Building and Construction Authority

ACCELERATING INDUSTRY TRANSFORMATION

ANNUAL REPORT
2021/2022

CONTENTS

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Corporate Governance

BCA is committed to good corporate governance. We have 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 members. All are non-executive members, except Mr Kelvin Wong, who is BCA's Chief Executive Officer. There is a diverse representation from the industry, academia and ministries, which provides a wide range of experience, skills, knowledge and perspectives to enable the Board to play an active role in guiding BCA to achieve its vision and mission.

The Chairman provides strategic leadership and guidance to the Management of BCA, and ensures that 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 oversees the work and performance of the Management and assesses the financial health of BCA.

The BCA Act empowers the Board to form committees amongst 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 key internal controls in finance, operations and compliance are conducted annually through internal and/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 the 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

I thank industry stakeholders across the value chain for their unwavering support as we emerge stronger to realise a more resilient, future-ready sector.

It has been more than two years since our first encounter with COVID-19. Together with the nation, we have had to go through a learning curve adapting to the ever-evolving situation and measures, as well as a new way of life.

Our Built Environment sector was severely affected by disruptions caused by the pandemic, but it is in a much better place today, picking up pace in its recovery to near pre-COVID levels. This would not have been possible if it were just BCA fighting this battle alone. I thank industry stakeholders across the value chain for their unwavering support as we emerge stronger to realise a more resilient, future-ready sector.

EMERGING COLLECTIVELY FROM COVID-19

This year, the gradual relaxation of COVID-19 Safe Management Measures (SMM) has enabled worksites to resume at full capacity. However, we are also mindful of the lessons learnt to safeguard our sector against future outbreaks.

In collaboration with Trade Associations and Chambers (TACs), we have compiled a set of SMM best practices in the form of a guidebook for our industry's future reference. We have also updated the procurement policies for the sector to ensure equitable risk sharing during pandemic outbreaks.

Avenue South Residence's topping out ceremony

We also witnessed how strong alliances among industry stakeholders made it possible for project teams to complete their construction on time or with minimal delays, despite disruptions to manpower and materials supply during this period. Projects that had progressive partners on board were able to operate at a higher level – even breaking new records amid such challenging times. A case in point would be Avenue South Residence, the world's tallest Prefabricated Prefinished Volumetric Construction (PPVC) residential building, which was on target to complete despite the disruption due to the pandemic.

GATHERING PACE IN INDUSTRY TRANSFORMATION

In the face of adversity, we found greater value in transforming our sector. While we achieved steady progress on our Construction Industry Transformation Map (ITM) targets for Design for Manufacturing and Assembly (DfMA), Green Buildings, Integrated Digital Delivery (IDD) and Facilities Management (FM), we have plans to speed up industry transformation and champion an innovative, sustainable and manpower-lean sector.

Hence, we will be refreshing the ITM for the sector with special focus on encouraging innovation and technology, a whole of value-chain approach to project procurement, planning and execution, and investing in our people. Given that our buildings are ageing, we will also press on with our efforts to change the way we maintain our buildings and transform the facilities management industry.

These transformation efforts offer the opportunity to redesign jobs and rebrand the sector to become more attractive to talent. BCA has also embarked on a study to help the sector be more targeted in its workforce development and to build a pipeline of talent to enable our next phase of transformation. The study is expected to conclude by the end of 2022.

The transformation of the Built Environment sector requires the collective effort of industry partners, firms and individuals. We hope everyone is energised by the transformation that is taking place around us and the career opportunities, as well as all the developments that we are contributing to make Singapore an endearing home.

Using drone technology for PFI

REVAMPING OUR REGULATORY SYSTEM

As a regulatory authority, safety in our built environment is our top priority. We are constantly looking for ways to improve the efficiency and effectiveness of our regulatory processes.

In the past year, we rolled out the Periodic Façade Inspection (PFI) regime to mitigate façade-related safety incidents and also began piloting Remote Monitoring & Diagnostics (RM&D) to enhance the productivity of lift maintenance. We launched the accreditation scheme for managing agents (MAs), thus raising the professionalism of this sector. Meanwhile, our development of the e-submission portal CORENET X remains on track, following the completion of pilot trials for the Collaboration Platform and Automated Model Checker during the year.

TRANSFORMING BCA

BCA is also transforming. We have established the BCA Digitalisation Masterplan, which will be realised over the next few years. We also upskilled our people and created meaningful jobs via the newly launched Strategic Workforce Plan and Built Environment Science and Technology Plan. Collectively, these initiatives shape BCA into a professional, high-tech and desired employer of choice.

We are grateful for the commitment displayed by all our stakeholders, partners and employees during this challenging period. The transformation of the Built Environment sector requires the collective effort of industry partners, firms and individuals. We hope everyone is energized by the transformation that is taking place around us and the career opportunities, as well as all the developments that we are contributing to make Singapore an endearing home. We look forward to your continued support as we transform for growth.

Mr Lim Sim Seng
Chairman

Board Members

(As at 1 April 2022)


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1 / CHAIRMAN
MR LIM SIM SENG
Group Head
Consumer Banking &
Wealth Management
DBS Bank Ltd

2 / DEPUTY CHAIRMAN
ER. PROF. TAN THIAM SOON
Institute Professor
Singapore Institute of
Technology

3 / BOARD MEMBER
MR KELVIN WONG
Chief Executive Officer
Building and Construction
Authority

4 / BOARD MEMBER
MS KALA ANANDARAJAH
Partner
Rajah & Tann LLP

5 / BOARD MEMBER
AR. ANGELENE CHAN
Chairman
DP Architects and its Group of
Companies

6 / BOARD MEMBER
MS JASMIN LAU
Deputy Secretary (Policy)
Ministry of Health

7 / BOARD MEMBER
ER. DR. LEE BEE WAH
Group Director
Meinhardt (Singapore) Pte Ltd

8 / BOARD MEMBER
MR JOHNNY LIM

9 / BOARD MEMBER
MR MAX LOH
Former Managing Partner
Singapore & Brunei, Ernst &
Young LLP

10 / BOARD MEMBER
MR MANOHAR KHIATANI
Senior Executive Director
CapitaLand Limited

11 / BOARD MEMBER
MR MOHAMAD SAIFUL BIN SARONI
Partner
PricewaterhouseCoopers LLP

12 / BOARD MEMBER
MR WONG HEANG FINE
Group CEO
Surbana Jurong Private Limited

BCA Organisation Structure

(As at 1 July 2022)

MR KELVIN WONG
Chief Executive Officer

MR CHIN CHI LEONG
Deputy CEO
Building Control

MR DARREN LIM
Group Director
Audit & Inspection

ER. TAN CHUN YONG
Group Director
Building Engineering

ER. CLEMENT TSENG
Group Director
Building Plan & Management

ER. THANABAL KALIANNAN
Group Director
Building Resilience

MR TEO ORH HAI
Group Director
Electrical & Mechanical Engineering

ER. CHEW KEAT CHUAN
Senior Technical Director

MR NEO CHOON KEONG
Deputy CEO
Industry Development

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

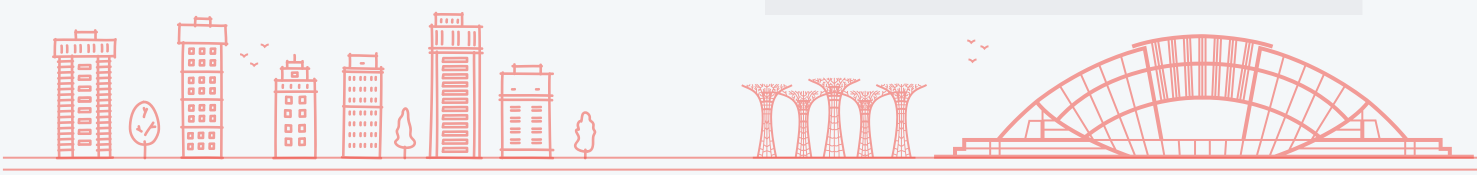
MR JONATHAN CHENG
Acting Group Director
Built Environment Research & Innovation Institute

MR ANG LIAN AIK
Group Director
Business Development

MS ADELINE LOO
Group Director
Construction Productivity & Quality

MR ANG KIAN SENG
Group Director
Environmental Sustainability

ER. GRACE MUI
Group Director
Manpower Strategy & Planning



MR HENG TECK THAI
Deputy CEO
Communications & Engagement / BuildSG Office

Mr Jonathan Cheng
Acting Group Director
Built Environment Technology Alliance

MR REGINALD WEE
Group Director
Partnerships Engagement

MS JEANNA DAS
Group Director
Strategic Communications

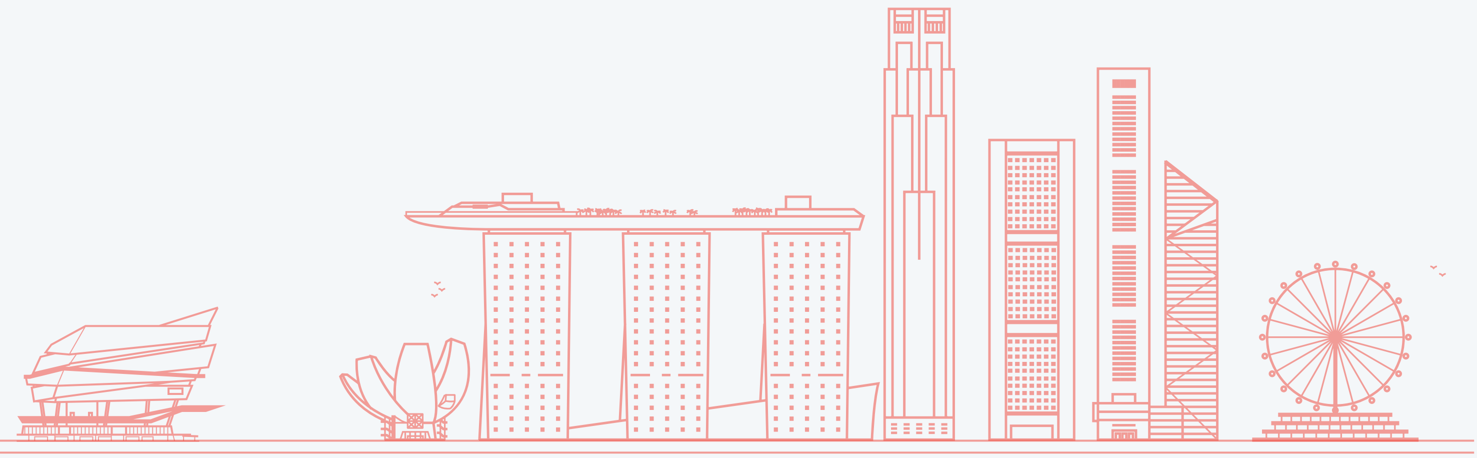
MR DEXTER TEO
Group Director
Strategic Engagement

MS JEANNA DAS
Group Director
Corporate Development Group

MR TEO JING SIONG
Group Director
Strategic Planning & Transformation

Legal

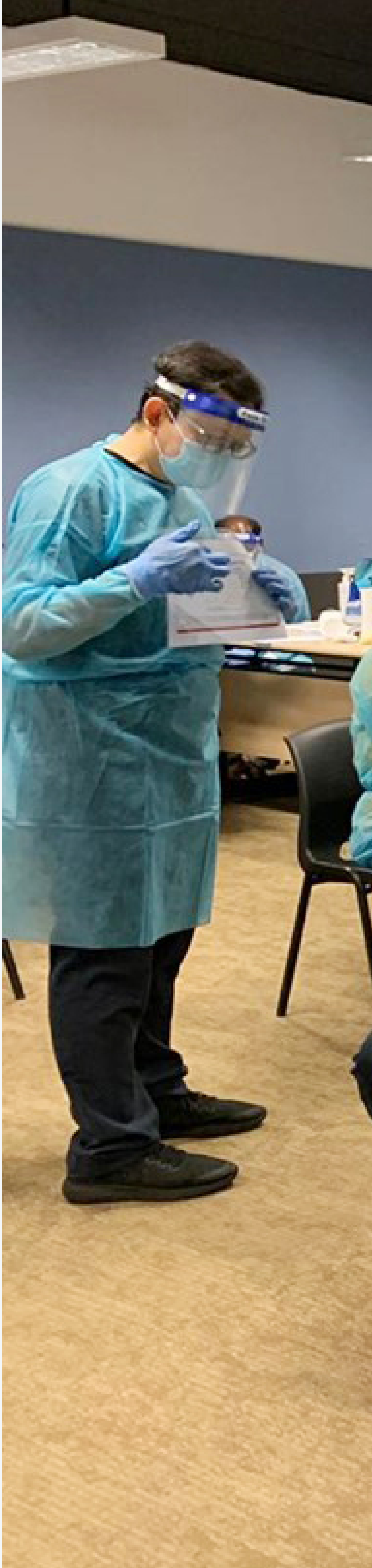
Internal Audit



CHAPTER 1

EMERGING STRONGER

As we transit to a new normal, we glean lessons from our COVID-19 experience to bolster our resilience and fortitude. While enhancing our processes and infrastructure, we also equip industry stakeholders with the necessary skills to ensure the Built Environment sector emerges stronger and better prepared for future pandemics.



Emerging Stronger

Keeping Worksites COVID-Safe

Amidst the ongoing pandemic, BCA engaged in vigilant surveillance to support quick containment of cases and ensured close communication with the Built Environment sector. Through this, we safeguarded the health of workers while setting out new guidelines that will enhance our resilience and preparedness.

Ensuring Safe Management Measures (SMM) Compliance at Worksites

BCA developed a risk matrix to enable our engineers to focus more on at-risk sites during SMM worksite inspections. This resulted in better industry preparedness and lower cases of non-compliance at worksites by the end of 2021.

BCA developed a risk matrix for worksite inspections which also benefited the industry in terms of their preparedness and lowering cases of non-compliance at worksites.

SMM WORKSITE INSPECTIONS BY BCA IN 2021

Over
5,500
projects

47,000
inspections at construction sites

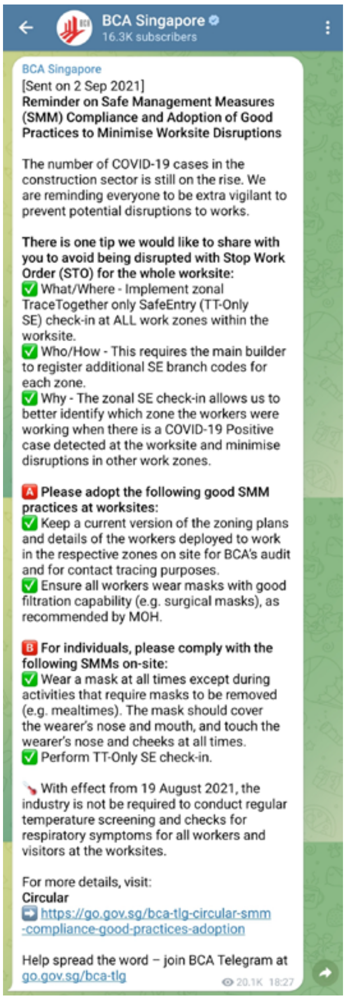
BCA reviewed policies to enable the industry to respond nimbly to contain onsite transmission.

Responding Nimbly to Contain Onsite Transmission

BCA issued safety time outs (STOs) where necessary to contain COVID-19 cases swiftly. This helped the industry to break the chain of transmission at the zonal level on site, minimising disruptions to the whole worksite. Amidst an evolving pandemic, we constantly reviewed our policies, guided by the Ministry of Health (MOH) and the lessons learnt from COVID-19 cases at the worksite, to enhance the containment processes.

