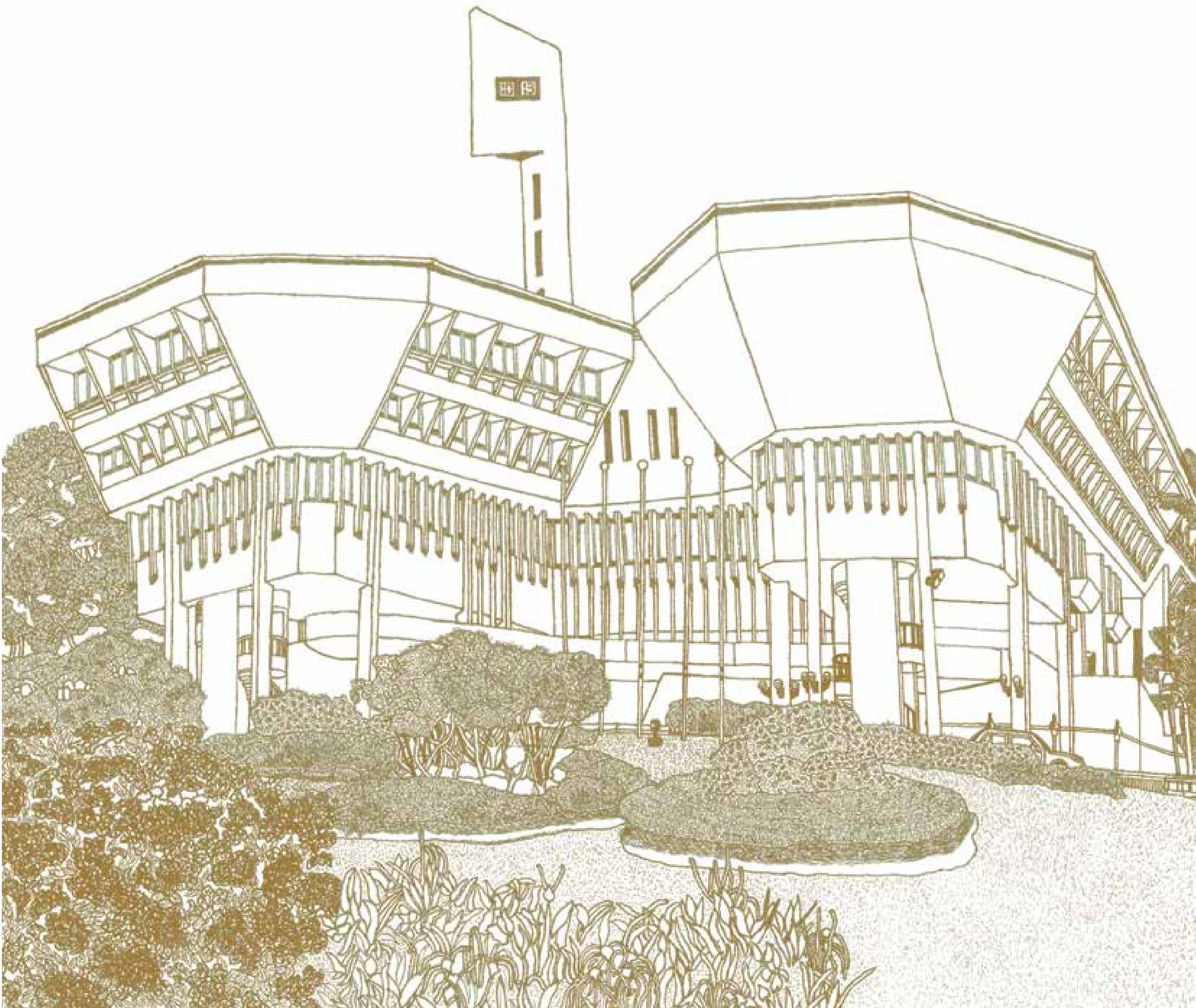
Creating Tomorrow's Industry Spaces

JTC CORPORATION

ANNUAL REPORT FY2018



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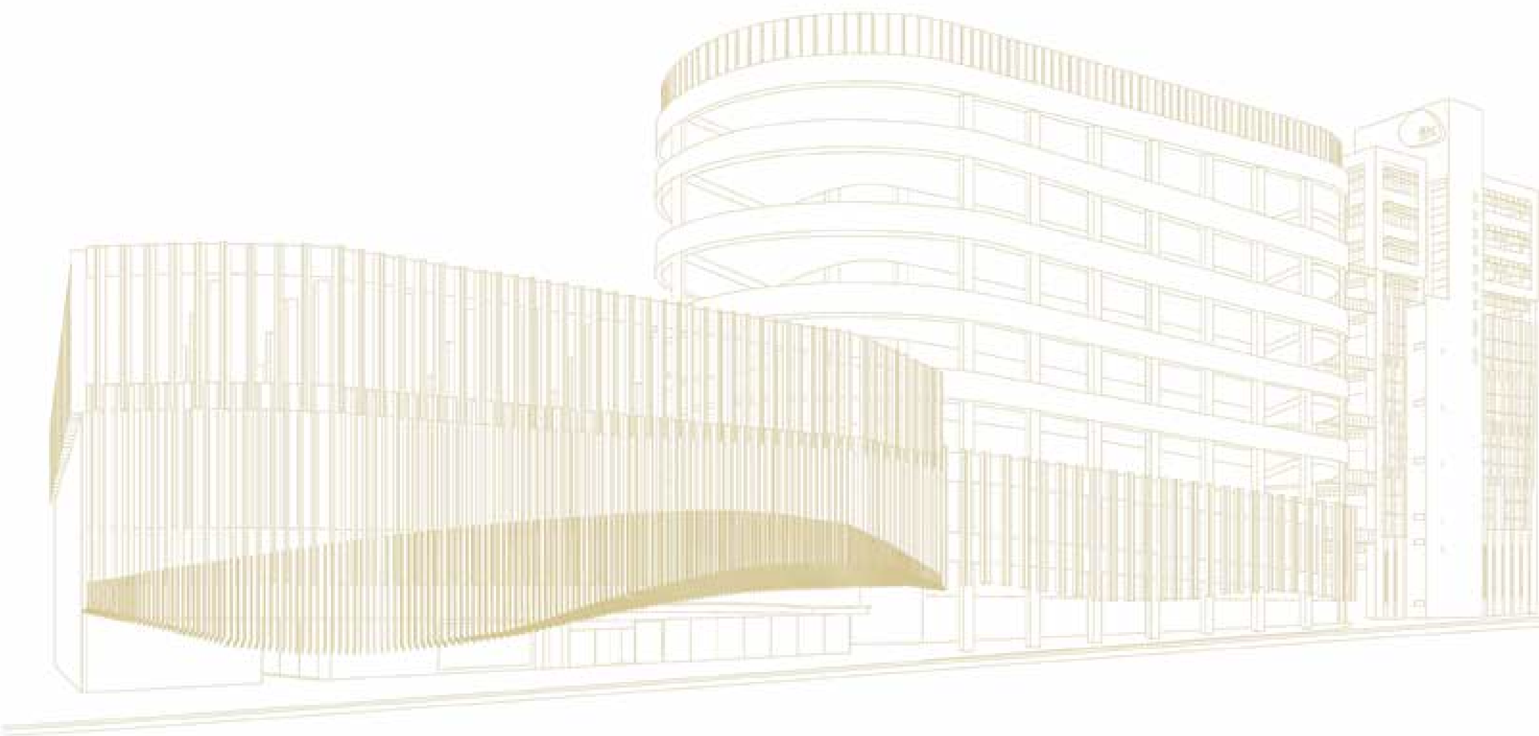
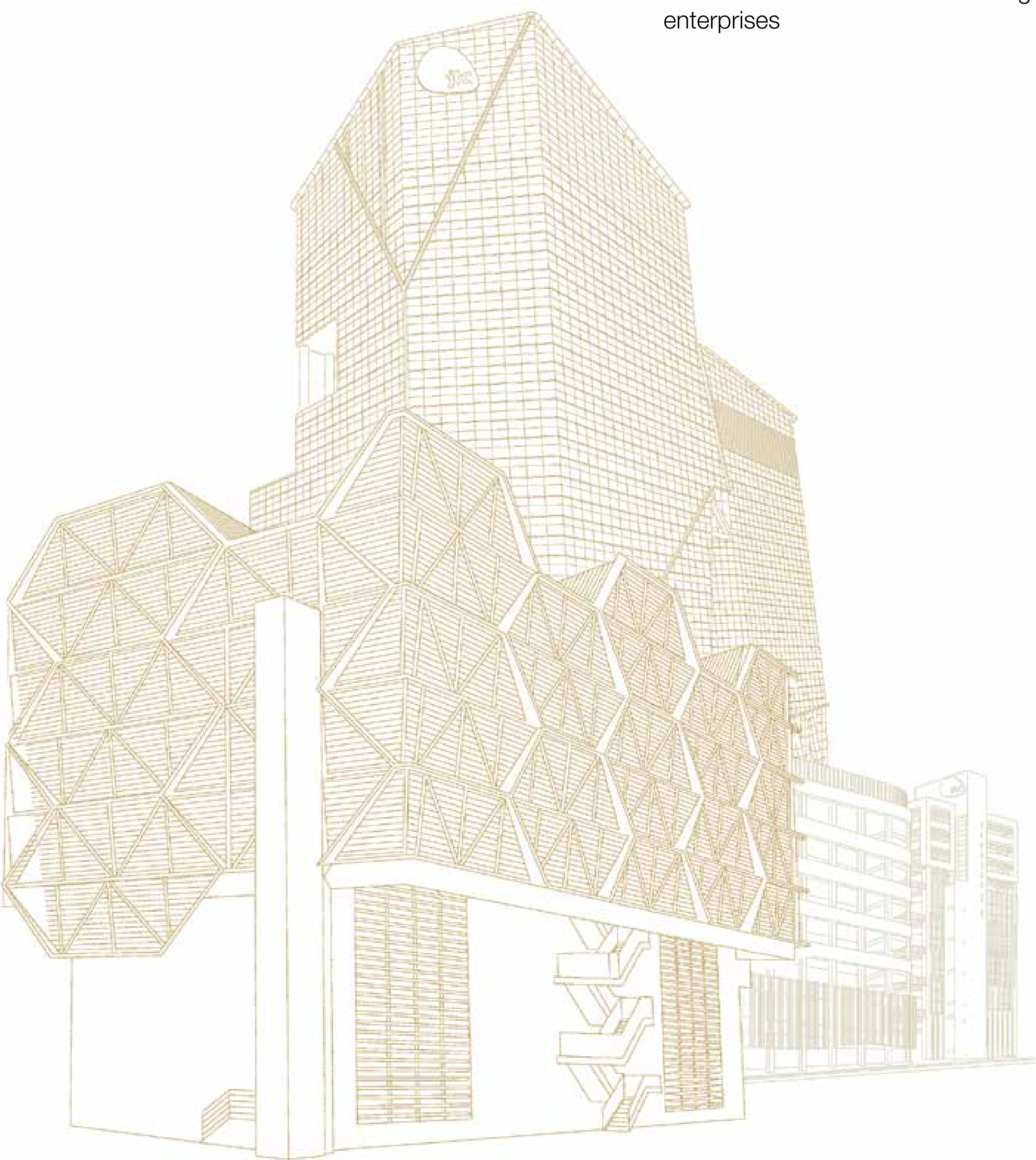


Mission

To develop industrial infrastructure to catalyse the growth of new industries and transform existing enterprises



Joint Message by Chairman and CEO

2018 was a special year for JTC as we celebrated its 50th birthday. Initially known as the Jurong Town Corporation, JTC was set up in 1968 to oversee the development of Singapore's first industrial township in Jurong, and kick-start Singapore's industrialisation drive. JTC has come a long way since then. As Singapore's economy moved up the value-chain, JTC's work expanded beyond Jurong to build relevant industrial estates and factories across Singapore to support industry needs, design specialised spaces for innovation ecosystems to thrive, and pioneer new infrastructure solutions to overcome space limitations and engineering challenges. As Prime Minister Lee Hsien Loong said at JTC's 50th anniversary dinner, JTC had often been the frontrunner and pathfinder, constantly pushing boundaries, breaking new ground, building new partnerships. It was this spirit of innovation and enterprise that had put Singapore on the map as an attractive business and investment location.

Today, JTC finds itself at another threshold of change. Manufacturing is at a pivotal phase of transformation, largely driven by digitalisation. The advent of technologies such as 5G, Artificial Intelligence (AI), Internet of Things (IoT) and robotics is redefining the notion of industrial competitiveness. Correspondingly, the demand for higher skilled manpower to manage such technologies is raising questions as to how the manufacturing work environment needs to be designed to attract and retain future talent. There is also increased focus on environmental sustainability, and on how manufacturing can contribute to overcoming the urgent challenges in climate change. These trends are reshaping the manufacturing scene, and necessitate adjustments and refinements to our approach to support the changing needs of industries and position Singapore for the future economy.

The shift is already visible in the plans for our new estates. Jurong Innovation District, Woodlands North Coast and Punggol Digital District will be developed with the flexibility to accommodate the needs of manufacturing for continued innovation, and with a work environment that is attractive to the workforce of the future. The industry has responded very positively to these plans. In Jurong Innovation District for example, an ecosystem of i4.0 technology enablers is shaping up very fast, while our first two buildings in Woodlands North Coast already see a good take-up rate while being constructed.

“These trends (in manufacturing) are reshaping the manufacturing scene, and necessitate adjustments and refinements to our approach to support the changing needs of industries and position Singapore for the future economy.”

A hallmark of JTC’s estate management has been the attention paid to balance industrial and environmental needs. With major manufacturers stepping up on their commitments to climate actions, JTC too needs to up its game. A significant step was the announcement of JTC’s climate action commitments on 1 June 2018, where we pledged ourselves to continue making conscious use of sustainable technologies, materials and processes in all aspects of our work. One target set to meet this commitment is to use our land bank and building rooftops to generate 100 MWp of solar energy by 2030. But the best outcome can only be achieved through collective partnership efforts with stakeholders in our estates. Thankfully, the support we have been receiving has been inspiring, from pilot projects to compost food waste, and the contributions to NParks’ Garden City Fund to enhance greenery in our estates and create 1,000 sqm of additional reef area at Sisters’ Island. In January 2019, we received strong endorsement from industrialists on Jurong Island to start a circular economy study on the island. It is an important effort that will hopefully lead to insights to undertake system-level interventions to improve sustainability outcomes, beyond what each company could do on its own.

Collaborations in our estates do not stop just in the area of the environment. JTC will continue to leverage its networks among businesses, government agencies, and academia to create other collaborative opportunities in our estates. In particular, we have made significant progress to advance collaboration in the areas of technology and talent attraction. At the inaugural Industrial Transformation Asia-Pacific event in October 2018, JTC signed a Memorandum of Understanding with Enterprise Singapore, the Singapore Manufacturing Federation, Singapore Precision Engineering & Technology Association, PBA Group and its network of partners, to support industrialists in their journey towards advanced manufacturing. The tripartite partnership involving public agencies, businesses and technology enablers will see the development of smart manufacturing solutions and training programmes that will benefit industrialists, especially SMEs. To help create a pipeline of talent in manufacturing, we have started internship and open house programmes with tertiary institutions to expose students to future job opportunities in our estates.

Lastly, JTC too sees the need to build new capabilities in our own operations to better respond to the needs of the new economy. Our ambition is to evolve into a tech- and data-enabled organisation to better serve our customers, and become more efficient across our value-chain from planning to construction, to facilities and estate management. We are making significant investment in resources and efforts in digitalisation, and have made good progress to digitally integrate our construction work from design to implementation. The plan to develop an Open Digital Platform and a smart grid in Punggol Digital District is part of our ambition to continue to push the envelope in the digital revolution.

Our achievements in FY2018 would not have been possible without the support of fellow agencies and partners in industry and academia. We look forward to continue our conversations and partnerships to keep our estates relevant to the needs of our industries in a rapidly-evolving global economy.

On this note, we would like to express our heartfelt gratitude to Dr Loo Choon Yong, who stepped down as Chairman of JTC on 31 March 2019. Within the JTC family, appreciation runs deep for his sterling leadership during his six years of service at the helm of the Board. We would also like to express our appreciation to Ms Lai Wei Lin and Ms Jessie Yeo Hong Cheng, who also stepped down from the JTC Board on 31 March 2019, for their guidance and contributions.

