Building and Construction Authority

WORKING TOGETHER TO BUILD SG

Annual Report
2018/19

CONTENTS

Building and
Construction Authority
Annual Report 2018/19

MISSION

We shape a safe, high quality, sustainable and friendly built environment

VISION

A future-ready built environment for Singapore

CORE VALUES

WE CARE
We care for our staff, our customers, the community and the environment

WE DARE
We dare to be innovative in transforming BCA and the built environment

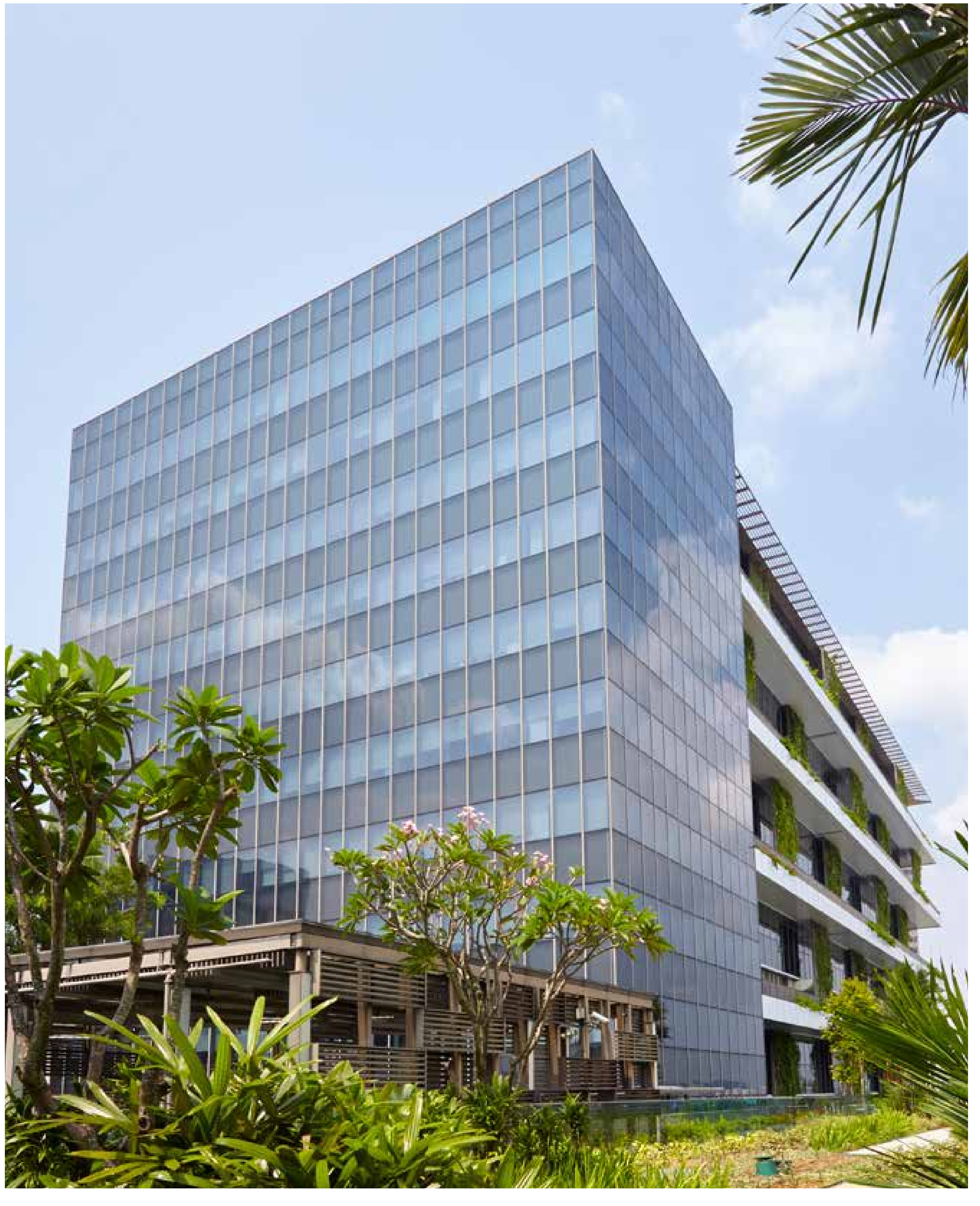
WE CAN
We can overcome all challenges with courage, confidence and commitment

STRATEGIC THRUSTS

In line with our mission and vision, our strategic thrusts are:

1. A Caring and Innovative Organisation
2. A Safe and High Quality Built Environment
3. A Friendly and Sustainable Built Environment
4. An Advanced and Productive Built Environment Sector
5. Effective Partnerships with Our Stakeholders

CORPORATE GOVERNANCE



BCA is committed to good corporate governance. We put in place a Code of Corporate Governance which formalises the principles and practices of governance within BCA, to ensure accountability, responsibility and transparency.

BOARD MEMBERS

The Board currently comprises 12 non-executive members, and Mr Hugh Lim who is BCA's Chief Executive Officer. The Board's wide representation from the industry, academia and ministries provides an appropriate range of experience, skills, knowledge and perspectives to enable it to play an active role in guiding BCA to achieve its mission and vision. The Chairman provides strategic leadership and guidance to the management of BCA, and ensures that Board discussions are fairly, objectively and independently conducted. The Board meets no less than four times a year to evaluate, approve and monitor the plans and budgets of BCA. It also oversees the work and performance of the Management and assesses the financial health of BCA. It has powers under the BCA Act to form committees from among its members to support the work of the Board.

FINANCE AND AUDIT

Internal Controls

The Board ensures that the Management maintains a sound system of internal controls to safeguard the interests and assets of BCA. It also ensures that reviews of BCA's internal controls, compliance as well as risk management, are conducted annually through internal or external audits according to the direction of the Audit Committee.

Audit Committee

The Audit Committee reviews the audited financial statements with external auditors, as well as reviews audit plans and observations of the external and internal auditors. It also ensures that the Management takes appropriate action for audit observations and the Audit Committee's recommendations. The Audit Committee also provides guidance for BCA's Fraud Reporting policy. All members in the Audit Committee are non-executive members.

CHAIRMAN'S MESSAGE

2019 marks a milestone for BCA, as we celebrate our 20th anniversary, having been formed through a merger of the Construction Industry Development Board (CIDB) and the Building Control Division of the former Public Works Department (PWD) in 1999.

Our sector has advanced over the last 20 years, and we have the strong long-standing partnerships with industry, academia and unions to thank for this.

When we launched the Construction Industry Transformation Map (ITM) collectively in 2017, the vision was to transform the sector into one which is advanced and integrated, with progressive and collaborative firms setting the pace and which offers good jobs for Singaporeans. We are counting on our shared rapport to realise our broader shared mission to transform the sector and benefit those who work within it.

DEEPENING PARTNERSHIPS THROUGH BUILDSG

The BuildSG office was set up in 2018 to strengthen partnerships with stakeholders to raise workforce capabilities, industry transformation and internationalisation. The efforts are taking shape. The Trade Associations and Chambers (TACs) and Unions have now developed their specific ITM action plans which will help built environment firms and individuals with their transformation journey. With deeper understanding and appreciation of the respective sub-sectors' needs and closer relationships with firms and professionals, TACs and Unions are well-placed to address specific concerns and develop the detailed plans to transform the sector.

TAKING THE TRIPARTITE APPROACH FOR MANPOWER DEVELOPMENT

Manpower remains crucial in our transformation efforts, and there have been new initiatives

to meet the needs of built environment firms whilst creating good jobs for Singaporeans. These initiatives will build up the quality of the Professional, Managerial, Executive and Technical (PMET) workforce and upgrade the skills of rank and file workers.

The sector can look forward to a Skills Framework which will recognise skills and competencies for career and wage progression, jointly developed with both SkillsFuture Singapore, Workforce Singapore, as well as TACs, Institutes of Higher Learning and professional boards.

INTEGRATING AND DIGITALISING THE BUILT ENVIRONMENT VALUE CHAIN

Innovation continues to drive industry transformation. BCA launched the Integrated Digital Delivery (IDD) implementation plan in November 2018, to encourage the sector to integrate through digitalisation of the full value chain. As projects get bigger and increasingly complex, it is more crucial than ever that firms tap on IDD for design, fabrication, construction and asset delivery and management. There are already 12 "live" IDD demonstration projects to show how project teams can reap the benefits of IDD adoption. There are more projects to come, and I am looking forward to even better outcomes in the future.

As Singapore's building regulator, BCA continues to promote a safe and high quality built environment through our regulatory framework while being pro-enterprise. BCA has continually upgraded CORENET, a one-stop digital platform for plan submission to the various regulatory agencies, to ensure it remains relevant amidst the changing demands of the industry. We are currently working closely with the industry and other agencies to co-create a revamped CORENET system that will digitally revolutionise the submission and plan approval process.

INAUGURAL INTERNATIONAL BUILT ENVIRONMENT WEEK 2019

In the past year, the BuildSG office has organised many industry events and overseas business trips to facilitate business matching

for built environment firms. In line with the collaborative spirit of the ITM and the contributions of 12 TACs, the inaugural edition of the International Built Environment Week (IBEW) would be held in September 2019. The IBEW will become the flagship event for industry leaders and professionals to share experiences and grow business opportunities.

WORKING TOGETHER TO BUILD SINGAPORE

2019 is an exciting and fruitful year for the built environment sector. Construction demand has picked up significantly since last year and there are signs that this healthy trend can be sustained over the next few years. We must ride on the benefits of working together to transform our sector, which has traditionally been a fragmented one. The co-ownership of industry transformation between the government and the industry is key to lead the way for better jobs and opportunities for the sector. Let us continue to forge ahead, with determination and unity, to build Singapore – better, together.

Mr Lee Fook Sun
Chairman

BOARD MEMBERS

Board Member
Mr Frankie Chia
Managing Partner,
BDO LLP

Deputy Chairman
Mr Norman Ip
Chairman,
WBL Corporation Limited

Board Member
Mr Johnny Lim
Executive Director,
Teambuild Engineering & Construction Pte. Ltd.

Chairman
Mr Lee Fook Sun
Chairman,
Ensign InfoSecurity Pte. Ltd.

Board Member
Mr Wong Heang Fine
Group Chief Executive Officer,
Surbana Jurong Private Limited

Board Member
Mr Sherman Kwek
Group Chief Executive Officer,
City Developments Limited

Board Member
Mr Hugh Lim
Chief Executive Officer,
Building and Construction Authority

Board Member
Ms Kala Anandarajah
Partner,
Rajah & Tann LLP

Board Member
Prof Tan Thiam Soon
President,
Singapore Institute of Technology

Board Member
Ar. Tang Kok Thye
Associate Partner,
ADDP Architects LLP

Board Member
Mr Kenneth Loo
Executive Director and Chief Operating Officer,
Straits Construction Group Pte. Ltd.

Board Member
Mr Mohamad Saiful Saroni
Partner,
PricewaterhouseCoopers LLP

Board Member
Mr Terence Ho
Divisional Director,
Manpower Planning and Policy Division,
Ministry of Manpower

SENIOR MANAGEMENT

Ar. Leong-Kok Su-Ming
Managing Director, BCA Academy

Er. Grace Mui
Centre Director, iBuildSG & Group Director, Manpower Strategy and Planning

Mr Teo Jing Siong
Group Director, Strategic Planning Office

Mr Koh Lin Ji
Centre Director, SGBuilds

Er. Ong See Ho
Managing Director, Built Environment Technology Centre

Mr Reginald Wee
Centre Director, weBuildSG

Ms Jeanna Das
Group Director, Corporate Development

Mr Hugh Lim
Chief Executive Officer

Ar. Tai Lee Siang
Executive Director, BuildSG

Mr Choo Whatt Bin
Executive Director, Services

Mr Chin Chi Leong
Deputy Chief Executive Officer, Building Control (Commissioner of Buildings and Commissioner of Amusement Rides Safety)

Mr Neo Choon Keong
Deputy Chief Executive Officer, Industry Development

Mr Ang Kian Seng
Group Director, Environmental Sustainability

Er. Chew Keat Chuan
Group Director, Building Engineering (Commissioner of Building Control)

Mr Cheng Tai Fatt
Managing Director, Built Environment Research and Innovation Institute

Mr Tan Chee Kiat
Group Director, Business Development

Er. Thanabal Kaliannan
Group Director, Building Resilience & Deputy Managing Director, Built Environment Technology Centre

Mr Ang Lian Aik
Group Director, Construction Productivity & Quality

Mr Teo Orh Hai
Group Director, Electrical and Mechanical Engineering

Er. Clement Tseng
Group Director, Building Plan & Management

BCA ORGANISATION STRUCTURE

Chief Executive Officer
MR HUGH LIM

- **Strategic Planning Office** – *Group Director* – **MR TEO JING SIONG**
- **Legal**
- **Internal Audit**

Executive Director
BuildSG
AR. TAI LEE SIANG

- weBuildSG – *Centre Director* – **MR REGINALD WEE**
- SGBuilds – *Centre Director* – **MR KOH LIN JI**
- iBuildSG – *Centre Director* – **ER. GRACE MUI**

Deputy CEO
Building Control
MR CHIN CHI LEONG

- Building Engineering – *Group Director* – **ER. CHEW KEAT CHUAN**
- Building Plan & Management – *Group Director* – **ER. CLEMENT TSENG**
- Electrical & Mechanical Engineering – *Group Director* – **MR TEO ORH HAI**
- Building Resilience – *Group Director* – **ER. THANABAL KALIANNAN**

Deputy CEO
Industry Development
MR NEO CHOON KEONG

- Business Development – *Group Director* – **MR TAN CHEE KIAT**
- Construction Productivity & Quality – *Group Director* – **MR ANG LIAN AIK**
- Environmental Sustainability – *Group Director* – **MR ANG KIAN SENG**
- Manpower Strategy & Planning – *Group Director* – **ER. GRACE MUI**
- Built Environment Research & Innovation Institute – *Managing Director* – **MR CHENG TAI FATT**

Executive Director
Services
MR CHOO WHATT BIN

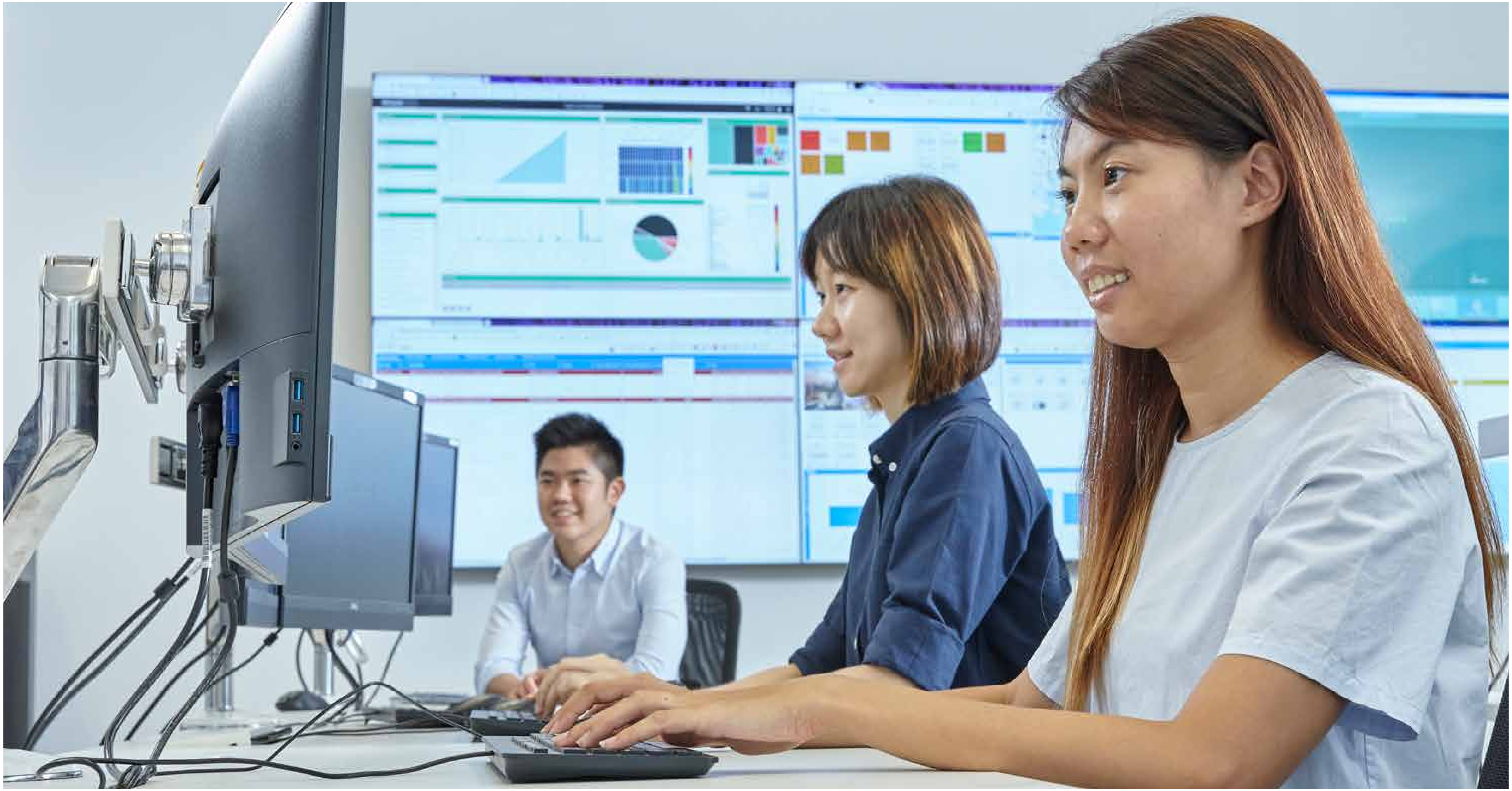
- Corporate Development – *Group Director* – **MS JEANNA DAS**

Managing Director
Built Environment Technology Centre
ER. ONG SEE HO

- *Deputy MD* – **ER. THANABAL KALIANNAN**

Managing Director
BCA Academy
AR. LEONG-KOK SU-MING

WORKING TOGETHER FOR A WORLD-CLASS BUILT ENVIRONMENT



Ms Ong Yan Xiang (middle), Senior Principal Engineer at CPG Consultants, also one of the young leaders under the Built Environment Young Leaders Programme, looks forward to exciting new technologies and bringing the built environment sector to the next level.

CHAPTER ONE

WORKING TOGETHER FOR A WORLD-CLASS BUILT ENVIRONMENT

In partnership with the industry, BCA champions Singapore's progress towards a smart and sustainable city

SAFETY IS OUR PRIORITY

As the Government agency tasked with ensuring high standards of structural safety in the design and construction of buildings in Singapore, BCA works closely with industry partners, developers and contractors to proactively maintain high safety standards in the development of Singapore's built environment.

Improving Site Supervision Standards with New Guide Book

Working together with the Association of Consulting Engineers Singapore (ACES) and Institution of Engineers Singapore (IES), we jointly published the Guide Book for Site Supervision Plan. This Guide Book provides guidance to the Qualified Persons (QP) in preparing the Site Supervision Plan for structural and geotechnical building works by setting out the principles, requirements and operation of a site supervision plan.

The Guide Book for Site Supervision Plan sets out the steps and actions to assist site supervisors to ensure that works are in accordance with approved plans.

BCA'S FY2018/2019 IN NUMBERS
KEY STATISTICS FOR OUR BUILT ENVIRONMENT AS AT 31 MARCH 2019

Construction

16,773
structural plans processed

3,226
site inspections conducted

14 DAYS

>96.5%
structural plan submissions responded to within 14 days

8,381
Temporary Occupation Permit applications processed

Quality

95%
take-up rate for Construction Quality Assessment System (CONQUAS)

53%
take-up rate for BCA Quality Mark

Mean CONQUAS Score for all buildings

88.9

Mean CONQUAS Score for private residential projects

91.4

Accessibility

78.1%
of commercial and institutional buildings (excluding shophouses) have basic Barrier-Free Accessibility features

WORKING TOGETHER FOR A WORLD-CLASS BUILT ENVIRONMENT

Reviewing Safety and Risk of Bored Tunnelling

BCA appointed a Technical Expert Panel to review the safety and risks associated with bored tunnelling works, in particular, the use of large diameter tunnel boring machine. It recommended that addtional upstream risk management be put in place.

