

SCIENCE
CENTRE
singapore

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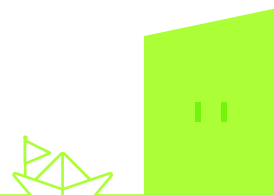
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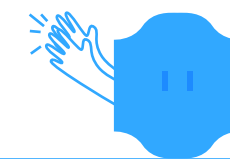
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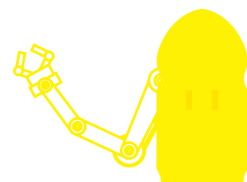
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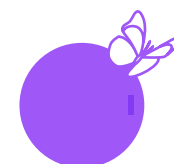
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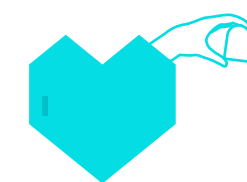
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01

MESSAGE FROM THE TOP

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CHAIRMAN'S REVIEW

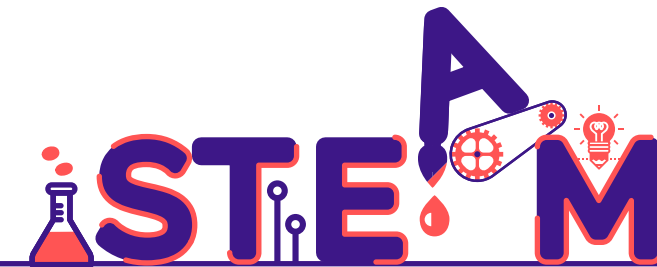
“

2019 marked a strong year for Science Centre Board. We persevered in our goal to break down the barriers of Science, Technology, Engineering and Mathematics or STEM, gained momentum in painting the possibilities of an innovation-driven future, and continued to deliver on our commitment to inspire a new generation of learners and thinkers. It is in our DNA to think critically and creatively, and this shared vision has underscored every collective effort, serving as our purpose and reason for the remarkable headway that we have made in the past twelve months.



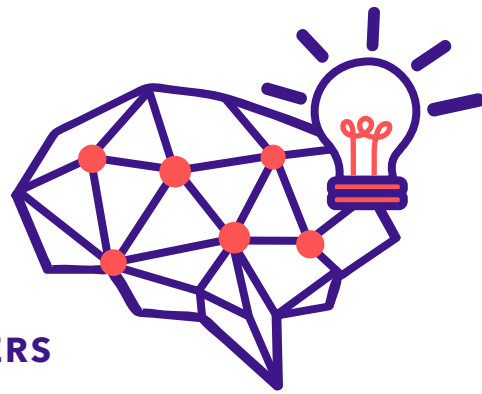
MS TAN YEN YEN
Chairman, Science Centre Board

CHARGING FULL STEAM AHEAD



Our position as an informal education institution is one that we take seriously. As the demands of the 21st century economy continues to evolve, educators are constantly exploring strategies to equip learners with a skillset cohesive enough to navigate today's workspace. This has given rise to STEAM, a buzzword that represents the inclusion of the "Arts" into the classic fields of STEM. This movement is poised to take the foundation of STEM learning to the next level, through championing a multidisciplinary approach to the way we think about the world.

With our eye on growing focus in this area, the Centre launched its inaugural Preschool STEAM Learning Festival in July to embrace the fast transforming pedagogy aimed at nurturing a more holistic approach to education in early years. Traditional education has always treated science and arts as opposite fields of study, but increasingly, we are seeing that they are two sides of the same coin. Both scientists and artists strive to advance a better world by harnessing the use of technology and design to bring that vision to life. As a frontrunner in experiential, out-of-the-box learning, we will continue to lead the charge in unifying the unique strengths of thinking and tinkering, to unlock maximum potential amongst the community.



RAISING MOVERS AND MAKERS

Our mandate at the Centre is to influence a changemaker mindset, offering access and opportunities for the community to initiate positive impact, no matter how big or small. As we make progress towards Singapore's Smart Nation ambition with key focus areas being technology innovation and investments, the human element cannot be overstated. We need to cultivate individuals equipped to drive new capabilities, who are self-reliant and ready to embrace the power of collaborative open-source learning.

In 2019, we continued to push the envelope on this charge with our biggest maker movement exhibition yet. During Singapore Maker Extravaganza 2019, we saw over 500 scientists, engineers, crafters and hobbyists coming together to showcase innovations and exchange ideas, epitomising the do-it-yourself culture. Further challenging this movement from passive consumers to active creators are legacy events like A*STAR Talent Search, Sony Creative Science Award and Asian Scientist Writing Prize. In collaboration with our partners, we have pushed forth in our bid to fuel a problem-solving mentality among the community, empowering them to develop solutions to address day-to-day problems.

CARING FOR OUR COMMUNITY

Over the year, we have made conscious efforts to raise awareness about the growing concerns with regards to sustainability. There is no denying that the impact of environmental issues is significant and has implications for communities and businesses globally. Hence, the Centre contributed to this global cause via exhibitions, events and competitions.

A prime example was the inaugural Young Technopreneurs for a Sustainable 2030 Expo sponsored by Temasek Foundation, which gave local youths a platform to brainstorm, develop and prototype solutions towards United Nations Sustainable Development Goals. From creating a model of a rainwater-powered hydroelectric generator to developing an app connecting *Karang Guni* (rag and bone) traders to commercial sellers, our youth showcased incredible feats of innovation that carried true potential to make positive environmental impact.

Sustainability has been a cornerstone of Singapore's own development and identifying ways to help make the world a better place will continue to be a key focus for us. It's also a personal passion for the Board, and we seek to build on this momentum in the years ahead.

SUPPORT AND APPRECIATION

Our significant achievements in the past year were made possible through the continuous support of our partners,

sponsors, colleagues and community. Their time, talent and tenacity in fostering a channel for curiosity and a passage for passion through the Centre has been invaluable to say the least. To them a big "Thank You!" for their unwavering dedication towards achieving the Board's single-minded mission.

As we look back on our successes, I'd like to take this opportunity to acknowledge the health threat that the world is faced with today. The impact of COVID-19 on the global economy and society at large has been profound, and we have all experienced its ripple effect in one way or another. While there is no precise formula to navigate such uncharted territories, there are some lessons to be learnt. For instance, the need to have digital ready content became apparent when the Circuit Breaker measures were announced to help slow the spread in Singapore. Although technology cannot replace the physical experience, it offers alternatives for us to creatively edutain and engage our audiences anywhere and at any time. I want to encourage everyone at the Science Centre to remain resilient and continue to bring the best of SCS's warm and genuine spirit. Keep your head up, take care of one another, and let's look forward to yet another eventful chapter.



CHIEF EXECUTIVE'S REVIEW

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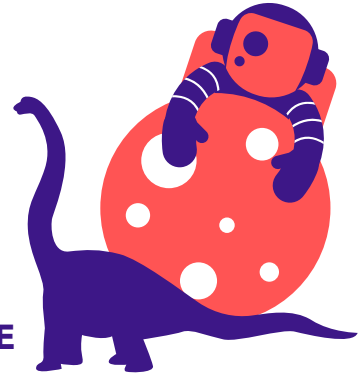
FY2019/20 continues to be a meaningful period of discovery, innovation and progress for Science Centre Singapore and its Group of Attractions. We created insightful and immersive exhibitions, inspired young minds to think like a scientist and reached out to more people than ever before with our compelling content.

Through creative exploration into the world of STEM, we continued on our mission to inspire the next generation of scientists, inventors and engineers. From travelling back in time to the Cretaceous period to study the elusive polar dinosaurs, to reaching for the skies and diving deep into the ocean, our myriad offerings were nothing if not experiential.

The Annual Report is an excellent opportunity to recognise these achievements and the wonderful journey we took to bring them to life.

ASSOC PROF LIM TIT MENG

Chief Executive, Science Centre Board



TELLING E.P.I.C. STORIES OF SCIENCE

Science is not just about facts and formulae. It is an ever-evolving story with new characters and changes, adding excitement at every turn. In addition to breaking down the complex scientific concepts, our exhibitions, events and programmes bring to life the stories of the people, path and passion behind each of these discoveries. We want all experiences at Science Centre to be E.P.I.C. - Experiential, Participatory, Image driven and Connected!

We welcomed approximately more than a million visitors in 2019, many marveling at our blockbuster DinoQuest exhibition which brought to fore the thrilling and significant discoveries at Australia's Dinosaur Cove, led by world leading paleontologist Emerita Professor Patricia Vickers-Rich who played a significant role in not just the curation but bringing this prehistoric experience to life. With DinoQuest, we set out to break new grounds and re-imagine how an exhibition can entertain and educate our audiences.

From new exhibitions that presented the frontiers of science such as Future Makers and QUANTUM: The Exhibition to special themed ones such as Moonshot 50 commemorating the 50th Anniversary of the Moon Landing, we had a universal goal of creating E.P.I.C. experiences that would invoke wonder and open opportunities for learning and discovery.

THE SCIENCE OF PLAY

As Albert Einstein once said: "Imagination is more important than knowledge" - an attribute children are innately gifted in. They are curious about how the world works and so learning happens naturally as they play. This sense of curiosity can inspire big things. Today's child who looks in awe at the first moon landing and wonders, "How did this happen?" might become tomorrow's astronaut or rocket engineer.

Play-based learning at its finest utilises the environment as a teacher. At Science Centre, we aim to become such a place where every activity has a purpose in inspiring learning. Beyond exhibitions, we have continued to create programmes and workshops that ensured that the Centre remains a popular destination for the curious—from the youngest scientists with a million and one questions to families learning and bonding together to young adults having fun with photo-opportunities. Not everyone grows up to become a scientist, but everyone needs to know how to think and act like one. And we are doing our part to make that happen.

In 2019, we continued to embrace the power of Arts as one of the key driving forces to inspire experiential learning. Over a thousand families and kids participated in CATalysts, a first-of-its-kind Promenade Theatre performance co-organised by KidsSTOP™ and Singapore Repertory Theatre that uses creative drama to promote scientific concepts among young learners. I believe that Arts is a powerful medium for education and a cross-collaboration as this is a strong catalyst to create engagement in learning.

Another exhibition that got both young and old excited was 'Know Your Poo'. Launched aptly on World Toilet Day, it was created to shine a spotlight on the global sanitation crisis. The topic may be very serious but we designed this exhibition in

a way that was immersive, fun and hands-on to encourage interest, especially among our younger guests, in finding out more about the world of sanitation. This exhibition is one of my personal favourites as it clearly highlights our play-based learning approach - leveraging the power of the environment to personalise learning by connecting it to the world around us.



MORE THAN JUST A PLACE

Beyond 2019, it's a collective legacy that I'm extremely proud of as I look back at the memories created at the Science Centre since it opened over 40 years ago. This legacy is what inspired us to launch our first brand campaign in over a decade, using stories to showcase the forgotten connections created at the Centre to bring home the message that we are "more than just a place".

As we grow in age and experience, the way the world works often becomes less of a mystery. Our goal at the Science Centre is to inspire our guests to recover that sense of wonder through science as a channel of curiosity and passion. Amazing things happen all the time at the Science Centre. New worlds are discovered, ancient mysteries are revealed, and innovations are seen from new perspectives. We are truly 'more than just a place'.

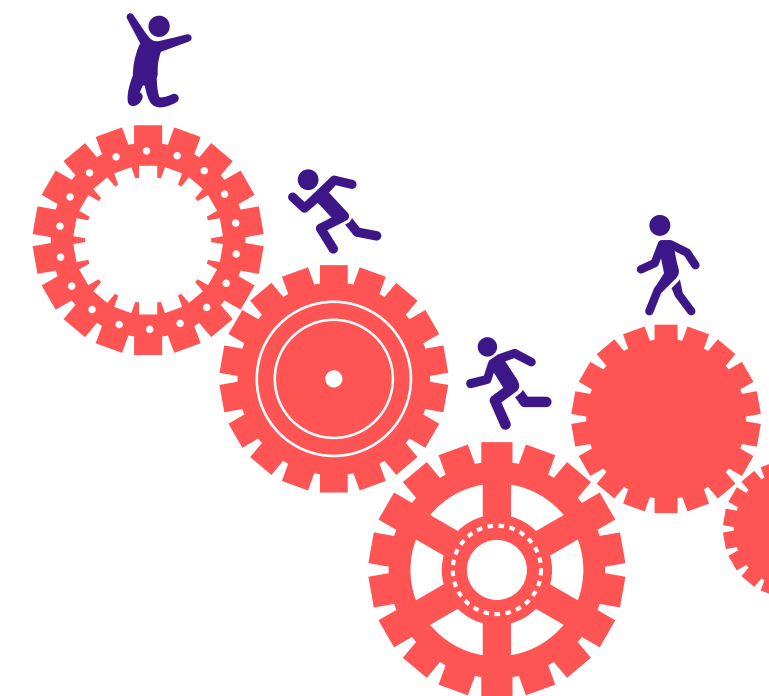
TOWARDS A STRONGER TOMORROW

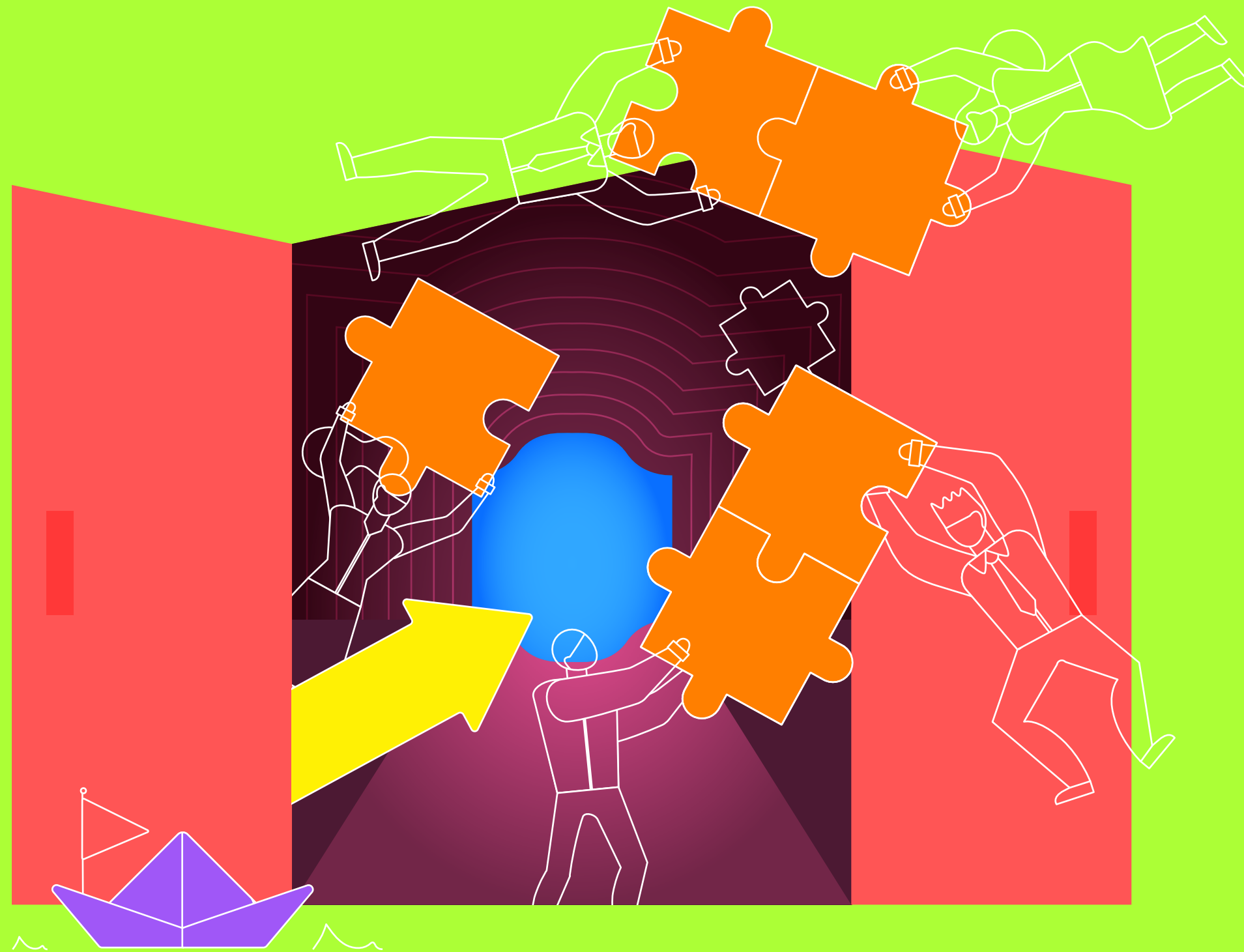
It is with great appreciation I recognise that every positive experience, delightful engagement and fond memory forged at the Science Centre is dedicated to the people who made this possible - our staff, volunteers and partners. Looking around the Centre, I am heartened by the collective passion to create, collaborate and innovate. To all who have been part of this journey, thank you for the difference you have made.

And finally, while it is important to reflect on the past, we must also direct our eyes to the journey that lies ahead. COVID-19 has affected us all tremendously. Now more than ever, the world is turning to science to cut through the noise of fear and assumptions based on the unknown.

It is a challenge like no other but together, we can make a difference and come out of this stronger than before.

Through this journey, let's stay strong, stay safe and stay curious.





