port of Singapore, MPA also signed an MoU during SIBCON 2016 with the Singapore LNG Corporation Pte Ltd to collaborate on an interim truck loading facility. Under this MoU, MPA committed up to approximately S\$2 million to co-fund the development of the facility to be operationally ready in early 2017.



Aligning LNG bunkering efforts across the East and West.

Next Generation Container Terminal at Tuas



Minister Khaw Boon Wan, Coordinating Minister for Infrastructure & Minister for Transport, and MPA's Chief Executive with representatives from Daelim Industrial and Dredging International Asia Pacific at the launch of the first caisson at Tuas Terminal.

To boost Singapore's port capacity and efficiency to enhance its longer-term competitiveness, MPA is developing the Next Generation Port (NGP) 2030. NGP 2030 allows Singapore to utilise a new generation of technologies to increase efficiency and productivity, intensify land-use in the port, improve safety and security, raise the level of sustainability, and build a more community-oriented and accessible port for the public.

Mr Khaw Boon Wan, Coordinating Minister for Infrastructure & Minister for Transport, launched the first caisson for Phase 1 of Tuas Terminal Development – a 28-metre tall concrete block equivalent to the height of a 10-storey HDB block, which forms the permanent wharf structure – via a floating dock on 29 April 2016.

Tuas Terminal optimises land use by utilising both above and underground spaces for complementary purposes like storage facilities, enhances safety and security of port waters via a next generation traffic management system, and increases productivity and reduces labour costs through the use of technology like automated yard cranes and port equipment.

Upon completion, the berths in Phase 1 will be able to handle 20 million Twenty-foot Equivalent Units (TEUs) annually out of the total capacity of up to 65 million TEUs for the whole Tuas Terminal development. The scope of work for Phase 1 includes reclaiming 294 hectares of land, dredging the Tuas basin and Temasek Fairway, as well as constructing the wharf structure.

SAFETY

Keeping Singapore Waters Safe

Since Singapore is located in one of the world's busiest waterways, navigational safety in the Singapore Strait and Singapore waters is of utmost importance for both the maritime community and the sea-travelling public.

Safe waters in the Port of Singapore

The Port of Singapore and the Singapore Strait continue to be safe. The number of marine incidents per 1,000 vessel movements in 2016 has remained low at about 0.001 and 0.006 in port waters and the Singapore Strait respectively.

To complement its efforts to enhance safety and security, MPA started a transponder replacement exercise in 2015 where harbour craft and pleasure craft owners can do a one-for-one exchange to replace their old Harbour Craft Transponder System (HARTS) with the newer and more advanced Automatic Identification System B (AIS-B) and Electronic Chart System (ECS). So far, the exercise is progressing smoothly as planned – with 80% of all harbour and pleasure craft having undergone the replacement exercise as of 3 Jan 2017 – and will be completed in 1Q 2017.

Countering Piracy in Regional Waters

Piracy and armed robbery against ships disrupt international maritime commerce and endanger lives. With a third of the world's shipping trade moving through the Straits of Malacca and Singapore, collective co-operation is needed to ensure that the Straits remain open, safe and secure for international shipping and seafarers. Singapore is committed to combating piracy and armed robbery at sea to contribute to a safe and secure maritime network and maintain its status as a global hub port and a major flag state.



Together with local enforcement agencies – the Police Coast Guard and Republic of Singapore Navy, MPA works with regional enforcement authorities and stakeholders to deter piracy and armed robberies against ships through regular sharing of intelligence and stepped up patrols. Singapore continues to jointly conduct air and sea maritime security patrols of the Straits, with Indonesia, Malaysia and Thailand.

Recognising the importance of cooperation among all stakeholders, Singapore actively and regularly engages the shipping community to promulgate and encourage the use of recommended practices for merchant vessels operating in piracy-prone areas. Anti-piracy events promoting dialogue between governments, naval forces, relevant international organisations, and the maritime industry are also frequently organised.

After a spike in regional piracy incidents in 2015, a concerted effort by Malaysia, Indonesia and Singapore involving sharing of intelligence and stepped up patrols saw a significant decrease in

number of incidents in the Strait of Singapore and Strait of Malacca to just two in 2016.

Going forward, MPA will continue to actively promulgate circulars to industry and maintain proactive broadcasts of safety messages to raise awareness of piracy/sea robbery threats in the region for transiting ships, in addition to taking appropriate measures to mitigate these threats.

Regional Co-operation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP)



ReCAAP held a High Level Ministerial Meeting in Singapore as part of its 10th anniversary event on March 18 2016.

Singapore is a founding member of ReCAAP, the first regional government-to-government initiative of its kind. Singapore hosts the ReCAAP Information Sharing Centre (ISC), established in 2006, and is the ISC's largest financial contributor. ReCAAP ISC facilitates information sharing, capacity building and fosters greater co-operation amongst ReCAAP members.

The ReCAAP ISC held its 10th Anniversary Event on 18 March 2016, following the 10th Governing Council Meeting on 15-17 March 2016. During the anniversary celebration, a high-level meeting endorsed a Joint Statement charting the plans for the ReCAAP ISC to become a Centre of Excellence by 2020.

Institutionalising Safety@Sea Singapore

MPA takes a long-term view on maritime and navigational safety. Recognising the importance of working with all stakeholders, MPA has formed industry working groups with various sectors of the industry, namely the Singapore Shipping Association (SSA), pilotage service provider PSA Marine Pte Ltd (PSAM), regional ferry operators, and the pleasure craft community.

In June 2016, a new working group with the harbour craft community was formed. The working group has already embarked on several initiatives such as the collation and analysis of incidents, and is working with MPA to champion training on the use of ECS for harbour craft masters.

The various MPA-Industry Safety Working Groups meet regularly and have formulated a slew of practical measures implemented by MPA to enhance the safety of navigation. Initiatives such as the revision of the Pilot Eastern Boarding Ground "B" and the 15 minutes interval scheduling system for vessels have received positive feedback from shipmasters and other port users.

Quarterly safety briefings are conducted for the regional ferry operators, harbour and pleasure craft community to instil a strong safety culture and safeguard against complacency. These briefings address the human element that is a common cause of many marine incidents. To ensure safety, MPA enforces international standards required for vessels through safety audits and inspections. Random safety checks are conducted by officers and MPA works with the industry to facilitate the reporting of good practices and near-misses through the Safety Reporting and Suggestion framework.

Safety@Sea Week 2016

MPA's flagship maritime safety event, Safety@Sea Week, was launched in November 2014. In 2016, it was held from 29 August to 2 September and included the inaugural International Safety@Sea Conference on 30 August 2016.

Coordinating Minister for Infrastructure & Minister for Transport, Mr Khaw Boon Wan, officiated the opening ceremony of the conference. The keynote speech was delivered by Mr Kitack Lim, Secretary-General of the International Maritime Organization (IMO). Mr Lim's speech "Building a resilient safety at sea culture" focused on building a culture of safety throughout the global shipping community, the importance of training

and career development and the challenges of ensuring a continued pipeline of human resources for the industry. Over 30 international speakers and industry experts also shared on topics such as training and readiness, rethinking strategic safety management, passenger and crew safety, and investigation and insurance during the event.

Safety@Sea Week 2016 featured four workshops on critical safety areas such as the management of passenger safety on board ferries, safe navigation, understanding the human element in shipping, and international safety management and emergency preparedness.

Key Events of Safety@Sea Singapore Campaign



Launch of 'Safe Passage in the Singapore Strait' video

As one of the busiest sea routes in the world, transiting the busy Singapore Strait can be a challenging experience even for the most experienced mariners. To help mariners navigate safely through the Singapore Strait, MPA jointly developed a maritime safety video, titled "Safe Passage in the Singapore Strait", with the maritime authorities of Indonesia and Malaysia. It was endorsed by Baltic and International Maritime Council (BIMCO), International Chamber of Shipping (ICS) and National Maritime Safety at Sea Council (NMSSC).

The safety video is a three-part training resource package comprising two full-length videos and an interactive computer-based training module. It provides valuable navigational information for mariners transiting the Singapore Strait. The interactive element helps mariners easily assimilate pertinent information.

To date, the video has been distributed to participants at the International Safety@Sea Conference and shipping companies both local and abroad. MPA will be distributing copies of the video to Singapore registered ships and vessels calling at the Port of Singapore.

Instilling Contingency Planning and Emergency Response

As a trusted and reliable maritime administration, MPA is fully able and capable of handling emergencies at sea around the clock. Together with other government agencies and organisations, MPA has developed an emergency response system to respond to emergency situations expediently, and to minimise casualties, as well as economic and environmental damage.

Exercises are carried out annually using different scenarios to test the readiness of personnel and the efficiency of each procedure. They range from tabletop exercises to inter-agency operations involving government, commercial service providers, and the public.

In 2016, a total of five exercises were conducted by MPA to assess the readiness and speed of response of the governmental agencies and maritime industry.

Borderhealth Exercise

The Borderhealth Exercise was conducted on 19 February to test the Border Health Sea Checkpoint Screening Operation plan. The ground deployment exercise included setting up temperature scanners and screening workstations, implementing infection control measures, managing febrile passengers for hospital transfer and decontaminating infected workplaces. Participants came from various government agencies. The exercise was also observed by representatives from marinas, sea sports centres, cruise and ferry operators and fishery ports.

Chemical Spill Exercise (Chemspill)

Chemspill 2016 was conducted on 1 April to test the activation procedures and Chemical Contingency Plan (Marine) for the handling of a chemical spill incident in Singapore waters. The tabletop exercise involved multi-agency collaboration to discuss mitigation strategies to tackle a chemical spill involving benzene onboard a container ship.

Ferry Evacuation Exercise and Ferry Rescue Exercise (FEREX)

Two ferry exercises were conducted in 2016 – on 6 May and on 1 September. Both focused on passenger management and evacuation drills at sea, which had been identified as areas for improvement from the Sea Prince After Action Review.

The May exercise tested the ground deployment at the seaward side and landing point. More than 150 personnel from eight agencies and companies took part in the exercise, which

included deployment of resources at sea for rescue operations and landing of casualties and rescued persons at Tanah Merah Ferry Terminal.



The September exercise tested both ground deployment and the Emergency Operations Centre to drill all relevant agencies on the processes and procedures of the Ferry Mishap Contingency Plan. More than 350 personnel from 10 agencies and companies took part in this full deployment exercise, which included deployment of resources at sea for rescue operations, manning of the Emergency Operations Centre and landing of casualties and rescued persons at Regional Ferry Terminal.

Exercise JOSE 2016

This multi-agency joint oil spill exercise was conducted in conjunction with SIBCON in October to test and demonstrate Singapore's readiness in responding to oil spills at sea. Over 250 personnel from 28 agencies participated in the exercise, which included ground deployment at a seaward location and a tabletop exercise. The exercise also tested the use of a new system, NeatSweep, to contain the spill.

SUSTAINABILITY

Celebrating the Singapore Flag

The Singapore flag has grown to become a quality flag of choice for international ship owners and operators. The Singapore Registry of Ships (SRS) ranks among the world's five largest ship registries and boasts one of the youngest fleets.

To enhance Singapore's attractiveness as a flag Administration, SRS upholds its vessels' high safety and security standards, and strives to maintain their low detention record with key Port State Control (PSC) regimes such as Tokyo MOU and Paris MOU. Both MOUs consist of major maritime administrations seeking to eradicate substandard ships.



from 2015. Despite the growth, the number of Singapore ships detained decreased from 49 in 2015 to 41 in 2016. Overall, SRS detention rates were far below the average. For the Tokyo MOU regime, the detention rate was 0.78% versus the 3.45% average. For the Paris MOU regime, it was 1.49% compared with the mean of 3.77%.

To maintain a high standard, SRS actively monitors and audits Singapore-flagged ships. It also works closely with maritime companies to better understand their operational needs and challenges. This close and mutually beneficial industrial engagement enables SRS to develop policies in tandem with industry development and keeps the maritime community updated on new regulatory developments.

In 2016, SRS' ranking rose from 4th to 3rd in the Tokyo MOU White list, and from 11th to 10th in the Paris MOU White List. The White List represents high quality flags with a consistently low detention record.

The industry partnership has helped SRS to grow a quality fleet. In 2016, SRS reached 88 million gross tonnage – a 2% increase

With a large fleet hoisting the Singapore flag, SRS recognises that the maintenance of high shipping standards and low detention records in the major PSCs is critical for the reputation and attractiveness of its registry. MPA will continue to engage and work hand-in-hand with stakeholders for the maritime businesses in Singapore to thrive.

Enhancing navigation safety, strengthening cooperation for emergency response



Following the Sea Prince ferry grounding in 2015 where passengers were evacuated via life rafts and then by nearby vessels, MPA acted to enhance the safety standards of regional ferries.

Inspections on all regional ferries have been stepped up including more spot checks at the terminals especially during peak periods. Singapore-registered ferries undergo more detailed inspections between their annual surveys for the renewal of Passenger Ship Safety Certificates. These inspections are aimed at raising the safety standards of regional ferries, enhancing the crew's safety awareness

and emergency preparedness, assessing the ferries' level of compliance with mandatory requirements and safe practices, and providing recommendations to further improve safety standards. MPA also conducts regular briefings and has formed a safety working group with the Association of Regional Ferry Operators.

In addition, MPA has met with the Batam Authorities to strengthen standard operating procedures. MPA will continue to work with the Indonesian and other regional authorities to further strengthen safety practices for regional ferries and hold joint exercises to enhance response coordination.

Emphasising Environmental Sustainability

As the port authority, MPA strives to promote and ensure environmentally-friendly shipping and port activities in the Port of Singapore, one of the busiest ports in the world.

Singapore's strong commitment to environmentally-friendly shipping and port activities is underscored by the country being compliant with environment regulations set by national and global bodies, such as being a party to all the Annexes of the International Maritime Organization's MARPOL convention, consistent application of environment standards and investment in green initiatives and technology.

MPA also drives maritime research and development in clean technologies in partnership with tertiary institutions and the industry, supported by MPA's Maritime Innovation and Technology (MINT) Fund.



The Maritime Singapore Green Initiative (MSGI)

The MSGI, launched in 2011, serves to reduce the environmental impact of shipping and related activities and to promote clean and green shipping in Singapore. In 2011, MPA pledged to invest up to \$100 million over a five-year period to support this comprehensive initiative, comprising the Green Ship Programme (GSP), the Green Port Programme (GPP) and the Green Technology Programme (GTP). These voluntary programmes recognise and incentivise maritime companies to adopt clean and green shipping practices and to go beyond the minimum mandated requirements for environmental sustainability.

The MSGI has received strong support from the maritime industry over the past 5 years. Some 337 Singapore-flagged ships qualified for the GSP. More than 50% of these qualifying ships exceed IMO's Energy Efficiency Design Index. The GPP has also achieved considerable success. More than 4,100 vessel calls have switched to marine fuel with sulphur content not exceeding 1%. Meanwhile, the GTP has more



New Enhancements to MSGI

From 1 July 2016, GSP incentives will be extended to ships using LNG as part of Singapore's longer-term efforts to encourage the use of this more sustainable fuel alternative. In addition, the GPP's sulphur oxide (SOx) limit will be reduced further to 0.5% for ships calling Singapore to enjoy a 25% concession in port dues for the use of low sulphur fuel during their entire port stay. Similar concession is also extended to LNG-fuelled ships.

MPA is also introducing two new programmes under the MSGI – The Green Awareness Programme (GAP) and The Green Energy Programme (GEP).

The GAP works to encourage the maritime industry to explore all possible avenues to promote sustainable shipping while the GEP supports the adoption of alternative/cleaner marine fuels in the Singapore. Under the GAP, MPA initiated co-funding to assist SGX-listed maritime companies with their Sustainability/Integrated reporting. MPA will co-fund 50% of the qualifying costs, up to \$50,000 per company, for reporting by 31 Dec 2018.

The MSGI Programme extension strongly demonstrates MPA's commitment to creating an eco-friendly and sustainable global hub port. Its enhancement is aimed at incentivising the maritime industry to continue with its efforts to provide safe, efficient and sustainable shipping, despite the challenging economic environment. MPA will ensure that the MSGI remains relevant and supports a more sustainable Singapore and global maritime community.

than 20 projects involving over 60 vessels. The annual carbon dioxide emissions from the improved ships have reduced by more than 177,000 tonnes. These encouraging results have prompted MPA to extend the MSGI to 31 December 2019.

Maritime companies were also invited to take the Maritime Singapore Green Pledge to demonstrate their commitment in promoting clean and sustainable shipping here. As of 2016, 108 companies have voluntarily signed the Green Pledge.



Stepping Up as Category Sponsor for the inaugural SEC-MPA Singapore Environment Achievement Award (Maritime)



MPA's Chief Executive with WWL representative, Minister for the Environment and Water Resources, Mr Masagos Zulkifli and Ms Isabella Loh, Chairman, SEC.

As a winner of Singapore Environment Achievement Award (SEAA) in 2015, MPA stepped forward to sponsor the SEC-MPA Singapore Environment Achievement Award (Maritime) in 2016, further reflecting MPA's commitment in promoting a Clean and Green Maritime Singapore. The inaugural winner was Willenius Wilhelmsen Logistics AS (Singapore Branch). The award recognises maritime companies that are at the forefront of sustainability efforts. The China Navigation Company Pte Ltd was the Merit Winner.

SRS 50th Anniversary Celebrations

The Singapore Registry of Ships (SRS) celebrated its 50th Anniversary in 2016. Over the years, the SRS has evolved to become a critical enabler to the development of our maritime services and complements other longer term efforts by MPA to develop Singapore as a major centre for maritime businesses. To celebrate the SRS' five decades of notable achievements to have become the preferred choice of flag for quality ship owners and operators, a dinner was held at Fullerton Hotel on 30 November 2016.

Graced by Mrs Josephine Teo, Senior Minister of State, Prime Minister's Office, Ministry of Foreign Affairs and Ministry of Transport, the dinner was attended by guests from various stakeholders and ex-staff of MPA. It was symbolic that SRS' roots began right in the same Fullerton Hotel building when it was first established in 1966 under the Marine Department. At the dinner, another 84 Green Ships and 59 new companies that have qualified for the GSP were recognised. Eight more companies signed the Green Pledge, bringing the total number of signees to 108.



Senior Minister of State Josephine Teo gracing the SRS 50th Anniversary.



Emissions

Shipping remains the backbone of international trade and globalisation. According to the Third IMO Greenhouse Gas Study 2014, international shipping generated 796 million tonnes of carbon dioxide (CO₂) in 2012 against 885 million tonnes in 2007. This represented 2.2% of the global CO₂ emissions in 2012 versus 2.8% in 2007. As international shipping continues to grow in tandem with world trade, the maritime industry must play its part to reduce its air emissions and improve energy efficiency.

The IMO's Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL) plays a pivotal role in reducing shipping's air emissions. The global sulphur cap on bunker fuel was reduced to 3.5% mass/mass (m/m) from 4.5% from January 2012. During the 70th session of Marine Environment Protection Committee (MEPC) meeting in October 2016, it was decided that the sulphur content of the fuel oil would be further reduced to 0.5% from 1 January 2020, a significant cut from today's 3.5% m/m. This landmark decision demonstrates IMO's clear commitment to ensuring shipping meets its eco-obligations.

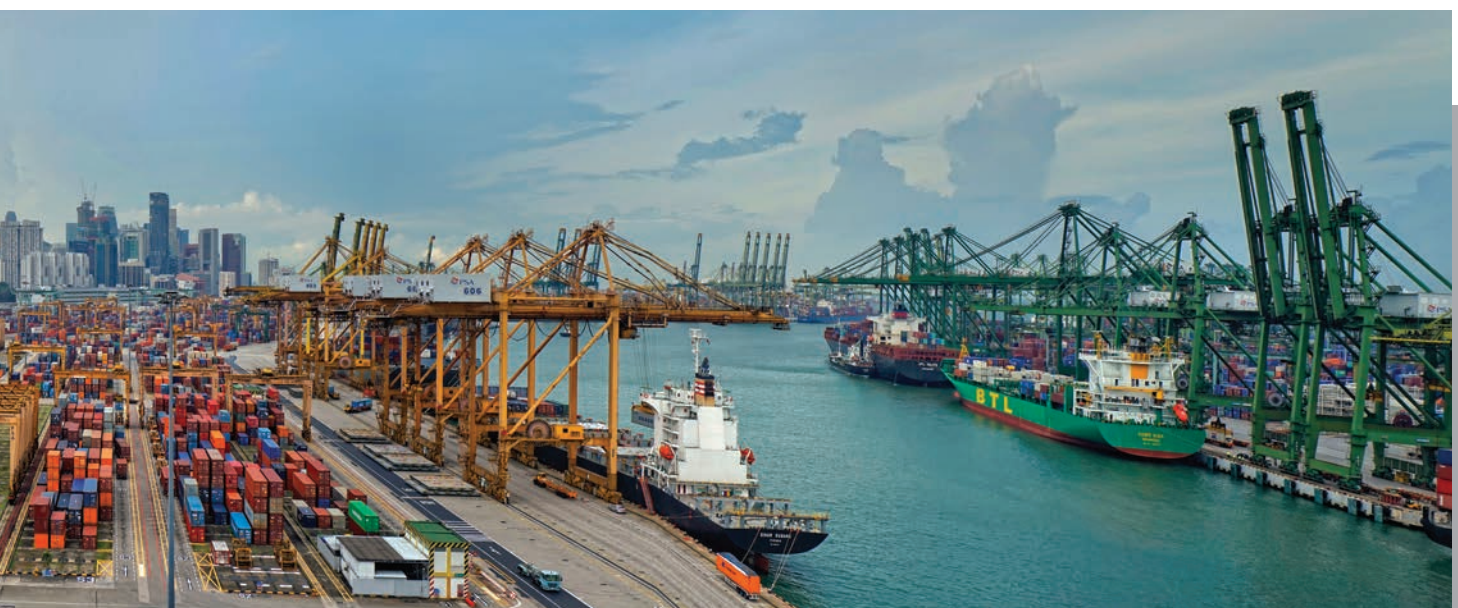
The MEPC also approved a Roadmap for developing a comprehensive IMO strategy on the reduction of greenhouse gas (GHG) emissions from ships, which foresees an initial GHG reduction strategy to be adopted in 2018. The Roadmap contains a list of activities, including further IMO GHG studies and significant intersessional work with relevant timelines, aligning these new activities with the ongoing work by the MEPC on the three-step approach to ship energy efficiency improvements. This alignment facilitates the adoption of a revised strategy in 2023 to include further short, mid, and long-term measures, as required, including implementation schedules.

As a responsible member of the international community, Singapore actively contributes to on-going discussions at the IMO on environmental sustainability, including being a member of the Steering Committee overseeing the Fuel Oil Availability Study.

Reducing GHG Emissions and Energy Usage

MPA has been working closely with shipping lines to further reduce CO₂ emissions through the GSP, which encourages owners of Singapore ships to adopt energy-efficient ship designs that exceed IMO's Energy Efficiency Design Index requirements. Qualifying ships can enjoy up to 75% discount on the Initial Registration Fees, and 50% discount on Annual Tonnage Tax.

MPA has completed the studies for ships' air emissions in Singapore, and the related energy sustainability studies for the terminals. The findings provide good baselines for MPA to formulate policies to improve energy efficiency and use abatement measures for shipping and port terminals to reduce air emissions from the maritime sector. MPA will be formulating abating-orientated policies in 2017, in consultation with and participation from terminal operators and owners of domestic crafts, and relevant governmental agencies. Leveraging on efficiency-optimising technologies, the proposed measures will include reduction targets, and monitoring and management systems and policies.



Sustainability in Tuas Terminal Development



Continuing with the engineering innovations first deployed in Pasir Panjang Terminal Phases 3 and 4, Tuas Terminal development extensively uses alternative materials. Excavated earth from land construction projects as well as dredged materials from the deepening of basins and nearby fairway will be reused, and will make up more than 60% of the total fill material. Re-using, rather than disposing, these materials will reduce the amount of sand required for reclamation, and generate reclamation fill material cost savings of some \$1 billion.

Prior to land reclamation for the Tuas Terminal, corals around Sultan Shoal lighthouse were relocated to the southern islands to preserve them, as recommended by an Environmental Impact Assessment. In the \$6 million relocation project, 2,300 out of the 2,800 coral colonies moved have survived. MPA continues to monitor the health and growth of the relocated corals, and will monitor the health of the remaining corals at Sultan Shoal till 2019. More than 90% of the 213 corals collected from Sultan Shoal, which were then grown in nurseries and later transplanted onto sea walls on Lazarus Island, have survived.

Local Air Quality

MPA encourages ships to reduce their SOx emissions through the GSP and GPP. To qualify for the GSP, owners and operators of Singapore ships must submit documentation showing the installation of an approved SOx scrubber and the emission reductions achieved.

Qualifying ocean-going ships that use type-approved abatement/scrubber technology, burn clean fuels or LNG during an entire port stay (of 5 days or less) within Singapore Port Limits (from the point of entry into Singapore Port Limits till the point of exit) are granted 25% reduction in port dues. Going forward, MPA will be working to encourage more ships to reduce SOx emissions.

Maintaining Biodiversity and Managing Materials

Singapore is home to over 250 species of hard corals, 31 true mangrove plant species, and 12 Indo-Pacific species of seagrass.

As the Port of Singapore continues to expand its cargo handling capabilities to maintain relevance and competitiveness, MPA is committed to sustainable development, protecting the marine environment and managing the environmental impact of shipping even as it plans for port growth.

Recognising that port development and expansion mean large quantities of material usage and waste, MPA's



construction management is geared towards reducing the environmental impact. In addition, environmental sustainability is incorporated into port design and construction. While existing port facilities are protected from near-term sea level rise, MPA will monitor and implement measures when facilities are upgraded or redeveloped. The new Tuas Terminal Gateway will be built more than 2 metres higher than the highest water level observed in line with the latest sea level rise projections.



Vibrant IMC Eco-system

chapter 02

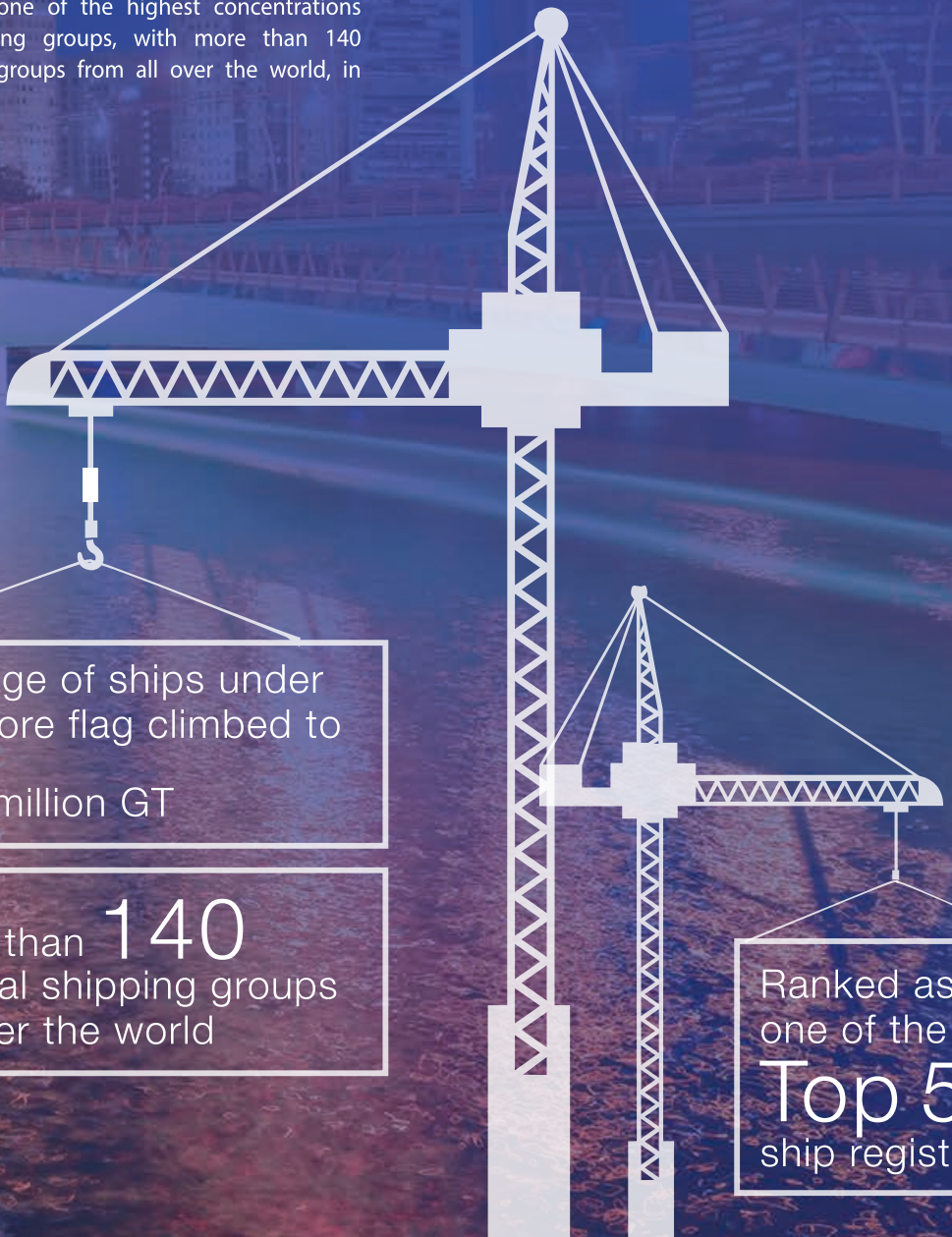
Singapore has among the world's highest concentrations of international shipping groups. Together with stakeholders, MPA is working to reinforce the nation's value proposition as a leading and competitive IMC.

Leading International Maritime Centre

In addition to being a premier global hub port, Singapore is also a leading International Maritime Centre (IMC). The latest Xinhua-Baltic Exchange Shipping Centre Development Index published in 2016 ranked Singapore as the top shipping centre among 43 global maritime hubs. Singapore was also ranked as the world's leading maritime capital in the 2015 benchmarking study by Norwegian consulting firm Menon Economics.

Today, Singapore has one of the highest concentrations of international shipping groups, with more than 140 international shipping groups from all over the world, in

particular Europe and Asia. Collectively, these groups from the container, bulk, tanker and offshore sectors generate a local business spending of more than \$3.5 billion annually. In 2016, the total tonnage of ships under the Singapore flag climbed to 88.0 million gross tonnage (GT) from 86.3 million GT in 2015, reinforcing Singapore's position as one of the top five ship registries.



Total tonnage of ships under the Singapore flag climbed to **88.0** million GT

With more than **140** international shipping groups from all over the world

Ranked as one of the **Top 5** ship registries



IMC 2030 Advisory Committee members with Senior Minister of State Josephine Teo.

Formation of IMC 2030 Advisory Committee

As part of Maritime Singapore's Future Ready vision and in alignment with national economic restructuring efforts driven by the Committee on the Future Economy (CFE), MPA has formed a high-level IMC 2030 Advisory Committee. Chaired by Mr Andreas Sohmen-Pao, Chairman of BW Group, and comprising global business leaders and experts in the maritime and related sectors such as global logistics, finance and technology, the Advisory Committee will undertake a strategic review and chart developmental strategy that will take Singapore to 2030 and beyond.

Advancing the Industry through Growth

As a leading IMC, Singapore is home to an integrated ecosystem of shipping companies and a wide spectrum of commercial and technical maritime services, such as broking, insurance, finance, legal, surveying, and classification. Today,



Senior Minister of State Josephine Teo in discussion with the IMC 2030 Advisory Committee.

An Extensive Maritime Ecosystem



there are over 20 major international shipbroking firms, 30 local and international law firms with maritime practice, more than 20 banks offering ship finance, 7 International Group Protection and Indemnity (IGP&I) clubs and the Lloyd's Asia platform comprising 19 service companies writing marine and/or offshore energy risks.

MPA understands the importance of continuing to strengthen Singapore's value proposition as a leading and competitive IMC as the global maritime environment continues to evolve. The rise of Asian economies and the shift in global trade balance towards Asia open a world of opportunities for the Singapore IMC to grow its attractiveness.



Safeguard Strategic Maritime Interests & an Influential Voice

chapter 03

Singapore is committed to advance and safeguard our strategic maritime interests. In line with these goals, MPA continues to build sound relationships with the international community, nurturing existing partnerships and forging new ones in the region and around the world.