Tan Chong Meng
Chairman
JTC Corporation

Ng Lang
Chief Executive Officer
JTC Corporation

FY2018 Highlights

GROSS ALLOCATION OF PREPARED INDUSTRIAL LAND*

Land Area (ha) **341.0**

No. of companies **138**

ALLOCATION OF JTC'S PREPARED INDUSTRIAL LAND BY INDUSTRY:

38% CONSTRUCTION

18% CHEMICALS

9% GENERAL MANUFACTURING

6% TRANSPORTATION & STORAGE

4% PRECISION ENGINEERING

25% OTHER INDUSTRIES

*Excludes land that is tendered out as part of the IGLS programme

GROSS ALLOCATION OF READY BUILT FACILITIES

Floor Area ('000 sqm) **196.1**

No. of companies **534**

ALLOCATION OF JTC'S READY BUILT FACILITIES BY INDUSTRY:

18% PRECISION ENGINEERING

11% CONSTRUCTION

10% GENERAL MANUFACTURING

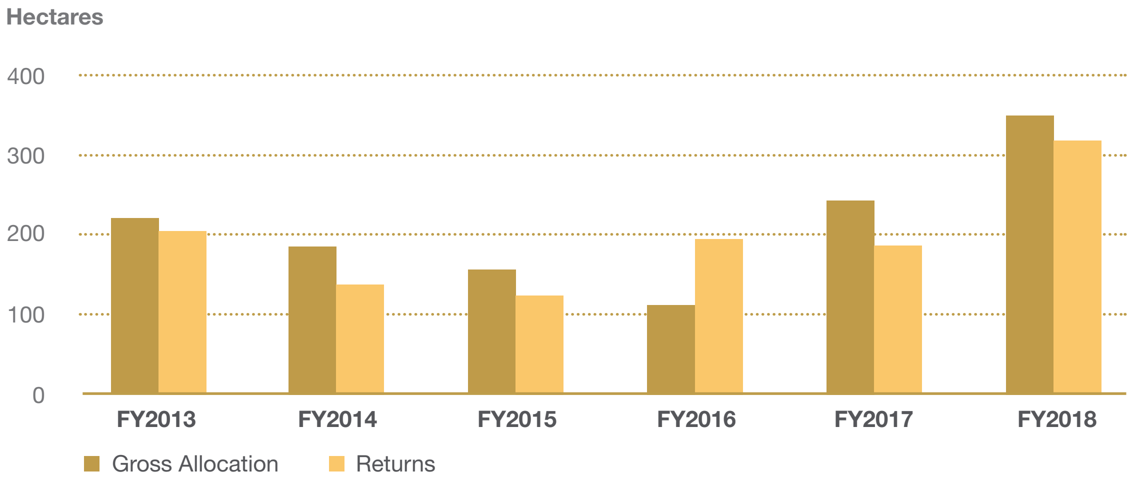
8% PROFESSIONAL, SCIENTIFIC & TECHNICAL ACTIVITIES

6% CHEMICALS

6% BIOMEDICAL MANUFACTURING

41% OTHER INDUSTRIES

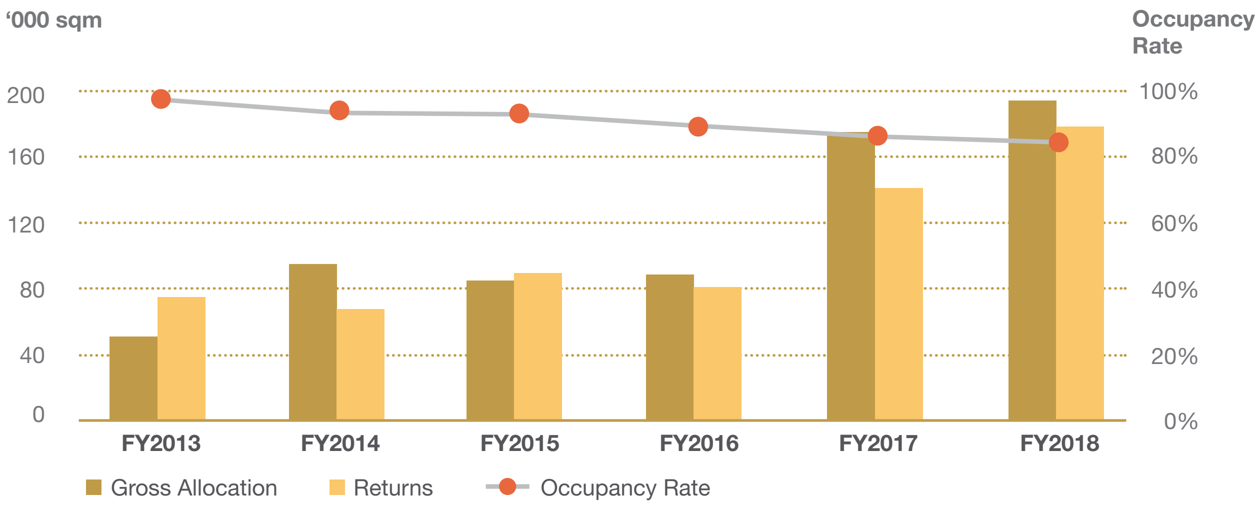
GROSS ALLOCATION AND RETURNS FOR PREPARED INDUSTRIAL LAND*, FY2013 TO FY2018



*Figures for Prepared Industrial Land exclude land that is tendered out as part of the IGLS programme

FY2017 and FY2018 figures include former HDB industrial properties that were transferred to JTC in January 2018
Source: J-SPACE

GROSS ALLOCATION, RETURNS AND OCCUPANCY RATE FOR READY BUILT FACILITIES, FY2013 TO FY2018



FY2017 and FY2018 figures include former HDB industrial properties that were transferred to JTC in January 2018
Source: J-SPACE

Board Management

As at 1 July 2019

CHAIRMAN

Mr Tan Chong Meng
Group Chief Executive Officer
PSA International Pte Ltd
With effect from 1 April 2019

MEMBERS

Mr Ng Lang
Chief Executive Officer
JTC Corporation

Mr Michael Sim
Executive Director
Platanetree Capital Pte Ltd

Ms Jeanette Wong
Board Member
UBS Group AG &
Essilor International/Essilor Luxotica (France)

Mr Olivier Lim
Chairman
Certis CISCO Security Pte Ltd

Mr Guy Harvey Samuel
Board Member
National Arts Council &
National Parks Board

Ms Kwa Kim Li
Managing Partner
Lee & Lee Advocates & Solicitors

Mr Ng Chee Keong
Chairman
Jurong Port Pte Ltd

Mr Vincent Chong
President & Chief Executive Officer
ST Engineering Ltd

Mr Lam Yi Young
Deputy Secretary (Industry)
Ministry of Trade & Industry

LG Melvyn Ong
Chief of Defence
Ministry of Defence

Mr Shafie Shamsuddin
Chief Strategy Officer
AEON Asia

Mr John Lim
Second Deputy Secretary
Ministry of Social and Family
Development
With effect from 1 April 2019

Mr Mok Wei Wei
Managing Director
W Architects Pte Ltd
With effect from 1 April 2019

Mr Zainal Bin Sapari
Assistant Secretary General
National Trades Union Congress
With effect from 1 April 2019

Senior Management

As at 1 July 2019

Mr Ng Lang
Chief Executive Officer

Mr Heah Soon Poh
Assistant Chief Executive Officer
Engineering & Operations Group

Mr Alvin Tan
Assistant Chief Executive Officer
Industry Cluster Group

Mr David Tan
Assistant Chief Executive Officer
Development Group

Mr Terence Seow
Assistant Chief Executive Officer
Corporate, Policy & Planning Group
Enterprise Cluster Group

Chief Digital Officer

CEO'S OFFICE

Mr Png Giok Hua
Dean
JTC Academy

Ms Cindy Chou
Director
JTC Academy

Ms Chee Wan Chin
Group Chief Financial Officer

Mr Jared Chng
Director
Billing & Reporting

Ms Lee Chuay Noi
Director
Human Resources

Mr Francis Nyan
Director
Treasury & Payments

Ms Caroline Wong
Director
Communications

INDUSTRY CLUSTER

Mr Leow Thiam Seng
Group Director
Industry Cluster

Director
Cluster Solutions

Ms Christine Wong
Group Director
Industry Cluster

Director
Food & Lifestyle

Mr Cheang Tick Kei
Director
Precision Engineering & Construction

Mr Cheong Wee Lee
Director
Biomedical & Electronics

Mr Anil Das
Director
Logistics & Land Transport

Ms Cindy Koh
Director
Energy & Chemicals

Mr Lim Junwei
Director
InfoComm Media & Start-Up

Ms Glory Wee
Director
Aerospace, Marine & Urban Solutions

ENTERPRISE CLUSTER

Mr Khoo Teng Seong
Group Director
Enterprise Cluster

Mr Leong Hong Yew
Group Director
Enterprise Cluster

Mr Lee Say Kee
Director
Industrial Estates

Ms Tang Li Fun
Director
Industrial Properties Management 1

Ms Wee Pei Yean
Director
Industrial Properties Management 2

DEVELOPMENT

Mr Kok Poh June
Group Director
New Estates 2

Ms Josephine Loke
Group Director
Land Planning & Redevelopment

Mr Tay Ter Long
Group Director
Contracts & Procurement

Mr Ryan Lee
Director
Smart District

Ms Jan Seow
Director
Land Planning

Ms Vivien Tan
Director
Land Redevelopment

Ms Tang Hsiao Ling
Director
Urban Design & Architecture

Ms Finn Tay
Director
New Estates 1

ENGINEERING AND OPERATIONS

Mr Calvin Chung
Group Director
Engineering

Director
Future of Building & Infrastructure

Mr Mark Koh
Group Director
Facilities & Estates Management

Mr Teo Tiong Yong
Group Director
Project Management

Director
Public Projects

Mr Chan Chee Choong
Acting Director
Facilities & Estates Management (West)

Mr Chua Leong Yew
Director
Reclamation

Mr Jason Foo
Director
Facilities Planning & Advisory

Mr Koh Chwee
Director
Workplace Safety & Construction Quality

Director
Infrastructure Projects

Mr Ng Eng Sin
Director
Facilities Engineering & Systems

Mr Ong Chia Choong
Director
Security

Mr Derrick Ong
Acting Director
Facilities & Estates Management (Central)

Ms Tan Su Chern
Director
Technical Services

Mr Wong Wei Loong
Director
Building Projects

Ms Yap Chung Lee
Director
Facilities & Estates Management (East)

CORPORATE, POLICY & PLANNING

Mr Benjamin Chan
Director
Data Science

Mr Goh Chye Kiang
Acting Director
Applications Development

Ms Susan Goh
Director
Corporate Planning

Mr Goh Thong
Director
Audit & Advisory

Mr William Lim
Director
Centre for Information Management

Ms Yvonne Lim
Director
Policy & Research

Mr Mohamad Hafiz Bin Sayuti
General Counsel
Legal Services

Mr Roland U
Director
Digital Infrastructure & Operations

50 Years of JTC

A proud journey with Singapore

Supporting Singapore's Economic Transformation from Third World to First

Initially known as the Jurong Town Corporation, JTC was set up in 1968 to oversee the development of Singapore's first industrial township in Jurong, and kick-start Singapore's industrialisation drive. As Singapore's economy moved up the value chain, JTC re-imagined industrial spaces, designed new industrial typologies, and introduced developments that foster collaboration and innovation.

Today, JTC is known as an icon that is closely associated with Singapore's successful industrialisation. The efforts of successive generations of JTC leaders and staff have paid off as the organisation continues to build vibrant business communities, and position Singapore for its next phase of growth.

50 Years of Breaking New Ground and Building New Partnerships

On 25 May 2018, JTC celebrated its 50th anniversary with a dinner attended by past leaders of JTC, partner government agencies, and leaders in the industry.

Graced by Prime Minister Lee Hsien Loong, the event featured an exhibition highlighting key milestones of JTC's 50 years of journey, where selected items from the JTC50 time capsule, as well as an architectural model of the original design concept of Jurong Town Hall, were placed on display.

Prime Minister Lee and Mrs Lee viewing items highlighting key milestones of JTC's 50 years of journey.

As part of the celebrations, Prime Minister Lee also sealed a time capsule containing items that represent Singapore's industrialisation journey, including old brochures and books from past industrial projects as well as items designed and made in Singapore.

Datuk Seri Lim Chong Keat, the architect of Jurong Town Hall, with the model of the original design concept of Jurong Town Hall.

Prime Minister Lee delivering his address.

Prime Minister Lee and then JTC Chairman Dr Loo Choon Yong sealing the JTC50 time capsule.

Former Chairmen, former CEOs and VIPs joined in for a toast to JTC's Golden Jubilee.

> *"JTC has come a long way, growing in step with Singapore's progress. You have often been the frontrunner and pathfinder, constantly pushing boundaries, breaking new ground, building new partnerships. I hope you will continue to build on this tradition of high standards and bold ambitions. Because every JTC success is a benefit for Singaporeans."*
>
> *– Prime Minister Lee Hsien Loong*

Time Capsule Installation Ceremony

The time capsule contains selected items that are part of Singapore's industrialisation journey.

A Time Capsule Installation Ceremony was held on 1 June 2018, the exact day JTC was formed 50 years ago, at its first permanent headquarters at Jurong Town Hall.

The time capsule contains items that showcase JTC's past, present and future efforts, such as a bottle of sand from the Tuas Reclamation Project, rock unearthed during the construction of the Jurong Rock Caverns, and the Jurong Innovation District masterplan.

Officiated by Guest-of-Honour Senior Minister of State for Trade & Industry, Mr Chee Hong Tat, the time capsule will be opened during JTC's 75th anniversary.

SMS Chee Hong Tat delivering his address at the ceremony.

"We are not done building Singapore. As JTC continues to develop Singapore's industrial landscape for the next 50 years, it needs to remain a world-leader in this area by making good use of technology and innovation to enhance Singapore's competitiveness."

– Senior Minister of State for Trade & Industry, Mr Chee Hong Tat


jtc
COFFEE

Developing Future-Ready Spaces

Specialised Industrial Facilities

Built with shared facilities and services, these facilities will help companies to increase productivity, reduce their upfront capital expenditure and recurring operating costs, and focus on their core business.

COMPLETED FACILITIES IN FY2018

JTC POULTRY PROCESSING HUB @ BUROH

An 8-storey multi-tenanted development designed to house poultry slaughtering and processing establishments, JTC Poultry Processing Hub @ Buroh features fully-automated and high-speed slaughtering lines that are shared by multiple companies, as well as modular processing units that provide the companies with the flexibility to combine units to form larger spaces. The development will enable closer collaboration and sharing of resources among the establishments to achieve higher productivity through scale and automation.

Completed in January 2019 | **GFA:** 40,740 sqm

1 slaughtering unit | 16 processing units | 2 dormitory units

Unit size: Processing units of approximately 1,300 sqm

TRENDSPACE

trendspace is Singapore's first high-rise multi-tenanted development to cluster furniture, design and lifestyle-related companies. Conceptualised in partnership with the Singapore Furniture Industries Council, the development will house furniture manufacturers, interior fit-out specialists, material suppliers and designers under one roof, enabling higher productivity and closer collaboration among industry players.

Completed in March 2019 | **GFA: 61,500 sqm**

No. of units: 63 | **Unit size: 500 and 1,000 sqm**

DESIGN ORCHARD

Design Orchard, located at the heart of Orchard Road, provides a creative space for home-grown designers to showcase and develop their brands. Comprising a retail showcase, an incubation space and a rooftop event space, the 3-storey building is a creative addition to Singapore's landmark Orchard Road.

Completed in December 2018 | **GFA: 2,350 sqm**

UPCOMING FACILITIES

JTC BEDOK FOOD CITY

JTC Bedok Food City is a ramp-up 5-storey multi-tenanted development located at Bedok North Avenue 4 designed for food manufacturers. The 135-unit development features a centralised dual diesel and liquefied petroleum gas (LPG) supply, and an automatic pneumatic waste disposal system. Each unit is designed with an ancillary office and workers' dormitory on the mezzanine floor. On the ground level, there are amenities such as a canteen, outdoor and indoor recreational areas, a minimart and an event area.

Completing in 2020 | **GFA:** 105,000 sqm

135 food factory units | **2** cold room units | **1** industrial canteen

Unit size: 235 – 1,389 sqm

JTC LOGISTICS HUB @ GUL

JTC Logistics Hub @ Gul is a next-generation innovative logistics facility co-locating empty container depots, warehouses and a heavy vehicle park. The new integrated development is set to improve operational efficiency and productivity for logistics companies, thereby catalysing the growth and transformation of the industry.

Completing in 2020 | **GFA:** 134,420 sqm

30 warehouse units ranging from 2,100 sqm – 2,800 sqm

2 floors of up to 6,000 TEU/floor for empty container storage

TIMMAC @ KRANJI

TimMac @ Kranji is a first-of-its-kind development to cluster small and medium enterprises from the metals, machinery and timber industries. Its high design specifications will support these companies' operational requirements and productivity initiatives. Jointly conceptualised with industry associations, TimMac will offer shared services managed by the Singapore Cranes Association and Singapore Timber Association to drive industry transformation and increase productivity of companies at the facility.

Completing in
2020

GFA:
143,000 sqm

36 metals and machinery production units of average 1,400 sqm

52 timber production units ranging from 520 – 1,200 sqm each

KRANJI GREEN

Kranji Green is the first specialised development in Singapore to house recyclers handling metal, paper and plastic waste streams. This new recycling facility sets the tone for industry transformation, and will offer industrialists heavy production floor loading, high ceiling and wide column spans, replicating a land-based operating environment in a high-rise setting. Located next to TimMac@Kranji, which houses metals, machinery and timber industrialists, the new recycling facility will enable co-location synergies, and facilitate the re-use of industrial waste and by-products as we progress towards a circular economy. It will also feature green spaces and shared facilities to promote greater interaction amongst the community.

Completing in
2021

GFA:
134,030 sqm

No. of units: 48

Unit size: Approximately
2,000 to **3,400 sqm**
(including mezzanine office of about 200 sqm)

Jurong Innovation District

Master-planned and developed by JTC, Jurong Innovation District is a 600-hectare next-generation district located along Singapore's western manufacturing belt. Set to be a key hub for advanced manufacturing solutions and a springboard for Industry 4.0 business opportunities in the region, Jurong Innovation District is shaping up as a one-stop advanced manufacturing campus that is home to a collaborative ecosystem of manufacturers, technology providers, and research and education institutions, where manufacturers can start and scale their advanced manufacturing journeys.

Jurong Innovation District, a one-stop advanced manufacturing campus.

600
HECTARES

95,000
NEW JOBS

33,000
STUDENTS

The community has ready access to more than 33,000 student talents from Nanyang Technological University, a thriving academic and research anchor for the District. As Singapore's largest living lab, the District is also a place where ideas and technologies are developed, prototyped, test-bedded and commercialised. Startups and incubators are housed in close proximity to businesses and academia, fostering strong collaborations and accelerating the commercialisation of new technologies.

To be developed over the next 30 years, the District is estimated to bring about 95,000 new jobs in research, innovation and advanced manufacturing.

GROUNDBREAKING OF SHIMANO'S FACTORY OF THE FUTURE

Groundbreaking ceremony for Shimano's Intelligent Manufacturing Plant.

In June 2018, Shimano Inc broke ground for its first Intelligent Manufacturing Plant in Southeast Asia. The new Factory of the Future (FoF) will join the District's growing advanced manufacturing ecosystem as an R&D hub that will develop innovative products for users who incorporate cycling as part of their lifestyle. The FoF will adopt smart manufacturing technologies supported by real-time analytics. It will also play a key role in training and upskilling its local engineers to operate effectively in an IoT-enabled environment.

SET UP OF PBA GROUP'S ROBOTICS MANUFACTURING FACILITY

PBA Group will be setting up a 260,000-square-foot robotics manufacturing facility to house its training academy, Robotics Automation Centre of Excellence (RACE), as well as its Advanced New Technology Incubator (ANTI). Expected to commence operations in 2020, the facility will be open to start-ups and SMEs in the robotics and automation industry.

Photo credit: PBA Group

Artist's impression of PBA Group's 260,000-square-foot robotics manufacturing facility.

GROUNDBREAKING OF SURBANA JURONG CAMPUS

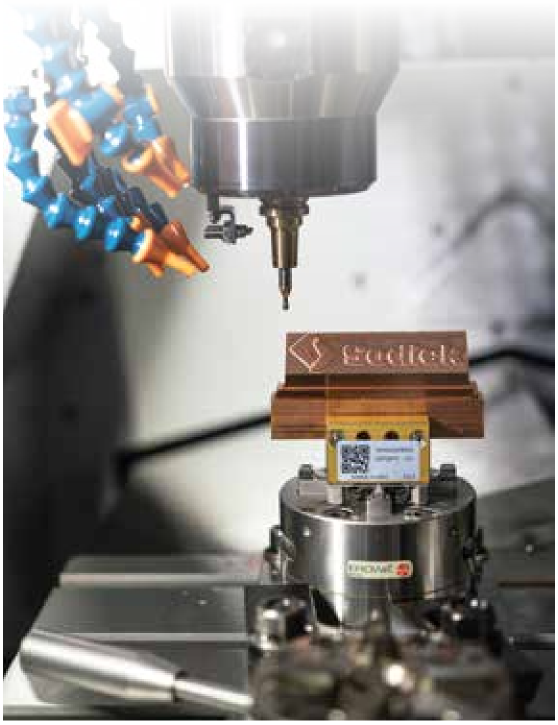
In January 2019, Surbana Jurong, one of the largest Asia-based urban and infrastructure consulting firms, broke ground for its new campus that will house its technology and research laboratories, as well as its global headquarters. Named 'Surbana Jurong Campus', the 68,915 sqm development that is slated to complete by 2021 will be able to accommodate up to 4,000 employees. The campus will serve as the nerve centre for research and development of innovation for the built environment as Surbana Jurong transitions to applied research to create and bring practical and viable solutions to the industry and community.