Raising Regulatory Oversight of Temporary Buildings

BCA revised the requirements for a temporary building permit on 1 March 2019. The key changes involve a new two-stage approval process which requires the owner of the proposed temporary building to obtain a preliminary approval prior to its erection and a Permit-to-Use (PTU) for the subsequent occupation of the building. Upon expiry of the PTU, the owner is responsible for demolishing the temporary building or structure. A new provision for permit extension was also introduced in the amended Regulations.

Instilling Better Strata Management

The Building Maintenance and Strata Management Act (BMSMA), which provides a self-regulatory framework for the management and maintenance of strata-titled developments, was amended to instil better strata management. The changes, which took effect on 1 February 2019, include tightening the proxy system, prohibiting a person from holding more than one office bearer post and requiring the consent of the nominee standing for election of the council member.

BCA conducted outreach and engagement activities to help stakeholders of strata-titled properties better understand the BMSMA. Among these were nine dialogue sessions with management corporations consisting of more than 650 stakeholders and a strata seminar for newly-formed management corporations. BCA also held two briefings to council members and managing agents on the BMSMA amendments prior to implementation.

Designing for Better Long-Term Maintainability

The FM sector is integral to BCA's push of Design for Maintainability (DfM), which calls for the integration of operations and maintenance considerations into project planning and design to achieve ease, safety and economy of maintenance tasks. This preventive approach enhances the maintainability of buildings, which helps to improve the performance of the buildings, enhance cost-effectiveness and reduce manpower needs for maintenance over the building's lifetime.

In its new role as the sectoral lead for the transformation of the facility management (FM) sector, BCA brought together industry partners, unions, and government agencies to formulate, oversee and review the implementation of the plans for the sector. To this end, it formed the Tripartite FM Implementation Committee (FMIC) to aid the transformation of the FM sector under the Real Estate Industry Transformation Map.

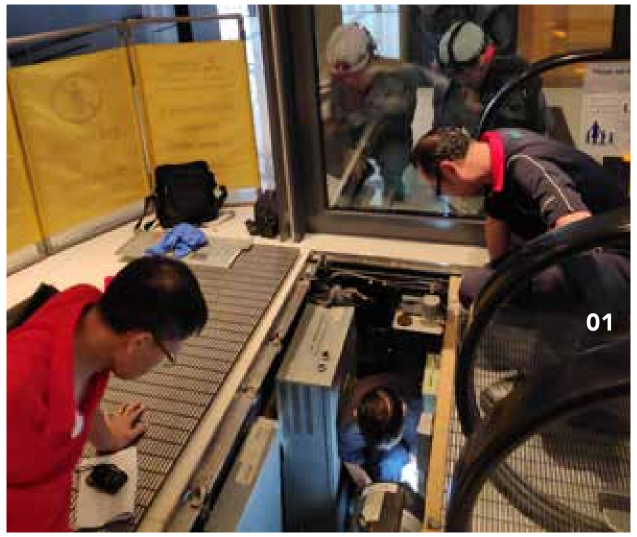
With DfM identified as a key pillar to support the FMIC's endeavours, BCA set up a DfM taskforce to oversee the DfM initiatives which include the development of the DfM guides and the Maintainable Design Appraisal System (MiDAS). The DfM guides and MiDAS serve as design tools to help developers, architects, engineers and facility managers to incorporate DfM concepts upfront in the planning and design of their building projects.

BUILDING CONTROL ACT AMENDMENTS TO ENHANCE USER SAFETY OF LIFTS, ESCALATORS & MECHANISED CAR PARK SYSTEMS (MCPS)

Enhancing Regulatory Regime for Lifts and Escalators

Lifts and escalators are integral to buildings in Singapore. With taller buildings and an ageing population, lifts have become an essential infrastructure to facilitate mobility in buildings. It is therefore important that lifts and escalators are maintained regularly and properly so that they are safe and reliable.

WORKING TOGETHER FOR A WORLD-CLASS BUILT ENVIRONMENT



01 *With effect from 15 January 2019, a Specialist Professional Engineer (SPE) in Lift and Escalator Engineering is allowed to certify lifts and escalators for Permit to Operate application.*

02 *'Digital District' in Punggol which houses the Civil Defence Shelter.*

Amending the Building Maintenance and Strata Management Regulations

The Building Maintenance and Strata Management (Lift, Escalator and Building Maintenance) Regulations were amended in Dec 2018.

The amended BMSM Regulations allowed for Specialist Professional Engineers (SPE) in Lift and Escalator Engineering to certify lifts and escalators for Permit to Operate application.

Approving the First Mechanically Ventilated System at Carpark Civil Defence Shelter

BCA approved Singapore's first Mechanically Ventilated basement carpark civil defence shelter at the Punggol Digital District. This is the first time that a mechanical ventilation system has been implemented for pressurisation of a shelter. To ensure thermal comfort is still achievable with mechanical ventilation, a computational fluid dynamics software is used to simulate the effective temperature, relative humidity, velocity, carbon dioxide concentration, pressurisation, etc within the civil defence shelter. Apart from equipment and maintenance cost savings, the mechanical ventilation system led to greater space saving as well as a reduction of carbon footprint.

RAISING QUALITY AND PRODUCTIVITY STANDARDS

BCA is committed to implementing initiatives and best practices that contribute to higher quality and productivity across the construction industry. To this end, BCA streamlined CONQUAS and launched the Quality Housing Portal.

01 *BCA reviewed and streamlined the CONQUAS into a three-tier framework in 2018, raising the quality and workmanship standards for private residential projects.*

02 *Some of the Universal Design features adopted in City Square Mall, which cater to the needs of the elderly and families with young children.*

Enhancing Quality Standards Through CONQUAS Framework

BCA reviewed and streamlined CONQUAS into a three-tier framework that provided an escalation mechanism to require higher sample size with "passing" marks for each tier. This further raises the quality and workmanship standards for private residential projects.

Meeting Homebuyers' Needs for Information on Quality Housing

To meet the rising expectations of homebuyers, BCA put in place the Quality Housing Portal (QHP) to help homebuyers make a more informed decision when buying a home. Homebuyers can now make use of this platform to search and compare the ranking of CONQUAS scores and Quality Mark performance of private residential developers, contractors and their projects.

ENCOURAGING BUSINESSES TO GO FAMILY-FRIENDLY

BCA actively promotes and encourages the development of an inclusive built environment for Singapore that addresses the needs of all age groups and people of different mobility, including young children, the elderly, expectant mothers or persons with disabilities.

To encourage businesses to cater to families, BCA launched the new BCA-MSF Universal Design Mark for Family-Friendly Business in collaboration with the Ministry of Social and Family Development in May 2018. The Mark gives recognition to businesses that incorporate both user-friendly designs in their facilities (hardware) and family-friendly processes and services to meet the needs of family customers (software). Developer City Developments Limited's City Square Mall was the first mall to receive the Platinum award under this new category. The Award acknowledged the family-friendly features in and around the mall and the family-friendly shopping experience that the mall offers.

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

Mr Wong Keam Tong (rightmost) is the Director of Engineering at Woh Hup Pte Ltd, where they supported BCA's push for Mass Engineered Timber to achieve productivity and sustainability at their newly completed Woh Hup Technical Hub.

CHAPTER TWO

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

We drive initiatives to build capabilities that optimise work productivity, capture opportunities and enhance our talent pool

DRIVING INDUSTRY TRANSFORMATION

The Construction Industry Transformation Map (ITM) envisions key shifts along the construction value chain, and the growth and development of an eco-system that supports the transformation of the sector. BCA is the lead agency for the Built Environment (BE) Cluster, working closely with other sector leads to identify long-term and impactful synergies across the BE Cluster.

New methodologies and technologies such as Design for Manufacturing and Assembly (DfMA), Integrated Digital Delivery (IDD), Green Buildings, Design for Maintainability (DfM), Smart Facilities Management (Smart FM) and Digital Asset Management were identified as the key transformation areas to address the challenges faced by the built environment sector.

BCA conceptualised, and launched the BuildSG movement in April 2018 to drive implementation plans under the Construction ITM and Cluster strategies, as well as extend more help to firms in building their capabilities in the long run and exploring overseas opportunities. The BuildSG movement encapsulates the spirit of collaboration between the government, unions, Trade Associations and Chambers (TACs), industry and Institutes of Higher Learning working collectively to realise an advanced and integrated sector.

There are three centres under the BuildSG office – weBuildSG, SGBuilds and iBuildSG – which focus on key areas of industry partnership, internationalisation as well as careers and skills development.

BCA'S FY18 IN NUMBERS
KEY STATISTICS FOR THE PROGRESS OF OUR CONSTRUCTION ITM VISION AS AT 31 MARCH 2019

BUILD GREEN, BUILD EFFICIENTLY, BUILD SMART

About **40%** of all buildings greened (by GFA)

15% cumulative site productivity improvement in 2018 over 2010

More than **109 million m²** green gross floor area

22% DfMA adoption rate in 2018

38 projects adopted DfMA in 2018

TOTAL TALENT POOL

8,000 trained in DfMA

13,000 trained in BIM/IDD

19,100 Specialists trained in green building technology

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

01

Catalysing Changes

BCA proactively brings together stakeholders to create opportunities for collaboration and the leveraging of one another's experience, expertise and best practices for growth. BCA organised conferences and exhibitions to foster networking and collaboration.

We organised the Singapore Green Building Week 2018 to engage our stakeholders in accelerating the evolution of green buildings in Singapore. More than 10,000 international visitors from 54 countries, including green building experts, policy makers, built environment practitioners and academics attended events in the week, and shared their support for the vision of a greener Singapore. The event also facilitated more than 300 one-to-one business-matching meetings. One of the anchor events for the Singapore Green Building Week 2018 was the International Green Building Conference 2018, which we organised together with our strategic partners — the Singapore Green Building Council and Reed Exhibitions. One highlight of this conference was the specially curated Green Mark tours to 12 award-winning BCA Green Mark projects, to find out what contributes to green, sustainable and smart buildings.

Another anchor event was Build Eco Xpo (BEX) Asia 2018. This trade exhibition enabled visitors and delegates to explore the green building market in Southeast Asia, source from international manufacturers and network with regional buyers. BCA also participated in the BuildSG Pavilion at BEX Asia 2018, in partnership with TACs.

BCA also hosted BuildTech Asia 2018 to promote productive technologies and smart solutions. It gathered more than 8,000 attendees and some 300 international and regional brands.


02

01 The Singapore Green Building Week 2018 opening ceremony.

02 BuildTech Asia 2018.

Introducing Collaborative Bidding for Public Sector Projects

BCA introduced collaborative bidding for construction-related consultancy services tenders called through the Public Sector Panels of Consultants (PSPC). The initiative encourages greater collaboration among firms in the sector by leveraging on each strengths to participate in public sector projects and facilitates the building up of firms' track record and capability. It won an award under the Public Sector Pro-Enterprise Initiative - which encourages public sector officers to make Singapore the Number 1 pro-enterprise country in the world. It was developed in close consultation and collaboration with industry associations and government agencies.

PROGRESSING TOWARDS AN ADVANCED AND INTEGRATED BUILT ENVIRONMENT SECTOR

Promoting Sustainable Buildings for a Future-Ready Built Environment

BCA continued to encourage building owners and operators to embark on energy efficient retrofits, and to optimise the operations of existing buildings for the health and well-being aspects of the occupants.

The BCA Green Mark Existing Non-Residential Buildings 2017 (GM ENRB: 2017), one of the BCA Green Mark Schemes, was launched to address sustainability in a more balanced and holistic manner, future-proof existing buildings and drive incremental improvements in energy efficiency and other sustainable parameters. It will also guide building owners to take practical improvement measures towards achieving total building performance.

Engaging Industry Players to Go Green

As part of efforts to accelerate the greening of our buildings, BCA made changes to the Code for Environmental Sustainability. The Code comprises key sustainability outcomes and indicators, and is adapted from the criteria of the BCA Green Mark scheme.

The revised Code provides clearer guidelines for the industry to strive for better environmental performance for buildings. At the same time, all other energy efficiency requirements residing in BCA Approved Documents, including building envelope design submissions, are subsumed into the Code. This will streamline and provide clearer clarity of the regulatory process. More than 170 practitioners were involved in the industry consultation.

Driving the Super Low Energy Agenda

BCA continued to drive the next wave of environmental sustainability by encouraging the industry to harness cost-effective energy efficiency and renewable energy solutions. In the Singapore Green Building Week 2018, BCA launched the Super Low Energy (SLE) Programme which included a suite of initiatives such as the BCA Green Mark for SLE, SLE Buildings Technology Roadmap and the SLE Challenge to encourage the adoption and design of cost-efficient SLE buildings. SLE buildings can achieve at least 60% energy efficiency improvement over the 2005 building codes, when the BCA Green Mark was first introduced. At the time of the launch, BCA had secured the commitment of more than 10 developers aiming to achieve this new Green Mark for SLE buildings.

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

Grooming the Next Generation of Green Champions

The BCA-MOE Back to School programme (B2S) received the Minister's Award (Team) for its significant team-based contributions towards improving the environmental performance of schools. This programme was a collaboration between BCA and MOE to green schools, enhance student engagement and education in environmental sustainability and groom the next generation of "green-collar" workforce. The Award recognised the programme for the value created beyond achieving national green buildings target and international commitment on carbon emission reduction, as well as the intangible benefits generated by the programme to the students, staff members, Institutes of Higher Learning, interns, green private companies and public sector agencies.

The BCA-MOE Back to School programme (B2S) team received the Minister's Award (Team) for its significant team-based contributions towards improving the environmental performance of schools.

Seven Prefabricated Prefinished Volumetric Construction (PPVC) systems and three Prefabricated Bathroom Unit (PBU) were given granted in-principle approval.

Increasing DfMA adoption

With BCA's digitalisation drive, the DfMA adoption rate among projects rose to 22%. This was largely contributed by the 27 public projects through the Productivity Gateway Framework (PGF). The Government Land Sales (GLS) programme, where selected sites were required to adopt DfMA technologies, on the other hand, helped to drive DfMA adoption in the private sector. In another 624 private sector projects supported under the Productivity Innovation Project (PIP) scheme, BCA was able to encourage the industry to adopt productive initiatives.

Enhancing the Building Innovation Panel

BCA enhanced the Building Innovation Panel (BIP) in consultation with the industry, to encourage the adoption of advanced construction methods in both private and public sector projects. The objective was to have a central platform to champion ground up innovations that improve the productivity and/or sustainability of the built environment, and sharpen the industry's competitive edge. The enhanced BIP platform would provide support for innovative technologies across the value chain, from upstream research to technology deployment and adoption.

One of the BIP's work streams, the Technology Readiness Assessment Committee, focused on innovations that comply with regulations and were ready for implementation in projects. Seven Prefabricated Prefinished Volumetric Construction (PPVC) systems and three Prefabricated Bathroom Unit (PBU) were given in-principle approval. That brought the total number of PPVC and PBU systems approved since the framework started in 2013 to 34 systems each.

A Prefabricated Bathroom Unit System, approved by the BIP.

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

BCA encouraged more companies to harness the potential of the BIM and digital technologies beyond just using it for design and construction, through to the entire lifecycle of their building projects.

Promoting Mass Engineered Timber (MET)

MET is an example of a DfMA technology that offers a valuable solution for productive and sustainable construction. MET construction is being adopted by more projects in Singapore, allowing these projects to reap significant savings in time and manpower. BCA launched an MET guidebook at the International Green Building Conference 2018.

BCA also provided consultation to Government Procuring Entities (GPEs) and industry partners on the adoption of DfMA in their actual projects.

Launch of the MET Guidebook at the International Green Building Conference 2018.

01 Prefabricated Mechanical, Electrical and Plumbing (MEP) Systems are assembled off-site and subsequently installed on-site.

02 Greater use of digital technology transforms the way the project is delivered in JTC Logistics Hub, one of the first "live" Integrated Digital Delivery (IDD) demonstration projects in Singapore.

Pushing the Frontier with Prefabricated Mechanical, Electrical and Plumbing Systems

BCA continued to push the frontier with prefabricated Mechanical, Electrical and Plumbing (MEP) systems in promoting DfMA. The integration of MEP components and equipment into a sub-assembly off-site and subsequent installation on-site offer significant benefits to project execution and productivity. The adoption of this technology allows for better quality control, reduced manpower requirements and faster and safer construction. To facilitate greater adoption of this technology, BCA launched a prefabricated MEP systems guidebook in April 2018 to shorten the industry's learning curve.

Increasing Integrated Digital Delivery (IDD) Adoption

BCA encouraged more companies to harness the potential of the BIM and digital technologies beyond using it for design and construction, through to the entire lifecycle of their building projects. To this end, BCA launched an Integrated Digital Delivery (IDD) implementation plan in November 2018 to encourage more built environment sector firms to go digital. IDD builds on both BIM and Virtual Design and Construction (VDC). By deploying IDD in their projects, asset owners can look towards reducing abortive work and enhancing the projects' operational efficiency and maintenance. It results in greater productivity improvement and cost savings for the industry as a whole. During the year, a total of 15 VDC projects were completed while 12 potential IDD projects were identified.

BCA also published a BIM Guide for Asset Information Delivery which defines the asset information requirements from both the owners' and operators' perspectives. The requirements guide project consultants and contractors in preparing the digital information model suitable for asset operations and maintenance. BCA also launched a Integrated Digital Delivery Leader's Guide to explain the scope and benefits of IDD to the industry.

In support of IDD, IMDA and BCA launched a joint Call for Submission for digital platforms for the construction sector, to enable construction firms to digitalise and accelerate their efforts towards the IDD vision. Such digital platforms can offer the construction sector opportunities to grow, by helping to address gaps and inefficiencies, connect different players in the ecosystem and offer potential for growth of new services and business models.

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

BuildSG
TRANSFORMATION FUND

Rebranding of the Construction Productivity and Capability Fund (CPCF) schemes

The BuildSG Transformation Fund (BTF) is an initiative to help firms find relevant funding schemes to support their transformation more easily. BCA obtained approval from the Productivity Fund Administration Board (PFAB) to fund the Productivity Innovation Project (PIP), one of the funding schemes under the CPCF, from September 2018 to March 2021.

SUPPORTING FIRMS IN CAPABILITY BUILDING AND BUSINESS SUSTAINABILITY

Placing Greater Emphasis on Quality in Procurement

BCA enhanced the Quality Fee Method (QFM) and Price Quality Method (PQM) frameworks for procurement of construction-related consultancy and construction services with effect from 31 Jan 2018. The QFM framework was extended to procurement of Accredited Checking (AC) services from 1 April 2018. The key objective of the enhancements was to place greater emphasis in quality during tender evaluation, which would create a more sustainable tender environment and encourage firms to build up their capabilities. The key changes to frameworks included increasing the weightage of Quality component for PQM and assessing firms' past project performance during tender evaluation for both PQM and QFM.

BCA completed the review of the Building and Construction Industry Security of Payment (SOP) Act, addressing industry feedback and incorporating the latest case law and ITM developments. The key amendments to the SOP Act were in three main areas, namely, (i) expanding and clarifying the scope for the application of the Act, (ii) enhancing requirements on handling of payment claims and responses and (iii) improving the adjudication process. Parliament passed the Amendment Bill on 2 October 2018.

BCA engaged the industry on the amendments to the Quality Fee Method.

Cyclists in Sino-Singapore Tianjin Eco-city. BCA has been involved in the project since the start in 2007.