As a small country highly dependent on international seaborne trade, the safety and security of global shipping is vitally important to Singapore. Since ships have to sail through the territorial waters of multiple sovereignties, nations and organisations need to work in concert to enhance maritime safety and security for the benefit of all stakeholders. As a responsible member of the international maritime community, Singapore is firmly committed to doing its part to promoting safe, secure, environmentally sound, efficient and sustainable shipping.

Singapore aspires to have a strong presence and an influential voice in international maritime affairs to safeguard its maritime interests. As the lead maritime agency, MPA spearheads efforts to advance and safeguard these interests. For example, Singapore is actively involved in the International Maritime Organization (IMO) through leadership positions in various committees and working groups, and contributes to IMO discussions on key issues.

Active Member of IMO

Since becoming an IMO Council Member in 1993, Singapore has chaired the IMO Council, the then Sub-Committee on Bulk Liquids and Gases, and the then Sub-Committee on Flag State Implementation. Singapore has also assumed the position of Vice-Chair of the Marine Environment Protection Committee and the Maritime Safety Committee. It currently serves as Vice-Chair for the Sub-Committee on Human Element, Training and Watchkeeping. Singapore was successfully re-elected to the IMO Council for the 2016 biennium with the highest number of votes in Category C.

Singapore advocates the universal and uniform implementation of IMO instruments. To date, Singapore has ratified and implemented every major IMO convention in force relating to ship safety and the prevention of pollution from ships.



Secretary-General of the International Maritime Organization (IMO) Mr Kitack Lim and MPA's Chief Executive during the former's inaugural visit to Singapore after assuming office.

Maintaining an Influential Voice on the Global Stage

Under the IMO's "Protection of Vital Shipping Lanes" initiative, Singapore has, together with Indonesia and Malaysia, established the Co-operative Mechanism on Safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore ("Co-operative Mechanism") to keep the Straits safe and open for international shipping. Launched in 2007, the Co-operative Mechanism remains the key platform for the littoral States, user States and major stakeholders to collectively address key issues concerning the Straits and undertake initiatives to enhance safety of navigation and marine environmental protection.

Singapore is the current Chair of the Aids to Navigation Fund, established under the framework of the Co-operative Mechanism to receive financial contributions from the international maritime community for the provision and maintenance of critical aids to navigation in the Straits of

Malacca and Singapore (SOMS). Under the Co-operative Mechanism's Project Coordination Committee, Singapore is currently spearheading two projects, namely:

- Straits Project 9 – Ship Traffic Management System in the SOMS with Norway, and
- Straits Project 13 – New Study for Safety of Navigation in the SOMS – with the Malacca Strait Council.

Singapore was among the first countries to comply fully with the IMO's International Ship and Port Facility Security (ISPS) Code. As part of our continuing support of regional initiatives, Singapore participated in the 14th ASEAN-Japan Port Security Experts Meeting, held in September 2016, to share best practices in port security operations.

Singapore will continue to work with IMO and Member States to promote safe and open shipping on clean oceans.

APEC Port Services Network (APSN) & Green Ports Award System (GPAS)



Group photo - APSN council members

The APSN is a non-profit organisation established in 2008 to facilitate cooperation and communication among the port and port-related industries in APEC. MPA is an active member, representing Singapore's interests at APSN and serving as APSN's 2nd Vice President for the last three years.

Singapore has shared its experiences at APSN's annual workshops. At the 9th APSN Workshop held in November 2016, Singapore dealt with the subject of dangerous goods handling.

MPA's participation has raised the profile of Singapore's ports. In 2016, MPA and Jurong Port Pte Ltd won the inaugural APSN GPAS – the only Asian port award aimed at improving environmental awareness, promote sustainable development and green strategies, and facilitating the sharing of best practices. The Award is a shining testimony to MPA's sustainability efforts for the Port of Singapore.



Port Authorities from around the world gathered for the second Port Authorities Roundtable hosted by the Port of Rotterdam Authority.

Port Authorities Roundtable (PAR)

The 2nd Port Authorities Roundtable (PAR) was hosted by the Port of Rotterdam Authority from 22 to 24 June 2016 in Rotterdam. The closed-door roundtable event brought together port authorities from major ports in Asia, Europe and US to network, exchange views and explore areas of collaboration. MPA's Chief Executive, Mr Andrew Tan, gave an update on Singapore's Next Generation Port and recent initiatives for safe, efficient and sustainable shipping. In recognition of MPA's initiative and contributions, it was appointed the permanent Secretariat for PAR.



MPA and the S. Rajaratnam School of International Studies (RSIS) have jointly appointed former International Maritime Organization Secretary-General, Mr Koji Sekimizu, as a RSIS-MPA Distinguished Visiting Fellow.



Engaging Maritime Thought Leaders

MPA firmly believes in promoting thought leadership. It regularly invites key opinion makers in the international maritime community to visit Singapore under the Distinguished Visitors Programme, Distinguished Speakers Series, Maritime Visitors Programme, and other platforms. These platforms are central to MPA's engagement efforts with the international maritime community.

Distinguished Visitors Programme

Under the Distinguished Visitors Programme, MPA hosted Dr Ahmed M Darwish, Chairman of the General Authority for the Suez Canal Economic Zone of the Arab Republic of Egypt. Dr Darwish was given an overview of Maritime Singapore, including the planning of the future Tuas Port development, and shared his insights at a Singapore Business Federation roundtable discussion on Opportunities in the Suez Canal Economic Zone.

Distinguished Speaker Series

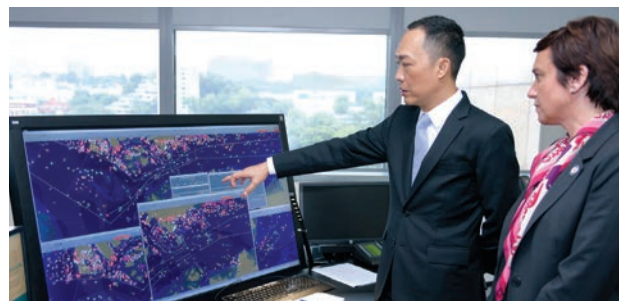
MPA also hosted Mr Kitack Lim, Secretary-General of the IMO, when he was in Singapore to deliver the keynote address at the inaugural International Safety@Sea Conference held from 30 to 31 August 2016. He spoke on key priorities and policies for maritime safety, highlighting the importance of inculcating a safety-first culture throughout the global shipping community. Mr Lim also shared his vision of the IMO with some 200 maritime industry leaders, government officials and academics under the MPA Academy Distinguished Speaker Series.

Maritime Visitors Programme

Under the Maritime Visitors Programme, MPA hosted Ms Katy Ware, Director of Maritime Safety and Standards, Maritime and Coastguard Agency, and Permanent Representative of the United Kingdom to IMO. Ms Ware's visit was arranged to coincide with MPA's inaugural International Safety@Sea Conference where she delivered a keynote address, entitled "Next generation safety benchmarks for the Maritime Industry – the role of behavioural-based safety and human factors".



Dr Ahmed M Darwish, Chairman of the General Authority for the Suez Canal Economic Zone of the Arab Republic of Egypt, met with Chief Executive of MPA as part of the Distinguished Visitors Programme.



Ms Katy Ware, Director of Maritime Safety and Standards, Maritime and Coastguard Agency, United Kingdom (UK) and Permanent Representative of the UK to the IMO, visited the Port Operations Control Centre (POCC) during her visit to Singapore under the Maritime Visitors Programme.

RSIS-MPA Fellowship

The S. Rajaratnam School of International Studies (RSIS) and MPA appointed former IMO Secretary-General, Mr Koji Sekimizu, as a RSIS-MPA Distinguished Visiting Fellow in 2016. The fellowship was established to engage eminent maritime personalities with specialised knowledge, expertise and international experience.

In conjunction with his first visit to Singapore as a Distinguished Visiting Fellow, Mr Sekimizu delivered his inaugural lecture on 23 August 2016. In his lecture, "What I dreamed about at IMO", he talked about his experiences at and his hopes and aspirations for IMO. The talk was attended by some 170 maritime industry leaders, government officials and academics.

A person is shown in profile, wearing a headset and looking at a computer monitor. The background is a blurred bokeh of colorful lights in shades of pink, purple, and blue. The person is wearing a dark jacket with a light-colored stripe on the sleeve.

Maritime Knowledge & Innovation Hub

chapter 04

To ensure that Singapore stays at the forefront of maritime knowledge and innovation, MPA is actively fostering the growth of maritime R&D capability that will ultimately harness cutting-edge technology for the industry's benefit. It is also leading the charge to create a global centre of maritime learning.



Photo Credit: PSA Corporation Ltd
Automated Guided Vehicles (AGVs) in operation at the PSA Living Lab, Pasir Panjang Terminal, Singapore.

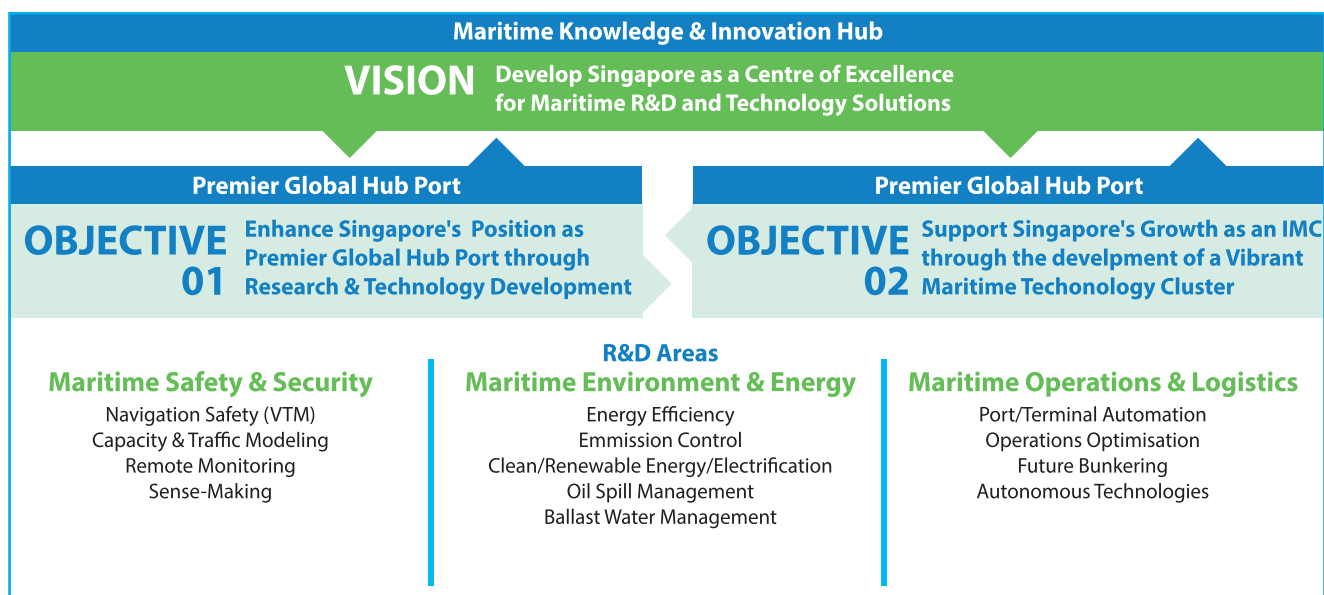
MPA recognises the importance of a vibrant maritime research and development (R&D) and technology cluster to sharpen the Port of Singapore's competitive edge. The presence of strong maritime R&D capability, coupled with a vibrant maritime technology cluster, spurs new areas of growth and innovation linkages that will sustain Singapore as a Global Hub Port and an International Maritime Centre. Being an R&D centre of excellence also enables maritime industry players here to harness new technologies to enhance their maritime operations and environment sustainability.

It aims to establish Singapore as one of the top centres of excellence for maritime knowledge and innovation. In line with this goal, MPA provides strong funding support in the form of the Maritime Innovation and Technology (MINT) Fund for R&D projects, and partners with industry, and tertiary and research institutions to conduct R&D. Smart technology is also being used in the development of the Next Generation Port.

MPA also recognises the growing importance of training in developing maritime leadership. MPA aims to establish the training arm MPA Academy as a global centre of learning by designing relevant and novel maritime training programme. This is achieved through close collaborations with training partners, including Institutes of Higher Learning, to enhance the curricula of the Academy's programmes.



Maritime R & D Framework



Excellence in R&D

MINT Fund and Maritime R&D

MPA rolled out new R&D initiatives under the MINT Fund in April 2016 to promote and strengthen the local development of products and solutions for the maritime industry. Among the enhancements was the commitment of a further \$50 million to the MINT Fund and its extension to 2021. With the top-up, a total of \$200 million has been committed to the fund.

Funding policies and guidelines have been enhanced too. In addition, the Fund's focus areas have been expanded to include data analytics, modelling and simulation, autonomous technologies, and sensors. These enhancements are in response to emerging technological developments and industry feedback, and the growing emphasis on translating R&D output into practicable products and solutions for the maritime industry.

PSA Living Lab

PSA Corporation Limited (PSA), with the support of MPA and Economic Development Board, launched the PSA Living Lab in June 2016. Nearly \$100 million has been committed to this laboratory over the next three years.

Comprising two operational berths at Pasir Panjang Terminal, the laboratory will enable start-ups and technology solution providers to collaborate with PSA to develop ideas and test-bed integrated systems live in one of the world's busiest hubs for container movement.

The PSA Living Lab is integral to PSA's on-going programme to develop innovative and cutting-edge technological solutions for its existing and future terminal operations. One key project is the Automated Guided Vehicle (AGV) system, supported by MPA's MINT Fund. A fleet of 30 electric and hybrid AGVs will be deployed at two berths in 2017 to test-bed automated and sustainable solutions, which will be used at the future Tuas Terminal.

Innovfest 2016

With the theme of Experience, Learn, Understand and Apply Innovation, Innovfest 2016 was held in November 2016 as a

full-day event for MPA staff to learn and experience various aspects of innovation. The day started off with speakers from some of the leading companies in innovation – PwC, Unilever Foundry, and Infineon. An exhibition featured innovations by DHL, IBM, Infineon Technologies, 3M, Dredging International Asia Pacific- Daelim Joint Venture as well as MPA's own Hydrographic Department, and Vessel Traffic Management Department. This gave staff and management the opportunity to interact with the participating companies and better understand their innovations.

Two parallel events were held in the second half of the day – a Learning Journey at the DHL Innovation Lab, a dedicated centre for innovative logistics, and an Innovation Workshop Competition using the Design Thinking approach.

Ops-Tech Initiative

As vessel traffic continues to grow rapidly within Singapore's limited sea space, navigational safety, sea space management, marine environment protection, productivity and operational efficiency need to be constantly improved. As such, MPA is taking a more structured approach in leveraging on technology to enhance its operations and prepare for future challenges.

The Ops-Tech initiative is part of the Future Ready Framework, which harnesses technology as a force multiplier to prepare for future operational challenges. Port operators, and officers from Infocomm Development Authority of Singapore and MPA took part in the Ops-Tech workshops, which were organised by MPA and the Agency for Science Technology and Research.

An Ops-Tech roadmap was drawn up after identifying potential projects and enabling technologies. Potential projects include:

- Mobile apps for field personnel, such as marine surveyors and port inspectors
- Unmanned aerial vehicles/drones for surveillance, search and rescue
- Automated Identification System – B (AIS-B) transponders for harbour/pleasure craft to improve situational awareness and enhance navigational safety

Training Across the Seas

Singapore emphasises strongly on human capital development and training to ensure that its maritime workforce stays ahead of industry developments. It also believes that the global nature of the industry means developing maritime human capital should cut across the different maritime nations.

Global Leadership Training

MPA Academy was repositioned in 2014 as a full-fledged academy focusing on global maritime leadership development. Since then, the academy has been running several flagship programmes, namely the Advanced Maritime Leaders' Programme, Maritime Public Leaders' Programme, and Port Management Programme, for senior port and maritime officials and maritime leaders. Over the years, the flagship programmes have continued to attract distinguished participants from all over the world. Realising the value of this community, the academy formed an alumni network which has grown to some 170 members from Asia, Africa, Europe, Middle East, the Americas, the Caribbean and Oceania. MPA Academy organised the inaugural alumni gathering in April 2016 during the Singapore Maritime Week.

In 2016, MPA Academy organised the 3rd Port Management Programme for 18 port masters, harbour masters, and middle management personnel from maritime and port administrations across 16 countries. It also held the 6th Maritime Public Leaders' Programme for 25 senior officials in maritime administrations who are Director-level or equivalent from 24 countries.

During Singapore Maritime Week 2016, MPA Academy organised the inaugural Maritime Administrators' Forum in support of the International Maritime Organization's (IMO) World Maritime Day theme of 'Shipping: Indispensable to the World' to highlight the importance of shipping. The forum, part of Singapore's on-going efforts to promote global maritime leadership training, was attended by 50 leaders of maritime administrations from 16 countries who had the opportunity to network with their peers and



Maritime Public Leaders' Programme

exchange views on issues such as maritime strategies, including capacity-building, complying with regulatory requirements, and overcoming difficulties in operations.

As part of strengthening its partnerships on global maritime leadership development, the MPA Academy and World Maritime University (WMU) signed a Memorandum of Understanding in 2015. To date, Singapore has hosted more than 200 WMU students for field study visits as part of the port management specialisation under the WMU Master programme.

Supporting IMO's Training Needs

As a Council Member, MPA has been providing training to the international maritime community under the Singapore-IMO Third Country Training Programme (TCTP) since 1998. To date, MPA has trained more than 1,900 officials from over 80 countries from Asia, Africa, Americas, the Caribbean, Middle East and the Pacific Islands.

In 2016, five workshops were organised covering training for:

- Auditors
- The preparation for the IMO Member State Audit Scheme,
- The preparation for the recent amendments to the MARPOL Convention
- The ratification and implementation of the Hong Kong Convention, and
- Flag state inspectors

Through these efforts, Singapore hopes to enhance IMO Member States' capacity to implement international maritime regulations and standards.



Maritime Administrators strengthening partnerships at the Inaugural Maritime Administrators' Forum.

Quality Maritime Workforce

chapter 05

MPA is creating a steady and ready pipeline of skilled maritime talent through an extensive array of education and training programmes as well as outreach programmes to raise awareness of the opportunities that maritime careers offer.



Maritime manpower development remains integral to MPA's efforts in growing a quality maritime workforce capable of supporting Singapore's growth as a vibrant and competitive International Maritime Centre. Through close collaboration with industry players, unions, institutes of higher learning (IHLs) and other government agencies, MPA has supported the development of a comprehensive suite of maritime education and training programmes to ensure individuals have multiple pathways to a rewarding and enriching maritime career. A host of outreach programmes are also available to raise awareness of maritime careers, and MPA has been working closely with the industry, associations and self-help groups to promote maritime careers and education.

Key Risk: Addressing Shortage of Local Maritime Talent

The maritime industry is facing a shortage of competent talent and a skilled workforce. To address this issue, MPA has actively launched initiatives to raise awareness of the industry and its employment prospects.

Planning for Future Manpower Needs

To better understand the industry's evolving needs for manpower, MPA conducted two studies. The first is an industry-wide manpower demand and supply study involving more than 150 industry stakeholders. As technology and digitisation transform traditional business models, the study highlighted the urgent need for the maritime workforce to be equipped with critical future skills to take on more knowledge-intensive and technology-driven jobs.

To enhance talent attraction and retention, MPA also conducted the Benefits and Competency Study 2015/2016 to help maritime companies better understand human resource and pay practices within the sector vis-à-vis other sectors. A total of 167 companies participated in this study, which covered about 150 job positions. A Maritime HR Forum to share key findings of the studies was organised on 30 September 2016. Some 230 industry participants attended.



MPA's Chief Executive having a discussion with some of the GIA participants.

Attracting Locals to Join the Maritime Sector

MPA's programmes and initiatives are continually being enhanced and developed to attract local talent to both the seafaring and shore-based sectors in the maritime industry.

Under the fully-sponsored MPA Global Internship Award (MPA-GIA), selected local undergraduates undergo a 10-week maritime internship with an overseas stint at participating international maritime companies. In 2016, 34 undergraduates from National University of Singapore, Nanyang Technological University and Singapore Management University were awarded the MPA-GIA, with 88 students supported since the award was launched in 2013. The MPA-GIA continues to attract both maritime and non-maritime students, including those from the engineering, law and computing disciplines, to the sector.

MPA, in collaboration with industry players and local seafaring unions, offers the Tripartite Maritime Scholarship (TMSS) to attract students to pursue seafaring careers. The TMSS grooms promising students to become Masters or Chief Engineers of ocean-going merchant ships, with the possibility of moving to key shore-based positions after their seafaring experience. In 2016, 16 TMSS scholarships were awarded to students from the Diploma in Nautical Studies and Diploma in Marine Engineering at Singapore Maritime Academy (Singapore Polytechnic). To date, more than 150 TMSS scholarships have been awarded.



Company representatives and participants taking a group photo at MPA GIA 2016.

Supporting Maritime Companies to Attract, Develop and Retain Local Talent in the Sector

To encourage maritime companies to continue investing in the training and development of their workforce during this challenging period, MPA has set aside \$12 million under the Maritime Cluster Fund-Manpower Development (MCF-MD) for several new manpower programmes, including:

- Internship Reimbursement Scheme (IRS)**
Under the IRS, MPA will co-fund 50% of internship allowances to support maritime companies providing internship opportunities to local students, up to a cap. This ensures that the students can continue to be exposed to the maritime sector.
- Maritime Career Conversion Scheme (MCCS)**
The MCCS aims to grow the local maritime

talent pool through attracting locals with no relevant job experience. Under this scheme, MPA will co-fund course fees (up to 100%) and wages (up to 50%), subject to a cap, for employees undergoing structured training programmes for key maritime job roles.

- Enhanced Co-Funding under MCF-MD for Selected Training Activities**
MPA raised the co-funding levels for selected short courses and certifiable courses to between 70% and 90%.

In 2016, the MCF-MD had more than 4,800 beneficiaries.

SkillsFuture Initiative

In support of Singapore's SkillsFuture efforts, MPA oversees the development of key manpower initiatives and the Industry Manpower Plan through the Sectoral Tripartite Committee (STC), which comprises representatives from the industry, unions, IHLs and government bodies. The STC is supported by two tripartite manpower taskforces –

the Tripartite Maritime Manpower Taskforce for Seafaring (TF-Sea) and Tripartite Maritime Manpower Taskforce for Shore-based Sectors (TF-Shore).

The following measures below are some examples of manpower initiatives in support of SkillsFuture:

Maritime/Non-Maritime Students		
Seafaring Careers	Shore-Based Careers	
Tripartite Maritime Scholarship (TMSS) Scholarships to groom future seafarers.	MPA Global Internship Award (GIA) Sponsored internship with an overseas component for undergraduates.	Industry Attachment Additional allowance for students undertaking maritime internships.
▼		
Fresh Graduates		
Seafaring Careers	Shore-Based Careers	
SkillsFuture Earn & Learn Programme (ELP) for Deck Officer Structured work-study programme with sign-on incentive of \$5000.	SkillsFuture Earn & Learn Programme (ELP) for Marine Engineer Officer Structured work-study programme with sign-on incentive of \$5000.	SkillsFuture Earn & Learn Programme (ELP) for Port Operations Officer Structured work-study programme with sign-on incentive of \$5000.
▼		
Mid-Career Entrants		
Seafaring Careers	Shore-Based Careers	
Tripartite Nautical Training Award (TNTA) / Tripartite Engineering Training Award (TETA) Training programmes to support locals to become seafarers.	Employment Enhancement Programme Shipboard training with sign-on incentive of \$5000.	Maritime Career Conversion Scheme Structured training programme for maritime career converts.
▼		
Maritime Employees		
Seafaring Careers	Shore-Based Careers	
SkillsFuture Study Awards \$5000 monetary award for skills upgrading.		
Achievement Award \$3000 incentive for officers who attain relevant certificates.	Upskill Allowance Training allowance for cadets attending specific preparatory courses.	—
Maritime Cluster Fund initiatives – www.mpa.gov.sg/mcf		

Raising Awareness of Maritime Careers



Recipients of the MaritimeONE Scholarships and Tripartite Maritime Scholarships at the MaritimeONE Scholarship Awards Ceremony 2016.



Mr Andreas Sohmen-Pao, Chairman of SMF, delivering the welcome address at the 2016 MaritimeONE Scholarship Awards Ceremony.

MPA has also been working with industry partners and educational institutions to raise awareness of maritime career opportunities. Since 2007, MPA together with Singapore Maritime Foundation (SMF), Singapore Shipping Association (SSA) and Association of Singapore Marine Industries (ASMI), have been collaborating to promote maritime careers and raise awareness of the industry to our local youths under the MaritimeONE umbrella. Networking opportunities, career fairs, and school talks were regularly held. The MaritimeONE scholarship was also started with the support of sponsoring maritime companies. Since 2007, a total of 275 MaritimeONE scholarships totalling \$7.3 million have been awarded.

MPA has also embarked on a series of digital branding campaigns to promote maritime careers. These include a LinkedIn Digital Campaign to publicise SkillsFuture Study Awards for Sea Transport, and a 'Faces of Maritime Singapore' series launched on YouTube.

Maritime Singapore Connect (MSC) Office

Working together with SMF, the Maritime Singapore Connect (MSC) Office was set up in 2016 to further raise awareness of the maritime sector and provide Singaporeans with easy access to maritime education, training and job opportunities. The MSC Office has embarked on a series of outreach activities to students, and education and career guidance counsellors. The events organised included the MSC Campus Spotlight Series, MSC Career Workshop and the MSC Connexions Forum. An online portal was also launched in December 2016 to better connect jobseekers, students and maritime employers.



Panel Speakers (from left to right) at the inaugural MSC Connexions Forum: Ms Prasanthi Guda, Mr Loh Pui Wah, Mr Goh Teik Poh, Mr Ong Poh Kwee, Mr Martyn Wade.

OUR MARITIME SINGAPORE STORIES

16-24 April 2016 || Marina Square, Central Atrium

Strong Maritime Singapore Identity

chapter 06

MPA is building a strong Maritime Singapore identity to raise the industry's standing in the global and local arenas. A strong brand raises the profile of the industry among the Singapore public, increases interest in maritime careers and strengthens Singapore's influence on the global stage.

Strengthening Maritime Singapore Identity



Minister Khaw Boon Wan, Coordinating Minister for Infrastructure & Minister for Transport, MaritimeONE partners and union leaders launching the new Maritime Singapore logo at the Opening Ceremony of SMW 2016.



Minister Khaw Boon Wan, Coordinating Minister for Infrastructure & Minister for Transport, touring the interactive displays at the SMW 2016 Exhibition – "Our Maritime Singapore Stories".

As the maritime industry champion, MPA strives to build a strong Maritime Singapore identity. The aim is to raise Maritime Singapore's international profile and strengthen Singapore's global influence in the international maritime community. Ultimately, the local maritime scene thrives on a sterling Maritime Singapore brand.

In an effort to recruit the next generation of young maritime talents, MPA also recognises the importance of increasing awareness of and generating interest amongst the young in Singapore's vibrant maritime industry. Through programmes such as the Maritime Youth Club, MPA Learning Journeys and the Singapore Maritime Trails, MPA delivers key messages tailored to engage young audiences of various target groups.

Branding

To promote public opinion of Maritime Singapore, MPA launched a slew of brand-enhancing initiatives, including media profiling of maritime careers as well as advertising in both traditional media and Out-of-Home placements. The Singapore Nautilus, which bagged two Tabbie Awards in 2016, was refreshed with more up-to-date and engaging content.

In addition to creating the Maritime Singapore microsite that serves as a public engagement platform and a vital source of industry information, MPA has also enhanced its social media outreach efforts. To target youth, MPA launched its Instagram account in March 2016, and a gamification platform in November 2016. Besides producing and uploading more videos showcasing key aspects of Singapore's maritime industry on its YouTube channel, MPA has also begun active use of its LinkedIn platform in 2016. The number of followers across MPA's social media platforms has since increased significantly.

To encourage our maritime partners to adopt an integrated approach to supporting the industry, a new logo for Maritime Singapore was unveiled on 17 April at the opening ceremony of Singapore Maritime Week (SMW) 2016. The new

logo symbolises the world converging in Singapore as the destination for global trade. Its blue, red and indigo colours reflect the strength, resilience and vibrancy of Maritime Singapore.

Singapore Maritime Week (SMW)

MPA spearheads the annual SMW to showcase Singapore's vibrant maritime cluster to the general public and the international maritime community. Recognised for its thought leadership and as a leading international maritime show, the number of visitors at SMW has climbed steadily since its 2006 inception. In addition, other maritime nations have emulated its content and format.

Themed "Positioning for Future Growth", SMW 2016 had a record number of 31 events and was attended by 43,000 participants including high-level delegates such as port authorities, CEOs, industry leaders and maritime experts.

At events such as the Singapore Maritime Lecture, Maritime Sustainability Forum, and Cyber Security Conference, industry leaders and stakeholders discussed the current challenges and opportunities amidst a slowdown in global trade growth. Sixteen co-located event organisers also partnered SMW to address topics such as the container market outlook, innovations and technologies, and emerging risks.



(From left to right) Mr Andreas Sohlen-Pao, Mr Kristian Siem, Mr S.S. Teo and Mr David Carbon moderating the panel discussion on the future outlook of the industry at the Singapore Maritime Lecture.



Public showcase of two Offshore Support Vessels (OSVs) at VivoCity Waterfront Promenade.



Senior Minister of State Josephine Teo touring the OSV with Capt Mike Meade and Mr Michael Phoon.

SMW 2016 also featured public outreach events to generate public interest in the maritime sector. A week-long SMW 2016 Exhibition titled “Our Maritime Singapore Stories” was held at Marina Square. The exhibition drew a sizeable 32,000 visitors who witnessed a showcase of maritime-based projects put together in collaboration with schools and industry partners. With the spotlight on interactive displays of maritime technologies, the exhibition offered an immersive learning experience and promoted deeper understanding of Maritime Singapore through stories, projects and play.



MaritimeONE partners flagging off the Amazing Maritime Challenge.

Besides the exhibition, members of the public also participated in outreach activities such as the Amazing Maritime Challenge, SMW MPA Learning Journeys and an art exhibition titled “Memoirs of City Port Scenes”.

Working in partnership with the Singapore Shipping Association, a three-day OSV@Vivo Open House was held to showcase the offshore support industry. Visitors were invited to take a tour onboard two state-of-the-art Offshore Support Vessels (OSV) at VivoCity Waterfront Promenade and view displays of equipment, products and services of offshore marine companies in an exhibition held onboard.



Participants of the Maritime Spartan Youth Challenge braving the 11-obstacles race course.

Youth Engagement

Maritime Youth Festival

MPA recognises the need to cultivate youth awareness and interest in the maritime industry. In 2016, MPA stepped up its youth-engagement efforts with the July launch of the biennial two-day Maritime Youth Festival (MYF). As the nation's leading maritime event for youths, the inaugural MYF inspired 3,200 youth to explore the dynamism of Maritime Singapore through game and activities designed to showcase the industry.

Curated by youths, for youths, the carnival displayed Maritime Youth Club projects and staged performances put up by students. Young designers also harnessed their creative energies in designing not only the official MYF logo and the MYF polo t-shirt, but also fashion and merchandise entries for the Youth Creativity Awards (YCA). These entries were showcased on a fashion runway and the YCA exhibit respectively. In addition, youths engaged career profiling experts and learnt about careers in the maritime industry through young maritime professionals, who shared their inspiring stories and experiences. Another highlight of the MYF is the world's first Maritime Spartan Youth Challenge. About 2,000 youth participated in the event where they had to overcome 11 Spartan obstacles in a 400-metre circuit while discovering fun facts about Singapore's maritime industry.



Maritime Youth Club members from Temasek Polytechnic introducing silk screen printing to Senior Minister of State Josephine Teo at the Maritime Youth Festival.



(From left to right) Senior Minister of State Josephine Teo leading the panel discussion at the Singapore Maritime Dialogue alongside Ms Lao Mei Leng, Mr Muhammad Hazreen, Mr Wayne Siek, MPA's Chief Executive and Ambassador Mary Seet-Cheng.

Singapore Maritime Dialogue

To inspire youth to join the maritime industry, MPA together with MaritimeONE partners organised the Singapore Maritime Dialogue at the new PSA Pasir Panjang Terminal. About 160 tertiary students took part in an hour-long dialogue with Guest-of-Honour, Mrs Josephine Teo, Senior Minister of State, and panel members comprising senior maritime leaders and professionals to address and discuss issues relating to Singapore's maritime industry. Prior to the dialogue, students had the opportunity to go on an exclusive port tour hosted by PSA for the first time, where they witnessed first-hand the maritime operations in the terminals and how the things which we use in our everyday lives are being handled and shipped.