Artist's impression of Surbana Jurong Campus.

OPENING OF SODICK SINGAPORE TECHNO CENTRE

Global manufacturer of high-technology machines, Sodick, opened a new centre called the Sodick Singapore Techno Centre (SSTC) at LaunchPad @ JID to showcase the latest additive manufacturing technologies and drive greater adoption of advanced manufacturing in Singapore.

Set up in collaboration with JTC and EDB, the centre will play host to seminars and courses held by Sodick for the industry on topics relevant to additive manufacturing solutions. Companies who are interested in additive manufacturing can collaborate with Sodick Singapore in developing, testing and adopting new ideas and concepts.



SSTC offers the latest in additive manufacturing technologies to help more companies adopt advanced manufacturing.

UPCOMING ENTRANTS

NATIONAL METROLOGY CENTRE AND SIMTECH @ NTU

Agency for Science, Technology and Research's (A*STAR) National Metrology Centre and Singapore Institute of Manufacturing Technology (SIMTech @ NTU) will be moving into the District. This follows the 15,000-square-foot Model Factory @ Advanced Remanufacturing and Technology Centre (ARTC) that A*STAR had launched in August 2018, a public-private partnership platform where companies across industries and across the value chain can learn, co-develop and test-bed advanced manufacturing technologies to stay competitive.

BOSCH REXROTH REGIONAL TRAINING CENTRE

Bosch Rexroth has announced the establishment of the Bosch Rexroth Regional Training Centre (BRRTC) at Jurong Innovation District. A partnership between Bosch Rexroth, SkillsFuture Singapore, Singaporean-German Chamber of Industry and Commerce, Singapore Polytechnic and JTC, the Centre will be the first in Southeast Asia to deliver and certify Industrie 4.0 Specialists following the German Industrie-und Handelskammer (IHK) standard. Beyond training and certification, Bosch Rexroth will also collaborate with companies to test-bed Industry 4.0 Proof of Concept projects at the centre, support implementation of solutions and develop companies' expertise in the process. The training centre is expected to be completed by the second half of 2020.

Punggol Digital District

Situated in Punggol Coast, Punggol Digital District (PDD) is envisioned to be a vibrant and inclusive district underpinned by cutting-edge technology, as well as urban and social innovation which make everyday living more convenient and sustainable. It is the first district in Singapore to adopt a one-integrated-masterplan approach that brings together a business park, a university and community facilities. This is done to enable close collaboration between industry and academia as well as foster strong communities.

The District will house key growth sectors of the digital economy, and is expected to bring exciting job opportunities closer to residents in Punggol and the North-East region. Through the clustering of these growth sectors, JTC aims to create an ecosystem of open innovation and a conducive test-bed environment that will enable businesses and the community to thrive in a digital economy. In addition, the co-location of Singapore Institute of Technology's (SIT) new campus with JTC's business park buildings will facilitate greater industry-academia collaboration, through the cross-fertilisation of ideas and knowledge among students and industry professionals. New ideas conceived in SIT could be prototyped, tested and adopted by businesses in the district, contributing to a higher rate of commercialisation success.

PDD will be developed in phases, with the first phase expected to be completed by 2023.

Artist's impression of an aerial view of Punggol Digital District.

OPEN DIGITAL PLATFORM FOR SMART CITY SOLUTIONS

Signing of MOU with ST Engineering to develop the Open Digital Platform for smart city solutions in PDD.

JTC and ST Engineering signed a Memorandum of Understanding (MOU) in July 2018 to jointly design, develop and deploy an Open Digital Platform (ODP) that will integrate smart city solutions in the District and transform total user experience.

The ODP will integrate smart estate solutions and technologies horizontally on a single platform, allowing district managers to monitor, analyse, optimise and control the various sub-systems and sensors within the District. Powered by big data and analytics, the ODP will transform the PDD user experience by offering personalised and anticipatory services, and deliver energy and manpower savings by optimising operations and resource consumption within the district.

SMART GRID FOR GREEN AND ENERGY EFFICIENT SOLUTIONS

Signing of MOU with SP Group to develop and operate Singapore's first Smart Grid for business parks.

In October 2018, JTC and SP Group signed an MOU to collaborate on the development of a Smart Grid system in the District that will provide green energy and increase energy efficiency to serve businesses and consumers.

The Smart Grid will be integrated with the Open Digital Platform, allowing communication and interaction with other building systems in the District, such as the District Cooling System (DCS) and the Building Management System (BMS). Companies in the District can look forward to adopting clean sources of energy, such as solar energy generated from building roofs, and take advantage of new technologies, such as electric vehicle charging and smart metering.

Through the Smart Grid, about 1,700 tonnes of carbon emissions could be reduced per year, equivalent to taking 270 cars off the road. Aggregated data on energy consumption from the Smart Grid will be made available for academics, researchers, start-ups and enterprises to encourage innovation in the domains of clean energy and energy management.

Woodlands North Coast

Woodlands North Coast will be a vibrant mixed-use precinct within the Woodlands Regional Centre.

Jointly master-planned by JTC and URA, Woodlands North Coast (WNC) will be a vibrant mixed-use precinct within the Woodlands Regional Centre and home to a future industrial park and business park that will be a key growth node in northern Singapore.

WNC will feature a new bus interchange, the new Rapid Transit System (RTS) Link to Johor Bahru, and the Woodlands North MRT station on the Thomson-East Coast Line which will connect businesses and their workers conveniently to other parts of Singapore and the region. The 100-hectare development will be a significant employment cluster, bringing jobs closer to homes in the Northern Region. Companies that have offshored their lower value-added activities can also maintain their more knowledge-intensive activities here, while retaining close oversight of their operations overseas.

GREATER FLEXIBILITY FOR INDUSTRIAL USE

Artist's impression of 1 North Coast and 7 North Coast, the first two industrial buildings in Woodlands North Coast.

The first building in Woodlands North Coast, 1 North Coast, targets to meet the needs of the next-generation manufacturing industry. The industrial facility of approximately 44,000 sqm (GFA) will support manufacturing companies looking to co-locate their non-industrial activities, specifically knowledge-intensive and service-oriented activities, such as R&D and after-sales support, alongside their manufacturing operations. Construction is ongoing and the building is on track for completion in 2020.

Championing Environmental Sustainability

JTC's Climate Action Commitments

On 1 June 2018, JTC announced new environmental sustainability commitments in support of Singapore's Year of Climate Action 2018 that encompasses initiatives to develop environmentally sustainable industry spaces and estates, as well as to invite customers and partners to do their part for environmental sustainability. These commitments build on the organisation's existing environmental sustainability initiatives across the building and infrastructure value chain.

Commitments were made to achieve the following outcomes in JTC's developments and estates.

Optimise energy and water use efficiencies by exploiting technology, promoting green practices and catalysing the development of alternative solutions

Leverage economies of scale and streamline operations to cut down the carbon footprints of our new estates

Produce and utilise more solar energy to reduce grid dependency and burning of fossil fuels

Partner National Parks Board (NParks) and business communities to increase green coverage in our estates, and create 1,000 sqm of artificial coral reef area at the Sisters' Islands Marine Park to preserve marine biodiversity

By pioneering the use of sustainable technologies, materials and processes in its existing projects, JTC hopes to positively influence and transform industry practices and standards.

JTC will also continue to partner organisations and communities to increase awareness and participation in efforts to create a more sustainable environment. Three initiatives registered through the NParks charity, Garden City Fund, were identified that organisations and communities can participate in:

Plant-a-Tree Programme

Participating in community tree-planting initiatives to green industrial estates and business parks

Grow-a-Reef Garden Initiative

Sponsoring the project to create 1,000 sqm of purpose-built coral reef area at the Sisters' Islands Marine Park to preserve marine biodiversity

Singapore Botanic Gardens Seed Bank

Donating to the Seed Bank to safeguard plant diversity through seed collection efforts

SolarRoof

SolarRoof panels installed at JTC Space @ Gul.

JTC has been working with industry players to come up with innovative solar solutions to optimise land and space and facilitate the generation of sustainable energy so as to reduce Singapore's grid dependency on the burning of fossil fuels.

One such solution is SolarRoof, a pilot solar project that enables the direct export of solar electricity, generated from the rooftops of JTC's buildings, to the national power grid.

In FY2018, SolarRoof achieved 1 MWp of connected solar capacity that has generated a total of 600 MWh of renewable energy, an amount that can power up to 100 units of 4-room flats*. Moving forward, more than 20 JTC buildings are expected to be connected progressively to the national power grid by 2019 and are expected to achieve up to 5 MWp of installed solar capacity.

*Based on EMA's figures on the average monthly household consumption.

SolarLand

SolarLand panels installed at Jurong Island.

JTC also spearheaded SolarLand – a renewable energy project where solar PV panels are installed on land that is vacant in the interim to maximise the use of land, while contributing clean energy to the national grid.

In May 2019, Phase 1 of the SolarLand programme begun to generate solar energy to the national grid. Jurong Island was identified as a suitable pilot site due to the availability of vacant land that is large enough to accommodate the large-scale deployment of solar PV panels as an interim use.

In April 2019, JTC launched a tender for SolarLand Phase 2 that will focus on the development and deployment of portable solar PV panels on available land and linkways in Changi Business Park, spanning an area of 11.6 ha. It also involves the co-development of a mobile substation and mobile solar PV system that will allow JTC to easily re-deploy the system in the event that the land or space needs to be recovered.

Singapore's Largest Purpose-Built Reef Structures at Sisters' Islands Marine Park

To support existing habitat enhancement and reef restoration efforts to conserve marine biodiversity, JTC partnered the National Parks Board (NParks), local marine research and interest group communities, to create purpose-built reef structures at the Sisters' Islands Marine Park in Singapore.

As Singapore's largest reef project, the purpose-built reef structures were designed to contribute some 1,000 sqm of additional reef substrate to the Marine Park by 2030. A total of eight structures were installed in 2018.

JTC contributed its engineering expertise through the design, construction and installation of the reef structures. The structures, pre-fabricated offsite, are designed to sit on the seabed without piling or major foundation works that would otherwise disturb the underwater environment.

The Grow-a-Reef Garden initiative garnered the support of 11 donor companies from JTC's estates and developments with contributions ranging from $5,000 to $100,000 per company.

The project complements NParks' ongoing reef enhancement efforts and helps expand the habitat restoration and enhancement programme in scope and scale. The reef structures also provide opportunities for various research initiatives to be implemented and serve as test-beds for new technologies to study coral reef resilience. This will contribute to the knowledge and understanding of Singapore's marine habitats and the biodiversity they support.

One of the eight reef structures being lowered into the waters off Small Sister's Island.

Jurong Island Circular Economy Study

A kick-off session for the study was held on 30 January 2019 and was attended by Jurong Island companies and key government agencies.

Jurong Island remains as one of the top chemical parks in the world and a key anchor for Singapore's energy and chemicals industry.

To remain competitive, Jurong Island companies have been seeking to optimise resources, such as water and energy, and also to minimise waste in their own plants. However, there are limitations to individual companies' efforts. Increasingly, companies are recognising the importance of collaboration so as to jointly discover opportunities for further resource optimisation at a system-level.

With this in mind, Jurong Island companies have come together to support the Jurong Island Circular Economy Study commissioned by JTC, with the support from other government agencies including EDB, PUB, NEA, EMA & A*STAR. The study seeks to map out the current water, energy, and waste flows on Jurong Island, and tap on the expertise of the Jurong Island companies to jointly identify potential synergies and reduce resource use at the system-level. The aim is to move towards a circular economy approach, where resources are reused and recycled for as long as possible, while bringing about environmental and economic gains to companies.

The study, which JTC had contracted Witteveen+Bos and sub-consultant Metabolic to conduct, will be conducted in 2019 with preliminary recommendations targeted to be ready by early 2020. It is the first step towards positioning Jurong Island as an economically and environmentally sustainable chemicals park.

Consultants Witteveen+Bos and Metabolic sharing about the study at the kick-off session.

Partnerships with Communities

GREEN DAY OUT @ ONE-NORTH

As part of efforts to engage business and industry partners to increase awareness of and participation in sustainable climate action, JTC held the inaugural 'Green Day Out @ one-north' in November 2018 in conjunction with Clean and Green Week Singapore. The event marked JTC's first community tree-planting exercise in collaboration with NParks, where the industry and community were brought together to enhance the greenery at one-north.

Tree planting with representatives from the one-north community.

Tony Yau, Community-in-Bloom Ambassador, sharing how to propagate plants in a recycled bottle.

The tree-planting saw 16 companies and 8 individuals donating a total of 115 trees through the Garden City Fund's Plant-a-Tree programme. The trees will be planted in various locations within one-north Park. Alongside the tree-planting, JTC also partnered volunteers including residents from the nearby estates to organise a sustainability-themed carnival to educate participants on how to go green.

LAUNCH OF ESTATE-WIDE COMMUNITY GREENING INITIATIVE AT SELETAR AEROSPACE PARK

Seletar Aerospace Park (SAP) is one of the region's leading hubs for aerospace activities, and home to a community of over 60 multi-national and local aerospace companies. Since the Park's development in 2008, JTC has been deliberate in the conservation of Seletar's natural greenery and rich heritage to balance economic development with the need to create a green and liveable environment.

In October 2018, Mdm President Halimah Yacob, the Council of Presidential Advisors, and key aerospace stakeholders kicked off the SAP estate-wide greening initiative by planting four 'Flame of the Forest' trees within The Oval. Over 30 key industry and community partners were present to witness this symbolic event. Named for their crimson-red flowers, the 'Flame of the Forest' trees have been planted in the area since the development of the then-British Royal Air Force base in Seletar in the late 1920s.

Following the kick-off event, JTC has invited the aerospace community and SAP partners to participate in Singapore's first industry community greening fund – Greening our Workplace @ Seletar Aerospace Park (GROW@SAP). GROW@SAP will cover various green initiatives such as the maintenance of a new public park along Hampstead Gardens, developed by JTC for the community, as well as greening efforts around the Seletar area. This fund will be administered under the Garden City Fund (GCF), a NParks' registered charity and an Institution of Public Character.

A community event in celebration of GROW@SAP will be held in October 2019. This event will incorporate a tree planting session with fund contributors and a green-carnival for the public, as we seek to make SAP an even more attractive workplace for aerospace professionals, and a more vibrant and beautiful lifestyle destination for the public.

Launch of Plant-A-Tree initiative by President Halimah Yacob, Council of Presidential Advisers, JTC, NParks, CAAS, and industry and community partners.

Fostering Collaborative Communities

Strengthening the Talent Pipeline for the Industry

AEROSPACE DAY @ SELETAR AEROSPACE PARK

The second edition of Aerospace Day was held at Seletar Aerospace Park (SAP) in April 2019. Building on the success of the inaugural launch last year, the event saw a 25% increase in student participation with some 1,000 final year students from aerospace-related courses, as well as the participation of 200 mid-career job seekers.

Jointly organised by JTC, the Association of Aerospace Industries (Singapore), 6 Institutes of Higher Learning, as well as over 30 aerospace companies including new participating companies Avimac, GE Aviation and Meggitt Aerospace, the outreach event aims to strengthen the pipeline of talent for the fast-growing aerospace sector.

Students had the exclusive opportunity to tour the production floors of aerospace companies, visit the new Seletar Passenger Terminal Building, and seek career advice from industry professionals at the career exhibition fair. Their aeronautical skills were also put to the test through a range of workshops and challenges held within The Oval @ SAP. These activities included glider making, 3D printing, drone flying and virtual reality workshops conducted by polytechnic and ITE lecturers within JTC's conserved black and white bungalows.

Aerospace Day was attended by 1,000 final year students from aerospace-related courses and 200 mid-career job seekers.

Students visiting the production floors of aerospace companies – a first for many of them.

Students teaming up to work on aerospace-themed challenges such as constructing and launching of a rocket.

Aerospace Day was attended by final year students from aerospace-related courses and mid-career job seekers.

Aerospace Day 2019 saw the participation of NTUC's Employment and Employability Institute (e2i) for the first time. e2i supports the local workforce by providing assistance through career coaching and workplace advisory. Serving as the capstone event of e2i's inaugural Aerospace Engineering Week, the event drew 200 mid-career professionals seeking job opportunities related to the aerospace industry.

Beyond talent outreach, the estate-wide initiative further connected the aerospace community, facilitating closer engagements amongst students, educational institutions, the industry association, and aerospace companies.

Mid-career professionals learning more about career opportunities from company representatives.

"Aerospace Day was a good knowledge platform for me as my internship is starting soon. It has given me a boost in motivation and I am also aware of what steps I need to take to pursue a career in the aviation industry."

– Andi Putra Bin Norman, a final year Aerospace Engineering student from Republic Polytechnic

Turning one-north into an Attractive Place for Industry and Community

one-north, Singapore's research and tech hub, houses over 400 leading companies in key growth sectors, such as biomedical sciences, infocomm, media, start-ups, science and engineering. It continues to attract big players in the industry, as it gets set to be home to gaming company Razer's Southeast Asia headquarters and ride-hailing giant Grab's new Singapore headquarters by 2020. one-north will also be home to its first co-living development, lyf @ one-north, developed by Ascott Reit, that is targeted to open in 2021.

Since 2015, more than 600 events have been held in partnership with JTC at one-north, with over 120,000 attendees. These events create an enjoyable working environment, and also bring people out of their offices to get to know one another, providing opportunities to seed future partnerships and catalyse new ideas.

CAR-FREE SUNDAY SG @ ONE-NORTH

Car-Free Sunday SG @ one-north was held in April 2018, marking the first time the popular event was held outside the Civic District and Telok Ayer. This is in line with JTC's efforts to promote a car-lite environment in one-north by encouraging more sustainable modes of transportation.

About 3.7 km of roads including Ayer Rajah Avenue, North Buona Vista Road and Portsdown Road within the 200 ha estate were fully or partially closed for people to walk, jog and cycle freely. Visitors could also take part in activities such as a family carnival featuring games and performances at Timbre+, a farmers' market, bicycle obstacle courses, robotics races and workshops, as well as drone demonstrations.

The first car-free Sunday SG outside Civic District.

Visitors could take part in a mini cycling circuit-style obstacle course.

ONE-NORTH FESTIVAL

The one-north Festival held in September is an annual celebration of research, innovation, creativity and enterprise. RACE.EAT.PLAY is an anchor event of the Festival. The roads at Fusionopolis Way were closed and transformed into a race course, future food street and drone zone with many exciting activities for all ages. The second edition of RACE.EAT.PLAY @ one-north Festival saw the Soapbox Race where 15 teams from one-north, schools and the public raced their creative, self-made soapbox cars down a three-metre-high ramp and tackled a 150 metre obstacle course.

one-north Soapbox Race, the highlight of RACE.EAT.PLAY.

ONE-NORTH RUN

The fourth one-north Run held in December 2018 took runners through one-north's various precincts, such as Fusionopolis and Biopolis, and culminated in a carnival at one-north Park: Mediapolis.