Supporting Singapore Firms to Internationalise

SGBuilds seeks to bring firms together to collaborate in marketing the Singapore brand of development and construction overseas. SGBuilds provides support for Built Environment firms in their internationalisation efforts through forming networks and cultivating deep ties in overseas markets, knowledge-sharing on opportunities for global expansion and facilitation of cluster-level consortiums for projects of interest with the industry.

To this end, SGBuilds facilitated overseas projects and helped Singapore firms secure eight projects worth S$53 million across seven cities. The centre profiled more than 30 firms across seven countries.

Through a whole-of-government approach, further progress was made during the year to unlock new opportunities for local firms to take up Government-to-Government (G-G) projects such as in Sino-Singapore Tianjin Eco-city and in China-Singapore Guangzhou Knowledge City.

Over in China, BCA has been an active partner in the Sino-Singapore Tianjin Eco-city project, the second flagship G-G project between Singapore and China, from the start. We were involved in the selection of the Eco-city site, as well as overseeing the key performance indicators (KPIs) of achieving 100% green buildings and 100% barrier-free buildings.

On 20 September 2018, Singapore and China signed a MOU to promote the replication of the Eco-city's development experience at the 10th Sino-Singapore Tianjin Eco-city Joint Steering Council Meeting, bringing the Eco-city a step closer to realising its vision to be a practical, replicable and scalable model for sustainable development.

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

On the commercial front, BCA has been introducing Singapore firms such as master planners, designers, contractors, service providers and smart solution providers to the developer of a 400 hectare "Orange Smart City" project in Navi Mumbai, India. The project includes the development of a hospital, hotel, industrial parks, residential clusters, commercial clusters, retail development, education and learning institutes within the area. To date, Surbana Jurong has secured a contract with the Developer to do master planning of the "Orange Smart City".

DEVELOPING A WORKFORCE TO MEET TRANSFORMATION NEEDS

Attracting and Retaining a Singaporean Core for our Workforce

BCA secured S$72.4 million under the BuildSG Transformation Fund to develop and upskill the sector's workforce. Enhancements were made to the existing iBuildSG Scholarship and Sponsorship Programme to better attract and develop talents as well as support training and upgrading of the built environment workforce. The Programme support students of high calibre and in-service personnel pursuing built environment related courses.

An artist's impression of the future Orange Smart City.

Together with TACs, industry firms and young leaders, BCA reached out to 18,000 students across more than 60 schools and Institutes of Higher Learning (IHL). We inspired the youths on what the built environment sector has to offer through education and training fairs, learning journeys, site visits and school career talks.

BCA partners Workforce Singapore (WSG) to help mid-career jobseekers reskill and develop competencies to take on new jobs in the built environment. We placed more than 250 applicants through various WSG's Adapt & Grow initiatives, including the Professional Conversion Programme (PCP) as well as other job matching efforts.

On 19 September 2018, the Lift and Escalator Sectoral Tripartite Committee, co-chaired by Mr Melvin Yong, National Trade Union Congress (NTUC) Assistant Secretary-General and Mr Chin Chi Leong, BCA's Deputy CEO, proposed recommendations to attract, develop and retain Singapore residents in the lift industry. The recommendations fall into three broad categories:

- Better jobs and remuneration to attract Singapore residents and build up a core workforce
- Higher skills to deliver better quality services
- Raising productivity to enhance the effectiveness of every technician

The committee recommended introducing clearly defined parallel career progression pathways, under a progressive wage model (PWM). Other recommendations include improving working conditions, rebranding the industry and technology adoption. These recommendations which were accepted by government, brought us one step closer to a more competent, technically advanced and sustainable industry, which would play a significant role in ensuring that our lifts and escalators continue to be safe and reliable for everyone.

iBuildSG offers a suite of scholarship and sponsorship programmes, in collaboration with industry firms to develop and support talent for the sector.

WORKING TOGETHER TO TRANSFORM THE INDUSTRY WITH INNOVATIVE SOLUTIONS

Developing and Recognising Skills and Competencies for Progression

BCA concluded the Built Environment SkillsFuture Tripartite (BEST) Taskforce, with positive outcomes. It is crucial to create a pipeline of talent and equip our workforce with the necessary competencies to support the transformation of the construction sector and champion the next phase of advance and growth within the sector.

The BEST Taskforce was set up in August 2017 to look into establishing a structured development pathway across pre-employment training (PET), internship and continuing education and training (CET). Key recommendations made by the BEST Taskforce, include enhancement of curricula with transformation areas, structured internships and encouraging CET in the sector. The newly formed iBuildSG Tripartite Committee (TC) would oversee the implementation of the BEST Taskforce's recommendations and rebranding initiatives.

Developing a Leadership Core

BCA launched The Future Leaders Network (FLN) and Young Leaders Programme (YLP) to provide the foundation for the talent attraction and retention in the built environment sector. The FLN would be a platform for BCA to reach out to scholarship and sponsorship recipients from related built environment courses in IHLs in order to provide developmental opportunities for potential talents. Teambonding and induction, career and networking fairs, career mentorship, as well as project site and company visits were be among the activities organised to engage the members.

The YLP aimed to nurture a community of young industry leaders to partner BCA to lead and transform the built environment sector. Consisting of young leaders aged 35 and younger nominated by their firms who had shown good potential in business and leadership, these working professionals were actively engaged and exposed to various activities and programmes. These include networking events, site visits, learning journeys, study teams and policy dialogues.

The FLN and YLP engage potential talents for the built environment sector through activities such as learning journeys.

01 *Diploma graduates with their lecturers at the BCAA Graduation Ceremony 2018.*

02 *Developed jointly with the Imperial College London, the Executive Development Programme on DfMA and IDD Leadership 2018 was conducted to support the development of leadership capability in DfMA and IDD. The programme draws on leading research and practices from thought-leaders, practitioners and academics through a combination of industry sharing, learning journeys, keynote lectures and executive discussions.*

Building Future-Ready Skills and Capabilities

As the education and research arm of the BCA, the BCA Academy continued to provide quality training and education for a diverse audience which made up the built environment sector. From classroom-based to experiential learning, the Academy prepared the future workforce for entering the sector and provided relevant training and upskilling to deepen the competencies of existing talents.

The Academy also led efforts to accelerate competency building in the Transformation areas, including the development of digitalisation skill-sets to advance the built environment sector. For the year ended 31 March 2019, close to 25,000 participants attended training programmes at the BCA Academy, with close to 1,700 participants under pre-employment training (PET) and 23,000 participants under continual education (CET) pathways.

It continued to play a critical role as a central node where its unique position was able to draw powerful synergies across academia, industry and individuals to facilitate capability development in nurturing an effective workforce for the built environment sector.

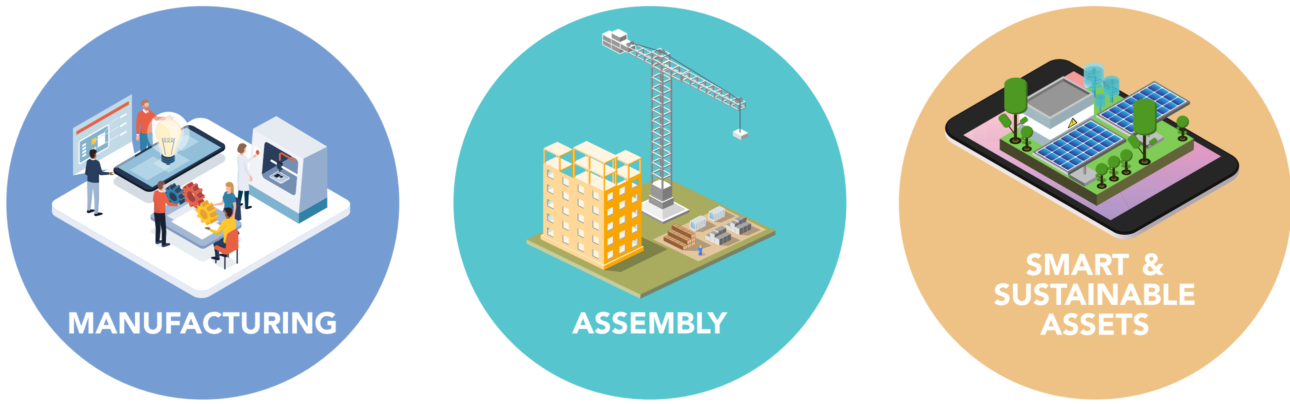
WORKING TOGETHER TO DRIVE TECHNOLOGICAL DEVELOPMENT AND ADOPTION

Ar. Owen Wee (second from right) from Surbana Jurong Consultants Pte Ltd was the lead consultant involved in the design of the National University of Singapore's (NUS) SDE4, a project which adopted energy- and water- efficient solutions in its design and operations, making it one of the winners of the BCA Green Mark Platinum (Zero Energy) Award.

CHAPTER THREE

WORKING TOGETHER TO DRIVE TECHNOLOGICAL DEVELOPMENT AND ADOPTION

We bring together the talent and knowledge of our people and stakeholders to drive innovative outcomes



BCA's Built Environment Robotics Research & Development Programme focuses on solutions that enhance the sector's competitiveness, including solutions for manufacturing, assembly and smart & sustainable assets.

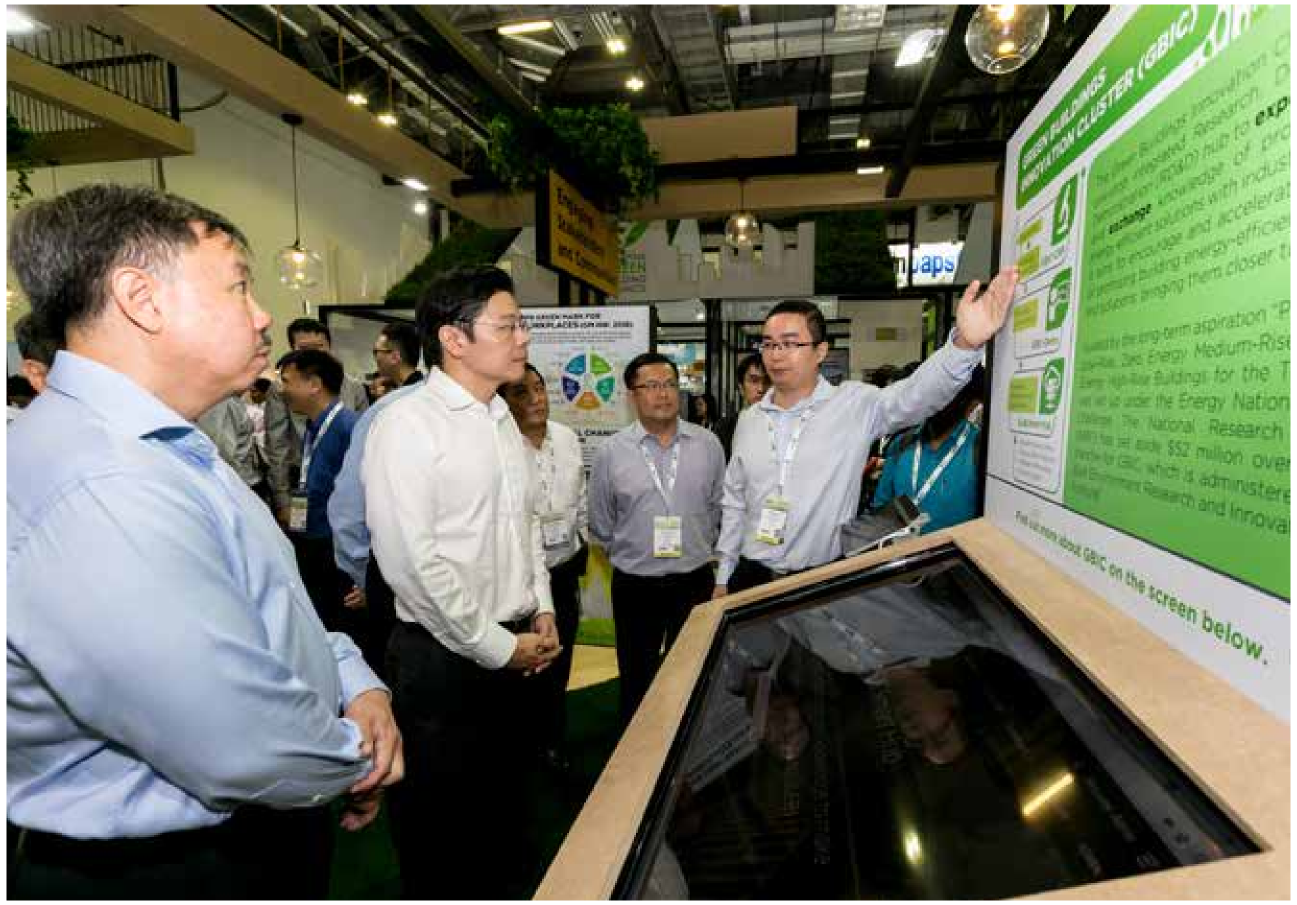
ENHANCING INDUSTRY COMPETITIVENESS

Investment in Research and Innovation is key to developing industry capabilities and maintaining a competitive edge, and vital for the transformation of Singapore's built environment.

Under the Cities of Tomorrow R&D Programme (CoT), BCA is co-leading the focus themes of Advanced Construction, Resilient Infrastructure and Greater Sustainability. Of the S$105 million set aside under the CoT, a total of 10 projects with a total quantum of S$21 million would be awarded under the first series of grant calls. Another 13 topics were launched under the second series of grant calls.

Funding Support for Robotics Projects

Robotics is a key area to leverage advances in technology to future-proof our industry's competitiveness. For this reason, BCA's Built Environment Robotics Research & Development Programme, announced in 2018 and supported by the National Robotics Programme, focuses on research, development and deployment of innovative robotics in three key areas across the construction value chain – manufacturing, assembly as well as smart and sustainable assets. In the first half of 2019, four robotics research and innovation projects were awarded under the programme.



The team at BCA's Built Environment Research and Innovation Institute aims for the Green Buildings Innovation Cluster (GBIC) to accelerate the development and adoption of smart and green building solutions to push Singapore towards becoming a Smart Nation for a sustainable future.

SPEARHEADING GREEN BUILDING INNOVATION

BCA continued to spearhead Singapore's green building movement to push for more innovative solutions while maintaining scalability. Through the Green Buildings Innovation Cluster (GBIC) programme, BCA worked with the industry, Institutes of Higher Learning (IHLs), research institutes (RIs), major developers and building owners to co-innovate green building solutions.

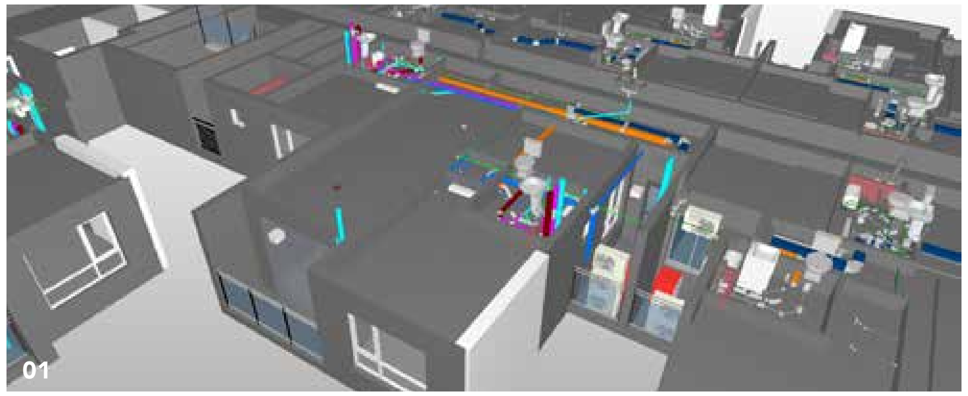
Developing Implementable Solutions and Standards

In 2019, GBIC awarded S$5 million in grants to eight projects under the Innovation Challenge Call – Advancing Net Zero through Smart Building Technologies. The focus, since the last GBIC grant call in 2016, was shifted to industry-led innovations. The projects supported a wide range of topics, including application of artificial intelligence and machine learning to building controls, smart sensors for indoor environment monitoring, etc. The aim was to accelerate the development and adoption of smart building solutions as Singapore progresses towards becoming a Smart Nation.

WORKING TOGETHER TO DRIVE TECHNOLOGICAL DEVELOPMENT AND ADOPTION

01 Model Server, a Building Information Modelling (BIM)-based collaboration platform, is a project supported by the MND Research Fund (MNDRF) in the area of Integrated Digital Delivery (IDD).

02 Minister for National Development, Mr Lawrence Wong (third from left), was briefed on Quicabot B20, an inspection robot, project supported by the MND Research Fund (MNDRF).



A Super Low Energy (SLE) Buildings Technology Roadmap was also developed to prioritise technology development and charter pathways of research and innovation towards achieving SLE.

The Ministry of National Development Research Fund supported the research, development and deployment of technologies and solutions in key areas such as DfMA, IDD, maintainability, safety and quality. A total of seven projects supported by this Fund were completed.

Developers, consultants, builders and suppliers seeking to conduct small-scale R&D projects can tap on the Ministry of National Development's S$5 million two-Stage Innovation Grant. The focus areas of this two-stage innovation grant, also known as iGrant, are Advanced Construction, Integrated Digital Delivery, Maintainability, Quality and Safety in the built environment. Fourteen projects under this grant were awarded.

In the area of driving R&D initiatives to enhance building energy efficiency, under BCA's partnership with the Economic Development Board in the Energy Innovation Research Programme, seven projects were completed.

01 Measurement of heat flux at BCA SkyLab.

02 Senior Minister and Coordinating Minister for National Security, Mr Teo Chee Hean (seated in the front row, second from right), visited the BCA SkyLab and the Centre for Lean & Virtual Construction to understand the progress of the Research & Innovation activities in the area of Urban Solutions and Sustainability on 21 September 2018.

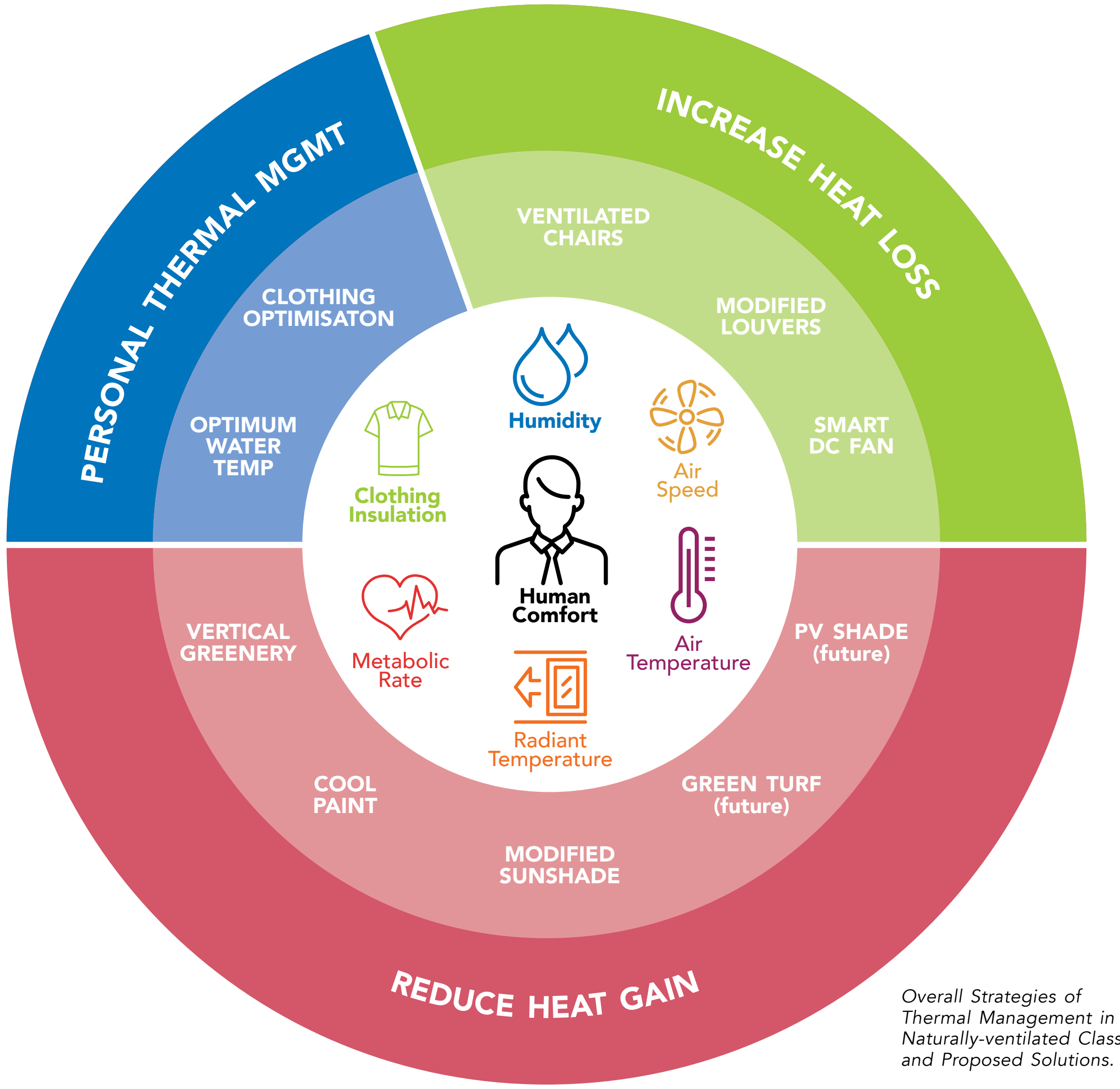
Catalysing Innovation at BCA SkyLab

In the past year, 10 innovative building technologies were tested under real-world conditions at the BCA SkyLab. They included model predictive control (MPC), thermo- and electro- chromic glass, daylight redirecting film, thermal break and insulation material, etc. With its state-of-the-art rotatable test facility, the SkyLab has been actively catalyzing innovations in green building technologies.