Singapore Maritime Gallery

The Singapore Maritime Gallery (SMG), located at Marina South Pier, tells the story of Singapore's emergence as a global hub port and an international maritime centre. In 2016, the gallery hosted 199 visits for a total of 11,256 visitors.

To increase public outreach, SMG partnered agencies such as People's Association to conduct tours under the Singapore Experiential Tour for new citizens. In collaboration with the National Heritage Board, MPA also participated in the Lunar New Year Zodiac Ang Pow Campaign and organised programmes at SMG, which were attended by nearly 4,000 visitors, as part of the annual Children's Season 2016.

Clean-Up on Kayak

To raise public awareness of Singapore as a bustling yet responsible and sustainable port city, MPA launched the Clean-up on Kayak initiative with the support of local non-governmental organisations (NGOs) as part of the Maritime Environmentalist Partnerships (MEP) programme. Held in conjunction with the International Coastal Clean-up Day, the initiative aims to inspire youth to play an active role in protecting Singapore's port waters and marine environment. During the three-hour expedition from Sembawang Beach to Seletar Island, about 60 students and members of the public collected 167kg of litter, which was later analysed and submitted for research.



Students taking a group shot after a port tour of the new PSA Pasir Panjang Terminal.



Volunteers collecting litter in the waters from Sembawang Beach to Seletar Island.





Culture of Excellence

chapter 07

MPA is committed to delivering excellence to instill stakeholders' confidence in our long-term growth and success.

MPA embraces a culture of excellence to stay relevant and competitive in a fast-changing maritime landscape. This culture of excellence, founded upon a deep commitment to service, innovation and risk management, serves as its key value proposition towards its broad range of stakeholders.

In addition, MPA also pledges commitment to sustainability, which emphasises good governance, prudent resource management and environmental and social focus.

Sustainability

As a recognised leader in environmental stewardship, MPA takes its commitment to sustainability very seriously. Its Sustainability Office has rolled out several environmental sustainability initiatives for MPA staff (covered in "Environmental Sustainability") as well as industry partners and agencies (covered in Chapter 1).

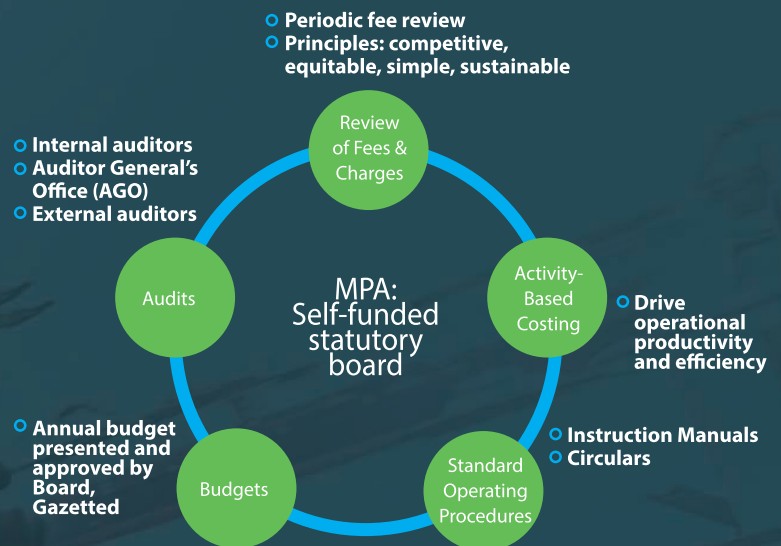
MPA's long-term orientation on these areas allows it to maintain organisational nimbleness to keep pace with industry changes and challenges. The ability to seize new opportunities allows us to stay relevant, responsive, resilient and resourceful, positioning the organisation for long-term growth and success.



Financial Sustainability

Capacity review for Cargo, Passenger Terminals

Every five years, Ministry of Transport and MPA review with port operators and other key stakeholders the capacity requirements of Singapore's port terminals to meet long-term cargo and passenger throughput demand. We also studied how best to utilise our port land and other resources, achieve high port productivity, and ensure that the Port of Singapore maintains its value proposition as a global transshipment hub with excellent connectivity and high service levels.



Extension of Port Dues Concession for Container Vessels, Bulk Carriers and Offshore Support Vessels



To strengthen Singapore's position as a global hub port and to help its container line partners through challenging times, MPA granted an additional 10% concession on port dues payable by ocean-going container vessels carrying out cargo works with port stay of not more than 5 days from 15 January 2016. This was on top of the 20% port dues concession first introduced in 1996 as well as further concessions such as those under the Green Port programme.

MPA also granted a 10 per cent concession on port dues for bulk carriers with effect from 15 April 2016.

Adding to existing concessions including those granted to offshore support vessels, these concessions are expected to yield \$18 million in savings for shipping companies over one year. The measures demonstrate Singapore's and MPA's commitment to stand with and help the maritime sector through challenging times. The port dues concessions have been extended until 31 December 2017.

Environmental Sustainability

Climate change is one of the world's most significant threats today. In addition to external initiatives to promote sustainable maritime growth, MPA is also committed to understanding and minimising the environmental impact of its operations and supply chain by reducing resource use. MPA has set targets and implemented measures to reduce electricity, water consumption and waste disposal, while increasing use of renewable energy.

Eco-Office

MPA is committed to raising awareness and cultivating eco-friendly habits within the workplace. As a result, its office premise in PSA Building was awarded the Eco-Office Certification in 2011 and was recertified in 2013. Last year, this certification was extended to all three office locations, including Tanjong Pagar Complex and PSA Vista.

MPA's green office initiatives include encouraging paperless options. In 2016, a new corporate-wide Knowledge Management System was introduced to promote paperless records. Internal information is now disseminated electronically via a revamped intranet portal.

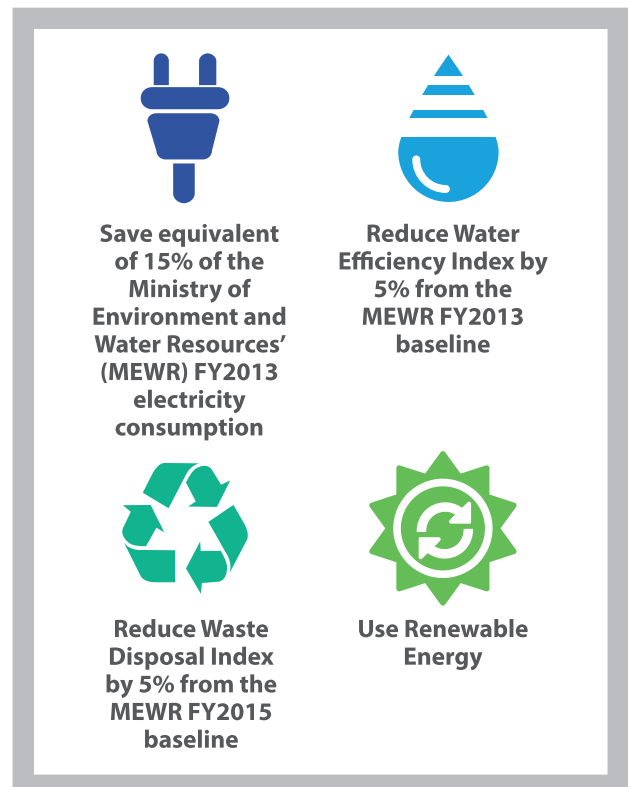
Posters on the "8 Effective Habits" are placed strategically near switches and printers, and in pantries to remind all staff to conserve energy and water. MPA's letterhead is printed on eco-friendly paper while rubber stamps and aluminium name plates are reused.

All MPA staff actively practise the 3Rs of sustainability – Reduce, Reuse and Recycle. Recycling bins are placed in MPA's offices for the recycling of waste paper, plastic bottles and cans, and used ink cartridges.



Sustainability key performance indicators (KPIs)

In measuring its sustainability performance, MPA takes guidance from the Public Sector Taking the Lead in Environmental Sustainability (PSTLES) initiative 2.0 led by the Energy Efficiency Programme Office. By 2020, MPA aims to reduce energy and water consumption by 3% and 5% respectively, and reduce waste by 5%.



Energy

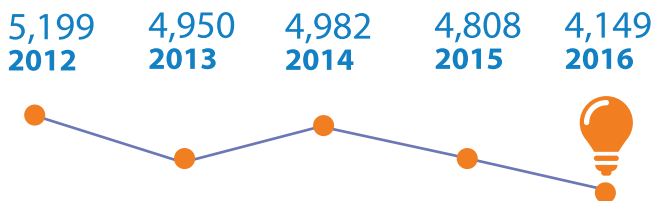
Electricity consumption decreased from 4,808 GWh in 2015 to 4,149 GWh last year, equal to a 15% drop in energy intensity to 0.0141 kWh/\$. Greenhouse gas (GHG) emissions also declined to 1,790 TCO₂ in 2016. To achieve this reduction, MPA installed light sensors in toilets and energy-saving LED lights and air-conditioning systems.

Similarly, it installed water-efficient fittings and introduced drought-resistant plants for landscaping to minimise water usage. However, due to scheduled façade cleaning that was conducted for MPA's premise in 2016, there was higher water consumption recorded for 2016. Without the façade cleaning, water consumption would have held steady at 28,000m³.

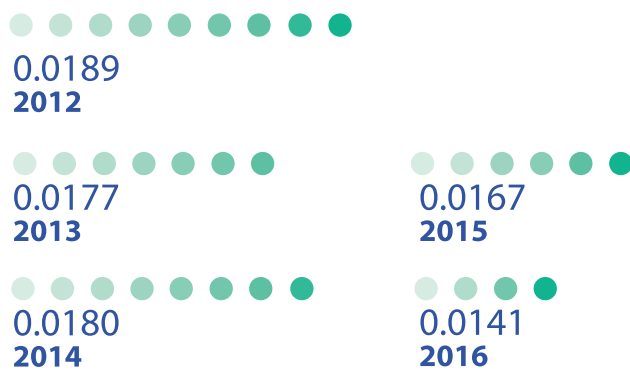
At MPA, recycling rates have been rising consistently over the years. Some 9,726 kg of waste paper was collected last year – up 16 per cent from 2015, and 2.4 times that collected in 2012. The significant increase in weight of paper collected from 2015 is due to recycling efforts for shredded used paper, which further helps to protect the sustainability of our forests.

Electrical Consumption

Electrical Consumption ('000 kWh)



Energy Intensity (kWh/\$)

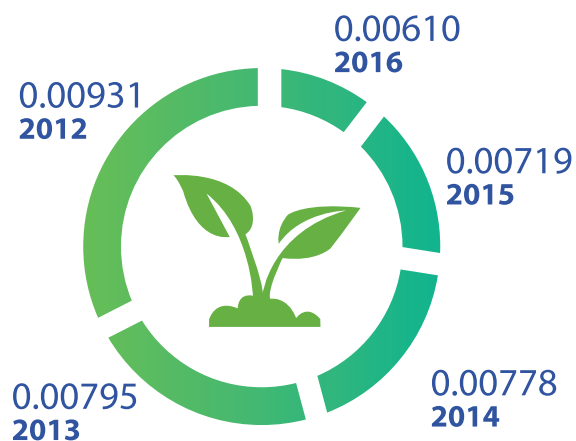


GHG Emissions (kgCO₂)*

* Calculated based on Yearly Electricity Grid Emission Factor published by Energy Market Authority (EMA)

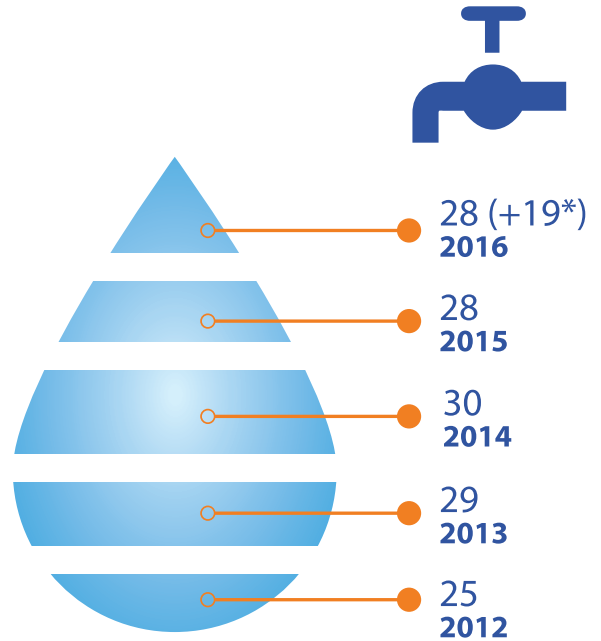


GHG Emissions Intensity (kgCO₂/\$)



Water Consumption

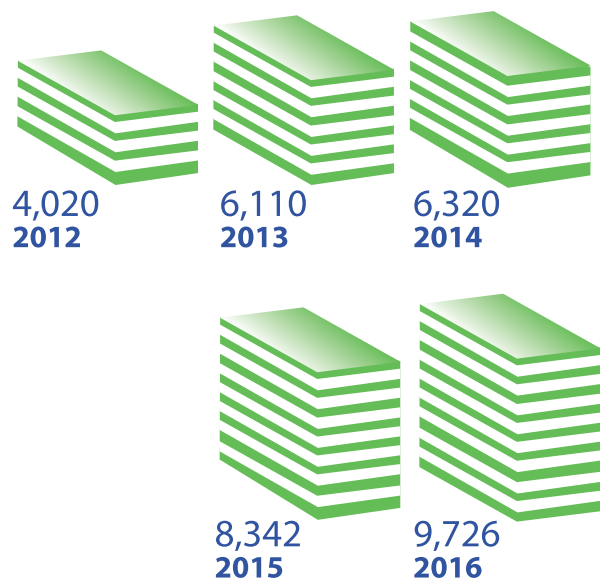
Water Consumption ('000 Cu M)



*19,000m³ of water used for façade cleaning

Recycling

Weight of Paper Collected (kg)



Engaging Youths for Sustainability - Young CSR Leaders Award

MPA was one of the project sponsors for the CDL-Compact Singapore Young CSR Leaders Award 2016. Co-partnered between City Developments Limited (CDL) and the Global Compact Network Singapore (GCNS), the case-competition targets students and youth and aims to cultivate a new generation of young leaders who will be future business leaders to champion Corporate Social Responsibility (CSR) principles and a sustainable future for Singapore and beyond.

Among the seven outstanding proposals received, MPA shortlisted E3 Consulting, from NUS, as the finalist to work on optimising and greening MPA's managed facilities. The interaction between the students and management was refreshing and both benefited from the ideas generation and discussion.



Engaging with students and sharing MPA's best practices in sustainability.

Championing Sustainability/Integrated Reporting at an International Level

Since the launch of MPA's inaugural Sustainability/Integrated Report in 2014, MPA has made steady progress in its sustainability reporting. From attaining local recognition for its sustainability efforts, MPA has advanced its level of sustainability best practices. In 2016, MPA continued to be recognised for its sustainability leadership, winning accolades at the regional level.

Accolades won in 2016



Winner for the Best CSR Practices, Best Sustainable Strategy and Best Environmentally Friendly Project categories at the 6th Asia Best CSR Practices Awards.

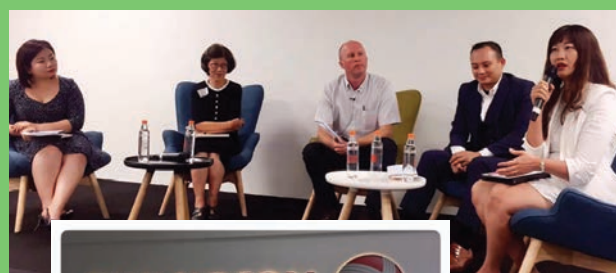


Winner for the Sustainability Strategy and Runner-Up for the Sustainability Report categories at the ASEAN Corporate Sustainability Summit and Awards (ACSSA) 2016.



Winner for Green Leadership category with the project on Coral relocation and Tuas Reclamation project at the Asia Responsible Entrepreneurship Awards programme (AREA).

Continually being at the forefront of sustainability reporting, Director (Corporate Development)/CFO Ms Yvonne Chan represented MPA as a panellist at the inaugural launch of GRI's new global Sustainability Reporting Standards in Singapore.



Embedding FIRST Values

Values Week – Creating Awareness

Ethical principles and behaviours are embedded into MPA’s core FIRST values of Forward Thinking, Integrity, Respect, Service Excellence and Teamwork. All officers are expected to conduct themselves and carry out duties in a manner that is consistent with MPA’s Ethics Policy and Code for Business and Personal Conduct. As part of Values Week 2016, MPA organised the half-day Corporate Governance briefing to remind staff of the rules and guidelines to adhere to during the course of their work, particularly in areas of procurement and finance.



Balloons to welcome staff to work and remind them of first values.



Corporate governance briefing.

Zero Tolerance for Corruption

As a public agency, MPA upholds a high standard of ethical behaviour and professional conduct. Therefore, all employees are required to acknowledge and submit the MPA Code of Ethics form annually and to declare any potential conflict of interest. Stringent internal controls and the segregation of duties ensure that all staff, including Board Members, abstain from decision-making where there is a conflict of interest.

Whistle blowing is an integral component of good corporate governance within MPA. Staff are encouraged to raise any concerns of serious wrongdoings through a dedicated whistle blowing channel ethics@mpa.gov.sg without fear of reprisal. This platform is manned by the Internal Audit Department, which reports directly to the Audit Review Committee. The public is also welcome to report concerns through the same secure whistle blowing channel.

As at 31 December 2016, no critical concerns on ethics and integrity were raised to the Board.

Corporate Governance

Organisation and Structure

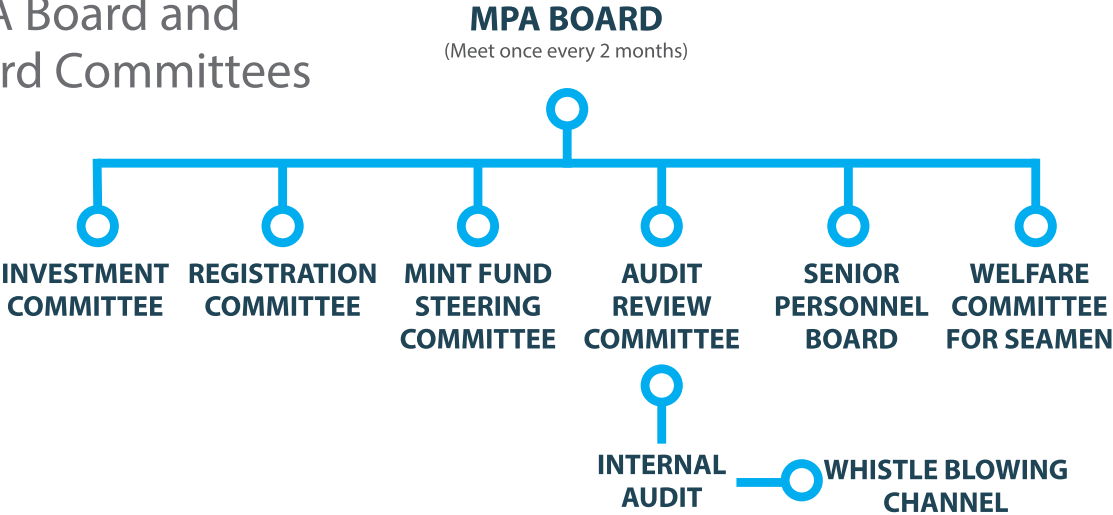
MPA was instituted by Parliament under the MPA Act. As an autonomous agency, MPA’s board determines the strategic directions to realise MPA’s mission and fulfil its role. The Board, headed by a non-executive Chairman, includes the Chief Executive (CE), and senior officials from the public sector and maritime industry representatives. Board Members are independently appointed by the Minister of Transport every three years. The current Board was appointed on 2 February 2015.

The MPA Board meets every alternate month to deliberate over and approve matters pertaining to policy, major operations, governance and sustainability issues. This includes the key material issues addressed in this report.

The responsibility for running day-to-day operations at MPA is shared among its 13 Divisions, namely the Chairman’s/ CE’s Office, Communications & Community, Corporate Development, Human Resource, International, International Maritime Centre, Operations, Planning, Port Policy, Port Services, Port Systems, Shipping, and Technology Divisions.

MPA’s Senior Management (SM) comprises the CE and his direct reports of Assistant Chief Executives (ACEs) and Divisional Directors. The SM is accountable to the Chairman and the Permanent Secretary of the Ministry of Transport. The CE leads the SM team, which meets weekly to discuss, endorse and approve proposals and initiatives for MPA’s operations.

MPA Board and Board Committees



Disclosure on Compensation

The remuneration criteria for the Board and senior management are pegged to Public Service Division's guidelines. The government prescribes the process for determining remuneration.

In 2016, the ratio of total compensation of the MPA Board and executive senior management to that of all employees was 0.0024. Since 2013, there has been no increase in annual total compensation for both groups.

Risk Management Process

MPA has put in place a structured ERM framework which entails a systematic process of identifying, evaluating, treating/controlling and reporting risks such as cyber security risks or risks of marine collision and oil spills.

Mitigating measures are developed and integrated with our corporate work plan so that collectively, we can achieve MPA's strategic objectives and uphold our mission, vision and values.



MPA staff undergoing ERM training.

To cultivate a culture of risk management, MPA builds risk knowledge and competencies among staff through training. MPA rolled out ERM training to all levels of staff in 2016.

In 2017, MPA will further enhance its ERM framework and processes.

Addressing Cyber Security Risks

The maritime industry relies heavily on technology for everything from onshore and shipboard operations to navigation at sea. This inevitably increases its exposure to cyber threats, which are growing rapidly in number and sophistication. As the champion of Singapore's maritime sector, a top priority for MPA is to improve the cyber security resiliency of the maritime critical information infrastructure. MPA has been proactively tackling these growing threats, engaging the industry in regular dialogue to identify potential risk points and implement the appropriate solutions.

As such, MPA formed the Maritime Cyber Security Network (MCSN) comprising members from key maritime stakeholders, including port and cruise terminal operators. The network meets regularly to address cyber security issues and explores ways to strengthen the industry's critical information infrastructure. MCSN also took part in MPA's inaugural Maritime Cyber Security Table Top Exercise held in October 2016 to assess and validate the readiness of the maritime sector's incident response processes and procedures to cyber incidents.

During SMW, MPA organised the inaugural Maritime Cyber Security Seminar to promote greater awareness of cyber threats and best practices for the shipping and port sectors.

Risk Digest

In order to promote and advance MPA's risk culture within the organisation, MPA's Internal Audit Department (IAD) shares information through fun and easy-to-read comic strips that are featured in the bi-monthly e-newsletter Risk Digest. The comic strips depict the various encounters of the fictional Bochup Family, consisting of Risky Ricky the Father, Reckless Rosy the Mum and Rebellious Randy the Son. By putting the family through various funny misadventures and mishaps, IAD aims to convey important risk and corporate governance messages through the use of humour and relatable stories.

IAD launched the inaugural issue of Risk Digest in 2014. Thus far, 8 issues have been published and circulated internally amongst MPA staff, covering multiple topics including cyber-security tips, whistleblowing issues, key learning points from audits, workplace safety and procurement tips.



Risky Ricky



Reckless Rosy



Rebellious Randy

Moving forward, Risk Digest will continue to cover important topics, communicate various risk issues, and strive to raise staff's awareness of risk management.

Achieving the Singapore Quality Award (SQA)



Winning the SQA



MPA's Chief Executive and Team MPA at the Business Excellence Awards Ceremony and Gala Dinner held at Resorts World Sentosa Convention Centre on 27 October 2016.

The Singapore Quality Award (SQA) is the highest award conferred on organisations in recognition of their attainment of world-class standards of performance excellence. Achieving this prestigious award on the occasion of MPA's 20th Anniversary is a significant milestone in MPA's excellence journey.

Achieving the SQA is testament to MPA's outstanding corporate governance and management practices, with a visionary leadership committed to innovation, people development and excellence in customer service. This resulted from the hard work put in over the past two decades, and was built upon the foundations and contributions of past and present MPA Chairmen, Boards, CEs, industry partners and unions.

Embarking on the SQA journey enabled MPA to progressively attain higher standards and transform itself into an organisation of excellence. The journey had been invaluable in helping MPA build a relevant, responsive and resilient organisation in tackling challenges. Guided by the framework, MPA has laid a strong foundation for future successes by building a strong culture that strives towards innovation, service, and people excellence.

To MPA, achieving the SQA is not an end in itself, but a milestone on its on-going journey towards organisational excellence. MPA will continue to develop its innovative spirit, invest and inspire in its people and forge strong partnerships with its stakeholders and union partners. In addition, MPA will enhance and drive organisational efficiency and productivity through use of technology to stay relevant, efficient and competitive.

Our SQA Journey

SQA Equipping Workshops for SMM



Appointment
of Committee
Members



SQA Equipping Workshop for Staff



SQA Pre-site
Assessment

**MPA,
MPA,
we will win the
SQA**

MPA, MPA, we have won the SQA

SQA Site Assessment



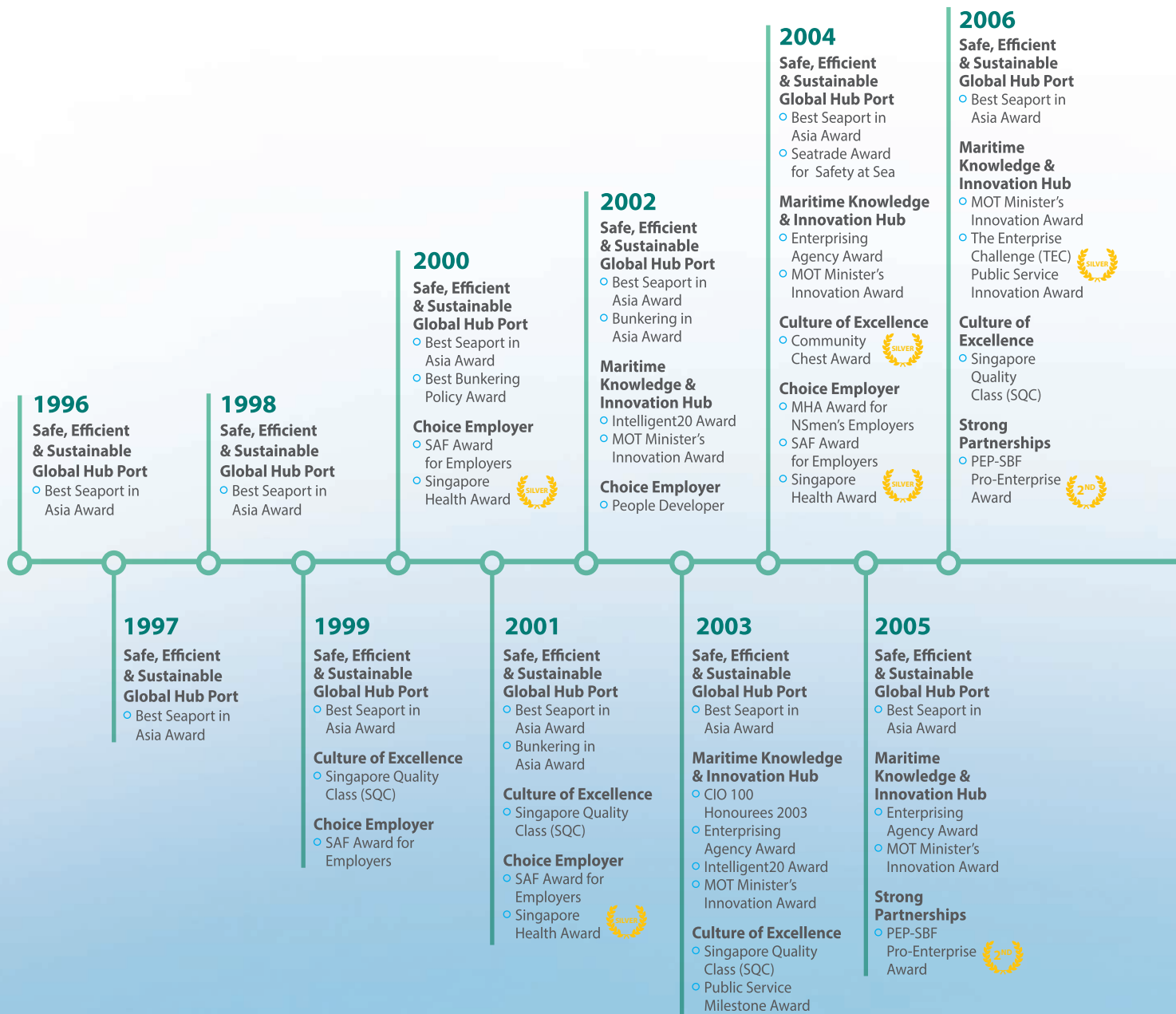
Business Excellence Awards Ceremony and Gala Dinner



SQA Appreciation Event



MPA's Awards Milestone 1996 – 2016



2008

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award
- Best Seaport (ASEAN)
- Environment Protection Award (Joint award with NewEarth Pte Ltd)
- Port Authority Award (Seatrade Asia Award)

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award


Strong Maritime Singapore Identity

- Convention of the Year Award

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- May Day Model Partnership Award
- Singapore Health Award 

2010

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award
- Port Authority Award (Seatrade Asia Award)
- Port of the Year Award

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award

Culture of Excellence

- Community Chest Award 

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- Honorary Member of the Minister for Defence Awards (MiDAs) League
- Singapore Health Award 

2012

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award
- Best Green Service Provider - Seaport


Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award

Quality Maritime Workforce

- The International Committee on Seafarers' Welfare (ICSW) Award - Drop-in Centre of the Year

Culture of Excellence

- Community Chest Award 
- Public Service Milestone Award

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- MHA Award for NSmen's Employers
- Singapore Health Award 

2014

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award
- MOT VFM Achievement Award

Quality Maritime Workforce

- International Seafarers' Welfare Awards 2014 (One of 5 finalist)
- MPA Academy achieved accredited VTS training centre status by IALA

Culture of Excellence

- Corporate ISO Certification
- International Best Practice Competition 2014 (Runner-up)
- Restroom Association of Singapore 4-star Happy Toilet Certification
- Team Symposium 2014 (2 Silver & 1 Bronze)

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- May Day Model Partnership Award

2016

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport In Asia Award
- Green Ports Award System (GPAS)
- Top 50 Engineering Feats @ IES-SG50 Award

Maritime Knowledge & Innovation Hub

- CAPAM International Innovations Awards (IIA) (one of the semi-finalists)
- MOT Minister's Innovation Award
- MOT VFM Achievement Award

Strong Maritime Identity

- 2016 ARC Awards

Culture of Excellence

- 6th Asia Best CSR Practices Awards 2016
- ASEAN Corporate Sustainability Summit and Awards (ACSSA) 2016
- Asia Responsible Entrepreneurship Award
- ComChest Special Events Gold Award
- Eco-Office Re-certification
- International SeaKeepers Society Asia Achievement Award
- PS21 ExCEL Award: Most Innovative Project/Policy
- PS21 Star Service Team Award
- Singapore Quality Award

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

2007

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- Home Team NS Awards for Employers (Special Award)

2009

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award

Strong Maritime Singapore Identity

- Trade Conference of the Year Award

Culture of Excellence

- Singapore Quality Class (SQC)

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- May Day Model Partnership Award

2011

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award

Safeguard Strategic Maritime Interests & An Influential Voice

- Norwegian Business Association (Singapore) Award

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award

Culture of Excellence

- Eco-Office Certification

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- MHA Award for NSmen's Employers
- People Developer

2013

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award
- Environmental Campaign of the Year Award
- Port of the Year Award

Maritime Knowledge & Innovation Hub

- MOT Minister's Innovation Award
- MOT VFM Achievement Award

Culture of Excellence

- Singapore Quality Class (SQC) Star

2015

Safe, Efficient & Sustainable Global Hub Port

- Best Seaport in Asia Award

Maritime Knowledge & Innovation Hub

- MTI Innovation Award 
- MOT Minister's Innovation Award
- MOT VFM Achievement Award


Strong Maritime Singapore Identity

- 29th International ARC Awards
- Gold Tabby Award

Culture of Excellence

- Eco-Office Re-certification
- Happy Toilet Re-certification
- International Convention on Quality Control Circle (ICQCC) 2015 (Bronze Award)
- PEP-SBF Pro-Enterprise Award
- PS21 ExCEL Awards - Most Innovative Project/Policy (Bronze)
- PS21 Star Service Team Award
- Singapore Innovation Class
- Singapore Service Class
- Singapore Sustainability Awards 2015 (Large Enterprise)
- Singapore Environmental Achievement Awards (SEAA) 2015
- Singapore Apex CSR Awards (Small and Medium Organisations Category)
- Special Events Platinum Award
- Team Excellence Symposium 2015 (2 Gold & 4 Silver Awards)

Strong Partnerships

- PEP-SBF Pro-Enterprise Award 

Choice Employer

- May Day Model Partnership Award
- NS Advocate Award
- People Developer

Awards Received in 2016

Eco-Office Re-certification

7 Jan 2016

The Eco-Office is awarded by the Singapore Environment Council (SEC) and its objective is to raise awareness and cultivate environment-friendly habits within the workplace.