The $270,000 raised from the Run was donated to A*STAR and JTC's adopted charities – The Community Chest benefiting the Asian Women's Welfare Association (AWWA) and Movement for the Intellectually Disabled of Singapore (MINDS), the Garden City Fund and Singapore Children's Society.

The community came together to raise $270,000 for charity at the one-north Run.

Raising Productivity Through Digitalisation

Building and Infrastructure

INTEGRATED DIGITAL DELIVERY

To enhance productivity and overcome various challenges in construction, JTC has adopted digital technologies and methodologies in its building construction work to streamline tasks, achieve greater coordination between stakeholders, and increase efficiency throughout the building value chain.

The Integrated Digital Delivery (IDD) framework is one of such initiatives, an approach that utilises digital technologies to integrate work processes and connect stakeholders working on the same project throughout the construction and building life-cycle.

IDD simplifies the building construction process with the integration of digital technologies such as Building Information Modelling (BIM), virtual reality, photogrammetry (a technique to create 3D-like images) for indoor monitoring, as well as drones for aerial site monitoring, to enable the project team to make data-driven decisions making at the design, construction and operation stages of a building's life-cycle.

This brings about benefits such as improved collaboration among stakeholders, improved construction efficiency, minimisation of construction mistakes and costly rework, and the delivery of smarter buildings.

JTC Logistics Hub @ Gul is one of the pioneering projects where IDD is implemented. It is also one of 12 'live' demonstration projects identified by the Building and Construction Authority (BCA) to show how project stakeholders can reap the benefits of IDD. It is also implemented in the development of Woodlands North Coast.

Demonstration by JTC and NTU of one of the IDD features onsite.

Web-based dashboards display real-time status updates of precast elements, machine productivity and scheduling information.

FAST WRAPPING FIBRE REINFORCED POLYMER

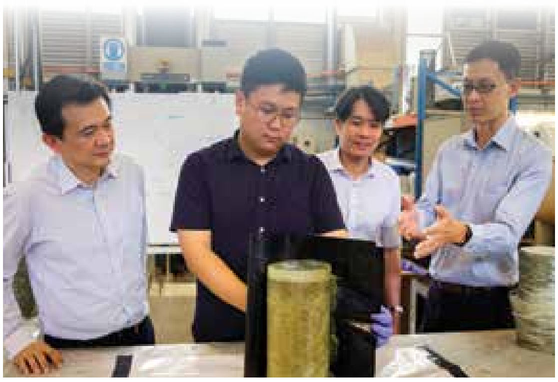
A new wrap called FasRaP – short for Fast Wrapping Fibre Reinforced Polymer – was jointly developed by scientists and engineers from NTU, as well as engineers from JTC and civil engineering consulting firm Prostruct Consulting.

FasRaP is a ready-to-stick wrap that protects concrete pillars and enables them to be easily repaired and reinforced to extend their lifespans. It is created using glass fibres and a proprietary glue-like resin developed by NTU materials scientists which acts as an adhesive. The resin only hardens when exposed to light, which allows it to be packaged into a ready-to-use roll of sticky wrap to be used at the work site.

The resin can be employed to repair cracks as well as wear and tear in ageing infrastructure, such as buildings and bridges. Compared to current wraps used, the material can potentially halve the manpower required to reinforce buildings, while being 30 per cent cheaper than conventional materials. The material also withstands blasts, making it viable for use in protecting structures that provide essential services.

The research team is working to commercialise the technology, where JTC will identify suitable infrastructure projects to deploy FasRaP to accelerate its adoption and commercialisation.

Close up of FasRaP, a concrete pillar wrapped with FasRaP and a cracked bare concrete pillar.



NTU Research Associate Choon Jun Jie applying FasRaP onto a concrete pillar in minutes.

PARTNERSHIP WITH SAMWOH CORPORATION

Key Areas of Focus

- New Technologies
- Automation
- Sustainable Solutions

In March 2019, JTC and Samwoh Construction, a local construction company, signed a Memorandum of Understanding (MOU) to pursue research and development (R&D) activities in new technologies, automation, and sustainable solutions for the building and infrastructure sector. Under the agreement, JTC and Samwoh will collaborate and share resources, such as equipment, laboratories, facilities and manpower. There will be three research tracks – integrated digital delivery, productivity and automation, and sustainability and resilience.

PARTNERSHIP WITH SHIMIZU CORPORATION

Key Areas of Focus

- Integrated Digital Delivery
- Productivity
- Automation
- Environmental Sustainability

In April 2019, JTC signed an MOU with Shimizu Corporation, an architecture, civil engineering and general contracting firm in Japan, to pursue joint research and test-bedding in areas of integrated digital delivery, productivity, automation, environmental sustainability and resilience.

The key areas identified aim to reduce overall life-cycle costs, improve project productivity and safety, promote sustainability and construction material circularity, and increase resource resilience. They include exploring construction automation and robotics for building and infrastructure works to improve quality, safety, and efficiency by at least 50%; and facilities and estates management technologies, such as artificial intelligence, smart sensors or equipment, to improve labour productivity and sustainability by at least 20%.

PARTNERSHIP WITH KAJIMA CORPORATION

Key Areas of Focus

- Digitalisation
- Automation
- Sustainability & Resilience

In the same month, JTC signed an MOU with Kajima Corporation, one of the largest construction companies in Japan, to explore, collaborate and share resources to pursue joint research and development activities in areas such as digitalisation, automation, sustainability and resilience. The technologies and solutions from the collaboration will also be applied at JTC's and Kajima's projects, including Kajima's upcoming Singapore Corporate Building at Changi Business Park.

Both parties will jointly look into developing and testing various building designs and materials to improve the productivity of office workers in buildings and estates, as well as smart solution simulation to improve building and estate performance and reduce energy consumption by at least 10%.

Smart Facilities Management

SCRUB 50

As part of efforts to develop innovative solutions to manage JTC's buildings and estates in a more efficient and sustainable manner, JTC collaborated with WIS Holdings and Gaussian Robotics to develop Scrub 50, Singapore's first fully autonomous cleaning robot.

Equipped with laser detectors, a 3D-depth camera and ultrasonic sensors, the prototype is the first in Singapore to be able to autonomously navigate to its cleaning tasks at different floors using lifts, and return to its docking station. It is set to improve manpower deployment that will free up staff to focus on higher value duties such as supervision. The smart cleaning solution can also potentially help building managers sustainably optimise the use of natural resources such as energy and water.

The technology is currently test-bedded at JTC CleanTech One and The JTC Summit. Upon finalisation of the test-bed, JTC will scale up the pilot at the existing sites to test the integration of the autonomous cleaners to the buildings' existing cleaning regimes.

Scrub 50, Singapore's first fully autonomous cleaning solution co-developed by JTC, WIS Holdings and Gaussian Robotics.

H3 ZOOM

H3 Zoom Facade was co-developed by JTC and H3 Zoom.

JTC collaborated with H3 Zoom, a digital services platform under parent company H3 Dynamics, to develop a solution that integrates artificial intelligence, machine learning, visual analytics and drone technologies to conduct building facade inspections in a smarter, safer, more accurate and scalable way as compared to human inspections. The technology was developed following JTC's 2017 Open Innovation Call for sustainable building solutions.

Named the H3 Zoom Facade Inspector, the solution uses artificial intelligence to locate facade defects and anomalies, slashing the time taken for inspections from four to six weeks to a few days. Compared to conventional inspection methods, it reduces working hours by 71% and costs by 66%.

The solution was test-bedded at several JTC properties such as The JTC Summit and Fusionopolis, and will be deployed in JTC industrial parks in the coming year.

Industrial Property Statistics

J-SPACE

To promote greater transparency and accessibility of information for businesses and industrialists, JTC launched J-SPACE, an interactive statistics portal for Singapore's industrial property market.

Launched in August 2018, J-SPACE enables industrialists to access a wide range of market data relating to price, rental, industrial stock, occupancy rates and upcoming supply, as well as statistics relating to JTC's industrial spaces, such as allocations, supply, returns and occupancy rates. Users will also be able to find quarterly market reports published by JTC.

J-SPACE also allows customers to search for industrial properties suited to their specifications, and provides the function for them to create their own data tables and charts. J-SPACE is expected to be accessed by market analysts, as well as businesses looking for new industrial facilities. The platform is accessed by an average of 2,200 users each month.

FEATURES OF J-SPACE

Comprehensive Information Made Available

All Industrial Space in Singapore

- Prices & Rentals
- Stock & Occupancy Rates
- Upcoming Supply

JTC Industrial Land & Space

- Gross Allocations & Returns
- Supply & Total Allocated
- Occupancy Rates

New Features For Easy Information Searches

- Find similar developments and compare building specifications across specific areas
- Compare market data across locations and time periods
- Access wider range of data via Table & Chart Builder

Internal Work Processes

PROJECT MAPLE

To improve and streamline work processes, Project MAPLE, short for Making All Processes a Little Easier, was initiated to relook and simplify internal business processes related to lease and tenancy management.

The project aims to utilise digital technologies to leverage cross-agency data sharing and data analytics to segment JTC's customers and enable data-driven decisions. Straightforward transactions may be processed with minimal human intervention, while more complex transactions will be accorded greater attention.

The project has since been applied to processes such as direct allocations and tenancy renewals, and will be progressively rolled out to other lease and tenancy processes.

ACHIEVEMENTS IN 2019

Reduce the number of data entry fields required for direct allocation cases by
90%

Reduce time taken for processing of direct allocation cases by
50%

Reduce the amount of application information required from companies by
60%

TARGETS IN 2020

Improve data quality through system auto-fill and reduce input fields required for lease and tenancy processes by more than
60%

Automate more than 50% of all lease and tenancy-related transactions

Financial Highlights and Review

OVERVIEW

FINANCIAL RESULTS

JTC Group achieved a net surplus of $1.3 billion in FY2018.

The Group's operating revenue for FY2018 was $2.4 billion on account of higher contribution from Enterprise Cluster Group ("ECG") properties[1]. The property segment accounted for 89% of the Group's operating revenue while the remaining 7% and 4% came from port operations and other operating revenue respectively. In FY2018, the Group recorded $1.3 billion from non-operating income, which consists of mainly interest income, gains on disposals and transfer of raw materials.

During the year, the Group continued its effort to develop industry spaces and invested a total of $1.7 billion in capital expenditure for alienation of industrial land and development of building projects such as Bulim, Tuas, JTC Logistics Hub @ Gul, Punggol Digital District, and Defu Industrial City.

FINANCIAL POSITION

The Group's financial position remained healthy with $22.9 billion in equity. As at 31 March 2019, total assets stood at $29.2 billion. Investment properties, property, plant and equipment as well as other receivables accounted for 80% of total assets. Total liabilities were $6.3 billion with deferred income accounting for 78% of total liabilities.

[1] Enterprise Cluster Group refers to properties previously under HDB's Industrial Properties Group ("IPG") that was transferred to JTC on 1 January 2018. In FY2017, there was one quarter of ECG contribution (Jan 2018 to Mar 2018) as compared to the full year of ECG contribution in FY2018.

GROUP FINANCIAL HIGHLIGHTS

FINANCIAL HIGHLIGHTS

For the Year ($'Mil)	FY2018	FY2017	Change
Operating revenue	2,382	1,989	19.8%
Non-operating income	1,268	645	96.6%
Net surplus	1,266	944	34.1%
Capital expenditure	1,739	1,824	-4.7%

$1,266 MIL
NET SURPLUS

FINANCIAL POSITION

At Year End ($'Mil)	FY2018	FY2017	Change
Investment properties	18,599	17,941	3.7%
Total assets	29,190	27,102	7.7%
Total borrowings	507	428	18.5%
Total liabilities	6,286	5,469	14.9%
Total equity (excluding non-controlling interest)	22,881	21,615	5.9%

$22.9 BIL
TOTAL EQUITY

KEY FINANCIAL RATIOS

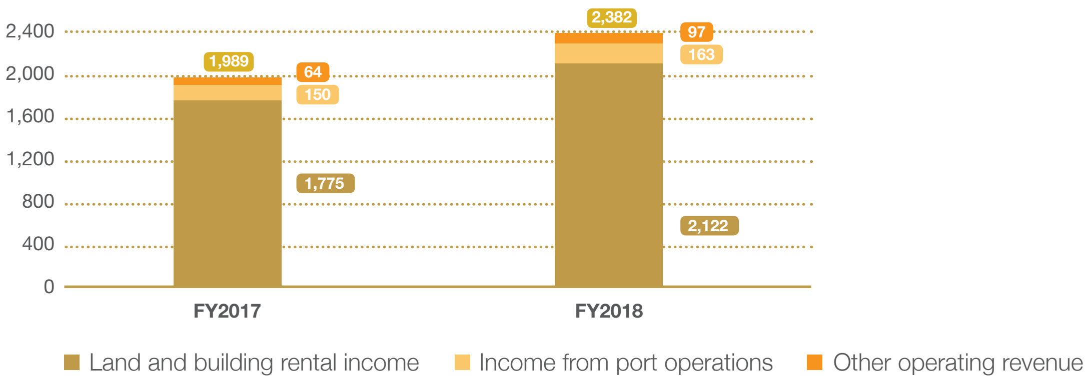
	FY2018	FY2017	Change
Debt-equity ratio (%)	2%	2%	0%
Interest coverage (times)	179	138	29.4%
Return on total assets (%)	4.5%	3.6%	0.9%
Return on capital employed (%)	5.6%	4.4%	1.2%
Value added per employee ($'Mil)	1.6	1.6	0%

5.6%
RETURN ON CAPITAL EMPLOYED

FINANCIAL REVIEW

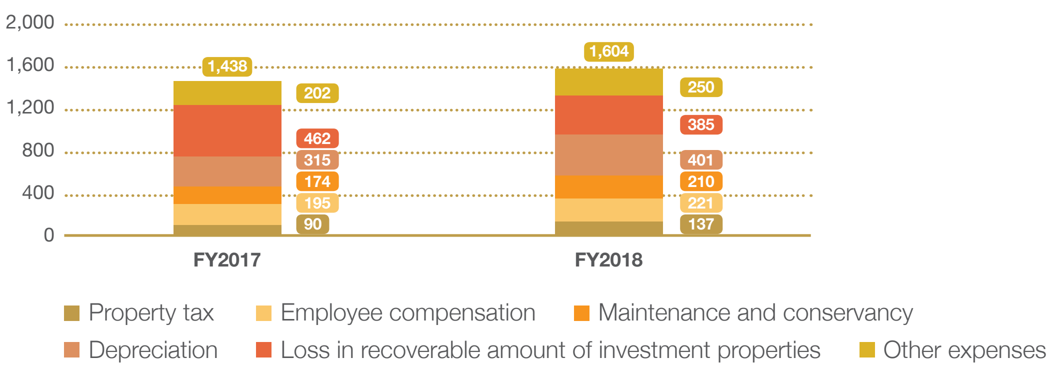
OPERATING REVENUE

DISTRIBUTION OF GROUP OPERATING REVENUE ($'Mil)



OPERATING EXPENSES

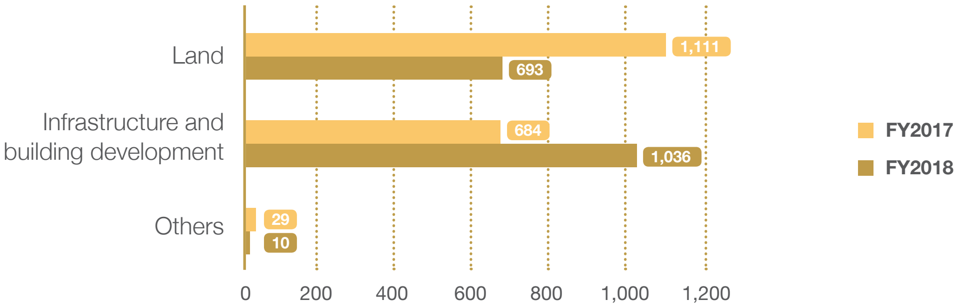
DISTRIBUTION OF GROUP OPERATING EXPENSES ($'Mil)



FINANCIAL REVIEW

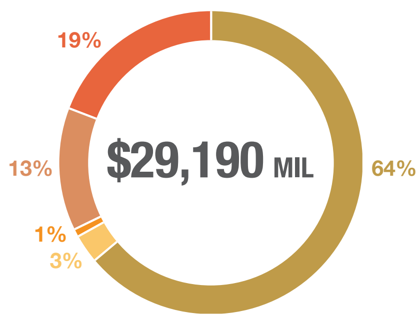
CAPITAL EXPENDITURE, ASSETS AND LIABILITIES

GROUP CAPITAL EXPENDITURE ($'Mil)



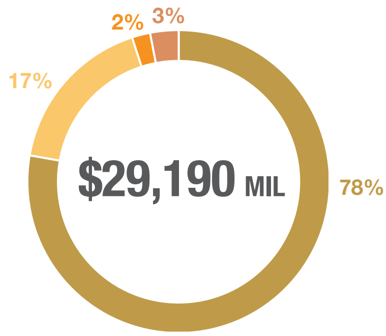
FY2018 TOTAL ASSETS

At Year End ($'Mil)	FY2018	FY2017	Change
Investment properties	18,599	17,941	3.7%
Property, plant and equipment	837	773	8.3%
Investment in associates and joint ventures	191	243	-21.4%
Cash and cash equivalents	3,874	2,655	45.9%
Other assets	5,689	5,490	3.6%
Total Assets	**29,190**	**27,102**	**7.7%**



FY2018 CAPITAL, RESERVES AND LIABILITIES

At Year End ($'Mil)	FY2018	FY2017	Change
Capital and reserves	22,904	21,633	5.9%
Deferred income	4,883	4,103	19.0%
Borrowings	507	428	18.5%
Other liabilities	896	938	-4.5%
Total Capital, Reserves and Liabilities	**29,190**	**27,102**	**7.7%**



Jurong Town Corporation and Subsidiaries

REPORT AND FINANCIAL STATEMENTS
YEAR ENDED 31 MARCH 2019

JURONG TOWN CORPORATION AND SUBSIDIARIES

REPORT AND FINANCIAL STATEMENTS

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JURONG TOWN CORPORATION AND SUBSIDIARIES

STATEMENT BY JURONG TOWN CORPORATION

In our opinion,

(a) the accompanying financial statements of Jurong Town Corporation (the "Corporation") and its subsidiaries (the "Group"), set out on pages 6 to 51 are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018, Act 5 of 2018 (the "Act") and Statutory Board Financial Reporting Standards ("SB-FRS") so as to present fairly, in all material respects, the financial position of the Group and the Corporation as at 31 March 2019, and the financial performance, changes in equity of the Group and the Corporation, and cash flows of the Group for the financial year ended on that date;

(b) the receipt, expenditure, investments of moneys and the acquisition and disposal of assets by the Corporation during the financial year are in accordance with the provisions of the Act, the Jurong Town Corporation Act (Cap. 150) and the requirements of any other written law applicable to moneys of or managed by the Corporation; and

(c) proper accounting and other records have been kept, including records of all assets of the Corporation and of those subsidiaries incorporated in Singapore, whether purchased, donated or otherwise.