02

OUR TEAM

- > Board Members
- > Management Team

BOARD MEMBERS



MS TAN YEN YEN
Chairman



MR SOH GIM TEIK
Vice Chairman



MR BRUCE POH



MR CHANDRAN NAIR



MR CHANG CHEE PEY



MR CHEONG CHEE HOO



MS CHERIE NURSALIM



MR CHEW KWEE SAN



MR HIAN GOH



MR HOWIE LAU



MS HWANG YU-NING



MS LEONIE LEE



PROF NG HUCK HUI



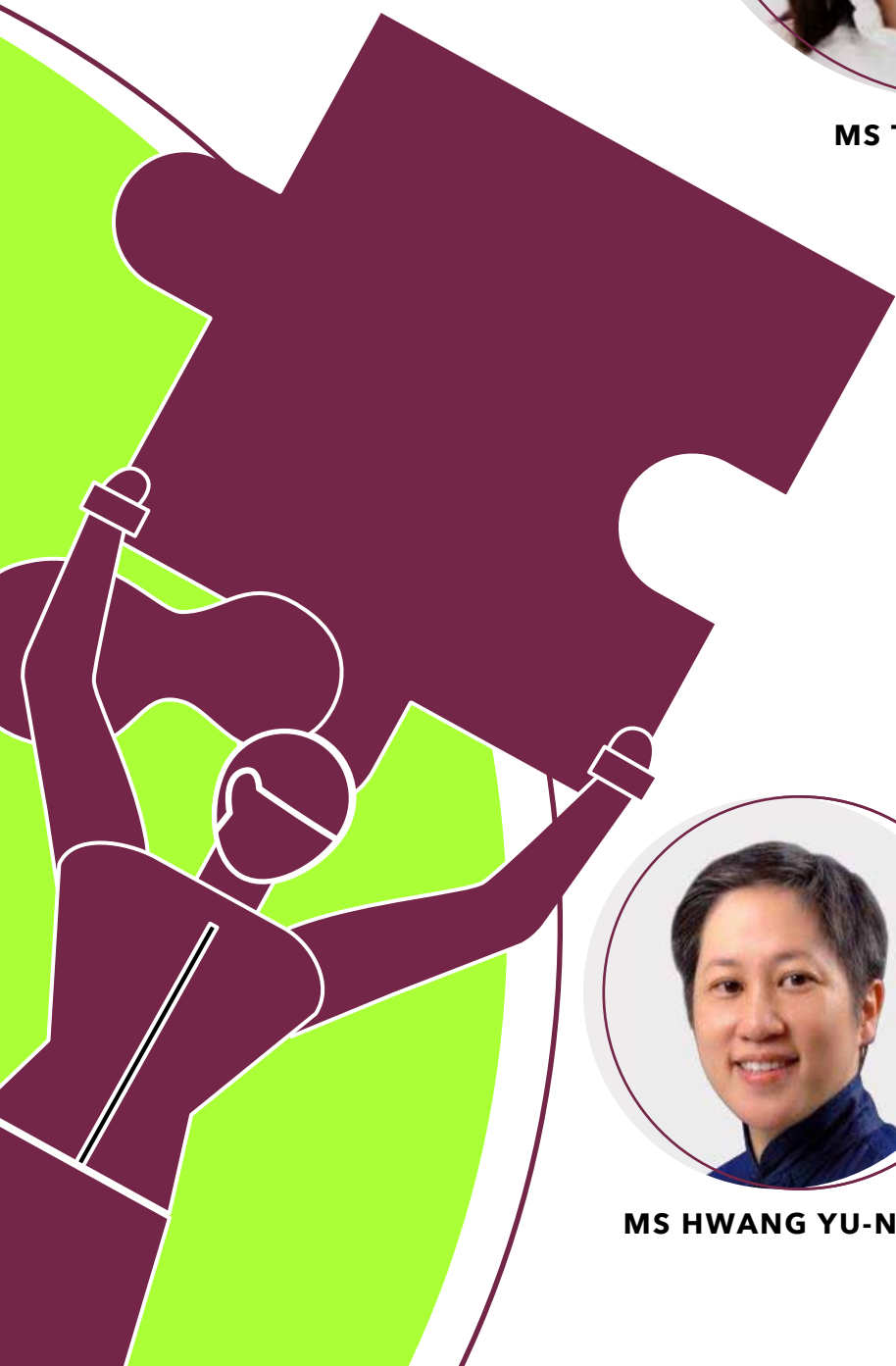
MS SHIRLEY WONG



MR SIN KIM HO



MS YASMIN ZAHID



MANAGEMENT TEAM



ASSOC PROF LIM TIT MENG
Chief Executive



MR ADDISON GOH
Senior Director,
Corporate Resources



MRS ANNE DHANARAJ
Senior Director,
Education Programmes



MR DANIEL TAN
Senior Director,
Projects & Exhibitions



MR AARON CHEW
Director,
Human Resources



MS CHAM LEE FIN
Director,
Finance & Administration



MR GERALD TEE
Director,
Marketing & Communications



MS KAMARIA ABDUL GHANI
Director, Science Upstream &
Gallery Programmes



DR LEE SONG CHOON
Director,
Life Sciences & KidsSTOP™



MRS ONG ME LAN
Director,
STEM Inc



MRS VERONICA HENG
Director,
Operations



MRS SUSAN CHANG
Deputy Director,
Visitor Services



MR TIMOTHY THAM
Deputy Director,
Business Development



MR EDWIN TENG
Assistant Director,
MIS



MR EUGENE WAMBECK
Assistant Director,
Exhibitions



DR FLORENCE FRANCIS
Assistant Director,
Organisational Excellence



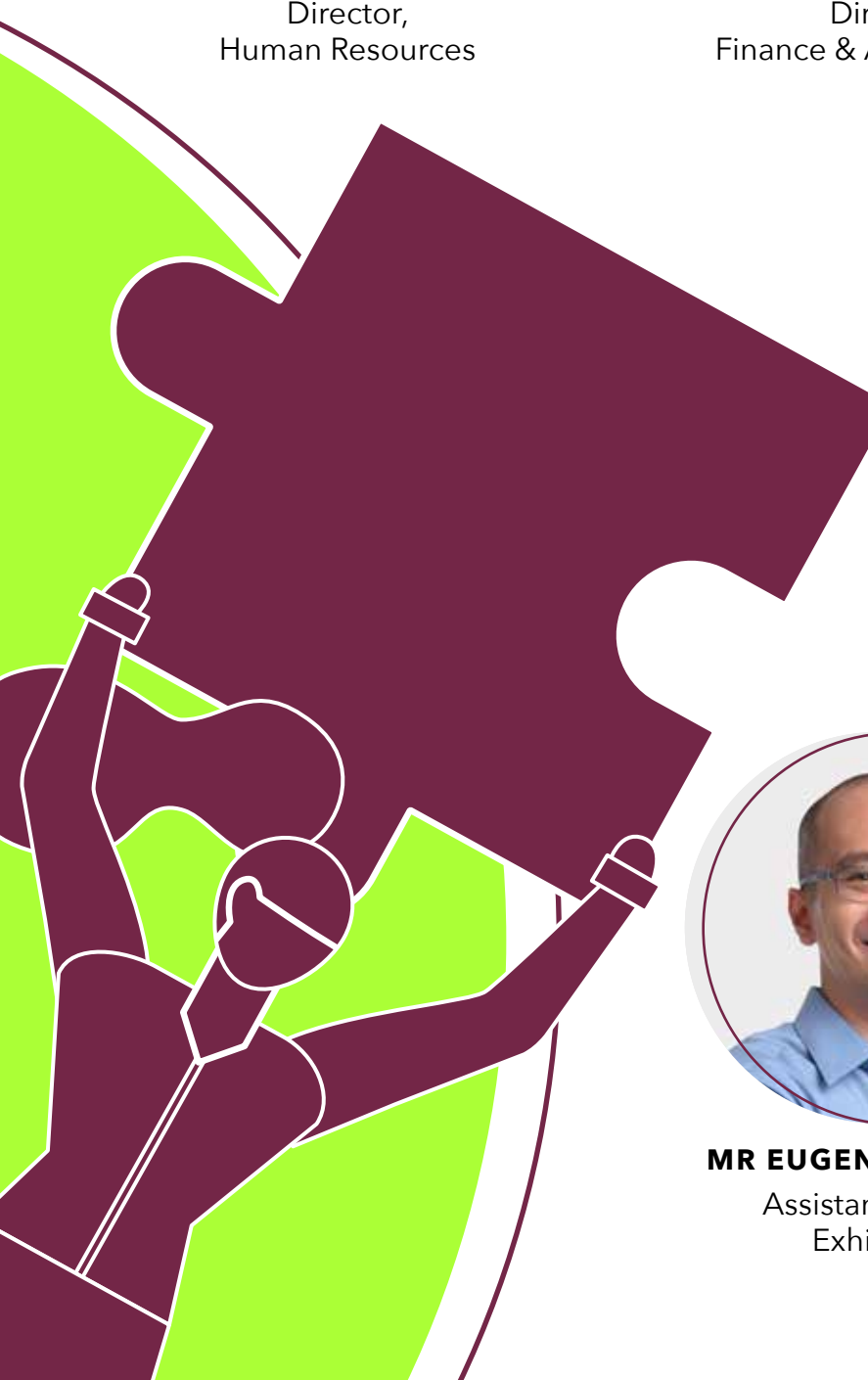
DR KIRUTHIKA RAMANATHAN
Assistant Director,
Education Programmes



MR LEE LIAN SOON
Assistant Director, Travelling
Exhibitions & Special Projects



MR MOHD JAAFAR DOLLAH
Assistant Director,
Facilities and Estate Management





03

ACHIEVEMENTS & AWARDS

- > Visitorship & Enrichment Programmes
- > List of Awards

VISITORSHIP

614,618

Temporary Exhibition
90,063

School Groups
111,530

Public Walk-in
413,025

132,700

95,734

187,728

159,581

SCIENCE
CENTRE SINGAPORE

KIDSSTOP™

SNOW CITY

OMNI-THEATRE

BUTTERFLIES
UP-CLOSE



**ENRICHMENT
PROGRAMMES:
205,112**

LIST OF AWARDS

2019

BCA GREEN MARK GOLDPLUS AWARD

INTERNATIONAL AWARDS

ASPAC2019 Creative Science Exhibition Award

for 'Phobia Square'

ASPAC2019 Creative Science Communication Award

for 'One Kind of Science' musical

MOE AWARDS

Commendation Award

for the MOE Innergy Award, 2019

Blended Learning at Caltex Fuel Your School Tech Jam 2018

(Team members: Dr Kiruthika Ramanathan
Mr Ferry Kurniawan)

Learning the Scientific Method Through Hands-On Activities

(Team members: Dr Pang Kian Tiong,
Ms Rajeswari Balasubramanian &
Ms Archana Chawla)

OUTSTANDING CONTRIBUTION AWARDS

Assoc Prof Lim Tit Meng

for 25 Years of contribution to SMP since inception

Mrs Anne Dhanaraj

SMP Coordinator for 9 Years

Dr Wulf Hofbauer

SMP Coordinator for 8 Years

OUTSTANDING MENTOR AWARD

Ms Lee Shu En

SCIENCE MENTORSHIP PROGRAMME (SMP) 2019

Ms Lee Shu En	Polystyrene Beads Affect the Growth, Speed and Behaviour of Oxyrrhis marina	3M Best Project
Mdm Loh Yih Huey	Fabrication of Microbial Fuel Cells from Soil-compost to Generate Bioelectricity	Distinction
Mr Yeo Woei Ter	Determination of Trace Levels of Iron in Spinacia Oleracea Using Microcontroller	3M Best Project
Mr Li Zhen	2D Manipulation of Superparamagnetic Particles in Fluid	Distinction
Dr Wulf Hofbauer	Passive SONAR Techniques Using Time Difference of Arrival and the Fourier	3M Best Project





04

EXHIBITIONS & PROGRAMMES

- › Exhibitions
- › Science Outreach & Competitions
- › Science Programmes
- › STEM Inc
- › CRADLΣ
- › Singapore Science Centre Global Pte Ltd

Exhibitions

DINOQUEST EXHIBITION WORLD PREMIERE



01 JUN 2019 -
29 SEP 2019



101,100



THE ANNEXE,
SCIENCE CENTRE
SINGAPORE

DinoQuest was an **interactive exhibition** powered by multimedia technology making it one of the most exciting and **educational dinosaur-themed** exhibitions. The reconstructed *Timimus*, a tyrannosauroid discovered at Victoria's Dinosaur Cove in Australia in 1994 by Emerita Professor Patricia Vickers-Rich and her husband Professor Thomas Rich, and a hologram show on dinosaur fossils of the *Megalania*, were among the key highlights.

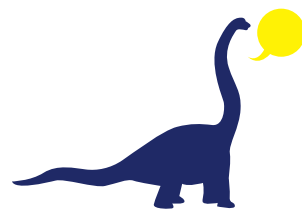
The Dinosaur Cove dig-site, where dinosaur fossils were painstakingly recovered by the efforts of over 700 personnel over 40 years, is replicated within DinoQuest to create a unique experience. Learn about the science of palaeontology and the process of fossilisation. Through immersive activities and exhibits across **seven thematic zones**, the exhibition offered a multi-sensorial experience, such as allowing audiences to travel millions of years back to the Cretaceous period to encounter the Australian polar dinosaurs. The world premiere of the exhibition was held at the Centre, reaching out to more than a hundred thousand visitors.



7 UNIQUE
THEMATIC ZONES



INTERACTIVE
TECHNOLOGY



EDUCATIONAL
DINOSAUR-THEMED

PARTNERS INVOLVED:

Dezign Format Pte Ltd | Digimagic Communications | Professor Patricia Vickers-Rich | Mediacorp Vizpro | Panasonic Business



Mr Ong Ye Kung, Minister for Education



From Left:

Mr Moses Lye, Head of Mediacorp Vizpro, Mr Donald Lim, Founder, Digimagic Communications, Assoc Prof Lim Tit Meng, Chief Executive, Science Centre Board, Guest of Honour, Mr Ong Ye Kung, Minister for Education, Professor Patricia Vickers-Rich, Mr Mike Chong, CEO, Dezign Format, Mr Chong Nen Sing, Chairman, Dezign Format



Exhibitions

DINOQUEST EXHIBITION WORLD PREMIERE

Media Preview



MEDIA COVERAGE:
211 PIECES



MEDIA VALUE:
>\$1M



TOTAL CIRCULATION:
>780M



**>1M IN REACH, >27,000
SOCIAL MEDIA ENGAGEMENTS**



Special Event

DINOQUEST PUBLICITY OUTREACH CAFÉ SCIENTIFIC TALK, TOUR AND BOOK SIGNING



28 MAY 2019

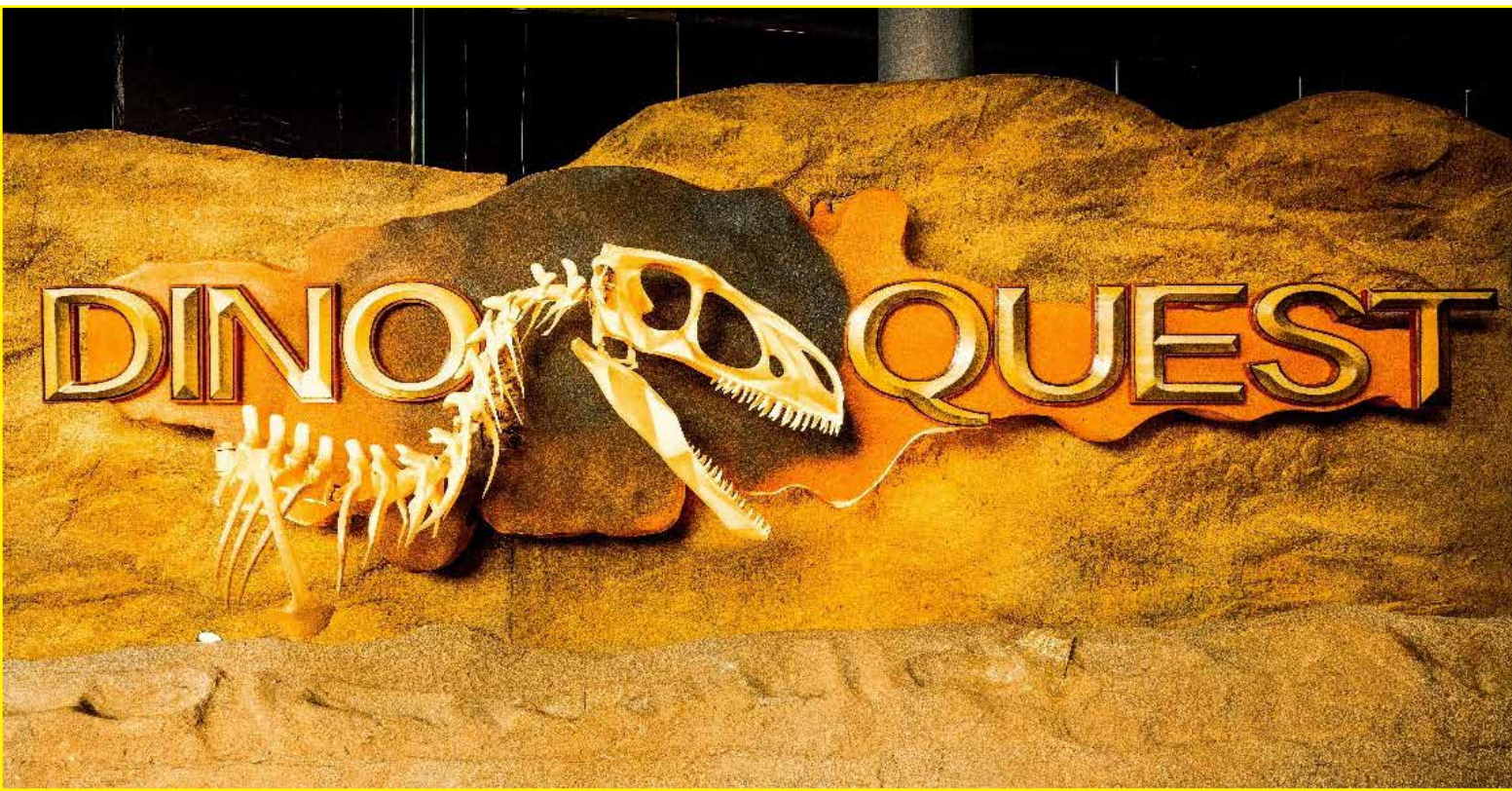


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**THE ANNEXE,
SCIENCE CENTRE
SINGAPORE**

As part of the outreach and publicity for DinoQuest, this special interactive after-hours session with Emeritus Professor Patricia Vickers-Rich and her family offered attendees insights into the discovery and naming of *Timimus*, a tyrannosauroid discovered at Victoria's Dinosaur Cove in Australia in 1994. The event included a special tour of the exhibition led by Professor Rich and a book signing event.



Launch of Know Your Poo Exhibition by Dr Teo Ho Pin, Mayor of North West District
From right to left: Assoc Prof Lim Tit Meng (Chief Executive, Science Centre Board), Mr William Sim Juay Cheow (Mr Jack Sim's representative), Dr Teo Ho Pin, Ms Tan Yen Yen (Chairman, Science Centre Board)



Launch of Know Your Poo Exhibition by Dr Teo Ho Pin
From right to left: Assoc Prof Lim Tit Meng (Chief Executive, Science Centre Board), Dr Teo Ho Pin (Mayor of North West District), Ms Tan Yen Yen (Chairman, Science Centre Board), Mr William Sim Juay Cheow (Mr Jack Sim's representative)

Exhibitions

KNOW YOUR POO EXHIBITION



19 NOV 2019,
WORLD TOILET DAY



HALL B, SCIENCE CENTRE SINGAPORE

Launched in conjunction with World Toilet Day, Know Your Poo is a quirky permanent exhibition that casts a spotlight on the **global sanitation crisis**. Dedicated to uncovering the science behind this essential bodily function, the exhibition seeks to **destigmatise conversations around poo** and **provide an understanding about gut health and the importance of sanitation**.

This is done through an immersive play-and-learn experience sliding down a sewage pipe, encountering a chamber of farts and sitting on the porcelain royal throne, among many other activities. The exhibition also traces the history of toilets in Singapore, showcasing past and present conditions, in turn encouraging guests to stop and think about the millions of people around the world who still do not have access to safe and clean drinking water or basic sanitation facilities.

Developed in collaboration with the World Toilet Organisation founded by Singaporean Mr Jack Sim known as "Mr Toilet", this exhibition has been curated around a vibrant and fun pop culture theme, which is in line with the Centre's play-based learning approach.



MEDIA
COVERAGE:
38 PIECES



REACH:
43,000



SOCIAL MEDIA
ENGAGEMENTS:
2,500

GUEST OF HONOUR:

Dr Teo Ho Pin, Mayor of North West District

Exhibitions

MOONSHOT 50



20 JUL 2019



HALL B, SCIENCE CENTRE SINGAPORE

To commemorate the 50th Anniversary of the Moon Landing, "Moonshot 50" is a temporary exhibition curated to **celebrate mankind's curiosity and obsession with the Moon.**

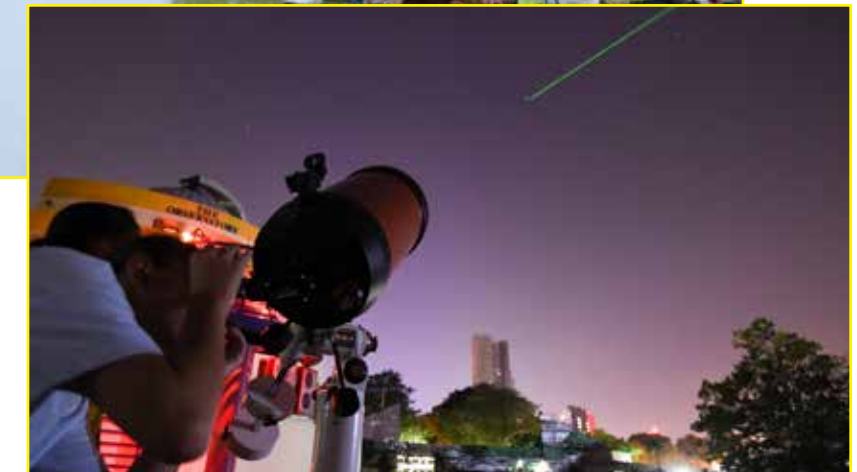
Split across two sections, the first section 'To The Moon: Snoopy Soars with NASA', features a travelling exhibition developed by Charles M. Schulz Museum, showcasing the involvement of Snoopy and the Peanuts in NASA's space journey, where Snoopy eventually becomes the safety mascot for the Apollo missions. Real Moon Rock samples collected by astronauts Neil Armstrong and Edwin Aldrin during their Apollo 11 mission and the Singapore national flag used during this mission are some of the key highlights.