The SkyLab continued to serve as a collaboration platform for the industry, research community, and public agencies to co-innovate solutions. The results of SkyLab testing were shared at various platforms, including the SkyLab Gallery, SLEB Smart Hub, and multiple seminars and conferences. The SkyLab received increasing interest and support from stakeholders locally and overseas. In a recent stakeholder survey, 69% of 108 respondents expressed interest in conducting testing and technology development at the SkyLab.

BCA hosted a visit by Senior Minister Teo Chee Hean (then Deputy Prime Minister and Chairman NRF) to the BCA SkyLab and the Centre for Lean & Virtual Construction on 21 September 2018. SkyLab's research and innovation activities were supported by National Research Foundation's (NRF) Research Innovation and Enterprise (RIE) 2020 Plan.

WORKING TOGETHER TO DRIVE TECHNOLOGICAL DEVELOPMENT AND ADOPTION



Overall Strategies of Thermal Management in Naturally-ventilated Classrooms and Proposed Solutions.

Making Schools More Sustainable and Conducive for Learning

Positive Energy Schools (PES) is a collaboration project between BCA and MOE, with the aim of developing and deploying solutions to: (i) transform schools into sustainable campuses with greater energy efficiency and renewable energy adoption, (ii) enhance the thermal environment for students and staff, and (iii) maximise learning opportunities on sustainability. The project included 10 strategies that covered various factors affecting energy efficiency and thermal comfort, making it a comprehensive and integrated solution for achieving green schools in the tropics.

In this project, BCA worked with MOE and Tampines Secondary School to testbed the 10 strategies and measure their impact on energy and thermal comfort in non-air conditioned (i.e. naturally ventilated) classrooms. An innovative model, developed by BCA and the National University of Singapore (NUS), was also adopted to measure thermal comfort levels in the classrooms. With the successful test-bedding, the proven technologies would be scaled up for wider adoption by Singapore's public schools.

Samwoh Smart Hub is supported by GBIC Demonstration funding to push the energy efficiency boundary to be the first Positive Energy industrial building. It is a recipient of the Green Mark Platinum (Positive Energy) award. The SLE programme marks the next milestone for sustainability and green buildings in Singapore.

Photo Credit: Samwoh Corporation Pte Ltd

Greener Buildings for Tomorrow

Our national target was to green 80% of our buildings (by gross floor area) by 2030. At the end of FY18, about 40% were green, an achievement made possible through our joint efforts with industry partners and the Singapore Green Building Council (SGBC). Developers and building owners saw the benefits of green buildings, evident in an upward trend of higher-tier Green Mark Gold^{PLUS} and Platinum rated buildings. The launch of the Super Low Energy (SLE) programme by Minister Lawrence Wong during the Singapore Green Building Week 2018 marked the next milestone for sustainability and green buildings in Singapore.

WORKING TOGETHER TO ACHIEVE ORGANISATIONAL EXCELLENCE

BCA worked together with our partners from the Singapore Contractors Association Limited (SCAL) to conduct retrofitting works at the Singapore Association of the Visually Handicapped (SAVH), which help create a more accessible environment for beneficiaries to move independently within the grounds.

From SCAL, Mr Lee Kay Chai, 1st Vice President (rightmost, in blue) and Mr Yong Jian Rong, CSR Sub-committee Chairman (leftmost, in blue).
From SAVH, Mr Choo Chek Siew, President (4th from left, in white), Mr John Ting, EXCO member (2nd from left, in white) and Mr Tan Guan Heng, EXCO member (3rd from right).
From BCA, Mr Hugh Lim, CEO (2nd from right, in red) and Mr Sebastian Lim, CSR committee Vice-Chairman (3rd from left, in red).

CHAPTER FOUR

WORKING TOGETHER TO ACHIEVE ORGANISATIONAL EXCELLENCE

We invest in our people and capabilities to operate and deliver quality work responsibly and sustainably

DELIVERING ORGANISATIONAL EXCELLENCE

Recognition at the Public Transformation Awards 2018

Making an Outstanding Impact

Three of our staff members were lauded for excellence at the Public Sector Transformation Awards 2018. The Awards recognise individuals and teams from the Public Service for their excellence in service delivery, innovation and best practices, as well as agencies for their organisational excellence.

Providing Excellent Customer Service Experience

At BCA, people are at the heart of what it does. This was exemplified by the recognition that two of our staff members and one team received for providing excellent service experiences to our customers and their contributions to BCA. They were also honoured at the Public Sector Transformation Awards ceremony in July 2018. Kudos to our BCA officers who had done the organisation proud and for being an inspiration for solving daily challenges at work creatively.

STAR MANAGER

Dr Gao Chun Ping, Programme Director (Green Building Technology) led in green building research and innovation. Notable contributions in projects included the BCA SkyLab, the world's first high-rise rotatable laboratory for green building technologies' testing, and Singapore's first Positive Energy Low-rise Building.

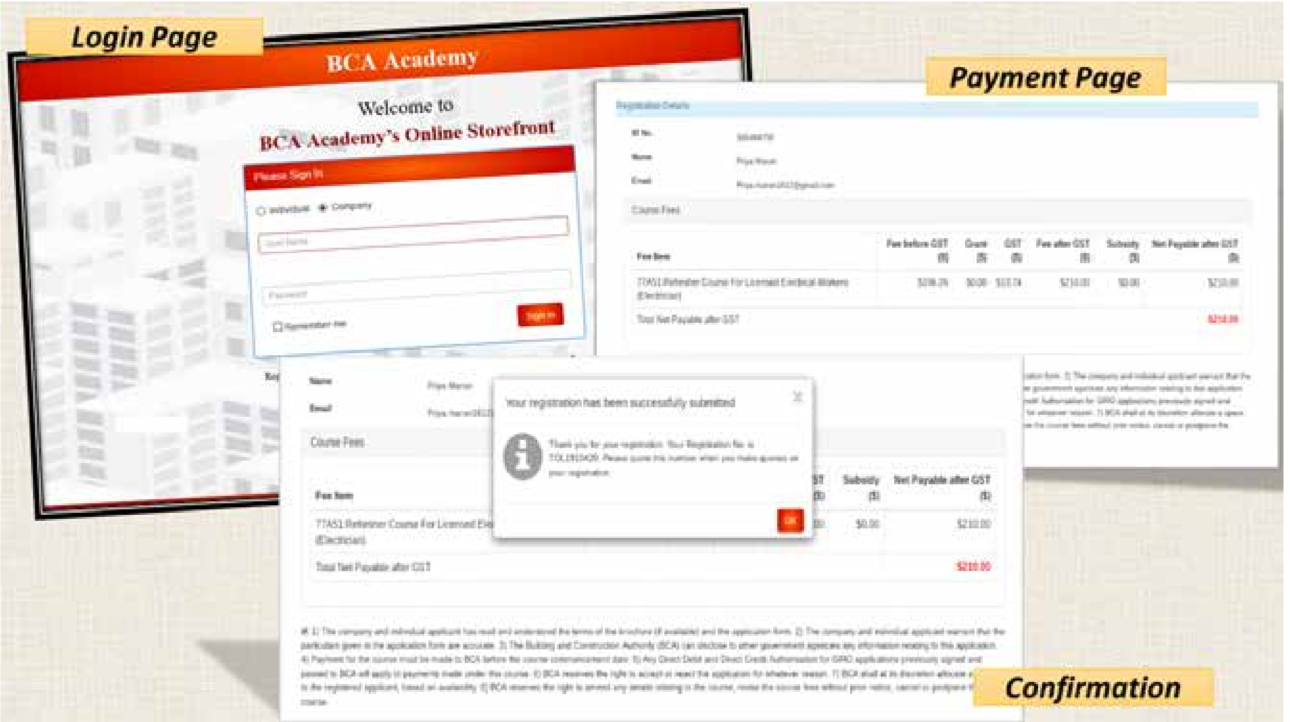
Ms Low Yee Mei, Deputy Director (School of Building and Development) led the academic team to design and implement innovative construction ITM related training programmes to meet the crucial needs of upgrading our manpower. Building on her belief of strong service standards, she motivated and enthused the team on the importance of gathering industry support for the launch and implementation of these new training programmes. Being an educator, she took time and effort to coach less experienced colleagues on the approach and problem-solve alongside with them.

Er. Wong Siew Heng, Director (Transit Shelter Engineering Department) led the Mechanical, Electrical and Plumbing (MEP) taskforce to help industry firms gain better understanding and knowledge of prefabricated MEP technology so that they can benefit from the productivity and quality gains.

WORKING TOGETHER TO ACHIEVE ORGANISATIONAL EXCELLENCE

SERVICE AWARDS – PUBLIC SECTOR TRANSFORMATION AWARDS 2018	
Distinguished Star Service Award	Tan Soh Hong, Principal Customer Relations Associate (Customer Services Department)
Star Service Individual Award	Er. David Tey Dah Wei, Principal Engineer (Enforcement and Structural Inspection Department)
Star Service Team Award	Adelbert Ngui, Principal Manager (Procurement Policies Department) Alvin Kin, Senior Assistant Executive (Procurement Policies Department)

Winners of the Public Sector Transformation Awards 2018.



The BCA Academy Online Storefront allows customers to browse training courses with real-time information.

Pro-Enterprise Initiatives

As part of our pro-enterprise initiative to help Singapore's construction businesses succeed, BCA continued to champion and drive pro-enterprise ideas efforts to improve the ease of doing business.

Strengthening Online Accessibility

The BCA Academy Online Storefront was awarded MTI's Pro-Enterprise award for the first half of 2018. Launched in April 2018, this new e-service was the first of its kind in the training and education sector. A technologically advanced digital platform, it was designed to provide a personalised, efficient and technologically advanced interface with the public. The platform simplified the application process, shortened the time taken for applications, and enabled personalised cost calculations for each participant. All interactions and document submissions took place via the platform, and businesses were able to get updates of their training applications as well as retrieve invoices and payment records. It also allowed businesses to retrieve their past training records so that they could assess, track and manage their staff's training records and needs easily. Businesses would experience significant cost savings in terms of man-hours, at the same time with 24h access to training information. This initiative has been shared with other public sector agencies.

Improving Workflow for Import Permits

BCA initiated a pro-enterprise project to reduce the waiting and clearance time for importers of construction materials and their customers. BCA officers did not need to travel to the landing site. It improved workflow through the use of video conferencing applications to verify the import permit.

Gaining Top Award for Energy Efficiency

The BCA Academy won the Energy Efficiency Building Award under the tropical building category in the ASEAN Energy Awards 2018, organised by the ASEAN Centre for Energy, for the Academic Tower in recognition of its excellent passive design and energy and water efficient installations and technologies.

Nearly 150 volunteers came together for the AWWA Transitional Shelter programme, to spruce up homes for 40 families.

DEVELOPING OUR PEOPLE HOLISTICALLY

At BCA, we collaborate with our industry partners to extend care to those in need, reflecting our core values as an organisation that cares for the community.

6 August 2018 – BCA's Corporate Social Responsibility (CSR) Day of Giving and Caring Through Volunteerism

As part of BCA's and the built environment sector's contribution to the National Day 2018 celebrations, BCA worked together with several partners on a volunteer project named "18 Days of Giving, a Lifetime of Caring".

BCA collaborated with Precise Development Pte Ltd, Mitsubishi Electric Asia Pte Ltd, Feng Ming Construction Pte Ltd, Nippon Paint Co (Singapore) Pte Ltd and Integrated Aluminium Pte Ltd to support the AWWA Transitional Shelter programme.

The Transitional Shelter programme provided temporary accommodation for displaced families who had exhausted all other means of accommodation and were facing financial difficulties.

Nearly 150 volunteers came together for this project to spruce up homes for 40 families under this programme.

All these efforts would improve the quality of life of the tenants. Through this, BCA and the industry partners gave back to the community in a way they knew best, and helped ensure the built environment was well-maintained and safe.

WORKING TOGETHER TO ACHIEVE ORGANISATIONAL EXCELLENCE

01 *BCA partnered SCAL in a total of six CSR projects since 2013.*

02 *BCA was awarded Champions of Good 2018 for exemplary corporate giving efforts.*

DELIVERING ORGANISATIONAL EXCELLENCE

16 November 2018 – Practising and Advocating Corporate Stewardship

BCA was lauded for engaging its built environment partners and stakeholders on a collaborative giving journey to build Singapore. BCA was recognised by the National Volunteer & Philanthropy Centre (NPVC) as one of the Champions of Good 2018 for our efforts in corporate giving.

5 December 2018 – Working with Industry Partners for CSR Project

For the sixth consecutive year, BCA collaborated with Singapore Contractors Association Ltd (SCAL) to improve the facilities and infrastructure at the Singapore Association of the Visually Handicapped (SAVH).

In 2018, a total of eight SCAL member firms contributed to the revamping works at SAVH. The main works included a new massage centre, improvement works to ramps and installation of new tactile floor tiles to enhance accessibility for the visually impaired. All these improvement works helped to enhance the accessibility of the facilities, benefitting more than 4,000 people who had low vision (partial sight) or were visually handicapped.

Group Director (Corporate Development) receiving the award on behalf of BCA at the HRM Awards 2018.

Achieving Excellence in People Management

At BCA, we value our employees and aim to attract and retain our workforce and grow their capabilities to the best that they can be.

Awarded for Human Resources Management (HRM) Practices

BCA was conferred the 'Best Work-Life Balance' award at the 15th HRM Awards in 2018, which recognised the best human resources professionals and practices in Singapore. BCA's award came amongst other finalists from the private sector.

BCA adopted a work-life strategy where a combination of flexible working arrangements, enhanced leave benefits and employee support schemes were available for its staff to manage their work-life needs.

BCA's Human Capital Development Department, together with its Staff Recreation and Corporate Social Responsibility Committees, would continue to work closely to ensure a seamless integration of supportive policies and programmes which might also be co-created and initiated by our employees.

BCA AWARDS 2018

The BCA Awards 2018 recognised organisations that showcased the best quality and practices in the construction sector. The awards testify to the high standards within the industry.

BUILDING AND CONSTRUCTION AUTHORITY AND ITS SUBSIDIARIES

ANNUAL FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Building and Construction Authority and its subsidiaries

STATEMENT BY THE BOARD

For the financial year ended 31 March 2019

In our opinion:

(a) the accompanying Statements of Financial Position, Statements of Comprehensive Income, Statements of Changes in Reserves and the Consolidated Cash Flow Statement of the Building and Construction Authority (the "Authority") and its subsidiaries (collectively, the "Group"), together with the notes thereon, are drawn up so as to present fairly, in all material respects, the financial position of the Authority and of the Group as at 31 March 2019 and the financial performance and changes in reserves of the Authority and the Group and cash flows of the Group for the financial year then ended, in accordance with the provisions of the Public Sector (Governance) Act 2018, Act 5 of 2018 ("the PSG Act"), the Building and Construction Authority Act, Chapter 30A (the "Act") and Singapore Statutory Board Financial Reporting Standards;

(b) at the date of this statement, there are reasonable grounds to believe that the Authority will be able to pay its debts as and when they fall due;

(c) the accounting and other records required by the Act to be kept by the Group have been properly kept in accordance with the provisions of the Act; and

(d) the receipt, expenditure, investment of moneys and the acquisition and disposal of assets by the Authority during the financial year have been in accordance with the provisions of the Act.

The Board of the Building and Construction Authority has, on the date of this statement, authorised these financial statements for issue.

On behalf of the Board of the Building and Construction Authority

Lee Fook Sun
Chairman

Hugh Lim
Chief Executive Officer

5 August 2019

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Independent auditors' report

Members of the Board
Building and Construction Authority

Report on the audit of the financial statements

We have audited the financial statements of Building and Construction Authority (the "Authority") and its subsidiaries (collectively, the "Group"), which comprise the statements of financial position of the Group and Authority as at 31 March 2019, statements of comprehensive income and statements of changes in reserves of the Group and Authority, and consolidated cash flow statement of the Group for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages FS1 to FS55.

In our opinion, the accompanying consolidated financial statements of the Group, the statement of financial position, the statement of comprehensive income and the statement of changes in reserves of the Authority are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018, Act 5 of 2018 ("the PSG Act"), the Building and Construction Authority Act, Chapter 30A (the "Act") and Statutory Board Financial Reporting Standards ("SB-FRS") so as to present fairly, in all material aspects, the statement of affairs of the Group and the Authority as at 31 March 2019 and of the financial performance and changes in reserves, of the Group and Authority and consolidated 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.

Other information

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

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

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

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.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with the PSG Act, the provisions of the Act and SB-FRSs, and for devising and maintaining a system of internal accounting controls sufficient to provide a reasonable assurance that assets are safeguarded against loss from unauthorised use or disposition; and transactions are properly authorised and that they are recorded as necessary to permit the preparation of true and fair financial statements and to maintain accountability of assets.

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, or has no realistic alternative but to do so.

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 scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

- 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.

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

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the 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.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the 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 Authority during the financial year are, in all material respects, in accordance with the provisions of the PSG Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority; and

(b) proper accounting and other records have been kept, including records of all assets of the Authority whether purchased, donated or otherwise.

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

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 PSG Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority. This responsibility includes monitoring related compliance requirements relevant to the Authority, and implementing internal controls as management determines are necessary to enable compliance with the requirements.

Auditor's responsibilities for the compliance audit

Our responsibility is to express an opinion on management's compliance based on our audit of the financial statements. We planned and performed the compliance audit to obtain reasonable assurance about whether the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the PSG Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority.