Providing Timely COVID-related Updates to Stakeholders

BCA equipped industry stakeholders with swift updates on key COVID-19 information. As part of our efforts to continuously educate industry stakeholders on proper SMM, BCA conducted numerous briefing sessions for SMOs and disseminated information in a timely manner through industry circulars, emails and Telegram messages. We also partnered key Government Procurement Entities (GPE), empowering them to conduct their own checks to ensure their projects were COVID-safe. Additionally, we regularly held dialogues with key GPEs and Trade Associations and Chambers (TACs) to ensure the relevance of SMM requirements and update them when necessary.



BCA provided timely COVID-related updates through its Telegram channel.

Improving Preparedness for Future Pandemics

When the COVID situation eased, we followed MOH guidelines closely and calibrated our SMM requirements for construction sites.

From 15 March 2022, COVID-19 rules for the construction sector were removed and all COVID-19 workplace requirements were set out in the Workplace Safety and Health (COVID-19 Safe Workplace) Regulations 2021. We have also started working with TACs to develop a Good Practice Guidebook for pandemics.

Transiting to a New Normal

The Built Environment sector has witnessed the benefits of stronger worksite management, worker safety and digitalisation, after emerging from the pandemic situation. It has placed greater importance on the awareness and competencies in these areas, as most companies grew more adept in the requirements and best practices over the past two years. This will make a difference in redesigning jobs and enhancing the professionalisation of our roles.

A Good Practice Guidebook for pandemics was being developed with TACs.

Most companies were more adept in the SMM requirements and best practices over the past two years of the pandemic.

On-going development of Good Practice Guidebook to help guide the Construction, Marine Shipyard and Process (CMP) sector to be ready for future pandemics.

Facilitating a COVID-Safe Restart

In supporting the Built Environment sector to restart works in a controlled manner, BCA conducted COVID-response training and developed COVID-safe outreach programmes.

COVID-Response Training

We conducted training for on- and off-site Antigen Rapid Testing (ART) supervisors, as well as SMOs and Safe Distancing Officers (SDOs) in partnership with the Ministry of Manpower (MOM), MOH and other related agencies. Besides supporting the enhanced testing regime at high-risk environments, these efforts ensured that SMM were effectively implemented at locations ranging from worksites to workers' accommodation.

ART supervision training was conducted to ensure SMM were effectively implemented in the industry.

COVID-Safe Outreach Programmes

On the education front, BCA continued our efforts to engage the industry. Working hand in glove with MOM and TACs, we engaged different stakeholders and conducted a series of COVID-Safe leadership and industry webinars that catered to different stakeholders.

Trained over
15,400
ART supervisors

Conducted COVID-Safe outreach webinars, engaging
7,700
industry professionals

OVER
$230
MILLION
additional payments provided by public agencies for prolongation and increased manpower costs as of end-March 2022

Sustaining Capacity and Transformation

Interim Support Measures to Ease Pandemic Pressures

To ease time and cost pressures faced by the industry amidst the pandemic, BCA introduced the COVID-19 (Temporary Measures) Act (COTMA) Part 10A legislation, allowing contractors to seek a determination from an Assessor for manpower cost increases. BCA also introduced ex-gratia payment for consultants for additional services rendered due to project extensions. In total, three tranches of ex-gratia extension of time (EOT) for government projects were established.

Revamping Procurement Policies

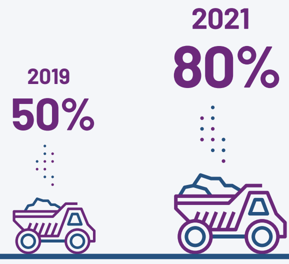
BCA also revamped existing procurement policies. The Public Sector Standard Conditions of Contract (PSSCOC) and Consultancy Agreement received new pandemic-related provisions that support fairer cost sharing amongst the stakeholders. More broadly, the sector now recognises the need for more collaborative and risk-sharing terms in order to emerge stronger together through future uncertainties.

Strengthening Supply Chain Resilience

Ensuring Sustained Supply of Construction Materials

Despite the uncertainty due to border measures, there was no disruption to concrete production as our suppliers import the aggregates from diversified sources. As an industry, we also successfully increased the adoption of granite fines as an alternative to sand.

Meanwhile, plans are underway to develop our first Integrated Construction Park, which will co-locate synergistic construction activities, such as the import of construction aggregates, concrete production and precast concrete related works, for greater efficiency.



Increased industry adoption of granite fines

Redesigning Foreign Worker Dormitories to Safeguard Against Future Outbreaks

During the year, BCA worked with relevant ministries and government agencies to future-proof migrant worker dormitories. In September 2021, the new standards for dormitories were announced and we witnessed the completion of Sengkang West Quick Build Dormitory that was built based on the new standards in the same year.

The Sengkang West Quick Build Dormitory was built based on the new standards to future-proof worker dormitories.

- Sufficient bed spaces
- Better living standards

- Safeguarding public health
- Buffer against future pandemics

Facilitating the Inflow of Migrant Workers

As the pandemic evolved in 2021, BCA worked alongside relevant government agencies and industry partners on a series of measures to facilitate the supply of foreign manpower to construction companies. These policies were regularly adjusted in tandem with the fluid situation.

More than 4,000 workers from the People's Republic of China (PRC) entered Singapore via a temporary scheme that allowed migrant workers to obtain their skills certification in Singapore. The scheme was introduced due to a restriction on arrivals from higher risk countries in May 2021.

At the same time, over 33,000 Construction, Marine Shipyard and Process (CMP) workers were brought in from higher risk countries via an industry-led initiative that involved a testing regime over a period at dedicated on-boarding facilities in their home countries followed by dedicated transport to Singapore. When the COVID-19 situation improved, this was reduced to a two-day Pre-Departure Preparatory Programme (PDPP) that saved time and costs.

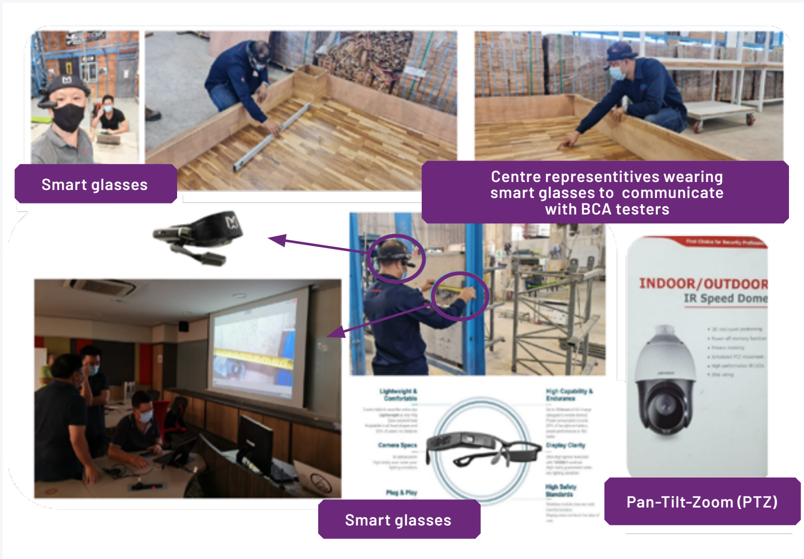
Improving Efficiency at Overseas Testing Centres

Amidst COVID-19 disruptions at Overseas Testing Centres (OTCs), BCA worked with the centres to implement remote invigilation and testing (RIM) for construction work permit holders using smart-wear technology, such as smart-glasses and surveillance cameras. These allowed BCA's assessors to invigilate the test remotely while upholding the same standards. Live video broadcasts via smart glasses also enabled the assessors to view and mark close-ups of the completed test projects from various angles.

Since April 2021, OTCs in the PRC, India, Bangladesh, Thailand and Myanmar have implemented RIM and resumed testing new workers once movement restrictions in their countries were lifted.

About
12,000
workers attended skills tests conducted via RIM in FY2021

BCA worked with OTCs to implement remote invigilation and testing for construction work permit holders using smart-wear technology.



Smart glasses

Centre representitives wearing smart glasses to communicate with BCA testers

Smart glasses

Pan-Tilt-Zoom (PTZ)

Improving Building Ventilation

Recognising the importance of ventilation and indoor air quality in buildings to prevent the spread of COVID-19, an inter-agency team, comprising BCA, National Environment Agency (NEA) and MOH, updated the Technical Guidance Note to building owners and facilities managers on improving air-conditioning and mechanical ventilation (ACMV) standards. The guidelines were widely adopted by both the public and private sectors, and serve to safeguard building occupants against future pandemics.

The public and private sectors adopted the guidelines on improving ACMV standards.

CHAPTER 2

EMPOWERING INDUSTRY TRANSFORMATION

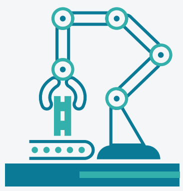
Our quest to drive industry transformation involves a holistic, multi-faceted approach – from harnessing new technologies and methods of construction, to engaging our partners and supporting innovative projects that address industry challenges. Together, our efforts ignite transformative change across the Built Environment sector as we move from strength to strength.

Empowering Industry Transformation

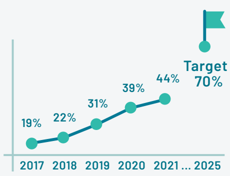
Progress in Key Transformation Areas

Making Design for Manufacturing and Assembly (DfMA) Mainstream

DfMA is a key pillar of the Construction Industry Transformation Map (ITM), through which we advance our transformation plans for a more productive Built Environment sector. Comprising technologies across Structural, Architectural and Mechanical, Electrical and Plumbing (MEP) work disciplines, DfMA facilitates the prefabrication of building modules off-site in a controlled environment.



Around **44%** of building projects by gross floor area (GFA) adopted DfMA in 2021



BCA is on track to meet the adoption target of **70%** by 2025

DfMA reduces disamenities and reliance on manpower on site by prefabricating building modules off-site. The modules are then brought to the site to be stacked.

KEY CHANGES TO THE BUILDABILITY LEGISLATIVE FRAMEWORK

Higher minimum Buildable Design Scores (B-Score)
for large non-residential projects

Greater flexibility with enhanced outcome-based options
in lieu of meeting the minimum B-Score

Mandatory adoption of specific industry standard components
for residential non-landed projects to drive greater modularisation

Enhancing the Buildability Legislative Framework for Greater DfMA Adoption

In consultation with key industry stakeholders, BCA further enhanced the Buildability Legislative Framework to raise the minimum standards for large non-residential projects with a GFA of at least 25,000 sqm. From April 2022, all large projects will be required to adopt DfMA or a higher level of prefabrication under the revised framework.

Driving Adoption of Best-in-Class Productivity Solutions

From 2022, BCA raised standards for the Government Land Sales (GLS) programme. The productivity requirements include adoption of prefabricated MEP systems, higher productivity improvement and prefabrication levels across structural, architectural and MEP disciplines.

Raising Industry Capabilities in DfMA

With inputs from the industry, we developed an Advisory on Good Practices for the Design, Inspection and Maintenance of Mass Engineered Timber (MET) Structures to level up industry capabilities, maintain high safety standards and ensure the sector leverages the full potential of MET.

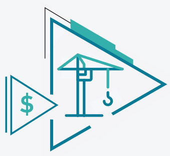
We also partnered Specialists Trade Alliance of Singapore (STAS) to release a new edition of the Prefabricated MEP guidebook to enhance industry knowledge in this area. In addition, the BCA Academy also developed training courses with STAS to build such competencies in the industry.

Paving the Way through Industry Digitalisation

Productivity Innovation Project (PIP) Incentive Scheme for Integrated Digital Delivery (IDD)

The PIP-IDD scheme helped projects adopt a common data environment (CDE), as well as suitable digital solutions and data standards needed for IDD implementation. With these in place, BCA and the industry jointly defined relevant IDD skillsets under the BE SkillsFuture Framework as we broadened its application and enhanced the industry's capabilities in this area.

PIP-IDD funded **30** projects



involving **150** firms

Construction and Facilities Management Industry Digital Plan (IDP)

In partnership with IMDA and the industry, the IDP was developed to help small and medium enterprises (SMEs) go digital.

To make it easy for SMEs to adopt digital solutions recommended in the IDP, a list of pre-approved solutions was identified. This narrows the capability gap between small and large firms and provides the former with more opportunities to plug into the IDD ecosystem.

Developing Sustainably

Singapore Green Building Masterplan

With an eye on shaping a greener future, BCA strives to develop more ambitious sustainability targets, while decarbonising our built environment. Following the launch of the fourth edition of the Singapore Green Building Masterplan (SGBMP). BCA implemented several initiatives to support the three key outcomes, which carries the tagline "80-80-80 in 2030".

<table>
<tr><th>1ST SGBMP KEY OUTCOME</th><th>2ND SGBMP KEY OUTCOME</th><th>3RD SGBMP KEY OUTCOME</th></tr>
<tr><td>80%
of Singapore's buildings to be green by GFA by 2030</td><td>80%
of new developments by GFA to be Super Low Energy (SLE) buildings from 2030</td><td>80%
improvement in energy efficiency over 2005 levels for best-in-class green buildings by 2030</td></tr>
<tr><th colspan="3">CURRENT PROGRESS AS OF MARCH 2022</th></tr>
<tr><td>More than
49%
of Singapore's buildings by GFA have been greened</td><td>Close to
7%
of new developments by GFA were certified as SLE buildings

From 1 April to 30 September 2021, a total of
54
SLE projects involving
98
Built environment firms, including developers, architects, Mechanical/Electrical (ME) and Environmental Sustainable Design (ESD) consultants</td><td>Best-in-class buildings achieved
70%
improvement in energy efficiency compared to 2005 levels</td></tr>
</table>

BCA'S INITIATIVES TO SUPPORT SGBMP OUTCOMES

Green Mark Incentive Scheme

- BCA announced the Green Mark Incentive Scheme for Existing Buildings 2.0 (GMIS-EB 2.0) in March 2022 to help building owners lower the upfront capital cost of energy efficiency retrofits.

- Higher funding is available for existing buildings that are striving for higher energy performance certification, such as Green Mark Platinum, SLE Building and Zero Energy Building.

- The $63 million incentive scheme is expected to generate energy savings of over 250 GWh/year by 2030 – equivalent to the energy consumption of more than 55,000 four-room flats.

Built Environment Transformation GFA Incentive Scheme

- BCA and URA launched the Built Environment Transformation GFA Incentive Scheme on 24 November 2021.

- Developers of private projects with a minimum 5,000 sqm GFA can enjoy up to 3% bonus GFA beyond the Master Plan Gross Plot Ratio (GPR) if they achieve enhanced standards in:
  Sustainability – attain Green Mark Platinum SLE with Maintainability (Mt) badge;
  Productivity – adopt DfMA technologies or prefabrication level across structural, architectural and MEP disciplines with higher level of productivity improvement; and
  Digitalisation – adopt at least five IDD essential use cases across the building lifecycle

- Developers of GLS sites that are launched prior to 31 March 2022 would also be eligible for up to 2% bonus GFA beyond the masterplan GPR.

Enhanced Requirements for Sites Sold Under the GLS Programme

- From 2Q 2022, BCA has raised the requirements for new GLS sites to:
  - require a minimum level of use of DfMA technologies and prefabrication across all disciplines of work;
  - require the adoption of IDD;
  - require a higher Green Mark Certification Standard of Green Mark Platinum SLE; and
  - attain Quality Mark (QM) for Good Workmanship for residential sites or the residential component in mixed developments.

Funding for Research and Innovation

- BCA will provide additional funding of $45 million for the Green Buildings Innovation Cluster Programme (GBIC) to expand the boundaries of energy efficiency.

- The key research areas under the enhanced programme (GBIC 2.0) include:
  - developing data-driven smart building systems;
  - alternative cooling technologies; and
  - advanced ventilation technologies.

- BCA will accelerate the commercialisation of these solutions through industry partnerships.

- From 2014 to 2021, GBIC supported the development of over 60 innovative technologies from more than 50 companies.