On behalf of Jurong Town Corporation and subsidiaries

Tan Chong Meng	Ng Lang	Chee Wan Chin
Chairman	Chief Executive Officer	Group Chief Financial Officer

Singapore
27 May 2019

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF JURONG TOWN CORPORATION

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Jurong Town Corporation (the "Corporation") and its subsidiaries (the "Group") which comprise the consolidated statement of financial position of the Group and the statement of financial position of the Corporation as at 31 March 2019, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows of the Group and the statement of comprehensive income and statement of changes in equity of the Corporation for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 6 to 51.

In our opinion, the accompanying consolidated financial statements of the Group and the statement of financial position, statement of comprehensive income and statement of changes in equity of the Corporation are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018, Act 5 of 2018 (the "Act") and Statutory Board Financial Reporting Standards ("SB-FRS") so as to present fairly, in all material respects, the financial position of the Group and the Corporation as at 31 March 2019 and the financial performance and changes in equity of the Group and the Corporation and cash flows of the Group 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 Group 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 Financial Statements and Auditor's Report Thereon

Management is responsible for the other information. The other information comprises the Statement by Jurong Town Corporation set out on page 1, 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 express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information 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, 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.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF JURONG TOWN CORPORATION

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

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the provisions of the Act and SB-FRS, 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 Group'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 Group or for the Group to cease operations.

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

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 skepticism throughout the audit. We also:

(a) 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.

(b) 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 Group's internal control.

(c) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

(d) 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 Group'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 Group to cease to continue as a going concern.

(e) 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.

(f) Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group 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.

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 Corporation during the year are, in all material respects, in accordance with the provisions of the Act, the Jurong Town Corporation Act (Cap. 150) (the "JTC Act") and the requirements of any other written law applicable to moneys of or managed by the Corporation; and

(b) proper accounting and other records have been kept, including records of all assets of the Corporation and of those subsidiaries incorporated in Singapore of which we are the auditors, 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 Group 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, the JTC Act and the requirements of any other written law applicable to moneys of or managed by the Corporation. This responsibility includes monitoring related compliance requirements relevant to the Corporation, and implementing internal controls as management determines are necessary to enable compliance with the requirements.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF JURONG TOWN CORPORATION

Auditor's Responsibility 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, the JTC Act and the requirements of any other written law applicable to moneys of or managed by the Corporation.

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 Corporation's internal control. Because of the inherent limitations in any accounting and internal control system, non-compliances may nevertheless occur and not be detected.

Deloitte + Touche LLP

Public Accountants and
Chartered Accountants
Singapore

27 May 2019

JURONG TOWN CORPORATION AND SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME
Year ended 31 March 2019

	Note	The Group 2019	The Group 2018	The Corporation 2019	The Corporation 2018
		$ Millions	$ Millions	$ Millions	$ Millions
Income					
Revenue	4	2,382	1,989	2,191	1,808
Other income	5	1,268	645	1,260	654
		3,650	2,634	3,451	2,462
Expenditure					
Property tax		(137)	(90)	(132)	(86)
Maintenance and conservancy		(210)	(174)	(195)	(161)
Employee benefits expense	6	(221)	(195)	(152)	(129)
Depreciation of property, plant and equipment	16	(58)	(55)	(26)	(28)
Depreciation of investment properties	17	(343)	(260)	(343)	(260)
Loss in recoverable amount of investment properties	17	(385)	(462)	(385)	(462)
Finance costs	7	(13)	(14)	(13)	(14)
Other expenses	8	(754)	(238)	(701)	(188)
		(2,121)	(1,488)	(1,947)	(1,328)
Surplus before contribution to Consolidated Fund and taxation		1,529	1,146	1,504	1,134
Contribution to Consolidated Fund	9	(255)	(193)	(255)	(193)
Income tax	10	(8)	(9)	-	-
Surplus for the year		1,266	944	1,249	941
Other comprehensive income, net of tax					
Items that may be reclassified subsequently to income or expenditure:					
Currency translation reserve:					
- Exchange differences arising on translation of foreign operations		(3)	(2)	-	-
Total comprehensive income		1,263	942	1,249	941
Surplus for the year attributable to					
Equity holders of the Corporation		1,269	947	1,249	941
Non-controlling interests		(3)	(3)	-	-
		1,266	944	1,249	941
Total comprehensive income attributable to					
Equity holders of the Corporation		1,266	945	1,249	941
Non-controlling interests		(3)	(3)	-	-
		1,263	942	1,249	941

See accompanying notes to financial statements.

JURONG TOWN CORPORATION AND SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION
31 March 2019

	Note	The Group 2019	The Group 2018	The Corporation 2019	The Corporation 2018
		$ Millions	$ Millions	$ Millions	$ Millions
ASSETS					
Current assets					
Cash and cash equivalents	11	3,874	2,655	3,482	2,299
Trade receivables	12	48	80	33	64
Other receivables	13	3,798	322	3,768	309
Lease receivables	14	10	8	10	8
Raw materials		915	844	915	844
Total current assets		8,645	3,909	8,208	3,524
Non-current assets					
Property, plant and equipment	16	837	773	233	262
Investment properties	17	18,599	17,941	18,628	17,970
Investment in subsidiaries	18	-	-	716	716
Investment in joint ventures	19	191	243	-	-
Other receivables	13	-	3,372	-	3,372
Lease receivables	14	731	715	731	715
Other non-current assets	20	187	149	149	148
Total non-current assets		20,545	23,193	20,457	23,183
Total assets		29,190	27,102	28,665	26,707
LIABILITIES AND EQUITY					
Current liabilities					
Trade and other payables	21	612	717	536	643
Borrowings	22	21	18	19	18
Deferred income	23	205	182	205	182
Income tax payable		11	9	-	-
Provision for contribution to consolidated fund	9	255	193	255	193
Total current liabilities		1,104	1,119	1,015	1,036
Non-current liabilities					
Borrowings	22	486	410	392	410
Deferred income	23	4,678	3,921	4,803	4,055
Deferred tax liability	24	18	19	-	-
Total non-current liabilities		5,182	4,350	5,195	4,465
Capital and reserves					
Capital account	25	167	167	167	167
Currency translation reserve		(2)	1	-	-
Accumulated surplus		22,716	21,447	22,288	21,039
Equity attributable to owners of the company		22,881	21,615	22,455	21,206
Non-controlling interests		23	18	-	-
Total equity		22,904	21,633	22,455	21,206
Total liabilities and equity		29,190	27,102	28,665	26,707

See accompanying notes to financial statements.

JURONG TOWN CORPORATION AND SUBSIDIARIES

STATEMENTS OF CHANGES IN EQUITY
Year ended 31 March 2019

The Group	Capital account $ Millions	Currency translation reserve $ Millions	Accumulated surplus $ Millions	Equity attributable to equity holders $ Millions	Non-controlling interests $ Millions	Total equity $ Millions
Balance as at 1 April 2017	167	3	20,500	20,670	-	20,670
Surplus for the year	-	-	947	947	(3)	944
Exchange differences arising on translation of foreign operations, representing other comprehensive income for the year, net of tax	-	(2)	-	(2)	-	(2)
Total comprehensive income for the year	-	(2)	947	945	(3)	942
Capital contribution by non-controlling interests	-	-	-	-	21	21
Balance as at 31 March 2018	167	1	21,447	21,615	18	21,633
Surplus for the year	-	-	1,269	1,269	(3)	1,266
Exchange differences arising on translation of foreign operations, representing other comprehensive income for the year, net of tax	-	(3)	-	(3)	-	(3)
Total comprehensive income for the year	-	(3)	1,269	1,266	(3)	1,263
Capital contribution by non-controlling interests	-	-	-	-	8	8
Balance as at 31 March 2019	167	(2)	22,716	22,881	23	22,904

The Corporation	Capital account $ Millions	Accumulated surplus $ Millions	Total equity $ Millions
Balance as at 1 April 2017	167	20,098	20,265
Total surplus for the year, representing total comprehensive income for the year	-	941	941
Balance as at 31 March 2018	167	21,039	21,206
Total surplus for the year, representing total comprehensive income for the year	-	1,249	1,249
Balance as at 31 March 2019	167	22,288	22,455

See accompanying notes to financial statements.

JURONG TOWN CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS
Year ended 31 March 2019

	Note	The Group 2019 $ Millions	The Group 2018 $ Millions
Operating activities			
Surplus before contribution to consolidated fund and taxation		1,529	1,146
Adjustments for:			
Depreciation of property, plant and equipment	16	58	55
Depreciation of investment properties	17	343	260
Raw materials written down	8	29	36
Amortisation of long-term lease premium	23	(187)	(159)
Loss in recoverable amount of investment properties	17	385	462
Gain on disposal of investment properties	5	(484)	(439)
Loss on disposal of property, plant and equipment		1	8
Loss on disposal of joint venture		2	-
Allowance for impairment of receivables, net of reversal		7	(30)
Share of profit of joint ventures	5	(9)	(9)
Interest income	4, 5	(211)	(229)
Finance costs	7	13	14
Operating profit before working capital changes		1,476	1,115
Changes in working capital:			
Raw materials		(100)	(725)
Trade and other receivables		(35)	17
Trade and other payables		55	168
Cash generated from operations		1,396	575
Long-term lease premium received		809	251
Interest received		172	233
Interest paid		(16)	(13)
Contribution to Consolidated Fund paid		(193)	(217)
Income tax paid (net)		(6)	(6)
Net cash from operating activities		2,162	823
Investing activities			
Purchase of property, plant and equipment		(137)	(128)
Purchase of investment properties		(1,602)	(5,743)
Proceeds from disposal of property, plant and equipment and investment properties		532	491
Dividends received from joint ventures and financial assets		3	3
Purchase of redeemable preference shares		-	(10)
Loan to TJ Holdings (IV) Pte. Ltd.		(10)	(30)
Net cash used in investing activities		(1,214)	(5,417)
Financing activities			
Grants received from government		182	167
Capital contribution by non-controlling interest in a subsidiary		8	21
Redemption of non-interest bearing notes		-	(16)
Proceeds from borrowings		96	-
Repayment of borrowings		(17)	(15)
Net cash from financing activities		269	157
Net increase (decrease) in cash and cash equivalents		1,217	(4,437)
Cash and cash equivalents at beginning of year		2,649	7,086
Cash and cash equivalents at end of year	11	3,866	2,649

See accompanying notes to financial statements.

1 GENERAL

Jurong Town Corporation (the "Corporation") is established in the Republic of Singapore under the Jurong Town Corporation Act (Cap. 150) with its registered office at The JTC Summit, 8 Jurong Town Hall Road, Singapore 609434.

The principal activities of the Corporation are to develop and manage industrial estates in Singapore and to provide facilities to enhance the operations of industries. There have been no significant changes in the nature of these activities during the financial year.

In the previous financial year, the industrial properties from Housing and Development Board ("HDB") were transferred to the Corporation as disclosed in Note 15. The consolidation of all public sector industrial land and properties under a single government agency will enable the Government to better support industrialists, in particular small and medium enterprises, in their business growth.

The principal activities of the subsidiaries are set out in Note 18.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

2.1 Basis of preparation

The financial statements are prepared in accordance with the historical cost basis, except as disclosed in the accounting policies below, and are drawn up in accordance with the provisions of the Act, and Statutory Board Financial Reporting Standards ("SB-FRS"), including Interpretations of SB-FRS ("INT SB-FRS") and SB-FRS Guidance Notes.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability which market participants would take into account when pricing the asset or liability at the measurement date.

Fair value for measurement and/or disclosure purposes in the consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of SB-FRS 102 *Share-based Payment*, leasing transactions that are within the scope of SB-FRS 17 *Leases*, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in SB-FRS 2 Inventories or value in use in SB-FRS 36 *Impairment of Assets.*

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The preparation of financial statements in conformity with SB-FRS requires management to exercise its judgement in the process of applying the Group's accounting policies. It also requires the use of certain critical accounting estimates and assumptions. 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.

The financial statements are presented in Singapore Dollars ($) and all values in the tables are rounded to the nearest million ("$ Millions"), except when otherwise indicated.

2.2 Adoption of new and revised standards

On 1 April 2018, the Group adopted all the new and revised SB-FRSs, INT SB-FRS and SB-FRS Guidance Notes that are effective from that date and relevant to its operations. The adoption of these standards do not result in changes to the Group's accounting policies and has no material effect on the amounts reported for the current or prior years.

SB-FRS 109 *Financial Instruments*

SB-FRS 109 introduces new requirements for 1) the classification and measurement of financial assets and financial liabilities, 2) impairment of financial assets and 3) general hedge accounting. Details of these new requirements as well as their impact on the financial statements are described below.

The Group applied SB-FRS 109 with an initial application date of 1 April 2018. The Corporation has not restated the comparative information, which continues to be reported under SB-FRS 39. There is no material impact on adoption of SB-FRS 109.

(a) Classification and measurement of financial assets and financial liabilities

The Group has applied the requirements of SB-FRS 109 to instruments that have not been derecognised as at 1 April 2018 and has not applied the requirements to instruments that have already been derecognised as at 1 April 2018. The classification of financial assets is based on two criteria: the Group's business model for managing the assets and whether the instruments' contractual cash flows represent 'solely payments of principal and interest' on the principal amount outstanding. There are no changes in classification and measurement of the Group's financial assets and financial liabilities.

(b) 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 the Group 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 of the financial assets. It is no longer necessary for a credit event to have occurred before credit losses are recognised.

SB-FRS 115 *Revenue from Contracts with Customers*

SB-FRS 115 supersedes SB-FRS 18 *Revenue* and the related interpretations. SB-FRS 115 introduces a 5-step approach to revenue recognition. Far more prescriptive guidance has been added in SB-FRS 115 to deal with specific scenarios. There is no material impact on the Group's financial statements on adoption of SB-FRS 115.

2.3 Standards issued but not yet effective

At the date of authorisation of these financial statements, the following SB-FRS that is relevant to the Group was issued but not yet effective:

SB-FRS 116 *Leases*
(Effective for annual periods beginning on or after 1 April 2019)

SB-FRS 116 *Leases*

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 are recognised in respect of all leases (subject to limited exemptions 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 Group will adopt the standard when it becomes effective in financial year beginning 1 April 2019. Management has preliminarily assessed that there is no material impact on the Group's financial statements on adoption of SB-FRS 116.

The management anticipates that the adoption of the other SB-FRSs, INT SB-FRSs and amendments to SB-FRS Guidance Notes that were issued as at the date of authorisation of these financial statements but effective only in future periods will not have a material impact on the financial statements in the period of their initial adoption.

2.4 Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Corporation and entities (including special purpose entities) controlled by the Corporation (its subsidiary). Control is achieved when the Corporation:

- Has power over the investee;
- Is exposed, or has rights, to variable returns from its involvement with the investee; and
- Has the ability to use its power to affect its returns.

The Corporation reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

When the Corporation has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Corporation considers all relevant facts and circumstances in assessing whether or not the Corporation's voting rights in an investee are sufficient to give it power, including:

- The size of the Corporation's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- Potential voting rights held by the Corporation, other vote holders or other parties;
- Rights arising from other contractual arrangements; and
- Any additional facts and circumstances that indicate that the Corporation has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Consolidation of a subsidiary begins when the Corporation obtains control over the subsidiary and ceases when the Corporation loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Corporation gains control until the date when the Corporation ceases to control the subsidiary.

Income or expenditure and each component of other comprehensive income are attributed to the owners of the Corporation and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Corporation and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies.

Changes in the Group's ownership interests in existing subsidiaries

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Corporation.

When the Group loses control of a subsidiary, a gain or loss is recognised in income or expenditure and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to income or expenditure or transferred to another category of equity as specified/permitted by applicable SB-FRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under SB-FRS 109 *Financial Instruments*, when applicable, the cost on initial recognition of an investment in a joint venture.

In the Corporation's financial statements, investments in subsidiaries and joint ventures are carried at cost less any impairment in net recoverable value that has been recognised in income or expenditure.

Combination of entities or businesses under common control

The net assets of the combining entities or businesses are consolidated using the existing book values from the controlling party's perspective. The assets and liabilities of the acquired entity or business is recorded at the book value as stated in the financial statements of the controlling party. No amount is recognised as consideration for goodwill or in excess of the Corporation's interest in the net fair values of the identifiable assets, liabilities and contingent liabilities over cost at the time of common control combination. The financial information in the consolidated financial statements for the periods prior to the combination under common control are not restated. With respect to the transfer of the Industrial Properties Group ("IPG") from HDB in the previous financial year, pursuant to Jurong Town Corporation (Amendment) Act 2017 as disclosed in Note 15, the asset and liabilities were transferred at the transferor's carrying amounts.

2.5 Joint ventures

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results and assets and liabilities of joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment, or a portion thereof, is classified as held for sale, in which case it is accounted for in accordance with SB-FRS 105 *Non-current Assets Held for Sale and Discontinued Operations*. Under the equity method, an investment in a joint venture is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the joint venture. When the Group's share of losses of a joint venture exceeds the Group's interest in that joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the joint venture), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the joint venture.

An investment in a joint venture is accounted for using the equity method from the date on which the investee becomes a joint venture. On acquisition of the investment in a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in income or expenditure in the period in which the investment is acquired.

The requirements of SB-FRS 109 *Financial Instruments* are applied to determine whether it is necessary to recognise any impairment loss with respect to the Group's investment in a joint venture. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with SB-FRS 36 *Impairment of Assets* as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount, any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with SB-FRS 36 to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date when the investment ceases to be a joint venture, or when the investment is classified as held for sale. When the Group retains an interest in the former joint venture and the retained interest is a financial asset, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition in accordance with SB-FRS 109 *Financial Instruments*. The difference between the carrying amount of the joint venture at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the joint venture is included in the determination of the gain or loss on disposal of the joint venture. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that joint venture on the same basis as would be required if that joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in other comprehensive income by that joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to income or expenditure (as a reclassification adjustment) when the equity method is discontinued.

The Group continues to use the equity method when an investment in a joint venture becomes an investment in an associate. There is no remeasurement to fair value upon such changes in ownership interests.

When the Group reduces its ownership interest in a joint venture but the Group continues to use the equity method, the Group reclassifies to income or expenditure the proportion of the gain or loss that had previously been recognised in other comprehensive income relating to that reduction in ownership interest if that gain or loss would be reclassified to income or expenditure on the disposal of the related assets or liabilities.

When a Group entity transacts with a joint venture of the Group, profits and losses resulting from the transactions with the joint venture are recognised in the Group's consolidated financial statements only to the extent of interests in the joint venture that are not related to the Group.

2.6 Financial instruments

Financial assets and financial liabilities are recognised on the statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Financial assets

All financial assets are recognised and de-recognised on a trade date basis where the purchase or sale of an investment is under a contract whose terms require delivery of the investment within the timeframe established by the market concerned. All recognised financial assets are subsequently measured in their entirety at either amortised cost or fair value, depending on the classification of the financial assets.

Classification of financial assets

Debt instruments mainly comprise cash and bank balances and trade and other receivables that meet the following conditions are subsequently measured at amortised cost:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Amortised cost and effective interest method

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest income over the relevant period.