Curated by Science Centre, the second section highlights mankind's curiosity and close cultural associations with the moon. Other collectibles on display include Space Glass Art and a Lego model of the eagle lander.

Diorama showing the first footprint on the Moon.



Autographed photos from astronauts of Apollo 17 in 1973.



Special Event

PICNIC UNDER THE PLANETS EVENT: MOONSHOT 50



20 JUL 2019



3,456

A special edition of "Picnic Under The Planets: Moonshot 50" event was also organised in partnership with Blue Ant Media to commemorate the 50th Anniversary of the first Moon landing. Guests were invited to "explore the craters on the moon" through telescopes set-up by the Observatory team. Other onsite activities included Super-Cool Science Show, Omni-Theatre Digital Planetarium Show, food stalls, game booths and two movie screenings (Big Hero 6 & Hidden Figures) to keep the guests entertained through the evening.

Exhibitions

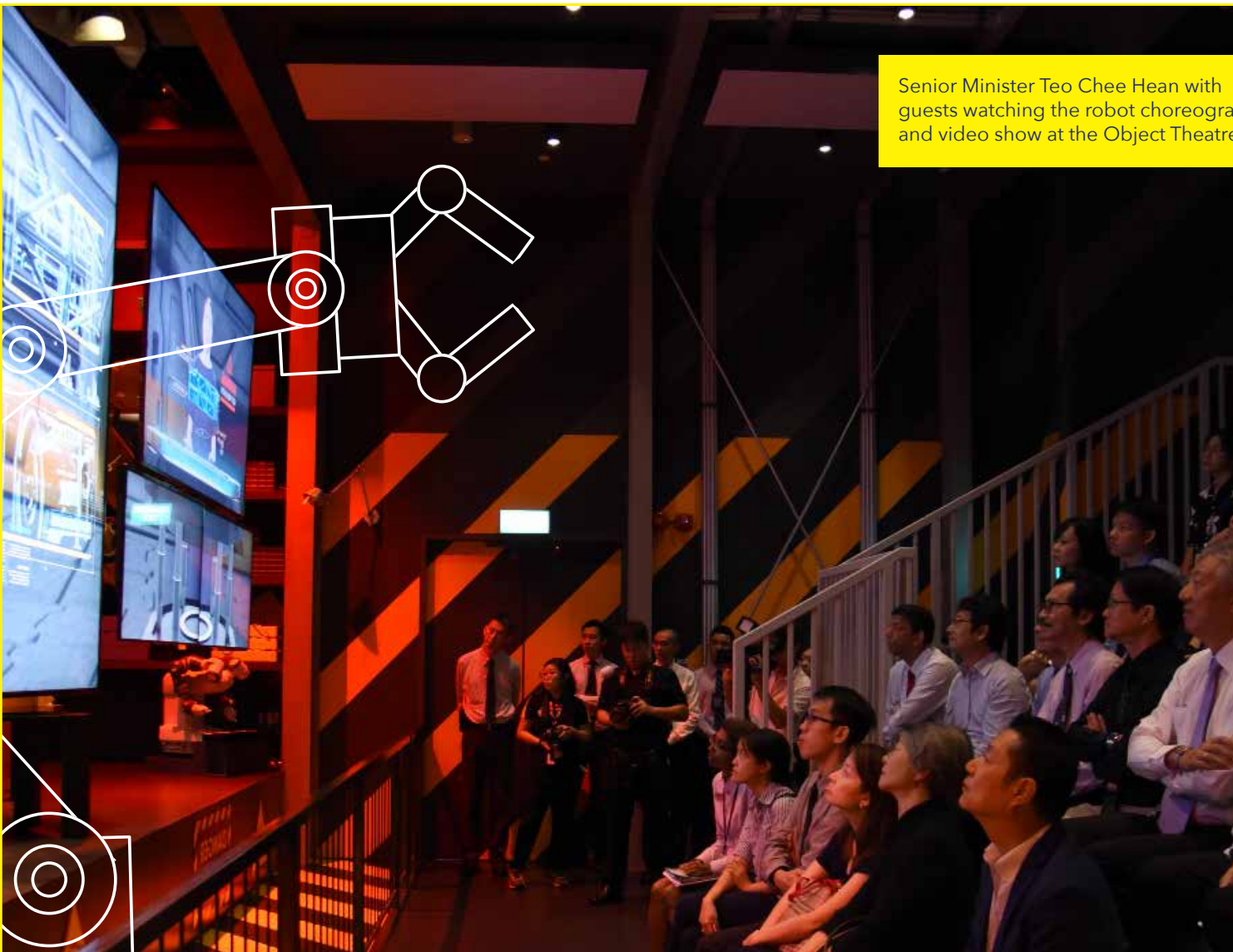
FUTURE MAKERS



18 JUN 2019



HALL G, SCIENCE CENTRE SINGAPORE

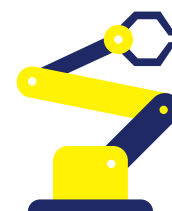


Senior Minister Teo Chee Hean with guests watching the robot choreography and video show at the Object Theatre.

Engineers design and build everything from skyscrapers to robots. The Future Makers exhibition celebrates **the valuable contribution engineers have made to shape our lives** and **showcases day-to-day innovations to complex engineering marvels.**

The Object Theatre, for instance, features four industrial robotic arms each carrying a large format screen displaying a combined choreography, an innovative display and an entertaining showcase of extraordinary engineering designed by American robotics designer Andy Flessas and his team of specialist-experts.

Fly a drone or navigate rovers through a challenging alien landscape at the Drone-rover arena. Future Makers is also plugged into a softer scape of specialised facilities on Level two including the Digital Fabrication Space and CRADLΣ Labs to offer complementary programmes. The exhibition was launched by Senior Minister Teo Chee Hean and is funded by the Tote Board and the Ministry of Education.



5 THEMATIC ZONES



15 INTERACTIVE EXHIBITS



MEDIA COVERAGE: 39 PIECES

GUEST OF HONOUR:

Senior Minister Teo Chee Hean, Patron SCB

Exhibitions

QUANTUM THE EXHIBITION



19 AUG 2019



HALL F, SCIENCE CENTRE SINGAPORE

The world's first travelling exhibition **focusing on quantum science and technology**. QUANTUM: The Exhibition was developed by the Institute for Quantum Computing (IQC) at the University of Waterloo in Canada. The Singapore edition included new exhibits on local research designed to complement the original exhibition, supported by six local organisations including the Agency for Science, Technology and Research, the Centre for the Quantum Technologies (CQT) at the National University of Singapore (NUS), Nanyang Technological University, National Research Foundation, Prime Minister's Office and National Supercomputing Centre Singapore.

QUANTUM: The Exhibition was designed to **demystify the basic concepts of Quantum Physics and Quantum Computing** through easy-to-understand panels and interactive exhibits. Learning opportunities included interactive floor sessions by NUS Young Educators in Science, teachers' workshop, and a gallery trail. Special events included an Industry Networking Night, a University of Waterloo Alumni Day, and a Family Day for the staff of the Centre of Quantum Technologies. The exhibition was launched by Mr Ong Ye Kung, Minister for Education, and attended by H.E. Lynn McDonald, High Commissioner of Canada to Singapore.



Professor Artur Ekert, CQT Director explaining the famous enigmatic Double Slit Experiment exhibit to Guest of Honour Mr Ong Ye Kung, Minister for Education.

GUESTS OF HONOUR:

Mr Ong Ye Kung, Minister for Education, and attended by H.E. Ms Lynn McDonald, High Commissioner of Canada to Singapore.

Outlook of the Tinkering Too workshop.



TINKERING TOO!

The Tinkering Studio expanded its offerings as the Centre brought **tinkering outdoors with a new classroom at the Ecogarden** that supports activities like woodworking and clay crafting. At the same time, it allows our Tinkering Team to **co-create with the community**. The team has been **engaging a group of artists-in-residence** to offer a diverse range of programmes to the public.

Artist-In-Residence, Laurence Sutrisno conducted a series of Show & Tell sessions for the public titled 'Whittling Wooden Charms with Laurence' where he showcased what whittling is and presented tips on how to get started.

Guests also engaged in hands-on activities at the space during Tinker Fest in November with activities like Nail Art where children learned how to use the hammer to create art.

Exhibitions

URBAN MUTATIONS



24 OCT 2019



HALL A, SCIENCE CENTRE SINGAPORE

The *URBAN MUTATIONS* exhibition, a collaboration between Science Centre Singapore and Universcience, France, was launched as part of the Voilah! French Festival. The exhibition features the **meteoric growth of cities in our increasingly globalised world**, by **examining urban changes** from a **functional, technological and sociological angle**. It brings to fore the state of knowledge and representation of cities today, shows urban change on a global scale, and features examples of current or planned innovations and initiatives in response to the issues facing urban ecosystems. Guests are encouraged to reflect on the approach to cities at the beginning of the 21st century.



Launch event for Urban Mutations Exhibition, with guest-of-honour H.E. Mr Marc Abensour, Ambassador of France to Singapore, and special guest Ms Sophie Biecheler, Director for International Affairs at Universcience.

EXHIBITION:

Collaboration between Universcience (Cite des sciences & de l'industrie) and Science Centre Singapore

VOILAH! EVENTS:

Collaboration between Science Centre Singapore, the Embassy of France in Singapore, La Fabrique de la Cité, and Atos Asia Pacific

GUEST OF HONOUR:

H.E. Mr Marc Abensour, Ambassador of France to Singapore



Workshop (left) and Public Forum (right), helmed by researchers from La Fabrique de la Cité, and other local academics and industry professionals.



Special Events

To deepen our ongoing collaboration, the Embassy supported the launch and also co-organised two events on Urbanisation held at the Science Centre. La Fabrique de la Cité, a French thinktank that specialises in the field of Urban Studies, was specially invited to Singapore to conduct the following:

WORKSHOP FOR INVITED INDUSTRY PROFESSIONALS ON THE TOPIC OF URBAN MOBILITY



12 NOV 2019



35



NEWTON ROOM

PUBLIC FORUM ON THE TOPIC OF PLANNING PUBLIC SPACES



13 NOV 2019



71



MAXWELL AUDITORIUM

Science Outreach & Competitions

SINGAPORE SCIENCE FESTIVAL 2019

 **30 AUG 2019 - 14 SEP 2019**  **76,333**

Jointly organised by the Agency for Science, Technology and Research (A*STAR) and the Science Centre Singapore, Singapore's biggest annual science event, the Singapore Science Festival (SSF) 2019 reached out to more than 76,000 students, families and young professionals.

Themed around "This Is Science" to present a more relatable perspective on science and showcase the role it plays not just in the distant future, but in present everyday life, SSF 2019 was brought to life to the public through **more than 50 exciting and engaging events, seminars and shows** for youths, adults and families.

It's easy to take for granted the amazing scientific properties in the simplest and most common everyday items. From the milk we drink, the elastic bands we use to tie packages up with and to the soap, which keeps us clean - everything is science. The festival aimed to encourage festival-goers to question, interact and discover the important role science plays in our everyday lives.

In all, **31 public agencies and 16 private organisations** contributed to the programmes and activities for SSF 2019.

 **> 50 EVENTS, SEMINARS & SHOWS**

 **47 PARTNERING ORGANISATIONS**

 **194 MEDIA HITS**

 **> \$1.5M MEDIA VALUE** (of which \$1.3M solely earned media, 43% higher than 2018)

 **REACH - NEARLY 2 MILLION SINGAPOREANS**

 **> 600 ENGAGEMENT / POST** (Six times higher as compared to last year)



Science Outreach & Competitions

SINGAPORE SCIENCE FESTIVAL 2019

SSF 2019 Media Preview



27 AUG 2019



20

20 media including The Straits Times, Lianhe ZaoBao, influencers and Key Opinion Leaders attended the media preview where they had an opportunity to experience first-hand some of the activities as well as speak to some of the notable spokespeople involved.



SSF 2019 Workshops

An array of fun-filled activities and workshops such as 'Amoozing Milk' and 'Unbeli-bubble' designed to uncover the science behind everyday items like milk and bubbles were also organised at the Science Centre.

SSF 2019 Singapore Book of Records



13 SEP 2019



> 300 ENTHUSIASTIC FESTIVAL-GOERS



FUSIONOPOLIS

More than 300 enthusiastic festival-goers participated to help set a record in the Singapore Book of Records for Singapore's largest slime installation in just over four hours.



Magician blends splendour of magic with logic of science

While some magicians prefer to maintain a mystique around their craft, renowned magician Jovan Latimer wants everyone to know that his work is rooted in science. Despite his tricks - which include levitating light and shaping water - the 38-year-old told The Straits...



Science Outreach & Competitions


STAR LECTURE 2019


 **01 OCT 2019**
 **> 500**
 **MEDIACORP CHANNEL 5 & TOGGLE**

A highlight event of SSF, the STAR lecture is a highly entertaining and educational show that presents a scientific topic in an interesting style - incorporating demonstrations, live experiments and audience participation.

In 2019, Dr Adam Rutherford, British geneticist, science writer and broadcaster brought the lectures titled "Who Am I?" to life, uncovering the science behind where humans come from and reveals just how much we are closely related to the rest of the animal kingdom than we can possibly imagine. We share 99.4% of our genes with our neighbours, 98.7% with a chimp and even 44% with a fruit fly - yet we are entirely unique!

Three sessions of the lecture were held at the MediaCorp TV Theatre and thereafter broadcast over MediaCorp Channel 5 and Toggle on 1 October 2019, **reaching more than 162,000 audiences** island-wide with more than 500 attendees at the live shows.

 **162,000 VIEWERSHIP**
 (Higher compared to last year 125,000)

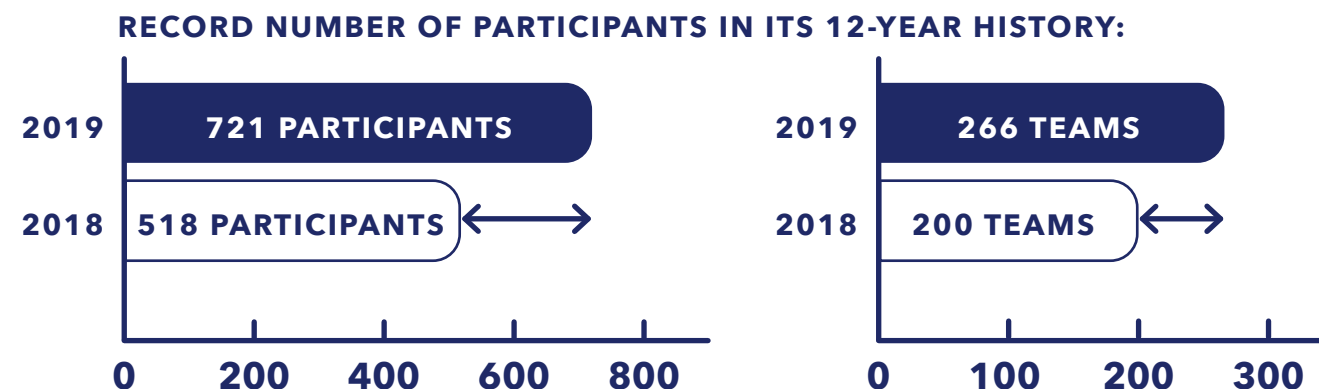
 **3 SESSIONS**



SCIENCE BUSKERS FESTIVAL

 **29 AUG 2019 - 01 SEP 2019**
 **18,000 SUPPORTERS & GENERAL PUBLIC ATTENDEES**
 **PLAZA SINGAPURA**

Science Buskers Festival, has been SSF's hallmark programme since 2008 promoting science communication through creative ways such as "show-and-tell". Contestants are judged based on audiences' votes and judges' scores.



Science Outreach & Competitions

X-PERIMENT!



13 - 14 SEP 2019



AROUND 10,000



ONE-NORTH

Held in conjunction with One-North Festival, X-periment! 2019 showcased the latest research work done by **30 research institutes as well as public and private organisations**. Themed "The Future of Everyone: Innovating for a Sustainable Planet", the two-day carnival attracted close to 10,000 attendees with **interactive displays and activities**, talks by experts and a plethora of fun activities for children, and a Science Show hosted by world-renowned performer Jason Latimer.

'Wonder Changes the World' Magical Science Show, hosted by world-renowned performer Jason Latimer.



Dr Janil Puthucheary, Senior Minister of State for Ministry of Communications and Information & Ministry of Transport, engaging young 'Scientists' who are having fun carrying out science experiments.



GUEST OF HONOUR:

Dr Janil Puthucheary, Senior Minister of State for Ministry of Communications and Information & Ministry of Transport

Science Outreach & Competitions

NATIONAL SCIENCE CHALLENGE 2019



20 AUG 2019 - 24 SEP 2019 (EVERY TUE)



> 421,000 VIEWERS (Higher than last year's 325,000)



MEDIACORP CHANNEL 5 & TOGGLE

NSC 2019 marked the 16th season of this televised science quiz aimed to help nurture a passion for science among youth and raise scientific awareness among community. NSC 2019 also introduced the all-new **Imagining** round in a semi-finalists face-off challenge, bringing viewers to the edge of their seats in a nail-biting climax. NUS High School of Math and Science emerged as the NSC champion team and the filming for **the final episode at MediaCorp Campus was graced by Mr Zaqy Mohamad, Minister of State, Ministry of National Development & Ministry of Manpower.**



QUALIFYING ROUND: 40 TEAMS
FINAL TELEVISED ROUNDS: 24 TEAMS



13 ORGANISATIONS HOSTED THE STEM CHALLENGES (including Ministry of Home Affairs and iFly Singapore)

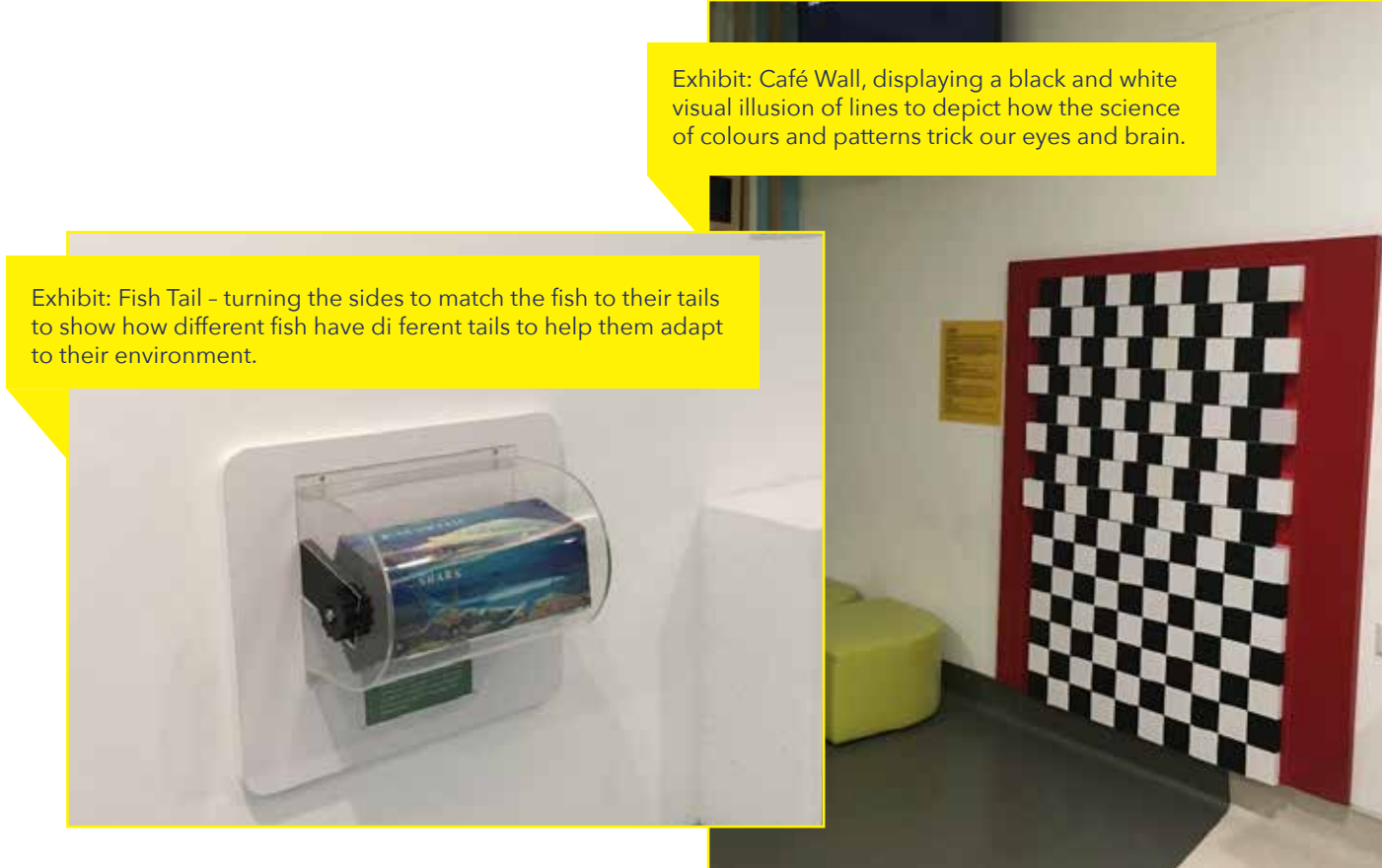


Exhibit: Fish Tail - turning the sides to match the fish to their tails to show how different fish have different tails to help them adapt to their environment.