MPA has successfully achieved the Eco-Office certification for all 3 MPA office locations, ie PSAB, TPC and POCC Vista.

International SeaKeepers Society Asia Achievement Award

8 Apr 2016

Awarded yearly, the International SeaKeepers Society Asia Achievement Award seeks to recognise an Organisation/Corporation/Government agency in Asia, that demonstrates a responsibility towards the health of Asia's marine environment because of who they are and what they do to take a lead role.

MPA was the recipient of the SeaKeeper Asia Achievement Award for its work in maintaining and restoring coral reefs in Singapore.

PS21 Star Service Team Award

20 May 2016

The PS21 Star Service Team Award recognises officers that have come together to deliver excellent service and in doing so, improve the lives of fellow Singaporeans. This award promotes the spirit of teamwork and encourages officers to collaborate for better service outcomes.

MPA's Marine Licensing and Permits (MLP) Department won the award. The MLP team conducted feedback sessions with industry and actively engaged other government bodies to enhance its processes. This raised customer service levels, with positive feedback received from both local and foreign customers.

CAPAM International Innovations Awards (IIA)

7 Jun 2016

The CAPAM International Innovations Awards (IIA) celebrate the spirit of innovation in the public service by recognizing organisations that have made significant contributions to improving governance and services in the public sector. Innovation in public administration and management is demonstrated by novel or alternative means as well as replicable or adaptable solutions that generate significant incremental value to the administrative body (bodies) and/or to the citizens it (they) serves (serve).

The project on Building a Smarter Port with Wireless Connectivity and Mobility has been shortlisted as one of the semi-finalist for the category on Innovation in Public Service Management.

Best Seaport – Asia Award

14 Jun 2016

The Asia Freight, Logistics and Supply Chain Awards (AFLAS), organised by freight and logistics publication Asia Cargo News, honour organisations for demonstrating leadership as well as consistency in service quality, innovation, customer relationship management and reliability.

The Port of Singapore has won for the 28th time the 'Best Seaport – Asia' award at the 2016 AFLAS.

Asia Responsible Entrepreneurship Awards

24 Jun 2016

The Asia Responsible Entrepreneurship Awards programme (AREA) recognises and honors Asian businesses for championing sustainable and responsible entrepreneurship in the six categories, namely Green Leadership, Investment in People, Health Promotion, Social Empowerment, SME CSR and Responsible Business Leadership.

MPA emerged as one of the winners for the Green Leadership category with the project on Coral relocation and Tuas Reclamation project.

Top 50 Engineering Feats @ IES-SG50 Award

1 Jul 2016

The Institution of Engineers, Singapore (IES) launched the Engineering Feats @ IES-SG50 to seek out and recognise the top 50 engineering achievements across the various fields of engineering deemed to have made the greatest economic, infrastructural or societal impact to Singapore since 1965. The Pasir Panjang Terminal Phases 3 & 4 development was shortlisted by a panel comprising judges from both the public and private sector and voted by members of the public into "Singapore's Top 50 Engineering Achievements."

ASEAN Corporate Sustainability Summit and Awards (ACSSA) 2016

21 Jul 2016

The ACSSA 2016, organised by Asia Society for Social Improvement and Sustainable Transformation (ASSIST), commends the efforts of individuals, businesses and organisations for successful demonstration of their commitment to sustainable operations; provide a platform to showcase sustainable practices and create an avenue for benchmarking; and establish an opportunity to promote maturity in sustainable practices through a healthy competition among industry peers.

MPA is recognised as the winner for the Sustainability Strategy and Runner-Up for the Sustainability Report categories.

6th Asia Best CSR Practices Awards 2016

5 Aug 2016

6th Asia Best CSR Practices Awards are Asia's highest recognition of corporate organisations that have a significant and positive impact on the lives of people around them. CSR programmes consider company's commitment to and respect for communities, environment and the people. The awards are hosted by CMO Asia.

MPA was recognised as the winner for the following categories:

- Best CSR Practices
- Best Sustainable Strategy
- Best Environmentally Friendly Project

MOT VFM Achievement Awards

17 Aug 2016

The award recognises the MOT VFM efforts of the MOT SBs as well as incentivises MOT SBs to source for projects with the potential to achieve VFM in their organisations.

The projects are as follows:

- Enhancing the Mass Flow Meter Acceptance Test - Distinguished
- Dredging of Temasek Fairway to Meet Multiple Objectives - Distinguished
- Solar Energy Systems at MPA's Facilities - Merit
- E-verification of certificated seafarer status to determine work permit levy rate - Special Mention
- Conversion of hardcopy Crew Agreement Form to Electronic Ship Information Form - Special Mention

MOT Minister's Innovation Award

23 Aug 2016

The MOT Minister's Innovation Award was inaugurated in 2002 to promote and reward innovation in MOT and our Statutory Boards.

The projects are as follows:

- Enhanced Customer Experience At OSDC Through Innovative Process And Technology - Merit Award
- Global Internship Award - Merit Award
- Development Of Near-term Collision Prediction And Avoidance System - Merit Award

ComChest Special Events Gold Award

28 Sep 2016

The ComChest Special Events Awards are presented to organisations and groups of individuals for raising substantial funds for Community Chest through fund-raising events.

MPA received the Special Events Gold Award for our efforts in organising the MPA Charity Golf 2016 as part of our 20th Anniversary celebration and raising \$232,200 for Community Chest and MPA's adopted charities.

2016 ARC Awards

20 Oct 2016

The Annual Report Competiton (ARC) held by MerComm, Inc in New York is a prestigious international competition that honours outstanding achievement in Annual Reports.

MPA won the following awards:

- Gold for category "Written Text: Specialized A.R.: Combined Annual and Sustainability Report"
- Bronze for category "Green/ Environmentally Sound Annual Report: Specialized A.R.: Sustainability Report"
- Honors for category "Specialized A.R.: Combined Annual and Sustainability Report"

Singapore Quality Award

27 Oct 2016

The Singapore Quality Award (SQA) recognises organisations who have met the highest standards of excellence in management systems and practices, and for achieving world-class standards of performance.

MPA was conferred the SQA in 2016.

Green Port Award System (GPAS)

8 Nov 2016

The APEC Port Services Network (APSN) Green Port Award System (GPAS) launched in 2016 is the only such award for ports in Asia. GPAS Award hopes to improve environmental awareness, promote sustainable development green strategies, advance the green interoperability, and allow for the sharing of best practices for ports in APEC region who have the ambition to grow as green ports. The award is open to both port authorities and port operators.

MPA is proud to be amongst the seven winners of this inaugural edition of the APSN GPAS Award. The Award is a validation and testimony of MPA's sustainability initiatives and efforts for the Port of Singapore.

PEP-SBF Pro-Enterprise Award

10 Nov 2016

The Pro-Enterprise Panel - Singapore Business Federation (PEP-SBF) Awards 2016 recognises the efforts of government agencies in their commitment to stay pro-enterprise as well as the contributions of businesses in providing useful feedback and suggestions to improve the business environment.

MPA emerged top again for the fifth consecutive time, with a score of 94.73%.

PS21 ExCEL Award: Most Innovative

10 Nov 2016

This Award Ceremony celebrates and recognises public officers and agencies for their innovations and excellence in public service delivery. The Most Innovation Project/ Policy is to recognise projects or policies that best exemplify the ExCEL spirit as well as to affirm/ commend inter-agency collaboration efforts demonstrated by the project teams.

MPA's project "Towards E-Navigation: Setting Global Standards For Real Time Tidal Information via Automated Identification System (AIS)" won the merit award.

Happy Toilet Re-certification

15 Nov 2016

Awarded by the Restroom Association of Singapore (RAS), the Happy Toilet certification is a star-grading (from 3-star to 6-star) initiative for toilets focusing on five main areas – Design, Cleanliness, Effectiveness, Maintenance and User Satisfaction.

MPA retained its 5-star rating for all its 18 toilets at PSAB, TPC and POCC Vista after re-certification audits.



Strong Partnerships

chapter 08

Collaborations, co-operation and co-creation, coupled with a robust feedback system, form the building blocks of MPA's close partnership with its stakeholders. This strong bond has made, and will continue to make, Singapore a world-class port and a leading international maritime centre.

As the agency driving Singapore's global maritime aspirations, MPA recognises the importance of forging strong partnerships with industry partners and stakeholders to remain highly responsive to industry needs. MPA continually invests in building enduring relationships with

Stakeholder Engagement ^[102-43]

Steadfast in its strong pro-enterprise focus, MPA works closely with its key stakeholders, including customers, industry players and associations, unions, institutes of higher learning, vendors and employees, to co-create solutions that meet their needs as well as those of Maritime Singapore. Co-creation efforts include the formation of working groups with industry players, pilot projects with customers, co-funding and joint implementation of projects, and one-on-one interviews to solicit views. MPA offers various service touchpoints for its stakeholders to obtain information and assistance, including hotlines, electronic channels and face-to-face interactions. Its feedback management process ensures that feedback and complaints received are analysed, resolved and distilled into key learning points for improvement. MPA's close partnerships with its stakeholders are critical elements to achieving port-organisational excellence and global recognition. MPA's FY2016 stakeholder engagement activities are summarised in page 72-73.



MPA's Chief Executive receiving the Pro-Enterprise Award.

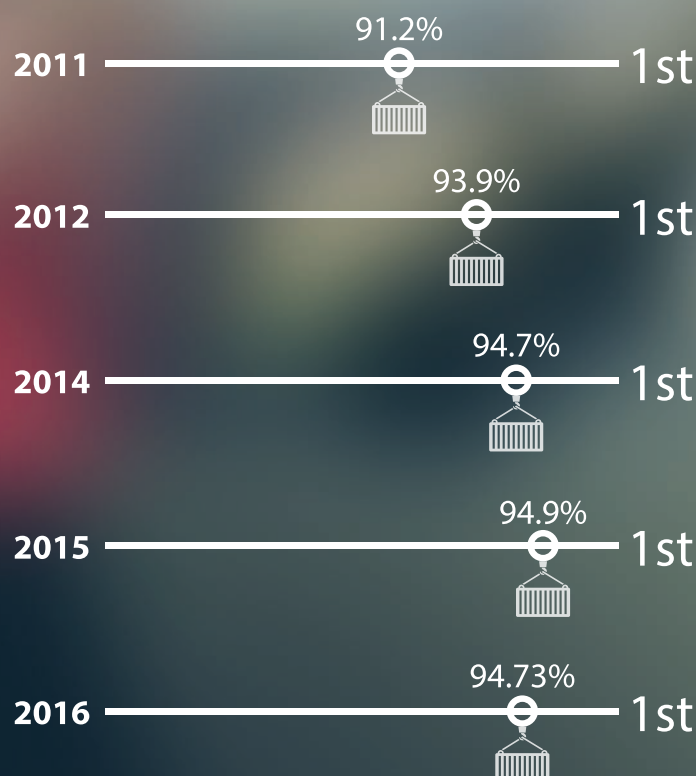
its diverse range of stakeholders. Within its organisational culture, it has embedded a deep commitment towards service excellence. These efforts ensure that customers, both internal and external, are well-served. By working closely with its partners and stakeholders, MPA is able to formulate better solutions and garner greater buy-in.

Resulting from its sustained pro-enterprise focus, MPA retained its position as the top- ranked agency in the 2016 Pro-Enterprise Ranking (PER) survey for the fifth consecutive year. With a score of 94.73%, it came out tops among 29 regulatory agencies.

The annual PER survey assesses the pro-enterprise performance of government regulatory agencies in Singapore. In the 2016 survey, more than 5,000 businesses were asked to rate the performance of agencies in terms of customer responsiveness, transparency and compliance cost.

MPA remains firmly committed to being highly responsive to stakeholder needs, especially given the current challenging period for the maritime industry. It is working closely with its customers to help them weather the downturn, and with industry to position the maritime sector for future growth.

PER Scores and Ranking from 2011



Note: The PER Survey was not conducted in 2013.

Seafarers' Engagement – Day of the Seafarer Celebration

The Day of the Seafarer (25th June) pays tribute to all seafarers for their contribution to the well-being of the general public and helps educate the public about issues facing the modern-day seafarer.

To celebrate the 'Day of Seafarer 2016', the MPA, the Singapore Maritime Officers' Union (SMOU) and the Singapore Organisation of Seamen (SOS) jointly distributed 600 gift hampers to ships in Port of Singapore.



Senior Minister of State Josephine Teo presenting 'Day of the Seafarer 2016' gift hamper to Capt Kyaw Soe Hlaing, Ship Master of Kota Sabas.

Sustaining Service Excellence

MPA understands the importance of serving its customers well. In line with its pro-enterprise culture, MPA values and is developing a deep commitment to service excellence among its people. Staff who provide excellent service are recognised and rewarded.

Service Charter

Building on its Service Excellence Framework, MPA launched its Service Charter in 2016. The Service Charter is aligned with Public Service Division's goal to ensure a safe and secure work environment that deters abusive behaviour. It also serves as a pledge for MPA staff to perform their duties admirably.



MPA's Chief Executive launching the renovated customer service centre at MPA's One-Stop Document Centre (OSDC) together with unveiling of new service charter.

MPA's Strategic Service Intent

WE CARE Empathy

We show genuine concern for customers and build strong relationships with them to create a positive customer experience

Sensitivity & Patience

We should display patience when serving customers' requests. If they are upset, we put ourselves in their shoes and understand the reasons that made them unhappy

WE LISTEN Feedback

Regularly seek customers' feedback and demonstrate that we value their comments and suggestions by improving the way we serve them

Communicate & Listen Attentively

We listen and seek to understand our customer's concerns. We do not interrupt when they speak, and clarify with polite questions if necessary

WE SERVE Warm & Sincere Greeting

We smile at all customers and greet them by name where possible. We demonstrate our sincerity and pleasure in welcoming our customers

Professional Image

We are proud of our professional appearance, language and behaviour, and are pleased to be of service

WE ARE MPA

Teamwork

We work cohesively within MPA to provide excellent service to our customers

Making Service Visible

To enhance service visibility, MPA completed a major renovation of its customer service centre at MPA's One-Stop Document Centre (OSDC) in 2016.

MPA also refreshed the look and feel of its reception desk located on the 19th floor of its PSA Building premise to further enhance customer service.



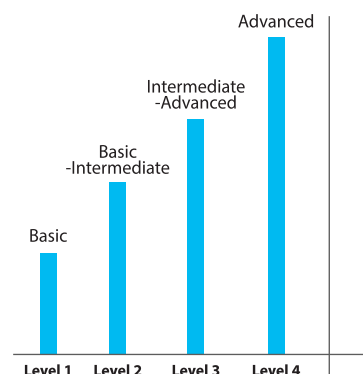
MPA's Chief Executive and OSDC Staff at the Newly Renovated One-Stop Document Centre (OSDC).



Reception staff at reception counter on 19th Floor, PSA Building.

Service Competency Framework

In line with continuing efforts to nurture a spirit of service excellence across the organisation, MPA launched its Service Competency Framework that details the necessary service skills and competencies staff need to provide good customer service across six functions. These service competencies and necessary important soft skills were identified following MPA's ongoing dialogues and consultations with its customers and key stakeholders. The competency framework is aligned with the overall whole-of-government direction. [102-44]



Service Excellence Video

MPA's first ever Service Excellence Video was unveiled during Service Excellence Day on 24 February 2016 by the Chief Executive. The video depicts MPA staff at work from various Divisions and how Service Excellence plays a part in the work that they do. The video also shared MPA's Service Charter and Service Excellence Framework. Service collaterals in the form of mousepads and Post-It notes were distributed to all staff as a reminder to always provide the highest level of service to our customers.



MPA's Chief Executive launching Service Excellence Day 2016.

The Six Service Job Functions in MPA



Learning Journeys on Cashless Payments

Learning Visits were arranged to the State Courts and Cold Storage to allow for MPA to gain a better understanding of how organisations work towards a cashless alternative for the public. The State Courts had implemented an Automated Collection System for Court Fines and Fees as part of their cashless payment initiative which allowed for customers to pay fines and other fees.

This was undertaken using a specially designed machine that enabled them to reduce queues at their counters. Cold Storage had similarly implemented self-checkout facilities which allowed for a variety of payment modes for their customers. This has improved staff productivity whilst shortening customers' queue times.



Learning about Automated Collection System at State Courts.



Group photo taken on Learning Journey to Cold Storage at Sime Darby.

Supplier Management

Suppliers play a key role in developing and sustaining Maritime Singapore's ecosystem. MPA's key suppliers include consultants and contractors implementing its projects and supporting its key activities. MPA works with them to enhance its capability and efficiency as well as to realise its mission and vision. In identifying its key partners and suppliers, MPA ensures their organisational objectives that are aligned with its mission and vision.

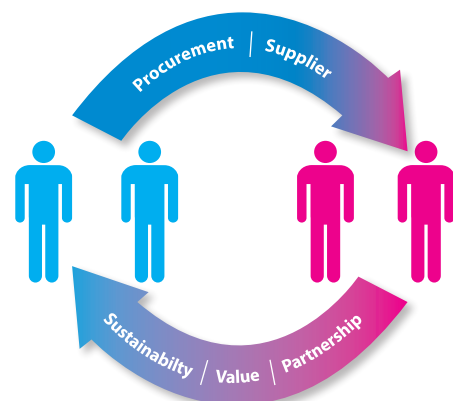
MPA adheres to the 3 key principles governing Government Procurement for all its procurement activities, namely:

- Transparency:** MPA subscribes to an open and transparent procurement regime across all stages of the procurement lifecycle. The government's procurement objectives, criteria and procedures would as far as possible be made known to suppliers.
- Open and Fair Competition:** An open and competitive environment will encourage suppliers to give their best offers. Suppliers are given equitable access opportunities and compete on a level playing field.
- Value for Money:** MPA will procure from sources that can best meet its requirements and which offer the best value. Value for money is derived from the optimal balance of benefits and costs on the basis of total cost of ownership. As such, value for money does not necessarily mean that a tender must be awarded to the lowest bidder.

Integrating Sustainability into the Supply Chain

MPA champions fair employment practices, high standards of productivity, a progressive wage model, and a safe workplace. It ensures its business partners, consultants, suppliers and contractors share these values by incorporating them as mandatory requirements in its tender and quotation specifications. These include the Ministry of Manpower's Workplace Safety and Health Act, the Building and Construction Authority's Public Sector Standard Conditions of Contract for Construction Works, and the National Environment Agency's Clean Mark Accreditation Scheme.

Its business partners, consultants, suppliers and contractors must implement appropriate safety measures and undertake fair employment practices. MPA also ensures that its vendors display their environment commitment. For example, a procurement criterion for caterers is the provision of environmentally-friendly CornWare products.



Strategic Partnerships with Maritime Institutes and Centres of Excellence

MPA's training arm, MPA Academy, recognises the importance of fostering strong partnerships with established maritime institutes and centres of excellence to build upon each other's strengths.

For the 11th year, the Academy hosted 22 World Maritime University students from 13 countries for a field study visit in Singapore in 2016 to promote the international exchange and transfer of maritime ideas and knowledge. This partnership further strengthened both organisations' work in global maritime leadership development, training and capacity building.

MPA also partnered the United Kingdom Hydrographic Office (UKHO) for a five-week training course on Marine Cartography and Data Processing at the MPA Academy. Participants came from national hydrographic offices and port authorities from South East Asia, Australasia and the Pacific Islands. They gained first-hand knowledge of the challenges of compiling and maintaining paper nautical charts and Electronic Navigational

Charts in Singapore's busy waters. The collaboration with UKHO has paved the way for the sharing of expertise and raised the standards of hydrography and cartography for Singapore and the world.

In collaboration with the Centre for Liveable Cities and the Embassy of the Kingdom of the Netherlands, MPA Academy co-organised a lecture that discussed how the port industry can transit to a sustainable and bio-based economy. Following the lecture, MPA Academy hosted a roundtable discussion with the Port of Rotterdam to share best practices in data analytics, port efficiency and green technologies.

MPA Academy regularly organises thought leadership public lectures by prominent maritime industry leaders and academics to create greater awareness of the industry. In 2016, the Academy organised six talks on innovation in logistics, leadership, shipping alliances, the future of connectivity, growth and liveability for port cities, and the future plans and vision for the IMO.



World Maritime University students in Singapore on a field study visit as part of the port management specialisation in the WMU Masters Programme.



MPA Academy invited Ms Pang Mei Yee, Vice President, Head of Innovation Asia Pacific, DHL Customer Solutions & Innovation, to share about 'Innovation in Logistics' at the MPA Academy Insight Series.



The Centre for Liveable Cities, Embassy of the Kingdom of the Netherlands and the MPA Academy jointly organised a lecture titled 'The Port and City of Rotterdam – Era of Transition'.



Dr Parag Khanna, CNN Global Contributor and Senior Research Fellow in the Centre on Asia and Globalisation at the Lee Kuan Yew School of Public Policy at the National University of Singapore, spoke under the MPA Academy's CEO Insight Series on 'The Future of Connectivity & Its Impact on Trade Flows'.



Mayor of Antwerp, Deputy Mayor of Yokohama and Chief Executive of MPA presented and shared about the challenges of port and cities at "The Future of Ports and Their Relationship with Cities" forum, jointly organised by the Centre for Liveable Cities and the MPA Academy.

FY2016 Stakeholder Engagement Activities

MPA identifies and selects stakeholder groups based on both MPA's impacts on these groups, as well as the impacts that these groups have on MPA. [102-40, 102-42, 102-43, 102-44]

Stakeholder Category	Stakeholders	Topics Discussed	
Maritime Enterprise	Shipping lines, ship agencies, ship management companies	<ul style="list-style-type: none"> Develop action plans to move goods through our port in a reliable and efficient manner Work with relevant agencies and organisations to facilitate and foster growth in Singapore's shipping finance sector 	
	Maritime service providers	<ul style="list-style-type: none"> Work with service providers to develop Maritime Singapore into a premium one-stop centre that offers a comprehensive and sophisticated suite of services 	
Non-Enterprise	Shipmasters	<ul style="list-style-type: none"> Ensure prompt and reliable vessel traffic information services and navigational aids 	
	Seafarers	<ul style="list-style-type: none"> Administer welfare schemes and activities and conciliation services for members of the mercantile marine (persons or vessels employed in commerce) 	
	Pleasure/ Harbour Craft Owners	<ul style="list-style-type: none"> Maintain the quality and standards of SRS Ensure adequate and fair manning conditions on Singapore-registered ships Improve maritime safety through professional and proficient investigations and marine incidents Coordinate marine environmental issues affecting MPA 	
Partner	Port terminal: PSA & JP	<ul style="list-style-type: none"> Develop and promote Singapore as a global hub port Maintain a navigationally safe, efficient and environmentally-friendly port Formulate international policies and strategic plans to promote and safeguard Singapore's strategic maritime interests 	
	Service providers for port services	<ul style="list-style-type: none"> Ensure efficient management and planning of resources for prompt and efficient services in port 	
Local Communities	Government agencies	<ul style="list-style-type: none"> Collaborate with government agencies to share ideas and build long term relationships 	
	Institutes of higher learning	<ul style="list-style-type: none"> Reach out to students on maritime education Collaborate with IHLs to further maritime R&D initiatives and thought leadership 	
	Unions and private organizations	<ul style="list-style-type: none"> Seek input and feedback on MPA's plans and initiatives such as establishing a quality maritime workforce and sustainability issues 	
	Public	<ul style="list-style-type: none"> Champion maritime interest and educate the general public about the maritime industry 	
Business partners/ Vendors	Contractors and suppliers	<ul style="list-style-type: none"> Ensure the efficient provision of services such as garbage collection, patrol launches, dredging, infrastructure development and soil investigation 	
Internal	Employees	<ul style="list-style-type: none"> Enforce environment, health and safety practices in MPA Facilitate individual and team performance Ensure high standards of business conduct and ethics Encourage professional development 	

Platforms		Frequency
<ul style="list-style-type: none"> Port Marine and shipping circulars Safety@Sea Week 2016 10th Maritime Singapore Lecture 	<ul style="list-style-type: none"> Maritime Cyber Security Seminar Maritime Sustainability Forum 	Monthly, Annually, Ad-hoc
<ul style="list-style-type: none"> Dialogues with regional ferry operators Safety Working Group Meetings 	<ul style="list-style-type: none"> Chinese New Year Lo-Hei with Ferry Launch Operators and Tenants IMC 2030 Advisory Committee Meeting 	Quarterly, Semi-Annually, Annually
<ul style="list-style-type: none"> Meetings Singapore Maritime Week 		Quarterly, Annually
<ul style="list-style-type: none"> IMO Day of the Seafarer International Sportsweek for Seafarers Certificate of Competency (CoC) Special Limit Graduation Ceremony 	<ul style="list-style-type: none"> Visit to Special Limit Cadets Youth Maritime Forum 	Annually, Ad-hoc
<ul style="list-style-type: none"> Safety briefings 		Quarterly, Annually
<ul style="list-style-type: none"> Singapore Industry Scholarship (SgIS) Briefing sessions Port marine and shipping circulars Learning journeys 		Quarterly, Annually, Ad-hoc
<ul style="list-style-type: none"> Launch of 1st caisson at Tuas Port Development MPAA Insight Series 	<ul style="list-style-type: none"> Bunker Forum Briefing Sessions Learning Journeys 	Quarterly, Annually, Ad-hoc
<ul style="list-style-type: none"> Bilateral meetings Cross-agencies meetings 		Annually, Ad-hoc
<ul style="list-style-type: none"> Maritime Public Leaders Programme (MPLP) Port Management Programme (PMP) World Maritime University (WMU) Study Visit Career and Scholarship fairs 	<ul style="list-style-type: none"> Open house events MPA Global Internship Programme Singapore Maritime Dialogue 	Annually
<ul style="list-style-type: none"> Union Management Lo-Hei Lunch with CE Industry Consultation MaritimeONE Open House 		Annually
<ul style="list-style-type: none"> Career fairs SMW MPA Learning Journeys Maritime Youth Festival Maritime Youth Club 	<ul style="list-style-type: none"> Amazing Maritime Challenge Memoirs of City Port Scenes SMW 2016 Exhibition 	Annually, Ad-hoc
<ul style="list-style-type: none"> Vendor Engagement Event Visits to MPA Adopted Charities 	<ul style="list-style-type: none"> Meetings/Technical Briefings Dialogue Sessions/Feedback Sessions 	Quarterly, Annually, Ad-hoc
<ul style="list-style-type: none"> InnovFest 2016 MPA Dinner and Dance MPA Family Day Townhall Session WoW Week Staff Appreciation Day 	<ul style="list-style-type: none"> Fun-Fit Friday Appreciation Hour for Staff SQA Appreciation Event Corporate Governance Briefing Ideathon 	Quarterly, Semi-Annually, Annually, Ad-hoc

Choice Employer

chapter 09

MPA actively creates a conducive environment with work-life balance for our staff. Staff are also given a host of training and other upskilling opportunities to realise their full potential.



As a choice employer, MPA seeks to develop human capital and bring out the best in its people through meaningful and fulfilling jobs while providing equal opportunities for career progression.

The development of HR strategies is guided by our mission of having the right organisation, right people and engaged people with HR process excellence at all times to support MPA's business strategies.



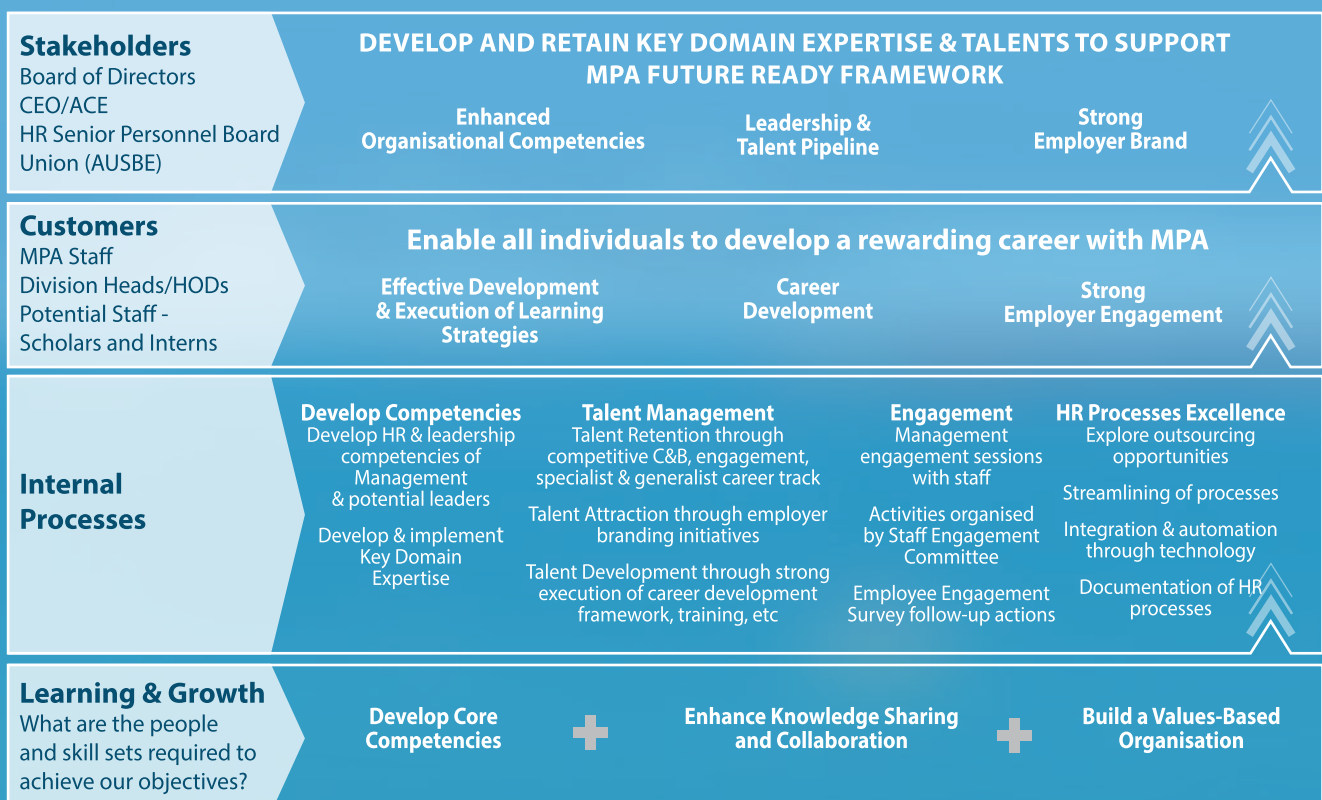
The corporate planning cycle begins with HR working closely with each division to support its divisional work plans by:

- Creating the right structure for divisions to best perform their roles, including redesigning and enhancing the organisational structure where appropriate,
- Recruiting, developing and retaining the right people to achieve the objectives set out in the work plans, and
- Ensuring that all employees are engaged and work with a sense of common purpose through the strategic employment of both direct and indirect policies and schemes.

HR Planning Process



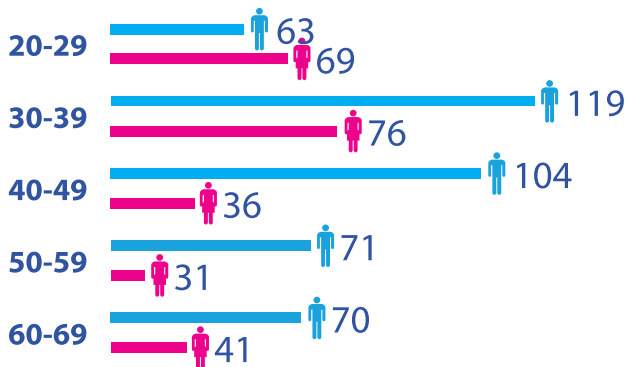
HR Strategy Map



Our People

MPA strongly advocates fair employment practices. On the recruitment front, candidates are shortlisted based solely on their merits and relevant working experience. A panel interviews them to ensure the best candidate is selected for the role.