GreenGov.SG

Under the GreenGov.SG initiative, the government aims to peak its carbon emissions around 2025, ahead of the national target. Alongside this, the public sector will take the lead in making SLE buildings mainstream. This includes driving greater demand for SLE buildings, developing use cases and improving industry capabilities to construct these buildings.

Green Mark 2021 (GM:2021)

BCA updated the Green Mark Scheme to raise energy performance standards and emphasise other important sustainability outcomes, from designing for maintainability, to reducing carbon emissions across a building's life cycle and creating healthier environments for building users.

Additionally, BCA incorporated the Maintainability and Intelligence Badge under GM:2021 to encourage developers to demonstrate Design for Maintainability (DfM) considerations in the design of their developments and utilise Smart Facilities Management (FM) technologies to optimise building management.

GREENGOV.SG'S SUSTAINABILITY TARGETS FOR PUBLIC SECTOR BUILDINGS

All new and existing public sector buildings (upon major retrofit) to **achieve Green Mark Platinum SLE standards**

Government data centres to **achieve the Green Mark Platinum standard by 2025**

All new and existing public sector buildings (upon Additions & Alterations) to **achieve the Mt Badge standard**

All public sector buildings with GFA exceeding 5,000 m^2 to **adopt at least one Smart FM solution by 2030**

Accelerating Transformation in the FM Sector

The tripartite Facilities Management Implementation Committee (FMIC) supported BCA in partnering industry stakeholders and driving transformation in the FM sector. Together with the committee, we implemented several industry standards and worked with the industry to raise awareness and encourage acceptance of initiatives in the areas of process, technology and people.

Process

In September 2021, we unveiled GM:2021. Featuring the Maintainability Section, it encourages developers and designers to incorporate DfM and Smart FM considerations into their designs to optimise maintenance regimes downstream. These requirements were successfully trialled in 30 buildings prior to the launch.

In January 2021, we launched the Guide on FM Procurement to aid building owners and FM companies (FMCs) in ensuring quality delivery, achieving outcome-based procurement and obtaining Integrated Facilities Management (IFM) services.

Senior Minister of State (SMS) Tan Kiat How launched the Certified Facilities Management Expert (CFME) accreditation scheme at the Facilities Management Expert Summit (FMES) 2021.

15%
of public sector buildings by GFA adopted Smart FM as of December 2021

2
projects awarded the Smart FM PoC grant

Technology

As part of our push for higher IFM and Aggregated Facilities Management (AFM) adoption, BCA encouraged companies to employ Smart FM solutions that integrate multiple operating systems and processes. The addition of the Intelligence Section under GM:2021 helped them to harness Smart FM technologies, systems and processes as well as data analytics to improve building management and performance.

In April 2021, two projects were awarded the Smart FM Proof-of-Concept (PoC) grant, which supported Smart FM technologies that facilitate the delivery of IFM and AFM. The projects aim to establish a business case for IFM and AFM solutions that can be scaled up and replicated across other portfolios in the industry.

At the Committee of Supply (COS) 2022, we announced the $30 million IFM and AFM grant which was set up to assist the industry in embracing IFM and AFM as well as building FM stakeholders with DfM, Smart FM and IFM/AFM contracting capabilities. The grant will be open for application from September 2022 to March 2025.

People

BCA co-developed accreditation schemes with the FMIC to raise the standards of FMCs and FM personnel and support them towards attaining higher value roles in the industry. In 2021, we supported the Singapore International Facility Management Association (SIFMA) to launch two of their new schemes – the Certified Facilities Management Company (CFMC) Accreditation Scheme and the Certified Facilities Management Expert (CFME) Accreditation Scheme.

SCHEME	LAUNCH DATE	OBJECTIVE	RESULT
CFMC ACCREDITATION SCHEME	July 2021	Provide professional recognition for FMCs who have enhanced their FM services.	24 FMCs have been accredited as of March 2022.
CFME ACCREDITATION SCHEME	December 2021	Provide professional recognition for FM professionals capable of supporting key FM transformation areas (e.g. DfM, Smart FM and IFM/AFM).	12 FM professionals have been accredited as of March 2022.

The BE S&T plan guided our push for greater innovation and use of technology, such as the smart inspection robot to track work progress at construction sites.

Enabling Transformation through Innovation

Built Environment Science and Technology (BE S&T)

The BE S&T plan guided our push for greater innovation and use of technology. In consultation with research partners and industry stakeholders, we formulated two roadmaps – the Built Environment Robotics & Automation Roadmap and an Advanced Materials for the Built Environment Roadmap which identified areas where Research and Innovation (R&I) investments should be channelled for the deployment the deployment of new technologies.

Under the Research, Innovation and Enterprise 2025 Plan, we injected another $46 million into the Cities of Tomorrow Research and Development (R&D) programme to sustain our longer-term R&I efforts in the areas of advanced construction and facilities management.

Formation of Robotics & Automation Implementation Committee (RAIC)

In April 2021, we formed the RAIC, which included members from over 15 agencies. The RAIC is led by BCA and Jurong Town Corporation (JTC).

During the year, the RAIC formed three inter-agency project teams to lead the adoption of drones for Periodic Facade Inspection (PFI), floor cleaning robots and material transporter robots. Notable initiatives include developing procurement guides to aid agencies in specifying requirements and assessing solutions during future tenders for PFI drone and floor cleaning robot services.

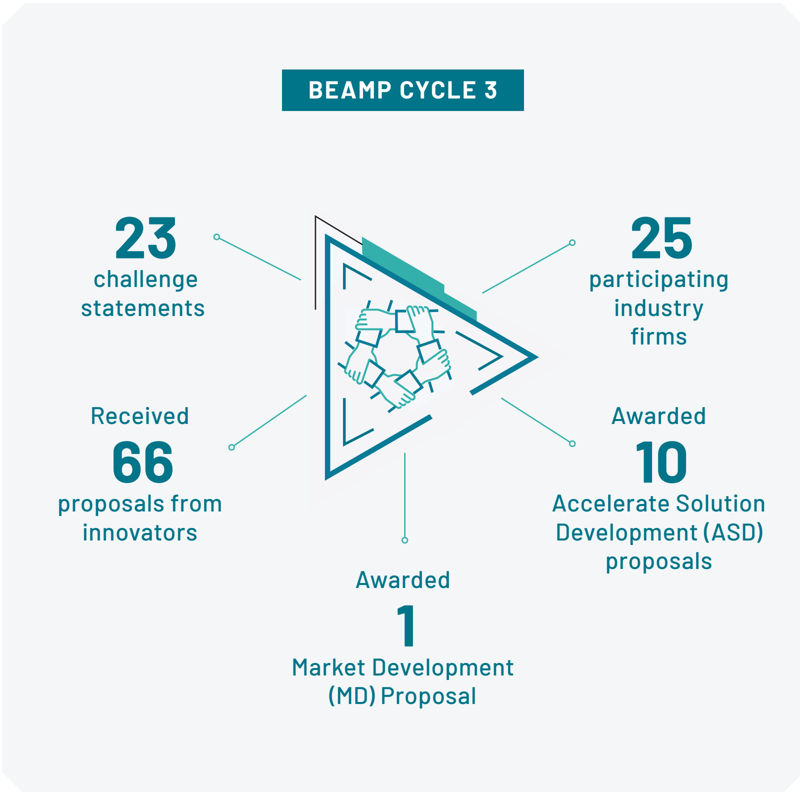
Adopting a Whole-of-Government Approach

Together with other agencies, BCA provided opportunities for innovators to develop and showcase creative solutions to solve real-life challenges faced by the Built Environment sector.

One of which was BCA and Infocomm Media Development Authority (IMDA)'s call for proposals for integrated robotics and automation solutions. The aim was to have cost efficient and scalable solutions to improve productivity and reduce labour dependency, as well as improve safety at worksites. More than 20 proposals were received from solution providers.

Another initiative was BCA-Enterprise Singapore (ESG)-IMDA's Built Environment Accelerate-to-Market Programme (BEAMP), which saw its third cycle in 2021. The programme supported promising home-grown innovators as they worked with industry partners to design innovative solutions in areas ranging from remote monitoring of construction progress, to automating inspections and 3D printing of bespoke building components.

Following BEAMP, we had Built Environment (BE) Demo Day, which was organised together with ESG, JTC and our accelerator partner, Padang & Co. Promising innovators presented their ideas to corporates and investors in the ecosystem. Innovations in sustainability, robotics, automation and other digital solutions were featured at the International Built Environment Week (IBEW) in 2021.



Partnering Industry Firms and Institutes of Higher Learning (IHLs)

BCA's Built Environment Technology Alliance (BETA) is a long-term effort to foster industry-led R&I investments, build local capabilities and translate outcomes for commercialisation and export. In the past year, several progressive firms committed resources and pursued promising technological advancements by undertaking R&I projects, and received support from BETA's Catalyst funding programme.

PROJECT	PROJECT PARTIES	INDUSTRY IMPACT AND TRANSFORMATION
INNOVATIVE CONSTRUCTION TECHNOLOGIES FOR DEEP FOUNDATION AND EXCAVATION	Singapore Institute of Technology (SIT), Woh Hup (Private Limited), SEN SG Pte Ltd, TTJ Design and Engineering Pte Ltd, NatSteel Holdings Pte Ltd	The project seeks to develop an ensemble of underground construction technologies – by combining research in inter-related areas to bring about a system-level productivity improvement in deep foundation and excavation works.
ARTIFICIAL INTELLIGENCE FOR MIXING (AIM)	Pan-United Concrete Pte Ltd	The project seeks to develop a system that uses sensors on mixer trucks to collect real-time data and measure concrete workability from the point concrete is loaded onto the truck, and up to the point when concrete is discharged at the project site for use. The system will also be able to adjust the concrete mix to meet concrete workability requirements by adding water/admixtures to the concrete mix during transit.

Empowering Transformation through Manpower Development

Building Our Talent Pipeline

iBuildSG Built Environment Formation Programme (iBEFP)

In FY2021, BCA conducted eight runs of iBEFP to help students gain a better understanding of the work in the Built Environment sector. It attracted 667 interns from the eight Institutes of IHLs, a 50% increase from the previous year. Hailing from multiple disciplines, including architecture, civil and environmental engineering and facilities management, the interns engaged in training workshops, learning journeys and simulation exercises, and discovered more about ITM.

During the year, four IHLs included iBEFP as a compulsory part of their curriculum. In light of the plan for IHLs to run the iBEFP from FY2024, they will increasingly be more involved in the co-creation and co-facilitation of the programme with BCA Academy. The iBEFP aims to benefit about 2,500 interns by 2025.

Since 2019, the iBEFP has inspired over

1,500

students from eight IHLs

Supporting Mid-Career Conversions

230

Career Conversion Programme (CCP)-trained mid-careerists were hired by Built Environment firms in 2021

Over

60

mid-career entrants enrolled in the SGUnited Skills (SGUS) diploma in IDD and Sustainable Building in FY2021

BCA worked with Workforce Singapore (WSG) and training providers to develop CCPs to equip mid careerists with the right skillsets to join the Built Environment sector.

During the year, the SIFMA and Singapore National Employers Federation (SNEF) launched two new programmes for FM Specialists (Technician) and Construction Supervisors Built Environment Professionals.

In August 2021, Singapore Contractors Association Limited (SCAL) unveiled the upgraded CCP for Building Information Modelling (BIM) professionals that better supports industry needs.

Working with SkillsFuture Singapore (SSG), BCA tapped the SGUS programme to offer local jobseekers career matching services and training opportunities. These were carried out in collaboration with Trade Associations and Chambers (TACs) and industry firms.

Upskilling for Future Roles in the Industry

Trained over
27,000
industry professionals and practitioners

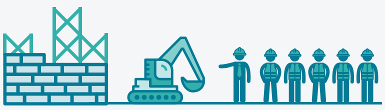
Clocked more than
46,000
training hours

Conducted over
150
training programmes

881
students graduated from BCA's diploma and Specialist Diploma programmes

230
students graduated from the Built Environment-related degree programmes conducted in partnership with universities

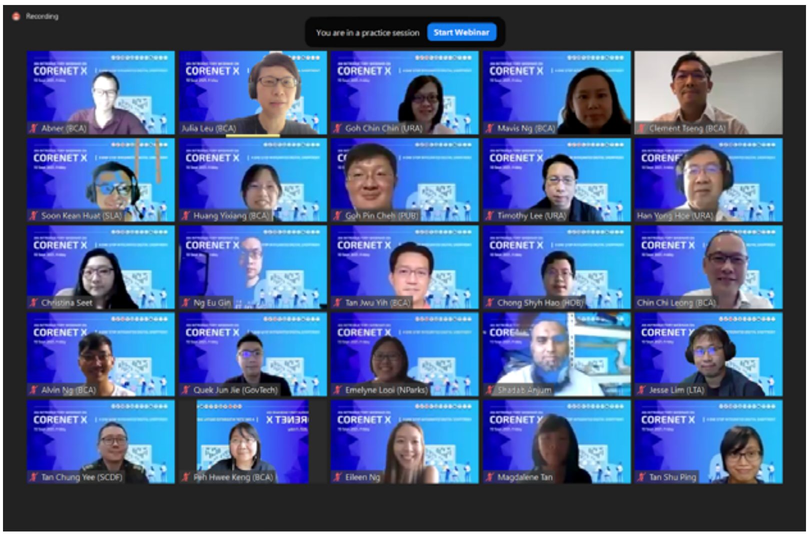
More than
600
public service officers from 11 processing agencies have received CORENET X training since 2019



Source: BCA Academy

A vital part of industry transformation lies in upskilling and deep skilling professionals to meet emerging job requirements. Over the financial year, the BCA Academy (BCAA) conducted 172 Continuing Education and Training courses and 33 academic programmes related to BCA's regulatory policies and initiatives.

The academy also trained 6,400 participants in the key areas under the ITM. To meet the rising demand for crane operators and plumbers, we doubled the training capacity to equip more locals with the necessary skillset for these core technician-level trades.



Introductory webinar on CORENET X.

Targeting new entrants, the BCAA academic programmes armed graduates with in-demand knowledge and skills to prepare them for good employment opportunities, with the majority receiving job offers within six months of graduation.

TARGET GROUP	New entrants and in-service personnel	Public sector officers
AIM	• Facilitate upskilling and provide clear pathways to attain the skillsets needed for career progression and accreditation	• Deepen core competencies and sustain transformation
ACHIEVEMENT	• Mapped over 160 BCAA Skill-up and Move-in programmes to the Skills Framework for the Built Environment • Rolled out new and revamped industry-relevant Professional Conversion Programmes (PCP) in partnership with TACs	• Developed CORENET X capabilities to facilitate coordinated reviews by regulatory agencies and achieve greater productivity for the sector

Majority of the graduates from BCAA received job offers within six months of graduation.

Attracting More Locals to the Workforce

Enhanced Progressive Wage Model for Lift and Escalator Industry

The Tripartite Cluster for Lift & Escalator (TCLE) released a set of recommendations in mid-2021. This included the extension of the Progressive Wage Model (PWM) to cover escalator maintenance technicians and the wage revision plan from 2023. Key firms which have committed to adopt the PWM have since raised the basic salaries of technicians to BCA's 2021 transitional wage target and experienced a rise in the number of local technicians.

Certificate of Competency in Escalator Specialists

Together with the Institute of Technical Education (ITE), BCA mapped out the Technical Skills and Competencies (TSC) for escalator specialists and launched the Certificate of Competency (CoC) course for Escalator Specialists in March 2022 to upskill and equip the workforce. This course is an addition to the CoC in Lift and Escalator maintenance programmes offered by ITE for various competency levels.

BCA-Industry iBuildSG Scholarship and Sponsorship Programmes

With strong participation from the industry, 200 scholarships and sponsorships were awarded to post-secondary students who were enrolled in Built Environment related-courses in 2021.