For financial instruments other than purchased or originated credit-impaired financial assets, the effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses, through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including expected credit losses, to the amortised cost of the debt instrument on initial recognition.

The amortised cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. On the other hand, the gross carrying amount of a financial asset is the amortised cost of a financial asset before adjusting for any loss allowance.

Interest is recognised using the effective interest method for debt instruments measured subsequently at amortised cost, except for short-term balances when the effect of discounting is immaterial.

Impairment of financial assets

The Group recognises a loss allowance for expected credit losses ("ECL") on trade and other receivables. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group applied the simplified approach permitted by SB-FRS 109 and recognises lifetime ECL for trade receivables and lease receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Group recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-months ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition instead of on evidence of a financial asset being credit-impaired at the reporting date or an actual default occurring.

Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-months ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

The Group considers a financial asset in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

Financial liabilities and equity instruments

Classification as debt or equity

Debt and equity instruments issued by a Group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by a Group entity are recognised at the proceeds received, net of direct issue costs.

Pursuant to the Finance Circular Minute ("FCM") No. 26/2008 on Capital Management Framework ("CMF"), equity injection from the Government is recorded as share capital.

Financial liabilities

All financial liabilities are subsequently measured at amortised cost using the effective interest method or at FVTPL.

Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss.

2.7 Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

The Group as lessor

Amounts due from lessees under finance leases are recognised as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease unless another systematic basis is more representative of the time pattern in which use benefit derived from the leased asset is diminished. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease income.

The Group as lessee

Assets held under finance leases are recognised as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly to income or expenditure, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the Group's general policy on borrowing costs (see below). Contingent rentals are recognised as expenses in the periods in which they are incurred.

Rentals payable under operating leases are charged to income or expense on a straight-line basis over the term of the relevant lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

2.8 Raw materials

Raw materials are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the raw materials to their present location and condition. Cost is calculated using the weighted average method. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution.

2.9 Property, plant and equipment

Measurement

All items of property, plant and equipment are initially recorded at cost. Subsequent to recognition, property, plant and equipment are measured at cost less accumulated depreciation and any accumulated impairment losses.

The cost of an item of property, plant and equipment 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, including borrowing costs incurred for the capital projects-in-progress. The projected cost of dismantlement, removal or restoration is also included as part of the cost of property, plant and equipment if the obligation for the dismantlement, removal or restoration is incurred as a consequence of acquiring or using the asset during that period.

Depreciation

The Group adopts the component approach to depreciation whereby the amount initially recognised in respect of an item of property, plant and equipment is allocated to its significant parts. Each significant part is depreciated separately if those parts have different useful lives.

Capital projects-in-progress are not depreciated. Depreciation on other items of property, plant and equipment is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

Leasehold land and land development	-	over the lease period up to 99 years
Wharf and base structures	-	over the lease period up to 40 years
Bulk handling facilities	-	3 to 15 years
Leasehold buildings	-	over the lease period up to 60 years
Social amenities	-	15 to 50 years
Computers, motor vehicles, furniture, equipment and renovation	-	1 to 20 years

The residual values, estimated useful lives and depreciation method are reviewed at each financial year-end, and adjusted prospectively, if appropriate. The effects of any revision of the residual values and useful lives are included in income or expenditure when the changes arise.

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 Group and the cost of the item can be measured reliably. All other repair and maintenance expenses are recognised in income or expenditure when incurred.

Derecognition

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on derecognition of the asset is included in income or expenditure in the year the asset is derecognised.

2.10 Investment properties

Investment properties comprise significant portions of leasehold land and freehold office buildings that are held for long-term rental yields and/or for capital appreciation.

Investment properties are initially measured at cost, including transaction costs.

Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and any accumulated impairment losses. Depreciation is calculated using a straight-line method to allocate the depreciable amounts over the estimated useful lives. The residual values, useful lives and depreciation method of investment properties are reviewed, and adjusted as appropriate, at the end of each reporting period. The effects of any revision are included in income or expenditure when the changes arise.

The Group adopts the component approach to depreciation whereby the amount initially recognised in respect of an item of investment properties is allocated to its significant parts. Each significant part is depreciated separately if those parts have different useful lives.

No depreciation is provided for 999 years leasehold land and freehold land.

Depreciation on other items of investment properties is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

Leasehold land and land development	-	over the lease period up to 99 years
Buildings	-	12 to 99 years
Social amenities	-	15 to 50 years
Wharf and base structures	-	50 years

Included in buildings are the following items which are depreciable over their estimated useful lives as follows:

Renovations and improvements	-	3 to 5 years
Plant, machinery and equipment	-	3 to 20 years
Air-cons, lifts and escalators	-	15 to 20 years

Transfers are made to or from investment properties only when there is a change in use. Any transfer between investment properties and owner-occupied properties does not result in any change in the cost for disclosure purpose as the Group and Corporation use the cost model.

Investment properties are subject to renovations or improvements at regular intervals. The cost of major renovations and improvements is capitalised as additions and the carrying amounts of the replaced components are written off to income or expenditure. The cost of maintenance, repairs and minor improvement is charged to income or expenditure when incurred.

On disposal of an investment property, the difference between the disposal proceeds and the carrying amount is recognised in income or expenditure.

2.11 Impairment of tangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately as an expense.

Where an impairment loss subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately as income.

2.12 Loss in recoverable amount of investment properties

The loss in recoverable amount represents the amount which the carrying value of the investment properties exceed their recoverable amounts. The recoverable amounts are determined principally using the estimated future cash flows expected to be generated by each investment property by reference to the Corporation's prevailing and estimated future posted rent rates, which are generally lower than the prevailing rent rates in the open market.

2.13 Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

2.14 Government grants

Government grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and the grants will be received. Government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred income in the statement of financial position and transferred to income or expenditure on a systematic and rational basis over the useful lives of the related assets.

Other government grants are recognised as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in income or expenses in the period in which they become receivable. Government grants that are utilised for the purchase or construction of non-current assets are deducted against the cost of such assets to calculate the carrying amount of the related assets.

2.15 Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Group recognises revenue when it transfers control of a product or service to a customer.

Rental income

The Group's policy for recognition of revenue from operating leases is described above.

Income from port operations

Revenue from port and marine services rendered is recognised over time when the company satisfies a performance obligation by transferring control of a service to the customer. The amount of revenue recognised is the amount of the transaction price allocated to each satisfied performance obligation. Transaction price is the amount of consideration in the contract to which the company expects to be entitled in exchange for transferring the promised services.

Agency fees

Agency fees from the provision of other consultancy services are recognised when the services are rendered, using the percentage of completion method based on the actual service provided as a proportion of the total services to be performed.

Interest income

Interest income, including income from finance lease and other financial instruments, is recognised using the effective interest method.

Dividend income

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

Income from transfer of raw materials

Income is recognised when control of the raw materials has transferred, being when the raw materials have been collected by the customer or delivered to the customer's specific location and all criteria for acceptance have been satisfied.

2.16 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in income or expenditure in the period in which they are incurred.

2.17 Retirement benefit obligations

Payments to defined contribution retirement benefit plans are charged as an expense when employees have rendered the services entitling them to the contributions. Payments made to state-managed retirement benefit schemes, such as the Singapore Central Provident Fund, are dealt with as payments to defined contribution plans where the Group's obligations under the plans are equivalent to those arising in a defined contribution retirement benefit plan.

2.18 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 end of the reporting period.

2.19 Contribution to Consolidated Fund

In lieu of income tax, the Corporation is required to make contribution to the Consolidated Fund in accordance with the Statutory Corporations (Contributions to Consolidated Fund) Act, Chapter 319A. The provision is based on the guidelines specified by the Ministry of Finance and is computed based on the net surplus of the Corporation for each of the financial year at the prevailing corporate tax rate for the Year of Assessment. Contribution to consolidated fund is provided for on an accrual basis.

2.20 Income tax

Income tax expense represents the sum of the tax currently payable and deferred tax of the subsidiaries of the Corporation.

The tax currently payable is based on taxable profit of the subsidiaries for the year. Taxable profit differs from profit as reported in the statement of comprehensive income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are not taxable or tax deductible. The Group's liability for current tax is calculated using tax rates (and tax laws) that have been enacted or substantively enacted in countries where the subsidiaries operate by the end of the reporting period.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised based on the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Current and deferred tax are recognised as an expense or income in the income or expenditure, except when they relate to items credited or debited outside income or expenditure (either in other comprehensive income or directly in equity), in which case the tax is also recognised outside income or expenditure (either in other comprehensive income or directly in equity respectively), or where they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in calculating goodwill or determining the excess of the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities over cost.

2.21 Cash and cash equivalents in the statement of cash flows

Cash and cash equivalents in the statement of cash flows comprise cash and bank balances and deposits placed with the Accountant-General's Department ("AGD") less restricted cash and are subject to an insignificant risk of changes in value.

Under the Accountant-General's Circular No.4/2009 dated 2 November 2009, the Corporation is required to participate in the Centralised Liquidity Management Framework ("CLM"). Under the CLM, all bank accounts maintained with selected banks will be linked up with AGD's bank accounts such that excess available cash can be automatically aggregated for central management on a daily basis. These balances are included in cash and cash equivalents as "Centralised Liquidity Management ("CLM") deposits held with Accountant-General's Department ("AGD").

3 CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in Note 2, management is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the entity's accounting policies

Apart from those involving estimations (see below), the management is of the opinion that any instances of application of judgements are not expected to have a significant effect on the amounts recognised in the financial statements.

Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

<u>Impairment review of property, plant and equipment and investment properties</u>

At the end of each reporting period, management assesses whether there is any indication that property, plant and equipment and investment properties have suffered an impairment loss or require a reversal of previous impairment losses.

In the assessment of impairment loss, the Group estimates recoverable amounts based on the lower of the fair value less cost to sell of the properties and value in use.

The fair values are determined using the income capitalisation method or direct comparison method. The income capitalisation method involves the estimation of income and expenses, taking into account expected future changes in economic and social conditions, which may affect the value of the properties. The direct comparison method involves the comparison of recent sales transactions of similar properties.

Management is of the view that the valuation methods and estimates are reflective of the current market conditions and adequate impairment losses, as disclosed in Notes 16 and 17 to the financial statements, have been made.

The carrying amounts of the Group's property, plant and equipment, and investment properties are disclosed in Notes 16 and 17 to the financial statements respectively.

Impairment review of investment in joint ventures

At the end of each reporting period, management reviews the carrying amount of the investment in joint venture for impairment by comparing the carrying amount with the recoverable amount (higher of value in use and fair value less costs to sell). The key assumptions used in determining the recoverable amount are those regarding discount rates, revenue growth, capital expenditures and working capital cycles as at the assessment date.

Management has considered the financial position and long-term business outlook of the joint ventures, including factors such as changes in overall economic and industry performance and related market risks as well as prospective financial information. This assessment is highly subjective in nature. Accordingly, actual outcome may be different from that forecasted since anticipated events frequently do not occur as expected and the variation may be material.

Management is of the view that adequate impairment losses have been made and the carrying amount of the investments in joint ventures, as disclosed in Note 19, do not exceed their respective recoverable amounts.

4 REVENUE

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Land rental income	1,331	1,268	1,322	1,257
Building rental income	791	507	776	490
Income from port operations	163	150	-	-
Agency fees	37	14	37	14
Interest income on finance leases	33	32	33	32
Sundry income	27	18	23	15
	2,382	1,989	2,191	1,808

5 OTHER INCOME

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Interest income from loans and receivables	178	197	171	193
Dividend income	-	-	10	18
Gain on disposal of investment properties	484	439	484	439
Share of profits of joint venture	9	9	-	-
Income from transfer of raw materials to other government agencies	587	-	587	-
Others	10	-	8	4
	1,268	645	1,260	654

6 EMPLOYEE BENEFITS EXPENSE

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Salaries and other employee compensation	199	175	137	116
Employer's contribution to defined contribution plans including Central Provident Fund	22	20	15	13
	221	195	152	129

The above include the remuneration of key management of the Group and Corporation as follows:

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Salaries and other employee compensation including employer's contribution to Central Provident Fund	11	9	7	6

The structure of Board members' fees is based on the guidelines provided by the Public Service Group. Total Directors' fees paid to the Board members of the Corporation amounted to $0.3 million (2018 : $0.2 million).

7 FINANCE COSTS

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Interest expense	13	14	13	14

8 OTHER EXPENSES

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Security service expenses	43	40	39	34
IT professional fees	27	27	27	27
Professional fees	19	22	18	20
Cargo and container handling expenses	40	31	-	-
Raw materials written down	29	36	29	36
Allowance for impairment of receivables	9	8	9	8
Cost of raw materials transferred	475	-	475	-
Other expenses	112	74	104	63
	754	238	701	188

9 CONTRIBUTION TO CONSOLIDATED FUND

In lieu of income tax, the Corporation is required to make contribution to the Consolidated Fund in accordance with the Statutory Corporations (Contributions to Consolidated Fund) Act, Chapter 319A. The provision is based on the guidelines specified by the Ministry of Finance and is computed based on the net surplus of the Corporation for each of the financial year at the prevailing corporate tax rate for the Year of Assessment. Contribution to Consolidated Fund is provided for on an accrual basis.

The total contribution for the year can be reconciled to the surplus as follows:

	The Corporation	
	2019	2018
	$ Millions	$ Millions
Surplus of the Corporation before contribution to Consolidated Fund	1,504	1,134
Contribution at 17%	255	193

10 INCOME TAX

	The Group	
	2019	2018
	$ Millions	$ Millions
Current	9	6
Deferred tax (Note 24)	(1)	3
	8	9

Domestic income tax of the Corporation is calculated at 17% (2018 : 17%) of the estimated assessable income for the year. Taxation for other jurisdictions is calculated at the rates prevailing in the relevant jurisdictions.

The charge for the year can be reconciled to the accounting surplus as follows:

	The Group	
	2019	2018
	$ Millions	$ Millions
Surplus before contribution to Consolidated Fund and taxation	1,529	1,146
Less: Surplus of the Corporation before contribution to Consolidated Fund and taxation not subjected to tax	(1,504)	(1,134)
	25	12
Income tax expense at statutory tax rate of 17% (2018 : 17%)	4	2
Expenses not deductible for tax purposes	3	6
Share of profit of joint ventures	(2)	(2)
Others	3	3
Total income tax expense	8	9

11 CASH AND CASH EQUIVALENTS

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Cash at bank and on hand	33	104	20	71
Cash with AGD	3,462	2,228	3,462	2,228
Fixed deposits	379	323	-	-
Cash and bank balances	3,874	2,655	3,482	2,299
Less: Restricted cash	(8)	(6)	(8)	(6)
Cash and cash equivalents in the statement of cash flows	3,866	2,649	3,474	2,293

Cash at bank earns interest at floating rates based on daily bank deposit rates. Fixed deposits earn interest at the respective short-term deposit rates. The range of effective interest rates as at 31 March 2019 for the Group was 1.44% to 2.01% (2018 : 1.04% to 1.35%) per annum.

Cash with the Accountant-General's Department ("AGD") refers to cash that are managed by AGD under the Centralised Liquidity Management Scheme as set out in the Accountant-General's Circular No.4/2009.

Restricted cash under the Group's cash and cash equivalents of $8 million (2018 : $6 million) were held under project accounts and withdrawals from which are restricted to payments for expenditure incurred on projects.

12 TRADE RECEIVABLES

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Outside parties	61	88	46	72
Amounts owing by government agencies	-	5	-	5
Allowance for doubtful receivables:				
Balance at beginning of year	(13)	(49)	(13)	(49)
Allowance for the year	(9)	(8)	(9)	(8)
Reversal of allowance	2	38	2	38
Bad debts written off	7	6	7	6
Balance at end of year	(13)	(13)	(13)	(13)
	48	80	33	64

Allowance for doubtful receivables has been measured at an amount equal to expected credit losses. Apart from the above, no impairment allowance is necessary in respect of the remaining trade receivables after taking into account the historical default experience in which the debtors operate, together with the value of deposits and bank guarantees.

There has been no significant change in the estimation techniques or significant assumptions made during the current reporting period.

The following is an aging analysis of trade receivables:

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Not past due	31	60	16	44
Less than 3 months	8	6	8	6
3 to 6 months	5	5	5	5
More than 6 months	4	9	4	9
	48	80	33	64

13 OTHER RECEIVABLES

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Outside parties	261	241	244	239
Less: Impairment loss	(105)	(95)	(105)	(95)
	156	146	139	144
Prepayment of property tax	96	88	96	88
Debt securities	3,372	3,372	3,372	3,372
Amounts owing by:				
- Government agencies	162	79	160	76
- Others	12	9	1	1
	3,798	3,694	3,768	3,681
Represented by:				
Current portion	3,798	322	3,768	309
Non-current portion	-	3,372	-	3,372
	3,798	3,694	3,768	3,681

Amounts owing by government agencies are unsecured, interest free and repayable on demand in cash.

The debt securities include:

(i) $490,000 shareholding in TJ Holdings (III) Pte. Ltd. ("TJ3") which has been classified as other receivables as the Corporation does not have the power, rights to economic participation (variable returns) and the ability to influence the amount of returns.

In January 2019, a subsidiary of TJ3, entered into a sale and purchase agreement with CapitaLand Limited ("CL") to sell the entire issued share capital of Ascendas Pte Ltd ("APL") and Singbridge Pte. Ltd. ("SBL") to CL ("The Transaction"). The Transaction is subjected to relevant regulatory approvals and is expected to be completed by 3Q calendar year ending 2019 ("Closing Date").

On or prior to the completion of The Transaction, the Corporation will dispose of its shareholding in TJ3 for a consideration of $490,000. The disposal is expected to be completed by the Closing Date, as such $490,000 has been classified as current portion of other receivables.

(ii) In June 2015, the Corporation disposed of its interest in APL and Jurong International Holdings Pte Ltd ("disposal group"). Debt securities of $3,544 million was received as consideration for the disposal group with a fixed coupon rate of 3.5% per annum and mature in June 2025.

As part of the consideration, the Corporation will also be entitled to 40% of the capital gains in the value of the properties and investments held by APL as at June 2015, net of any capital losses.

Following the redemption of $72 million of the debt securities by Surbana Jurong Private Limited ("SJ") on 31 May 2016, the balance of debt securities is $3,472 million as at the end of the financial year.

In January 2016, the Corporation issued Total Return Securities ("TRS") to a financial institution for a principal amount of $100 million. The issuance was settled in cash. The tenure, interest and principal repayment terms of the TRS are referenced to a proportion of the debt securities issued as consideration for the disposal group. The Corporation will repay the relevant proportion of any recovered amount of principal and interest it has received from the issuer of the debt securities to the financial institution in connection with a default event. The financial institution has no recourse over the Corporation on any unrecovered amounts should the issuer of the debt securities default on repayment.

The Corporation will tender the debt securities of $3,472 million for redemption on or prior to the completion of The Transaction as referred to in (i) above. In the event the debt securities are redeemed, the Corporation will redeem the $100 million TRS from the financial institution. The redemptions are expected to be completed by the Closing Date. As such, the debt securities of $3,372 million (net) is classified as current portion of other receivables.