Employee Age Profile 2016



Inflow



Rate of New Hires by Gender & Age Group

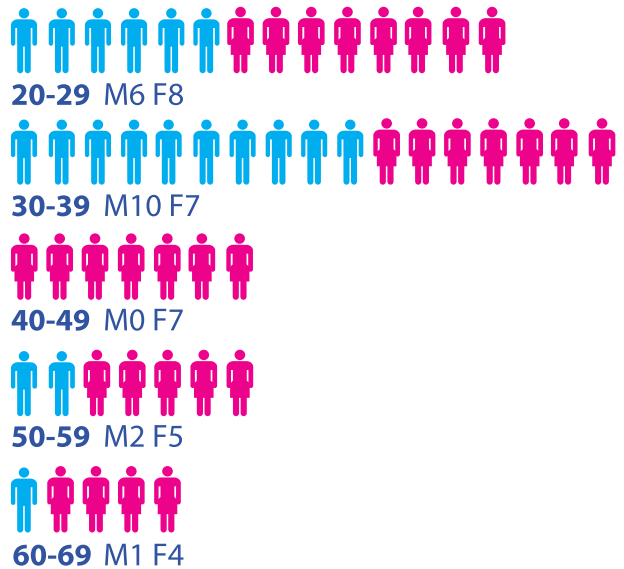


Rate of Employee Turnover by Gender & Age Group



Attrition

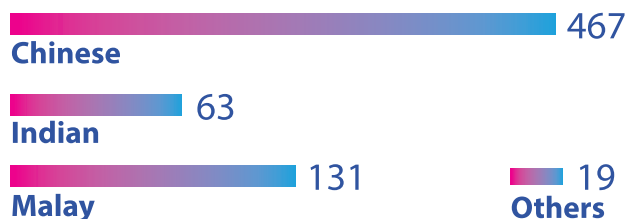
(covering all forms of exit from service)



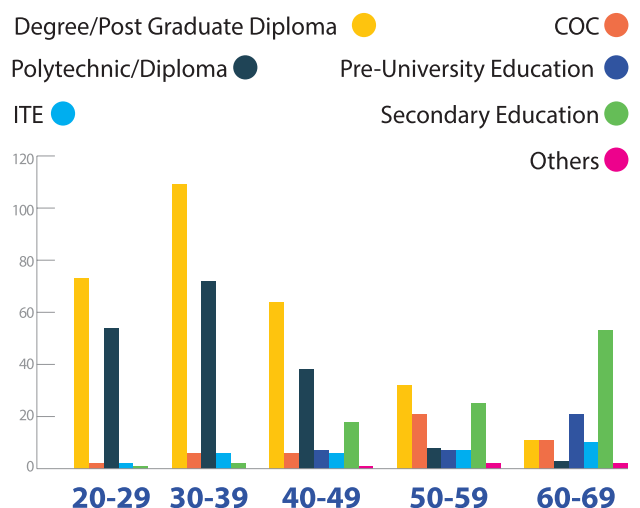
New Hires & Turnover



2016 Employee Strength by Ethnicity



2016 Workforce by Education and by Age Group



Enhanced Organisation

Building Key Domain Expertise (KDE)

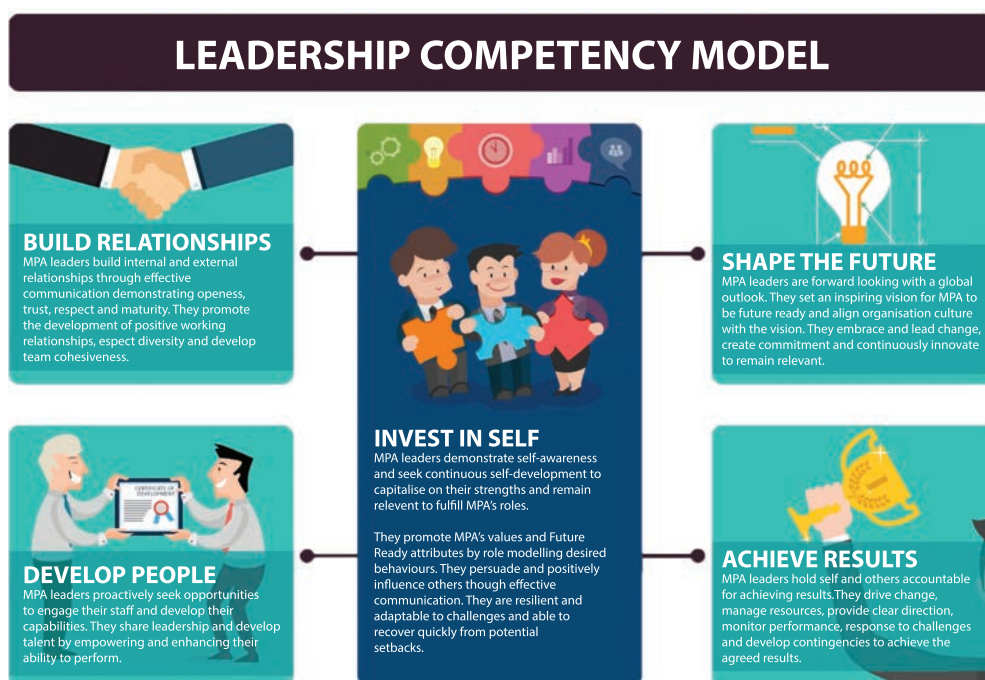
MPA recognises that it needs to constantly build its domain expertise to address effectively the challenges and leverage on the opportunities of the complex and ever-evolving maritime environment.

The KDE project was launched to capture the pivotal and strategic competencies needed to deliver MPA's mission and vision. Its framework provides clarity on progression pathways and learning interventions for the development of the expertise. It also offers another career option for officers who want to deepen and grow their functional competency to pursue the specialist career track.

Enhanced Leadership Competency Model

MPA recognises that its leaders are critical pillars of support in the organisation, and introduced the enhanced Leadership Competency Model in 2016. Input from employees in supervisory roles was used to develop the model, which encompasses both the short- and longer-term competencies MPA leaders require to perform their roles effectively.

Suitable courses were then identified to allow staff to develop them into more effective leaders. The Supervisory Leadership Programme, for example, helps leaders to review their leadership styles, and apply this knowledge in their respective areas of work.



Right People

Continuous Learning and Development

MPA firmly believes in nurturing its people through learning and development, placing a strong emphasis on both their professional development and personal growth. To ensure that the learning interventions are aligned to both the organisation's and employees' needs, MPA takes a competency-driven approach to develop the capabilities of its human capital.

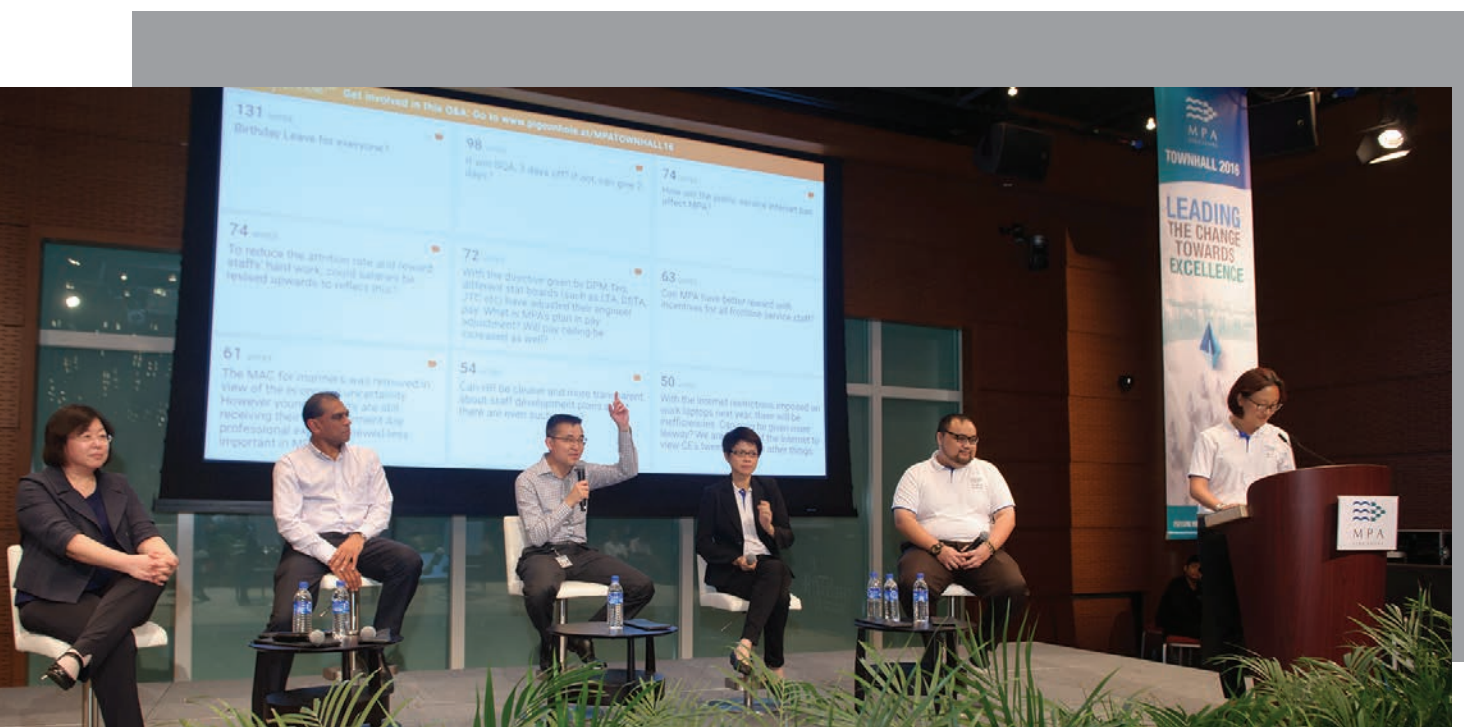
The MPA Learning Framework was formulated to guide the learning and development of its employees. It outlines the relevant training programmes based on the core knowledge, skills and behaviours expected of each individual to meet key performance indicators.

MPA provides employees with a wide array of learning opportunities to build their competencies and capabilities. These include both internal and external courses as well as conferences to help them keep abreast of the latest industry developments. Overseas study trips, job rotations, stints on cross-functional project teams and secondments to other

government agencies are also available to staff found to be suitable for these learning opportunities. MPA continuously strives to improve upon the effectiveness of the training provided to its employees.

MPA's training arm, MPA Academy, plays a key role in coordinating and driving technical training of MPA staff to enhance their competencies and to be better equipped for their jobs. In 2016, MPA Academy conducted technical courses for MPA marine surveyors, vessel traffic officers and supervisors, port inspectors, marine officers, and hydrographers. Seven new courses were organised including the LNG Familiarisation course, Vessel Traffic Supervisor course, and Emergency and Contingency Plans for marine officers.

The Vessel Traffic Service (VTS) Operator and Supervisor Courses were developed in line with the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) standards and both courses are accredited by MPA which is the National Competent Authority for Vessel Traffic Service.



Q&A Session with Senior Management

Building A Talent Pipeline

MPA is continually building and reinforcing its leadership and talent pipeline. It has created a rigorous system that identifies and grooms talent to ensure the organisation continues to have leaders that are fully equipped to deliver its mission and vision. To be identified as a talent, employees need to demonstrate consistently good performance and potential. MPA's Leadership Development (LEAD) Programme is designed to sharpen the leadership and general management skills of high-potential officers and mould them into effective future leaders. Under LEAD, officers are exposed to a wide spectrum of developmental opportunities, which include attending executive development courses, post-graduate programmes, cross-functional learning through interdepartmental or inter-agency projects, serving on technical committees, and presenting at internal platforms such as MPA's Senior Management and Board meetings.

Succession Planning

To facilitate succession planning, MPA proactively identifies talents to help them achieve positions of higher responsibility. Its succession plans use three time horizons: immediate (within the next year), medium (two to four years), and long term (five years and beyond). For each succession plan, the Directors are involved in identifying possible rotations and milestone developmental plans so that the potential candidates can progress on a structured development path.

Ensuring a competitive pay package

As MPA believes that its people are its most valuable asset, it actively ensures that its remuneration package remains competitive. Each year, it carries out salary benchmarking to ensure its people's salaries commensurate with the market.



MPA's Chief Executive addressing MPA at Townhall 2016.



Sharing by fellow colleague



Engaged People

MPA's Mission, Vision and Values

Future Ready Framework (Choice Employer)

HR Mission: Right Organisation, Right People & Engaged People

Employee Engagement Framework



WeShare

(Developing a strong organisational culture through regular communication between SM and Staff)

- MPA Townhall
- Workplan Seminar
- Staff Briefings
- E-connect



WeChat

(Facilitating feedback and dialogue within MPA and with key partners)

- Divisional Dialogue Sessions with CE
- CE's Lunch with HODs
- Welcome Tea for New Staff
- Field Trips by CE
- Divisional Meetings
- Divisional Activity Days



WeCelebrate

(Building whole-of-MPA bonding through social events and programmes)

- Activities Organised by Staff Engagement Committee
- Festival Celebrations
- Dinner and Dance



WeAppreciate

(Recognising and rewarding staff for their contributions)

- Appreciation Hour
- Corporate Awards

Framework to Support Staff Engagement:

Learning & Development, Work-life Harmony, Workplace Safety & Health, Service Excellence & Innovation and Performance Management

Key Measures:

Employee Engagement Survey (Biennial) and HR Pulse Survey (Biennial)

Review Platforms:

Staff Engagement Committee, Workplace Safety & Health Committee, HR Department Meetings & Workplans, Service Excellence & Innovation Steering Committee and SMM

MPA understands that an engaged workforce is a productive workforce which can more effectively deliver its strategic goals. The MPA Employee Engagement and Well-being Framework is key to ensuring that its employees remain engaged and motivated. It is aligned with the organisation's strategic goals and is structured around four key engagement levers: WeShare, WeChat, WeCelebrate and WeAppreciate.

Formal and Informal Engagement Platforms

MPA believes in engaging its people, and leverages both formal and informal platforms to obtain regular feedback from them.

The MPA Townhall was held in June 2016 for staff to have candid exchanges with Senior Management and air their concerns, giving management a better appreciation of staff issues. Senior Management also took the opportunity to walk the ground on Appreciation Day to present tokens of appreciation to employees in recognition for their good work.



Fun-Fit Fridays were introduced to encourage employees to step out, get active and enjoy a healthy lifestyle. Employees took part in a host of fun, adrenalin-pumping activities such as Zumba, Taiji, Yoga and Boxercise before enjoying a healthy and delicious fruit buffet.

With the MPA Work-life Harmony Framework, the physical, emotional and social wellbeing of its people and their families' needs are looked after in a structured and comprehensive way.

MPA has been celebrating Well-On-Work Life Week (WOW) since 2009 to shine a spotlight on the importance of work-life harmony. The week is usually packed with activities that promote the physical, emotional, mental and social health of MPA's people and their families. A WOW week highlight continues to be the Juniors@Work, where staff can bring their children to office. In WOW Week 2016, events organised for employees included:

- Complimentary on-site health screenings,
- Complimentary movie screenings,

- An outing with a MPA-adopted charity,
- A lunch time outing,
- Head and shoulder massages conducted by the Singapore Association of the Visually Handicapped, and
- Chill@18, comprising an afternoon tea buffet and games.

Employee Engagement Survey

Internal feedback from both formal and informal channels reveals that MPA staff view the organisation's employee engagement initiatives positively. This is reflected in the improved results for the Employee Engagement Survey (EES), which is conducted every two years to track employee satisfaction levels and gather feedback. The employee engagement index has been rising steadily from 73% in 2010 to 82% in 2015 and 86% in 2016.

In 2016, a record-breaking 97% of staff took part in the EES. All in MPA will be informed of the results as well as the follow-up action plans to make MPA an even better workplace.

Enhancing Charity Efforts



Adoption of 2 Charities at MPA Family Day 2016

As part of Corporate Social Responsibility, MPA has adopted The Salvation Army Prison Support Services – Kids In Play Programme (KIP) and REACH Community Services Society – Family Services Centre for two years from 1 Jan 2017 to 31 Dec 2018. MPA will be championing initiatives to promote staff volunteerism and fund-raising in support of our adopted charities.



Sharity Elephant making its appearance at MPA Family Day 2016.

Ministry of Transport (MOT) Family Charity Outreach 2016

MOT and its statutory boards, including MPA, raised \$1 million for Community Chest through the MOT Family Charity Outreach programme last year. The outreach has been held annually since 2010. As a result of the strong commitment and generous contributions from the MOT Family, more than \$6 million had been raised for Community Chest over the past seven years.

MPA organised the 2016 event. More than 100 beneficiaries from various Community Chest – supported programmes, namely Society for the Physically Disabled, Metta School, Kids in Play Programme and Fei Yue Family Service Centre, enjoyed an afternoon at the Lee Kong Chian Natural History Museum. They learnt about Southeast Asia's flora and fauna. They also got a close look at the skeleton of Singapore's first recorded sperm whale, which MPA helped to retrieve when its remains were found off Jurong Island in 2015.



Beneficiaries from Community Chest-supported programmes taking a group photo with Minister Khaw Boon Wan, Coordinating Minister for Infrastructure & Minister for Transport,

MPA Charity Golf 2016

MPA's Charity Golf event, which first started in November 2014, supports the Care & Share Movement, a national fund-raising and volunteerism movement led by the Community Chest.

Charity Golf 2016 was held in celebration of MPA's 20th anniversary. Contributions from the event went towards supporting the Community Chest and MPA's adopted charities, The Salvation Army – Kids in Play Programme (KIP), and Lighthouse School.

KIP is an outreach programme targeted at children whose parent/s is/are in prison, with the aim of keeping these families connected. Lighthouse School provides special education to children with visual and hearing impairments as well as those with autism. Both charities were adopted in 2014.

Because of the generosity of the maritime community, a total of \$230,000 was raised at the event for the charities.



Charity Golf event

Community Chest's Special Event Gold Award

As a result of the successful fund-raising efforts at Charity Golf 2016, MPA received the Community Chest's Special Events Gold Award, which are presented to organisations and groups of individuals for raising substantial funds for Community Chest through fund-raising events.



Ms Yvonne Chan, Director (Corporate Development/CFD) received the award on MPA's behalf.



Labour Management Relations

MPA maintains a cohesive labour-management Relationship with our strategic partner, the Amalgamated Union of Statutory Board Employees (AUSBE) and the MPA branch of AUSBE. This close working relationship is critical in ensuring that MPA and AUSBE fulfil the common objective of fostering an engaged and committed workforce.

Regular union-management meetings are convened to address the issues raised by our employees. MPA Senior Management and the AUSBE representatives also participate

in various informal activities to help foster a harmonious working relationship.

To encourage employees to enrol for union membership, MPA offers a 50% subsidy of all union membership fees. Every quarter, the AUSBE representatives are invited to share with new hires on how the union can offer assistance in the course of their career with MPA. As at 31 December 2016, 408 officers are AUSBE members. [102-41]

MPA's Grievances Process

01

Employee submits written complaint directly to the immediate supervisor, or through the Union.

02

Dispute is surfaced to the Head of Department and Head of Division

03

Dispute is reported to the AUSBE-MPA branch

04

Dispute is reviewed at formal meeting between MPA and AUSBE

05

Dispute is referred to the Commissioner for Labour

06

The Industrial Arbitration Court is the final authority on employee disputes

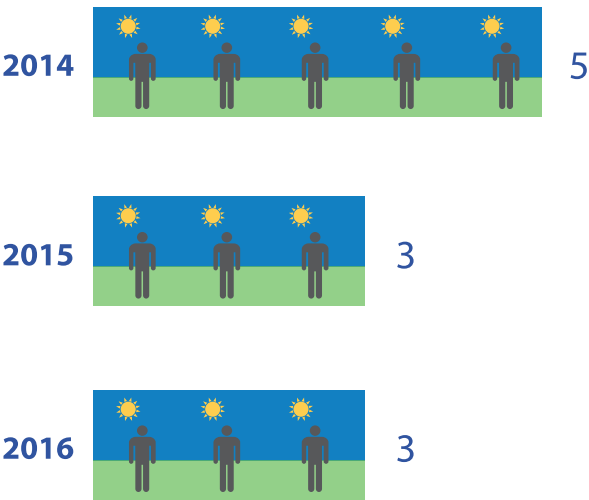
Workplace Safety and Health

To better ensure the workplace safety and health of its employees, MPA re-constituted the Workplace Safety and Health Committee in 2014. The Committee is chaired by Director, Human Resource and comprises representatives from HR, the Operations Cluster, Facilities Management, and the Union. The committee meets regularly to review and update the safety plans for MPA.

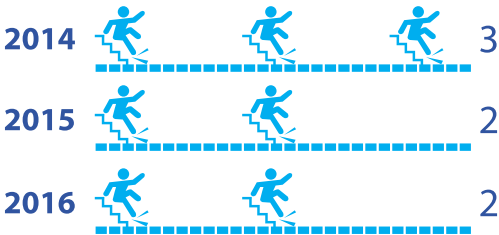
- The five key safety and health principles of MPA are:
- If safety is a cost, lives cost more,
 - Value every officer’s safety and health,
 - Zero tolerance for non-compliance on safety and health issues,
 - Recognise and reinforce safe behaviour, and
 - Promote health and safety excellence.

MPA continually assesses the state of workplace safety and has developed a slate of guidelines on Workplace Safety and Health. These are reviewed regularly to ensure that MPA’s people continue to work within a safe environment.

Number of Man-Days Lost



Workplace Incidents



Work-Related Fatalities



Celebrating our 20th Anniversary Together



On 2 February 2016, MPA turned twenty! In celebrating 2016 as a milestone year, the 20th anniversary logo was conceived to symbolise MPA's steadfast commitment to its strategic direction – relevant and aligned to the present and future needs of the local and global maritime industry.



MPA's Chairman, Chief Executive, Assistant Chief Executives, with ex-MPA's Chairmen, ex-Chief Executives and ex-Director-General, onstage commemorating the momentous occasion with the MPA 20th Anniversary cake.

The MPA 20th Anniversary Gala Dinner & Dance was the hallmark event of the year in celebrating MPA's 20 years of achievements. The event was graced by over 600 attendees, including MPA's past and present Board Members, Chief Executives and Director-General, representatives from various government agencies, senior MaritimeONE partners, union leaders, industry stakeholders and MPA's advisors, pioneers, staff and their spouses.



Guests and staff seated at the MPA 20th Anniversary Gala Dinner.



Guest-of-Honour, MPA's Chairman, Mr Lucien Wong, delivering an address to more than 600 attendees.



MPA staff performers starring in an original musical, 'A Touch on the Times', with local celebrities.

The highlight of the night was a lively modern musical comedy themed 'A Touch on the Times'. Presented in three separate acts to reflect the past, present and future, the musical features an original concept, musical direction, music and lyrics by Clement Chow. This humorous story of loyalty, love and the occasional family squabbles takes the audience through the origins of Singapore's maritime and port agency, its working environment and the present state of affairs, as well as MPA's plans to make waves in the future.

Led by the 20th Anniversary Committee, many MPA staff enthusiastically volunteered for roles in the musical – as singers, dancers and performers. Staff from across the divisions came together with local celebrities to put up the show of the night. They revelled in the novel experience of being entertainers and forged a strong sense of camaraderie following months of preparations, which include auditions, recitals, late-night rehearsals, dance choreography, singing lessons and a studio recording session.



The 20th Anniversary Gala Dinner Organising Committee taking a group photo with local celebrities.



MPA staff at full-dress rehearsals.



MPA staff rehearsing for the musical at a dance choreography session.



MPA staff at a studio recording session.

On the performance night, they delighted their colleagues with their spirited exuberant performance as they sang, danced and acted with the MPA spirit. The musical extravaganza also showcased new staff uniforms paraded by MPA staff.



MPA staff parading in their new uniforms as part of the musical extravaganza.



Staff audience entertained by the three-part musical performance.



MPA staff performers taking a group photo with Ambassador-At-Large, Prof Tommy Koh.



MPA's Chief Executive, Chairman and Permanent Secretary (Ministry of Transport) - from left to right - launching the refreshed MPA logo and the 20th Anniversary coffee table book.

The 20th Anniversary Gala Dinner & Dance also witnessed the launch of the refreshed MPA logo. The logo encapsulates the organisation's mission to develop and promote Singapore as a premier global hub port and international maritime centre, and to safeguard Singapore's strategic maritime interests.



The symbol communicates a modern, progressive, dynamic and professional image to the public. The Corporate logotype identifies the organisation by name, while its typeface "Optima" reflects the organisation's modern, strong and friendly personality.

Together, the symbol and logotype form the corporate signature, which is the most visible identification of the organisation.

Symbolically, the waves represent the integration of the regulatory, facilitation and promotional functions that form the core of MPA's role. The waves, which travel in one direction, also represent the synergy amongst MPA and its tripartite partners - industry, unions and government - in driving the maritime industry.

The arrows not only represent the various facets of the maritime industry, but also graphically depict MPA as a proactive and forward thinking agency that confidently spearheads Singapore's development as a global hub port and international maritime centre. The refreshed corporate colours of blue and green in various hues reflect the dynamic environment in which MPA operates and thrives in.

The MPA Coffee Table Book was also launched during the MPA 20th Anniversary Gala Dinner & Dance as a commemorative gift for all staff and stakeholders. The spiral design of the book cover depicts MPA's twenty-year journey of riding the waves. It also connotes a historical time, which conveys a sense of time, continuity and progress. The playful element of a porthole in a hull created by a clear gel capsule alludes to the thriving maritime ecosystem that MPA continually develops.



Traditionally, a 20th Anniversary is represented by an emerald gemstone. As such, the swirls of green, together with the gem-inspired 20th Anniversary logo, are captured in the porthole. As MPA navigates through challenging times, the darkening shade of blue reflects the uncharted waters that we confidently venture into as we pave the way for the growth of Maritime Singapore.

Glossary

Term & Abbreviation	Definition
Amalgamated Union of Statutory Board Employees (AUSBE)	The AUSBE looks after the interests of employees across 12 statutory boards, including MPA.
Caisson	Used in the construction of Tuas Terminal, a caisson is a structure used in underwater work, consisting of an airtight chamber, open at the bottom and containing air under sufficient pressure to exclude the water.
Classification society	An organisation that publishes its own classification rules in the design, construction and survey of ships.
Emission Control Area (ECA)	Emission Control Area is an area where the adoption of special mandatory measures for emissions from ships is required to prevent, reduce and control air pollution from NO _x or SO _x and particulate matters or all three types of emissions and their attendant adverse impacts on human health and the environment.
Environmental Impact Assessment (EIA)	An evaluation on the environmental consequences of a plan or project before the decision on the next course of action.
Global Reporting Initiative (GRI)	The GRI is a non-profit organisation that promotes the use of sustainability reporting in organisations to achieve sustainable development and operations.
Greenhouse Gas (GHG)	Greenhouse gases are gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.
Global Internship Award	The MPA Global Internship Award (GIA) is a fully sponsored internship programme that gives students an opportunity to intern with international maritime companies in Singapore and around the world.
Harbour craft	A category of vessels that ply within the waters of Singapore only, and do not travel into international waters.
International Maritime Centre (IMC)	A global maritime hub that provides comprehensive and high quality maritime services and support.
Integrated Reporting (IR)	A concise corporate report outlining how a company organised itself to create economic value over time.
International Integrated Reporting Council (IIRC)	A coalition of government, businesses and accounting professionals to develop a globally-accepted Integrated Reporting framework.
International Maritime Organization (IMO)	A specialised United Nations agency that sets the global regulatory standard for the safety, security and environmental performance of international shipping.
Information Sharing Centre (ISC)	The ISC is the executive unit of ReCAAP based in Singapore.
Jurong Port (JP)	A Singapore port operator owned by Jurong Town Corporation.
Natural Gas (LNG)	A natural gas that has been converted to liquid form for ease of storage or transport.
Maritime Cluster Fund (MCF)	A fund created by MPA to facilitate the growth of Singapore's maritime industry in the key areas of business development, manpower development and productivity improvement.
Maritime Outreach Network (MaritimeONE)	A manpower initiative by maritime stakeholders to raise awareness on the industry and the scholarship and career opportunities available to students.
Maritime Singapore Green Initiative (MSGI)	A voluntary initiative started by MPA in 2011 to promote clean and sustainable shipping in Singapore.
MARPOL Convention	The International Convention for the Prevention of Pollution from Ships is the main IMO legal instrument to prevent pollution of the marine environment from accidents or operational incidents.

Term & Abbreviation	Definition
Mass Flow Meter (MFM)	A device that measures the flow rate through a tube by mass per unit time.
Next Generation Port (NGP)	A new energy efficient and sustainable port that will be developed in Tuas by 2030.
Non-Governmental Organisation (NGO)	An organisation that does not belong to the government and does not operate like a conventional for-profit business.
Pleasure craft	A category of vessel used for sports or pleasure; it does not include crafts used for sightseeing by tour operators.
Port of Singapore	The collective facilities and terminals that conduct maritime trade and handle shipping in Singapore.
Port Operations Control Centre (POCC)	MPA's Port Operations Control Centre is equipped with state-of-the-art Vessel Traffic Information System (VTIS) to provide enhanced monitoring of the sea situation to ensure safety of navigation and environmental protection in the Port of Singapore and the Singapore Strait.
Port State Control (PSC)	The inspection of foreign ships by a national port to verify that the competency of the personnel, and the condition of the ship and its equipment comply with international conventions, and that the vessel is manned and operated in compliance with applicable international maritime law.
Pro-Enterprise Ranking (PER)	An annual survey commissioned by the Pro- Enterprise Panel (PEP) to assess the pro-enterprise performance of government regulatory agencies in Singapore.
PSA International (PSA)	One of the world's largest port operators headquartered in Singapore.
Regional Co-operation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP)	A regional government-to-government agreement that came into effect in 2006 with the purpose of promoting and enhancing cooperation against piracy and armed robbery against ships in Asia.
Singapore International Bunkering Conference (SIBCON):	Organised by the MPA since its inception in 1988, SIBCON is the world's largest bunkering conference and has proven to be a distinctive think-tank, a unique platform that brings together leading bunkering professionals, academic experts and high-level industry executives.
Singapore Quality Award (SQA)	Benchmarked against international awards such as the Malcolm Baldrige National Quality Award in the United States and the European Foundation for Quality Management (EFQM) Excellence Award in Europe, the SQA is the pinnacle of national awards for business excellence in Singapore.
Singapore Registry of Ships (SRS)	A Singapore ship registry ranked among the top five largest registries in the world.
Singapore Shipping Association (SSA)	A Singapore maritime association that strives to enhance the competitiveness of Singapore as an international maritime centre.
Transponder	A wireless communications, monitoring or control device that picks up and automatically responds to an incoming signal.
Twenty-foot Equivalent Unit (TEU)	A standard unit for describing a ship's cargo carrying capacity or a shipping terminal's cargo handling capacity.

OUR APPROACH TO INTEGRATED REPORTING

We are pleased to continue on our journey in Integrated Reporting <IR>. We embrace <IR> as a continuous process to promote cohesive, streamlined and integrated thinking on MPA's value creation over the short, medium and long term.

Since MPA's formation in 1996, our sustainability goals have been to foster a safe and green marine environment, ensure a vibrant Maritime Singapore and maintain a quality flag registry as part of our mission to develop and promote Singapore as a premier global hub port and international maritime centre as well as to advance and safeguard Singapore's strategic maritime interests.

Progressing from the FY2014 narrative that sets out MPA's plans to move the maritime community Towards a Future Ready Maritime Singapore, we communicated on initiatives and work done on Building a Future Ready Maritime Singapore in the FY2015 edition. In FY2016, we continued to further develop and enhance our initiatives and launched new initiatives and collaborations with stakeholders and the maritime community as we harnessed Strength in Unity within a competitive and sustainable Maritime Singapore.

The report has successfully completed the Materiality Disclosure Service. The content elements of the <IR> framework are articulated in the table below:

Content Elements	Where in MPA's Report
A. Organisational Overview and External Environment	Chairman's Foreword Chief Executive's Foreword About MPA 2016 Performance Summary
B. Governance	Chapter 7 Culture of Excellence – Corporate Governance
C. Business Model	Mapping Key Material Issues Future Ready Framework
D. Risks and Opportunities	Examples of Risk within Report Mapping Key Material Issues Chapter 7 Culture of Excellence – Corporate Governance
E. Strategy and Resource Allocation	Chief Executive's Foreword MPA's Approach to Sustainability Mapping Key Material Issues Future Ready Framework
F. Performance	2016 Performance Summary FY2016 Financial Statements (published separately)
G. Outlook	Chairman's Foreword Chief Executive's Foreword
H. Basis of Preparation and Presentation	About this Report Mapping Key Material Issues Statutory Board Financial Reporting Standards (FY2016 Financial Statements)

Learning from the past two report editions, we have enhanced the conciseness of this report, striving to communicate pertinent information and updates on our sustainability journey to our valued stakeholders in a clear and succinct manner.