BCA and industry partners awarded almost

200

scholarships and sponsorships to post-secondary students enrolled in Built Environment related courses in 2021

Amassed a young talent pool comprising

3,900

individuals since 2010

Close to

400

firms offered scholarships and sponsorships to students over the years

Partnerships and Industry Engagement

Celebrating Achievements and Sparking Conversations

Our journey towards a more sustainable, resilient and robust built environment is fuelled by two key events – the International Built Environment Week (IBEW) and the BCA Awards. The 2021 edition of the IBEW was themed “Re-imagining the Future” and focused on the industry growth potential for transformation. Together, the events sparked insightful conversations within the industry, while generating opportunities for enterprise development and business collaborations. At the same time, they spurred companies to drive growth and competitiveness though technology and innovation.

Inspiring Leaders of Tomorrow

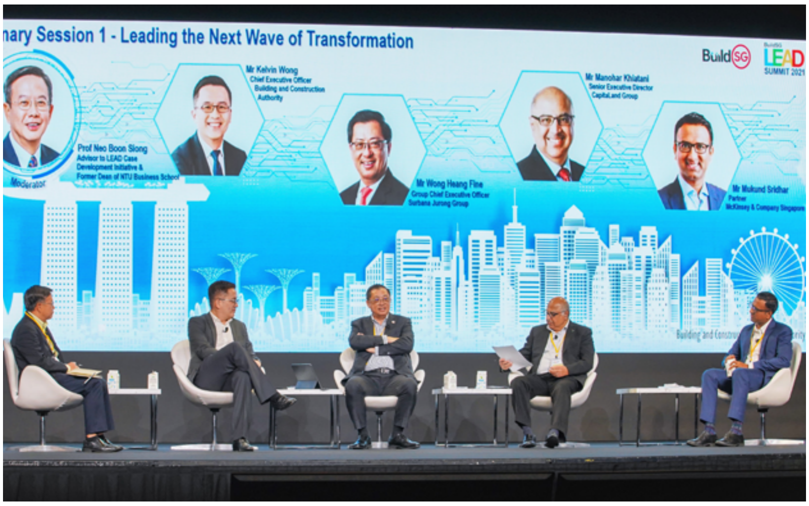
In FY2021, we organised our first Leadership Engagement and Development (LEAD) Summit, which discussed ways to lead the next wave of transformation and the role of leadership as we shape the built environment ecosystem. In addition, we held a series of large-scale forums and conversations with Distinguished Fellows as well as LEAD Horizon and Milestone programmes – all of which served to encourage dialogue, forge collaboration and inspire future leaders.

KEY STATISTICS

More than **4,000** industry professionals from over **46** countries participated in the digital IBEW

IBEW 2021 showcased **58** exhibitors and featured over **250** solutions via the virtual trade shows

BCA Awards 2021 featured **99** winners across **7** award categories



Over **1,200** industry leaders from the public and private sectors attended the inaugural BuildSG LEAD Summit 2021.

Continually engaged over **2,000** leaders in the LEAD community to facilitate industry alignment and exchanges throughout the year.

The Inaugural BuildSG LEAD Summit 2021 discussed about the role of leadership and leading the next wave of transformation.

Strengthening Overseas Branding

The COVID-19 pandemic disrupted travel plans and opportunities for overseas ventures. However, during this period, BCA continued to strengthen our local firms' overseas branding through their Green Mark projects and green capabilities. By maintaining strong relations with regional governments and using IBEW as a platform to exemplify the capabilities of Singapore companies, we were able to facilitate overseas market opportunities for our local firms.

GREEN MARK BRAND

Offered
21
overseas Green Mark contracts in
8
countries

Combined contract value of
$568,000

Involved a total of
18
Singaporean firms

INTERNATIONAL RELATIONS

Coordinated with ministries and government agencies on
67
overseas-related requests

Represented Singapore in the Building & Construction Work Group under the **ASEAN CONSULTATIVE COMMITTEE** on Standards and Quality

Proposed
8
International Standards Organisation (ISO) standards which were accepted by member states

Strong partnerships are key to enable firms to collectively transform and emerge stronger.

Fostering Partnerships with Key TACs

TACs are our key points of contact as we ignite transformation and help the Built Environment sector emerge stronger. Together, we shaped initiatives and proposals with ITM outcomes in mind and achieve win-win solutions.

The Real Estate Developers' Association of Singapore (REDAS), STAS and Society of Project Managers (SPM) have tapped on the Local Enterprise and Association Development (LEAD) programme to implement initiatives that benefit and uplift the industry.

We also organised industry engagement sessions to better communicate our policies and drive discussions on industry transformation. Group dialogue sessions or visits to progressive firms were organised across various stakeholders, including developers, builders, consultants and even young leaders of the Built Environment sector. This enabled us to gain industry buy-in and collect real-time industry feedback to further refine our policies.

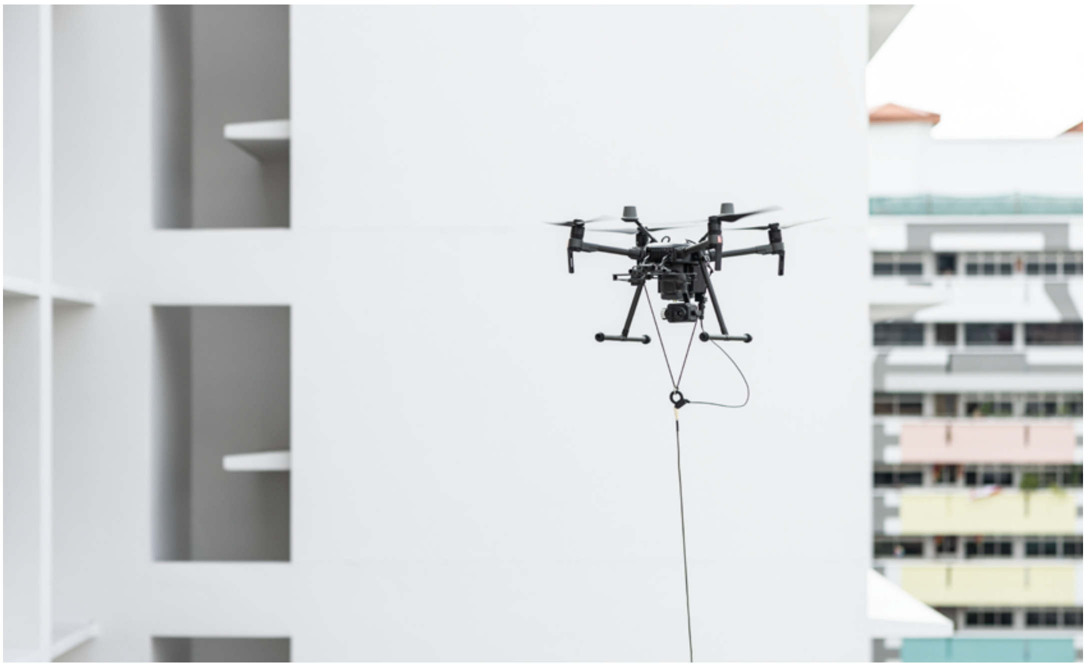
CHAPTER 3

BUILDING SAFETY AND REGULATORY TRANSFORMATION

As a regulatory authority, safety is of paramount importance to us. We are constantly challenging ourselves to improve by enhancing regulatory standards to safeguard the well-being of the public and the Built Environment workforce, while keeping abreast with the latest technological advancements.


499A

Building Safety and Regulatory Transformation



Drones enable greater efficiency and accuracy in the visual inspection of façades at height via high- definition visuals.

Ensuring Building Safety

Formalising Façade Inspections

BCA took a pre-emptive approach to prevent falling façade elements by implementing the Periodic Façade Inspection (PFI) regime in January 2022. Targeting an 80% reduction in façade safety incidents, it requires buildings above 20 years old and taller than 13 metres to undergo visual and representative close-range façade inspections by Competent Persons (CP) every seven years. This regime assists building owners in detecting any façade deterioration early, enabling them to rectify identified issues in their building façades in a timely manner. Through this, the risk of fallen façade elements injuring the public can be reduced systematically.

A suite of info-packs including PFI Guidelines for CPs, Infographics and advisories were disseminated to our stakeholders to keep them informed of the new regime. This is on top of the numerous targeted and continuous engagements held with stakeholders since 2017.

Scan here to visit BCA's website for more information on the PFI regime.

BCA conducted an Internal Service Journey in July 2021 to understand users' pain points on site inspections.

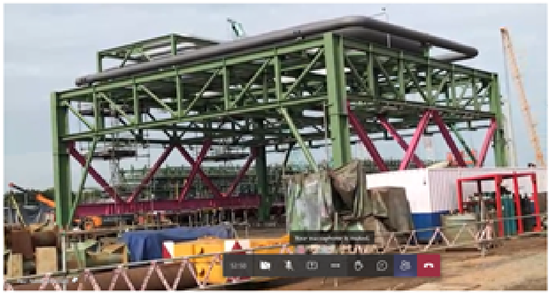
Promoting Smart Site Inspections

In 2021, BCA conducted a series of service journey exercises and amalgamated key audit and inspection works across BCA to streamline site inspection processes.
The aim was to achieve greater efficiency in site inspections and raise the professionalism of the industry by leveraging data and technologies for Smart Inspection.

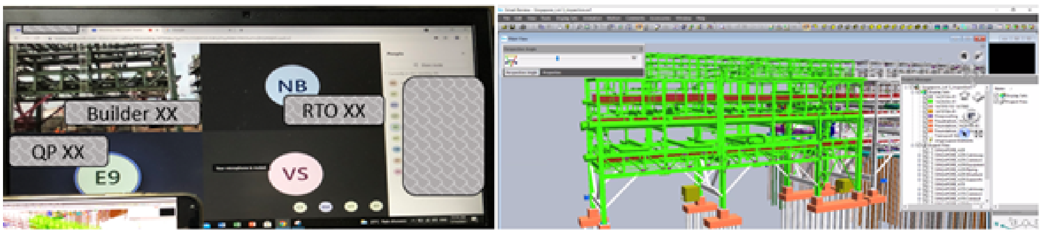
Maintaining Safety with Remote Supervision

As the industry adopts remote site supervision of local and overseas fabrication yards and construction sites by Qualified Persons (QPs) and site supervisors, BCA developed the *Guidebook for Remote Supervision (Structural Works)* in October 2021 to share good practices and uphold the quality of remote supervision.

Worker with a camera strapped to his helmet



Steel structure in India's fabrication yard

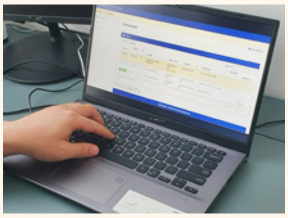


Checking of frames in a in Building Information Modelling (BIM) model in Singapore

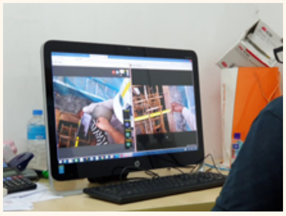
BCA shared good industry practices in a guidebook so that the industry can uphold the quality of remote supervision for local and overseas. fabrication and construction sites.

DIGITAL REMOTE PROOF OF TEST (DRPOT) SYSTEM

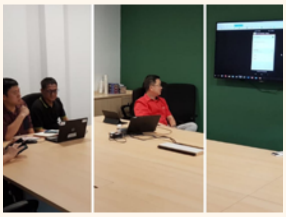
DPROT is a smart, automated system created for the remote supervision of Civil Defence (CD) anchor bolt proof load tests. It improves time and manpower efficiency by 30%, as it reduces the number of standing witnesses on site and streamlines the post-inspection documentation processes. The integrated system supports:



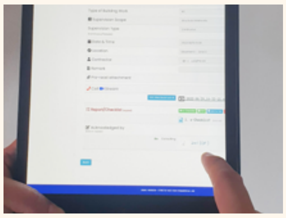
Pre-scheduling



Real-time supervision



Inspection



Remote sign-off of construction works

First conceived in 2018, the development process culminated with the launch of the *Guidebook for Remote Supervision (Structural Works)*.

Guarding against Sea Level Rise

BCA will work with the PUB, Singapore's National Water Agency (PUB) on the maintenance and upgrading of foreshore structures to guard against sea level rise, in line with its long-term Coastal Protection Master Plan.

As one of the government agencies responsible for maintaining jetties and foreshore structures, BCA inspected those that are under our care, and carried out major repair works at Labrador Nature Reserve, Woodlands Jetty and Woodlands Promenade. The year also saw the award of a multi-disciplinary consultancy contract for the reconstruction of a revetment at Pulau Punggol Timor.

Before and after rectification works to the seawall along Woodlands Waterfront Promenade.

Before

After

Enhancing Regulation Standards

Improving Safety of Underground Works

On 1 June 2021, BCA launched the Framework on Performance Based Impact Assessment Associated with Earth Retaining or Stabilising Structures (ERSS) and Tunnelling Works. The Framework allows for higher building settlement limits provided the QP performs a rigorous analysis of potential building movements resulting from excavation or tunnelling works with detailed building modelling. This assessment must also achieve the same performance objective of zero structural damage.

Regulations for Fixed Installations (e.g. lifts, escalators and mechanised car parking systems)

The upcoming revised Building Control (BC) Regulations for fixed installations leverage plan submissions and product testing to tighten upstream controls during design and installation, while enhancing the contractors' registration requirements, including the introduction of mandatory progressive wage model (PWM) applications.

Upholding Maintenance Regimes of Amusement Parks

Every class of amusement rides now has a clear set of maintenance outcomes, which will be progressively introduced into the ride maintenance manual to ensure that operators uphold comprehensive and effective maintenance regimes.

The Performance-based Impact Assessment Framework associated with ERSS and tunnelling works ensures that safety of underground works is achieved while QPs are allowed higher

A set of maintenance outcomes will be included in the manual so that amusement ride operators can uphold an effective maintenance regime and ensure safety.

Improving Understanding of Safety Requirements

To improve contractors' understanding of the maintenance requirements, BCA developed:

- *Guidebook on Plans Submission for Fixed Installations;*
- *Good Practices Guide for Lift Owners; and*
- *Lift Maintenance Outcomes Guidebook.*

BCA is working with industry partners to develop a Maintenance Control Plan (MCP) guidebook, which details the replacement criteria of major safety critical parts.

Scan here to download a copy of the *Good Practices Guide for Lift Owners*

GOOD PRACTICE GUIDE FOR DESIGN, INSTALLATION AND MAINTENANCE OF BUILDING FIXTURES

The *Good Practice Guide for Design, Installation and Maintenance of Building Fixtures* was developed for building owners, managing agents and professionals. It guides them in ensuring the durability of building fixtures, especially those in public spaces and at the building periphery, which are generally more prone to deterioration due to weathering effects.

Scan here to download a copy of the *Good Practice Guide for Design, Installation and Maintenance of Building Fixtures*

Leveraging Technology for Better Productivity

Driving Façade Inspections with Technology

Harnessing innovative technologies, including drones and AI, BCA developed a technology-enabled and AI-integrated smart drone inspection ecosystem to raise productivity and ensure sustainability within the façade inspection industry.

The smart drone inspection systems are capable of producing 3D building models, geo-tagged images, automated defect detection and privacy anonymisation.

Inspection reports are also automatically generated for ease of documentation and submission.

PROJECT MILESTONES

The Gov-PACT project grant call completed in August 2021 resulted in

5 drone companies developing their own AI-equipped smart drone inspection systems

They are now providing inspection services to the industry at competitive rates.

Collaborated with Enterprise Singapore (ESG) and industry partners to develop the

TR78-1:2020 and TR78-2:2021 technical references

for building façade inspections using Unmanned Aircraft Systems (UAS).