Exhibit: Café Wall, displaying a black and white visual illusion of lines to depict how the science of colours and patterns trick our eyes and brain.

SCIENCE CENTRE PAYS IT FORWARD

Science Centre believes in creating social impact beyond the SCS walls, so in June, the Centre partnered National University Hospital (NUH) to introduce interactive science exhibitions at the new NUH kids building.

With these fun exhibits placed inside the kids ward and around consultation floors children will hopefully experience less anxiety and be filled with the joy of discovery.

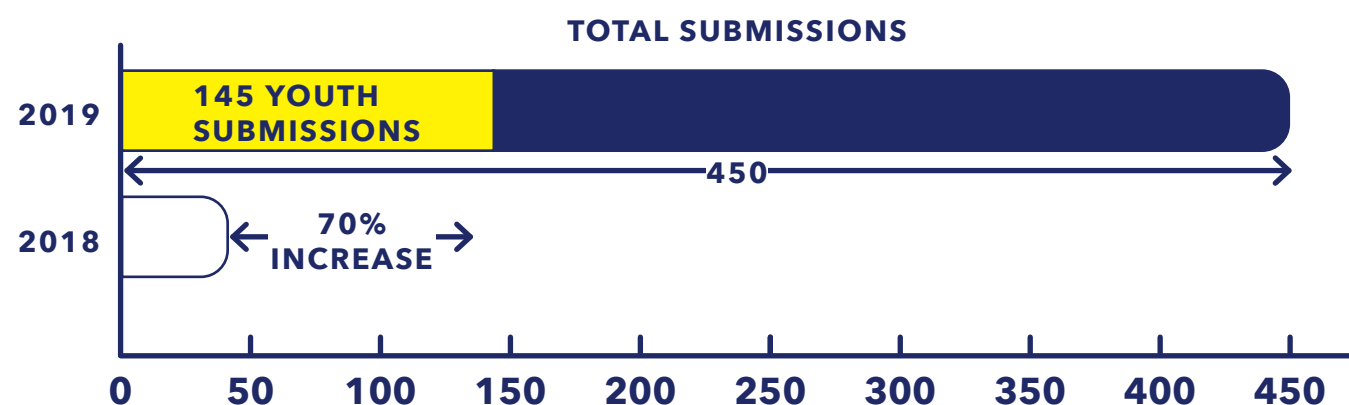
The next phase of our collaboration with Khoo Teck Puat National University Children's Medical Institute (KTP-NUCMI) will involve volunteer programmes to bring science shows and events into the heart of the hospital.

Science Outreach & Competitions

ASIAN SCIENTIST WRITING PRIZE

 **04 DEC 2019**
 **90 (26 WINNERS)**
 **THE MARQUEE, SCIENCE CENTRE SINGAPORE**

The competition received an overwhelming response of **450 submissions** out of which, **145** were **youth submissions**.



After two successful runs in 2015 and 2017, the Asian Scientist Writing Prize returned for its third edition with the theme STEM and Sustainability in Asia. With the purpose to honour the region's best science communicators and shine a spotlight on the excellent research being done in Asia. Participants were encouraged to consider how science and technology can help address some of the world's pressing issues through pollution control, waste management, food security and more.

The winning entry in the open category received S\$5,000 in cash and a 3D/2N stay at Banyan Tree Bintan, while the second and third place winners received S\$3,000 and S\$2,000 respectively. To encourage our youths to participate in the competition, we introduced the Science Centre Singapore Youth Writing Prize, a special category reserved for those aged 13 to 18. In addition, ten winners were selected for the World Scientific Publishing Merit Prize of book vouchers worth S\$500.

CO-ORGANISED BY: Asian Scientist Magazine | Science Centre Singapore | **SPONSORED BY:** World Scientific Publishing | Banyan Tree

GUEST OF HONOUR: Mr Masagos Zulkifli Minister for the Environment and Water Resources



Guest of Honour, Mr Masagos Zulkifli Minister for the Environment and Water Resources.

Asian Scientist Writing Prize Winners

- 1ST Dr Ye Weijian, Singapore-MIT Alliance, SMART**
Gutter gold
- 2ND Mr Nathaniel Gronewold, Hokkaido University**
Hokkaido researchers break new ice in cryosphere science
- 3RD Ms Amanda Bambby Cheuk, NTU Singapore**
Corals: The turn of the tide

Science Centre Singapore Youth Writing Prize Winners

- 1ST Ms Aimeirene Yzabel Ines, Academia de Sophia International School, Philippines**
Bee change
- 2ND Ms Sheryl-Lynn Tan, Hwa Chong Institution**
Doom for the planet: The insect apocalypse
- 3RD Ms Duong Nguyen, Hanoi-Amsterdam High School for Gifted Students, Vietnam**
The great walls on Mekong: Dams of fate

Science Outreach & Competitions

INTERNATIONAL SCIENCE DRAMA COMPETITION



13 APR 2019 - 25 JUL 2019



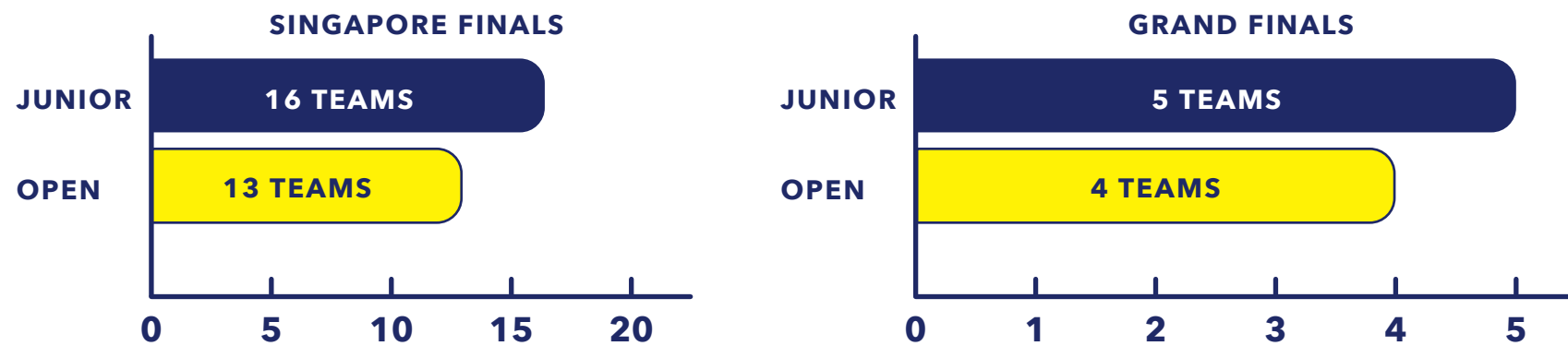
SCIENCE CENTRE SINGAPORE & BEIJING, CHINA



GRAND FINALS (6 COUNTRIES: SINGAPORE, CHINA, PHILIPPINES, THAILAND, BRUNEI, MALAYSIA)

Promoting science through drama and an opportunity for the winners to represent Singapore on an international stage, this year ISDC was aptly themed "Chemistry Makes Life Better" since 2019 was the International Year of the Periodic Table of Chemical Elements.

River Valley Primary School bagged 2nd Prize in the Junior Category while Nanyang Girls' High School won 1st Prize in the Open Category at the Grand Finals. Other than participating in the competition, the teams had a chance to visit the Song Chingling Youth & Science Exchange Centre where they could interact and mingle with participants from other countries.



The whole ISDC journey was an invaluable experience which the team will always remember. It was an invaluable learning experience about synergy, compassion and striving for excellence!

**-Ms Ng Geok Neo Evelyn, Teacher
River Valley Primary School**

Singapore teams having fun at Song Chingling Youth Science And Culture Exchange Centre.



Madrasah Al-Maarif Al-Islamiah at Singapore Finals.

Science Outreach & Competitions

SINGAPORE ROBOTIC GAMES 2019



30 - 31 JAN 2019



480 (219 TEAMS)



THE MARQUEE, SCIENCE CENTRE SINGAPORE

Science Centre Singapore as a founding member, has had representation in the Singapore Robotic Games Organising Committee since its inception in 1993. The Committee comprises representatives from almost all local institutes of higher learning (universities, polytechnics, and ITEs), all with the aim of **promoting robotics and automation**, and the related research and development. **Eleven to seventeen different games** are played over two days of competition. Games include an Open Category which is very popular with international teams, autonomous and remote-controlled SUMO "wrestling", wall-climbing robotics, legged robot races, etc. - usually played under international rules, where applicable. International participation has been rising in recent years with large regional representation. A **public lecture on upcoming technology** was held in conjunction with the competition.



Autonomous and Remote-controlled Underwater Robotics.

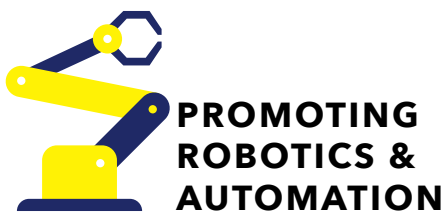
SINGAPORE ROBOTIC GAMES 2019

THE MARQUEE @ SCIENCE CENTRE SINGAPORE
*Free admission for all registered SRG participants.
*The winners of SRG, see the terms and condition for free admission @ <https://www.science.edu.sg/visit-us/ticket-prices>

WEDNESDAY, 30 JANUARY 2019	THURSDAY, 31 JANUARY 2019
9.30 am Opening Ceremony	8.00 am Autonomous Sumo Robot Competition
9.45 am Open Category	9.00 am Junior RC Sumo Robot Competition
9.45 am Robot Colony Competition	10.00 am Pictionary Competition
10.45 am RC Sumo Robot Competition	12.00 pm Legged Robot Marathon Race
1.00 pm Wall Climbing Robot Race	1.00 pm Humanoid Robot Competition
2.00 pm Junior Autonomous Sumo Robot Competition	4.00 pm Prize Giving & Closing Ceremony
2.00 pm Underwater Robot Competitions	

For more information, see Official SRG Website: <http://guppy.mpe.nus.edu.sg/srg>

Supported by: SCIENCE CENTRE SINGAPORE
In Cooperation with: IEEE
Organized by: NUS, Ngee Ann, Temasek, Nanyang Technological University, Singapore Institute of Technology, SP, ITC, Republic Polytechnic, Nanyang



Autonomous and Remote-controlled SUMO is a family affair!

Science Outreach & Competitions

NATIONAL ROBOTICS COMPETITION 2019



09 - 14 SEP 2019



541



JURONG TOWN HALL

NRC, an annual event has been running for the past 20 years with support from the Ministry of Education, various partners and sponsors. NRC spurs interest and innovation offering students an opportunity to apply what they learnt in school and experience STEM hands-on through interactive and meaningful experiences. In the process, students develop skills such as problem solving, entrepreneurial dare, creative thinking and team spirit.

Following the recent rebranding from NJRC to NRC, the competition is now a series of four tournaments: the WeDo 2.0 Junior Challenge, Science Automatica, World Robot Olympiad Challenges and Robot Arm Challenges, conceptualised to ensure the competition's relevance in view of the evolving backdrop as well as to reach out to students of wider demographics, interests and skills.



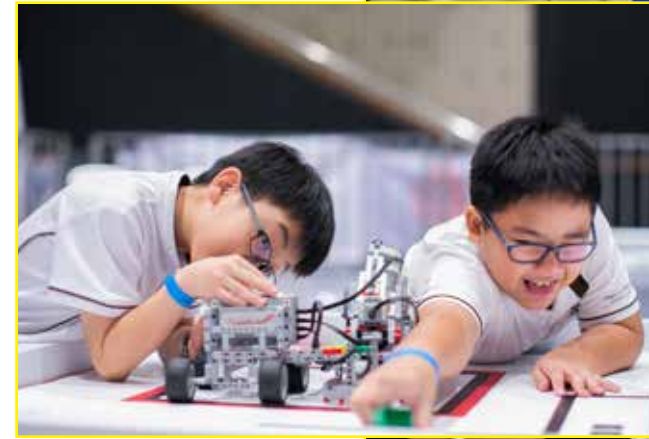
> 50,000 PARTICIPANTS TO DATE



230,000 SUPPORTERS TO DATE



KUBO - NEW CATEGORY INTRODUCED FOR PRE-SCHOOLERS



PARTNERS INVOLVED:

Operational Partner - Duck Learning

Science Outreach & Competitions

RADTALK 2019



**7 SESSIONS
SINCE 2018
- 2019**



**TARGETED AT SECONDARY &
TERTIARY LEVEL STUDENTS
INCLUDING YOUNG ADULTS**

Organised in partnership with the Singapore Nuclear Research & Safety Initiative (SNRSI) with support from the National Research Foundation (NRF), a suite of short, carefully prepared talks, activities and demonstrations were held to create awareness and deepen understanding on radiation and nuclear issues with a special emphasis on:

- I. Radiation is everywhere: occurs naturally and can be found in everyday objects. Hence should not be associated only with specific nuclear technologies or catastrophes.
- II. Radiation need not be perceived as always being harmful: appreciate the useful applications in modern society such as fire and electricity.

Students were provided irradiated seeds to observe the germination and engaged in quizzes, equipment demonstrations etc.

Speakers and topics in 2019

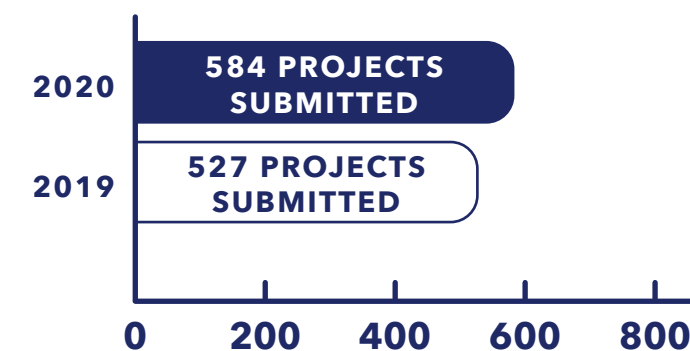
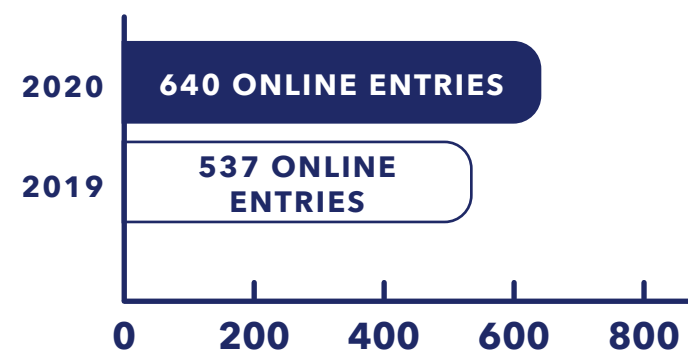
**Assoc Prof Chung Keng Yeow, Director,
Singapore Nuclear Research and Safety Initiative**
Radiation is Everywhere

**Dr David Ng, Head & Senior Consultant,
Nuclear Medicine and Molecular Imaging, Singapore General Hospital**
Looking inside your body - how and why radiation is used

**Dr James Lee, Chief Radiation Physicist, Division of Radiation Oncology
Chair, Radiation Safety Committee, National Cancer Centre Singapore**
How radiation is used therapeutically to save lives

**Mr Tan Beng Thye, Research Fellow,
Singapore Nuclear Research and Safety Initiative**
Is Radiation Hazardous or a Life-Saver?

SINGAPORE SCIENCE AND ENGINEERING FAIR 2020



356 JUDGES



**47 PROJECT REPORTS
FROM THE JUNIOR
SCIENTIST CATEGORY**

However, due to the COVID-19 outbreak, the format of the competition had to be changed. The final judging round was conducted online while the Public Viewing Day had to be cancelled. Results were announced online. Plans would be drawn up for more exhibition booths and displays by invited STEM agencies for next year's event which would mark the 21st anniversary of the competition.