Thank you for joining us on our on-going sustainability journey. We look forward to your support and feedback on areas that would be able to meet your needs.



GRI SRS CONTENT INDEX

Standard Disclosure Title	Where in MPA'S Report
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GENERAL DISCLOSURES

ORGANISATIONAL PROFILE		
102-1	Name of the organization	About MPA > 12
102-2	Activities, brands, products, and services	About MPA > 12
102-3	Location of headquarters	About MPA > 12
102-4	Location of operations	About MPA > 12
102-5	Ownership and legal form	About MPA > 12
102-6	Markets served	About MPA > 12
102-7	Scale of the organization	About MPA > 12
102-8	Information on employees and other workers	Choice Employer > Our People > 76
102-9	Supply chain	Strong Partnerships > Sustaining Service Excellence > 68-69
		Strong Partnerships > Strategic Partnerships with Maritime Institutes and Centres of Excellence > 71
		Strong Partnerships > Supplier Management > 70
102-10	Significant changes to the organization and its supply chain	About this Report > Inside Front Cover
102-11	Precautionary Principle or approach	Mapping Key Materials > 16
102-12	External initiatives	About this Report > Inside Front Cover
		Safe, Efficient & Sustainable Global Hub Port > Staying Ahead of Competition > 21-22
		Safe, Efficient & Sustainable Global Hub Port > Keeping Singapore Waters Safe > 24
		Safe, Efficient & Sustainable Global Hub Port > Celebrating the Singapore Flag > 27
		Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 28-31
		Safeguard Strategic Maritime Interests & an Influential Voice > 37-39
		Culture of Excellence > Achieving the Singapore Quality Award (SQA) > 59
102-13	Membership of associations	Safeguard Strategic Maritime Interests and an influential Voice > 37-39
STRATEGY		
102-14	Statement from senior decision-maker	Chairman's Foreword > 2-3 Chief Executive's Foreword > 4-5
102-15	Key impacts, risks, and opportunities	Chairman's Foreword > 2-3 Chief Executive's Foreword > 4-5 Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 28-31
ETHICS AND INTEGRITY		
102-16	Values, principles, standards, and norms of behavior	Culture of Excellence > Embedding FIRST Values > 57 Strong Partnerships > Sustaining Service Excellence > 68 Choice Employer > Engaged People > 79
102-17	Mechanisms for advice and concerns about ethics	Culture of Excellence > Embedding FIRST Values > 57 Strong Partnerships > Sustaining Service Excellence > 68

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Standard Disclosure Title		Where in MPA'S Report
GENERAL DISCLOSURES		
GOVERNANCE		
102-18	Governance structure	Culture of Excellence > Corporate Governance > 57
102-19	Delegating authority	Culture of Excellence > Corporate Governance > 57 Mapping Key Material Issues > 16
102-20	Executive-level responsibility for economic, environmental, and social topics	Culture of Excellence > Corporate Governance > 57 Mapping Key Material Issues > 16
102-21	Consulting stakeholders on economic, environmental, and social topics	Mapping Key Material Issues > 16 Strong Maritime Singapore Identity > Youth Engagement > 50-51
102-22	Composition of the highest governance body and its committees	MPA's Organisation Structure > 10-11
102-23	Chair of the highest governance body	Culture of Excellence > Corporate Governance > 57 The Chairman of the MPA Board, the highest governance body, is a non-executive officer for MPA.
102-24	Nominating and selecting the highest governance body	Culture of Excellence > Corporate Governance > 57
102-25	Conflicts of interest	Culture of Excellence > Corporate Governance > 57 Choice Employer > 75
102-26	Role of highest governance body in setting purpose, values, and strategy	Culture of Excellence > Corporate Governance > 57
102-27	Collective knowledge of highest governance body	Sustainability issues have been discussed at the board level during the financial year, raising awareness towards economic, environmental and social issues.
102-28	Evaluating the highest governance body's performance	MPA has not carried out this evaluation.
102-29	Identifying and managing economic, environmental, and social impacts	Culture of Excellence > Corporate Governance > 57 Mapping Key Material Issues > 16
102-30	Effectiveness of risk management processes	Culture of Excellence > Corporate Governance > 57-58
102-31	Review of economic, environmental, and social topics	Culture of Excellence > Corporate Governance > 57-58
102-32	Highest governance body's role in sustainability reporting	Mapping Key Material Issues > 16
102-33	Communicating critical concerns	Culture of Excellence > Embedding FIRST Values > 57 Strong Partnerships > Sustaining Service Excellence > 68 Choice Employer > Labour Management Relations > 82
102-34	Nature and total number of critical concerns	Culture of Excellence > Embedding FIRST Values > 57
102-35	Remuneration policies	Culture of Excellence > Corporate Governance > 58
102-36	Process for determining remuneration	Culture of Excellence > Corporate Governance > 58
102-37	Stakeholders' involvement in remuneration	Culture of Excellence > Corporate Governance > 58
102-38	Annual total compensation ratio	Culture of Excellence > Corporate Governance > 58
102-39	Percentage increase in annual total compensation ratio	Culture of Excellence > Corporate Governance > 58

Standard Disclosure Title

Where in MPA'S Report

GENERAL DISCLOSURES

STAKEHOLDER ENGAGEMENT

102-40	List of stakeholder groups	Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73
102-41	Collective bargaining agreements	60% of MPA's workforce is covered by the Union. Choice Employer > Labour Management Relations > 82
102-42	Identifying and selecting stakeholders	In determining key stakeholders, MPA considers their interest in sustainability, potential influence, as well as the extent to which MPA can impact them. Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73
102-43	Approach to stakeholder engagement	Strong Partnerships > Stakeholder Engagement > 67 Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73
102-44	Key topics and concerns raised	Strong Partnerships > Sustaining Service Excellence > 69 Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73

REPORTING PRACTICE

102-45	Entities included in the consolidated financial statements	All of MPA's entities are included in this Report.
102-46	Defining report content and topic Boundaries	About this Report > Inside Front Cover Mapping Key Material Issues > 17
102-47	List of material topics	Mapping Key Material Issues > 17-18
102-48	Restatements of information	There have been no restatements from MPA's previous reports.
102-49	Changes in reporting	About this Report > Inside Front Cover
102-50	Reporting period	About this Report > Inside Front Cover
102-51	Date of most recent report	About this Report > Inside Front Cover
102-52	Reporting cycle	About this Report > Inside Front Cover
102-53	Contact point for questions regarding the report	About this Report > Inside Front Cover
102-54	Claims of reporting in accordance with the GRI Standards	About this Report > Inside Front Cover
102-55	GRI content index	About this Report > Inside Front Cover
102-56	External assurance	About this Report > Inside Front Cover

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Where in MPA'S Report

TOPIC SPECIFIC DISCLOSURES

ECONOMIC PERFORMANCE

103-1	Explanation of the material topic and its Boundary	Culture of Excellence > Sustainability > 53 Refer to Financial Report 2016
103-2	The management approach and its components	Culture of Excellence > Sustainability > 53 Refer to Financial Report 2016
103-3	Evaluation of the management approach	Culture of Excellence > Sustainability > 53 Refer to Financial Report 2016
201-1	Direct economic value generated and distributed	Vibrant IMC Eco-system > Leading International Maritime Centre > 33 Refer to Financial Report 2016
201-2	Financial implications and other risks and opportunities due to climate change	MPA has not formally assessed the financial implications of climate change to the organisation.
201-3	Defined benefit plan obligations and other retirement plans	Not material. Benefit plan financial obligations are not relevant in the local context.
201-4	Financial assistance received from government	MPA received no financial assistance from the government.

MARKET PRESENCE

Not Material – MPA's operations are only in Singapore

INDIRECT ECONOMIC IMPACTS

103-1	Explanation of the material topic and its Boundary	Vibrant IMC Eco-system > 32-35
103-2	The management approach and its components	Vibrant IMC Eco-system > 32-35
103-3	Evaluation of the management approach	Vibrant IMC Eco-system > 32-35
203-1	Infrastructure investments and services supported	Vibrant IMC Eco-system > 32-35
203-2	Significant indirect economic impacts	About MPA > 12 Vibrant IMC Eco-system > 32-35

PROCUREMENT PRACTICES

103-1	Explanation of the material topic and its Boundary	Strong Partnerships > Supplier Management > 70
103-2	The management approach and its components	Strong Partnerships > Supplier Management > 70
103-3	Evaluation of the management approach	Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73
204-1	Proportion of spending on local suppliers	MPA does not currently measure this.

ANTI CORRUPTION

103-1	Explanation of the material topic and its Boundary	Culture of Excellence > Embedding FIRST Values > 57
103-2	The management approach and its components	Culture of Excellence > Embedding FIRST Values > 57
103-3	Evaluation of the management approach	Culture of Excellence > Embedding FIRST Values > 57
205-1	Operations assessed for risks related to corruption	Culture of Excellence > Embedding FIRST Values > 57
205-2	Communication and training about anti-corruption policies and procedures	Culture of Excellence > Embedding FIRST Values > 57
205-3	Confirmed incidents of corruption and actions taken	Culture of Excellence > Embedding FIRST Values > 57

Standard Disclosure Title
Where in MPA'S Report
TOPIC SPECIFIC DISCLOSURES
ANTI-COMPETITIVE BEHAVIOUR

Not applicable – MPA is a Statutory Board

MATERIALS

103-1	Explanation of the material topic and its Boundary	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 31
103-2	The management approach and its components	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 31 Culture of Excellence > Environmental Sustainability > 54-55
103-3	Evaluation of the management approach	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 31 Culture of Excellence > Environmental Sustainability > 54-55
301-1	Materials used by weight or volume	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 31 Culture of Excellence > Environmental Sustainability > 54-55
301-2	Recycled input materials used	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 31 Culture of Excellence > Environmental Sustainability > 54-55
301-3	Reclaimed products and their packaging materials	Not material. MPA does not sell products.

ENERGY

103-1	Explanation of the material topic and its Boundary	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31 Culture of Excellence > Environmental Sustainability > 54-55
103-2	The management approach and its components	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
103-3	Evaluation of the management approach	Culture of Excellence > Environmental Sustainability > 54-55 Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
302-1	Energy consumption within the organization	Culture of Excellence > Environmental Sustainability > 54-55
302-2	Energy consumption outside of the organization	Not disclosed
302-3	Energy intensity	Culture of Excellence > Environmental Sustainability > 54-55
302-4	Reduction of energy consumption	Culture of Excellence > Environmental Sustainability > 54-55
302-5	Reductions in energy requirements of products and services	Culture of Excellence > Environmental Sustainability > 54-55 Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31 Culture of Excellence > Environmental Sustainability > 54-55

GRI SRS CONTENT INDEX

Standard Disclosure Title		Where in MPA'S Report
TOPIC SPECIFIC DISCLOSURES		
WATER		
103-1	Explanation of the material topic and its Boundary	Culture of Excellence > Environmental Sustainability > 54-55 MPA's water use is only for its offices and is sourced from the Public Utilities Board (PUB). Even so, MPA takes water use seriously and sees it as material as water is a scarce resource.
103-2	The management approach and its components	Culture of Excellence > Environmental Sustainability > 54-55 Maritime Knowledge & Innovation Hub > 42 MPA seeks to conserve water where possible and has set goals and targets for water consumption reduction.
103-3	Evaluation of the management approach	Culture of Excellence > Environmental Sustainability > 54-55 MPA has mechanisms in place to monitor its water consumption, using externally developed guidelines in tracking performance. MPA has also set targets for water consumption.
303-1	Water withdrawal by source	MPA's water use is only for use of offices, and source is only from PUB
303-2	Water sources significantly affected by withdrawal of water	Not material. MPA does not withdraw water. Our water use is only for office use, supplied by public utilities – no direct withdrawal of water.
303-3	Water recycled and reused	Not material. MPA is not a significant user of water.
BIODIVERSITY		
103-1	Explanation of the material topic and its Boundary	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
103-2	The management approach and its components	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
103-3	Evaluation of the management approach	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
304-2	Significant impacts of activities, products, and services on biodiversity	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
304-3	Habitats protected or restored	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	MPA's operations do not affect any IUCN Red List species or national conservation list species.

Standard Disclosure Title

Where in MPA'S Report

TOPIC SPECIFIC DISCLOSURES

EMISSIONS

103-1	Explanation of the material topic and its Boundary	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
103-2	The management approach and its components	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31
103-3	Evaluation of the management approach	Culture of Excellence > Environmental Sustainability > 54-55
305-1	Direct (Scope 1) GHG emissions	Culture of Excellence > Environmental Sustainability > 54-55
305-2	Energy indirect (Scope 2) GHG emissions	Culture of Excellence > Environmental Sustainability > 54-55
305-3	Other indirect (Scope 3) GHG emissions	MPA has not been able to accurately measure Scope 3 emissions. Thus, they have not been included in this report.
305-4	GHG emissions intensity	Culture of Excellence > Environmental Sustainability > 54-55
305-5	Reduction of GHG emissions	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31 Culture of Excellence > Environmental Sustainability > 54-55
305-6	Emissions of ozone-depleted substances (ODS)	Not material. MPA is not a significant emitter of ODS.
305-7	Nitrogen oxides (NOx), sulfur oxides (Sox), and other significant air emissions	Not material. MPA is not a significant emitter of NOx or SO2. We have addressed our role in influencing local air quality through our regulatory role.

EFFLUENTS AND WASTE

Not material. MPA does not discharge water, our only waste is from our offices, we do not have any hazardous waste and we do not transport hazardous waste.

ENVIRONMENTAL COMPLIANCE

103-1	Explanation of the material topic and its Boundary	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 28-31 Singapore is a party to the IMO MARPOL convention. As a public agency, compliance is fundamental to all MPA's operations.
103-2	The management approach and its components	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31 Culture of Excellence > Environmental Sustainability > 54-55
103-3	Evaluation of the management approach	Safe, Efficient & Sustainable Global Hub Port > Emphasising Environmental Sustainability > 30-31 Culture of Excellence > Environmental Sustainability > 54-55
307-1	Non-compliance with environmental laws and regulations	MPA has not received any significant fines or non-monetary sanctions for non-compliance during the reporting period.

GRI SRS CONTENT INDEX

Standard Disclosure Title		Where in MPA'S Report
TOPIC SPECIFIC DISCLOSURES		
SUPPLIER ENVIRONMENTAL ASSESSMENT		
103-1	Explanation of the material topic and its Boundary	Strong Partnerships > Supplier Management > 70
103-2	The management approach and its components	Strong Partnerships > Supplier Management > 70
103-3	Evaluation of the management approach	Strong Partnerships > Stakeholder Engagement > 67
308-1	New suppliers that were screened using environmental criteria	MPA does not measure this.
308-2	Negative environmental impacts in the supply chain and actions taken	Strong Partnerships > Supplier Management > 70
EMPLOYMENT		
103-1	Explanation of the material topic and its Boundary	Choice Employer > 75 Quality Maritime Workforce > Attracting Locals to join the Maritime Sector > 45
103-2	The management approach and its components	Choice Employer > 75 Choice Employer > Enhanced Organisation > 77 Choice Employer > Engaged People > 79-80
103-3	Evaluation of the management approach	Choice Employer > Our People > 76 Choice Employer > Engaged People > 80
401-1	New employee hires and employee turnover	Choice Employer > Our People > 76
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Not applicable. MPA provides the same benefits to part-time workers and full-time workers.
401-3	Parental leave	9 female staff went on maternity leave. 22 male staff went on paternity leave, of which two left MPA after their leave
LABOUR-MANAGEMENT RELATIONS		
103-1	Explanation of the material topic and its Boundary	Choice Employer > Labour Management Relations > 82
103-2	The management approach and its components	Choice Employer > Engaged People > 79 Choice Employer > Labour Management Relations > 82
103-3	Evaluation of the management approach	Choice Employer > Engaged People > 80 Choice Employer > Labour Management Relations > 82
402-1	Minimum notice periods regarding operational changes	When operational changes occur, MPA gives staff as much notice as possible.

Standard Disclosure Title
Where in MPA'S Report
TOPIC SPECIFIC DISCLOSURES
OCCUPATIONAL HEALTH AND SAFETY

103-1	Explanation of the material topic and its Boundary	Choice Employer > Workplace Safety and Health > 83
103-2	The management approach and its components	Choice Employer > Workplace Safety and Health > 83 Strong Partnerships > Supplier Management > 70
103-3	Evaluation of the management approach	Choice Employer > Workplace Safety and Health > 83
403-1	Workers representation in formal joint management-worker health and safety committees	Strong Partnerships > Supplier Management > 70 All MPA employees are represented by MPA's Workplace Safety and Health programmes.
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Choice Employer > Workplace Safety and Health > 83
403-3	Workers with high incidence or high risk of diseases related to their occupation	Not material – our workers do not face a high risk of disease
403-4	Health and safety topics covered in formal agreements with trade unions	Not material

TRAINING AND EDUCATION

103-1	Explanation of the material topic and its Boundary	Quality Maritime Workforce > 45 Choice Employer > Right People > 77
103-2	The management approach and its components	Quality Maritime Workforce > Planning for Future Manpower Needs > 45 Quality Maritime Workforce > Attracting Locals to Join the Maritime Sector > 45 Quality Maritime Workforce > Supporting Maritime Companies to Attract and Retain Local Talent in the Sector > 46 Quality Maritime Workforce > SkillsFuture Initiative > 46
103-3	Evaluation of the management approach	Choice Employer > Workplace Safety and Health > 83
404-1	Average hours of training per year per employee	2016 Performance Summary > 14 On average employees receive 110 hours of training per year
404-2	Programs for upgrading employee skills and transition assistance programs	Quality Maritime Workforce > Supporting Maritime Companies to Attract and Retain Local Talent in the Sector > 46 Quality Maritime Workforce > SkillsFuture Initiative > 46
404-3	Percentage of employees receiving regular performance and career development reviews	All MPA employees receive annual performance reviews.

GRI SRS CONTENT INDEX

Standard Disclosure Title

Where in MPA'S Report

TOPIC SPECIFIC DISCLOSURES

DIVERSITY AND EQUAL OPPORTUNITY

103-1	Explanation of the material topic and its Boundary	Choice Employer > Our People > 76
103-2	The management approach and its components	Choice Employer > 75
103-3	Evaluation of the management approach	Choice Employer > 75 There were no grievance about labour practices filed during the reporting period.
405-1	Diversity of governance bodies and employees	Board of Directors > 6-7 Senior Management > 8-9 Choice Employer > Our People > 76
405-2	Ratio of basic salary and remuneration of women to men	Choice Employer > Our People > 76
Non-discrimination		Not material
Freedom of Association and Collective Bargaining		Not material
Child Labour		Not material
Forced or Compulsory Labour		Not material
Security Practices		Not material
Rights of Indigenous Peoples		Not material
Human Rights Assessment		Not material

LOCAL COMMUNITIES

103-1	Explanation of the material topic and its Boundary	Strong Maritime Singapore Identity > Strengthening Maritime Singapore Identity > 49-50
103-2	The management approach and its components	Strong Maritime Singapore Identity > Strengthening Maritime Singapore Identity > 49-50 Strong Maritime Singapore Identity > Youth Engagement > 50-51 Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73
103-3	Evaluation of the management approach	Strong Partnerships > Stakeholder Engagement > 67
413-1	Operations with local community engagement, impact assessments, and development programs	MPA's operations are only in Singapore. Hence, MPA's local community engagement is focused around Singapore.
413-2	Operations with significant actual and potential negative impacts on local communities	MPA's overall mission is to have a positive impact on the Singapore community.

Standard Disclosure Title
Where in MPA'S Report
TOPIC SPECIFIC DISCLOSURES
SUPPLIER SOCIAL ASSESSMENT

103-1	Explanation of the material topic and its Boundary	Strong Partnerships > Supplier Management > 70
103-2	The management approach and its components	Strong Partnerships > Supplier Management > 70 Strong Partnerships > FY2016 Stakeholder Engagement Activities > 72-73
103-3	Evaluation of the management approach	Strong Partnerships > Stakeholder Engagement > 67
414-1	New suppliers that were screened using social criteria	MPA does not currently measure this.
414-2	Negative social impacts in the supply chain and actions taken	Strong Partnerships > Supplier Management > 70 At present, we do not formally conduct supplier impact assessment for impacts on society
Public Policy		Not applicable – MPA does not make any political contributions.
Customer Health and Safety		Not applicable
Marketing and Labeling		Not material
Customer Privacy		Not material

SOCIOECONOMIC COMPLIANCE

103-1	Explanation of the material topic and its Boundary	As a public agency, compliance is fundamental to all MPA's operations
103-2	The management approach and its components	As a public agency, compliance is fundamental to all MPA's operations
103-3	Evaluation of the management approach	As a public agency, compliance is fundamental to all MPA's operations
419-1	Non-compliance with laws and regulations in the social and economic area	MPA has not received any significant fines or non-monetary sanctions for non-compliance during the reporting period.

OUR CONTRIBUTORS

BROUGHT TO YOU BY:

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M P A
SINGAPORE

460 Alexandra Road #19-00
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STRENGTH IN UNITY

TOWARDS A FUTURE-READY MARITIME SINGAPORE

FINANCIAL REPORT 2016



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This Financial Report covers financial information during the Financial Year 1 January to 31 December 2016.
Both the Annual Report and Financial Report will constitute the Integrated Report <IR>.

STATEMENT BY BOARD OF MEMBERS

For the financial year ended 31 December 2016


In the opinion of the Board of Members,

- (a) the consolidated financial statements of the Maritime and Port Authority of Singapore and its subsidiary (the "Authority") as set out on pages 7 to 67 are properly drawn up so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 December 2016 and of the results of the business, changes in reserves and cash flows of the Authority for the financial year then ended in accordance with the provisions of the Maritime and Port Authority of Singapore Act (Cap. 170A) and Statutory Board Financial Reporting Standards; and
- (b) at the date of this statement, there are reasonable grounds to believe that the Authority will be able to pay its debts as and when they fall due.

On behalf of the Board of Members,



Niam Chiang Meng
Chairman



Andrew Tan
Chief Executive and Board Member

16 March 2017

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying consolidated financial statements of the Maritime and Port Authority of Singapore and its subsidiary (the "Authority") set out on pages 7 to 67, which comprise the consolidated balance sheet as at 31 December 2016, the consolidated statement of comprehensive income, consolidated statement of changes in reserves and consolidated statement of cash flows of the Authority for the year then ended, and noted to the financial statements including a summary of significant accounting policies.

In our opinion, the consolidated financial statements of the Authority are properly drawn up in accordance with the provisions of the Maritime and Port Authority of Singapore Act, Chapter 170A (the "Act") and Statutory Board Financial Reporting Standards so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 December 2016 and the results, changes in reserves and cash flows of the Authority for the year ended on that date.

Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Authority in accordance with the Accounting and Corporate Regulatory Authority ("ACRA") *Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities* ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information Other than the Financial Statements and Auditor's Report Thereon

Management is responsible for the other information. The other information obtained at the date of this auditor's report is the Statement by Board of Members, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

In connection with our audit of the financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the provisions of the Act and Statutory Board Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

A statutory board is constituted based on its Act and its dissolution requires Parliament's approval. In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless there is intention to wind up the Authority or for the Authority to cease operations.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Authority to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

Opinion

In our opinion:

- (a) the receipts, expenditure, investment of moneys and the acquisition and disposal of assets by the Authority during the year are, in all material respects, in accordance with the provisions of the Act; and
- (b) proper accounting and other records have been kept, including records of all assets of the Authority whether purchased, donated or otherwise.

Basis for Opinion

We conducted our audit in accordance with SSAs. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Compliance Audit* section of our report. We are independent of the Authority in accordance with the ACRA Code together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on management's compliance.

Responsibilities of Management for Compliance with Legal and Regulatory Requirements

Management is responsible for ensuring that the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Act. This responsibility includes implementing accounting and internal controls as management determines are necessary to enable compliance with the provisions of the Act.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

Auditor's Responsibilities for the Compliance Audit

Our responsibility is to express an opinion on management's compliance based on our audit of the financial statements. We planned and performed the compliance audit to obtain reasonable assurance about whether the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Act.

Our compliance audit includes obtaining an understanding of the internal control relevant to the receipts, expenditure, investment of moneys and the acquisition and disposal of assets; and assessing the risks of material misstatement of the financial statements from non-compliance, if any, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Because of the inherent limitations in any accounting and internal control system, non-compliances may nevertheless occur and not be detected.



Public Accountants and
Chartered Accountants
Singapore,

16 March 2017

CONSOLIDATED BALANCE SHEET

As at 31 December 2016

	Note	2016 \$	2015 \$
ASSETS			
Non-current assets			
Property, plant and equipment	4	87,419,239	95,845,113
Capital work-in-progress	4	11,474,259	17,026,555
Financial assets	7	626,342,027	658,007,576
		725,235,525	770,879,244
Current assets			
Financial assets	7	-	38,000
Trade receivables	8	45,021,166	45,859,140
Deposits, prepayments and other receivables	9	11,590,044	17,665,977
Cash and cash equivalents	10	592,608,223	681,599,012
		649,219,433	745,162,129
Total assets		1,374,454,958	1,516,041,373
EQUITY			
Capital and reserves			
Establishment account	11	147,375,155	147,375,155
Equity financing account	12	3,978,616	3,978,616
Fair value reserve		13,900,014	11,781,548
Accumulated surplus		1,113,967,665	1,245,903,017
Total capital and reserves		1,279,221,450	1,409,038,336
LIABILITIES			
Non-current liabilities			
Employment benefits	13	422,377	422,377
Deferred capital grant	14	20,461,524	21,815,104
		20,883,901	22,237,481
Current liabilities			
Trade and other payables	15	46,621,860	52,409,447
Advances, deposits and unearned income	16	10,270,867	14,346,805
Provision for contribution to Consolidated Fund	20	17,456,880	18,009,304
		74,349,607	84,765,556
Total liabilities		95,233,508	107,003,037
Total equity and liabilities		1,374,454,958	1,516,041,373
Funds managed/held on behalf of others	25	50,805,532	11,140,979
Funds' net assets managed/held on behalf of others	25	(50,805,532)	(11,140,979)

The accompanying notes form an integral part of these financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the financial year ended 31 December 2016

	Note	2016 \$	2015 \$
Operating revenue			
Port dues and marine services		280,910,522	275,217,543
Shipping services		6,859,492	7,709,816
Rental income		4,133,664	3,960,724
Training		871,265	1,026,574
Miscellaneous revenue		777,775	339,623
		293,552,718	288,254,280
Operating expenditure			
Staff cost	17	80,604,987	78,370,685
Depreciation of property, plant and equipment	4	22,482,488	22,790,954
Hire of marine craft and sea garbage services		9,469,567	9,454,727
Fuel, repairs and maintenance		9,616,090	10,087,947
Other operating expenses	18	74,743,552	81,831,116
		196,916,684	202,535,429
Operating surplus		96,636,034	85,718,851
Net other operating surplus	19	4,640,914	18,790,853
Surplus from operations		101,276,948	104,509,704
Amortisation of deferred capital grant	14	1,353,580	1,387,380
Surplus before contribution to Consolidated Fund		102,630,528	105,897,084
Contribution to Consolidated Fund	20	(17,456,880)	(18,009,304)
Surplus for the year		85,173,648	87,887,780
Other comprehensive income/(loss):			
<u>Items that may be reclassified subsequently to income or expenditure:</u>			
Net change in fair value of available-for-sale debt and equity securities placed by fund managers		(7,339,638)	(17,823,051)
Transfer to income or expenditure on sale of available-for-sale debt and equity securities placed by fund managers		7,564,348	9,784,683
Impairment loss on available-for-sale debt and equity securities placed by fund managers transferred to income or expenditure	7a	1,893,756	5,076,466
Other comprehensive income/(loss) for the year		2,118,466	(2,961,902)
Total comprehensive income for the year		87,292,114	84,925,878

The accompanying notes form an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN RESERVES

For the financial year ended 31 December 2016

	Establishment account \$	Equity financing account \$	Fair value reserve \$	Accumulated surplus \$	Total \$
2016					
Beginning of financial year	147,375,155	3,978,616	11,781,548	1,245,903,017	1,409,038,336
<u>Total comprehensive income</u> <u>for the year</u>					
Surplus for the year	-	-	-	85,173,648	85,173,648
Other comprehensive income for the year	-	-	2,118,466	-	2,118,466
Total	-	-	2,118,466	85,173,648	87,292,114
<u>Total transaction with owners,</u> <u>recognised directly in equity</u>					
Dividends paid	-	-	-	(17,109,000)	(17,109,000)
Return of surplus funds to Government	-	-	-	(200,000,000)	(200,000,000)
Total	-	-	-	(217,109,000)	(217,109,000)
End of financial year	147,375,155	3,978,616	13,900,014	1,113,967,665	1,279,221,450
2015					
Beginning of financial year	147,375,155	3,978,616	14,743,450	1,171,896,237	1,337,993,458
<u>Total comprehensive income</u> <u>for the year</u>					
Surplus for the year	-	-	-	87,887,780	87,887,780
Other comprehensive loss for the year	-	-	(2,961,902)	-	(2,961,902)
Total	-	-	(2,961,902)	87,887,780	84,925,878
Dividends paid, representing total transactions with owners, recognised directly in equity	-	-	-	(13,881,000)	(13,881,000)
End of financial year	147,375,155	3,978,616	11,781,548	1,245,903,017	1,409,038,336

The accompanying notes form an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the financial year ended 31 December 2016

	Note	2016 \$	2015 \$
Cash flows from operating activities			
Surplus before contribution to Consolidated Fund		102,630,528	105,897,084
Adjustments for:			
- Depreciation of property, plant and equipment	4	22,482,488	22,790,954
- Provision for employee benefits	13	8,649	8,697
- Amortisation of deferred capital grant	14	(1,353,580)	(1,387,380)
- Provision/(Write back) of impairment loss on trade receivables	8	14,382	(93,176)
- Net investment gain from funds with fund managers	19	(2,989,731)	(17,469,990)
- Net gain on disposal of equity securities, managed internally	19	-	(60,032)
- Interest income on bank deposits	19	(2,071,217)	(1,229,285)
- (Gain)/loss on disposal of property, plant and equipment	19	(14,459)	85,056
- Write off of capital work-in-progress	4	1,040,353	1,815,631
		119,747,413	110,357,559
Changes in working capital:			
- Trade receivables		823,592	(6,213,239)
- Deposits, prepayments and other receivables		(4,701,799)	(174,705)
- Trade and other payables		(5,805,749)	15,789,777
- Advances, deposits and unearned income		(4,075,938)	17,274
Cash generated from operations		105,987,519	119,776,666
Payment of employee benefits	13	(8,649)	(8,697)
Contribution paid to Consolidated Fund	20	(18,009,304)	(21,555,805)
Net cash from operating activities		87,969,566	98,212,164
Cash flows from investing activities			
Withdrawal/(deposit) of industry funds with Accountant-General's Department		35,401,978	(97,789,246)
Proceeds from sale of property, plant and equipment		44,789	900
Purchases of property, plant and equipment and capital work-in-progress		(9,575,001)	(15,737,261)
Sale of unquoted equity securities, managed internally		38,000	50,000
Sale of quoted equity securities, managed internally		-	60,032
Proceeds from withdrawal of funds with fund managers		49,754,032	58,859,896
Interest received		1,535,423	1,645,699
Net cash from/(used in) investing activities		77,199,221	(52,909,980)
Cash flows from financing activities			
Dividends paid		(17,109,000)	(13,881,000)
Return of surplus funds to Government		(200,000,000)	-
Net cash used in financing activities		(217,109,000)	(13,881,000)
Net (decrease)/increase in cash and cash equivalents		(51,940,213)	31,421,184
Cash and cash equivalents at beginning of financial year		100,383,765	68,962,581
Cash and cash equivalents at end of financial year	10	48,443,552	100,383,765

The accompanying notes form an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

These notes form an integral part of and should be read in conjunction with the accompanying financial statements.

1. General information

The Maritime and Port Authority of Singapore ("MPA") under the purview of Ministry of Transport, was established on 2 February 1996 under the Maritime and Port Authority of Singapore Act (Cap. 170A) with the merger of the following organisations:

- The National Maritime Board (NMB);
- The Marine Department (MD); and
- The regulatory departments of the Port of Singapore Authority (PSA).