Collaborated with Trade Associations and Chambers (TACs) to design training programmes for CPs and Façade Inspectors (FIs). An adequate number of inspection personnel, comprising

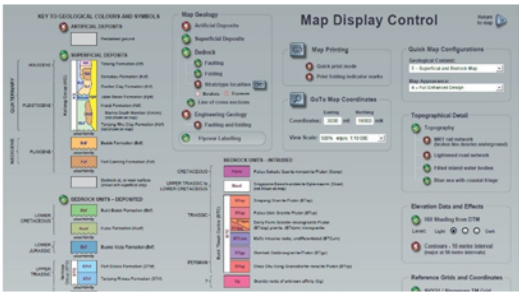
more than 75 CPs and 150 FIs, were trained

prior to the launch of the PFI regime in January 2022.

Analysing Geological Conditions Digitally

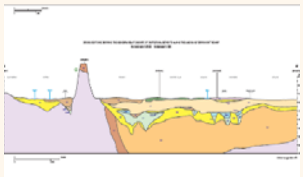
On 1 October 2021, BCA unveiled an interactive geological map of Singapore which gave industry users quick access to geological information and improved the understanding of their sites' geology.

- **1:50 000 scale map**
- **Allows for printing in A0 page size (1189 x 841 mm)**



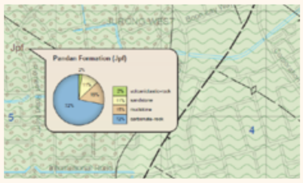
Map display controls and tools allow different configurations of the geological map to be displayed.

KEY FEATURES

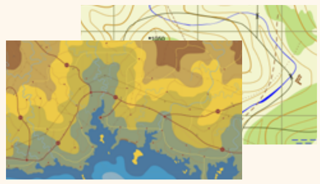


Geological cross-sections

Allows users to search for stratotype locations via custom tools in the map

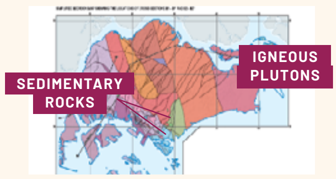


Employs infographics for simplicity and user-friendliness



Allows users to print the geological map in a variety of different configurations

Allows for multiple configurations of the display of different geological elements



Provides on-map flyover labelling of information of different geological classifications

Transforming Regulatory Approval Process through CORENET X

The upcoming CORENET X redefines the ecosystem of regulatory approvals powered by BIM technologies. CORENET X will allow the project team to collaborate and produce a coordinated 3D BIM model for submission and approval by regulatory agencies.

The team behind CORENET X saw progress in two key milestones this year - process re-engineering and the development of technological enablers.

	PROCESS RE-ENGINEERING	DEVELOPMENT OF TECHNOLOGICAL ENABLERS
AIMS	• Transform the regulatory approval process and redesign the submission experience to change today's agency-centric process into a project-centric one.	• Collaboration Platform (CP) – To transform the current way agencies review plans and allow them to concurrently access the same BIM model, as well as collaborate within the same platform. • Automated Model Checker (MC) – To improve the efficiency of code checking and enable self-checking by consultants prior to submission.
METHOD	User-centric service journey	Pilot testing of the two technological enablers
INVOLVEMENT	Over 100 professionals from the public and private sectors	Industry stakeholders, officers from eight regulatory agencies (BCA, URA, NParks, LTA, PUB, NEA, SCDF and SLA) and GovTech
OUTCOMES	• A reduction from over 20 approval stages across seven agencies to a new three-gateway regulatory approval process, namely Design Gateway, Construction Gateway and Completion. • Relevant policy changes and regulatory sandboxing are being worked out to address the gaps identified.	• Pilots have successfully demonstrated the feasibility of 3D BIM review by regulatory agencies using digital tools to extract the required information more effectively and the capability to automate rule-based regulatory checks respectively. • We used learning points from the pilots to refine the requirements for the full development of the CP and MC. • Training of regulatory officers on BIM and the technological enablers is underway. • We organised five webinars to prepare the industry for a standardised, digital description of the built environment also known as the Industry Foundation Classes (IFC), with additional webinars in the pipeline.

Following the announcement of CORENET X, a series of industry webinars were hosted in collaboration with six TACs and 12 agencies to introduce the initiative. These attracted more than 3,200 industry practitioners who showed strong interest in the new initiatives, with over 300 questions fielded during the Q&A segments. Many of the participants also posted positive reviews and comments.

Attracted
>3,200
industry practitioners

Transforming Lift Maintenance

Through AI and machine learning, Remote Monitoring and Diagnostics (RM&D) solutions support predictive lift maintenance and reduce the time needed to rectify faults. The result is better lift safety and reliability and increased productivity across the lift maintenance industry.

BCA conducted trials with Jurong Town Corporation, in preparation for a new maintenance approach for lifts monitored and diagnosed by RM&D solutions.

CHAPTER 4

IMPROVING LIVEABILITY

As we build, we create quality spaces that are easily accessible and sustainable to allow people from all walks of life to live, work and play in. In doing so, we seek to shape an inclusive, liveable city – one that embraces people today and in the future.

Improving the Liveability of Our Built Environment

Improving Building Quality and Industry Standards

Raising Building Quality Standards

BCA worked with the Urban Redevelopment Authority (URA) to help homebuyers make better-informed decisions when purchasing or leasing properties. One initiative is to require developers to provide their Construction Quality Assessment System (CONQUAS) and Quality Mark (QM) scores, as well as Green Mark certifications for their completed projects in the past five years.

Meanwhile, BCA will be finalising the updated CONQUAS 2022 and CONQUAS banding system. CONQUAS 2022 will take into consideration buyers' concerns regarding latent defects and major functionality issues. The CONQUAS banding system will help homebuyers discern the relative quality performances of developers, builders and their private residential projects.

Accreditation Scheme for Managing Agents (MAs)

On 23 June 2021, BCA issued the Certificate of Recognition to the Association of Strata Managers (ASM) and the Association of Property and Facility Managers (APFM) in recognition of their accreditation schemes for MAs. The accreditation schemes are aimed at helping the industry raise the standards for MAs who provide services to the Management Corporation Strata Titles (MCSTs).

CONQUAS adoption rate 2021
95%

Take-up rate for BCA Quality Mark 2021
62%

To gain accreditation, MA individuals need to undergo a structured training programme with a segment conducted by either of the two associations and another by the BCA Academy. The training seeks to equip them with the necessary skills and knowledge to execute their duties professionally. MA firms can be accredited if they employ the minimum number of accredited individuals.

Revitalising Private Estates

BCA manages the Estate Upgrading Programme (EUP) for private estates, which are at various stages of implementation. About 28 private estates were upgraded with barrier-free features, benefitting about 20,000 households. Residents of all ages and different mobility needs in these estates can now enjoy better accessibility and connectivity within their estates. We also rolled out a new residents' engagement framework, which facilitated a participatory approach in co-creating ideas and strengthening partnerships.

In FY2021, BCA managed EUP projects for
28
private estates, benefitting
20,000
households

Thomson Faber Island Garden Estate upgraded with barrier-free features.

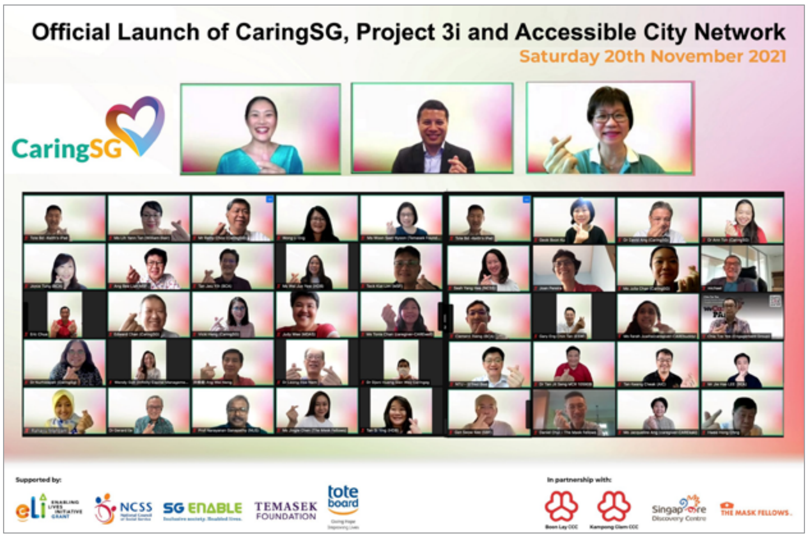
Before

After

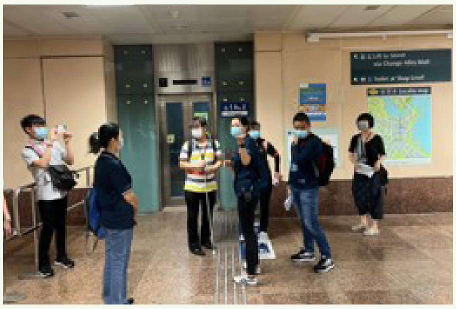
Enhancing Accessibility for Persons with Disabilities (PWDs)

The Accessible City Network (ACN) was launched on 20 November 2021. It brought together representatives from the private, public and social service sectors – such as the Disabled People's Association (DPA), SPD, the Handicaps Welfare Society (HWA) and the Singapore Association of the Visually Handicapped (SAVH) to address accessibility gaps.

Through a co-solutioning workshop and on-site engagement sessions, we collaboratively tackled accessibility challenges in the Central Business District (CBD) that limit employment opportunities for PWDs. These led to way-finding enhancement works for Raffles Place MRT station and the Underground Pedestrian Network. This community partnership fostered a better understanding of the needs of PWDs, while allowing different stakeholders, from building owners to transport operators and planners, to play a key role in bringing to life user-centric designs that ease the lives of PWDs.



Launch of Accessible City Network.

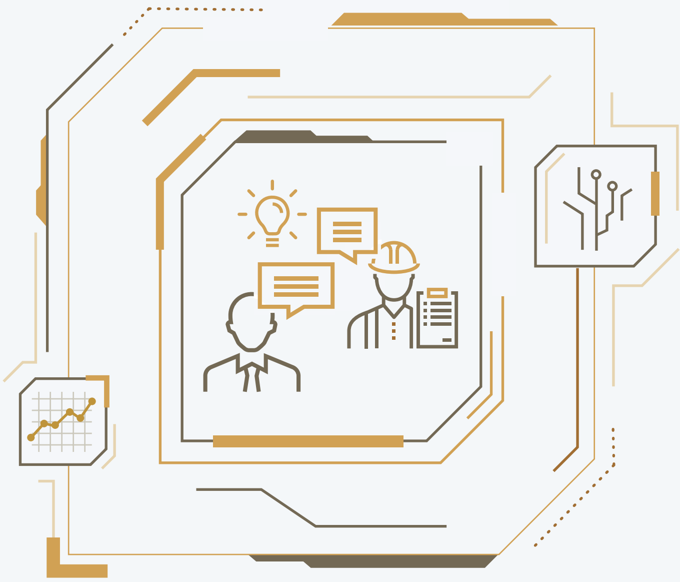


The co-solutioning workshop and on-site engagement sessions with PWDs resulted in enhancement works on way-finding for Rafffles Place MRT station and the underground pedestrian network.

CHAPTER 5

TRANSFORMING WITHIN

Our quest to accelerate industry transformation begins with us. Beyond harnessing technology and embedding data use into our DNA, we seek to continually do better for our people. As an employer of choice, we are rethinking our workplace to create a hybrid environment that embraces greater flexibility and sparks collaborations.




+invite friends

Transforming Within

Official opening of SIFMA office by Senior Minister of State (SMS) Tan Kiat How at BCA Braddell Campus on 22 July 2021.

Fostering Greater Synergy amongst Industry Partners

In 2021, our industry partners, namely the Singapore International Facility Management Association (SIFMA) and the Institute of Singapore Project Management (SPM), officially moved to the Braddell Campus. This is part of BCA's ongoing efforts to foster synergy among Institutes of Higher Learning (IHLs), TACs and specialists .

The Braddell campus will be expanded in the next year, to create space to nurture collaboration (by BCA) with and between industry players and drive the co-development of training and research that are in line with industry needs.

Digitalising to Improve Service Delivery

BCA's Digitalisation Plan embodies our dedication to innovation and transformation. It establishes the roadmap to transform our policies, digitalise our processes, improve our service delivery and drive smarter end-to-end solutions for businesses.

CORENET X

COMPLETED
the Collaboration Platform pilot trial. Regulatory agencies concurrently assessed the same coordinated Building Information Modelling (BIM) model and collaborated via the platform to provide a coordinated response to the industry.

COMPLETED
two out of five releases of the Automated Model Checker pilot trial. This trial comprises an engine that helps the industry and agencies check for regulatory compliance, and improve the consistency and accuracy of code interpretation.

COMPLETED
the trial of the first three out of four batches of the regulatory rule mapping to Industry Foundation Classes (IFC)-SG standard.

COMMON MAINTENANCE TENDER (CMT)

Consolidated maintenance support services under a CMT to
IMPROVE
governance compliance and service levels for systems across BCA.

After the CMT was awarded in March 2021,
43 OUT OF 45
systems have onboarded it in FY2021.

Supporting Industry Transformation

Shaping a future-ready Built Environment sector remains an important focus for BCA. To equip BCA officers with the skill sets and tools to support industry transformation, we identified five core capabilities and developed the plans to build up capabilities in these areas over the next few years.

Becoming a Future-Ready, Employer of Choice

To realise our vision of becoming a technologically-savvy, data-driven organisation and an employer of choice, BCA formulated a Strategic Workforce Plan (SWP) in 2021. The SWP aims to transform jobs, while developing our long-term ops-tech proficiencies. Furthermore, we strive to equip our staff with the skillsets needed for jobs of the future in areas ranging from robotics and smart inspection, to integrated design and delivery.

Reinforcing our efforts on this front, close to 80 BCA officers were identified as smart and power users and trained in new competencies, such as data analytics and robotic process automation, to help lead digital change within BCA.

ANNUAL FINANCIAL STATEMENTS

Building and Construction Authority
and Its Subsidiaries

Statement by the Board

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 2022 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 ("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

Lim Sim Seng
Chairman

Kelvin Wong
Chief Executive Officer

16 August 2022

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 the Authority as at 31 March 2022, statements of comprehensive income and statements of changes in reserves of the Group and the 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 FS53.

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 ("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 2022 and of the financial performance and changes in reserves, of the Group and the 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.

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.

Independent Auditors' Report (cont'd)

Members of the Board
Building and Construction Authority

- 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.