PARTNERS INVOLVED:

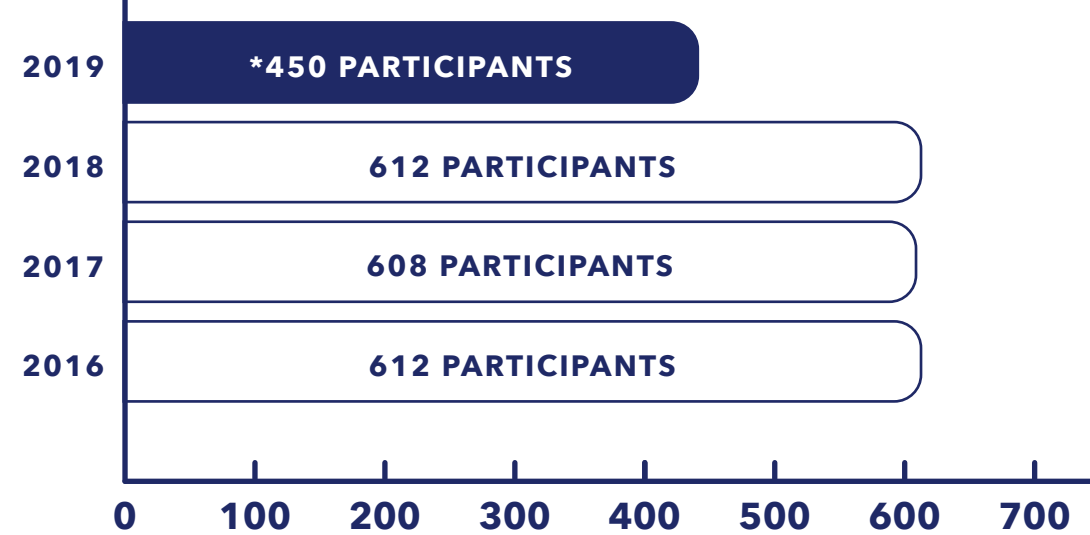
Home Team Science and Technology Agency (HTX) | DSTA | DSO

Science Outreach & Competitions

A*STAR TALENT SEARCH 2019

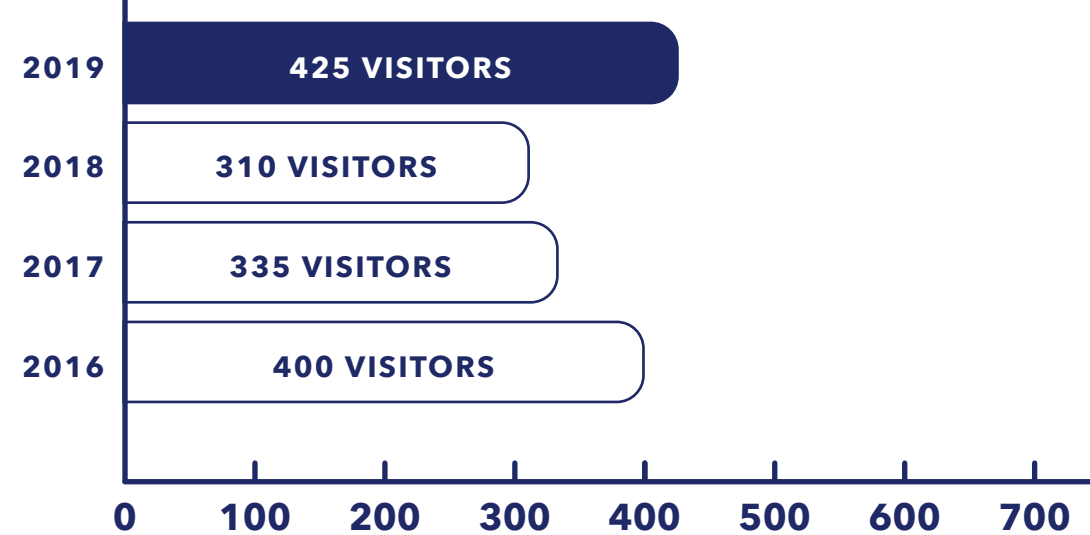
450 participants registered for this year's competition. Eight finalists were carefully selected after two gruelling rounds of judging. These finalists impressed the panel of judges with their high quality research outcomes, deep analytical thinking, as well as the aptitude to carry out independent research with ingenuity and passion. The ATS 2019 interview panel was headed by Chief Judge, Prof Kurt Wüthrich, the 2002 Nobel Prize Winner in Chemistry.

NUMBER OF PARTICIPANTS



* Note: In 2019, the registration mechanics for ATS and SSEF were linked, resulting in a decrease in ATS registrations.

VISITORS (AT AWARDS CEREMONY)



SCSA 2019 Student Winners and SCSA 2019 Organising Committee Members having a photo opportunity with Ms Indranee Rajah, Minister, Prime Minister's Office and Second Minister for Finance and Education

SONY CREATIVE SCIENCE AWARD 2019



> 5,500 STUDENT PARTICIPANTS



87 SCHOOLS



CLOSE TO 4,400 TOYS CREATED

Jointly organised by the Sony Group of Companies in Singapore and Science Centre Singapore (SCS) with the support of the Ministry of Education (MOE), this year marked the 22nd edition of the competition.

Primary school students were invited to use their imagination and creativity to make toys that demonstrate scientific principles. Workshops covering communications, creativity and hands-on sessions for both students and teachers were provided as part of the SCSA programme.

GUEST OF HONOUR:

Ms Indranee Rajah, Minister, Prime Minister's Office and Second Minister for Finance and Education

ATTENDED BY:

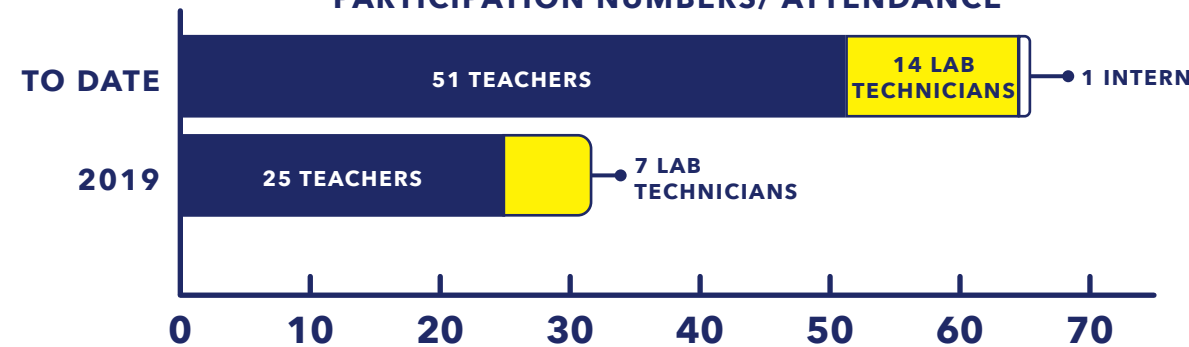
Mr Moriharu Ide, Division Managing Director, Sony Electronics Asia Pacific (second from the left)
Assoc Prof Lim Tit Meng, Chief Executive, Science Centre Singapore (third from the right)

Science Programmes

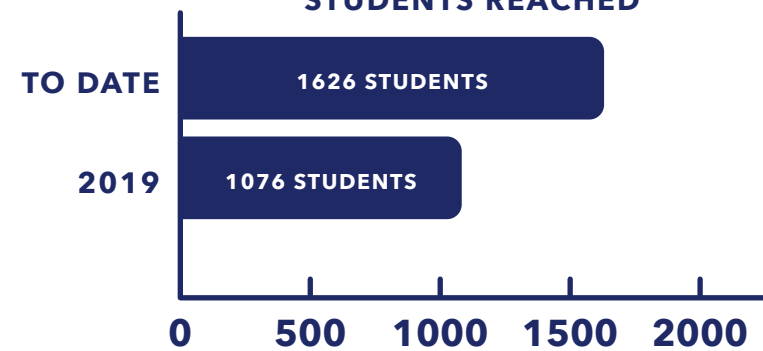
AMGEN BIOTECH EXPERIENCE

The Amgen Biotech Experience (ABE) introduces secondary and tertiary students to the excitement of scientific discovery through a molecular biology learning experience that links core science concepts to real-world applications. Sponsored by Amgen Foundation, ABE provides access for secondary and tertiary teachers to loan research-grade equipment, curriculum and professional development to engage students in an innovative science education programme. A dialogue session with Amgen Scientist Dr Cen Xu and President of Amgen Foundation Mr Eduardo Cetlin was also organised for teachers and students, in collaboration with Amgen Singapore Manufacturing.

PARTICIPATION NUMBERS/ ATTENDANCE



STUDENTS REACHED



 15 SCHOOLS DOING ABE/ TRAINED

“

I found the course really comprehensive and good, especially since I had never learnt about genetic engineering before. I also enjoyed working with my friends to complete the practical.

-Claire Chan, Student, Raffles Girls' School (Secondary)

Mr Has Gunawan (left; HOD Science, Whitley Secondary School) meeting Mr Eduardo Cetlin (President, Amgen Foundation) during the dialogue session.



Dr Cen Xu (Scientific Director, Neuroscience Discovery Research, Amgen) sharing her thoughts and journey as an award-winning female scientist working in a STEM industry.



Students learning how to use a micropipette during the workshops.



Science Programmes

YOUNG SCIENTIST WORKSHOPS

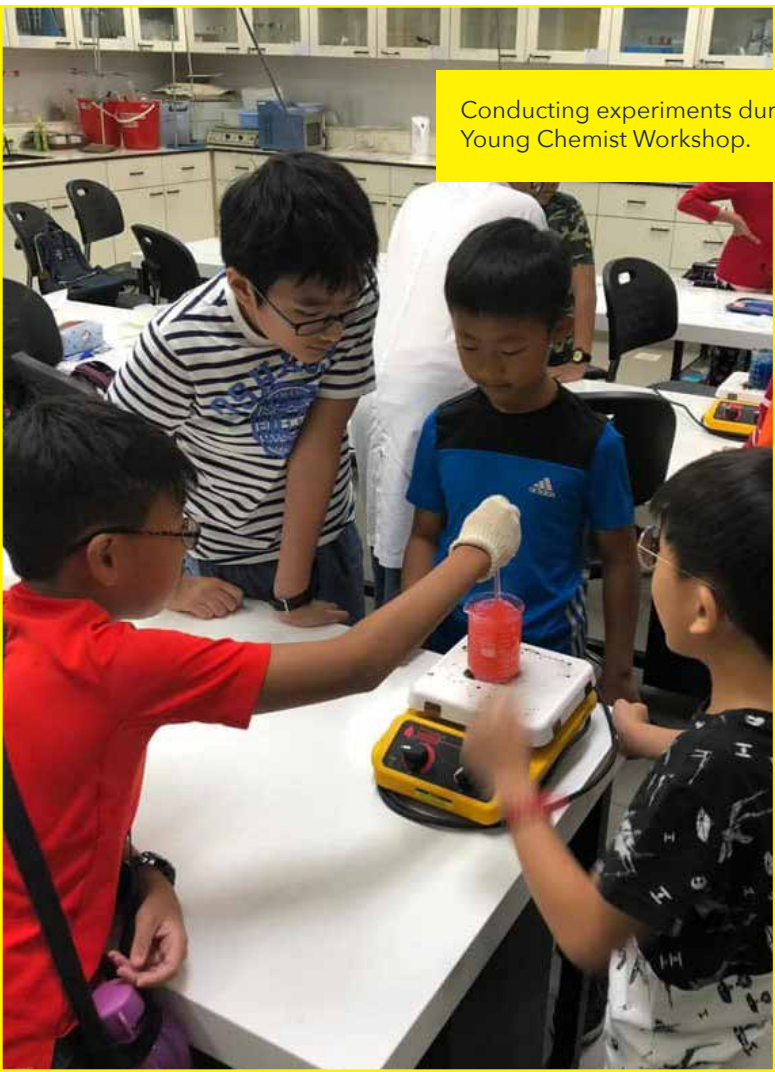


MAR 2019 - JUL 2019



140 PARTICIPANTS (ACROSS 4 WORKSHOPS)

Our signature Young Scientist Scheme has evolved into fun-filled workshops! Through these workshops - Young Ecologist, Chemist, Geneticist and Physicist - children learned more about science and the world around us through experiments, crafts, and nature walks. By fulfilling all tasks completed at the workshops, the children enthusiastically took home not only the Young Scientist Badges, but memories guaranteed to last a lifetime.



Conducting experiments during Young Chemist Workshop.



The hands-on activities were fun!

*Tricia Lim,
Jurong West Primary School*



Our Young Scientist Badges on display.



Students and teachers taking part in quiz.

YOUNG SCIENTIST BADGE PRESENTATION CEREMONY



12 NOV 2019



162 STUDENTS
14 TEACHERS



THE MARQUEE,
SCIENCE CENTRE
SINGAPORE

This year, the Young Scientist Scheme was proud to re-launch its Annual Badge Presentation Ceremony. Students who had completed the Young Scientist Cards were invited to formally receive their badges and certificates. Our guest-of-honour Dr. Toh Tai Chong, lecturer from NUS College of Alice & Peter Tan, shared his own experiences completing the Young Scientist Cards as a student, as well as a sneak preview of the soon-to-be launched 'I Am a Young Marine Biologist' Badge. We were also proud to launch the new online version of the Young Scientist Cards, available to schools and public from December 2019. Our young scientists took part in quizzes, games and station activities throughout the morning. The Badge Presentation Ceremony aims to be an annual event, expanding its reach as more schools gain awareness about the Young Scientist Scheme.

Science Programmes

BRAIN FEST



23 MAY 2019 - 02 JUN 2019



10,695



ANNEXE HALL 1, DINOQUEST EXHIBITION, DNA LABS

Themed around dinosaurs, the fifth run of Brain Fest offered participants a special preview of the ongoing blockbuster DinoQuest exhibition before it officially opened to public. While role-playing as lab assistants, participants had to decode the security system passcode for a laboratory on a fictitious island inhabited by dinosaurs in this exciting mass escape game. They had to disarm the self-destruct system before time ran out. A hands-on workshop on DNA extraction was also offered to help bust common myths made popular by movies about extracting DNA from fossils. For the first time the entire experience was ticketed.

Student from Hai Sing Catholic attempting fossil excavation at DinoQuest exhibition.



10,171 STUDENTS



179 PUBLIC



345 OVERSEAS GROUP PARTICIPANTS

Activities:

1. Mass Escape Game - Escape from Island Saurus
2. Hands-on workshop - Fossil Forensics
3. Exhibition - DinoQuest



What I like about Brainfest is the activities, they are challenging and fun.

-Public participant

Students from PLMGS solving an auditory memory puzzle at the escape game.



A great team bonding activity for the family to solve the challenge together.

Science Programmes

FAMILY PROGRAMMES



654

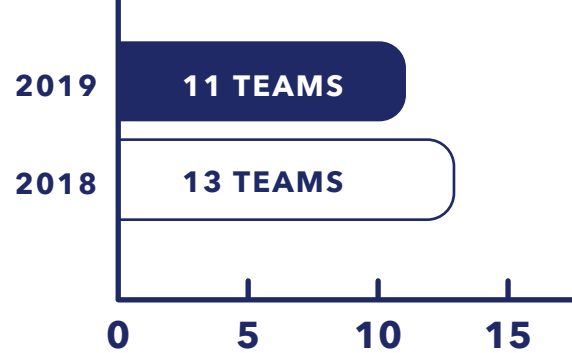


8 SCHOOL PARTNERS

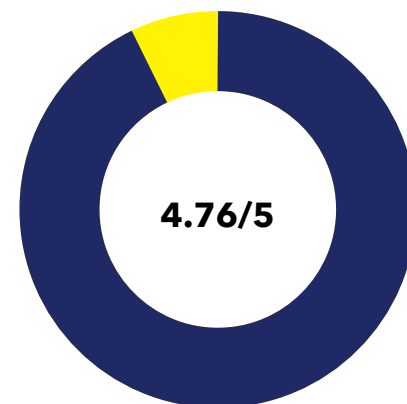
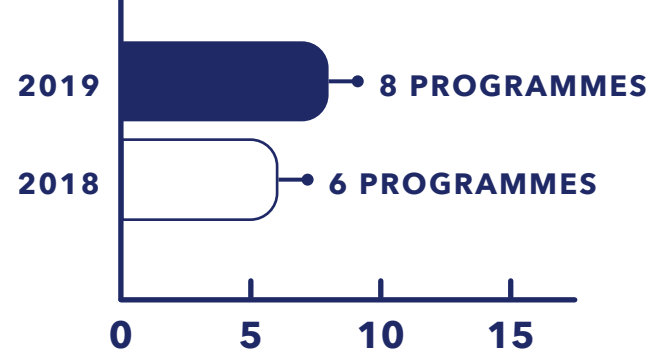
To create opportunities for parent-child bonding, Science Centre Singapore formed a family science club with school teachers and parent volunteers to co-create family programmes. The club aims to promote the importance of quality family bonding, make science learning enjoyable and relevant to everyday lives, as well as empower parent volunteers and teachers with new skills in programme development and presentation.

Science Centre Singapore also ran family programmes for the public to create opportunities for parents to interact with their kids through unique and interactive science workshops. In the holiday season of 2019, a Christmas workshop titled "A Trail of Cookie Crumbs" was conducted to introduce participants to cutting-edge technology in food preparation. Participants used the 3D food printer to create their very own Christmas cookies.

NO. OF FAMILY SCIENCE CLUB PROGRAMMES



NO. OF PUBLIC PROGRAMMES



Average feedback for programmes

Making DIY lava lamp in a Family Programme workshop.



Families learning and enjoying themselves in "Plant dye-versity" Family Programme Workshop.



“

Everyone in the programme team was helpful and helped us with our equipment, explaining about the different programmes at the Science Centre.

Anonymous; parent participant of "A Trail of Cookie Crumbs"

“

Explanation was clear, and mention must be given to the instructor who had to juggle with the baking and presentation.

Anonymous; parent participant of "A Trail of Cookie Crumbs"

Science Programmes

TRULY MADLY SCIENCE CAMPS



MAR 2019 - NOV 2019



75 (ACROSS 6 CAMPS)



SCIENCE CENTRE SINGAPORE

As part of our school holiday programmes, a series of day camps were organised that delved deep into various topics such as Astronomy, Chemistry, Wilderness Survival, Sustainability and even Gaming. Through engaging hands-on activities, which included making a fire, creating chemical explosions, learning how a telescope works and how to operate one - children learned the science behind everyday life. A small student-to-facilitator ratio allowed a personal and nurturing atmosphere, for children to be comfortable in questioning, and being challenged beyond the conventional science syllabus.

Children bravely drinking pond water through a portable water filter.



Learning science concepts such as aerodynamics and gravity through games.

2019/6/14

Visitors learning about the Sun.



JOURNEY TO SPACE @ THE ISTANA



01 MAY 2019



25,778

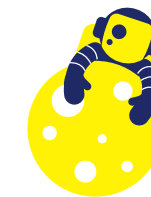


THE ISTANA

Sponsored by the Learn SG Fund from SkillsFuture Singapore, and supported by the President's Office 2019 was the 4th year of the partnership for May Day Openhouse. For the first time in Istana, also to celebrate the 150th year of the Istana Building, solar telescopes, binoculars, and glasses were dispatched to engage children and curious adults to help them understand **concepts related to space and science. More than 25,000 visitors** came to experience this Journey to Space at the Istana by launching water rockets across the lawn and using remote-controlled Mars Rovers on a simulated terrain.



20,606 PRE REGISTRATIONS



CONCEPTS RELATED TO SPACE AND SCIENCE

Science Programmes

ANNULAR SOLAR ECLIPSE



26 DEC 2019

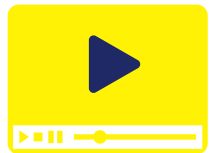


4,500



SCIENCE CENTRE SINGAPORE

An annular solar eclipse occurs when the Moon covers the centre of the Sun, giving the appearance of a fiery ring around it. Science Centre Singapore organised a viewing event for astronomy fans to experience this rare once-in-a-lifetime "astronomical phenomenon in Singapore". On Boxing Day, guests from different parts of Singapore gathered to take a close peek through telescopes and solar glasses. The next opportunity to view this phenomenon in Singapore would now be on 28 February 2063.