MPA is domiciled in Singapore and the address of its registered office is 460 Alexandra Road, 19th Storey, PSA Building, Singapore 119963.

The principal activities of MPA include the control of vessel movements to ensure a safe and secure port, and also the regulation of the port and marine services and facilities. MPA is the champion agency to develop and promote Singapore as an International Maritime Centre. MPA also represents Singapore regionally and internationally to safeguard Singapore's maritime interests.

The principal activities of its subsidiary and associated companies are set out in Note 6.

2. Significant accounting policies

2.1 Basis of preparation

These financial statements have been prepared in accordance with the provisions of the Maritime and Port Authority of Singapore Act (Cap. 170A) and Statutory Board Financial Reporting Standards ("SB-FRS").

The financial statements have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with SB-FRS requires management to exercise its judgement in the process of applying the Authority's accounting policies. It also requires the use of certain critical accounting estimates and assumptions. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 3.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

Interpretations and amendments to published Standards effective in 2016

On 1 January 2016, the Authority adopted the new or amended SB-FRS and Interpretations of SB-FRS ("INT SB-FRS") that are mandatory for application for the financial year. Changes to the Authority's accounting policies have been made as required, in accordance with the transitional provisions in the respective SB-FRS and INT SB-FRS.

The adoption of these new or amended SB-FRS and INT SB-FRS did not result in substantial changes to the Authority's accounting policies and had no material effect on the amounts reported for the current or prior financial years.

Interpretations and amendments to published Standards effective in future period

At the date of authorisation of these financial statements, the following SB-FRSs that are relevant to the Authority were issued but not effective:

- SB-FRS 109 Financial Instruments¹
- SB-FRS 115 Revenue from Contracts with Customers¹
- SB-FRS 116 Leases²

¹ Applies to annual periods beginning on or after 1 January 2018, with early application permitted.

² Applies to annual periods beginning on or after 1 January 2019, with early application permitted if SB-FRS 115 is adopted.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

The Authority anticipates that the adoption of the above SB-FRSs in future periods will not have a material impact on the financial statements of the Authority in the period of their initial adoption except for the following:

SB-FRS 109 Financial Instruments

SB-FRS 109 was issued in December 2014 to replace SB-FRS 39 *Financial Instruments: Recognition and Measurement* and introduced new requirements for (i) the classification and measurement of financial assets and financial liabilities (ii) general hedge accounting (iii) impairment requirements for financial assets.

Key requirements of SB-FRS 109:

- All recognised financial assets that are within the scope of SB-FRS 39 are now required to be subsequently measured at amortised cost or fair value through profit or loss (FVTPL). Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortised cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets, and that have contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are measured at fair value through other comprehensive income (FVTOCI). All other debt investments and equity investments are measured at FVTPL at the end of subsequent accounting periods. In addition, under SB-FRS 109, entities may make an irrevocable election, at initial recognition, to measure an equity investment (that is not held for trading) at FVTOCI, with only dividend income generally recognised in income or expenditure.
- With some exceptions, financial liabilities are generally subsequently measured at amortised cost. With regard to the measurement of financial liabilities designated as at FVTPL, SB-FRS 109 requires that the amount of change in fair value of such financial liability that is attributable to changes in the credit risk be presented in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch to profit or loss. Changes in fair value attributable to the financial liability's credit risk are not subsequently reclassified to income or expenditure.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

SB-FRS 109 Financial Instruments (continued)

- In relation to the impairment of financial assets, SB-FRS 109 requires an expected credit loss model, as opposed to an incurred credit loss model under SB-FRS 39. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.
- The new general hedge accounting requirements retain the three types of hedge accounting mechanisms currently available in SB-FRS 39. Under SB-FRS 109, greater flexibility has been introduced to the types of transactions eligible for hedge accounting, specifically broadening the types of instruments that qualify for hedging instruments and the types of risk components of non-financial items that are eligible for hedge accounting. In addition, the effectiveness test has been overhauled and replaced with the principle of an 'economic relationship'. Retrospective assessment of hedge effectiveness is also no longer required. Enhanced disclosure requirements about an entity's risk management activities have also been introduced.

The Authority anticipates that the initial application of the new SB-FRS 109 may result in changes to the accounting policies relating to (i) the classification and measurement of financial assets and financial liabilities and (ii) impairment requirements for financial assets.

The Authority is currently assessing of the possible impact of implementing SB-FRS 109. It is currently impracticable to disclose any further information on the known or reasonably estimable impact to the Authority's financial statements in the period of initial application as the management has yet to complete its detailed assessment.

The Authority does not plan to early adopt the new SB-FRS 109.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

SB-FRS 115 Revenue from Contracts with Customers

In November 2014, SB-FRS 115 was issued which establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. SB-FRS 115 will supersede the current revenue recognition guidance including SB-FRS 18 *Revenue*, SB-FRS 11 *Construction Contracts* and the related Interpretations when it becomes effective.

The core principle of SB-FRS 115 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the Standard introduces a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligations in the contract.
- Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation.

Under SB-FRS 115, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e. when “control” of the goods or services underlying the particular performance obligation is transferred to the customer. Far more prescriptive guidance has been added in SB-FRS 115 to deal with specific scenarios. Furthermore, extensive disclosures are required by SB-FRS 115.

The Authority anticipates that the initial application of the new SB-FRS 115 may result in changes to the accounting policies relating to revenue recognition.

The Authority is currently assessing of the possible impact of implementing SB-FRS 115. It is currently impracticable to disclose any further information on the known or reasonably estimable impact to the Authority’s financial statements in the period of initial application as the management has yet to complete its detailed assessment.

The Authority does not plan to early adopt the new SB-FRS 115.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

SB-FRS 116 - Leases

SB-FRS 116 was issued in June 2016 and will supersede SB-FRS 17 *Leases* and its associated interpretative guidance.

The Standard provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessees and lessors. The identification of leases, distinguishing between leases and service contracts, are determined on the basis of whether there is an identified asset controlled by the customer.

Significant changes to lessee accounting are introduced, with the distinction between operating and finance leases removed and assets and liabilities recognised in respect of all leases (subject to limited exceptions for short term leases and leases of low value assets). The Standard maintains substantially the lessor accounting approach under the predecessor SB-FRS 17.

The Authority anticipates that the initial application of the new SB-FRS 116 may result in changes to the accounting policies relating to leases.

As at 31 December 2016, the Authority has non-cancellable operating lease commitment of \$18,112,191. SB-FRS 17 does not require the recognition of any right-of-use asset or liability for future payments of these leases; instead, certain information is disclosed as operating lease commitments. A preliminary assessment is that these arrangements will meet the definition of a lease under SB-FRS 116 and the Authority will recognise a right-of use asset and a corresponding liability in respect of these leases unless they qualify as low value or short term leases upon application. It is currently impracticable to provide a reasonable estimable of the financial effect until the Authority complete its detailed assessment.

The Authority does not plan to early adopt the new SB-FRS 116.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.2 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the rendering of services in the ordinary course of the Authority's activities. Revenue is presented net of goods and services tax, rebates and discounts.

The Authority recognises revenue when the amount of revenue and related cost can be reliably measured, it is probable that the collectability of the related receivables is reasonably assured and when the specific criteria for each of the Authority's activities are met as follows:

(a) Port dues and marine services

Port dues and marine services are recognised as and when services are performed.

(b) Training revenue

Training revenue are recognised as and when services are performed.

(c) Shipping services

Shipping services, which comprise registration fees and seaman engagement and discharge fees, are recognised as and when services are performed.

(d) Interest income

Interest income is recognised using the effective interest method.

(e) Dividend income

Dividend income is recognised when the right to receive payment is established.

(f) Rental income

Rental income from operating leases (net of any incentives given to the lessees) is recognised on a straight line basis over lease term.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.3 Government grants

Government grants received for the purchase or the construction of depreciable assets are accounted for as deferred capital grants. The deferred capital grants are amortised and charged to income or expenditure over the period necessary to match the annual depreciation charge of these assets or when the assets are disposed or written off. Where the grants relate to an expense item, they are recognised in income or expenditure over the periods necessary to match them on a systematic basis, to the costs, which they are intended to compensate.

2.4 Group accounting

(a) Subsidiary

A subsidiary is an entity over which the Authority has control. The Authority controls an entity when the Authority is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. A subsidiary is fully consolidated from the date on which control is transferred to MPA. It is deconsolidated from the date on that control ceases.

(b) Associated companies

Associated companies are entities over which the Authority has significant influence, but not control, generally accompanied by a shareholding giving rise to voting rights of 20% and above but not exceeding 50%.

Investments in associated companies are accounted for in the consolidated financial statements using the equity method of accounting less impairment losses, if any.

To the extent MPA's associated companies are limited by guarantee and it does not share in their profits or losses, MPA records its contributions to associated companies as grants in the consolidated statement of comprehensive income.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.5 Property, plant and equipment

(a) Measurement

Property, plant and equipment are initially recognised at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment losses.

The cost of an item of property, plant and equipment initially recognised includes its purchase price and any cost that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

The cost of a self-constructed asset includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, and the cost of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Assets previously from the former National Maritime Board, the Marine Department and the regulatory departments of the Port of Singapore Authority were taken in at their transacted cost.

Property, plant and equipment acquired and funded under Government grants are capitalised and depreciated over their useful lives. The related accretion of deferred capital grants is matched against the depreciation (please refer to Note 2.3).

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.5 Property, plant and equipment (continued)

(b) Depreciation

Depreciation on property, plant and equipment is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

	<u>Useful lives</u>
Leasehold land	Over the remaining lease periods ranging from 4 to 59 years
Building structures	5 to 39 years
Wharves, hard-standing and roads	10 to 39 years
Renovations	5 years
Plant, machinery and equipment	3 to 15 years
Vehicles	5 years
Computers	3 to 5 years
Furniture and fittings	10 years
Floating crafts	5 to 10 years

The residual values, estimated useful lives and depreciation method of property, plant and equipment are reviewed, and adjusted as appropriate, at each balance sheet date. The effects of any revision are recognised in income or expenditure when the changes arise.

(c) Subsequent expenditure

Subsequent expenditure relating to property, plant and equipment that has already been recognised is added to the carrying amount of the asset only when it is probable that future economic benefits associated with the item will flow to the Authority and the cost of the item can be measured reliably. All other repair and maintenance expenses are recognised in income or expenditure when incurred.

(d) Disposal

On disposal of an item of property, plant and equipment, the difference between the disposal proceeds and its carrying amount is recognised in income or expenditure within "Net other operating surplus".

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.6 Capital work-in-progress

Capital work-in-progress is stated at cost. Expenditure relating to the capital work-in-progress is capitalised when incurred. No depreciation is provided until the capital work-in-progress is completed and the related property, plant and equipment are available for use.

2.7 Impairment of non-financial assets

Property, plant and equipment

Investments in subsidiary and associated companies

Property, plant and equipment and investments in subsidiary and associated companies are tested for impairment whenever there is any objective evidence or indication that these assets may be impaired.

For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less cost to sell and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash inflows that are largely independent of those from other assets. If this is the case, the recoverable amount is determined for the CGU to which the asset belongs.

If the recoverable amount of the asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount.

The difference between the carrying amount and recoverable amount is recognised as an impairment loss in income or expenditure.

An impairment loss for an asset other than goodwill is reversed only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of this asset is increased to its revised recoverable amount, provided that this amount does not exceed the carrying amount that would have been determined (net of any accumulated amortisation or depreciation) had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset other than goodwill is recognised in income or expenditure.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.8 Financial assets

(a) Classification

The Authority classifies its financial assets in the following categories: loans and receivables and available-for-sale. The classification depends on the nature of the asset and the purpose for which the assets were acquired. The Authority determines the classification of its financial assets at initial recognition.

(i) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are presented as current assets except for those expected to be realised later than 12 months after the balance sheet date which are presented as non-current assets. Loans and receivables are presented as "trade receivables" (Note 8), "other receivables" (Note 9) and "cash and cash equivalents" (Note 10) on the balance sheet.

(ii) Available-for-sale financial assets

Financial assets, available-for-sale are non-derivatives that are either designated in this category or not classified in any of the other categories. They are presented as non-current assets unless the investment matures or the Authority intends to dispose of the assets within 12 months after the balance sheet date.

The Authority's investments in equity and debt securities, including equity and debt securities placed by fund managers, intended to be held on a continuing basis, are classified as available-for-sale financial assets.

(b) Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade-date – the date on which the Authority commits to purchase or sell the asset.

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Authority has transferred substantially all risks and rewards of ownership. On disposal of a financial asset, the difference between the carrying amount and the sale proceeds is recognised in income or expenditure. Any amount previously recognised in other comprehensive income relating to that asset is reclassified to income or expenditure.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.8 Financial assets (continued)

(c) Initial measurement

Financial assets are initially recognised at fair value plus transaction costs.

(d) Subsequent measurement

Available-for-sale financial assets are subsequently carried at fair value. Loans and receivables are subsequently carried at amortised cost using the effective interest method.

Interest and dividend income on available-for-sale financial assets are recognised separately in income. Changes in the fair values of available-for-sale debt securities (i.e. monetary items) denominated in foreign currencies are analysed into currency translation differences on the amortised cost of the securities and other changes; the currency translation differences are recognised in income or expenditure and the other changes are recognised in other comprehensive income and accumulated in the fair value reserve. Changes in fair values of available-for-sale equity securities (i.e. non-monetary items) are recognised in other comprehensive income and accumulated in the fair value reserve, together with the related currency translation differences.

(e) Impairment

The Authority assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets is impaired and recognises an allowance for impairment when such evidence exists.

(i) Loans and receivables

Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default or significant delay in payments are objective evidence that these financial assets are impaired.

The carrying amount of these assets is reduced through the use of an impairment allowance account which is calculated as the difference between the carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate. When the asset becomes uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are recognised against the same line item in income or expenditure.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.8 Financial assets (continued)

(e) Impairment (continued)

(i) Loans and receivables (continued)

The impairment allowance is reduced through income or expenditure in a subsequent period when the amount of impairment loss decreases and the related decrease can be objectively measured. The carrying amount of the asset previously impaired is increased to the extent that the new carrying amount does not exceed the amortised cost had no impairment been recognised in prior periods.

(ii) Available-for-sale financial assets

In addition to the objective evidence of impairment described in Note 2.8(e)(i), a significant or prolonged decline in the fair value of an equity security below its cost is considered as objective evidence that the available-for-sale financial asset is impaired.

If any evidence of impairment exists, the cumulative loss that was recognised in other comprehensive income is reclassified to income or expenditure. The cumulative loss is measured as the difference between the acquisition cost (net of any principal repayments and amortisation) and the current fair value, less any impairment loss previously recognised as an expense. The impairment losses recognised as an expense on equity securities are not reversed through income or expenditure.

2.9 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

2.10 Trade and other payables

Trade and other payables represent liabilities for goods and services provided to the Authority prior to the end of financial year which are unpaid. They are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). Otherwise, they are presented as non-current liabilities.

Trade and other payables are initially recognised at fair value, and subsequently carried at amortised cost using the effective interest method.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.11 Derivative financial instruments

The Authority engages external fund managers to manage some of its surplus funds. The Authority is exposed primarily to the financial risks of foreign exchange and interest rate fluctuations on debt and equity securities and cash and cash equivalents placed by the fund managers. The fund managers also hold derivative financial instruments to manage these risks. The use of hedging instruments is governed by the Authority's investment mandate which provides guidelines on the use of financial instruments consistent with the Authority's risk management strategy.

A derivative financial instrument is initially recognised at its fair value on the date the contract is entered into and is subsequently carried at its fair value. Changes in fair value are recognised in income or expenditure.

2.12 Fair value estimation of financial assets and liabilities

The fair values of financial instruments traded in active markets (such as exchange-traded and over-the-counter securities and derivatives) are based on quoted market prices at the balance sheet date. The quoted market prices used for financial assets are the current bid prices; the appropriate quoted market prices for financial liabilities are the current asking prices.

The fair values of financial instruments that are not traded in an active market are determined by using valuation techniques. The Authority uses a variety of methods and makes assumptions based on market conditions that are existing at each balance sheet date. Where appropriate, quoted market prices or dealer quotes for similar instruments are used. Valuation techniques, such as discounted cash flow analysis, are also used to determine the fair values of the financial instruments.

The fair values of current financial assets and liabilities carried at amortised cost approximate their carrying amounts.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.13 Leases

(a) When the Authority is the lessee

Lessee – Operating leases

Leases where substantially all risks and rewards incidental to ownership are retained by the lessors are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessors) are recognised in income or expenditure on a straight-line basis over the period of the lease.

Contingent rents are recognised as an expense in income or expenditure when incurred.

(b) When the Authority is the lessor

Lessor – Operating leases

Leases of leasehold land where the Authority retains substantially all risks and rewards incidental to ownership are classified as operating leases. Rental income from operating leases (net of any incentives given to the lessees) is recognised in income or expenditure on a straight-line basis over the lease term.

Initial direct costs incurred by the Authority in negotiating and arranging operating leases are added to the carrying amount of the leased assets and recognised as an expense in income or expenditure over the lease term on the same basis as the lease income.

Contingent rents are recognised as income in income or expenditure when earned.

2.14 Provisions

A provision is recognised when the Authority has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and the amount has been reliably estimated.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.15 Employee compensation

Employment benefits are recognised as an expense, unless the cost qualifies to be capitalised as an asset.

(a) Defined contribution plans

Defined contribution plans are post-employment benefit plans under which the Authority pays fixed contributions into separate entities such as the Central Provident Fund on a mandatory, contractual or voluntary basis. The Authority has no further payment obligations once the contributions have been paid.

(b) Pension benefits

Provision for pensions is made for the payment of retirement benefits to pensionable officers transferred to the Authority on 2 February 1996.

The cost of pension benefit due to pensionable officers is determined based on the estimated present value of the future cash outflows to be made in respect of services provided by these pensionable officers up to the balance sheet date.

(c) Employee leave entitlement

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date.

2.16 Currency translation

(a) Functional and presentation currency

The financial statements are presented in Singapore Dollars, which is the functional currency of the Authority.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

2. Significant accounting policies (continued)

2.16 Currency translation (continued)

(b) Transactions and balances

Transactions in a currency other than Singapore Dollar ("foreign currency") are translated into Singapore Dollars using the exchange rates at the dates of the transactions. Currency exchange differences resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at the closing rates at the balance sheet date are recognised in income or expenditure. Non-monetary items measured at fair values in foreign currencies are translated using the exchange rates at the date when the fair values are determined. Currency translation differences on these items are included in the fair value reserve.

2.17 Cash and cash equivalents

For the purpose of presentation in the consolidated statement of cash flows, cash and cash equivalents include cash on hand, deposits with financial institutions, commercial papers, short-term bills and notes which are readily convertible to cash and are subject to an insignificant risk of change in value, and bank overdrafts, except those which are managed by the fund managers or which are placed under the Statutory Board Approved Funds with the Accountant-General's Department. Bank overdrafts are presented as current borrowings on the consolidated balance sheet.

2.18 Funds managed/held on behalf of others

Funds are set up to account for contributions received from external sources for specific purposes.

The assets and liabilities of funds – Singapore Stranded Seafarers' Fund, Aids to Navigation Fund, and agency funds held in trust for Ministry of Transport are presented as a line item at the bottom of the consolidated balance sheet of the financial statements as prescribed by SB-FRS Guidance Note 3 *Accounting and Disclosures for Trust Funds*. Income or expenditure relating to these funds are accounted for directly in these funds. Details of income, expenditure, assets and liabilities are disclosed in Note 25 to the financial statements.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

3. Critical accounting estimates, assumptions and judgements

Estimates, assumptions and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

3.1 Critical accounting estimates and assumptions

(a) Useful lives of property, plant and equipment

The Authority reviews the estimated useful lives of property, plant and equipment regularly, in accordance with the accounting policy in Note 2.5, in order to determine the amount of depreciation expense to be recorded for each financial year. Changes in the expected level of use of the assets and the Authority's historical experience with similar assets after taking into account anticipated technological changes could impact the economic useful lives and the residual values of the assets, and therefore, future depreciation charges could be revised. Any changes in the economic useful lives could impact the depreciation charges and consequently affect the Authority's results. Refer to Note 4 for the carrying value of property, plant and equipment at the balance sheet date.

3.2 Critical judgements in applying the entity's accounting policies

(a) Measurement of impairment losses for financial assets, available-for-sale

The Authority follows the guidance of SB-FRS 39 in determining when a financial asset is considered impaired. This determination requires significant judgement exercised by management. Refer to Note 7 for details on how the Authority determines the impairment of each class of available-for-sale financial assets.

(b) Accounting for investments in and contributions to associated companies

MPA has determined that it has significant influence over its associated companies based on the voting rights of 20% and above but not exceeding 50%, held by its representatives at the board of directors of the associated companies. As the associated companies are incorporated as companies limited by guarantee and MPA does not share in their profits or losses, MPA has recorded the contributions of \$8,530,960 (2015: \$5,545,303) made to the associated companies as grant expenditure in the consolidated statement of comprehensive income.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

4. Property, plant and equipment

	Leasehold land	Building structures	Wharves, hard-standing and roads	Renovation	Plant, machinery and equipment	Vehicles	Computers	Furniture and fittings	Floating crafts	Capital work- in-progress	Total
2016	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Cost											
Beginning of financial year	7,641,956	60,231,774	99,131,593	10,922,924	14,575,943	214,280	71,203,819	1,785,074	9,871,825	17,026,555	292,605,743
Additions	-	-	44,735	-	682,790	288,696	3,467,631	16,111	-	5,075,038	9,575,001
Transfers	-	3,134	184,304	3,092,001	1,542,695	166,300	3,543,698	1,054,849	-	(9,586,981)	-
Disposals/write-off	-	-	-	-	(856,021)	-	(4,869,807)	(8,450)	-	(1,040,353)	(6,774,631)
End of financial year	7,641,956	60,234,908	99,360,632	14,014,925	15,945,407	669,276	73,345,341	2,847,584	9,871,825	11,474,259	295,406,113
Accumulated depreciation											
Beginning of financial year	3,017,033	34,560,354	59,893,998	8,974,660	10,906,377	12,566	55,597,835	880,272	5,890,980	-	179,734,075
Depreciation charge	241,296	1,806,727	7,824,544	2,082,229	1,312,459	66,986	8,266,442	373,735	508,070	-	22,482,488
Disposals/write-off	-	-	-	-	(856,021)	-	(4,844,318)	(3,609)	-	-	(5,703,948)
End of financial year	3,258,329	36,367,081	67,718,542	11,056,889	11,362,815	79,552	59,019,959	1,250,398	6,399,050	-	196,512,615
Net Book Value											
End of financial year	4,383,627	23,867,827	31,642,090	2,958,036	4,582,592	589,724	14,325,382	1,597,186	3,472,775	11,474,259	98,893,498
2015											
Cost											
Beginning of financial year	7,641,956	57,587,417	98,101,572	10,813,297	13,348,825	291,435	67,721,314	1,796,807	9,871,825	15,683,030	282,857,478
Additions	-	933,061	946,258	37,785	758,473	175,080	2,862,062	48,699	-	9,975,843	15,737,261
Transfers	-	1,711,296	83,763	71,842	963,247	-	3,963,539	23,000	-	(6,816,687)	-
Disposals/write-off	-	-	-	-	(494,602)	(252,235)	(3,343,096)	(83,432)	-	(1,815,631)	(5,988,996)
End of financial year	7,641,956	60,231,774	99,131,593	10,922,924	14,575,943	214,280	71,203,819	1,785,074	9,871,825	17,026,555	292,605,743
Accumulated depreciation											
Beginning of financial year	2,775,737	32,795,924	52,125,242	7,900,811	10,391,738	259,422	48,676,844	755,702	5,349,110	-	161,030,530
Depreciation charge	241,296	1,764,430	7,768,756	1,073,849	1,009,241	5,379	10,225,551	160,582	541,870	-	22,790,954
Disposals/write-off	-	-	-	-	(494,602)	(252,235)	(3,304,560)	(36,012)	-	-	(4,087,409)
End of financial year	3,017,033	34,560,354	59,893,998	8,974,660	10,906,377	12,566	55,597,835	880,272	5,890,980	-	179,734,075
Net book value											
End of financial year	4,624,923	25,671,420	39,237,595	1,948,264	3,669,566	201,714	15,605,984	904,802	3,980,845	17,026,555	112,871,668

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

5. Capital work-in-progress

Capital work-in-progress relates to the cost of computer systems and maritime and port projects under development. Additions during the year amounted to \$5,075,038 (2015: \$9,975,843).

6. Investments in subsidiary and associated companies

(a) Subsidiary

	2016	2015
	\$	\$
Cost of investment		
At beginning and end of financial year	2	2

Details of the subsidiary are as follows:

<u>Name of subsidiary</u>	<u>Country of incorporation</u>	<u>Effective equity held by the Authority</u>	
		2016	2015
		%	%
MPA Venture Pte. Ltd.	Singapore	100	100

The principal activity of the subsidiary is to act as a holding company to own jointly intellectual properties and manage investments in maritime technology start-ups and companies and joint ventures with partners.

(b) Associated companies

(i) Singapore Maritime Institute

In January 2011, the Authority, together with Agency for Science, Technology and Research ("A*STAR"), incorporated Singapore Maritime Institute ("SMI"), a company limited by guarantee. The principal activity of SMI is to develop strategies and programmes related to the academic, policy and research and development aspects of the maritime industry. As at 31 December 2016, the Authority had contributed a total amount of \$29.4 million (2015: \$19.5 million) of grants to SMI, including unutilised amount of \$2.0m (2015: \$0.6m).

(ii) Singapore Chamber of Maritime Arbitration

Singapore Chamber of Maritime Arbitration ("SCMA") was reconstituted as a company limited by guarantee in May 2009. The principal activity of SCMA is to provide a framework for maritime arbitration in response to the needs of the maritime community. As at 31 December 2016, the Authority had not made any direct contribution to SCMA.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

7. Financial assets

	Note	2016 \$	2015 \$
Non-current investments			
Available-for-sale securities:			
- Quoted equity securities managed by fund managers	7(a), 21	197,849,995	215,594,250
- Quoted debt securities managed by fund managers	7(b), 21	428,492,032	442,413,326
		626,342,027	658,007,576
Current investments			
Unquoted debt securities		-	38,000
		626,342,027	658,045,576

(a) Available-for-sale equity securities managed by fund managers

For available-for-sale equity securities that are listed in an active market, management believes that there is an objective evidence of impairment if there is a significant or prolonged decline in the fair value of the equity security below its acquisition cost. As at the balance sheet date, an equity security is considered to be impaired if its fair value declines in excess of 20% against its acquisition cost or the fair value has been below acquisition cost for more than 6 consecutive months. The Authority holds a diversified portfolio of equity securities that spans many industries in different geographical locations. Under this impairment assessment approach, the Authority recorded an impairment loss of \$1,893,756 (2015: \$5,076,466) during the current year. The impairment loss is presented under "net other operating surplus" in the current year's consolidated statement of comprehensive income.

(b) Available-for-sale debt securities managed by fund managers

For available-for-sale debt securities that are listed in an active market, management considers the debt security to be impaired if objective evidence indicates that one or more events ("loss events") occurring after its initial recognition have a negative impact on the estimated future cash flows of that asset.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

7. Financial assets (continued)

(b) Available-for-sale debt securities managed by fund managers (continued)

Management considers the following as evidence that a financial asset may be impaired:

- (1) Significant financial difficulty of the issuer of the debt security;
- (2) Payment defaults of the issuer;
- (3) Renegotiation of terms of an asset due to financial difficulty of the borrower;
- (4) Significant restructuring due to the financial difficulty or expected bankruptcy;
- (5) Disappearance of an active market for an asset due to financial difficulties; or
- (6) Observable data indicating that there is a measurable decrease in the estimated future cash flows.

The composition of debt securities at 31 December comprises the following:

	2016		2015	
	\$	%	\$	%
Original cost				
Corporate bonds	235,515,468		244,756,812	
Government bonds	175,610,225		180,399,787	
	411,125,693		425,156,599	
Fair value				
Corporate bonds	249,188,870	58	259,285,331	59
Government bonds	179,303,162	42	183,127,995	41
	428,492,032	100	442,413,326	100

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

7. Financial assets (continued)

(b) Available-for-sale debt securities managed by fund managers (continued)

The composition of debt securities by credit rating category at 31 December is as follows:

<u>Credit rating</u>	2016		2015	
	\$	%	\$	%
Fair value				
AAA/Aaa	161,919,583	38	168,054,327	38
AA/Aa	55,539,074	13	46,215,532	10
A/A	136,589,529	32	121,935,168	28
BBB+/Baa1	52,804,574	12	62,244,604	14
BBB/Baa2	18,876,454	4	31,156,924	7
BBB-/Baa3	-	0	10,808,074	2
Not rated	2,762,818	1	1,998,697	1
	428,492,032	100	442,413,326	100

In determining whether a loss event has occurred, management, based on the criteria listed above, did not find any debt securities that indicated evidence of impairment.

A significant portion of the invested debt securities representing 83% (2015: 76%) are rated "A" and above by the credit rating agencies; and for the remaining debt securities rated "BBB+" and below, management is of the view that these debt securities remain "investment grade" and are not impaired.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

7. Financial assets (continued)

(b) Available-for-sale debt securities managed by fund managers (continued)

Other considerations

The composition of government bonds by geographical region at 31 December is as follows:

	2016		2015	
	\$	%	\$	%
Fair value				
Asia (mainly Singapore and including Qatar)	105,188,331	59	102,615,475	56
European Union (including UK)	11,213,693	6	19,711,060	11
Australia	3,422,681	2	7,274,690	4
United States of America	59,478,457	33	53,526,770	29
	179,303,162	100	183,127,995	100

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

8. Trade receivables

	2016 \$	2015 \$
Trade receivables	45,132,273	46,118,269
Less: Allowance for impairment of receivables	(111,107)	(259,129)
Trade receivables – net	45,021,166	45,859,140

The Authority's exposure to credit risk arises through its trade receivables. Due to the nature of the Authority's business, credit risk is not concentrated in any specific geographical region but concentrated in many shipping companies exposed to business cyclical fluctuations.

Trade receivables are mainly denominated in Singapore Dollar, which is the Authority's functional currency.

Impairment losses

The ageing of trade receivables at the reporting date is as follows:

	2016 \$	2015 \$
Gross receivables		
Not past due	39,828,373	40,940,877
Past due 0 - 30 days	3,637,776	3,050,733
Past due 31 - 60 days	220,163	364,359
More than 60 days	1,445,961	1,762,300
	45,132,273	46,118,269
Impairment losses		
Not past due	348	214
Past due 0 - 30 days	61	1,756
Past due 31 - 60 days	15	1,551
More than 60 days	110,683	255,608
	111,107	259,129

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

8. Trade receivables (continued)

The change in allowance for impairment in respect of trade receivables during the year is as follows:

	2016 \$	2015 \$
Beginning of financial year	259,129	665,725
Allowance made	79,840	259,129
Amount written back	(65,458)	(352,305)
Allowance utilised	(162,404)	(313,420)
End of financial year	111,107	259,129

Based on historical default rate, the Authority believes that, apart from the above, no impairment allowance is necessary in respect of other trade receivables outstanding at the balance sheet date.

9. Deposits, prepayments and other receivables

	2016 \$	2015 \$
Deposits	190,278	195,514
Prepayments	1,093,159	685,672
Other receivables	763,024	11,712,077
Amount due from associate & trust funds (non-trade)	4,783,260	679,584
	5,546,284	12,391,661
Interest receivable	4,760,323	4,393,130
	11,590,044	17,665,977

Other receivables mainly comprise dividends receivable, receivables on sale of financial instruments and derivative assets.

As at the balance sheet date, other receivables and accrued interest receivable include the following items managed by fund managers:

	2016 \$	2015 \$
Interest receivable (Note 21)	3,081,711	3,250,312
Receivables on sale of financial instruments (Note 21)	228,995	11,422,632
Other receivables (mainly dividend receivables and withholding tax receivables) (Note 21)	340,388	291,676
	3,651,094	14,964,620

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

10. Cash and cash equivalents

	2016 \$	2015 \$
Cash at bank and on hand	17,898,929	25,346,206
Placement with Accountant-General's Department	530,614,996	619,052,054
- Statutory Board Approved Funds ("SBAF")	486,105,558	521,507,536
- Centralised Liquidity Management Framework ("CLMF")	44,509,438	97,544,518
Short-term bills and notes	25,347,067	16,505,317
Fixed deposits	18,747,231	20,695,435
	592,608,223	681,599,012

For the purpose of presenting the consolidated statement of cash flows, cash and cash equivalents comprise the following:

	2016 \$	2015 \$
Cash and bank balances (as above)	592,608,223	681,599,012
Less: Cash and cash equivalents managed by fund managers	(58,059,113)	(59,707,711)
Less: Placement with Accountant-General's Department ("SBAF")	(486,105,558)	(521,507,536)
Cash and cash equivalents per consolidated statement of cash flows	48,443,552	100,383,765

The Authority's cash and cash equivalents (excluding those managed by fund managers) are mainly denominated in Singapore Dollar, which is the Authority's functional currency.