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

KPMG LLP
Public Accountants and
Chartered Accountants

Singapore
5 August 2019

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Statements of financial position
As at 31 March 2019

	Note	Group 2018/2019 S$	Group 2017/2018 S$	Authority 2018/2019 S$	Authority 2017/2018 S$
Assets					
Property, plant and equipment	4	62,711,518	66,118,049	62,711,518	66,118,049
Investments in subsidiaries	5	–	–	2	2
Prepaid land lease	6	75,595,893	53,885,234	75,595,893	53,885,234
Non-current assets		138,307,411	120,003,283	138,307,413	120,003,285
Trade and other receivables	7	22,443,176	18,349,165	22,414,227	18,513,189
Fixed deposits	8	4,500,000	7,500,000	–	–
Cash and cash equivalents	9	442,799,037	408,797,161	438,330,021	407,451,491
Current assets		469,742,213	434,646,326	460,744,248	425,964,680
Total assets		608,049,624	554,649,609	599,051,661	545,967,965
Liabilities					
Fees received in advance	10	103,127,493	69,039,774	103,127,493	69,039,774
Provision for pension costs	11(a)	3,342,239	4,139,788	3,342,239	4,139,788
Provision for reinstatement costs	11(b)	377,640	369,539	377,640	369,539
Grants received in advance	12	4,262,395	4,532,760	4,262,395	4,532,760
Deferred capital grants	13	5,059,416	3,885,260	5,059,416	3,885,260
Non-current liabilities		116,169,183	81,967,121	116,169,183	81,967,121
Fee received in advance	10	60,289,399	56,021,220	56,994,039	53,123,560
Trade payables	14	5,614,672	5,049,930	5,614,672	5,049,930
Other payables and accruals	14	56,539,498	51,251,059	56,532,098	51,242,312
Provision for pension costs	11(a)	896,601	725,081	896,601	725,081
Provision for onerous contract	11(c)	492,652	–	492,652	–
Grants received in advance	12	228,135	158,994	228,135	158,994
Deferred capital grants	13	1,394,030	1,986,587	1,394,030	1,986,587
Provision for contribution to consolidated fund	15	2,917,121	1,198,734	2,917,121	1,198,734
Income tax payables		22,646	44,149	–	–
Current liabilities		128,394,754	116,435,754	125,069,348	113,485,198
Total liabilities		244,563,937	198,402,875	241,238,531	195,452,319
Net assets		363,485,687	356,246,734	357,813,130	350,515,646
Capital and reserves					
Share capital	16	3,401,000	2,101,000	3,401,000	2,101,000
Capital account	17	30,816,526	30,816,526	30,816,526	30,816,526
Accumulated surplus		329,268,161	323,329,208	323,595,604	317,598,120
Total capital and reserves		363,485,687	356,246,734	357,813,130	350,515,646
Net assets of trust and agency funds	18	21,977,058	10,545,984	21,977,058	10,545,984

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Statements of comprehensive income
Year ended 31 March 2019

	Note	Group 2018/2019 S$	Group 2017/2018 S$	Authority 2018/2019 S$	Authority 2017/2018 S$
Operating income					
Plan fees		33,531,295	29,627,063	33,531,295	29,627,063
Advertisement licence fees		6,094,673	5,798,871	6,094,673	5,798,871
Course fees		33,118,922	37,578,499	33,118,922	37,545,000
Quality assessment fees		12,549,810	14,588,662	12,005,611	13,400,962
Certification fees		3,348,650	3,384,671	3,277,150	3,340,671
Trade test fees		15,117,325	14,595,905	15,117,325	14,595,905
Contractors registration fees		4,635,181	4,580,560	4,635,181	4,580,560
Operating lease income	19(b)	66,306,947	63,796,747	66,306,947	63,796,747
Management fees		13,625,270	19,185,345	13,625,270	19,185,345
Other income		14,230,595	13,627,275	14,230,595	13,340,756
Total operating income	20	202,558,668	206,763,598	201,942,969	205,211,880
Operating expenditure					
Employee benefit costs	21	124,554,282	119,113,739	124,042,098	118,300,530
Depreciation of property, plant and equipment	4	11,790,501	19,400,704	11,790,501	19,400,704
Course and programme expenses		19,855,251	29,050,833	19,835,102	29,005,822
Operating lease expenses	19(a)	75,620,320	72,496,041	75,620,320	72,496,041
Repairs and maintenance expenses		13,692,173	13,184,824	13,692,173	13,184,824
Reversal of impairment loss on trade receivables		(128,460)	(383,596)	(128,460)	(383,596)
Other expenditure		11,775,977	14,426,525	11,577,077	13,953,983
Total operating expenditure		257,160,044	267,289,070	256,428,811	265,958,308
Net operating deficit		(54,601,376)	(60,525,472)	(54,485,842)	(60,746,428)
Non-operating income/(expenditure)					
Interest income		7,424,166	5,276,209	7,344,517	5,203,165
Gain on disposal of property, plant and equipment		1,088	83,298	1,088	83,298
Property, plant and equipment written-off/expensed		(775,336)	(462)	(775,336)	(462)
		6,649,918	5,359,045	6,570,269	5,286,001
Deficit before government grants brought forward		(47,951,458)	(55,166,427)	(47,915,573)	(55,460,427)

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Statements of comprehensive income (cont'd)
Year ended 31 March 2019

	Note	Group 2018/2019 S$	Group 2017/2018 S$	Authority 2018/2019 S$	Authority 2017/2018 S$
Government grants					
Operating and development grants	12	63,541,994	68,439,532	63,541,994	68,439,532
Deferred capital grants amortised	13	1,533,115	2,759,781	1,533,115	2,759,781
		65,075,109	71,199,313	65,075,109	71,199,313
Surplus before contribution to consolidated fund and income tax		17,123,651	16,032,886	17,159,536	15,738,886
Contribution to consolidated fund	15	(2,917,121)	(1,198,734)	(2,917,121)	(1,198,734)
Income tax expense	23	(22,646)	(39,149)	–	–
Surplus for the year	22	14,183,884	14,795,003	14,242,415	14,540,152
Other comprehensive deficit:					
Items that will not be reclassified to surplus or deficit in subsequent periods					
Re-measurement loss on defined benefit plan	11(a)	–	(730,341)	–	(730,341)
Other comprehensive deficit for the year, net of tax		–	(730,341)	–	(730,341)
Total comprehensive income for the year		14,183,884	14,064,662	14,242,415	13,809,811

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Statements of changes in reserves
Year ended 31 March 2019

	Note	Share capital S$	Capital account S$	Accumulated surplus S$	Total S$
Group					
At 1 April 2017		1,000	30,816,526	358,804,546	389,622,072
Total comprehensive income for the year					
Surplus for the year		–	–	14,064,662	14,064,662
Total comprehensive income for the year		–	–	14,064,662	14,064,662
Issue of share capital		2,100,000	–	–	2,100,000
One-off contribution to Consolidated Fund	24	–	–	(49,540,000)	(49,540,000)
At 31 March 2018		2,101,000	30,816,526	323,329,208	356,246,734
At 1 April 2018		2,101,000	30,816,526	323,329,208	356,246,734
Total comprehensive income for the year					
Surplus for the year		–	–	14,183,884	14,183,884
Total comprehensive income for the year		–	–	14,183,884	14,183,884
Issue of share capital		1,300,000	–	–	1,300,000
Dividends paid	26	–	–	(8,244,931)	(8,244,931)
At 31 March 2019		3,401,000	30,816,526	329,268,161	363,485,687

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Statements of changes in reserves (cont'd)
Year ended 31 March 2019

	Note	Share capital S$	Capital account S$	Accumulated surplus S$	Total S$
Authority					
At 1 April 2017		1,000	30,816,526	353,328,309	384,145,835
Total comprehensive income for the year					
Surplus for the year		–	–	13,809,811	13,809,811
Total comprehensive income for the year		–	–	13,809,811	13,809,811
Issue of share capital		2,100,000	–	–	2,100,000
One-off contribution to Consolidated Fund	24	–	–	(49,540,000)	(49,540,000)
At 31 March 2018		2,101,000	30,816,526	317,598,120	350,515,646
At 1 April 2018		2,101,000	30,816,526	317,598,120	350,515,646
Total comprehensive income for the year					
Surplus for the year		–	–	14,242,415	14,242,415
Total comprehensive income for the year		–	–	14,242,415	14,242,415
Issue of share capital		1,300,000	–	–	1,300,000
Dividends paid	26	–	–	(8,244,931)	(8,244,931)
At 31 March 2019		3,401,000	30,816,526	323,595,604	357,813,130

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Consolidated cash flow statement
Year ended 31 March 2019

	Note	Group 2018/2019 S$	Group 2017/2018 S$
Cash flows from operating activities			
Deficit before government grants		(47,951,458)	(55,166,427)
Adjustments for:			
Depreciation of property, plant and equipment		11,790,501	19,400,704
Amortisation of prepaid land lease		2,589,342	1,981,842
Interest income		(7,424,166)	(5,276,209)
Gain on disposal of property, plant and equipment		(1,088)	(83,298)
Property, plant and equipment written-off/expensed		775,336	462
Reversal of impairment loss on trade receivables		(128,460)	(383,596)
Provision for onerous contract		492,652	–
Provision for pension costs		99,728	103,247
		(39,757,613)	(39,423,275)
Changes in working capital:			
Increase in trade and other receivables		(1,494,927)	(5,211,947)
Increase/(Decrease) in fees received in advance		38,355,898	(3,714,742)
Increase/(Decrease) in trade payables		564,742	(406,223)
Increase/(Decrease) in other payables and accruals		5,448,990	(4,651,346)
Decrease in cash not available for general use		1,362,451	1,119,560
Cash flows from/(used in) operations		4,479,541	(52,287,973)
Payment for contribution to consolidated fund		(1,198,734)	–
Payment for income tax		(44,149)	(99,200)
Pension paid		(725,757)	(573,285)
Net cash from/(used in) operating activities		2,510,901	(52,960,458)
Cash flows from investing activities			
Purchase of property, plant and equipment (Note A)		(7,236,129)	(6,236,102)
Proceeds from disposal of property, plant and equipment		1,261	83,355
Withdrawal/(Placement) of fixed deposits		3,000,000	(500,000)
Interest received		4,953,542	6,689,485
Prepaid land lease		(24,300,001)	–
Net cash (used in)/from investing activities		(23,581,327)	36,738
Cash flows from financing activities			
Payment for one-off contribution to consolidated fund		–	(49,540,000)
Dividends paid		(8,244,931)	–
Issuance of shares		1,300,000	2,100,000
Government grants received		63,379,684	68,201,510
Net cash from financing activities		56,434,753	20,761,510
Net increase/(decrease) in cash and cash equivalents		35,364,327	(32,162,210)
Cash and cash equivalents at 1 April		401,312,076	433,474,286
Cash and cash equivalents at 31 March	9	436,676,403	401,312,076

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Consolidated cash flow statement (cont'd)
Year ended 31 March 2019

		Group	
	Note	**2018/2019**	**2017/2018**
		S$	**S$**
Note A			
Purchase of property, plant and equipment:			
Additions of property, plant and equipment	4	9,159,479	6,085,655
Add: Opening accruals for the purchase of property, plant and equipment	14	1,830,757	2,519,727
Less: Closing accruals for the purchase of property, plant and equipment	14	(1,670,206)	(1,830,757)
Less: Fixed assets received from Ministry of National Development	13	–	(413,950)
Less: Other fixed assets received	13	(2,075,800)	(116,472)
Add: Opening provision for reinstatement costs	11(b)	369,539	361,438
Less: Closing provision for reinstatement costs	11(b)	(377,640)	(369,539)
		7,236,129	6,236,102

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Notes to the financial statements

These notes form an integral part of the financial statements.

The financial statements of the Authority and its subsidiaries (Group) which comprise the statements of financial position of the Group and the Authority as at 31 March 2019, statements of comprehensive income and statements of changes in reserves of the Group and Authority and consolidated cash flow statement of the Group for the year ended were authorised for issue by the Board Members of the Authority on 5 August 2019.

1 Domicile and activities

Building and Construction Authority (the "Authority") is established as a statutory board in the Republic of Singapore under the Building and Construction Authority Act, Chapter 30A (the "Act"). The address of the Authority's registered office is 52 Jurong Gateway Road, #11-01, Singapore 608550.

The mission of the Authority is to shape a safe, high quality, sustainable and friendly built environment. The principal activities of the subsidiaries are disclosed in Note 5 to the financial statements.

2 Basis of preparation

2.1 Statement of compliance

The financial statements have been prepared in accordance with the provision of the Act and the Statutory Board Financial Reporting Standards ("SB -FRS"). SB-FRS includes Statutory Board Financial Reporting Standards, Interpretations of SB-FRS and SB-FRS Guidance Notes.

This is the first set of the Group's annual financial statements in which SB-FRS 115 *Revenue from Contracts with Customers* and SB-FRS 109 *Financial Instruments* have been applied. Changes to significant accounting policies are described in note 2.5.

2.2 Basis of measurement

The financial statements have been prepared on the historical cost basis except as otherwise described in the notes below.

2.3 Functional and presentation currency

These financial statements are presented in Singapore Dollars, which is the Authority's functional currency, unless otherwise stated.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

2.4 Use of estimates and judgements

The preparation of the financial statements in conformity with SB-FRSs requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

In particular, information about significant areas of estimation uncertainty and critical judgements in applying accounting policies that have most significant effect on the amount recognised in the financial statements is included in the followings notes:

- Note 3.9 (i)– provision for pension costs
- Note 3.10 – revenue recognition
- Note 4 – estimation of useful lives of property, plant and equipment
- Note 7 – recoverability of trade and other receivables

The accounting policies used by the Group have been applied consistently to all periods presented in these financial statements.

2.5 Changes in accounting policies

In the current financial year, the Group has adopted all the new and revised SB-FRS and INT SB-FRS and guidance notes that are relevant to its operations and effective for annual periods beginning on 1 April 2018. The adoption of the new or revised SB-FRS did not result in substantial changes to the Group and the Authority's accounting policies and has no material effect on the amount reported for the current and prior financial years except as detailed below.

A. SB-FRS 115 *Revenue from Contracts with Customers*

SB-FRS 115 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It replaced SB-FRS 18 *Revenue*, SB-FRS 11 *Construction Contracts* and related interpretations. Under SB-FRS 115, revenue is recognised when a customer obtains control of the goods or services. Determining the timing of the transfer of control – at a point in time or over time – requires judgement.

The adoption of SB-FRS 115 did not have a significant impact on the financial statements.

B. SB-FRS 109 *Financial Instruments*

SB-FRS 109 sets out requirements for recognising and measuring financial assets and financial liabilities. It also introduces a new ECL model.

As a result of the adoption of SB-FRS 109, the Company has adopted consequential amendments to SB-FRS 1 *Presentation of Financial Statements*, which require impairment of financial assets to be presented in a separate line item in the statement of profit or loss. Previously, the Company's approach was to include the impairment of trade receivables in other expenditure. Consequently, the Company reclassified reversal of impairment losses amounting to $383,596, recognised under SB-FRS 39 *Financial Instruments: Recognition and Measurement*, from 'other expenditure' to 'impairment loss on trade receivables' in the statement of profit or loss for the year ended 31 March 2018.

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

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

SB-FRS 109 contains three principal classification categories for financial assets: measured at amortised cost, FVOCI and FVTPL. The classification of financial assets under SB-FRS 109 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. SB-FRS 109 eliminates the previous SB-FRS 39 categories of held to maturity, loans and receivables and available for sale.

SB-FRS 109 largely retains the existing requirements in SB-FRS 39 for the classification and measurement of financial liabilities.

The following tables and the accompanying notes below explain the original measurement categories under SB-FRS 39 and the new measurement categories under SB-FRS 109 for each class of the Group's financial assets as at 1 April 2018.

	Note	Original classification under SB-FRS 39	New classification under SB-FRS 109	Original carrying amount under SB-FRS 39 S$	New carrying amount under SB-FRS 109 S$
Financial assets					
Trade and other receivables	(a)	Loan and receivables	Amortised cost	16,624,954	16,624,954
Fixed deposit	(a)	Loan and receivables	Amortised cost	7,500,000	7,500,000
Cash and cash equivalent	(a)	Loan and receivables	Amortised cost	401,312,076	401,312,076
Total financial assets				425,437,030	425,437,030

(a) Trade and other receivables, fixed deposit and cash and cash equivalent that were classified as loans and receivables under SB-FRS 39 are now classified at amortised cost.

(ii) Impairment of financial assets

SB-FRS 109 replaces the 'incurred loss' model in SB-FRS 39 with an ECL model. The new impairment model applies to financial assets measured at amortised cost.

The Group applied the simplified approach and record lifetime expected losses on trade receivables. The amount of the allowance was negligible.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

3 Significant accounting policies

3.1 Basis of consolidation

(i) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

The accounting policies of subsidiaries have been changed when necessary to align them with the policies adopted by the Group.

3.2 Foreign currency

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Authority and its subsidiaries at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between amortised cost in the functional currency at the beginning of the year, adjusted for effective interest and payments during the year, and the amortised cost in foreign currency translated at the exchange rate at the end of the year.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items in a foreign currency that are measured in terms of historical cost are translated using the exchange rate at the date of the transaction. Foreign currency differences arising on translation are recognised in profit or loss.

3.3 Financial instruments

(i) Recognition and initial measurement

Non-derivative financial assets and financial liabilities

Trade receivables are initially recognised when they are originated. All other financial assets and financial liabilities are initially recognised when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at fair value through profit or loss ("FVTPL"), transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

(ii) Classification and subsequent measurement

Non-derivative financial assets – Policy applicable from 1 April 2018

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income ("FVOCI")– equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Financial assets at amortised cost

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets: Business model assessment – Policy applicable from 1 April 2018

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- the stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management's strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realising cash flows through the sale of the assets;
- how the performance of the portfolio is evaluated and reported to the Group's management;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed; and
- the frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group's continuing recognition of the assets.

Financial assets that are held-for-trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Non-derivative financial assets: Assessment whether contractual cash flows are solely payments of principal and interest – Policy applicable from 1 April 2018

For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable rate features;
- prepayment and extension features; and
- terms that limit the Group's claim to cash flows from specified assets (e.g. non-recourse features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a significant discount or premium to its contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

Non-derivative financial assets: Subsequent measurement and gains and losses – Policy applicable from 1 April 2018

Financial assets at amortised cost

These assets are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.

Non-derivative financial assets – Policy applicable before 1 April 2018

The Group classifies non-derivative financial assets into loans and receivables.

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Non-derivative financial assets: Subsequent measurement and gains and losses – Policy applicable before 1 April 2018

Loans and receivables

Loans and receivables were financial assets with fixed or determinable payments that were not quoted in an active market. Such assets were initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables were measured at amortised cost using the effective interest method, less any impairment losses.

Loans and receivables comprised cash and cash equivalents, and trade and other receivables.

Non-derivative financial liabilities: Classification, subsequent measurement and gains and losses

Financial liabilities are classified as measured at amortised cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognised in profit or loss. Directly attributable transaction costs are recognised in profit or loss as incurred.

Other financial liabilities are initially measured at fair value less directly attributable transaction costs. They are subsequently measured at amortised cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognised in profit or loss. These financial liabilities comprised trade and other payables.

(iii) Derecognition

Financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognised in its statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognised.

Financial liabilities

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognised in profit or loss.

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(iv) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(v) Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and cash balances with the Accountant-General Department which are subject to an insignificant risk of change in value.

For the purposes of the consolidated statement of cash flows, cash and cash equivalents comprise cash at bank and cash with the AGD excluding cash at bank not available for general use.

(vi) Share capital

Ordinary shares

Pursuant to Finance Circular Minute No. M26/2008 on capital management framework for statutory boards, equity injection from the government is recorded as share capital.

3.4 Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost, which includes capitalised borrowing costs, less accumulated depreciation and accumulated impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes:

- the cost of materials and direct labour;
- any other costs directly attributable to bringing the assets to a working condition for their intended use;
- when the Group has an obligation to remove the asset or restore the site, an estimate of the costs of dismantling and removing the items and restoring the site on which they are located; and
- capitalised borrowing costs.

Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

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

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The gain or loss on disposal of an item of property, plant and equipment (calculated as the difference between the net proceeds from disposal and the carrying amount of the item) is recognised in profit or loss.

(ii) Depreciation

Depreciation is based on the cost of an asset less its residual value. Significant components of individual assets are assessed and if a component has a useful life that is different from the remainder of that asset, that component is depreciated separately.