Following the redemption, 40% of the capital gains in the value of the transferred properties and investments held by APL, net of any capital losses, will be paid out to the Corporation. As The Transaction is subjected to relevant regulatory approvals, the capital gains, which will be based on valuations to be agreed between the parties, have not been recognised in the financial statements.

(iii) The $15 million loan to a subsidiary, which was disposed as part of the disposal group classified as held for sale, was converted to RPS in TJ Holdings (IV) Pte. Ltd. ("TJ4") during the financial year ended 31 March 2016.

In February 2015, the Corporation had given a commitment to SJ, to subscribe up to $50 million in RPS in TJ4, to be paid upon the occurrence of certain events. The RPS in TJ4 held by the Corporation as at the end of the current financial year is $65 million (2018 : $65 million).

In March 2017, the Corporation had committed to extend a loan of $64 million to TJ4, subject to the execution of the loan agreement. Management has performed an impairment assessment and made full provision for the RPS and loan commitment in 2017.

14 LEASE RECEIVABLES

	The Group and Corporation	
	2019	2018
	$ Millions	$ Millions
Represented by:		
Current portion	10	8
Non-current portion	731	715
Total	741	723

These relate principally to rental receivable in respect of finance leases. Outstanding payments from lease receivables range from 140 to 417 months (2018 : 152 to 429 months). The discount rates implicit in the finance lease ranges from 2.56% to 5.5% (2018 : 2.56% to 5.5%) per annum.

Future minimum receivables under the lease agreements together with the present value of the net minimum receivables are as follows:

	The Group and Corporation			
	Minimum lease receivables		Present value of receivables	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Within 1 year	43	40	42	39
Within 2 to 5 years	182	172	159	149
More than 5 years	1,068	1,088	540	535
Total minimum lease receivables	1,293	1,300	741	723
Less: Unearned finance income	(552)	(577)	-	-
Present value of minimum lease payments receivable	741	723	741	723

The loss allowance on finance lease receivables at the end of the reporting period is estimated at an amount equal to lifetime expected credit losses. None of the finance lease receivables at the end of the reporting period is past due, and taking into account the historical default experience in which the lessees operate, together with the value of deposits and bank guarantees held over these finance lease receivables, the Group considers that no finance lease receivables is impaired.

There has been no change in the estimation techniques or significant assumptions made during the current reporting period in assessing the loss allowance for finance lease receivables.

15 TRANSFER OF INDUSTRIAL PROPERTIES FROM HOUSING AND DEVELOPMENT BOARD ("HDB")

The Jurong Town Corporation (Amendment) Act 2017 in relation to the transfer of the Industrial Properties Group ("IPG") from HDB was passed by the Parliament on 11 September 2017 and assented to by the President on 3 October 2017.

The relevant assets and liabilities of IPG were transferred on 1 January 2018 at their respective carrying amounts for cash consideration of $3,972 million.

The assets acquired and liabilities assumed by the Corporation are as follows:

	Total
	$ Millions
ASSETS	
Current assets	
Trade and other receivables, representing total current assets	19
Non-current assets	
Investment properties, representing total non-current assets	4,207
Total assets	4,226
LIABILITIES	
Current liabilities	
Trade and other payables, representing total current liabilities	254
Net assets acquired and liabilities assumed	3,972

NOTES TO FINANCIAL STATEMENTS
31 March 2019

16 PROPERTY, PLANT AND EQUIPMENT

	Freehold land	Leasehold land	Land development	Wharf and base structures	Bulk handling facilities	Leasehold buildings	Social amenities	Other assets #	Capital projects-in-progress	Total
	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
The Group										
Cost:										
At 1 April 2017	59	89	39	492	123	224	5	108	25	1,164
Additions	-	-	-	-	-	-	-	7	121	128
Disposals/Write-offs	-	-	-	(14)	-	(1)	-	(9)	-	(24)
Transfer (to) from investment properties (Note 17)	-	-	-	-	-	(2)	-	1	(1)	(2)
Transfers/Reclassifications	-	3	-	15	3	4	-	13	(38)	-
At 31 March 2018	59	92	39	493	126	225	5	120	107	1,266
Additions	-	-	-	-	-	-	-	6	131	137
Disposals/Write-offs	-	-	-	(2)	-	-	-	(5)	-	(7)
Transfer (to) from investment properties (Note 17)	(8)	(5)	-	-	-	(14)	-	15	(3)	(15)
Transfers/Reclassifications	-	-	-	2	33	(2)	-	25	(58)	-
At 31 March 2019	51	87	39	493	159	209	5	161	177	1,381

	Freehold land	Leasehold land	Land development	Wharf and base structures	Bulk handling facilities	Leasehold buildings	Social amenities	Other assets #	Capital projects-in-progress	Total
	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
The Group										
Accumulated depreciation:										
At 1 April 2017	-	8	1	227	87	48	3	75	-	449
Depreciation charge	-	-	-	16	4	12	-	23	-	55
Disposals/Write-offs	-	-	-	(7)	-	-	-	(2)	-	(9)
Transfer (to) from investment properties (Note 17)	-	-	-	-	-	(2)	-	-	-	(2)
At 31 March 2018	-	8	1	236	91	58	3	96	-	493
Depreciation charge	-	1	-	16	7	11	-	23	-	58
Disposals/Write-offs	-	1	(1)	(1)	-	-	-	(6)	-	(7)
Transfer (to) from investment properties (Note 17)	-	(1)	-	-	-	(6)	-	7	-	-
At 31 March 2019	-	9	-	251	98	63	3	120	-	544
Carrying amount:										
At 31 March 2019	51	78	39	242	61	146	2	41	177	837
At 31 March 2018	59	84	38	257	35	167	2	24	107	773

\# Other assets include computers, motor vehicles, furniture, equipment and renovation.

JURONG TOWN CORPORATION AND SUBSIDIARIES

NOTES TO FINANCIAL STATEMENTS
31 March 2019

	Freehold land	Leasehold land	Land development	Leasehold buildings	Social amenities	Other assets	Capital projects-in-progress	Total
	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
The Corporation								
Cost:								
At 1 April 2017	73	52	2	177	4	70	3	381
Additions	-	-	-	-	-	4	31	35
Disposals/Write-off	-	-	-	-	-	(8)	-	(8)
Transfer (to) from investment properties (Note 17)	-	-	-	(2)	-	1	(1)	(2)
Transfers/Reclassifications	-	-	-	4	-	12	(16)	-
At 31 March 2018	73	52	2	179	4	79	17	406
Additions	-	-	-	-	-	5	5	10
Disposals/Write-off	-	-	-	-	-	(5)	-	(5)
Transfer (to) from investment properties (Note 17)	(8)	(6)	-	(14)	-	15	(2)	(15)
Transfers/Reclassifications	-	-	-	(3)	-	23	(18)	2
At 31 March 2019	65	46	2	162	4	117	2	398

	Freehold land	Leasehold land	Land development	Leasehold buildings	Social amenities	Other assets	Capital projects-in-progress	Total
	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
The Corporation								
Accumulated depreciation:								
At 1 April 2017	-	10	-	59	3	47	-	119
Depreciation charge	-	1	-	9	-	18	-	28
Disposals/Write-off	-	-	-	-	-	(1)	-	(1)
Transfer (to) from investment properties (Note 17)	-	-	-	(2)	-	-	-	(2)
At 31 March 2018	-	11	-	66	3	64	-	144
Depreciation charge	-	-	-	7	-	19	-	26
Disposals/Write-off	-	-	-	-	-	(5)	-	(5)
Transfer (to) from investment properties (Note 17)	-	(1)	-	(6)	-	7	-	-
At 31 March 2019	-	10	-	67	3	85	-	165
Carrying amount:								
At 31 March 2019	65	36	2	95	1	32	2	233
At 31 March 2018	73	41	2	113	1	15	17	262

17 INVESTMENT PROPERTIES

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Cost:				
Balance at beginning of year	26,753	19,553	26,750	19,550
Additions	1,420	1,536	1,420	1,536
Disposals/Write-offs	(64)	(68)	(64)	(68)
Transfer from HDB (Note 15)	-	5,730	-	5,730
Transfer from property, plant and equipment (Note 16)	15	2	15	2
Balance at end of year	28,124	26,753	28,121	26,750
Accumulated depreciation and loss in in recoverable amount of investment properties:				
Balance at beginning of year	8,812	6,588	8,780	6,556
Depreciation charge	343	260	343	260
Loss in recoverable amount	385	462	385	462
Disposals/Write-offs	(15)	(23)	(15)	(23)
Transfer from HDB (Note 15)	-	1,523	-	1,523
Transfer from property, plant and equipment (Note 16)	-	2	-	2
Balance at end of year	9,525	8,812	9,493	8,780
Carrying amount	18,599	17,941	18,628	17,970

The fair values of the investment properties are as follows:

	The Group	
	2019	2018
	$ Millions	$ Millions
Fair value (Level 3)	44,626	40,901

The fair values of the investment properties are determined annually by in-house professional valuers based on the properties' highest and best use, using the income method or direct comparison method as is appropriate to the nature of each property.

The following amounts are recognised in the statements of comprehensive income:

	The Group	
	2019	2018
	$ Millions	$ Millions
Rental income	2,089	1,738
Property tax and direct operating expenses arising from investment properties that generated rental income	(344)	(283)
Property tax and direct operating expenses arising from investment properties that did not generate rental income	(64)	(40)

18 INVESTMENT IN SUBSIDIARIES

	The Corporation 2019	The Corporation 2018
	$ Millions	$ Millions
Unquoted shares, at cost	716	716

Details of the Corporation's significant subsidiaries as at the end of the reporting period are as follows:

Direct subsidiaries	Principal activities	Country of incorporation/ place of business	Proportion of ownership interest and voting power held		Cost of investments	
			2019	2018	2019	2018
			%	%	$ Millions	$ Millions
Jurong Port Pte Ltd	Provision of port, marine and logistics services and facilities and investment holding	Singapore	100	100	683	683
SLI Holdings Pte. Ltd.	Investment holding	Singapore	100	100	33	33
					716	716

Indirect subsidiaries	Principal activities	Country of incorporation/ place of business	Class of shares	Effective interest held by the Group	
				2019	2018
				%	%
Subsidiaries of Jurong Port Pte Ltd ("JP")					
Jurong Port Rizhao Holding Pte. Ltd.	Investment holding	Singapore	Ordinary	100	100
Jurong Port Hainan Holding Pte. Ltd.	Investment holding	Singapore	Ordinary	100	100
Jurong Port Jakarta Holding Pte. Ltd.	Investment holding	Singapore	Ordinary	100	100
Jurong Port Singapore Holding Pte. Ltd.	Investment Holding	Singapore	Ordinary	100	100
Subsidiary of Jurong Port Jakarta Holding Pte. Ltd.					
Jurong Port Marunda Holding Pte. Ltd.	Investment Holding	Singapore	Ordinary	100	100
Subsidiary of Jurong Port Singapore Holding Pte. Ltd.					
Jurong Port Tank Terminals Pte Ltd	Owners and operator of storage facilities for petroleum products/gas/chemicals	Singapore	Ordinary	60	60

19 INVESTMENT IN JOINT VENTURES

	The Group 2019	The Group 2018
	$ Millions	$ Millions
Unquoted equity investments, at cost	178	225
Add:		
Share of post-acquisition accumulated profits, net of dividends received	16	23
Translation differences	(3)	1
Less:		
Allowance for impairment	-	(6)
	191	243

Details of the Group's joint ventures as at the end of the reporting period are as follows:

Joint ventures	Principal activities	Country of incorporation	Percentage of equity held by the Group 2019	Percentage of equity held by the Group 2018	Cost of investments 2019	Cost of investments 2018
			%	%	$ Millions	$ Millions
Joint venture of Jurong Port Rizhao Holding Pte. Ltd.						
Rizhao Jurong Ports Terminal Co. Ltd.	Provision of port, marine and logistics services	People's Republic of China	30	30	68	68
Joint venture of Jurong Hainan Holding Pte. Ltd.						
SDIC Jurong Yangpu Port Co. Ltd.	Provision of port, marine and logistics services	People's Republic of China	49	49	73	73
Joint venture of Jurong Port Marunda Holding Pte. Ltd.						
PT Pelabuhan Tegar Indonesia	Provision of port services	Indonesia	49	49	37	37
Joint venture of Jurong Port Jakarta Holding Pte. Ltd.						
Indo Port Holding Pte. Ltd.	Investment holding	Singapore	-	30	-	47
					178	225

The Group's investments in the joint ventures are equity-accounted for in the consolidated financial statements.

Summarised financial information in respect of the share of the Group's joint ventures is set out below:

	The Group	
	2019	2018
	$ Millions	$ Millions
Current assets	35	40
Non-current assets	191	206
	226	246
Current liabilities	35	19
Non-current liabilities	-	14
	35	33
Share of net assets	191	213
Revenue	55	55
Expenses	(46)	(46)
Net profit	9	9

20 OTHER NON-CURRENT ASSETS

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Loans to investee companies and third parties	6	6	3	3
Less: Allowance for impairment of loans to investee companies and third parties	(6)	(6)	(3)	(3)
Loans, net	-	-	-	-
Rent-free incentive	139	138	139	138
Others	48	11	10	10
	187	149	149	148

The carrying amounts of non-current assets approximate their fair values at the end of the reporting period.

21 TRADE AND OTHER PAYABLES

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Trade payables and accrued operating expenses	106	89	88	71
Other payables:				
- Capital expenditure	149	172	123	145
- Miscellaneous	46	56	32	42
Accrual for building development	66	102	66	102
Accrual for property tax	8	7	8	7
Interest payable on borrowings	18	21	18	21
Deposits, advance rentals and collections	152	213	140	203
Employees' short term unutilised leave and benefits	47	41	45	39
Amounts owing to government agencies	20	16	16	13
	612	717	536	643

22 BORROWINGS

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Unsecured term loans:				
- Current portion	21	18	19	18
- Non-current portion	486	410	392	410
	507	428	411	428

Unsecured term loans comprise:

- Loans of $411 million (2018 : $428 million), with fixed interest rates of 2.63% to 3.13% (2018 : 2.76% to 3.13%) per annum. The loans are repayable in semi-annual instalments between 1 year to 36 years.

- A loan of $96 million (2018 : Nil), with floating interest rates of 2.08% to 2.85% (2018 : Nil) per annum. The loan is repayable in semi-annual instalments between 1 year to 3 years.

23 DEFERRED INCOME

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Balance at beginning of year	4,103	3,774	4,237	3,915
Additions	967	488	966	488
Amortisation	(187)	(159)	(195)	(166)
Balance at end of year	4,883	4,103	5,008	4,237
Represented by:				
Current	205	182	205	182
Non-current	4,678	3,921	4,803	4,055
	4,883	4,103	5,008	4,237

Deferred income relates principally to premium received in advance and receivable in respect of operating leases and the amount is amortised to the statement of comprehensive income in accordance with the policy of the Group.

24 DEFERRED TAX LIABILITY

This arose mainly from the excess of net book value over tax written down value of plant and equipment at the end of the year.

25 CAPITAL ACCOUNT

	The Group and Corporation			
	2019	2018	2019	2018
	Number of ordinary shares		Amount	
	Million	Million	$ Millions	$ Millions
At beginning and end of year	110	110	167	167

The shares are held by the Ministry of Finance, a body incorporated by the Minister for Finance (Incorporation) Act.

All issued ordinary shares are fully paid. The shares carry neither voting rights nor par value.

26 COMMITMENTS

As at the end of the financial year, the Group and the Corporation have the following commitments:

Development and capital expenditure

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Amounts approved and contracted for	2,275	2,243	2,254	2,120

As lessor

Future minimum lease receivables under non-cancellable operating leases contracted for at the end of the reporting period but not recognised as assets, are analysed as follows:

	The Group	
	2019	2018
	$ Millions	$ Millions
Lease receivables due:		
- Within 1 year	26	10
- After 1 year but within 5 years	23	21
- After 5 years	30	29
	79	60

These are operating leases on leasehold land and buildings. The lease rentals are subject to yearly revision. The payments due are computed without the yearly revision as the quantum has not been determined.

27 RELATED PARTY TRANSACTIONS

For the purposes of these financial statements, related parties refer to subsidiaries, joint ventures, Ministries, Organ of States and other Statutory Boards. The transactions with Government-related entities other than Ministries, Organ of States, and other Statutory Boards, are not disclosed unless there are circumstances to indicate that these transactions are of interest to the readers of the financial statements.

Some of the Group's transactions and arrangements are with related parties and the effect of these on the basis determined between the parties is reflected in these financial statements. These balances are unsecured and non-interest bearing.

Other than as disclosed elsewhere in the financial statements, the following significant transactions took place between the Group and related parties during the financial year:

	The Group and Corporation	
	2019	2018
	$ Millions	$ Millions
The Corporation's transactions with:		
Singapore Land Authority:		
- Purchase of land	(624)	(890)
Agency for Science, Technology and Research:		
- Rental income and others	140	136
Ministry of Law:		
- Proceeds from return of land to Government	90	228
Land Transport Authority:		
- Proceeds from return of land to Government	225	65
Key Management Personnel:		
- Fees paid to Board members and firms in which Board members are directors	1	1

28 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL MANAGEMENT

(a) Categories of financial instruments

The following table sets out the financial instruments as at the end of the reporting period:

	The Group		The Corporation	
	2019	2018	2019	2018
	$ Millions	$ Millions	$ Millions	$ Millions
Financial assets				
At amortised cost	8,413	7,074	7,938	6,688
Financial liabilities				
At amortised cost	1,119	1,145	947	1,071

Financial risk management policies and objectives

The Group is exposed to financial risk arising from its operations which include foreign exchange risk, interest rate risk, credit risk and liquidity risk.

The risk management objective of the Group is to focus on minimising foreign exchange risk, interest rate risk, credit risk and liquidity risk. The companies within the Group set policies, strategies and mechanisms, which aim at effective management of these risks within their unique operating environment. The policies for managing each of these risks are discussed below.

There has been no change to the Group's exposure to these financial risks or the manner in which it manages and measures the risk.

(i) *Foreign exchange risk management*

The Group's operations are not exposed to significant foreign currency risk as its transactions, monetary assets and liabilities are predominantly denominated in Singapore dollars.

Foreign currency sensitivity analysis has not been presented as management do not expect any reasonable possible changes in foreign currency exchange rates to have a significant impact on the Group and the Corporation.

(ii) *Interest rate risk management*

The Group is exposed to interest rate risk on its cash balances placed with reputable financial institutions, and deposits held with AGD and borrowings.

The cash balances are mainly denominated in SGD. At 31 March 2019, if the SGD interest rate had increased/decreased by 0.5% (2018 : 0.5%) with all other variables including tax rate being held constant, the surplus for the year would have been higher/lower by $19 million (2018 : $13 million).

(iii) *Credit risk management*

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. In managing credit risk exposure, credit review and approval processes as well as monitoring mechanisms are applied. Except for other receivables arising from the debt securities received as consideration in relation to the disposal group (Note 13), there is no significant concentration of credit risk.