Placement with the Accountant-General's Department comprise:

- (i) \$44,509,438 (2015: \$97,544,518) which is centrally managed by the Accountant-General's Department under the Centralised Liquidity Management Framework ("CLMF"), as set out in the Accountant-General's Circular No. 4/2009 Centralised Liquidity Management for Statutory Boards and Ministries, and
- (ii) industry funds of \$486,105,558 (2015: \$521,507,536) which is placed under the Statutory Board Approved Funds ("SBAF") and is subject to restrictions.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

10. Cash and cash equivalents (continued)

As at the balance sheet date, cash and cash equivalents include the following managed by fund managers:

	2016 \$	2015 \$
Cash at bank and on hand (Note 21)	13,964,815	22,506,959
Short-term bills and notes (Note 21)	25,347,067	16,505,317
Fixed deposits (Note 21)	18,747,231	20,695,435
	58,059,113	59,707,711

The effective interest rates of fixed deposits placed directly by the Authority vary from 1.31% to 1.49% (2015: 0.92% to 1.36%) per annum ("p.a."). Interest rates reprice at intervals of one, two, three or twelve months.

The effective interest rates of cash and cash equivalents managed by fund managers are as follows:

	2016 % p.a.	2015 % p.a.
Short-term bills and notes	0.49 – 0.85	0.24 – 1.20
Fixed deposits	0.15 – 0.35	0.08 – 0.35

11. Establishment account

The establishment account comprises the net book value of assets transferred to the Authority from the former National Maritime Board, the Marine Department and the regulatory departments of the Port of Singapore Authority.

Capital management

The Authority defines "capital" to include establishment account and reserves. The Board's policy is to maintain a strong capital base to safeguard the ability to meet the long-term development needs of the Authority. The Board of Directors monitors the "Net Operating Surplus/Deficit" and the "Other Operating Surplus/Deficit" on a regular basis. The Board monitors the major capital expenditure which is strategic in nature and may draw on reserves.

There were no changes in the capital management approach during the year.

The Authority is not subject to externally imposed capital requirements.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

12. Equity financing account

The Equity financing account refers to equity injections by the Minister for Finance ("MOF") in its capacity as shareholder under the Capital Management Framework for statutory boards, implemented with effect from 1 September 2004.

13. Employment benefits

	2016 \$	2015 \$
Beginning of financial year	422,377	422,377
Provision made	8,649	8,697
Provision utilised	(8,649)	(8,697)
End of financial year	422,377	422,377

The Authority operates an unfunded employment benefit plan for a limited pool of employees under the provisions of the Pensions Act (Cap. 225). Benefits are payable based on the last drawn salary of the employees and the number of years of service with the Authority.

14. Deferred capital grant

	2016 \$	2015 \$
Beginning of financial year	21,815,104	23,202,484
Amortisation to income	(1,353,580)	(1,387,380)
End of financial year	20,461,524	21,815,104

The above represents the unamortised portion of Government grant received in connection with specific property, plant and equipment acquired by the Authority.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

15. Trade and other payables

	2016 \$	2015 \$
Trade payables	5,751,787	5,960,986
Forward foreign exchange purchases (net) (Note 21)	9,503,721	949,126
Payables on purchase of financial instruments (Note 21)	-	8,252,178
Accrued capital expenditure	1,900,288	2,748,923
Accrued operating expenses	23,083,397	31,753,829
Other payables	6,382,667	2,744,405
	46,621,860	52,409,447

Trade payables are mainly denominated in Singapore Dollar, which is the Authority's functional currency. Payables on purchase of financial instruments, managed by fund managers, are mainly denominated in Singapore Dollar.

Accrued operating expenses include accrual for performance bonus and group bonus of \$11,234,689 (2015: \$12,330,688) and accrued administrative fee payable to the fund managers and custodian bank amounting to \$740,162 (2015: \$722,000).

The following are the expected contractual undiscounted cash outflows of the financial liabilities, including interest payments and excluding the impact of netting agreements:

	2016 \$	2015 \$
Undiscounted cash flows within 1 year		
Non-derivative financial liabilities		
Trade and other payables	(37,118,139)	(43,208,143)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

16. Advances, deposits and unearned income

	2016 \$	2015 \$
Advances and deposits	3,026,780	2,958,374
Unearned operating lease income [Note (a)]	6,160,841	10,047,361
Unearned annual port dues and Maritime Welfare Fee [Note (b)]	1,083,246	1,341,070
	10,270,867	14,346,805

(a) Unearned operating lease income mainly relates to sub-lease of a property to a third party for a period of 11 years (2015: 12 years), of which payment was received in advance.

(b) Unearned annual port dues and Maritime Welfare Fee relate to specific customers under annual and 6 months port dues schemes, and the advance payments of Maritime Welfare Fee. These customers, whose ships that call frequently at the port are allowed to pay port dues on an annual or 6 months basis in advance instead of on a per call basis.

Deposits due within 1 year approximate their carrying amount of \$3,011,690 (2015: \$2,943,676).

17. Staff cost

	2016 \$	2015 \$
Wages and salaries	65,334,749	64,868,769
Employer's contribution to Central Provident Fund	9,224,299	8,279,897
Employer's contribution to other defined benefit plans (Note 13)	8,649	8,697
Other benefits	6,037,290	5,213,322
	80,604,987	78,370,685

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

18. Other operating expenses

Included in other operating expenses are the following:

	2016 \$	2015 \$
Project grants	23,323,941	23,351,480
Contribution to Maritime Cluster Fund projects	10,845,791	12,050,444
Contribution to International Organisations	4,023,310	4,802,226
Transport & travel	1,733,335	1,846,602
Rental	5,565,268	5,867,279
Property tax	1,421,809	1,416,544
Telecommunication	2,794,138	2,630,021
Water cost & water sales service fee	1,492,724	1,669,182
Utility charges	856,248	1,032,951
Events & publicity	6,910,742	6,403,814
Professional & consultancy fees	10,036,180	4,989,993
Other administrative expenses	7,490,248	4,654,075
Other miscellaneous expenses ¹	(1,750,182)	11,116,505
	74,743,552	81,831,116

¹ In 2016, other miscellaneous expenses included a reversal of provision for salvage activity amounting to \$3,508,136 which was provided in the previous year.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

19. Net other operating surplus

	2016 \$	2015 \$
Gain/(Loss) from sale of investments in:		
- Debt securities (a)	11,784,036	(1,443,260)
- Equity securities (a)	(19,534,967)	3,516,856
- Equity securities, managed internally	-	60,032
Realised gain on foreign exchange on disposal of available-for-sale financial assets – net (a)	5,188,404	15,147,827
Impairment loss on investments in available-for-sale equity securities (a)	(1,893,756)	(5,076,466)
Unrealised gain on foreign exchange on debt securities and other monetary assets held by fund managers – net (a)	3,007,121	16,490,548
Net (loss)/gain on available-for-sale financial assets	(1,449,162)	28,695,537
Interest income:		
- Debt securities (a)	9,923,623	10,553,452
- Fixed deposits placed by fund managers (a)	194,985	32,768
- Fixed deposits and cash at bank	2,277,171	1,208,795
- Trade receivables ¹	(205,954)	20,490
Total interest income for financial assets that are not fair value through income or expenditure	12,189,825	11,815,505
Fair value loss on derivatives (a)	(7,792,947)	(23,695,576)
Investment expenses (a)	(3,113,023)	(3,523,309)
Dividend income for funds with fund managers (a)	5,226,255	5,467,150
Net gain/(loss) on disposal of property, plant and equipment	14,459	(85,056)
(Loss)/gain on foreign exchange on other monetary assets, managed internally – net	(535,331)	27,177
Income from liquidated damages received	118,551	97,821
Others	(17,713)	(8,396)
	4,640,914	18,790,853

The total net investment gain from funds with fund managers amounted to \$2,989,731 (2015: \$17,469,990) (refer to (a) above).

¹ In 2016, interest income from trade receivables included a waiver of interest for late payment amounted to \$225,786 which was accrued in the previous years.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2015

20. Contribution to Consolidated Fund

The contribution to the Consolidated Fund is made in accordance with Section 3(a) of the Statutory Corporations (Contributions to Consolidated Fund) Act (Cap. 319A). The contribution is based on 17% (2015: 17%) of the surplus for the year.

	2016 \$	2015 \$
Beginning of financial year	18,009,304	21,555,805
Amount contributed	(18,009,304)	(21,555,805)
Provision for the year	17,456,880	18,009,304
End of financial year	17,456,880	18,009,304

21. Funds with fund managers

The Authority places its surplus funds with fund managers to manage its investment portfolio under a balanced mandate. These fund managers are given discretion in managing their portfolio, subject to the investment guidelines set out in the fund management agreements.

As part of risk management activities, the fund managers use financial derivatives for hedging purposes. Derivative financial instruments are not used for trading purposes. The financial derivatives used include financial futures, swaps and forward foreign exchange contracts.

As at the balance sheet date, the funds placed with fund managers comprised the following assets and liabilities:

	2016 \$	2015 \$
Debt securities (Note 7)	428,492,032	442,413,326
Equity securities (Note 7)	197,849,995	215,594,250
Interest receivables (Note 9)	3,081,711	3,250,312
Receivables on sale of financial instruments (Note 9)	228,995	11,422,632
Other receivables (mainly dividend receivables and withholding tax receivables) (Note 9)	340,388	291,676
Fixed deposits (Note 10)	18,747,231	20,695,435
Cash balances (Note 10)	13,964,815	22,506,959
Short-term bills and notes (Note 10)	25,347,067	16,505,317
Forward foreign exchange purchases (net) (Note 15)	(9,503,721)	(949,126)
Payables on purchase of financial instruments (Note 15)	-	(8,252,178)
Accrued administrative fees (Note 15)	(740,162)	(722,000)
	677,808,351	722,756,603

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2015

21. Funds with fund managers (continued)

As at balance sheet date, the notional amounts of the financial derivatives held by the fund managers are as follows:

	2016 \$	2015 \$
Notional amounts		
Futures contracts	19,507,548	24,958,516
Foreign currency swap and forward contracts	600,912,247	618,103,163

The following table details the forward foreign currency swap and forward contracts outstanding as at the end of the reporting period.

	Contract values		Fair value	
	2016 \$	2015 \$	2016 \$	2015 \$
Outstanding contract				
Buy Australian Dollars				
- Sell Singapore Dollars	2,234,865	7,870,788	(70,163)	(175,631)
Buy British Pound				
- Sell Singapore Dollars	3,349,082	8,906,414	19,689	142,298
- Sell United States Dollars	2,336,769	23,267,564	(33,725)	856,039
Buy Chinese Yuan				
- Sell Singapore Dollars	-	21,595,078	-	379,334
Buy Euro				
- Sell Singapore Dollars	1,591,396	47,309,477	(8,995)	(361,419)
- Sell United States Dollars	8,812,820	26,521,489	(140,589)	168,807
Buy Japanese Yen				
- Sell Singapore Dollars	10,671,591	13,338,035	(772,772)	(231,593)
- Sell United States Dollars	6,444,408	11,653,748	(71,016)	(145,133)
Buy Singapore Dollars				
- Sell British Pound	11,802,150	-	(238,903)	-
- Sell Euro	17,681,016	16,677,326	(4,691)	216,107
- Sell Japanese Yen	27,209,874	364,305	960,812	8,062
- Sell Thai Baht	8,717,404	-	(157,648)	-
- Sell United States Dollars	399,640,739	60,018,300	(11,874,088)	519,806
Buy United States Dollars				
- Sell British Pound	10,876,329	-	(151,941)	-
- Sell Euro	27,574,816	-	1,044,105	-
- Sell Japanese Yen	20,933,222	-	1,508,233	-
- Sell Norwegian Krone	2,769,795	-	117,545	-
- Sell Singapore Dollars	18,588,400	357,297,746	198,199	(2,439,557)
Others	19,677,571	23,282,893	172,227	113,754
	600,912,247	618,103,163	(9,503,721)	(949,126)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

22. Commitments

(a) Capital commitments

Capital expenditures contracted for at the balance sheet date but not recognised in the financial statements are as follows:

	2016 \$	2015 \$
Property, plant and equipment	9,581,785	11,958,064

(b) Operating lease commitments – Where the Authority is a lessee:

The Authority leases a number of office facilities under non-cancellable operating lease agreements. The leases typically run for an initial period of two years, with an option to renew the lease after that date. Lease payments are usually increased annually to reflect market rentals.

Payment recognised as an expense during the year:

	2016 \$	2015 \$
Minimum lease payments under non-cancellable operating lease	10,486,423	10,548,083

The future minimum lease payables under non-cancellable operating leases contracted for at the balance sheet date but not recognised as liabilities, are as follows:

	2016 \$	2015 \$
Not later than one year	8,702,905	11,450,029
Between one and five years	9,409,286	3,336,018
Later than five years	-	-
	18,112,191	14,786,047

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

22. Commitments (continued)

- (c) Operating lease commitments – Where the Authority is a lessor:

The Authority leases out rental space and buildings under non-cancellable operating leases.

During the year, the Authority recognised \$3,276,700 (2015: \$3,105,752) of rental income from non-cancellable operating leases.

The future minimum lease receivables under non-cancellable operating leases contracted for at the balance sheet date but not recognised as receivables, are as follows:

	2016 \$	2015 \$
Not later than one year	1,939,122	2,310,907
Between one and five years	2,749,187	4,428,750
Later than five years	3,127,299	6,136,615
	7,815,608	12,876,272

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management

Financial risk factors

The Authority's activities expose it to market risk (including currency risk, interest rate risk and price risk), credit risk and liquidity risk.

Risk management is integral to the whole operations of the Authority. The Authority has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Authority's risk management process to ensure that an appropriate balance between risk and control is achieved.

Funds with fund managers

In connection with the funds placed with fund managers, the funds placed with fund managers are exposed to a variety of financial risk: credit risk, liquidity risk and market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk).

The fund managers appointed under the balanced mandate are held responsible in achieving the investment objectives set forth in their respective fund manager agreements entered with the Authority. All income and realised capital gains are to be reinvested by the fund managers unless otherwise instructed by the Authority.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

Funds with fund managers (continued)

The fund managers' overall risk management programme seeks to maximise the returns derived for the level of risk to which they are exposed and seeks to minimise the potential adverse effects on the fund managers' financial performance.

A significant proportion of the Authority's security investments present a risk of loss of capital. The maximum loss of capital is represented by the carrying values of those security investments.

The management of these risks carried out by the fund managers is governed by the mandate set forth in the fund manager agreements approved by the Investment Committee of the Authority. The mandate provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, the use of derivative and non-derivative financial instruments.

(a) Market risk

(i) Currency risk

The Authority invests in financial instruments and enters into transactions denominated in currencies other than its functional currency. Consequently, the Authority is exposed to risks that the exchange rate of its functional currency relative to other foreign currencies may change in a manner that has an adverse effect on the value of that portion of the Authority's assets or liabilities denominated in currencies other than the functional currency.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(i) Currency risk (continued)

The quoted equity securities managed by fund managers denominated in currencies other than the Authority's functional currency comprise the following:

	2016 \$	2015 \$
Australian Dollars	2,009,254	265,940
Euro	24,774,158	46,656,411
Hong Kong Dollars	7,865,931	21,809,938
Korean Won	7,364,032	5,822,720
Thai Baht	4,337,549	2,190,065
US Dollars	76,258,746	63,808,309
Various other foreign currencies	66,001,418	62,961,850
	188,611,088	203,515,233

The quoted debt securities managed by fund managers denominated in currencies other than the Authority's functional currency comprise the following:

	2016 \$	2015 \$
Australian Dollars	3,422,681	8,332,529
Chinese Yuan	-	17,909,766
Euro	7,927,003	7,602,416
Sterling Pound	3,686,015	8,391,618
Thai Baht	-	3,180,236
US Dollars	290,674,832	253,913,821
Various other foreign currencies	2,193,534	2,405,447
	307,904,065	301,735,833

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(i) Currency risk (continued)

Cash and cash equivalents managed by fund managers denominated in currencies other than the Authority's functional currency comprise the following:

	2016 \$	2015 \$
Euro	832,150	309,229
US Dollars	36,890,733	14,230,996
Various other foreign currencies	1,068,173	1,074,288
	38,791,056	15,614,513

Available-for-sale equity securities, managed by fund managers

At the balance sheet date, if there is a +/-5% movement in exchange rates relative to the Singapore Dollar, with all other variables held constant and assuming that the equity securities are not impaired, the increase (decrease) in the fair value of equity securities in other comprehensive income and presented as fair value reserve in the consolidated statement of changes in reserves would be as follows:

	2016 \$	2015 \$
+5% scenario		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	9,430,554	10,175,762
-5% scenario		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	(9,430,554)	(10,175,762)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(i) Currency risk (continued)

Other monetary assets – debt securities, cash and cash equivalents

At the balance sheet date, if there is a +/-5% movement in exchange rates relative to the Singapore Dollar, with all other variables held constant, the increase/(decrease) in the fair value of monetary assets in income or expenditure would be as follows:

	2016 \$	2015 \$
+5% scenario		
Managed by fund managers		
Debt securities	15,395,203	15,086,792
Cash and cash equivalents	1,939,553	780,725
	17,334,756	15,867,517
Cash and cash equivalents, managed internally	168,203	156,223
	17,502,959	16,023,740
-5% scenario		
Managed by fund managers		
Debt securities	(15,395,203)	(15,086,792)
Cash and cash equivalents	(1,939,553)	(780,725)
	(17,334,756)	(15,867,517)
Cash and cash equivalents, managed internally	(168,203)	(156,223)
	(17,502,959)	(16,023,740)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(ii) Interest rate risk

Interest rate risk arises from the effects of fluctuations in the prevailing levels of market interest rates on the fair value of financial assets and liabilities and future cash flows. The Authority holds debt securities and derivatives that expose the Authority to fair value interest rate risk.

Available-for-sale debt securities, managed by fund managers

At the balance sheet date, assuming that all other variables are held constant and no loss event has occurred, a 100 basis point increase/(decrease) in the interest rate would (decrease)/increase the fair values of the debt securities in other comprehensive income and presented as fair value reserve in the consolidated statement of changes in reserves by the following amounts:

	2016 \$	2015 \$
+100 basis point scenario		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	<u>(12,062,434)</u>	<u>(12,511,040)</u>
-100 basis point scenario		
Other comprehensive income and presented in air value reserve in consolidated statement of changes in reserve	<u>12,066,290</u>	<u>12,573,681</u>

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(ii) Interest rate risk (continued)

At the balance sheet date, assuming that all other variables are held constant, a 100 basis point increase (decrease) in interest rate would increase/(decrease) the interest income of the floating rate debt securities recorded in income or expenditure by the following amounts:

	2016 \$	2015 \$
+100 basis point scenario		
Income or expenditure	95,208	146,165
-100 basis point scenario		
Income or expenditure	(95,208)	(139,707)

Derivatives (futures), managed by fund managers

At the balance sheet date, if interest rates had been 100 basis point higher/(lower) with all other variables held constant, the increase/(decrease) in the fair values of the interest rate derivatives in the income or expenditure would be as follows:

	2016 \$	2015 \$
+100 basis point scenario		
Income or expenditure	2,059,845	(347,995)
-100 basis point scenario		
Income or expenditure	(2,260,668)	376,669

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(ii) Interest rate risk (continued)

The effective interest rates at balance sheet date of the debt securities held by the fund managers and the period in which they mature or reprice are as follows:

	2016 \$	2015 \$
Fixed rate		
Maturing in less than 1 year	109,155,577	64,295,718
Maturing between 1 to 5 years	197,471,806	244,497,196
Maturing in more than 5 years	115,783,277	118,909,129
Floating rate		
Repricing in less than 3 months	6,081,372	14,158,844
Repricing between 3 to 6 months	-	552,439
	428,492,032	442,413,326

(iii) Equity price risk

The Authority is exposed to equity price risk. This arises from investments held by the Authority for which prices in the future are uncertain. Where equity securities are denominated in currencies other than the functional currency of the Authority, the price initially expressed in foreign currency and then converted into the functional currency will also fluctuate because of changes in foreign exchange rates. Paragraph (a)(i) "Currency risk" sets out how this component of price risk is managed and measured.

The Authority's policy to manage price risk is via diversification and selection of securities and other financial instruments within specified limits set by the Investment Committee. The majority of the Authority's equity investments is publicly traded. The overall market position of these equity investments is monitored on a daily basis by the fund managers and is reviewed on a quarterly basis by the members of the Investment Committee. Compliance with the Authority's fund management mandate is reported to the members of the Investment Committee by an external investment consultant on a quarterly basis.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(iv) Price risk

Impaired available-for-sale equity securities, managed by fund managers and managed internally

At the balance sheet date, assuming that all other variables are held constant, a 5% increase/(decrease) in the underlying equity prices would increase/(decrease) the fair values of the equity securities in other comprehensive income and presented as fair value reserve in the consolidated statement of changes in reserves and income or expenditure by the following amounts:

	2016 \$	2015 \$
+5% scenario		
Equity securities, managed by fund managers		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	(443,900)	57,375
Income or expenditure	817,392	591,636
-5% scenario		
Equity securities, managed by fund managers		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	-	-
Income or expenditure	(373,492)	(409,418)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(a) Market risk (continued)

(iv) Price risk (continued)

Available-for-sale equity securities, managed by fund managers and managed internally, not impaired

At the balance sheet date, assuming that all other variables are held constant, a 5% increase/(decrease) in the underlying equity prices would increase/(decrease) the fair values of the equity securities in other comprehensive income and presented as fair value reserve in the consolidated statement of changes in reserves and income or expenditure by the following amounts:

	2016 \$	2015 \$
+5% scenario		
Equity securities, managed by fund managers		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	9,359,937	8,322,899
Income or expenditure	-	-
-5% scenario		
Equity securities, managed by fund managers		
Other comprehensive income and presented in fair value reserve in consolidated statement of changes in reserves	(8,621,408)	(6,127,204)
Income or expenditure	(738,529)	(2,195,695)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(b) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Authority.

As at the balance sheet date, loans and receivables include the following items:

	2016	2015
	\$	\$
Trade receivable (Note 8)	45,021,166	45,859,140
Deposits (Note 9)	190,278	195,514
Other receivables (Note 9)	763,024	11,712,077
Amount due from associate & trust funds (Note 9)	4,783,260	679,584
Interest receivable (Note 9)	4,760,323	4,393,130
Loans and receivables	55,518,051	62,839,445

The Authority has a credit policy in place which establishes credit limits for customers and monitors their balances on an on-going basis.

The Authority establishes an allowance for impairment that represents its estimate of incurred losses in respect of trade and other receivables. The main component of this allowance is a specific loss component that relates to individually significant exposures.

The allowance account in respect of trade and other receivables is used to record impairment losses unless the Authority is satisfied that no recovery of the amount owing is possible. At that point, the financial asset is considered irrecoverable and the amount charged to the allowance amount is written off against the carrying amount of the impaired financial asset.

Cash and fixed deposits are placed with banks and financial institutions which are regulated.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(b) Credit risk (continued)

Funds with fund managers

Credit risk is the risk that a counterparty to a financial instrument will fail to discharge an obligation or commitment that it has entered into with the Authority. The fund manager has a credit policy in place and the exposure to credit risk is monitored on an on-going basis.

At 31 December 2016, the following financial assets were exposed to credit risk: investment in debt securities, receivables on sale of financial instruments, forward foreign exchange purchases, cash and cash equivalents, derivative financial assets and other receivables. The total carrying amount of financial assets exposed to credit risk amounted to \$480,698,518 (2015: \$507,884,353).

The Authority limits its credit risk exposure in respect of investments in debt securities by restricting the fund managers to invest in debt securities that have a sound credit rating from Standard & Poor's and Moody's. Given these credit ratings, except for the impaired securities as described in Note 7, management does not expect any counterparty to fail to meet its obligations.

At the balance sheet date, the geographical concentration of the investments in available-for-sale debt securities managed by fund managers is disclosed in Note 7(b). Other than the abovementioned, there are no other areas that the Authority is exposed to significant concentration of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset on the consolidated balance sheet.

(c) Liquidity risk

The Authority monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Authority's operations and to mitigate the effects of fluctuations in cash flows.

Funds with fund managers

The Authority's listed debt and equity securities are considered readily realisable, as they are listed on the major stock exchanges. The fund managers are required to comply with the restrictions and limitations as stipulated in the investment mandate. All transactions carried out by the fund managers are settled daily through Northern Trust Company, the Authority's custodian of the portfolio of investments placed by fund managers.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(c) Liquidity risk (continued)

Funds with fund managers (continued)

The fund managers may periodically invest in some debt securities and derivative contracts on behalf of the Authority that are traded over the counter, which are not traded in an organised market and may be illiquid. As a result, the Authority may not be able to liquidate its investments in these instruments at an amount close to their fair value to meet its liquidity requirements or be able to respond to specific events such as the deterioration in the creditworthiness of any particular issuer.

At the balance sheet date, non-derivative financial liabilities held by the Authority are as disclosed in Note 15.

(d) Fair value measurements

The following presents assets and liabilities measured and carried at fair value and classified by level of the following fair value measurement hierarchy:

- (a) quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- (b) inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2); and
- (c) inputs for the asset or liability that are not based on observable market data (unobservable inputs) (Level 3).

The fair value of financial instruments traded in active markets (the Authority's equity and debt securities managed by fund managers, and quoted equity securities managed internally) is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Authority is the current bid price. These instruments are classified as Level 1.

Derivatives used by fund managers

Futures contracts are marked to market daily using listed market prices with any gains or losses posted to the related variation margin accounts.

The fair value of forward exchange contracts is based on their listed market price and the fair value of swaps is based on quotations from independent third party vendors and sources that apply fair value techniques. These instruments are classified as Level 2.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

23. Financial risk management (continued)

(e) Financial instruments by category

The carrying amounts of financial assets measured at fair value (available-for-sale and derivative financial instruments) are disclosed on the face of the balance sheet. The carrying amounts of financial instruments at amortised cost approximate their fair values.

The aggregate carrying amounts of loans and receivables and financial liabilities at amortised cost are as follows:

	2016 \$	2015 \$
Loans and receivables	648,126,274	744,438,457
Financial liabilities at amortised cost	40,144,919	46,166,519

24. Related party transactions

In addition to the information disclosed elsewhere in the financial statements, the following transactions took place between the Authority and related parties at terms agreed between the parties.

(a) Sales of services

	2016 \$	2015 \$
Provision of dumping and monitoring services to		
- Land Transport Authority	21,809,709	12,071,000
- Housing & Development Board	19,726,101	17,842,372

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

24. Related party transactions (continued)

(b) Key management personnel compensation

Key management personnel of the Authority are those persons having the authority and responsibility for planning, directing and controlling the activities of the Authority. These key management personnel comprise the Board of Members and Executive Management Team of the Authority.

Key management personnel compensation is as follows:

	2016 \$	2015 \$
Salary and short-term employee benefits	4,602,213	4,324,044
CPF contributions	249,681	176,444
Directors' fees	197,255	188,641
	5,049,149	4,689,129

25. Funds managed/held on behalf of others - Funds held in trust

Funds held in trust and managed by the Authority comprise the following:

	2016 \$	2015 \$
Singapore Stranded Seafarers' Fund	337,363	336,274
Agency funds held in trust of Ministry of Transport	40,859,483	772,118
Aids to Navigation Fund	9,608,686	10,032,587
	50,805,532	11,140,979

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

25. Funds managed/held on behalf of others - Funds held in trust (continued)

Singapore Stranded Seafarers' Fund ("SSSF")

- (a) The SSSF was set up in September 1999 (following the Authority's Board approval for its creation at an earlier board meeting in July 1999). The SSSF is managed by a Committee made up of representatives from the Authority and the unions, namely Singapore Maritime Officers' Union and Singapore Organisation of Seamen.

The Fund is humanitarian in nature. It shall be used only as a last resort when it becomes evidently clear that the ship owners concerned are no longer able to bear responsibility towards their ship crew, e.g. due to insolvency. It is used mainly to buy fuel (i.e. to run the ship's generators) and provide food and portable water to sustain the stranded ship crew onboard Singapore-registered ships stranded in Singapore or overseas, until such time they are repatriated or the dispute is settled.

- (b) The assets and liabilities of the SSSF as at 31 December are as follows:

	2016 \$	2015 \$
Accumulated fund	337,363	336,274
Current assets		
Interest receivable	646	646
Cash and cash equivalents	336,717	335,628
	337,363	336,274

- (c) The results of the SSSF for the year ended 31 December are as follows:

	2016 \$	2015 \$
Interest income	1,089	1,085
Surplus for the year	1,089	1,085
Accumulated fund as at 1 January	336,274	335,189
Accumulated fund as at 31 December	337,363	336,274

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

25. Funds managed/held on behalf of others - Funds held in trust (continued)

Agency funds held in trust of Ministry of Transport

(a) On 11 March 2005, the Authority was appointed by Ministry of Transport ("MOT") as its managing agent in connection with the proposed land reclamation at Pasir Panjang Terminal Phases 3 and 4 and Tuas Port.

(b) The assets and liabilities of the agency funds held in trust as at 31 December are as follows:

	2016 \$	2015 \$
Accumulated fund	40,859,483	772,118
Current assets		
Cash at bank	43,656,835	799,010
Amount due from various Government bodies	576	288
GST receivable	13,346,827	3,414,167
	57,004,238	4,213,465
Current liabilities		
GST payable	(16,144,755)	(3,441,347)
Net assets	40,859,483	772,118

(c) The results of the agency funds held in trust for the year ended 31 December are as follows:

	2016 \$	2015 \$
Grants received	429,155,390	95,945,867
Interest income	53,172	58,796
	429,208,562	96,004,663
Grants disbursed	(380,652,460)	(93,528,768)
Agency fees paid/payable	(8,468,737)	(2,303,649)
Surplus for the year	40,087,365	172,246
Accumulated fund as at 1 January	772,118	599,872
Accumulated fund as at 31 December	40,859,483	772,118

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

25. Funds managed/held on behalf of others - Funds held in trust (continued)

Aids To Navigation Fund ("ANF")

(a) The Co-operative Mechanism, launched in 2007, is the key platform for the littoral States, user States, stakeholders, and the industry to exchange information, and share their perspectives on issues related to safety of navigation and environment protection in the Straits of Malacca and Singapore (SOMS). The ANF, one of three components of the Co-operative Mechanism, receives direct financial contributions from the international maritime community to maintain critical marine navigational aids in the SOMS. The 14 ANF Committee members are China, India, Japan, Republic of Korea, Saudi Arabia, United Arab Emirates, the International Foundation for Aids to Navigation (IFAN), International Maritime Organization (IMO), Malacca Straits Council, The Nippon Foundation and Witherby Publishing Group, and the three littoral States.

Singapore took over the Chairmanship of ANF on 1 January 2013 for a period of three years ending 31 December 2015. Chairmanship would be extended to financial year ending 31 December 2017.

(b) The assets and liabilities of the ANF as at 31 December are as follows:

	2016 \$	2015 \$
Accumulated fund	9,608,686	10,032,587
Current assets		
Cash at bank	9,744,226	10,958,009
Other receivables	131,241	192,537
	9,875,467	11,150,546
Current liabilities		
Other payables	(266,781)	(1,117,959)
Net assets	9,608,686	10,032,587

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2016

25. Funds managed/held on behalf of others - Funds held in trust (continued)

Aids To Navigation Fund ("ANF") (continued)

The results of the ANF for the year ended 31 December are as follows:

	2016 \$	2015 \$
Contribution received	527,969	2,789,055
Interest income	5,019	5,086
	532,988	2,794,141
Maintenance repair and miscellaneous expenses	(1,191,030)	(1,649,002)
(Deficit)/surplus for the year	(658,042)	1,145,139
Accumulated fund as at 1 January	10,032,587	8,302,913
Exchange difference on translation of accumulated funds	234,141	584,535
Accumulated fund as at 31 December	9,608,686	10,032,587

26. Authorisation of financial statements

These financial statements were authorised for issue by the Board of Members on 16 March 2017.

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