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

KPMG LLP
Public Accountants and
Chartered Accountants

Singapore
16 August 2022

Statements of Financial Position

As at 31 March 2022

	Note	Group 2021/2022 $	Group 2020/2021 $	Authority 2021/2022 $	Authority 2020/2021 $
Assets					
Property, plant and equipment	4	169,100,390	142,569,830	169,100,390	142,569,830
Investments in subsidiaries	5	–	–	2	2
Trade and other receivables	6	41,059,869	57,302,093	41,059,869	57,302,093
Non-current assets		210,160,259	199,871,923	210,160,261	199,871,925
Trade and other receivables	6	60,679,471	77,710,216	60,841,023	78,806,248
Cash and bank balances	7	432,293,174	443,903,853	422,011,626	432,573,646
Current assets		492,972,645	521,614,069	482,852,649	511,379,894
Total assets		703,132,904	721,485,992	693,012,910	711,251,819
Liabilities					
Fees received in advance	8	27,623,290	26,440,523	27,623,290	26,440,523
Lease liabilities	9	50,077,186	75,790,740	50,077,186	75,790,740
Provision for pension costs	10(a)	2,725,070	3,127,855	2,725,070	3,127,855
Provision for reinstatement costs	10(b)	2,062,077	794,283	2,062,077	794,283
Deferred capital grants	11	6,685,148	3,445,116	6,685,148	3,445,116
Non-current liabilities		89,172,771	109,598,517	89,172,771	109,598,517
Fee received in advance	8	57,925,048	52,920,818	54,429,558	49,587,129
Lease liabilities	9	58,608,227	72,166,367	58,608,227	72,166,367
Trade payables		8,639,530	10,839,144	8,592,375	10,839,144
Other payables and accruals	12	66,659,492	94,547,343	66,320,992	94,537,857
Provision for pension costs	10(a)	186,290	186,719	186,290	186,719
Grants received in advance	13	75,109	72,775	75,109	72,775
Deferred capital grants	11	1,154,376	1,739,770	1,154,376	1,739,770
Provision for contribution to consolidated fund	14	3,446,938	–	3,446,938	–
Income tax payables		26,678	2,727	–	–
Current liabilities		196,721,688	232,475,663	192,813,865	229,129,761
Total liabilities		285,894,459	342,074,180	281,986,636	338,728,278
Net assets		417,238,445	379,411,812	411,026,274	372,523,541
Capital and reserves					
Share capital	15	29,827,178	8,447,600	29,827,178	8,447,600
Capital account	16	30,816,526	30,816,526	30,816,526	30,816,526
Accumulated surplus		356,594,741	340,147,686	350,382,570	333,259,415
Total capital and reserves		417,238,445	379,411,812	411,026,274	372,523,541
Net assets of trust and agency funds	17	18,324,342	23,006,035	18,324,342	23,006,035

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

Statements of Comprehensive Income

Year ended 31 March 2022

	Note	Group 2021/2022 $	Group 2020/2021 $	Authority 2021/2022 $	Authority 2020/2021 $
Operating income					
Plan fees		34,800,801	38,501,409	34,800,801	38,501,409
Course fees		25,241,044	21,977,935	25,241,044	21,977,935
Trade test fees		13,238,260	674,402	13,238,260	674,402
Quality assessment fees		10,251,579	7,811,689	9,994,079	7,282,661
Advertisement licence fees		6,483,399	6,393,148	6,483,399	6,393,148
Certification fees		732,167	1,791,083	732,167	1,781,583
Contractors registration fees		4,787,842	4,747,549	4,787,842	4,747,549
Operating lease income		1,976,380	1,665,000	1,976,380	1,665,000
Management fees		18,565,129	18,470,808	18,565,129	18,470,808
Other income		14,699,423	21,354,128	14,022,422	21,354,129
Total operating income	19	130,776,024	123,387,151	129,841,523	122,848,624
Operating expenditure					
Employee benefit costs	20	132,972,035	127,971,148	132,033,430	126,746,414
Depreciation of property, plant and equipment	4	16,089,620	17,878,250	16,089,620	17,878,250
Course and programme expenses		12,996,950	13,047,648	12,994,969	13,035,694
Rental expenses		4,342,330	4,502,481	4,342,330	4,502,481
Repairs and maintenance expenses		18,119,814	16,708,017	18,119,814	16,708,017
Provision of impairment loss on trade receivables		1,455,305	9,591,598	1,455,305	9,591,598
Loss on lease modification		214,014	–	214,014	–
Other expenditure		14,729,187	24,851,526	14,425,850	26,628,098
Total operating expenditure		200,919,255	214,550,668	199,675,332	215,090,552
Net operating deficit		(70,143,231)	(91,163,517)	(69,833,809)	(92,241,928)
Non-operating income/(expenses)					
Interest income		4,729,877	8,253,453	4,729,877	8,253,453
Interest expense		(4,526,089)	(5,485,704)	(4,526,089)	(5,485,704)
Gain on disposal of property, plant and equipment		80	–	80	–
Property, plant and equipment written-off/expensed		(198,178)	(167,340)	(198,178)	(167,340)
		5,690	2,600,409	5,690	2,600,409
Deficit before government grants brought forward		(70,137,541)	(88,563,108)	(69,828,119)	(89,641,519)

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

Statements of Comprehensive Income (cont'd)

Year ended 31 March 2022

	Note	Group 2021/2022 $	Group 2020/2021 $	Authority 2021/2022 $	Authority 2020/2021 $
Government grants					
Operating and development grants	13	88,370,936	87,172,787	88,370,936	87,172,787
Deferred capital grants amortised	11	1,733,289	1,887,402	1,733,289	1,887,402
		90,104,225	89,060,189	90,104,225	89,060,189
Surplus/(deficit) before contribution to consolidated fund and income tax		19,966,684	497,081	20,276,106	(581,330)
Contribution to consolidated fund	14	(3,446,938)	–	(3,446,938)	–
Income tax expense	21	(366,678)	(2,727)	–	–
Surplus/(deficit) for the year	22	16,153,068	494,354	16,829,168	(581,330)
Other comprehensive income:					
Items that will not be reclassified to surplus or deficit in subsequent periods					
Re-measurement gain on defined benefit plan	10(a)	293,987	–	293,987	–
Other comprehensive income for the year, net of tax		293,987	–	293,987	–
Total comprehensive income for the year		16,447,055	494,354	17,123,155	(581,330)

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

Statements of Changes in Reserves

Year ended 31 March 2022

	Note	Share capital $	Capital account $	Accumulated surplus $	Total $
Group					
At 1 April 2020		6,047,600	30,816,526	339,653,332	376,517,458
Total comprehensive income for the year					
Surplus for the year		–	–	494,354	494,354
Total comprehensive income for the year		–	–	494,354	494,354
Issue of share capital	15	2,400,000	–	–	2,400,000
At 31 March 2021		8,447,600	30,816,526	340,147,686	379,411,812
At 1 April 2021		8,447,600	30,816,526	340,147,686	379,411,812
Total comprehensive income for the year					
Surplus for the year		–	–	16,153,068	16,153,068
Other comprehensive income					
Re-measurement gain on defined benefit plan	10(a)	–	–	293,987	293,987
Total comprehensive income for the year		–	–	16,447,055	16,447,055
Issue of share capital	15	21,379,578	–	–	21,379,578
At 31 March 2022		29,827,178	30,816,526	356,594,741	417,238,445

Statements of Changes in Reserves (cont'd)

Year ended 31 March 2022

	Note	Share capital $	Capital account $	Accumulated surplus $	Total $
Authority					
At 1 April 2020		6,047,600	30,816,526	333,840,745	370,704,871
Total comprehensive income for the year					
Surplus for the year		–	–	(581,330)	(581,330)
Total comprehensive income for the year		–	–	(581,330)	(581,330)
Issue of share capital	15	2,400,000	–	–	2,400,000
At 31 March 2021		8,447,600	30,816,526	333,259,415	372,523,541
At 1 April 2021		8,447,600	30,816,526	333,259,415	372,523,541
Total comprehensive income for the year					
Surplus for the year		–	–	16,829,168	16,829,168
Other comprehensive income					
Re-measurement gain on defined benefit plan	10(a)	–	–	293,987	293,987
Total comprehensive income for the year		–	–	17,123,155	17,123,155
Issue of share capital	15	21,379,578	–	–	21,379,578
At 31 March 2022		29,827,178	30,816,526	350,382,570	411,026,274

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

Consolidated Cash Flow Statement

Year ended 31 March 2022

	Note	Group 2021/2022 $	Group 2020/2021 $
Cash flows from operating activities			
Deficit before government grants		(70,137,541)	(88,563,108)
Adjustments for:			
Depreciation of property, plant and equipment	4	16,089,620	17,878,250
Interest income		(4,729,877)	(8,253,453)
Interest expense		4,526,089	5,485,704
Loss on lease modification		214,014	–
Gain on disposal of property, plant and equipment		(80)	–
Property, plant and equipment written-off/expensed		198,178	167,340
Impairment loss on receivables	25	1,455,307	9,591,598
Provision for pension costs	10(a)	70,867	77,000
Provision for reinstatement costs	10(b)	1,247,514	–
		(51,065,909)	(63,616,669)
Changes in working capital:			
Decrease in trade and other receivables		56,664,056	62,591,758
Increase/(decrease) in fees received in advance		6,186,997	(11,178,148)
Decrease in deferred grant income		–	(666,541)
Decrease in trade payables		(6,564,065)	(9,938)
(Decrease)/increase in other payables and accruals		(32,827,516)	34,878,925
Increase in cash not available for general use		(7,786,355)	(4,847,299)
Cash flows (used in)/from operations		(35,392,792)	17,152,088
Payment for contribution to consolidated fund		–	(5,440,695)
Payment of income tax		(342,727)	(13,161)
Pension paid		(180,094)	(188,058)
Net cash (used in)/from operating activities		(35,915,613)	11,510,174
Cash flows from investing activities			
Purchase of property, plant and equipment (Note A)		(33,021,403)	(16,144,423)
Proceeds from disposal of property, plant and equipment		158	–
Interest received		6,071,595	8,231,258
Net cash used in investing activities		(26,949,650)	(7,913,165)
Cash flows from financing activities			
Payment of lease liabilities	9	(65,649,609)	(69,824,267)
Issuance of shares	15	21,379,578	2,400,000
Government grants received		91,959,358	87,225,356
Interest paid		(4,221,098)	(5,071,467)
Net cash from financing activities		43,468,229	14,729,622
Net (decrease)/increase in cash and cash equivalents		(19,397,034)	18,326,631
Cash and cash equivalents at beginning of the year		433,484,266	415,157,635
Cash and cash equivalents at end of the year	7	414,087,232	433,484,266

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

Consolidated Cash Flow Statement (cont'd)

Year ended 31 March 2022

	Note	Group 2021/2022 $	Group 2020/2021 $
Note A			
Purchase of property, plant and equipment:			
Additions of property, plant and equipment	4	42,818,436	20,110,834
Add: Opening accruals for the purchase of property, plant and equipment	12	2,214,951	761,821
Less: Closing accruals for the purchase of property, plant and equipment	12	(7,154,613)	(2,214,951)
Less: Property, plant and equipment funded through capital grant	11	(799,505)	–
Less: Property, plant and equipment not paid		(4,057,866)	(2,513,281)
		33,021,403	16,144,423

Notes to the Financial Statements

Year ended 31 March 2022

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 2022, 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 16 August 2022.

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 transform the built environment sector and shape a liveable and smart built environment for Singapore. 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. The related 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.

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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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.

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 6 – 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

New standards and amendments

The Group has applied the following SB-FRS and guidance notes, amendments to and interpretations of SB-FRS and guidance notes for the first time for the annual period beginning on 1 April 2021:

- *Interest Rate Benchmark Reform – Phase 2 (Amendments to SB-FRS 109, SB-FRS 39, SB-FRS 107, SB-FRS 104 and SB-FRS 116)*
- *Accounting for Depreciation of Statutory Board-Owned Assets Situated on Land Allocated under Tenancy Agreements Governed by State Land Rules (SB-GN 9)*
- *Accounting for Capital Assets Funded using Statutory Boards' Reserves on Behalf of the Government (SB-GN 10)*

The application of these amendments to standards and interpretations does not have a material effect on the financial statements.

3 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements, except as explained in note 2.5, which addresses changes in 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 or minus, 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.

(ii) Classification and subsequent measurement

Non-derivative financial assets

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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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

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.

Non-derivative financial assets: Assessment whether contractual cash flows are solely payments of principal and interest

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

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 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 either:
    - substantially all of the risks and rewards of ownership of the financial asset are transferred or
    - 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.

Transferred assets are not derecognised when 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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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.

(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 that are subject to an insignificant risk of change in their fair value.

For the purpose 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.

(vii) Financial guarantees

Financial guarantees are financial instruments issued by the Group that require the issuer to make specified payments to reimburse the holder for the loss it incurs because a specified debtor fails to meet payment when due in accordance with the original or modified terms of a debt instrument.

Financial guarantees issued are initially measured at fair value. Subsequently, they are measured at the higher of the loss allowance determined in accordance with SB-FRS 109 and the amount initially recognised less, when appropriate, the cumulative amount of income recognised in accordance with the principles of SB-FRS 115.

ECLs are a probability-weighted estimate of credit losses. ECLs are measured for financial guarantees issued as the expected payments to reimburse the holder less any amounts that the Authority expects to recover.

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; and
- 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.

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

If significant 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.

Any 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.

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 30 years
• Right-of-use assets	5 and 30 years
• Office buildings and structures	29 and 30 years
• Site office and land improvement	10 years
• Office, training and mechanical & electrical (M&E) equipment	5 to 10 years
• Furniture, fittings and fixtures	8 years
• Data processing equipment	3 to 5 years

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

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

3.5 Prepaid land lease

Prior to the adoption of SB-FRS 116, the prepaid land lease is measured at cost less accumulated amortisation and impairment losses. 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

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
- 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).

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.

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.

(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 of disposal. 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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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.

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.

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 10(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 assumptions, 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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

(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.

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 recognised 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 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 a systematic basis in the same periods in which the expenses are recognised.

(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 Leases

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

(i) As a lessee

At commencement or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices. However, for the leases of property, the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

The Group determines its incremental borrowing rate by using Ministry of Finance's Cost of Equity with the Risk-free rate and Market Risk Premium, with adjustments made for tenure, to reflect the terms of the lease and type of the asset leased.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- the exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, if the Group changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

Short-term leases and leases of low-value assets

The Group has elected not to recognise right-of-use assets and lease liabilities for leases of low-value assets and short-term leases, including IT equipment. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(ii) As a lessor

At inception or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group applies the exemption described above, then it classifies the sub-lease as an operating lease.

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 the statement of comprehensive income, using effective interest method.

3.15 Tax

Tax expense comprises current and deferred tax. Current tax and deferred tax were 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. 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 expects, 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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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, interpretations and amendments to standards are effective for annual periods beginning after 1 April 2021 and earlier application is permitted; however, the Group has not early adopted the new or amended standards and interpretations in preparing these financial statements.