Depreciation is recognised as an expense in profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment, unless it is included in the carrying amount of another asset. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term. Depreciation is recognised from the date that the property, plant and equipment are installed and are ready for use, or in respect of internally constructed assets, from the date that the asset is completed and ready for use.

The estimated useful lives for the current year are as follows:

• Leasehold land	29 and 35 years
• Office buildings	29 and 35 years
• Site office and land improvement	10 years
• Office, photo printing and training equipment	5-10 years
• Furniture, fittings and fixtures	8 years
• Data processing equipment	3-5 years

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting period and adjusted if appropriate.

3.5 Prepaid land lease

The prepaid land lease is initially measured at cost less impairment losses. Following initial recognition, the prepaid land lease is measured at cost less accumulated amortisation and any impairment loss. The prepaid land lease is amortised on a straight-line basis over the lease term of 30 years.

3.6 Impairment

(i) Non-derivative financial assets

Policy applicable from 1 April 2018

The Group recognises loss allowances for expected credit losses ("ECLs") on financial assets measured at amortised cost.

Loss allowances of the Group are measured on either of the following bases:

- 12-month ECLs: these are ECLs that result from default events that are possible within the 12 months after the reporting date (or for a shorter period if the expected life of the financial asset is less than 12 months); or

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For the financial year ended 31 March 2019

- Lifetime ECLs: these are ECLs that result from all possible default events over the expected life of a financial asset or contract asset.

Simplified approach

The Group applies the simplified approach to provide for ECLs for all trade receivables. The simplified approach requires the loss allowance to be measured at an amount equal to lifetime ECLs.

General approach

The Group applies the general approach to provide for ECLs on all other financial assets. Under the general approach, the loss allowance is measured at an amount equal to 12-month ECLs at initial recognition.

At each reporting date, the Group assesses whether the credit risk of a financial asset has increased significantly since initial recognition. When credit risk has increased significantly since initial recognition, loss allowance is measured at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and includes forward-looking information.

If credit risk has not increased significantly since initial recognition or if the credit quality of the financial assets improves such that there is no longer a significant increase in credit risk since initial recognition, loss allowance is measured at an amount equal to 12-month ECLs.

The Group considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

Measurement of ECLs

ECLs are probability-weighted estimates of credit losses. Credit losses are measured at the present value of all cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

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For the financial year ended 31 March 2019

Evidence that a financial asset is credit-impaired includes the following observable data:

- significant financial difficulty of the borrower or issuer;
- breach of contract such as a default;
- the restructuring of a loan or advance by the Group on terms that the Group would not consider otherwise; or
- it is probable that the borrower will enter bankruptcy or other financial reorganisation

Presentation of allowance for ECLs in the statement of financial position

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of these assets.

Write-off

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

Policy applicable before 1 April 2018

A financial asset not carried at fair value through profit or loss was assessed at the end of each reporting period to determine whether there was objective evidence that it was impaired. A financial asset was impaired if objective evidence indicated that a loss event(s) had occurred after the initial recognition of the asset, and that the loss event(s) had an impact on the estimated future cash flows of that asset that could be estimated reliably.

Objective evidence that financial assets were impaired included default or delinquency by a debtor, restructuring of an amount due to the Group on terms that the Group would not consider otherwise, indicators that a debtor or issuer would enter bankruptcy, adverse changes in the payment status of borrowers or issuers, economic conditions that correlate with defaults or the disappearance of an active market for a security.

Loans and receivables

The Group considered evidence of impairment for loans and receivables at both a specific asset and collective level. All individually significant loans and receivables were assessed for specific impairment. All individually significant receivables found not to be specifically impairment were then collectively assessed for any impairment that had been incurred but not yet identified. Loans and receivables that were not individually significant were collectively assessed for impairment by grouping together loans and receivables with similar risk characteristics.

In assessing collective impairment, the Group used historical trends of the probability of default, the timing of recoveries and the amount of loss incurred, adjusted for management's judgement as to whether current economic and credit conditions were such that the actual losses were likely to be greater or less than suggested by historical trends.

NOTES TO THE FINANCIAL STATEMENTS

An impairment loss in respect of a financial asset measured at amortised cost was calculated as the difference between its carrying amount and the present value of the estimated future cash flows, discounted at the asset's original effective interest rate. Losses were recognised in profit or loss and reflected in an allowance account against loans and receivables. Interest on the impaired asset continues to be recognised. When the Group considered that there were no realistic prospects of recovery of the asset, the relevant amounts were written off. If the amount of impairment loss subsequently decreased and the decrease was related objectively to an event occurring after the impairment was recognised, then the previously recognised impairment loss was reversed through profit or loss.

An impairment loss in respect of a financial asset measured at amortised cost was calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses were recognised in the statement of comprehensive income and reflected in an allowance account against receivables. Interest on the impaired asset continue to be recognised through the unwinding of the discount. When a subsequent event caused the amount of impairment loss to decrease, the decrease in impairment loss was reversed through the statement of comprehensive income.

(ii) Non-financial assets

The carrying amounts of the Group's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying amount of an asset or its related cash-generating unit (CGU) exceeds its estimated recoverable amount.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. 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 assessments of the time value of money and the risks specific to the asset or CGU. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs.

Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated to reduce the carrying amounts of the other assets in the CGU (group of CGUs) on a *pro rata* basis.

Impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

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For the financial year ended 31 March 2019

3.7 Trust and agency funds

Trust and agency funds are government grants and contributions from other organisations where the Authority is not the owner and beneficiary of the funds. The Authority is merely administering the funds on behalf of the holders of these funds. Income and expenditure of these funds are taken directly to the funds. The net assets relating to the funds are shown as a separate line item in the statements of financial position.

Trust and agency funds are accounted for on a cash basis.

3.8 Employee benefits

(i) Defined contribution plans

The Group makes contributions to the Central Provident Fund ("CPF") scheme in Singapore, a defined contribution pension scheme. Contributions to defined contribution pension schemes are recognised as an expense in the period in which the related service is performed.

(ii) Employee leave entitlement

Employee entitlements to annual leave are recognised as a liability when they accrue to the employees. The estimated liability for leave is recognised for services rendered by employees up to the end of the reporting period.

(iii) Defined benefit retirement obligations

Provision for pension benefits is made for pensionable officers transferred to the Authority on 1 April 1999. Defined benefit retirement obligations due to pensionable officers are recognised in the Statements of financial position in accordance with the Pensions Act, Chapter 225.

The Authority had engaged an actuarial to assess the provision for pension costs.

An actuarial valuation is conducted once every four years or as and when required to determine the cost of pension benefits due to these officers using the Projected Unit Credit Method.

Defined benefit costs comprise the following:

- Service cost
- Interest cost on the provision for defined benefits
- Re-measurements of the provision for defined benefits

Service costs which include current service costs, past service costs and gains or losses on non-routine settlements are recognised as expense in income or expenditure. Past service costs are recognised when plan amendment or curtailment occurs.

Interest cost on the provision for defined benefits is the change during the period in the provision that arises from the passage of time which is determined by applying the discount rate based on the Singapore Government bond yield to the provision. Interest cost on the provision is recognised in income or expenditure.

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Re-measurements comprising actuarial gains and losses are recognised immediately in other comprehensive income in the period in which they arise. Re-measurements are recognised in accumulated surplus within equity and are not reclassified to income or expenditure in subsequent periods.

(iv) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognised for the amount expected to be paid under short-term cash bonus if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

3.9 Provisions

Provisions are recognised when the Group has a present or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provision are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

(i) Provision for pension cost

As described in Notes 3.8(iii) and 11(a), the Group determines the provision for pension cost due to pensionable officers based on the expected pay-outs to be made by the Group in respect of services provided by these pensionable officers up to reporting date.

Any possible change in key assumption, on which the provision for pension is based, will affect the amount of employee benefit costs in the income and expenditure account.

(ii) Provision for reinstatement cost

The provision for reinstatement costs from contractual obligation to restore the leased office to their original states are provided at the present value of expected costs to settle the obligation using estimated cash flows and are recognised as part of the cost of that particular asset. The cash flows are discounted at a current pre tax rate that reflects the risks specific to the reinstatement liability. The unwinding of the discount is expensed as incurred and recognised in profit or loss as a finance cost. The estimated future costs of reinstatement are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are added to or deducted from the cost of the asset.

(iii) Provision for onerous contract

A provision for onerous contracts is recognised when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Group recognises any impairment loss on the assets associated with that contract.

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NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

3.10 Revenue

Revenue is recognised when the Group satisfies a performance obligation (PO) by transferring control of a promised good or service to the customer. The amount of revenue recognised is the amount of the transaction price allocated to the satisfied PO. The Group assesses its revenue arrangements to determine if it is acting as principal or agent. The Group has concluded that it is acting as a principal in all of its revenue arrangements. The following specific recognition criteria must also be met before revenue is recognised:

- Plan fees are recognized as income over the expected duration of each category of project (by size and nature of work);
- Advertisement licence fees are recognised as income over the validity periods of the licence;
- Course fees are recognised as income over the duration of the courses;
- Quality assessment fees are recognised as income over the assessment period;
- Certification fees are recognised upon issuance of the certification;
- Trade test fees are recognised as income on completion of trade tests;
- Contractors registration fees are recognised as income over the validity period of the registration;
- Operating lease income is recognised on a straight-line basis over the lease term;
- Management fees are recognised as income over the period of services rendered; and
- Interest income is recognised using the effective interest method.

Plan fees are recognised as income over the expected duration of each category of projects. Judgement is required to determine the expected duration of each category of projects based on historical information on the duration required to complete the projects.

3.11 Government grants

Government grants from other organisation are recognised initially at fair value when there is reasonable assurance that they will be received and the Group will comply with all the conditions associated with the grants.

(i) Operating grants from Government

Government grants that compensate the Group for expenses incurred are recognised in profit or loss on systematic basis in the same periods in which the expenses are recognised.

NOTES TO THE FINANCIAL STATEMENTS

(ii) Development grants

Government grants received from other agencies for specific development project expenditure are recognised as grant received in advance on the statement of financial position and are recognised in profit or loss on a systematic basis in the same periods in which the development expenses are recognised.

3.12 Lease

(i) As lessee

Payments made under operating lease are recognised as an expense in statement of comprehensive income on a straight-line basis over the term of the lease. Lease incentives are recognised as an integral part of the total lease expense, over the term of the lease.

(ii) As lessor

Leases where the Group does not transfer substantially all the risks and rewards of ownership of the asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

3.13 Statutory contribution to consolidated fund

The Authority is required to contribute to the Consolidated Fund based on a percentage of the net surplus of the Authority for each financial year. The percentage of contribution is determined by the Ministry of Finance.

3.14 Interest income

Interest income is recognised as it accrues in statement of comprehensive income, using effective interest method.

3.15 Tax

Tax expense comprises current and deferred tax. Current tax and deferred tax is recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in OCI.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid that reflects the uncertainty related to income taxes, if any.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

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Deferred tax is not recognised for:

- temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and
- temporary differences related to investments in subsidiaries, associates and joint arrangements to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that they will not reverse in the foreseeable future.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date.

The measurement of deferred taxes reflects the tax consequences that would follow the manner in which the Group experts, at the reporting date, to recover or settle the carrying amount of its asset and liabilities. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by reporting date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

3.16 New standards and interpretations not adopted

A number of new standards are effective for annual periods beginning after 1 April 2018 and earlier application is permitted; however, the Group has not early adopted the new or amended standards in preparing these financial statements.

The following standards are expected to have a material impact on the Group's and the Authority's financial statements in the period of initial application.

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SB-FRS 116 Leases

SB-FRS 116 replaces existing leases guidance, including SB-FRS 17 *Leases,* INT SB-FRS 104 *Determining whether an Arrangement contains a Lease,* INT SB-FRS 15 *Operating Leases – Incentives,* INT SB-FRS 27 *Evaluating the Substance of Transactions Involving the legal Form of a Lease.*

The standard is effective for annual periods beginning on or after 1 April 2019. Early adoption is permitted for entities that apply SB-FRS 115 at or before the date of initial application of SB-FRS 116.

SB-FRS 116 introduces a single, on balance sheet lease accounting model for lessees. A lessee recognises a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items. Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases.

The Group has completed an initial assessment on the following leases of the potential impact on its financial statements but has not yet completed its detailed assessment.

- Foreign workers' dormitories
- Integrated Construction and Precast Hubs
- Ready-Mix Concrete Sites
- Approved Training and Testing Centre
- Office

The actual impact of applying SB-FRS 116 on the financial statements in the period of initial application will depend on future economic conditions, including the composition of the Group's lease portfolio at that date, the Group's latest assessment of whether it will exercise any lease renewal options and the extent to which the Group chooses to use practical expedients and recognition exemptions.

So far, the most significant impact identified is that the Group will recognise new assets and liabilities for its operating leases of foreign workers' dormitories, integrated construction and precast hubs lease and office space. As at 31 March 2019, the Group's future minimum lease payments under non-cancellable operating leases amounted to $175,521,195 (2017/2018: $166,550,610), on an undiscounted basis.

In addition, the nature of expenses related to those leases will now change as SB-FRS 116 replaces the straight-line operating lease expense with a depreciation charge for right-of-use assets and interest expense on lease liabilities.

On transition to SB-FRS 116, the Group can choose whether to:

- apply the SB-FRS 16 definition of a lease to all its contracts; or
- apply a practical expedient and not reassess whether a contract is, or contains, a lease.

Based on a practical expedient in SB-FRS 116, the Group will apply SB-FRS 116 to all contracts entered before 1 April 2019 which are identified as leases applying SB-FRS 17 Leases and INT SB-FRS 104 Determining whether an Arrangement contains a Lease.

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For the financial year ended 31 March 2019

(i) Transition

As a lessee, the Group can either apply the standard using a:

- Retrospective approach or
- Modified retrospective approach with optional practical expedients.

The lessee applies the election consistently to all of its leases.

The Group plans to apply SB-FRS 116 initially on 1 April 2019, using the modified retrospective approach with optional practical expedient. Therefore, the cumulative effect of adopting SB-FRS 116 will be recognised as an adjustment to the opening balance of retained earnings at 1 April 2019, with no restatement of comparative information.

When applying the modified retrospective approach to leases previously classified as operating leases under SB-FRS 17, the lessee can elect, on a lease-by-lease basis, whether to apply a number of practical expedients on transition. The Group is assessing the potential impact of using these practical expedients.

The Group is not required to make any adjustments for leases in which it is a lessor except where it is an intermediate lessor in a sub-lease.

Other standards and interpretations

The following amended standards and interpretations are not expected to have a significant impact on the Group's and the Authority's financial statements.

Applicable to 2019/2020 financial statements

- INT SB-FRS 123 *Uncertainty over Income Tax Treatments;*
- *Long-term Interests in Associates and Joint Ventures* (Amendments to SB-FRS 28);
- *Prepayment Features with Negative Compensation* (Amendments to SB-FRS 109);
- *Previously Held Interest in a Joint Operation* (Amendments to SB-FRS 103 and SB-FRS 111);
- *Income Tax Consequences of Payments on Financial Instruments Classified as Equity* (Amendments to SB-FRS 12);
- *Borrowing Costs Eligible for Capitalisation* (Amendments to SB-FRS 23); and
- *Plan Amendment, Curtailment or Settlement* (Amendments to SB-FRS 19).

Applicable to 2020/2021 financial statements

- SB-FRS 117 *Insurance Contracts*

Mandatory effective date deferred

- *Sale or Contribution of Assets between an Investor and its Associate or Joint Venture* (Amendments to SB-FRS 110 and SB-FRS 28)

4 Property, plant and equipment

Group and Authority	Leasehold land S$	Office buildings S$	Site office and land improvement S$	Office, photo printing and training equipment S$	Furniture, fitting and fixtures S$	Data processing equipment S$	Assets under construction S$	Total S$
Cost								
At 1 April 2017	15,075,011	57,881,830	2,396,157	28,401,426	47,854,040	22,092,358	1,918,436	175,619,258
Additions	–	–	24,800	323,084	573,301	3,340,209	1,824,261	6,085,655
Reclassification	–	4,333,119	–	(354,934)	(3,978,185)	1,556,445	(1,556,445)	–
Disposals	–	–	–	(338,231)	(19,446)	(488,836)	–	(846,513)
Written-off	–	–	(42,320)	(37,322)	(63,010)	–	–	(142,652)
At 31 March 2018	15,075,011	62,214,949	2,378,637	27,994,023	44,366,700	26,500,176	2,186,252	180,715,748
Additions	–	–	–	680,817	141,287	4,341,564	3,995,811	9,159,479
Reclassification	–	–	–	2,000	9,412	–	(11,412)	–
Disposals	–	–	–	–	–	(658,318)	–	(658,318)
Written-off	–	(5,591,688)	(484,065)	(1,549,364)	(2,887,383)	(276,997)	–	(10,789,497)
At 31 March 2019	15,075,011	56,623,261	1,894,572	27,127,476	41,630,016	29,906,425	6,170,651	178,427,412
Accumulated depreciation								
At 1 April 2017	11,135,049	31,036,218	978,705	14,081,459	24,267,680	14,686,530	–	96,185,641
Depreciation for the year	668,868	5,578,339	231,103	4,557,072	4,369,046	3,996,276	–	19,400,704
Disposals	–	–	–	(338,183)	(19,438)	(488,835)	–	(846,456)
Written-off	–	–	(42,320)	(36,896)	(62,974)	–	–	(142,190)
At 31 March 2018	11,803,917	36,614,557	1,167,488	18,263,452	28,554,314	18,193,971	–	114,597,699
Depreciation for the year	430,620	1,130,059	180,529	4,062,615	3,021,307	2,965,371	–	11,790,501
Disposals	–	–	–	–	–	(658,145)	–	(658,145)
Written-off	–	(4,978,284)	(483,340)	(1,500,102)	(2,775,438)	(276,997)	–	(10,014,161)
At 31 March 2019	12,234,537	32,766,332	864,677	20,825,965	28,800,183	20,224,200	–	115,715,894

Group and Authority	Leasehold land S$	Office building S$	Site office and land improvement S$	Office, photo printing and training equipment S$	Furniture, fitting and fixtures S$	Data processing equipment S$	Assets under construction S$	Total S$
Carrying amounts								
At 1 April 2017	3,939,962	26,845,612	1,417,452	14,319,967	23,586,360	7,405,828	1,918,436	79,433,617
At 31 March 2018	3,271,094	25,600,392	1,211,149	9,730,571	15,812,386	8,306,205	2,186,252	66,118,049
At 31 March 2019	2,840,474	23,856,929	1,029,895	6,301,511	12,829,833	9,682,225	6,170,651	62,711,518

A 5% difference in the expected useful lives of these assets from management's estimates would result in approximately 4% (2017/2018 : 6%) or S$620,526 (2017/2018: S$1,021,053) variance in the Group's surplus before contribution to consolidated fund and income tax.

NOTES TO THE FINANCIAL STATEMENTS

5 Investments in subsidiaries

	Authority 2018/2019 S$	Authority 2017/2018 S$
Unquoted shares, at cost	2	2

The subsidiaries at 31 March 2019 are:

Name of subsidiaries	Country of incorporation and principal place of business	Principal activities	Percentage of ownership interest 2018/2019 %	Percentage of ownership interest 2017/2018 %
BCA International Private Limited	Singapore	Construction-related consultancy and advisory services	100	100
BCA Centre for Sustainable Buildings Ltd	Singapore	Research and consultancy services for sustainable building policies and climate change	100	100

6 Prepaid land lease

	Group and Authority 2018/2019 S$	Group and Authority 2017/2018 S$
Cost		
At 1 April	59,455,252	59,455,252
Additions	24,300,001	–
At 31 March	83,755,253	59,455,252
Accumulated amortisation		
At 1 April	5,570,018	3,588,176
Amortisation for the year	2,589,342	1,981,842
At 31 March	8,159,360	5,570,018
Carrying amount	75,595,893	53,885,234
Amount to be amortised:		
- Not later than one year	2,791,842	1,981,842
- Later than one year but not later than five years	11,167,368	7,927,368
- Later than five years	61,636,683	43,976,024

Building and Construction Authority and its subsidiaries

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For the financial year ended 31 March 2019

The Authority leases industrial lands for the development of the Integrated Construction and Precast Hub and in turn the lands are leased out to three different third parties.