1.8M LIVE STREAM VIEWS



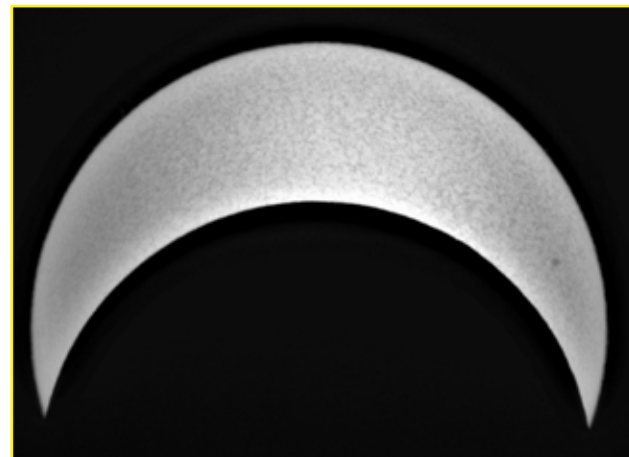
41,546 REACTIONS



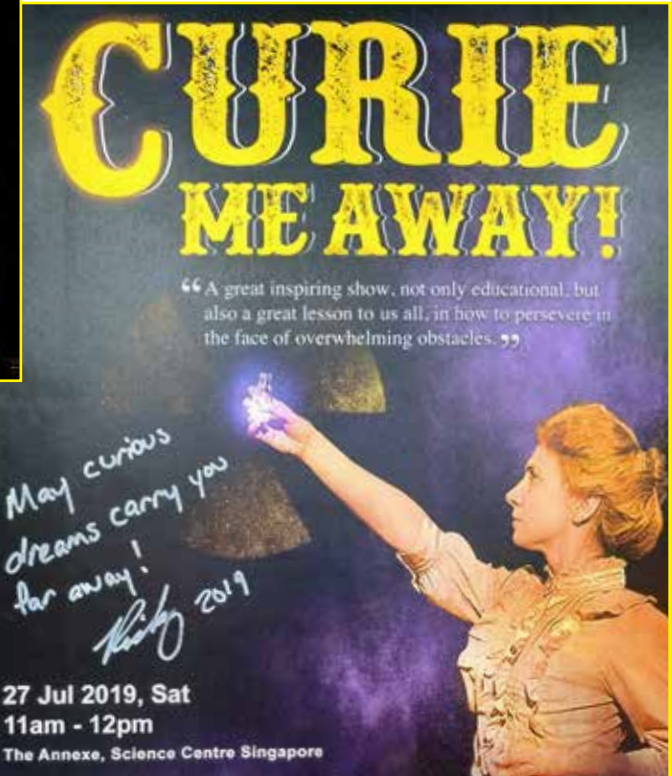
26,980 SHARES



18,430 COMMENTS



CURIE ME AWAY CHEMICAL MUSICAL



24 - 29 JULY 2019



307 PUBLIC ATTENDEES
7,749 STUDENTS & TEACHERS



THE ANNEXE, SCIENCE CENTRE SINGAPORE

Ms Sadie Bowman and Mr Ricky Coates from Matheatre, a company that specialises in STEM-based programming, used a musical to tell the "radical" life story of the Physicist who overcame sexism in the fields of Science and Education as she conducted pioneering research with radioactive materials. The schools and teachers who saw this musical gave excellent reviews on how this story has brought Marie Curie to life and included many Chemistry elements throughout the dialogues and songs.



10 SHOWS



FROM 28 SCHOOLS

Science Programmes

YOUNG TECHNOPRENEURS FOR A SUSTAINABLE 2030 AND SINGAPORE MAKER EXTRAVAGANZA



18 - 20 OCT 2019



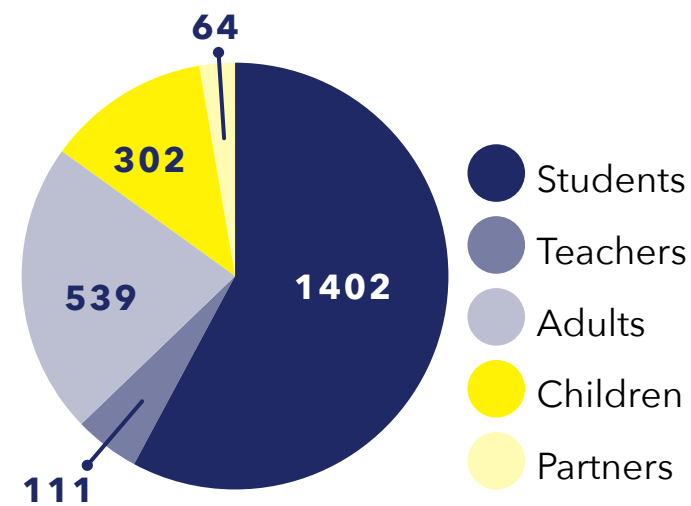
2,418

Sponsored by Temasek Ecosperity, the Young Technopreneurs for a Sustainable 2030 aimed to address the United Nations Sustainable Development Goals. From 3,000 online workshop participants, through the Hackathon and mentorship, 15 finalist teams emerged to showcase their prototype at the Singapore Maker Extravaganza. Within 3 days, 2,418 guests came to view the products from 64 maker groups.



Dr Amy Khor, Senior Minister of State, Ministry of the Environment and Water Resources & Ministry of Health watching the demonstration and trying the prototype created by the Young Technopreneur finalists

Young Technopreneurs



Singapore Maker Extravaganza reached out to:



3,000 ONLINE WORKSHOP PARTICIPANTS
250 HACKATHON PARTICIPANTS



15 FINALIST PROJECTS



3 WINNING TEAMS



GUEST OF HONOUR:

Dr Amy Khor, Senior Minister of State, Ministry of the Environment and Water Resources & Ministry of Health

Science Programmes

DISCOVHER 2020



7 - 11 FEB 2020



962
(numbers affected by COVID-19 restriction measures)



SCIENCE CENTRE SINGAPORE

The inaugural "DiscovHER- Celebrating International Day of Women and Girls in Science" was organised in 2018 and allowed the Centre to play a part in the global efforts to support and promote Science, Technology, Engineering and Mathematics (STEM) education, training and research related activities among women and girls.

This year, DiscovHER collaborated with United Women Singapore and many participating companies to bring forth a comprehensive programme to engage guests. However, the event had to be scaled down and pre-arranged talks cancelled in view of the COVID-19 outbreak.

Media Coverage:

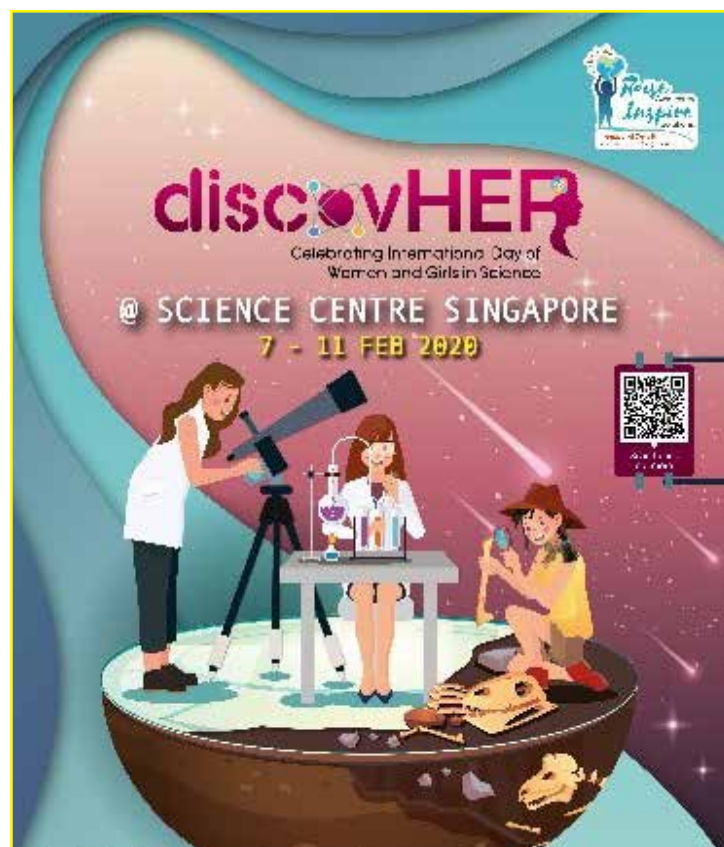
DiscovHER coverage in Tamil Murasu (print and online editions) featuring Dr Lakshmi Ramachandran, Programme Manager, CITI Programme, Duke-NUS Medical School

MAIN PARTNER:

United Women Singapore

PARTICIPATING COMPANIES:

Amazon Web Services | Mastercard | Singapore University of Technology & Design | Halo Health Keynote | Intel | Mondelez International | Dr Teoh



INS(π)RE - "CELEBRATING THE JOY OF NUMBERS"



14 - 20 MAR 2020



1922



SCIENCE CENTRE SINGAPORE

Pi Day is the celebration of the mathematical constant π (pi) that is used in geometry. Pi Day is observed on March 14 (3/14 in the month/day date format) since 3, 1, and 4 are the first three significant digits of π . Due to Covid-19 situation, gallery activities were scaled down and online videos were produced to engage guests at home as well.



ONLINE REACH - 21,234

Science Programmes

I'M A SCIENCE EXPLORER



1 - 30 JUN 2019



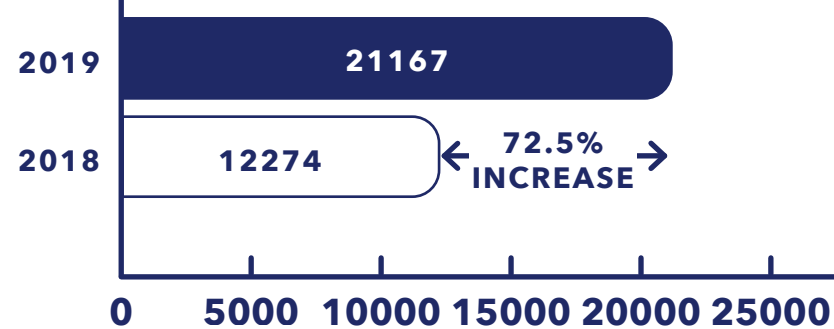
21,167 (FROM ALL 4 ACTIVITIES)



VARIOUS GALLERIES IN SCIENCE CENTRE SINGAPORE

"I'm a Science Explorer" is a mid-year school holiday programme catered for children aged 3 to 12 years old. This year, the programme was curated to complement the DinoQuest exhibition. Developed in-house, children explored what it truly means to be a Paleoecologist through a gallery hunt, a plethora of hands-on activities (Science Titans and DinoQuest activity booths), and a special science show titled "The Dino Show".

PARTICIPATION NUMBERS



Science Centre and its events are very fun. Through this, I became keener in Science!

-Lexi Chen, Haig Girl's Primary School student



Very interesting way to get children to go through the learning. Thank you!

-Father of Lucas, Caterpillar Cove pre-schooler

A group of young guests learning about how different fossils are found in the different layers of underground rock in the 'Fossils Rock!' activity booth.



A GP staff narrating the perennial yet dynamic Sun-Earth relationship to a pair of young guests in the Dino Quest exhibition.

Fascinated visitors gathered to have a go at the giant ice ball in a (literally) hands-on activity booth about Ice Age.



Science Programmes

INTERNATIONAL DAYS @ SCIENCE CENTRE

EVENTS UNDER INTERNATIONAL DAYS @ SCS	DATE OF EVENT	TOTAL NUMBER
Earth Day	19 - 21 APR 2019	4,630
World Bee Day	18 - 20 MAY 2019	3,469
International Day for Older Persons	04 - 06 OCT 2019	5,285
World Mental Health Day	10 - 13 OCT 2019	788
International Science Centre Day	09 - 10 NOV 2019	299
World Toilet Day	22 - 24 NOV 2019	987
		15,458

A new initiative that aims to raise awareness on certain social issues and promote the Sustainable Development Goal, through creative science programmes and activities. Each year, specific International Days recognised by the United Nations are selected and celebrated in the Science Centre with specially designed programmes that are suitable for all ages. As most of these programmes are open to general public with no additional charges, it allows guests from diverse backgrounds to actively participate.

“Excellent activities! Everyone very much enjoys them! (From grandmother to little kid) Thank you.

-Ya, Parent of participant



Earth Day



World Bee Day



International Science Centre Day



World Mental Health Day



International Day for Older Persons



World Toilet Day

Science Programmes

DIALOGUE WITH TIME - EMBRACE AGEING



73,329



VARIOUS GALLERIES IN SCIENCE CENTRE SINGAPORE



This exhibition is about the art of ageing. The experience is led by a senior guide aged 65 and above, who will share his or her life story and facilitate a “happy ageing” discussion. By engaging with our guides, we hope that you will think, and rethink, about ageing and overcome stereotypes of old age.

For the first time at the centre, we celebrated **International Day for Older Persons**. During this period, Senior Guides (aged 65 and above) and Science Explainers (students and young adult) worked hand-in-hand to engage guests. This encouraged and showcased inter-generation cohesiveness. Activity booths were set up to educate and create awareness about the different aspect of ageing i.e. the physical limitations of ageing, importance of being active and to reminisce traditional games.

Awareness Booth set-up outside Science Centre Singapore

We found opportunities to reach out to the community through special events. These age-related events focus on different aspects of ageing (eg. Physical and mental challenges of a senior, students of gerontology or healthcare, HR and healthcare professional symposium). These collaborations allow us to educate the participants about ageing and provide opportunities for us to promote the permanent exhibition.

ORGANISATION NAME	EVENT	AUDIENCE
NUSS	Active Ageing - Lifelong learning	Sn Alumni & Lecturers
SGH	Nurses Symposium	Nurses
KTPH	Mini-medical School Programme	Public Seniors
Muslim Healthcare Professionals Assoc	Don't Forget Us - Public sharing about Dementia	Family
The Organisation of Senior Volunteers - RSVP	National Senior Volunteer Month <i>Retire with a purpose - Volunteer!</i>	Seniors
ProAge Pte Ltd <i>Social Enterprise</i>	Go for your Mountain (GYM) <i>Awaken Dreams</i>	Seniors with Family members & Volunteers
Tripartite Alliance for Fair and Progressive Employment Practices (TAFEP, E21)	Age of Longevity (thriving in extended careers)	HR Professionals from various institutions.



Media Coverage

A front-page article in **The Straits Times Home Section** by Ms Vanessa Liu. The coverage was amplified on the ST's online, Facebook and YouTube channels.

Ms Anna See - one of the senior guides from Dialogue with Time exhibition shared her experiences as a senior guide and her perception about ageing on CNA938.

Science Programmes

SHOWS: THE DINO SHOW



MAY 2019 -
AUG 2019



4PM

The Dino Show was curated to complement the mid-year travelling "Dino Quest" exhibition. Guests had an opportunity to unravel some dinosaur mysteries and learn more about prehistoric reptiles as our Science Educators helped debunk common myths about these intriguing creatures.



It was so funny and I was laughing throughout. They taught stuff in creative ways.

-Elysia, Student



Interactive and interesting way of presenting to audience. Easy to understand.

-Chen Yuqing, Parent



CHEMYSTERY SHOW



SEP 2019 -
DEC 2019



4PM

Through exciting science demonstrations, guests learnt about the different chemical reactions and discovered the fun elements of Chemistry. This interactive and engaging show clicked really well with audiences both young and old.

STEM INC

STEM Inc experienced another year of exciting firsts

To name a few, we introduced the STEM Applied Learning Programme (STEM ALP) to the primary school landscape; inspired international student delegates to think about the future; and broadened the platform for prospective partnerships between industry and school.

In support of the national alignment for primary schools to adopt Applied Learning, seminars and workshops were organised to present current approaches to STEM ALP. Teachers gleaned the importance of designing and facilitating lessons that shaped a positive mindset towards STEM applications and careers.

Hundreds of international students from the Asia Pacific were invited to Science Centre Singapore (SCS) through the TFI STEP STEM Alive Camp (16-22 Jun 2019) and Young Persons' Plan for the Planet (4-6 Dec 2019) programmes. These initiatives gifted students a unique opportunity to work together to achieve the UN Sustainable Development Goals - a blueprint to achieve a better and more sustainable future for all.

Representatives from school and industry had a wonderful time networking at SCS during the Partners Appreciation Event (5 Nov 2019). This unique communion birthed ideas for new learning journeys, potential job shadowing and workshops - leveraging the expertise of industry professionals and aspirations of students. STEM Inc endeavours to build on the breadth and depth of these engagements in 2020 through leading and learning, equipping and empowering.



TFI STEP STEM ALIVE CAMP (16-22 JUN 2019) AND YOUNG PERSONS' PLAN FOR THE PLANET (4-6 DEC 2019) PROGRAMMES



185 STUDENTS



**EXCHANGING IDEAS
AND PERSPECTIVES**



10 COUNTRIES



CRADLΣ

CRADLΣ LIFE SCIENCE CAMP



11 - 12 NOV 2019



20



SCIENCE CENTRE & INDUSTRY PARTNER (SHIMADZU) LABS

In this camp organised in collaboration with DNA Lab and industry partner Shimadzu, participants immersed themselves through various **hands-on sessions** e.g. performing bacterial transformation, protein purification and understanding principles of spectrometry through **experiential learning**. Participants **learned from industry experts** about the use of selected analytical instruments and conducted mini-investigations with their protein samples. It was a not-to-be-missed opportunity for individuals keen to explore the field of proteomics in a holistic manner.



HANDS-ON SESSIONS



EXPERIENTIAL LEARNING



LEARNT FROM INDUSTRY EXPERTS

“

The camp was extremely enriching, it allowed me to better understand the real-world applications of science.

-Participating student

Participants of the CRADLΣ Life Science Camp exploring analytical techniques at the laboratory of industrial partner, Shimadzu.



Participant loading samples for Mass Spectrometry.

CRADLΣ

CRADLΣ RESEARCH AND DEVELOPMENT PROGRAMME (R&DEP)



NOV 2019 -
DEC 2019



51



CRADLΣ LAB,
SCIENCE CENTRE

51 students from 13 schools worked in teams on **11 science/engineering projects** over a 10-day period. Projects involved the design and prototype development of scientific equipment such as a polarimeter and diffusion cloud chambers, a musical instrument based on electromagnetic waves (theremin), microfluidic devices for analytics/diagnostics, and environmental sensing systems for applications such as water quality monitoring or growing of plants.



STUDENTS



SCHOOLS



SCIENCE/ENGINEERING
PROJECTS

“

I learnt how to use many new instruments and many new things I had before never been exposed to in school.

-Emmanuel Ng Teng Yang, St Joseph's Institution



Students working on their R&DEP projects at CRADLΣ.

SINGAPORE SCIENCE CENTRE GLOBAL PTE LTD

Singapore Science Centre Global (SSCG), a wholly-owned subsidiary of Science Centre Board aims to be the preferred global partner for STEM and Singapore Science related educational products. SSCG business includes licensing of science education programmes, professional development programmes for educators, science experiential learning journey programmes for students, leasing of travelling exhibitions and consultancy for Science Centre’s concept development, operations and exhibition content master planning.

Signing of MOU between SSCG and Beijing Honghua International Education Technology Co. Ltd and an MOU between Science Centre Singapore and The Academy of Vocational Education of CSPA at the launch of Education Study Trip in Beijing on 26 May 2019.



Photo with Mr Riku Miyamoto, Mayor of kaga City, Japan - new licensee of STEM Thematic Programs.



Excellent Science Experiential Journey and all my students enjoyed the Aeronautics Technology Workshop. We will be back in Summer School Holiday!



AERONAUTICS TECHNOLOGY



MS TANG YAN

Nasdaken International English teacher, Nanjing



Thank you so much for the wonderful programme presented at the Science Centre on our recent tour to Singapore. A number of our students indicated that the DNA workshop was the highlight of their nine-day STEM Tour of Singapore and many more said that the visit to the Science Centre was also their highlight!



DNA FORENSIC SCIENCE



MS CAROLYN MOORES

Head of Science Faculty, Townsville Grammar School, Queensland, Australia



Thank you so much for such a great day yesterday! Our students had such a great time!

Please send our gratitude to your whole team as well! We will be in touch this spring about bringing our students next summer.