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

- *SB-FRS 117 Insurance Contracts and amendments to SB-FRS 117 Insurance Contracts*
- *Covid-19-Related Rent Concessions beyond 30 June 2021 (Amendment to SB-FRS 116)*
- *Reference to the Conceptual Framework (Amendments to SB-FRS 103)*
- *Property, Plant and Equipment – Proceeds before Intended Use (Amendments to SB-FRS 16)*
- *Onerous Contracts – Costs of Fulfilling a Contract (Amendments to SB-FRS 37)*
- *Classification of Liabilities as Current or Non-current (Amendments to SB-FRS 1)*
- *Annual Improvements to SB-FRSs 2018 – 2020*
- *Disclosure of Accounting Policies (Amendments to SB-FRS 1 and SB-FRS Practice Statement 2)*
- *Definition of Accounting Estimates (Amendments to SB-FRS 8)*
- *Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to SB-FRS 12)*

4 Property, plant and equipment

Group and Authority	Leasehold land $	Right-of-use assets $	Office buildings and structures $	Site office and land improvement $	Office, training and M&E equipment $	Furniture, fitting and fixtures $	Data processing equipment $	Assets under construction $	Total $
Cost									
Balance at 1 April 2020	–	87,022,378	56,637,660	1,894,572	28,205,893	32,705,194	35,379,366	18,335,192	260,180,255
Additions	–	–	–	–	40,172	51,454	1,247,048	18,772,160	20,110,834
Reclassification	–	–	–	–	3,990	610	1,891,288	(1,895,888)	–
Written-off	–	–	(3,213)	–	(229,295)	(224,317)	(672,936)	–	(1,129,761)
At 31 March 2021	–	87,022,378	56,634,447	1,894,572	28,020,760	32,532,941	37,844,766	35,211,464	279,161,328
Balance at 1 April 2021	–	87,022,378	56,634,447	1,894,572	28,020,760	32,532,941	37,844,766	35,211,464	279,161,328
Additions	–	1,247,514	–	90,960	756,689	336,654	1,020,848	39,365,771	42,818,436
Reclassification	–	–	127,566	–	648,087	(339,626)	1,023,081	(1,459,108)	–
Disposal	–	–	–	–	(2,149)	–	–	–	(2,149)
Written-off	–	–	–	–	(2,010,874)	(687,169)	(1,255,661)	(75,658)	(4,029,362)
At 31 March 2022	–	88,269,892	56,762,013	1,985,532	27,412,513	31,842,800	38,633,034	73,042,469	317,948,253

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

Group and Authority	Leasehold land $	Right-of-use assets $	Office buildings and structures $	Site office and land improvement $	Office, training and M&E equipment $	Furniture, fitting and fixtures $	Data processing equipment $	Assets under construction $	Total $
Accumulated depreciation									
Balance at 1 April 2020	–	14,863,858	34,294,608	1,032,192	24,680,511	20,561,357	24,243,143	–	119,675,669
Depreciation for the year	–	7,137,488	1,522,256	166,288	1,791,520	3,369,454	3,891,244	–	17,878,250
Written-off	–	–	(2,857)	–	(229,295)	(182,256)	(548,013)	–	(962,421)
At 31 March 2020	–	22,001,346	35,814,007	1,198,480	26,242,736	23,748,555	27,586,374	–	136,591,498
Balance at 1 April 2021	–	22,001,346	35,814,007	1,198,480	26,242,736	23,748,555	27,586,374	–	136,591,498
Depreciation for the year	–	7,137,488	954,184	187,663	723,908	2,913,966	4,172,411	–	16,089,620
Disposals	–	–	–	–	(2,071)	–	–	–	(2,071)
Written-off	–	–	–	–	(2,005,610)	(569,916)	(1,255,658)	–	(3,831,184)
At 31 March 2022	–	29,138,834	36,768,191	1,386,143	24,958,963	26,092,605	30,503,127	–	148,847,863
Carrying amounts									
At 1 April 2020	–	72,158,520	22,343,052	862,380	3,525,382	12,143,837	11,136,223	18,335,192	140,504,586
At 31 March 2021	–	65,021,032	20,820,440	696,092	1,778,024	8,784,386	10,258,392	35,211,464	142,569,830
At 31 March 2022	–	59,131,058	19,993,822	599,389	2,453,550	5,750,195	8,129,907	73,042,469	169,100,390

Property, plant and equipment includes right-of-use assets of $44,071,479 (2020/2021: $46,029,444) relating to leasehold land and $15,059,579 (2020/2021: $18,991,588) relating to office buildings and structures. See Note 23.

5 Investments in subsidiaries

	Authority 2021/2022 $	Authority 2020/2021 $
Unquoted shares, at cost	2	2

The subsidiaries at 31 March 2022 are:

Name of subsidiaries	Country of incorporation and principal place of business	Principal activities	Percentage of ownership interest 2021/2022 %	Percentage of ownership interest 2020/2021 %
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
Built Environment Technology Alliance Ltd	Singapore	Research and experimental development on engineering	100	100

BCA Centre for Sustainable Buildings Ltd. has been struck off from the Register of Companies on 5 July 2021.

6 Trade and other receivables

	Group 2021/2022 $	Group 2020/2021 $	Authority 2021/2022 $	Authority 2020/2021 $
Trade receivables	16,161,373	12,562,567	16,116,574	12,438,567
Other receivables	4,260,082	6,344,795	3,750,050	6,344,795
Lease receivables	80,053,766	114,513,213	80,053,766	114,513,213
Grant receivable	11,917	415,161	11,917	415,161
Amounts due from subsidiaries – trade	–	–	300,887	233,083
Amounts due from subsidiaries – non-trade	–	–	472,696	1,047,274
Deposits	101,331	1,823	101,331	1,823
Trade and other receivables	100,588,469	133,837,559	100,807,221	134,993,916
Prepayments	1,150,871	1,174,750	1,093,671	1,114,425
Total trade and other receivables	101,739,340	135,012,309	101,900,892	136,108,341

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

	Group		Authority	
	2021/2022	**2020/2021**	**2021/2022**	**2020/2021**
	$	**$**	**$**	**$**
Represented by:				
Current	60,679,471	77,710,216	60,841,023	78,806,248
Non-current	41,059,869	57,302,093	41,059,869	57,302,093
	101,739,340	135,012,309	101,900,892	136,108,341

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 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.

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 impaired 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 25.

7 Cash and bank balances

	Group		Authority	
	2021/2022	2020/2021	2021/2022	2020/2021
	$	$	$	$
Cash at bank	11,130,540	12,162,337	848,992	832,130
Cash with the AGD	421,162,634	431,741,516	421,162,634	431,741,516
	432,293,174	443,903,853	422,011,626	432,573,646
Less: Cash at bank not available for general use	(18,205,942)	(10,419,587)	(18,205,942)	(10,419,587)
Cash and cash equivalents in cashflow statement	414,087,232	433,484,266	403,805,684	422,154,059

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 ("AGD") 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 2022 is 0.30% per annum (2020/2021: 0.79%).

8 Fees received in advance

	Group		Authority	
	2021/2022	2020/2021	2021/2022	2020/2021
	$	$	$	$
At 1 April	79,361,341	90,539,489	76,027,652	87,176,830
Add: Fees received	105,435,934	75,712,947	105,016,632	75,203,388
Less: Fees recognised as revenue	(99,248,937)	(86,891,095)	(98,991,436)	(86,352,566)
At 31 March	85,548,338	79,361,341	82,052,848	76,027,652
Represented by:				
Current	57,925,048	52,920,818	54,429,558	49,587,129
Non-current	27,623,290	26,440,523	27,623,290	26,440,523
	85,548,338	79,361,341	82,052,848	76,027,652

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

9 Lease Liabilities

	Group and Authority	
	2021/2022	**2020/2021**
	$	**$**
Current liabilities		
Lease liabilities	58,608,227	72,166,367
Non-current liabilities		
Lease liabilities	50,077,186	75,790,740
	108,685,413	147,957,107

Reconciliation of movement of liabilities to cash flows arising from financing activities

	Lease liabilities	
	2021/2022	**2020/2021**
	$	**$**
Restated balance as at 1 April	147,957,107	145,279,438
Changes from financing cash flows		
Payment of lease liabilities	(65,649,609)	(69,824,267)
Interest paid	(4,221,098)	(5,071,467)
Total changes from financing cash flows	(69,870,707)	(74,895,734)
Other changes		
Interest expense	4,199,223	5,465,400
New leases	26,399,790	72,108,003
Total other changes	30,599,013	77,573,403
Balance as at 31 March	108,685,413	147,957,107

10 Provisions

(a) Provision for pension costs

	Group and Authority	
	2021/2022	**2020/2021**
	$	**$**
At 1 April	3,314,574	3,425,632
Add: Amount provided during the year	70,867	77,000
	3,385,441	3,502,632
Less: Pension paid during the year	(180,094)	(188,058)
Less: Remeasurement gain during the year	(293,987)	–
At 31 March	2,911,360	3,314,574
Represented by:		
Current	186,290	186,719
Non-current	2,725,070	3,127,855
	2,911,360	3,314,574

The above provision includes the provision for pension costs for 12 (2020/2021: 13) pensioners who have exercised the option for reduced pension with gratuity payment under the pension scheme other than CPF. There is no 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.

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

- Discount rate – Gratuity : 2.3% per annum (2020/2021: 2.2% per annum)
- Discount rate – Pension : 2.3% per annum (2020/2021: 2.2% per annum)
- Expected salary increment : Nil (2020/2021: Nil)
- Mortality rate : Singapore Mortality Table
- Expected retirement age : 62 (2020/2021: 62)

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:

	2021/2022	**2020/2021**
Longevity at age 65 for current pensioners		
Males	24	21
Females	26	23

At 31 March 2022, the weighted-average duration of the defined benefit obligation was 11 years (2020/2021: 11 years).

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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 all other assumptions were held constant:

	Group and Authority			
	2021/2022		2020/2021	
	Increase/ (decrease)	$	Increase/ (decrease)	$
Discount rates	+ 25 basis points	(68,779)	+ 25 basis points	(83,147)
	- 25 basis points	71,496	- 25 basis points	86,608
Mortality rates	+ 1 year	103,044	+ 1 year	114,736
	- 1 year	(104,753)	- 1 year	(116,909)

(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	
	2021/2022	2020/2021
	$	$
At 1 April	794,283	774,003
Add: Amount provided during the year	1,247,514	–
Add: Unwind of discount on reinstatement costs provision	20,280	20,280
At 31 March	2,062,077	794,283
Represented by:		
Non-current	2,062,077	794,283

11 Deferred capital grants

		Group and Authority	
	Note	2021/2022	2020/2021
		$	$
At 1 April		5,184,886	7,019,720
Add: Government grants received/receivable			
- Transferred from grants received in advance	13	3,588,422	52,568
- Other assets received and funding		799,505	–
Less: Amortisation of deferred capital grants		(1,733,289)	(1,887,402)
At 31 March		7,839,524	5,184,886
Representing			
Current		1,154,376	1,739,770
Non-current		6,685,148	3,445,116
		7,839,524	5,184,886

12 Other payables and accruals

	Group		Authority	
	2021/2022	2020/2021	2021/2022	2020/2021
	$	$	$	$
Amounts due to MND [(i)]	8,736,452	34,332,584	8,736,452	34,332,584
Amounts due to Maritime and Port Authority of Singapore ("MPA") [(ii)]	566,452	819,973	566,452	819,973
Amounts due to subsidiary – non-trade[(iii)]	–	–	11,917	–
Maintenance deposits	5,555	5,555	5,555	5,555
Sundry creditors[(iv)]	845,016	1,147,106	845,016	1,147,106
Accruals for unconsumed leave	7,457,256	7,573,934	7,457,256	7,573,934
Accruals for operating expenses	22,067,013	25,062,014	21,716,596	25,052,528
Advances received for Corenet 2.0[(v)]	4,324,261	–	4,324,261	–
Accruals for the purchase of property, plant and equipment	7,154,613	2,214,951	7,154,613	2,214,951
Security/tender deposits[(vi)]	12,973,491	20,604,470	12,973,491	20,604,470
Scholarships	2,529,383	2,786,756	2,529,383	2,786,756
Total other payables and accruals	66,659,492	94,547,343	66,320,992	94,537,857

(i) Amounts due to MND consists of amount collected on behalf by the Authority and agency funds received in advance, which amounted to $5,850,226 and $2,886,226 (2020/2021: $32,059,158 and $2,273,475), respectively.

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

MND has programs to support initiatives in developing Singapore's economy which the Authority administers for MND. These projects include infrastructural development undertaken on behalf of the government, consultancy works and managing government quarantine facilities.

The Authority disbursed funds to external parties who participated in these programs. The agency funds payable/receivable from the MND relates to the amount that is received in advance/to be reimbursed by MND for amounts disbursed. During the year, the agency funds amounts received from MND and disbursed to external parties are $79,587,210 and $79,063,803 respectively. In 2020/2021, the agency funds reimbursed from MND and disbursed to external parties were $63,914,201 and $58,308,658 respectively.

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

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

(iii) Amount due to subsidiary is unsecured, interest-free and repayable on demand.

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

(v) This amount was collected in advance from participating agencies in the development of Corenet 2.0 to fund its future maintenance or enhancement.

(vi) Included in security/tender deposits is an amount of $7,005,690 (2020/2021: $11,390,066) collected under the Balcony Bonus Gross Floor Area Incentive Scheme.

13 Grants received in advance

	Note	Operating grants 2021/2022 $	Operating grants 2020/2021 $	Development grants 2021/2022 $	Development grants 2020/2021 $	Total 2021/2022 $	Total 2020/2021 $
Group and Authority							
At 1 April		–	–	72,775	65,840	72,775	65,840
Government grants received/receivable		91,959,358	109,463,086	–	–	91,959,358	109,463,086
Interest Earned		–	–	2,334	6,935	2,334	6,935
Transfer to deferred capital grants	11	(3,588,422)	(52,568)	–	–	(3,588,422)	(52,568)
Transfer to lease receivables		–	(22,237,731)	–	–	–	(22,237,731)
Transfer to profit or loss		(88,370,936)	(87,172,787)	–	–	(88,370,936)	(87,172,787)
At 31 March		–	–	75,109	72,775	75,109	72,775

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

14 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 FY2021/2022 is prevailing corporate tax of 17% (2020/2021: 17%).

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

	Authority	
	2021/2022	2020/2021
	$	$
Surplus/(deficit) of the Authority subject to contribution	20,276,107	(581,330)
Contribution at 17% (2020/2021: 17%)	3,446,938	–

15 Share capital

	Group and Authority			
	2021/2022		2020/2021	
	No. of shares	$	No. of shares	$
Group and Authority:				
At 1 April	8,447,600	8,447,600	6,047,600	6,047,600
Issue of ordinary shares	21,379,578	21,379,578	2,400,000	2,400,000
At 31 March	29,827,178	29,827,178	8,447,600	8,447,600

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.

16 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.

17 Net assets of trust and agency funds

The trust and agency funds comprise 16 funds (2020/2021: 19 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.

The remaining balance has been returned to MND in August 2021.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

(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. For applications received since the start of the scheme till 31 March 2018, Ministry of Finance (MOF) bears a portion of the risk if there is a default in payment by the applicants, and the remaining risk is borne by the financial institutions. For application received from 1 April 2018, BCA bears a portion of the risk if a default by applicants occurs and the remaining risk is borne by the financial institutions.

At 31 March 2022 and 31 March 2021, the risk shared by the scheme owner on the outstanding banking facilities amounted to S$1,415,510 and S$2,085,232 respectively.

(i) *Built Environment Assistance Package*

The Built Environment Assistance Package is one of the support measures approved by Ministry of Finance as part of the Fortitude Budget announced in May 2020 to help the Built Environment sector amid the COVID-19 pandemic.

(j) *Smart Facilities Management Proof-of-Concept Grant*

The Smart Facilities Management Proof-of-Concept Grant was developed to kickstart the adoption of integrated and aggregated smart facilities management.

In March 2022, the Authority has decided to fund the projects under this scheme internally.

The following funds were granted by the Productivity Fund Administration Board:

(k) *Construction Productivity and Capability Fund*

The Construction Productivity and Capability Fund inclusive of Construction Industry Transformation Map grant aims to transform the construction sector through workforce development, technology adoption and capability development.

(l) *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 fund was 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:

(m) *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.

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.

The following funds were 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 following fund was granted by the Workforce Singapore:

(q) *Professional Conversion Programme for BIM Professionals*

The Professional Conversion Programme aims to equip mid-career job seekers with the necessary knowledge and skills to take on a new career in the built environment industry.

The following grant was launched by the Authority, National Environment Agency and Economic Development Board:

(r) *Grant for Low-GWP Refrigerant Chillers*

The Grant for Low-GWP (Global Warming Potential) Refrigerant Chillers aims to encourage companies to make an early switch to water-cooled chillers using lower GWP refrigerants. The Authority will be administering the grant for existing buildings.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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	
	2021/2022	2020/2021
	$	$
At 1 April	23,006,035	47,360,229
Add: Receipts		
- Grants received	54,147,121	350,486,224
- Interest income	25,159	206,024
- Others	636,129	39,762
- Grants to be received	(88,955)	(219,000)
	54,719,454	350,513,010
Less: Disbursements to:		
- External Parties	(53,301,984)	(369,317,565)
- The Authority	(1,816,999)	(1,054,062)
Secretariat fee paid to the Authority	(4,282,040)	(4,494,001)
Amounts paid as bank charges	(124)	(1,576)
	(59,401,147)	(374,867,204)
At 31 March	18,324,342	23,006,035
Represented by:		
Cash at bank	4,602,378	10,658,963
Cash with AGD	13,721,964	12,347,072
Total cash representing net assets as at 31 March	18,324,342	23,006,035

18 Commitment

(a) Capital commitments

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

	Group and Authority	
	2021/2022	2020/2021
	$	$
Amount approved and committed	65,365,527	85,472,138
Amount approved but not committed	6,382,673	620,000

19 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.