The industrial land leased from Housing and Development Board has a remaining tenure of 25 years (2017/2018: 26 years) and the lease started from 2014/2015. The industrial lands leased from Singapore Land Authority have a remaining tenure of 26 years (2017/2018: 27 years), 27 years (2017/2018: 28 years) and 29 years (2017/2018: nil). The leases from Singapore Land Authority started from 2015/2016, 2016/2017 and 2018/2019 respectively.

7 Trade and other receivables

	Note	Group 2018/2019 S$	Group 2017/2018 S$	Authority 2018/2019 S$	Authority 2017/2018 S$
Trade receivables		13,941,472	12,070,589	13,807,971	11,911,373
Other receivables		6,536,947	4,521,748	6,536,040	4,466,016
Grant receivable from Ministry of National Development ("MND")		811,381	30,294	811,381	30,294
Amounts due from subsidiaries - non-trade		–	–	163,240	443,751
Deposits		2,323	2,323	2,323	2,323
Trade and other receivables		21,292,123	16,624,954	21,320,955	16,853,757
Prepayments		1,151,053	1,724,211	1,093,272	1,659,432
Total trade and other receivables		22,443,176	18,349,165	22,414,227	18,513,189
Less: Prepayments		(1,151,053)	(1,724,211)	(1,093,272)	(1,659,432)
Add: Fixed deposits	8	4,500,000	7,500,000	–	–
Add: Cash and cash equivalents	9	436,676,403	401,312,706	432,207,387	399,966,406
Total financial assets at amortised cost (2017/2018: loans and receivables)		462,468,526	425,437,660	453,528,342	416,820,163

Other receivables

The other receivables are mainly interests receivables from Accountant-General's Department ("AGD") under the Centralised Liquidity Management ("CLM") scheme and amount due from sundry debtors. The amount due from sundry debtors are unsecured and interest-free.

Amounts due from subsidiaries

The non-trade amounts due from subsidiaries are unsecured, interest-free, repayable on demand and are to be settled in cash. The outstanding balances are not impaired as at the financial year end.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Impairment losses

In determining the recoverability of a receivable, the Group considers any change in the credit quality of the receivables from the date credit was initially granted up to the reporting date. If the financial condition of the customers were to deteriorate, the Group would be required to record additional impairment losses. Credit risk is limited due to management's on-going evaluation of the creditworthiness of the Group's customers and that majority of the Group's trade receivables are within their expected cash collection cycle.

Source of estimation uncertainty

The Group evaluates at the end of each reporting period whether there is any objective evidence that trade and other receivables are impaired and determines the amount of impairment loss as a result of the inability of the customers to make required payments having considered the probability of insolvency and credit-worthiness of its receivables except for the impair receivables, the Group believes that no impairment loss is necessary in respect of the remaining receivables due to the good track record of its customers.

The Group's exposure to credit risk and impairment losses from trade and other receivables are disclosed in note 27.

8 Fixed deposits

	Group	
	2018/2019	2017/2018
	S$	S$
Fixed deposits with financial institutions	4,500,000	7,500,000
Represented by:		
Current	4,500,000	7,500,000

Fixed deposits with financial institutions are made for a period of 6 months (2017/2018: 12 and 18 months). The weighted average effective interest rate for the year ended 31 March 2019 for the Group was 1.84% per annum (2017/2018: 1.36% to 1.50% per annum).

9 Cash and cash equivalents

	Group		Authority	
	2018/2019	2017/2018	2018/2019	2017/2018
	S$	S$	S$	S$
Cash at bank	23,853,653	17,493,535	19,384,637	16,147,865
Cash with the AGD	418,945,384	391,303,626	418,945,384	391,303,626
	442,799,037	408,797,161	438,330,021	407,451,491
Less: Cash at bank not available for general use	(6,122,634)	(7,485,085)	(6,122,634)	(7,485,085)
	436,676,403	401,312,076	432,207,387	399,966,406

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For the financial year ended 31 March 2019

Cash at bank not available for general use

The Group acts as a collection agent for various parties on certain projects and collects payments on their behalf.

Cash with the AGD

On 2 November 2009, the Accountant-General's Department ("AG D") issued a Circular No. 4/2009 to centrally manage the cash of all Statutory Boards and Ministries under the Centralised Liquidity Management ("CLM") scheme. This scheme aims to achieve higher returns and to better manage credit risk at the Whole-of-Government level. The Authority has participated in the CLM scheme since 25 March 2010.

The weighted average CLM yield for the year ended 31 March 2019 is 1.76% per annum (2017/2018: 1.23%).

10 Fees received in advance

	Group		Authority	
	2018/2019	2017/2018	2018/2019	2017/2018
	S$	S$	S$	S$
At 1 April	125,060,994	128,775,736	122,163,334	125,687,476
Add: Fees received	154,059,977	112,767,873	153,046,577	111,693,273
Less: Fees recognised as revenue	(115,704,079)	(116,482,615)	(115,088,379)	(115,217,415)
At 31 March	163,416,892	125,060,994	160,121,532	122,163,334
Represented by:				
Current	60,289,399	56,021,220	56,994,039	53,123,560
Non-current	103,127,493	69,039,774	103,127,493	69,039,774
	163,416,892	125,060,994	160,121,532	122,163,334

11 Provisions

(a) Provision for pension costs

	Note	Group and Authority 2018/2019 S$	2017/2018 S$
At 1 April		4,864,869	4,604,566
Add: Amount provided during the year	21	99,728	103,247
Add: Re-measurement loss on defined benefit plan		–	730,341
		4,964,597	5,438,154
Less: Pension paid during the year		(725,757)	(573,285)
At 31 March		4,238,840	4,864,869
Represented by:			
Current		896,601	725,081
Non-current		3,342,239	4,139,788
		4,238,840	4,864,869

The above provision includes the provision for pension costs for 14 (2017/2018: 13) pensioners who have exercised the option for reduced pension with gratuity payment under the pension scheme other than CPF. There is also currently 1 (2017/2018: 2) employee of the Group who have not exercised any pension options under the pension scheme. The pension amount to be paid to each employee upon retirement under the pension scheme is dependent on, among other factors, the number of years of service and the last drawn salary. The total pension costs are shared between the Group and the AGD. The Group is only liable for the pension costs for the period of service completed by the employee with the Group.

The employees are entitled to select one of the following pension options upon retirement:

(i) Full pension;
(ii) Reduced pension with gratuity payment; or
(iii) Fully commuted pension gratuity.

The defined retirement benefits obligations due to pensionable officers are determined based on the last drawn salaries of the respective pensionable officers and the pensionable officers' cumulative service period served with the Authority at the time of retirement, assuming that all pensionable officers work till the age of 62 years.

The provision has been estimated by management based on the valuation of the pension scheme performed by an independent firm of professional actuaries.

These defined benefit plans expose the Group to actuarial risks, such as longevity risk and interest rate risk.

Building and Construction Authority and its subsidiaries

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The principal assumptions used by the professional actuaries in determining the pension costs are:

- Discount rate – Gratuity : 2.2% per annum (2017/2018: 2.2% per annum)
- Discount rate – Pension : 2.2% per annum (2017/2018: 2.2% per annum)
- Expected salary increment : Nil (2017/2018: Nil)
- Mortality rate : Singapore Mortality Table
- Expected retirement age : 62

As the retirement benefits payable for the remaining 1 employee of the Group have been computed, no further salary assumption is necessary for the valuation in 2018/2019.

Assumptions regarding future mortality have been based on published statistics and mortality tables. The current longevities underlying the values of the defined benefit obligation at the reporting date were as follows:

	2018/2019	2017/2018
Longevity at age 65 for current pensioners		
Males	21	21
Females	23	23

At 31 March 2019, the weighted-average duration of the defined benefit obligation was 8 years (2017/2018: 9 years)

The sensitivity analysis below has been determined based on reasonably possible changes of each significant assumption on the provision for pension costs as of the end of the reporting period, assuming if all other assumptions were held constant:

	Group and Authority 2018/2019 Increase/ (decrease)	S$	2017/2018 Increase/ (decrease)	S$
Discount rates	+ 25 basis points	(96,406)	+ 25 basis points	(105,087)
	- 25 basis points	100,634	- 25 basis points	109,755
Mortality rates	+ 10%	(101,237)	+ 10%	(99,058)
	- 10%	109,778	- 10%	107,415
Expected salary	+ 0.25%	–	+ 0.25%	–
Increment	- 0.25%	–	- 0.25%	–

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

(b) Provision for reinstatement costs

Provision for reinstatement cost is the estimated cost of restoring the leased offices to their original states. The amount has been capitalized in the cost of the property, plant and equipment.

	Group and Authority	
	2018/2019	**2017/2018**
	S$	**S$**
At 1 April	369,539	361,438
Add: Amount provided during the year	8,101	8,101
At 31 March	377,640	369,539
Represented by:		
Non-current	377,640	369,539

(c) Provision for onerous contract

In March 2013, the Group entered into a non-cancellable lease with a lessor and sublet the lease to a lessee. Due to changes in market condition, the leasee defaulted the lease payment. The lease will be expired in 2043. The Group is in the midst of securing a new leasee to take over the remaining lease term. Given that there is no economic benefit to cover the expense to be incurred subsequent to the year end until the estimated date of completion of the transfer of lease to the new leasee, provision for onerous contract has been made.

	Group and Authority	
	2018/2019	**2017/2018**
	S$	**S$**
At 1 April	–	–
Add: Amount provided during the year	492,652	–
At 31 March	492,652	–
Represented by:		
Current	492,652	–

Building and Construction Authority and its subsidiaries

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For the financial year ended 31 March 2019

12 Grants received in advance

	Note	Operating grants		Development grants		Total	
		2018/2019	**2017/2018**	**2018/2019**	**2017/2018**	**2018/2019**	**2017/2018**
		S$	**S$**	**S$**	**S$**	**S$**	**S$**
Group and Authority							
At 1 April		4,633,784	4,881,605	57,970	48,171	4,691,754	4,929,776
Government grants received/receivable		63,365,818	68,191,711	13,866	9,799	63,379,684	68,201,510
Transfer to deferred capital grants	13	(18,838)	–	(20,076)	–	(38,914)	–
Transfer to profit or loss		(63,541,994)	(68,439,532)	–	–	(63,541,994)	(68,439,532)
At 31 March		4,438,770	4,633,784	51,760	57,970	4,490,530	4,691,754
Represented by:							
Current		176,375	101,024	51,760	57,970	228,135	158,994
Non-current		4,262,395	4,532,760	–	–	4,262,395	4,532,760
		4,438,770	4,633,784	51,760	57,970	4,490,530	4,691,754

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

13 Deferred capital grants

	Note	Group and Authority 2018/2019 S$	2017/2018 S$
At 1 April		5,871,847	8,101,206
Add: Government grants received/receivable			
- Transferred from grants received in advance	12	38,914	–
- Allocation from MND for asset additions in current year		–	413,950
- Other assets received and funding		2,075,800	116,472
Less: Amortisation of deferred capital grants		(1,533,115)	(2,759,781)
At 31 March		6,453,446	5,871,847
Representing			
Current		1,394,030	1,986,587
Non-current		5,059,416	3,885,260
		6,453,446	5,871,847

14 Other payables and accruals

	Group 2018/2019 S$	Group 2017/2018 S$	Authority 2018/2019 S$	Authority 2017/2018 S$
Amounts due to MND	6,501,019	7,071,387	6,501,019	7,071,387
Maintenance deposits	5,555	5,555	5,555	5,555
Sundry creditors	1,332,383	1,666,384	1,332,383	1,666,384
Accruals for unconsumed leave	4,068,568	4,019,789	4,068,568	4,019,789
Accruals for operating expenses	20,255,124	17,911,708	20,247,724	17,902,961
Accruals for the purchase of property, plant and equipment	1,670,206	1,830,757	1,670,206	1,830,757
Security/tender deposits	20,077,615	15,677,579	20,077,615	15,677,579
Scholarships	2,629,028	3,067,900	2,629,028	3,067,900
Total other payables and accruals	56,539,498	51,251,059	56,532,098	51,242,312
Add: Trade payables	5,614,672	5,049,930	5,614,672	5,049,930
Less: Accruals for unconsumed leave	(4,068,568)	(4,019,789)	(4,068,568)	(4,019,789)
Less: GST payable	(1,553,182)	(1,869,793)	(1,553,182)	(1,869,793)
Total financial liabilities carried at amortised costs	56,532,420	50,411,407	56,525,020	50,402,660

The amounts due to MND mainly pertain to the amounts collected on their behalf by the Authority for certain projects which the Group acts as an agent. These balances are unsecured, interest-free, repayable on demand and are to be settled in cash.

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Sundry creditors are non-interest bearing and normally have an average term of six months.

Included in security/tender deposits is an amount of S$7,561,132 (2017/2018: S$8,493,947) collected under the Green Mark Gross Floor Area Incentive Scheme.

15 Provision for contribution to consolidated fund

The Authority is required to make contributions to the Consolidated Fund in accordance with the Statutory Corporations (Contributions to Consolidated Fund) Act, Chapter 319A and in accordance with the Finance Circular Minute No. M5/2005 with effect from 1 April 2004. The contribution is based on a percentage, as decided by the Ministry of Finance, of the net surplus of the Authority for the financial year. The percentage for FY2018/2019 is prevailing corporate tax of 17% (2017/2018: 17%).

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

	Group and Authority 2018/2019 S$	2017/2018 S$
Surplus of the Authority subject to contribution	17,159,536	15,738,886
Amount utilised from deficit carried forward from prior year	–	(8,687,507)
Balance at end of the year	17,159,536	7,051,379
Contribution at 17% (2017/2018: 17%)	2,917,121	1,198,734

16 Share capital

	Group and Authority 2018/2019 No. of shares	2018/2019 S$	2017/2018 No. of shares	2017/2018 S$
Group and Authority:				
At 1 April	2,101,000	2,101,000	1,000	1,000
Issue of ordinary shares	1,300,000	1,300,000	2,100,000	2,100,000
At 31 March	3,401,000	3,401,000	2,101,000	2,101,000

The shares are held by the Ministry of Finance, a body corporate incorporated by the Minister for Finance (Incorporation) Act (Chapter 183).

The holders of these shares are entitled to receive dividends as and when declared by the Authority. These shares carry neither voting rights nor par value.

17 Capital account

The capital account comprises the carrying amount of property, plant and equipment transferred from the former Building Control Division of the Public Works Department and the net value of assets and liabilities transferred from the former Construction Industry Development Board when the Authority was established on 1 April 1999.

Building and Construction Authority and its subsidiaries

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For the financial year ended 31 March 2019

18 Net assets of trust and agency funds

The trust and agency funds comprise 16 funds (2017/2018: 16 funds) managed by the Authority on behalf of other agencies.

The following funds were set up by the Ministry of National Development:

(a) *MND Research Fund**

The MND Research Fund provides support for applied Research and Development projects to raise the quality of life in Singapore. The Authority is both the administrator and a recipient of the MND Research Fund.

(b) *Accessibility Fund*

The Accessibility Fund provides support to private building owners to provide basic accessibility features in their buildings.

(c) *Green Mark Incentive Scheme (New Buildings)*

The Green Mark Incentive Scheme (New Buildings) provides support to private developers and owners to attain higher Green Mark ratings for their developments by adopting Green Building technologies in new construction projects.

(d) *Green Mark Incentive Scheme (Existing Buildings)*

The Green Mark Incentive Scheme (Existing Buildings) provides support to private developers and building owners to improve energy efficiency of their existing buildings.

(e) *Green Mark Incentive Scheme (Design Prototype)*

The Green Mark Incentive Scheme (Design Prototype) supports efforts invested into the design stage of green buildings to achieve higher energy efficiency.

(f) *Green Mark Incentive Scheme (Existing Buildings and Premises)**

The Green Mark Incentive Scheme (Existing Buildings and Premises) provides support to SME building owners and tenants to embark on environmental sustainability and improve energy efficiency (EE) standards of their buildings and premises.

(g) *Sustainable Construction Capability Development Fund*

The Sustainable Construction Capability Development Fund supports capabilities development in delivering sustainable materials and adopting sustainable construction methods.

Building and Construction Authority and its subsidiaries

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For the financial year ended 31 March 2019

(h) *Building Retrofit Energy Efficiency Financing Scheme**

The Building Retrofit Energy Efficiency Financing Scheme provides financial assistance to the less financially strong building owners, MCST and Energy Services Companies to carry out building retrofits.

The following fund was granted by the Productivity Fund Administration Board:

(i) *Construction Productivity and Capability Fund**

The Construction Productivity and Capability Fund aims to transform the construction sector through workforce development, technology adoption and capability development.

(j) *SkillsFuture Study Awards for Built Environment Sector**

The SkillsFuture Study Awards targets Singaporeans in their early to mid-career stages with the skills needed for quality jobs, by encouraging them to develop and deepen specialised skills in areas of demand required by future economic growth sectors.

The following funds were granted by the SkillsFuture Singapore Agency with the aim to meet the long term requirements of the building and construction industry for different groups of professionals:

(k) *SMU-BCA Advanced Management Programme Course Fee Grant*

The SMU-BCA Advanced Management Programme Course Fee Grant provides support to firms to develop strategic management capabilities of senior executives to build sustainable competitive advantages for their firms.

(l) *Workplace Safety and Health Professionals Workforce Skills Qualifications Framework Grant*

The Workplace Safety and Health (WSH) Professionals Workforce Skills Qualifications (WSQ) Framework Grant aims to build a pool of skilled workers to meet the long term requirements of the WSH professionals. The Grant offers Training and Assessment and Assessment-Only-Pathway, which leads to qualifications under the WSQ system.

(m) *Professional Conversion Programme for Sustainable Design Consultants Grant*

The Professional Conversion Programme for Sustainable Design Consultants Grant provides support to firms to build up their expertise and capabilities in green building design.

The following fund was set up by Ministry of National Development and Sino-Singapore Tianjin Eco-City Administrative Committee (ECAC):

(n) *MND-ECAC Research Fund*

The MND-ECAC Research Fund supports green building research and development projects between Singapore and China in the Sino-Singapore Tianjin Eco-City.

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The following fund was set up by the National Research Fund:

(o) Energy Innovation Research Programme for Building Energy Efficiency Grant

The Energy Innovation Research Programme for Building Energy Efficiency Grant is meant for the administration and managing of the Energy Innovation Research Programme (EIRP) funding in the area of Building Energy Efficiency and to champion and coordinate green building R&D.

*(p) Green Buildings Innovation Cluster**

The Green Buildings Innovation Cluster aims to accelerate commercialisation of promising building energy-efficient technologies and solutions, and bring them closer to market adoption.

** The funding support for firms and individuals in key areas of Design for Manufacturing and Assembly (DfMA), Integrated Digital Delivery (IDD) and Green Buildings (indicated with an asterisk) is consolidated under the BuildSG Transformation Fund (BTF) since March 2019.*

Details of the trust and agency funds are set out below and have been prepared from the records of the trust and agency funds and reflect only transactions handled by the Group and the Authority:

	Group and Authority	
	2018/2019	**2017/2018**
	S$	**S$**
At 1 April	10,545,984	25,705,913
Add: Receipts		
- Grants received	102,584,649	76,649,923
- Interest income	89,731	99,964
- Others	92,784	86,039
	102,767,164	76,835,926
Less: Disbursements to:		
- External Parties	(82,026,845)	(81,234,655)
- The Authority	(6,181,240)	(2,796,578)
Secretariat fee paid to the Authority	(3,127,353)	(7,964,572)
Amounts paid as bank charges	(652)	(50)
	(91,336,090)	(91,995,855)
At 31 March	21,977,058	10,545,984
Represented by:		
Cash at bank	10,210,251	7,347,907
Cash with AGD	11,766,807	3,198,077
Total cash representing net assets as at 31 March	21,977,058	10,545,984

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19 Commitment

(a) Operating lease commitments - as lessee

Non-cancellable operating lease rentals are payable as follows:

	Group and Authority	
	2018/2019	**2017/2018**
	S$	**S$**
Within one year	68,761,347	59,989,845
Between one year and five years	58,832,639	52,807,406
More than five years	47,927,209	53,753,359
	175,521,195	166,550,610

Details of the leases are as follows:

1) Foreign workers' dormitories

The Group leases a number of dormitories under operating leases. The leases typically run for a period of 3 years, with an option to renew the lease after that date. The leases are sublet by the Group to external parties. The lease and sublease expires in between 2019 to 2021.