PTC - THE 'BITTER' LIFE OF SUPER-TASTER



MS PATTY HESTER

Director of Operations, Yale NUS & University of Miami (National Student Leadership Conference, USA)

05

**GROUP OF
ATTRACTIONS**



- › KidsSTOP™
- › Snow City
- › Omni-Theatre
- › Butterflies Up-Close



KidsSTOP™

KidsSTOP™ is Singapore's first science centre for children between 18 months to 8 years old. Being innately curious about the natural world, young children develop and understand how to use essential process skills by actively engaging with the environment. KidsSTOP™ aims to enhance these skills of inquiry, investigation and innovation so that they have the Power to Create.

CATALYSTS - A PROMENADE THEATRE PERFORMANCE



28 SEP 2019 -
10 OCT 2019



1,548



38

A **first ever STEAM-themed promenade theatre performance** collaboration between KidsSTOP™ and Singapore Repertory Theatre, *CATALYSTS* used **creative drama to promote STEAM concepts** among young learners and the community.

Written and directed by Rob Johnston, an award-winning playwright and producer from UK, the walkabout performance at KidsSTOP™'s galleries packed **science learning with immersive storytelling**. The performance revolved around Madame Curie, the KidsSTOP™ Cat who got 'catnapped' by the grouchy inventor Dr FeelBad. Recruited by KidsSTOP™ mascots, Jo and Win and spurred on by Madame Curie's advice to "Always Question, Always Wonder", they set off on a rescue mission to bring Madame Curie home and get to the bottom of why Dr FeelBad feels so bad.

"Always Question, Always Wonder" also tied in well with the Centre's mission to spark a spirit of enquiry and curiosity. The audience donned headsets and could interact and physically move together with the actors from one scene to the next as they explored their emotions.

After the performance, children had the opportunity to engage in science experiments at the **'Splashes of Emotions' workshop**, where they explored different liquids and colours and understood how colours could be associated with emotions.

KidsSTOP™ founders Jo & Win trying their best to use their wits and map to find Madame Curie



Actors doubling up as Madame Curie (puppet) during the show.



CREATIVE DRAMA TO TEACH STEAM CONCEPTS



FIRST EVER STEAM-THEMED PROMENADE THEATRE PERFORMANCE



SCIENCE LEARNING WITH IMMERSIVE STORYTELLING



SPLASHES OF EMOTIONS WORKSHOP

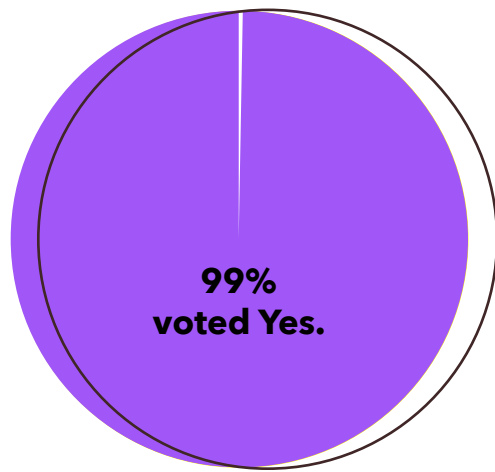


WRITTEN AND DIRECTED BY MR ROB JOHNSTON, AN AWARD-WINNING PLAYWRIGHT AND PRODUCER FROM UK

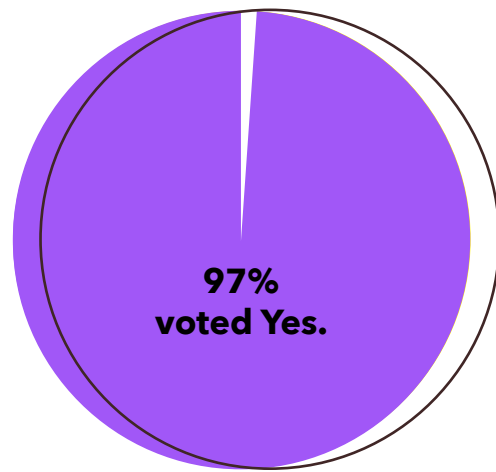
KidsSTOP™

CATALYSTS - A PROMENADE THEATRE PERFORMANCE

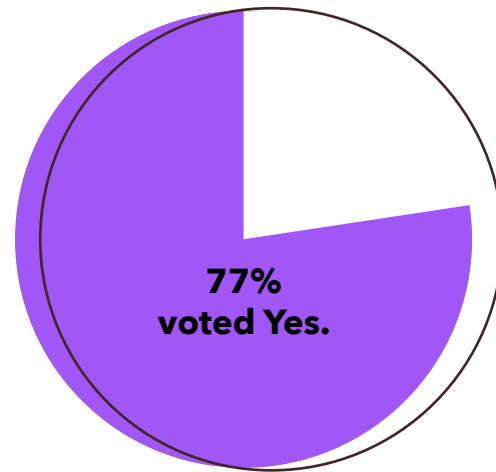
Survey (A total of 247 responses collected):



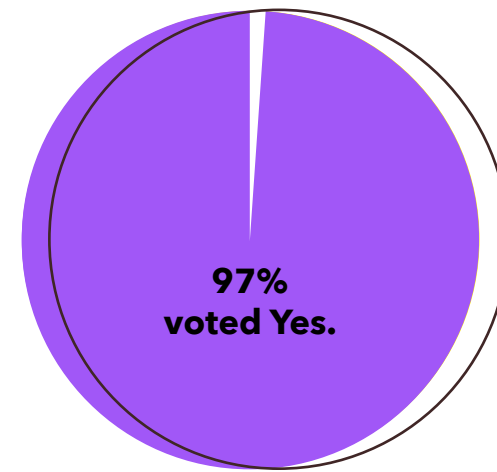
I could understand, relate and appreciate the activities / programmes.



Engagement in this activity / performance helped to bring a greater sense of well-being and happiness.



I have developed stronger bonds with family and / or friends through engagement in this activity / performance.



The duration of CATALYSTS was just right.

“

Fabulous show for my Grade 2 class!

Overall, it was fun and children enjoyed the activities that were set for them. Children learned to compromise and how to make people around them happy. Well done!

Very creative way to have the kids get exposed to experiential learning. The kinetic theatre experience was so well done.

Children engaging in hands-on activities after the show where they learnt about their feelings.



KidsSTOP™'s Built Environment transformed into the final scene of CATALYSTS.



An intimate proximity between the audience and the actors allowed a unique and immersive experience.

KidsSTOP™

JO'S NIGHT OUT: KIDSSTOP™ OVERNIGHT CAMP FOR PRESCHOOL GROUPS



SCHOOL HOLIDAYS (JUN, NOV-DEC)



157
(↑ by 162%)



KIDSSTOP™

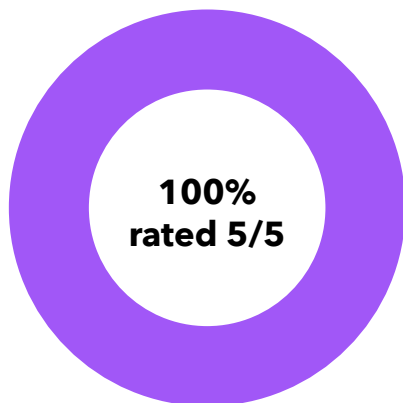
Jo's Night Out was a fun-filled science camp for children aged five and six. Pre-schoolers and their teachers spent the night at KidsSTOP™ and indulged in hands-on STEAM activities. Working in collaboration on their tasks helped enhance the children's understanding about various concepts through first-hand experiences. The programme was also designed to increase children's problem-solving and practical life skills, as well as their social-emotional competencies.

With a wide selection of camp activities to offer, teachers could customise the programme based on their students' interests and needs. Jo's Night Out offered a great opportunity for children to engage in playful learning, team bonding and science experiments.

Survey (Based on the five schools' feedback):



The activities were fun.



The children enjoyed the camp.



Children can learn science while engaging in tactile and pretend play.



Overview of Exhibit

SMALL WORLD



MAR 2019



KIDSSTOP™

A newly revamped refurbished, *Small World*, opened in March 2019, to much delight! Specially designed for **children under the age of three**, *Small World* is now a farm-themed exhibit that integrates STEM with early development. The exhibit features items commonly found at a farm, where children experience **multi-sensorial play** while exploring relevant science concepts, eg. feeling while learning about the outer covering of animals and with the animals' food etc.

Small World also develops fundamentals for numeracy through interactive areas where children match and sort shapes, as well as recognise simple numbers. The exhibit features a fully foam-padded area and slide, allowing younger children to learn through exploratory play in a safe and fun environment.



< 3 YEARS OLD



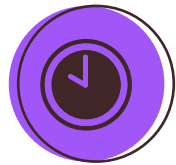
MULTI-SENSORIAL PLAY

KidsSTOP™

PRESCHOOL STEAM LEARNING FESTIVAL 2019



25 - 28 JUL
2019
(THU - SUN)



10AM - 6PM



THE MARQUEE,
SCIENCE CENTRE
SINGAPORE

The inaugural Preschool STEAM (Science, Technology, Engineering, Arts and Mathematics) Learning Festival was held from 25th to 28th July 2019. The festival aimed to foster a better understanding of early childhood learning and teaching through embracing current methodologies involving STEAM. The theme for 2019 was "Rediscover learning for the future", and participants were exposed to many different and informal approaches to STEAM learning.

A collaboration between *Preschool Market* and KidsSTOP™, *Science Centre Singapore*, the event presented a great line-up of experiential learning opportunities for children 2-8 years old, as well as educators and parents interested in the teaching methods and strategies of STEAM education for early learners. Through talks, showcases, hands-on activities and interactive installations, festival-goers were engaged in learning related to STEAM through playful explorations in an immersive setting.

“

Many initiatives that make science learning fun!

A better understanding of the range and level of STEAM activities for preschool children.

A compact place to know about latest tech and things suitable for preschool.

I think it was enriching and interesting for me as a parent to see what children are doing in school currently and what was available for parents.

GUEST OF HONOUR:

Ms Low Yen Ling, Senior Parliamentary Secretary, Ministry of Education & Ministry of Manpower

Pre-schoolers at a booth by *Marshall Cavendish Education*, learning how to make a Water Jelly.



Pre-schoolers trying their hands at Viral Spiral at a Tinkering Booth.

Our GOH, Senior Parliamentary Secretary, Ministry of Education & Ministry of Manpower, Ms Low Yen Ling, at the Opening Ceremony of Preschool STEAM Learning Festival, accompanied by Assoc Prof Lim Tit Meng, Chief Executive of Science Centre Board and Ding Zhen Xin, Co-founder of Preschool Market.





Team Rainbow Warriors from PPIS Child Development Centre Bukit Batok.



Team The Bla3ers from My First Skool Boon Lay Blk 180B.



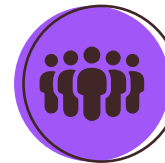
Team Sparkletot 109 Children from PCF Kebun Baru Blk 109.

KidsSTOP™

ABBOTT GROW SHOW YOU CAN! 2019



AUDITIONS:
02 - 05 JUL
2019
FINALS:
19 JUL 2019



AUDITIONS:
23 TEAMS
(19 SCHOOLS)
FINALS:
235 ATTENDEES



**THE MARQUEE,
SCIENCE CENTRE
SINGAPORE**

Started in 2016 as a 'Show & Tell' competition, this event has grown to become an annual competition, which allows pre-school children to showcase their talents through combining science knowledge with creative drama. With the inclusion of creative arts into science learning, the competition aims to: (i) develop and cultivate an interest in science among young children, (ii) improve their understanding in science communication, (iii) gain awareness, as well as address the current socio-scientific issues in our society. The event was sponsored by Abbott.

The theme for 2019 was 'Me & My Feelings.' The participating teams put up creative and science-related performances related to the theme. Eight finalists were chosen to perform in the Grand Finals. The winner was Team SBK V3 from Spring Brainy Kidz Potong Pasir. Four finalists were invited back to perform at the Preschool STEAM Learning Festival.



The children learnt how to present themselves to an audience and build self-confidence. It's a really good learning experience for all of us.



MS CATHERINE CHOW
Teacher-in-Charge, Kids & Kins
Childcare Centre (one of the finalists)

Snow City

DRIFT ON ICE LAUNCH



30 MAY 2019



SINGAPORE'S COLDEST BUMPER CAR ARENA CERTIFICATION BY SINGAPORE BOOK OF RECORDS

In May 2019, Snow City Singapore launched its newest attraction, *Drift on Ice*, which officially opened to public on 1 June 2019. The five-minute bumper car ride packs the usual fun and excitement of this popular carnival attraction, albeit on ice and in a sub-zero environment. To lend prestige to this new attraction, *Drift on Ice* was awarded **Singapore's Coldest Bumper Car Arena certification by Singapore Book of Records**. This new initiative was a result of the partnership between Snow Venture Pte Ltd and Joyo Sports Investment Pte Ltd.



Photo: Guests at Snow City Singapore enjoy the new Drift on Ice bumper car ride.

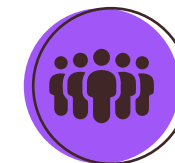


Photo: Climbers compete at the latest configured climbing wall of The Cliff.

SINGAPORE YOUTH OLYMPICS FESTIVAL SPEED CLIMBING COMPETITION



27 JUL 2019



30



17 SHORTLISTED FOR NATIONAL YOUTH OLYMPICS

The Singapore Mountaineering Federation (SMF) and Singapore Youth Olympic Council organised the Singapore Youth Olympics Festival Speed Climbing Competition at Snow City's The Cliff where 30 climbers competed, of which **17 advanced to compete at the National Youth Olympics**. In line with this event, SMF enhanced The Cliff's Speed Wall to the latest climbing route.

Snow City

SNOW FUN HOUSE



26 NOV 2019 -
26 DEC 2019



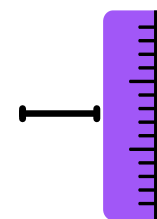
14,000



PLAZA SINGAPURA

Snow City's Snow Fun House made an impactful comeback at Plaza Singapura by showcasing the new and improved two-storey mobile display house to tap on the holiday crowd. Dubbed as the **Largest Configurable Snow Playground by the Singapore Book of Records**, the Snow Fun House provided audiences a winter feel with temperatures **as low as -10 degrees Celsius** and **close to 20 tonnes of real snow** produced onsite using a specially designed snow machine.

The Snow Fun House was also **widely featured across media platforms**. The Christmas atmosphere was enhanced by the **outdoor snowfall sessions** and **Santa with Santarina appearances**. The first version of the Snow Fun House, a single-storey mobile snow chamber, made its debut at Plaza Singapura in December 2016, Changi Airport Terminal 3 in June 2017, and Parkway Parade in Dec 2017.



12M BY 7.5M
AND 7M HIGH



TEMPERATURE
AS LOW AS -10
DEGREES CELSIUS



20 TONNES
OF REAL SNOW



MEDIA COVERAGE BY NEWS CHANNELS SUCH AS MEDIACORP BERITA, CHANNEL 8, AND CHANNEL NEWSASIA

Photo: Santa and Santarina appearances and mingling time with guests.



Photo: The two-storey Snow Fun House exterior at Plaza Singapura Front Plaza.



Photo: Screenshot of shoppers at Plaza Singapura's Snow Fun House last December from Channel NewsAsia Singapore Tonight.



Snow City

SNOW CITY YEAR END EVENT: WINTER FAIRYTALE



16 NOV 2019 -
01 JAN 2020



SNOW CITY

The festive season was filled with **magical snow sculptures, whimsical storytelling adventures,** and the **royal debut of snow princesses** as Snow City embarked on its year-end event called "Winter Fairytale" from 16 November 2019 to 1 January 2020. Our guests were invited to experience and document the magic of a winter fairytale with the appearance of our snow princesses in their pink and blue gowns every weekend. Apart from engaging the crowds with the daily activities, Snow City also organised its inaugural Little Mr Snow and Little Miss Snow Online Pageant for children aged 3 to 12 years old, which received a total of four submissions for Little Mr Snow category and five for Little Miss Snow Category. The top prize winners as well as first and second runner-up from each category were crowned on 21 December 2020.



MAGICAL SNOW
SCULPTURES



WHIMSICAL
STORYTELLING
ADVENTURES



DEBUT OF
SNOW
PRINCESSES



Photo: Lighted chamber decorations for Winter Fairytale.



Photo: First runner-up for the Little Miss Snow pageant category.

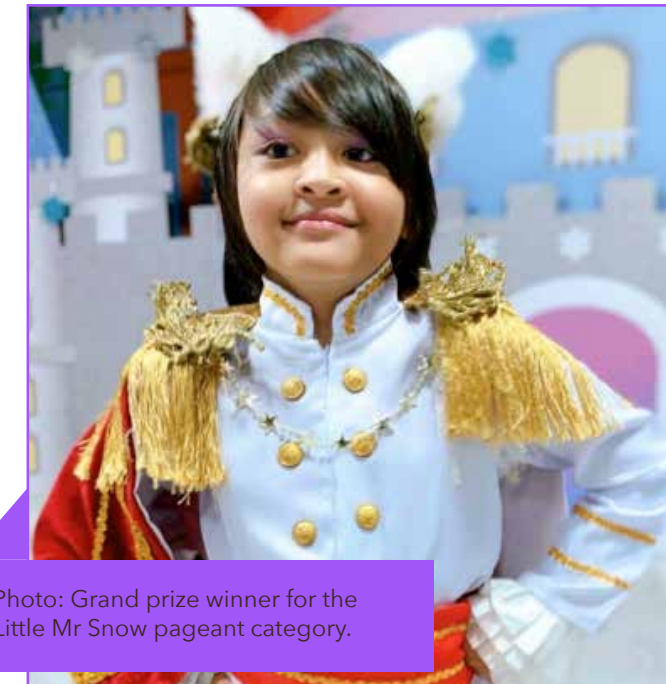


Photo: Grand prize winner for the Little Mr Snow pageant category.

OMNI-THEATRE



**THE RING OF FIRE
- SPECIAL LIVE
PLANETARIUM SHOW**



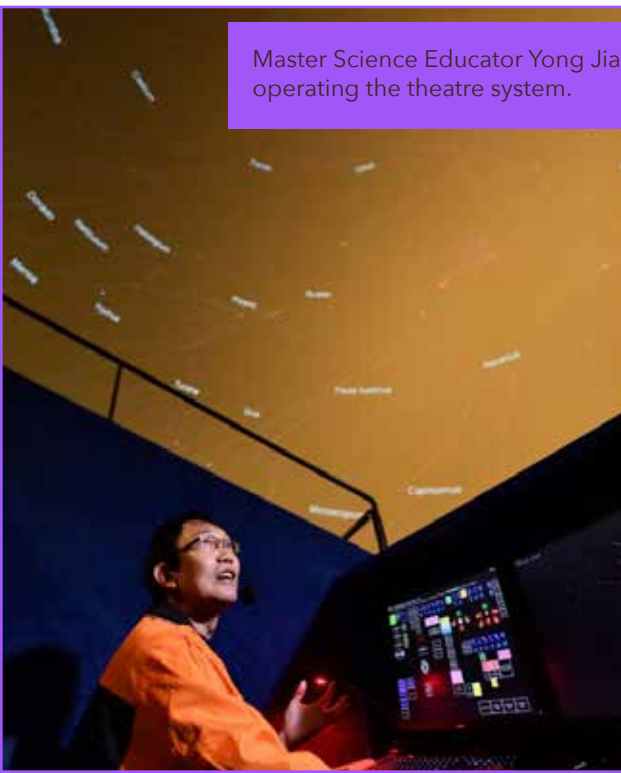
26 DEC 2019



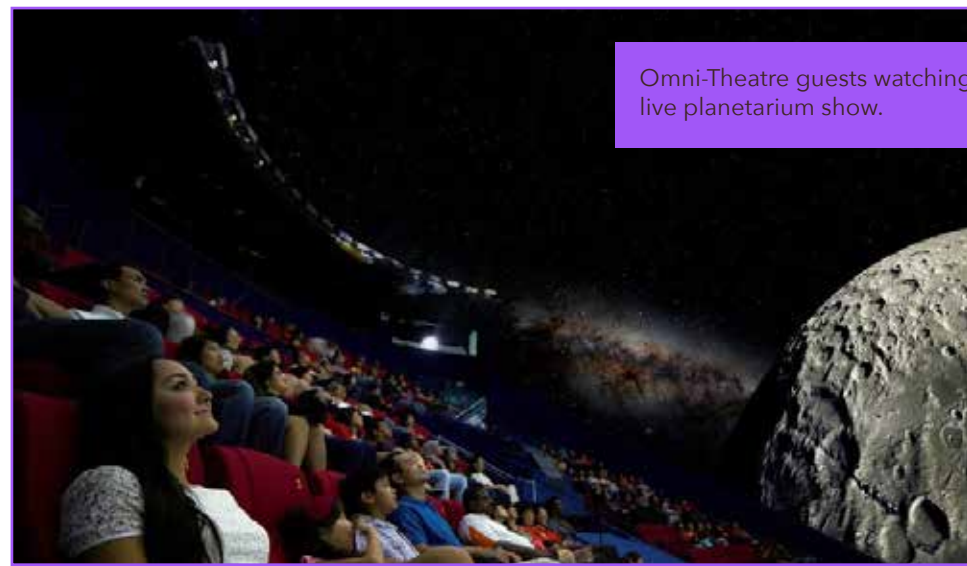
600

Omni-Theatre delivered **distinctly immersive experiences** with a **selection of digital fulldome movies** such as Great Bear Rainforest, America’s Musical Journey, National Parks Adventure and We Are Stars. Topical Live Planetarium shows with real-time presentations on space science conducted by Science Centre Singapore's science educators continued to awe guests.