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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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 administrative 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.

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' skills 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 administration of trust and agency funds and operating leases for purpose-built dormitories, integrated construction and prefabrication hubs and others.
When revenue is recognised	Over the period of the services rendered.
Significant payment terms	For administration of trust and agency funds and projects on behalf of MND, invoices are raised after service is rendered on a monthly/quarterly basis. For operating leases for purpose-built dormitories, ready-mix concrete sites and integrated construction and prefabrication hubs, invoices are raised at the beginning of each month and are payable within 7 days.

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.

20 Employee benefit costs

	Group		Authority	
	2021/2022	**2020/2021**	**2021/2022**	**2020/2021**
	$	**$**	**$**	**$**
Salaries, allowances and bonus	116,182,129	111,805,161	115,356,318	110,736,833
Central Provident Fund contribution	16,569,933	15,920,680	16,457,139	15,764,274
Pension benefits	70,867	91,905	70,867	91,905
Other staff costs	149,106	153,402	149,106	153,402
	132,972,035	127,971,148	132,033,430	126,746,414

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

21 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	
	2021/2022	2020/2021
	$	$
Current tax expense		
Current year	26,678	2,727
Underprovision in prior year	340,000	–
	366,678	2,727

Reconciliation of effective tax rate

Surplus before contribution to consolidated fund and taxation	19,966,685	959,502
Less: The Authority's surplus before contribution to consolidated fund and income tax expense	(20,276,107)	118,909
Subsidiaries' (deficit)/surplus before income tax expense	(309,422)	1,078,411
Tax at statutory rate of 17% (2020/2021: 17%)	(52,602)	183,330
Tax exempt income	52,602	(195,153)
Non-deductible items	26,678	14,550
Underprovision in prior year	340,000	–
Tax expense	366,678	2,727

In respect of deferred tax assets not recognised, there is nil unutilised tax losses (2020/2021: $1,039,431) available for offset against future taxable profits, as BCA Centre for Sustainable Buildings Ltd. has been struck off from the Register of Companies on 5 July 2021.

22 Surplus for the year

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

	Group		Authority	
	2021/2022	2020/2021	2021/2022	2020/2021
	$	$	$	$
Builders licensing fees	(2,270,788)	(2,272,551)	(2,270,788)	(2,272,551)
Importers licensing fees	(3,083,538)	(1,841,142)	(3,083,538)	(1,841,142)
Royalty fees	(18,900)	–	(18,900)	–
Impairment loss on receivables	1,455,307	9,591,598	1,455,307	9,591,598
Input GST disallowed	3,529,864	5,119,487	3,529,864	5,119,487
Property tax	1,249,900	1,254,037	1,249,900	1,254,037
Contribution to consolidated fund	3,446,938	–	3,446,938	–
Loss on lease modification	214,014	–	214,014	–
Grant income related to lease modification	–	(8,925,574)	–	(8,925,574)
Publicity materials expense	417,429	1,262,598	417,429	1,262,598
Expenses relating to Covid-19	1,867,777	4,522,802	1,867,777	4,522,802
Employee benefit costs relating to Covid-19 (included in Note 20)	7,011,129	5,558,628	7,011,129	5,558,628
Staff training	758,836	562,551	758,836	562,551
Board members' allowances	112,500	123,750	112,500	123,750
Foreign exchange loss	1,537	7,375	1,537	7,375
Interest income				
- Interest income from cash and cash equivalents	1,159,789	3,516,772	1,159,789	3,516,772
- Interest income on lease receivables	3,570,088	4,736,681	3,570,088	4,736,681
	4,729,877	8,253,453	4,729,877	8,253,453
Interest expenses				
- Interest expenses on lease liabilities	4,199,223	5,465,400	4,199,223	5,465,400
- Unwind of discount on reinstatement costs provision	20,280	20,280	20,280	20,280
- Interest expenses on late payment	306,586	24	306,586	24
	4,526,089	5,485,704	4,526,089	5,485,704

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

23 Leases

Leases as lessee (SB-SB-FRS 116)

The Group leases assets including leasehold land, foreign workers' dormitories, integrated construction and precast hubs, office space and others. Previously, these leases were classified as operating leases under SB-SB-FRS17.

Information about leases for which the Group is a lessee is presented below.

Right-of-use assets

Right-of-use assets related to leased properties that do not meet the definition of investment property and are presented as property, plant and equipment (see note 4).

Group and Authority	Leasehold land and building $	Office buildings and structures $	Total $
Balance at 1 April 2021	47,987,409	24,171,111	72,158,520
Additions to right-of-use assets	72,108,003	–	72,108,003
Depreciation charge for the year	(1,957,965)	(5,179,523)	(7,137,488)
Derecognition of right-of-use assets as a result of entering into finance sub-lease	(72,108,003)	–	(72,108,003)
Balance at 1 April 2021	46,029,444	18,991,588	65,021,032
Additions to right-of-use assets	26,399,790	1,247,514	27,647,304
Depreciation charge for the year	(1,957,965)	(5,179,523)	(7,137,488)
Derecognition of right-of-use assets as a result of entering into finance sub-lease	(26,399,790)	–	(26,399,790)
Balance at 31 March 2022	44,071,479	15,059,579	59,131,058

(a) The foreign workers' dormitories leased from Singapore Land Authority has a remaining tenure ranging from 1 year to 3 years. The integrated construction and precast hub leased from JTC Corporation has a remaining tenure of 21 years. The foreign workers' dormitories and integrated construction and precast hub were sub-leased to third parties with the same tenure period.

(b) The Group leases industrial lands for the development of the integrated construction and precast hub. As the leases were prepaid by the Group, no lease liabilities were recognised.

(c) During the financial year, the Group renewed leases for foreign workers' dormitories. The foreign workers' dormitories leased from Singapore Land Authority is for the period till 2024. Right-of-use assets of $26,399,790 (2020/2021: $72,108,003) and lease liabilities of $26,399,790 (2020/2021: $72,108,003) were recognised.

The foreign workers' dormitories were sub-leased to third parties with the same tenure period. Accordingly, the right-of-use assets of $26,399,790 (2020/2021: $72,108,003) were derecognised and instead lease receivables of $26,399,790 (2020/2021: $72,108,003) were recognised.

Amounts recognised in profit or loss:

2021/2022 – Lease under SB-SB-FRS 116	$
Interest on lease liabilities	4,199,223
Expenses relating to short-term leases	1,657,911
Expenses relating to non-lease component	1,891,049
Expenses relating to leases of low-value assets, excluding short-term leases of low-value assets	793,370

2020/2021 – Lease under SB-SB-FRS 116	$
Interest on lease liabilities	5,465,400
Expenses relating to short-term leases	1,664,612
Expenses relating to non-lease component	1,892,085
Expenses relating to leases of low-value assets, excluding short-term leases of low-value assets	945,784

Amounts recognised in the statement of cash flows:

	2021/2022 $	2020/2021 $
Total cash outflow for leases	69,870,707	74,895,734

<u>Leases as lessor (SB-SB-FRS 116)</u>

For the sub-leases of the foreign workers' dormitories, ready-mixed concrete sites and integrated construction and precast hubs, interest income on lease receivables of $3,570,088 (2020/2021: $4,736,681) were recognised by the Group.

The following table sets out a maturity analysis of lease receivables, showing the undiscounted lease payments to be received after the reporting date.

	Group	
	2021/2022 $	2020/2021 $
- Less than one year	45,401,849	64,161,986
- One to two years	19,849,099	35,929,121
- Two to three years	6,812,599	10,376,371
- Three to four years	1,247,599	1,314,871
- Four to five years	1,247,599	1,314,871
- More than five years	19,857,611	22,243,238
Total undiscounted lease receivables	94,416,356	135,340,458
Unearned finance income	(10,047,966)	(12,810,566)
Impairment loss	(4,314,624)	(8,016,679)
Net investment in the lease	80,053,766	114,513,213

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

24 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 on 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	
	2021/2022	**2020/2021**
	$	**$**
Short-term benefits	6,935,056	6,847,388
CPF contributions	356,215	367,611
Termination benefits	13,000	13,000
	7,304,271	7,227,999

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	
	2021/2022	**2020/2021**
	$	**$**
Plan fees	505,824	110,798
Advertisement licence fees	25,108	66,090
Course fees	105,584	193,721
Quality assessment fees	–	143,447
Certification fees	2,744	2,744
Trade test fees	270,900	–
Contractor registration fees	804	4,146
Management fees	1,262	88,460
Other income	361,342	188,125
Employee benefit costs	910,922	217,885
Course and programme expenses	(1,084,376)	(270,638)
Repairs and maintenance	(2,393)	(2,209)
Staff training expense	(31,080)	(3,496)
Other expenditure	(90,646)	(177,879)

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 12% (2020/2021: 2%) of the total operating income. Purchase of supplies and services from Ministries, Organs of States and other Statutory Boards constitute 6% (2020/2021: 10%) 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.

25 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 seeks 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.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

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 bank balances), the Group and the Authority minimise credit risk by dealing exclusively with high credit rating counterparties.

Before accepting any new customer, the Group assesses the potential customer's credit quality. 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 the customer profile of its trade and other receivables on an ongoing basis.

At the end of the financial year, approximately 40% (2020/2021: 32%) of the Group's trade and other receivables (excluding lease receivables) was due from 1 (2020/2021: 3) major customer with a total balance of $11,019,330 (2020/2021: $6,885,830) located in Singapore.

Expected credit loss assessment ("ECL") as at 31 March 2021 and 31 March 2022

The Group uses an allowance matrix to measure the ECLs of trade receivables. Loss rates are based on actual credit loss experience. 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 tables provide information about the exposure to credit risk and ECLs for trade and other receivables as at 31 March 2022:

	2021/2022		2020/2021	
	Gross carrying amount $	Impairment losses $	Gross carrying amount $	Impairment losses $
Group				
Not past due	99,159,737	(4,417,349)	135,779,213	(8,096,896)
Past due				
- less than 3 months	3,266,317	–	7,656,140	(1,574,190)
- 3 months to 6 months	2,120,872	(617)	22,121	–
- more than 6 months to 12 months	5,560,981	(5,122,773)	16,404	(1,842)
- more than 12 months	1,675,865	(1,654,564)	103,677	(67,068)
	111,783,772	(11,195,303)	143,577,555	(9,739,996)

	2021/2022		2020/2021	
	Gross carrying amount	**Impairment losses**	**Gross carrying amount**	**Impairment losses**
	$	**$**	**$**	**$**
Authority				
Not past due	99,423,289	(4,417,349)	136,935,570	(8,096,896)
Past due				
- less than 3 months	3,221,517	–	7,656,140	(1,574,190)
- 3 months to 6 months	2,120,872	(617)	22,121	–
- more than 6 months to 12 months	5,560,981	(5,122,773)	16,404	(1,842)
- more than 12 months	1,675,865	(1,654,564)	103,677	(67,068)
	112,002,524	(11,195,303)	144,733,912	(9,739,996)

At 31 March 2022, 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 Lifetime ECL
	$
At 1 April 2020 per SB-FRS109	148,398
Allowance for impairment loss	9,591,598
At 31 March 2021 per SB -FRS109	9,739,996
At 1 April 2021 per SB -FRS109	9,739,996
Allowance for impairment loss	1,455,307
At 31 March 2022 per SB -FRS109	11,195,303

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.

Financial guarantees

The Group participated in an agreement with financial institutions to provide financial guarantees to qualifying scheme applicants since 1 April 2018 under The Building Retrofit Energy Efficiency Financing ("BREEF") Scheme. As at 31 March 2022 and 31 March 2021, the Authority has an outstanding guarantee to a bank in respect of credit facilities granted to 1 (2020/2021: 1) scheme applicant. The guarantee is subject to the impairment assessment under SB-FRS 109.

At 31 March 2022 and 31 March 2021, the risk shared by the Authority on the outstanding banking facility amounted to S$311,539 and S$602,929 respectively.

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

The Authority has assessed that the scheme applicants have strong financial capacity to meet the contractual cash flow obligations in the near future and hence, does not expect significant credit losses from these guarantees. The Authority's assessment is based on qualitative and quantitative factors that are indicative of the risk of default (including but not limited to external ratings, audited financial statements, management accounts and applying experienced credit judgement).

Cash and bank balances

The Group and the Authority held cash and bank balances of $432,293,174 and $422,011,626 at 31 March 2022 (2020/2021: $443,903,853 and $432,573,646) respectively. The cash and bank balances are held with bank and financial institution counterparties which are rated P-1, based on Moody's ratings. The Authority participated in the Centralised Liquidity Management scheme starting from 25 March 2010.

Impairment on cash and bank balances 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 bank balances have low credit risk based on the external credit ratings of the counterparties. The amount of the allowance on cash and bank balances 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 bank balances to enable them to meet their normal operating commitments.

Analysis of financial instruments by remaining contractual maturities

The table below summarises the maturity profile of the Group's and the Authority's financial liabilities, which are not measured at fair value, at the end of the reporting period based on contractual undiscounted repayment obligations.

		Cash flows			
	Carrying amount $	**Contractual cash flows $**	**Less than 1 year $**	**Between 1 and 5 years $**	**After 5 years $**
Group					
31 March 2021/2022					
Non-derivative financial liabilities					
Trade payables #	6,938,937	6,938,937	6,938,937	–	–
Other payables and accruals*	54,877,975	54,877,975	54,877,975	–	–
Lease liabilities	108,685,413	119,401,325	61,110,587	39,680,724	18,610,014
Financial guarantee contracts**	–	311,538	155,769	155,769	–
	170,502,325	181,529,775	123,083,268	39,836,493	18,610,014

	Carrying amount $	Cash flows: Contractual cash flows $	Less than 1 year $	Between 1 and 5 years $	After 5 years $
Group					
31 March 2020/2021					
Non-derivative financial liabilities					
Trade payables #	6,968,184	6,968,184	6,968,184	–	–
Other payables and accruals*	86,973,409	86,973,409	86,973,409	–	–
Lease liabilities	147,957,107	162,064,754	76,044,313	65,092,074	20,928,367
Financial guarantee contracts**	–	602,928	200,976	401,952	–
	241,898,700	256,609,275	170,186,882	65,494,026	20,928,367
Authority					
31 March 2021/2022					
Non-derivative financial liabilities					
Trade payables #	6,891,782	6,891,782	6,891,782	–	–
Other payables and accruals*	54,539,475	54,539,475	54,539,475	–	–
Lease liabilities	108,685,413	119,401,325	61,110,587	39,680,724	18,610,014
Financial guarantee contracts**	–	311,538	155,769	155,769	–
	170,116,670	181,144,120	122,697,613	39,836,493	18,610,014
31 March 2020/2021					
Non-derivative financial liabilities					
Trade payables #	6,968,184	6,968,184	6,968,184	–	–
Other payables and accruals*	86,963,923	86,963,923	86,963,923	–	–
Lease liabilities	147,957,107	162,064,754	76,044,313	65,092,074	20,928,367
Financial guarantee contracts**	–	602,928	200,976	401,952	–
	241,889,214	256,599,789	170,177,396	65,494,026	20,928,367

\# Excluded GST payable
* Excluded accruals for unconsumed leave and advance received for Corenet 2.0
** The disclosure represents the maximum amount that is required to be settled in the event of default by scheme applicants.

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.

<u>Interest rate risk management</u>

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

Notes to the Financial Statements (cont'd)

Year ended 31 March 2022

(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.

(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.

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