2) Integrated Construction and Precast Hubs

The Group leases land for the development of the Integrated Construction and Precast Hubs to the precast industry. The lease is sublet by the Group to external parties. The lease runs for a period of 30 years and expires in 2043.

3) Ready-Mix Concrete Sites

The Group leases the site for the construction, management and operation of the Ready-Mix concrete (RMC) batching plant to the industry. The site is sublet by the Group to the external parties. The lease runs for 3 years and expires in 2019.

4) Approved Training and Testing Centre

The Group leases land to the industry to set up and operate the training facility for crane operation courses. The lease runs for a period of 3 years.

5) Office

The Group leases its office/storage space under operating lease for a period of 5 years, with an option to renew the lease after the date.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

During the financial year ended 31 March 2019, the Group recognised the following operating lease expenses in the statement of comprehensive income:

	Group and Authority	
	2018/2019	2017/2018
	S$	S$
Foreign workers' dormitories	61,566,237	58,859,763
Integrated Construction and Precast Hubs	3,771,584	3,201,580
Ready-Mix Concrete Sites	1,574,964	1,574,964
Approved Training and Testing Centre	183,267	418,808
Office	7,645,440	7,641,188
Rental of IT equipment	878,828	799,738
	75,620,320	72,496,041

(b) Operating lease commitments - as lessor

The Group leases out the foreign workers'dormitories held under operating leases. The Group also leases out the land for the development of the Integrated Construction and Precast Hubs, Approved Training and Testing Centre and RMC Sites. The future minimum income receivables under non-cancellable leases are as follows:

	Group and Authority	
	2018/2019	2017/2018
	S$	S$
Within one year	68,622,077	55,537,629
Between one year and five years	53,827,814	51,129,102
More than five years	–	55,396,484
	122,449,891	162,063,215

During the financial year ended 31 March 2019, the Group recognised the following operating lease income in the consolidated statement of comprehensive income:

	Group and Authority	
	2018/2019	2017/2018
	S$	S$
Foreign workers' dormitories	61,565,837	58,860,269
Integrated Construction and Precast Hubs	2,982,879	2,942,706
Ready-Mix Concrete Sites	1,574,964	1,574,964
Approved Training and Testing Centre	183,267	418,808
	66,306,947	63,796,747

Building and Construction Authority and its subsidiaries

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For the financial year ended 31 March 2019

(c) Capital commitments

Capital expenditure approved by the Group but not provided for in the financial statements is as follows:

	Group and Authority	
	2018/2019	2017/2018
	S$	S$
Amount approved and committed	84,659,844	2,852,243
Amount approved but not committed	4,022,556	98,240,000

(d) Other commitments

The Authority had committed to provide a fund of S$2,800,000 to BCA Centre for Sustainable Buildings Ltd (the "subsidiary") as funding of the operational cost of the subsidiary from the financial years ended 2013 to 2019. As at 31 March 2019, S$800,000 (2017/2018: S$800,000) has not been drawn down by the subsidiary.

20 Operating income

The following table provides information about the nature and timing of the satisfaction of performance obligations in contracts with customers, including significant payment terms, and the related revenue recognition policies:

Plan fees

Nature of services	Fees received for the processing of the applications for plans relating to building works.
When revenue is recognised	Over the expected duration of each category of project (by size and nature of work).
Significant payment terms	For protective and administrative reasons, payment is received upfront when the application is submitted. Payment is made before the Authority processes and approves the plans. As such, no financing component has been recognised as the payment terms are for reasons other than financing.
Obligations for returns and returns, if any	No return will be made for withdrawal of applications made. Refunds will be made for excess payment of plan fees.

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Advertisement licence fees

Nature of services	Fees received for providing the licence for placement of outdoor signboard/ advertising sign.
When revenue is recognised	Over the validity periods of the licence.
Significant payment terms	For protective and administrative reasons, payment is received upfront when the application is submitted. Payment is made before the Authority processes and approves the licence. As such, no financing component has been recognised as the payment terms are for reasons other than financing.

Course fees

Nature of services	Fees received for conducting courses which includes certification courses for professionals, short courses for continuing development, seminars, conference, workshop, specialist Diploma program, Diploma program and safety courses in pertaining to construction administration and management.
When revenue is recognised	Over the duration of the course.
Significant payment terms	Payment is received before the course is conducted. There is no significant financing arrangement as this is the industry norm when payment must be made before the participant can attend the course.

Quality assessment fees

Nature of services	Fees received for Conquas, Quality Mark and Green Mark assessments.
When revenue is recognised	Over the assessment period.
Significant payment terms	For protective and adminstrative reasons, payment is received upfront when the application is submitted. Payment is made before BCA processes and approves the assessments. As such, no financing component has been recognised as the payment terms are for reasons other than financing.

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Certification fees

Nature of services	Fees received for work performed for ISO and OHSAS certifications.
When revenue is recognised	Upon issuance of the certification.
Significant payment terms	For protective and administrative reasons, payment is received upfront when the application is submitted. Payment is made before BCA processes and approves the certification. As such, no financing component has been recognised as the payment terms are for reasons other than financing.

Trade test fees

Nature of services	Fees received for conducting trade test to certify construction workers' skil sets.
When revenue is recognised	On completion of the trade tests.
Significant payment terms	For protective and administrative reasons, payment is received upfront when the application is submitted. As such, no financing component has been recognised as the payment terms are for reasons other than financing.

Contractor registration fees

Nature of services	Contractor registration fees are collected from contractors who wished to be registered with BCA Contractors Registration System (CRS).
When revenue is recognised	Over the validity period of the registration.
Significant payment terms	For protective and administrative reasons, payment is received upfront when the application is submitted. Payment is made before the Authority processes and approves the registration. As such, no financing component has been recognised as the payment terms are for reasons other than financing.

Management fees

Nature of services	Fees received for acting as a managing agent for Ministry of National Development and Maritime Port of Authority of Singapore.
When revenue is recognised	Over the period of the services rendered.
Significant payment terms	Invoices are raised after service is rendered and are payable within 7 days.

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

Change in estimates

During 2018, the Group conducted a review of period of amortisation for plan fee based on historical information on the actual duration required to complete the projects, which resulted in changes in the expected duration of each category of projects. The effect of the changes in the expected duration of each category of projects was as follows:

	2018/2019 S$	2019/2020 S$	2020/2021 S$	2021/2022 S$	2022/2023 S$
(Decrease)/Increase in revenue	(1,681,392)	(3,034,784)	1,177,470	3,472,147	66,559

Source of estimation uncertainty

Plan fees are recognised as income over the expected duration of each category of projects. The Group reviews the estimated duration of the projects regularly in order to determine the amount of revenue to be recorded at each financial year. Changes in the expected duration of the projects could impact the revenue and consequently affect the Group's results.

21 Employee benefit costs

	Group		Authority	
	2018/2019 S$	**2017/2018 S$**	**2018/2019 S$**	**2017/2018 S$**
Salaries, allowances and bonus	108,959,550	104,173,943	108,486,450	103,409,749
Central Provident Fund contribution	15,319,423	14,655,985	15,280,599	14,607,229
Pension benefits [i]	124,281	127,403	124,281	127,403
Other staff costs	151,028	156,408	150,768	156,149
	124,554,282	119,113,739	124,042,098	118,300,530

[i] The pension benefits includes reimbursement of pension cost for a seconded key executive management, which is not recognised as part of the Authority's provision of pension cost.

Building and Construction Authority and its subsidiaries

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2019

22 Surplus for the year

The following items have been included in arriving at surplus for the financial year:

	Group and Authority	
	2018/2019 S$	**2017/2018 S$**
Builders licensing fees	(2,222,827)	(2,242,561)
Importers licensing fees	(3,254,362)	(3,745,384)
Royalty fees	(1,576,187)	(1,574,434)
Reversal of impairment loss of receivables	(128,460)	(383,596)
Input GST disallowed	3,348,146	2,860,600
Property tax	256,675	1,390,922
Contribution to consolidated fund	2,917,121	1,198,734
Provision for onerous contract	492,652	–
Publicity materials expense	467,181	2,430,992
Staff training	819,367	840,863
Board members' allowances	135,000	140,625
Foreign exchange loss	16,363	6,193

23 Tax expense

Subsidiaries of the Authority are subject to tax under Section 10(1) and Section 11(2) of the Singapore Income Tax Act:

	Group	
	2018/2019 S$	**2017/2018 S$**
Current tax expense		
Current year	22,646	39,149

Reconciliation of effective tax rate

Surplus before contribution to consolidated fund and taxation	17,123,651	16,032,886
Less: The Authority's surplus before contribution to consolidated fund and income tax expense	(17,159,536)	(15,738,886)
The subsidiaries' surplus before income tax expense	(35,885)	294,000
Tax at statutory rate of 17% (2017/2018: 17%)	(6,100)	49,980
Tax exempt income	(17,425)	(25,925)
Corporate income tax rebate	–	(10,000)
Deferred tax assets not recognised	46,171	30,094
Over-provision in prior year	–	(5,000)
Tax expense	22,646	39,149

Building and Construction Authority and its subsidiaries

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For the financial year ended 31 March 2019

In respect of deferred tax assets not recognised, the unutilised tax losses of S$1,028,247 (2017/2018: S$756,650) are available for offset against future taxable profits, subject to compliance with the relevant provisions of the Singapore Income Tax Act. The unutilised tax losses do not expire under current tax legislation.

24 One-off contribution to Consolidated Fund

The one-off contribution to the Consolidated Fund is a return of funds made in accordance with section 3(b) of the Statutory Corporations (Contributions to Consolidated Fund) Act. There is no one off cash contribution in 2018/2019 (2017/2018: S$49,540,000).

25 Related party

In addition to the related party information disclosed elsewhere in the financial statements, significant transactions between the Group and related parties took place at terms agreed between the parties during the financial year. The balances are unsecured, interest-free, repayable on demand and to be settled in cash, unless otherwise stated.

Key management personnel compensation

Key management personnel of the Group are those persons having the authority and responsibility for planning, directing and controlling the activities of the entity. The Board members and executive key management are considered as key management personnel of the Group.

The compensation to key management personnel is as follows:

	Group and Authority	
	2018/2019	2017/2018
	S$	S$
Short-term benefits	8,738,285	8,213,633
CPF contributions	400,328	365,568
Termination benefits	7,500	–
	9,146,113	8,579,201

Building and Construction Authority and its subsidiaries

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Other related parties transactions

During the financial year, the Group entered into the following transactions with related parties (i.e. entities in which the Board members have control or joint control) which are not government-related entities:

	Group and Authority	
	2018/2019	2017/2018
	S$	S$
Advertisement licence fees	18,652	15,860
Quality assessment and certification fees	755,697	447,003
Course fees	295,205	527,238
Trade test fees	118,410	91,150
Staff training expense	(24,824)	(16,591)
Repairs and maintenance	(70,510)	–
Construction of office building	–	(20,600)
Purchase of data processing equipment	(750,000)	(207,000)
Course and programme expenses	(419,994)	(438,406)

Government-related entities transactions

The Singapore Government has control over the Authority, as well as Ministries, Organs of States and other Statutory Boards.

Collectively, but not individually significant transactions

The Authority is a Statutory Board under the Ministry of National Development ("MND"), championing the development of an excellent built environment for Singapore. "Built environment" refers to buildings, structures and infrastructure in our surroundings that provide the setting for the community's activities.

The Authority charges fees for the services provided. Collectively, income generated from the fees received from and provision of training and other services to Ministries, Organs of States and other Statutory Boards constitute 9% (2017/2018: 9%) of the total operating income. Purchase of supplies and services from Ministries, Organs of States and other Statutory Boards constitute 33% (2017/2018: 28%) of the total operating expenditure.

These transactions are conducted in the ordinary course of the Authority's business on terms comparable to those with other entities that are not government-related.

26 Dividends paid

	Group and Authority 2018/2019 S$	2017/2018 S$
Declared and paid during the financial year:		
Dividends on ordinary shares		
- Exempt (one-tier) dividend for 2018/2019: $2.42 per share (2017/2018: nil)	8,224,931	–

27 Financial instruments

(i) Financial risk management

Overview

The Group has exposure to the following risks arising from financial instruments:

credit risk
liquidity risk
market risk

This note presents information about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risk, and the Group's management of capital.

Risk management framework

The Group and the Authority are exposed to financial risks arising from its operations and the use of financial instruments. The Group has documented financial risk management policies. These policies set out the Group's overall business strategies and its risk management philosophy. The Group's overall financial risk management programme seek to minimise potential adverse effects of the financial performance of the Group. Such written policies are reviewed annually by the management and periodic reviews are undertaken to ensure that the Group's policy guidelines are complied with. The key financial risks arising from the Group's financial instruments are liquidity risk and credit risk.

The Group does not hold or issue derivative financial instruments for trading purposes. The board reviews and agrees policies for managing each of these risks and they are summarised below.

Credit risk

Credit risk is the risk of loss that may arise on outstanding financial instruments should a counterparty default on its obligations. The Group's and the Authority's exposure to credit risk arise primarily from trade and other receivables. For other financial assets (including cash and cash equivalents), the Group and the Authority minimise credit risk by dealing exclusively with high credit rating counterparties.

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Before accepting any new customer, the Group assesses the potential customer's credit quality and defines credit limits by customer. A majority of the Group's receivables that are neither past due nor impaired are credit worthy counterparties with good track record of credit history.

In determining the recoverability of a receivable, the Group considers any change in the credit quality of the receivable from the date credit was initially granted up to the end of the reporting period. If the financial condition of the customers were to deteriorate, the Group would be required to record additional impairment losses. Credit risk is limited due to management's-on going evaluation of the credit worthiness of the Group's customers and given that the majority of the Group's trade receivables are within their expected cash collection cycle.

Credit risk concentration profile

The Group determines concentration of credit risk by monitoring customer profile of its trade and other receivables on an ongoing basis.

At the end of the financial year, approximately 14% (2017/2018: 8%) of the Group's trade and other receivables were due from 3 (2017/2018: 3) major customers with a total balance of S$3,087,969 (2017/2018: S$1,331,227) located in Singapore.

Expected credit loss assessment ("ECL") as at 1 April 2018 and 31 March 2019

The Group uses an allowance matrix to measure the ECLs of trade receivables. Loss rates are based on actual credit loss experience. The management considers the differences between economic conditions during the period over which the historical data has been collected, current conditions and the Group's view of economic conditions over the expected lives of the receivables. The amount of the allowance on these balance is insignificant.

The following table provides information about the exposure to credit risk and ECLs for trade and other receivables as at 31 March 2019:

	Group 2018/2019 Gross carrying amount S$	Group 2018/2019 Impairment losses S$	Authority 2018/2019 Gross carrying amount S$	Authority 2018/2019 Impairment losses S$
Not past due	19,866,346	29,044	19,923,178	29,044
Past due				
- less than 3 months	1,344,388	–	1,316,388	–
- 3 months to 6 months	70,797	–	70,797	–
- more than 6 months to 12 months	1,930	–	1,930	–
- more than 12 months	74,504	36,798	74,504	36,798
	21,357,965	65,842	21,386,797	65,842

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Comparative information under SB-FRS 39

An analysis of trade and other receivables and impairment losses recognised is as follows:

	Group 2017/2018		Authority 2017/2018	
	Gross carrying amount S$	Impairment losses S$	Gross carrying amount S$	Impairment losses S$
Not past due	15,424,850	148,089	15,812,869	148,089
Past due less than 3 months	1,093,576	–	1,011,776	–
Past due 3 months to 6 months	173,617	–	135,617	–
Past due more than 6 months to 12 months	39,955	–	5,639	–
Past due more than 12 months	87,258	46,213	82,158	46,213
	16,819,256	194,302	17,048,059	194,302

At 31 March 2019, the individual impairment losses of the Group and the Authority related to several customers that had indicated that they were not expecting to be able to pay their outstanding balances, mainly due to economic circumstances.

Movement in allowance for impairment in respect of trade and other receivables

The movement in the allowance for impairment in respect of trade and other receivables during the year was as follows:

	Group and Authority S$
At 1 April 2017 per SB-FRS 39	577,898
Reversal of impairment loss	(383,596)
At 31 March 2018 per SB-FRS 39	194,302

	Group and Authority Lifetime ECL S$
At 1 April 2018 per SB-FRS 39	194,302
Adjustment on initial application of SB-FRS 109	–
At 1 April 2018 per SB-FRS109	194,302
Allowance for impairment loss	(128,460)
At 31 March 2019 per SB-FRS109	65,842

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For the financial year ended 31 March 2019

The Group and the Authority believe that the unimpaired amounts are still collectible in full, based on historic payment behaviour and extensive analyses of customer credit risk, including underlying customers' credit ratings, when available

Cash and cash equivalents

The Group and the Authority held cash and cash equivalents of S$442,799,037 and S$438,330,021 at 31 March 2019 (2017/2018: S$408,797,161 and S$407,451,491) respectively. The cash and cash equivalents are held with bank and financial institution counterparties which are rated P-1, based on Moody's ratings.

Impairment on cash and cash equivalents has been measured on the 12-month expected loss basis and reflects the short maturities of the exposures. The Group and the Authority consider that its cash and cash equivalents have low credit risk based on the external credit ratings of the counterparties. The amount of the allowance on cash and cash equivalent is negligible.

Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting financial obligations due to shortage of funds. The Group's exposure to liquidity risk arises primarily from mismatches of the maturities of financial assets and liabilities. The Group manages the liquidity risk by maintaining sufficient cash and cash equivalents to enable them to meet their normal operating commitments.

As at 31 March 2019 and 2018, the financial assets (Total loans and receivable in Note 7 to the financial statements) and financial liabilities (Total financial liabilities carried at amortised cost in Note 14 to the financial statements) have maturity dates of no more than twelve months.

Market risk

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. Market risk exposures are measured using sensitivity analysis indicated below.

Interest rate risk management

The Group's interest-bearing financial instruments mainly relates to cash and bank balances which are all short-term. Hence, management do not expect future fluctuations in interest rates to have significant impact on the Group's results or cash flows.

The Group's policy is to maintain cash and cash equivalents with reputable financial institution. The Authority participated in the Centralised Liquidity Management scheme starting from 25 March 2010.

(ii) Fair values of financial instruments

The fair value of a financial instrument is the amount at which the instrument could be exchanged or settled between knowledgeable and willing parties in an arm's length transaction, other than in a forced or liquidation sale.

Financial instruments whose carrying amount approximates fair value

Management has determined that the carrying amounts of trade and other receivables, amounts due from its subsidiaries, cash and bank balances, trade and other payables reasonably approximate their fair values because these are mostly short-term in nature. The carrying amounts of the fixed deposits approximate their fair value as the implicit interest rate are based on the prevailing market interest rate.

(iii) Capital risk management policies and objectives

The capital structure of the Authority consists of share capital, capital account and accumulated surplus. The Authority manages its capital to ensure it will be able to continue as a going concern and in accordance with the Capital Management Framework formulated by the Ministry of Finance. The framework sets out the basis of equity contribution by the Government to the Authority and the principle of dividend distribution to the Government. The Authority's overall strategy remains unchanged from the previous financial year.

Building and Construction Authority

We shape a **safe**, **high quality**, **sustainable** and **friendly** built environment.

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