The Group's major classes of financial assets are cash and deposits with AGD, trade and other receivables and debt securities which have low risk of default. The maximum exposure to credit risk for each class of financial assets is the carrying amount of that class of financial instruments as presented on the statement of financial position.

(iv) *Liquidity risk management*

The Group maintains sufficient cash and cash equivalents, and internally generated cash flows to finance its activities.

Liquidity risk is managed by matching the payment and receipt cycle. The Group has sufficient cash from operations and credit lines to fund its capital investments and working capital requirements.

Liquidity risk analyses

The inclusion of information on non-derivative financial assets and liabilities is necessary in order to understand the Group's liquidity risk management as the Group's liquidity risk is managed on a net asset and liability basis. The tables below have been drawn up based on the undiscounted contractual maturities of the financial assets including interest that will be earned on those assets except where the Group anticipates that the cash flow will occur in a different period and financial liabilities based on the earliest date on which the Group can be required to pay. The adjustment column represents the possible future cash flows attributable to the instrument included in the maturity analysis which are not included in the carrying amount of the financial asset/liability on the statement of financial position.

	Weighted average effective interest rate	On demand or within 1 year	Within 2 to 5 years	More than 5 years	Adjustments	Total
	%	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
Group						
Financial assets						
2019						
Non-interest bearing	-	411	38	10	-	459
Finance lease receivables (fixed rate)	4.03	43	182	1,068	(552)	741
Variable interest rate instruments	-	3,462	-	-	-	3,462
Fixed interest rate instruments	3.34	3,751	-	-	-	3,751
		7,667	220	1,078	(552)	8,413
2018						
Non-interest bearing	-	417	-	11	-	428
Finance lease receivables (fixed rate)	4.03	40	171	1,088	(576)	723
Variable interest rate instruments	-	2,228	-	-	-	2,228
Fixed interest rate instruments	3.31	441	472	3,631	(849)	3,695
		3,126	643	4,730	(1,425)	7,074

	Weighted average effective interest rate	On demand or within 1 year	Within 2 to 5 years	More than 5 years	Adjustments	Total
	%	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
Group						
Financial liabilities						
2019						
Non-interest bearing	-	612	-	-	-	612
Variable interest rate instrument	2.45	4	100	-	(8)	96
Fixed interest rate instruments	2.96	32	130	419	(170)	411
		648	230	419	(178)	1,119
2018						
Non-interest bearing	-	717	-	-	-	717
Fixed interest rate instruments	2.96	33	125	455	(185)	428
		750	125	455	(185)	1,145
Corporation						
Financial assets						
2019						
Non-interest bearing	-	353	-	10	-	363
Finance lease receivables (fixed rate)	4.03	43	182	1,068	(552)	741
Variable interest rate instruments	-	3,462	-	-	-	3,462
Fixed interest rate instruments	3.50	3,372	-	-	-	3,372
		7,230	182	1,078	(552)	7,938
2018						
Non-interest bearing	-	354	-	11	-	365
Finance lease receivables (fixed rate)	4.03	40	171	1,088	(576)	723
Variable interest rate instruments	-	2,228	-	-	-	2,228
Fixed interest rate instruments	3.50	118	472	3,631	(849)	3,372
		2,740	643	4,730	(1,425)	6,688

	Weighted average effective interest rate	On demand or within 1 year	Within 2 to 5 years	More than 5 years	Adjustments	Total
	%	$ Millions	$ Millions	$ Millions	$ Millions	$ Millions
Corporation						
Financial liabilities						
2019						
Non-interest bearing	-	536	-	-	-	536
Fixed interest rate instruments	2.96	32	130	419	(170)	411
		568	130	419	(170)	947
2018						
Non-interest bearing	-	643	-	1	-	644
Fixed interest rate instruments	2.96	32	125	455	(185)	427
		675	125	456	(185)	1,071

(v) *Fair value of financial assets and financial liabilities*

The carrying amounts of financial assets and financial liabilities as reported on the statement of financial position approximate their respective fair values due to the relatively short-term maturity of these financial instruments. The fair values of other classes of financial assets and liabilities are disclosed in the respective notes.

(b) Capital management policies and objectives

The Group manages its capital to ensure that it will be able to continue as a going concern while fulfilling its objective as a statutory board.

The capital structure of the Group consists of accumulated surplus and capital account. The overall strategy of the Group remains unchanged from the previous financial year.

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Jurong Port

RELY ON US

Steering Towards a Next Generation Multipurpose Port

FY2018 was Jurong Port's (JP) first full year as operator. Since completing the first phase of transformation in FY2017 from being a landlord to a full-fledged port operator, we are now directly responsible for more than 90% of cargoes flowing through JP, compared to less than 50% pre-2015. As a port operator, JP now envisions itself as a Next Generation Multipurpose Port (NGMPP) that looks to create value for the diverse industry verticals which depend on JP's services.

In order to drive our progress towards the NGMPP vision, JP will focus on three Strategic Initiatives:

1 **WATERFRONT TRANSFORMATION**

2 **BUSINESS GROWTH**

3 **TECHNOLOGY DEVELOPMENT**

Going forward, JP's approach is to fulfil its role as a strategic national asset to create value for all stakeholders and industry clusters. The growth of new businesses that can tap on JP as a maritime gateway is part and parcel of our mission to ensure efficiency, and this will also reinforce Singapore's maritime hub status.

Building Port-Centric Eco-systems and Business Growth

Our new businesses are targeted at creating customised port-centric solutions with digital collaborative platforms to improve efficiency, information flow and to stay competitive with the continuous advancements in technological capabilities, while building up port-centric ecosystems that can unlock and create value in landward and seaward supply chains for industry clusters, maritime and port services.

In FY2018, JP made significant headway in creating port-centric eco-systems as well as pursuing our growth initiatives. The completion of Phase 1 of Jurong Port Tank Terminals, which has been fully taken up by PetroChina, creates an avenue for us to play a meaningful role in the oil and gas supply chain as we now contribute to the petrochemicals and clean petroleum products storage business. Similarly, JP has been busy engaging stakeholders and has developed plans to build a Ready Mix Concrete Ecosystem. We are also looking to play a key role further upstream and downstream in the construction, energy and project logistics verticals.

Singapore's maritime industry is currently navigating through choppy waters caused by global trade uncertainty, rapid technological changes, and challenging economic conditions in both traditional shipping and the offshore oil and gas markets as a result of supply chain and capacity adjustments. It is thus imperative that JP continues to develop innovative solutions to work more efficiently, and capitalise on the opportunities available for greater automation.

JP plans to become a smart and connected port with digital innovation at its core. By embarking on new digitalisation solutions such as smart wearables, and digital dashboards, JP will be able to introduce more technology to optimise port activities in the near future. These initiatives will lead to an increase in the level of equipment mechanisation, automation and productivity, which then benefits the port users.

Industry Recognition and Accolades

Additionally, as a testament to JP's transformative efforts over the past three years, we were also accorded the Terminal Operator of the Year award in the Lloyds List Asia Pacific Awards 2018. Some key areas of evaluation covered include operational efficiency, customer service, strong safety, training and environmental records. We are honoured that the industry has shown its support for our transformation efforts and we will strive to maintain high standards and deliver value to our customers.

Core Competencies

BULK CARGO (CEMENT) HANDLING PRODUCTIVITY

▲6% 609 TPH (FY18)

The higher cargo handling rate measures in Tonnes Per Hour (TPH) is a result of our ongoing efforts to improve cement productivity through various initiatives which include active monitoring of operators' performance and continuous training, and the implementation of dual unloading operations.

GENERAL CARGO (STEEL) HANDLING PRODUCTIVITY

▲5% 286 TPH (FY18)

The steel productivity improvements were attributed to the larger volumes of steel per vessel, coupled with good planning to ensure optimal deployment of workforce on every steel vessel.

OPERATIONAL SAFETY

52% REDUCTION IN ACCIDENT FREQUENCY RATE (AFR)

3.07 to 1.42

PER MILLION MANHOURS OVER THE COURSE OF FY18

AFR is considerably lower than FY17's performance due to the ongoing efforts to engage stevedores to educate and heighten safety awareness coupled with strict enforcement measures. Key initiatives included the introduction of the Safety Incentive Scheme which incorporates the concept of rewards to drive positive safety behaviour in port workers, and the Safety Promotion Programme which aims to instil a stronger safety culture, while promoting strong lines of communications between all employees regarding pertinent safety issues.

PORT SECURITY

Key initiatives that were concluded in FY18 includes the completion of a new Integrated Command Center, and Phase 2 of the perimeter fence upgrading with the installation of a new Fence Intrusion System for Pulau Damar Laut (PDL) following the completion of Phase 1 for JP's mainland perimeter in FY17. JP has also completed the renewal and installation of CCTVs on mainland and will embark on similar plans for PDL to provide better coverage in supporting Security, Operations and Safety.

Local Growth

OVERALL VOLUMES

NO CHANGE

14 MILLION TONNES (FY18)

Despite the uncertain trade outlook, throughput in FY18 was maintained at 14 million tonnes (no change from FY17). An increase in steel throughput was offset by a decrease in cement and liquid bulk volumes.

GENERAL CARGO

▲**2.4%** **6.3** MILLION TONNES (FY18)

Steel throughput for FY18 grew 11% YoY. The increase was led by the growth in transshipment steel.

BULK CARGO

▼**3.0%** **6.6** MILLION TONNES (FY18)

Cement throughput for FY18 was largely flat (-1.7%) compared to FY17. This reflects the flat growth in Singapore's construction activities (i.e. Singapore construction output grew by 0.6% over the same period).

CONTAINERS

▼**5.5%** **294,000** TEUs (FY18)

Lower numbers in FY18 due to a slight dip in regional container volumes for key customers.

OFFSHORE MARINE CENTRE (OMC) AND LIGHTER TERMINALS

▲**9.5%** **1** MILLION TONNES (FY18)

Lighter Terminals outperformed in line with strengthening demand for ship supplies due to increased vessel calls to Singapore.

COMMENCEMENT OF OPERATIONS AT JURONG PORT TANK TERMINALS (JPTT)

Phase 1 of JPTT received a 100% take-up from PetroChina, and the tank terminal received its first oil cargo on 17 March 2019. With the completion of Phase 1, and its successful inaugural operation, JP now directly contributes to the energy and chemicals hub status of Singapore with its state-of-the-art facilities. JPTT's pipeline connection to Jurong Island's petrochemical network not only reduces its customers' operational time and risks, but also lowers the cost of transferring products between other terminals, plants or refineries on Jurong Island as the pipeline would obviate the need for customers to charter vessels and pay for double-handling for such transfers. With effect from 1 July 2019, JPTT is certified under S&P Global Platts as a loading point in the Singapore Market on Close (MOC) assessment process for gasoline. This is testament to JPTT's attainment of the stringent industry standards achieved by Singapore's tank terminal facilities.

READY MIX CONCRETE (RMC) ECOSYSTEM TO SERVE CONSTRUCTION INDUSTRY

JP received approval from JTC to invest in the construction and operation of the Ready Mix Concrete (RMC) Ecosystem Project. Apart from enabling more intensified land use (resulting in expected land savings of about 20 hectares in the South West Region of Singapore), the Project will also see a reduction of more than 600,000 truck trips annually as the RMC batching plants will be located in close proximity around Jurong Port. In addition to the cement that is imported through JP, the Project will involve the import of aggregates which are required by the RMC plants.

Overseas Growth

FY18'S TOTAL CARGO VOLUMES FROM JP'S OVERSEAS PORTFOLIO WAS 23 MILLION TONNES — A 5% INCREASE OVER FY17.

▲5% OVERSEAS THROUGHPUT VOLUMES

RIZHAO
SHANDONG, CHINA

▲10% **14.5** MILLION TONNES (FY18)

THROUGHPUT VOLUMES

There has been a significant switch in 2018 to South American sources by soybean importers and this has limited the impact of the trade war on the JVCo's volumes.

MARUNDA
JAKARTA, INDONESIA

▲41% **5.4** MILLION TONNES (FY18)

THROUGHPUT VOLUMES

Highest Y-O-Y growth since opening of Marunda Center Terminal in 2014. Benefitted from strong client engagements and marketing efforts.

YANGPU
HAINAN, CHINA

▼33% **3.5** MILLION TONNES (FY18)

GENERAL AND BULK CARGO THROUGHPUT VOLUMES

▲8% **275,000** TEUs (FY18)

CONTAINER THROUGHPUT

While container volumes have shown improvements, general and bulk cargo volumes in FY18 were affected by a slowdown in Hainan's construction sector due to a decrease in the throughput for iron ore and coal segments.

Organisation Excellence and Key Corporate Events

KEY CHANGES IN ORGANISATION STRUCTURE

JP reorganised into two new groups – the Waterfront Transformation Group and Business Growth Group – to drive operational transformation and business growth. The new structure was implemented in April 2019 and it will create functional synergy for innovation as well as enhance customer responsiveness along the new business units. JP will look to work even more closely with all stakeholders on our multi-year journey towards becoming a Next Generation Multipurpose Port, to create greater value for all the industry supply chains we serve.

JURONG PORT AND VAULT INTELLIGENCE DEVELOP STRATEGIC PARTNERSHIP TO ENHANCE SAFETY IN THE PORT

Jurong Port and Vault Intelligence have partnered to work towards the implementation of Vault Solo – a wearable solution that has fall detection, heart rate monitoring, geo-fencing and location tracking capabilities to monitor and manage the safety and security of our workforce.

JURONG PORT AND M1 TO COLLABORATE ON A SMART NEXT GENERATION MULTIPURPOSE PORT

Jurong Port inked a MOU with M1 to provide a terminal-wide wireless private network, in support of the port's transformation into an advanced digital Smart Port. The heterogenous network solution is aligned with Jurong Port's strategic technology roadmap and this partnership will further equip Jurong Port with the technological platform for the Internet of Things (IoT) / wearables endeavours and autonomous drones exploration.

JURONG PORT SIGNS MOU WITH THE CENTRE OF EXCELLENCE IN MODELLING AND SIMULATION FOR NEXT GENERATION PORTS (C4NGP)

JP signed a MOU on 18 October 2018 to partner with C4NGP, a maritime research collaboration between the National University of Singapore (NUS) and the Singapore Maritime Institute (SMI). The signing ceremony was witnessed by Dr Lam Pin Min, Senior Minister of State for Transport and Health. The collaboration will develop a simulation platform and digital twin of a multipurpose port to address resource optimisation challenges as we move towards JP's transformation into Singapore's Next Generation Multipurpose Port.

JURONG PORT GOLF INVITATIONAL AND LOHEI DINNER

JP hosted the second edition of its Golf Invitational and Lohei Dinner to promote interaction with port users, stakeholders and customers. There was an increase in the turnout for both golf and dinner compared to last year's inaugural edition. It was attended by 200 management representatives from our key customers, business partners and stakeholders including the senior management of JTC, MPA, PSA, and industry associations (SSA & SASS). JP will continue to build on the success of this event to maintain close engagement efforts with these key business partners in appreciation of their support and contributions to our transformation journey.

Corporate Social Responsibility

SUPPORT FOR SPD ABILITY WALK FUND RAISING

JP's staff and family members showed their support for people with disabilities at the SPD Ability Walk 2018. JP is happy to be continuing our partnership with SPD by supporting this event for the third consecutive year. Through this event, the funds raised have been channelled to help over 5,500 people with disabilities (PWDs) and create an opportunity for both members of the public and PWDs to walk together.

SUPPORT FOR UNDERPRIVILEGED FAMILIES UNDER SOUTHWEST CDC

JP continued our partnership with Southwest CDC for the third year running with Fei Yue Community Services in Taman Jurong, where the young beneficiaries from underprivileged backgrounds were treated to a special excursion during the March holidays. JP's CSR team brought much cheer to the children during a trip to KidZania, while presenting each child with a bag full of goodies. Close collaborations with Fei Yue on these initiatives allow us to play a part in helping the less able, strengthening the collective responsibility and social support in the community, as well as create a more caring society.

DINING IN THE DARK

Dining in the Dark is an event that aims to give participants an idea of what people with visual impairments go through on a daily basis. On 30th June 2018, JP staff gathered at YMCA for a dinner in complete darkness. Organised by Beyond I to raise funds for their beneficiary Guide Dogs Singapore (GDS), this record-breaking event was awarded a Singapore Book of Records Certificate for the largest number of blindfolded diners.

ANNUAL BLOOD DONATION DRIVE IN SUPPORT OF THE SINGAPORE RED CROSS SOCIETY

This yearly staff-led initiative first began in 2016, as part of efforts to assist the Singapore Red Cross Society in meeting the demands for the growing the number of blood donations and donors nationally. It is now sustained by a core group of 30 employees.

Awards and Accolades

PORT / TERMINAL OPERATOR OF THE YEAR AWARD 2018

JP was accorded the Port/Terminal Operator of the Year Award at the Lloyd's List Asia Pacific Awards 2018 on 27 September 2018. The Lloyd's List Awards recognises organisations and individuals for their exemplary performances and contributions to the maritime industry. JP clinched this award for demonstrating excellence in operational efficiency, customer service, and innovation while upholding a strong safety, training and environmental record.

THREAT-ORIENTED PERSON SCREENING INTEGRATED SYSTEM (TOPSIS) ORGANISATIONAL BRONZE AWARD APSN GPAS AWARD 2018

JP was conferred the Bronze Award for the TOPSIS Organisational Award at the TOPSIS Forum 2019. TOPSIS is a security enhancement programme implemented across Singapore's checkpoints and critical non-checkpoints, and the TOPSIS Forum serves as a platform to accord recognition to these communities for their contributions and continued support to the programme.

EXCELLENCE IN MANPOWER TRAINING AND DEVELOPMENT AWARD

JP clinched the Excellence in Manpower Training & Development Award for demonstrating continuous commitment and excellence in maritime training and development at the Singapore International Maritime Awards 2019. The biennial event organised by the Maritime and Port Authority of Singapore celebrates exemplary achievements and contributions to Singapore's development as a premier global hub port and a leading international maritime centre. JP is honoured to be recognised as a flag-bearer of manpower excellence for Singapore's maritime sector, and we will continue to foster partnerships with industry and academia in building a future-ready maritime workforce.

APPOINTED AS SOUTH WEST SKILLSFUTURE ADVICE (SFA) PARTNER BY SOUTH WEST COMMUNITY DEVELOPMENT COUNCIL (SWCDC)

JP was appointed as one of the SFA Partners by the SWCDC at the inaugural Celebrate SFA @ South West 2019. The award recognises the efforts taken by organisations who have committed to building a lifelong learning culture within their organisation, with the vision of developing a future-ready workforce through employees' skills development, career planning and workplace inclusivity.

APEC PORT SERVICES NETWORK (APSN) GREEN PORT CERTIFICATE AWARD 2018

JP received the 2018 Green Port Award System (GPAS) "Green Port" award administered by the APEC Port Services Network. The award recognises efforts taken by ports in the Asia Pacific region towards achieving environmental sustainability and implementing green practices. Key initiatives that contributed to the award include, Solar @ JP, Green Berths J10-J11, carbon foot print assessment, sharing of best green practices by JP at various national and international platforms, and various sustainability collaborations with the Institutes of Higher Learning.

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