In conjunction with the Annular Solar eclipse, a special live show was hosted to complement the viewing experience. The event was sold-out and 600 people enjoyed this show which took guests on a journey back in time to when the Sun and Moon were formed. They got to witness the birth of the Apollo missions and discovered the grandeur and the measure of our Universe. With **Southeast Asia’s largest seamless dome screen, specially designed seating configuration, surround-sound effects, and 8K digital dome theatre system**, the Omni-Theatre continues to awe its audiences.



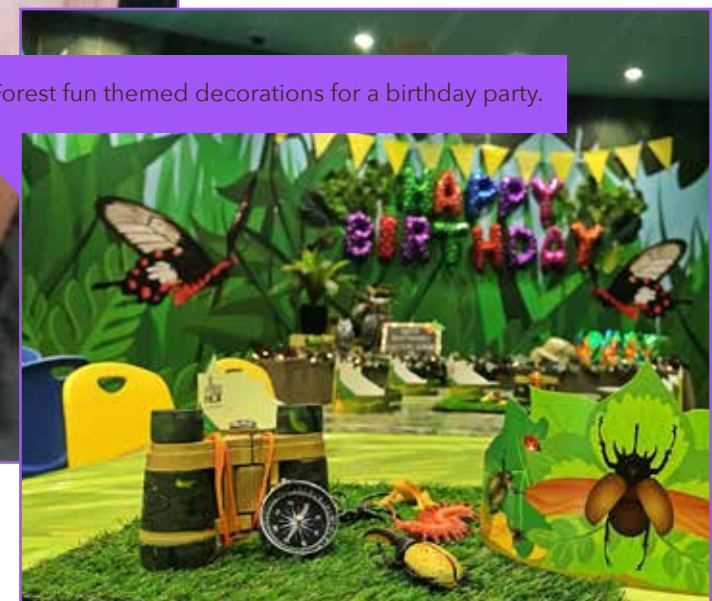
Master Science Educator Yong Jian Yi operating the theatre system.



Omni-Theatre guests watching a live planetarium show.



A family participating in the Butterflies Up-Close guided tou .



Forest fun themed decorations for a birthday party.

BUTTERFLIES UP-CLOSE



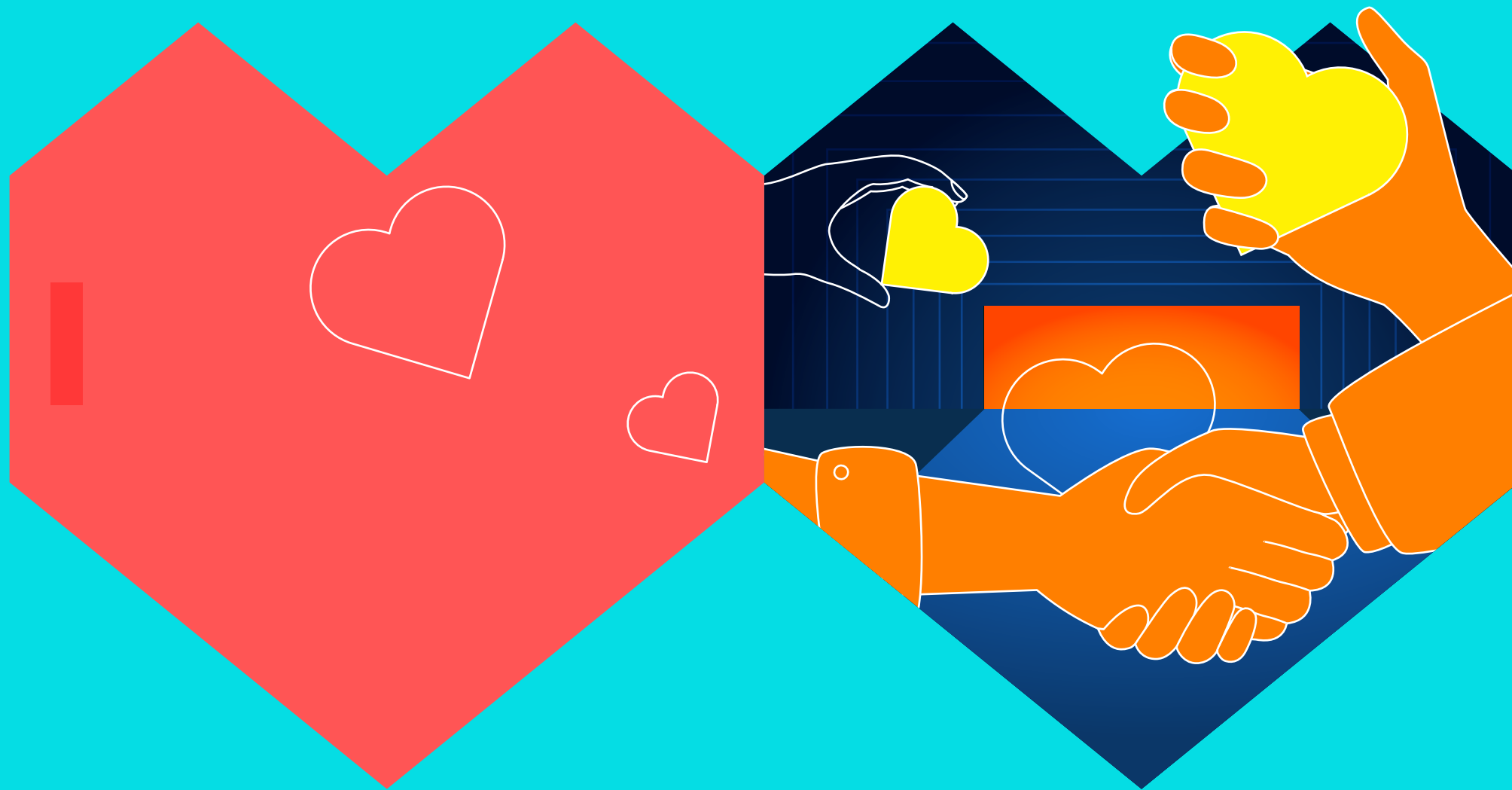
251 GUESTS



**8 THEMED
BIRTHDAY PARTIES**

Set up in partnership with Sentosa’s Butterfly Park and Insect Kingdom (BPIK), Butterflies Up-Close is **Singapore’s first indoor butterfly enclosure** and a valuable addition to SCS’s life sciences offerings as it continues to **deliver inspiring science experiences that entertain and engage visitors** since its inception in 2016.

The exhibition continued to delight young and old alike by showcasing nature at its very best. Precious memories were created for children who celebrated their birthdays in the wonder wings or forest fun themed function room.



06

COMMUNITY & PARTNERS

- > Volunteer Programme
- > List of Sponsors
- > Sponsorship Fund
- > Conflict of Interest Policy
- > Distinguished Guests
- > Board Sub-Committees
- > Project Committees

VOLUNTEER PROGRAMME



117 NEW VOLUNTEERS



12,910 HOURS OF SERVICE

The Centre welcomed **117 new volunteers** from all walks of life. Overall, our volunteers contributed **12,910 hours of service** to enhance guest experience via floor engagement and inte action as well as provided manpower support during events.

Student volunteers showcased simple science experiments breaking down difficult science concepts at their activity booths. **Volunteers at the Observatory dedicated 299 volunteer hours**, engaging astronomy fans during stargazing sessions.

This year **28 senior volunteers from our Retired & Senior Volunteer Programme (RSVP)** were deployed on weekday afternoons to engage the guests with activity puzzles. They contributed **1,812 hours of volunteering services** to the Centre.

Volunteers facilitating an event's station activity.



Retired & Senior Volunteer Programme



28 SENIOR VOLUNTEERS
1,812 HOURS

Retired & Senior Volunteer Programme



OBSERVATORY VOLUNTEERS -
299 VOLUNTEER HOURS



RSVP volunteer manning activity station.



Volunteer facilitating a station activity in the main centre.

LIST OF SPONSORS

2019/20 (as at 20.02.2020)

3M SINGAPORE

A*STAR SERC

ABB PTE LTD

ABBOTT LABORATORIES (SINGAPORE) PTE LTD

AGENCY FOR SCIENCE, TECHNOLOGY & RESEARCH

AMAZON WEB SERVICES

AMGEN SINGAPORE MANUFACTURING PTE LTD

ASIA PACIFIC CENTRE OF MANAGEMENT EDUCATION

ATLAS COPCO

AUTODESK ASIA PTE LTD

BLUE ANT MEDIA

CHEVRON SINGAPORE PTE LTD

DEFENCE SCIENCE & TECHNOLOGY AGENCY

DSO NATIONAL LABORATORIES

EARTH OBSERVATORY OF SINGAPORE

EDUCATION DEVELOPMENT CENTER, INC

ENERGY MARKET AUTHORITY OF SINGAPORE

FACEBOOK SINGAPORE PTE LTD

HEALTH PROMOTION BOARD

HOME TEAM SCIENCE & TECHNOLOGY AGENCY

NANYANG TECHNOLOGICAL UNIVERSITY

NATIONAL RESEARCH FOUNDATION

NATIONAL SUPERCOMPUTING CENTRE

NUS, CENTRE FOR QUANTUM TECHNOLOGIES

SEAGATE SINGAPORE INTERNATIONAL HEADQUARTERS PTE. LTD.

SHELL EASTERN PETROLEUM PTE LTD

SINGAPORE NUCLEAR SAFETY RESEARCH AND SAFETY INITIATIVE, NUS

NUS QUANTUM ENGINEERING PROGRAMME

SINGAPORE POWER LIMITED

SINGAPORE TECHNOLOGIES ENDOWMENT PROGRAMME

SINGAPORE TELECOMMUNICATIONS LTD

SKILLSFUTURE SINGAPORE

SONY ELECTRONICS ASIA PACIFIC PTE LTD

TEMASEK FOUNDATION INTERNATIONAL

TEMASEK FOUNDATION ECOSPERITY CLG LIMITED

TEMASEK FOUNDATION NURTURES CLG LIMITED

TIMES PUBLISHING LIMITED



SPONSORSHIP FUND

Science Centre Board Sponsorship Fund Programmes & Activities

The principal activities of the Science Centre Board Sponsorship Fund are to:

- Promote interest, learning and creativity in science and technology through imaginative and enjoyable experience and contribute to the nation's development of its human resource;
- Conduct supplementary science classes, lectures, demonstrations and workshops to complement the school syllabi;
- Produce and publish scientific literature in the form of magazines and guidebooks;
- Organise activities and programmes for general and targeted audiences so as to bring science closer to the people; and
- Screen planetarium programmes and OMNIMAX films to students and general public, using state-of-the-art audio-visual projection systems.

Board Members

Chairman:

Ms Tan Yen Yen

Vice Chairman:

Mr Soh Gim Teik

Members:

Mr Bruce Poh

Mr Chandran Nair

Mr Chang Chee Pey

Mr Cheong Chee Hoo

Ms Cherie Nursalim

Mr Chew Kwee San

Mr Hian Goh

Mr Howie Lau

Ms Hwang Yu-Ning

Ms Leonie Lee

Prof Ng Huck Hui

Ms Shirley Wong

Mr Sin Kim Ho

Ms Yasmin Zahid

Key Executive Management

Chief Executive:

Assoc Prof Lim Tit Meng

**Senior Director,
Corporate Resources:**

Mr Addison Goh

**Senior Director
Education Programmes:**

Mrs Anne Dhanaraj

**Senior Director,
Projects & Exhibitions:**

Mr Daniel Tan

Quality Service Manager:

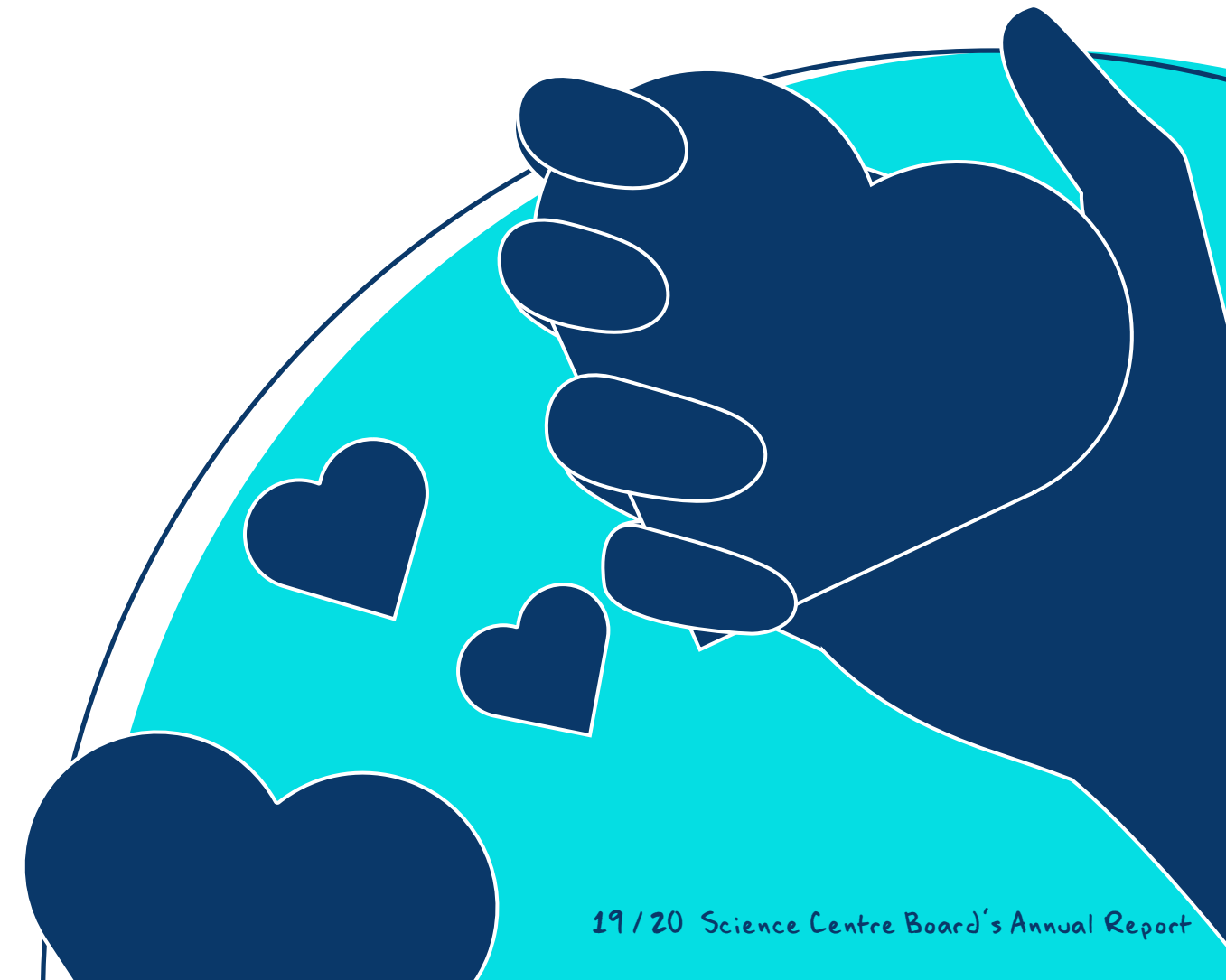
Mrs Veronica Heng

CONFLICT OF INTEREST POLICY

The Science Centre Board has implemented a conflict of interest policy that covers both the Board members and the staff. The document procedures require the Board members and staff to make a declaration of potential or actual conflicts of interest at the start of their term of office or at the start of their employment of service respectively. Thereafter, Board members are required to provide updates whenever there are changes to the original declaration, while staff are required to make such declarations annually.

Reserves Policy

Reserves policy is not applicable as funds received are used for their intended purposes.



DISTINGUISHED GUESTS

2019

26 MAY

Visit by Carina Halvord, CEO of Universeum (Scandinavia's largest Science Centre). Ms Carina and her colleague were interested to share on the following areas; **experiences of digitalization, visualization and artificial intelligence in general and specifically regarding the visitor satisfaction/experience**

- digitalization, visualization and artificial intelligence are used in school programs as tools for accelerated learning
- collaboration with partners/sponsors

This visit was hosted by Mr Daniel Tan and Mr Eugene Wambeck

21 JUN

Visit by the First Lady of Guyana to learn more about **Science Centre's STEM Inc's Chips@School competition.**

25 OCT

Visit by Philippine Senator Sherwin Gathalian, visiting Singapore as the 69th Lee Kuan Yew Exchange Fellow and interested to learn more about education in Singapore, particularly about **STEM education for JC-level students.** Organised by MOE (International Cooperation Branch) and was hosted by Science Centre (Assoc Prof Lim Tit Meng, Mr Daniel Tan, Mrs Anne Dhanaraj, Mrs Ong Me Lan, Mr Chester Ong & Dr Florence Francis).

BOARD SUB-COMMITTEES



EXECUTIVE COMMITTEE

CHAIRMAN: Ms Tan Yen Yen

MEMBERS: Mr Soh Gim Teik
Ms Shirley Wong
Mr Sin Kim Ho
Mr Hian Goh
Mr Chandran Nair



PROJECTS FINANCING & INVESTMENT COMMITTEE

CHAIRMAN: Mr Hian Goh

MEMBERS: Mr Chew Kwee San
Ms Cherie Nursalim
Mr Howie Lau
Mr Chang Chee Pey
Ms Yasmin Zahid



AUDIT & RISK MANAGEMENT COMMITTEE

CHAIRMAN: Mr Soh Gim Teik

MEMBERS: Mr Bruce Poh
Mr Cheong Chee Hoo
Mr Sin Kim Ho
Ms Leonie Lee
Ms Hwang Yu-Ning



ADVANCEMENT COMMITTEE

CHAIRMAN: Ms Shirley Wong

MEMBERS: Mr Chew Kwee San
Mr Chandran Nair
Ms Cherie Nursalim
Mr Howie Lau
Prof Ng Huck Hui

PROJECT COMMITTEES

A*STAR Talent Search 2019 Awards Committee

Singapore Science & Engineering Fair 2019 Working Committee

Singapore Science Festival 2019 Steering and Working Committees

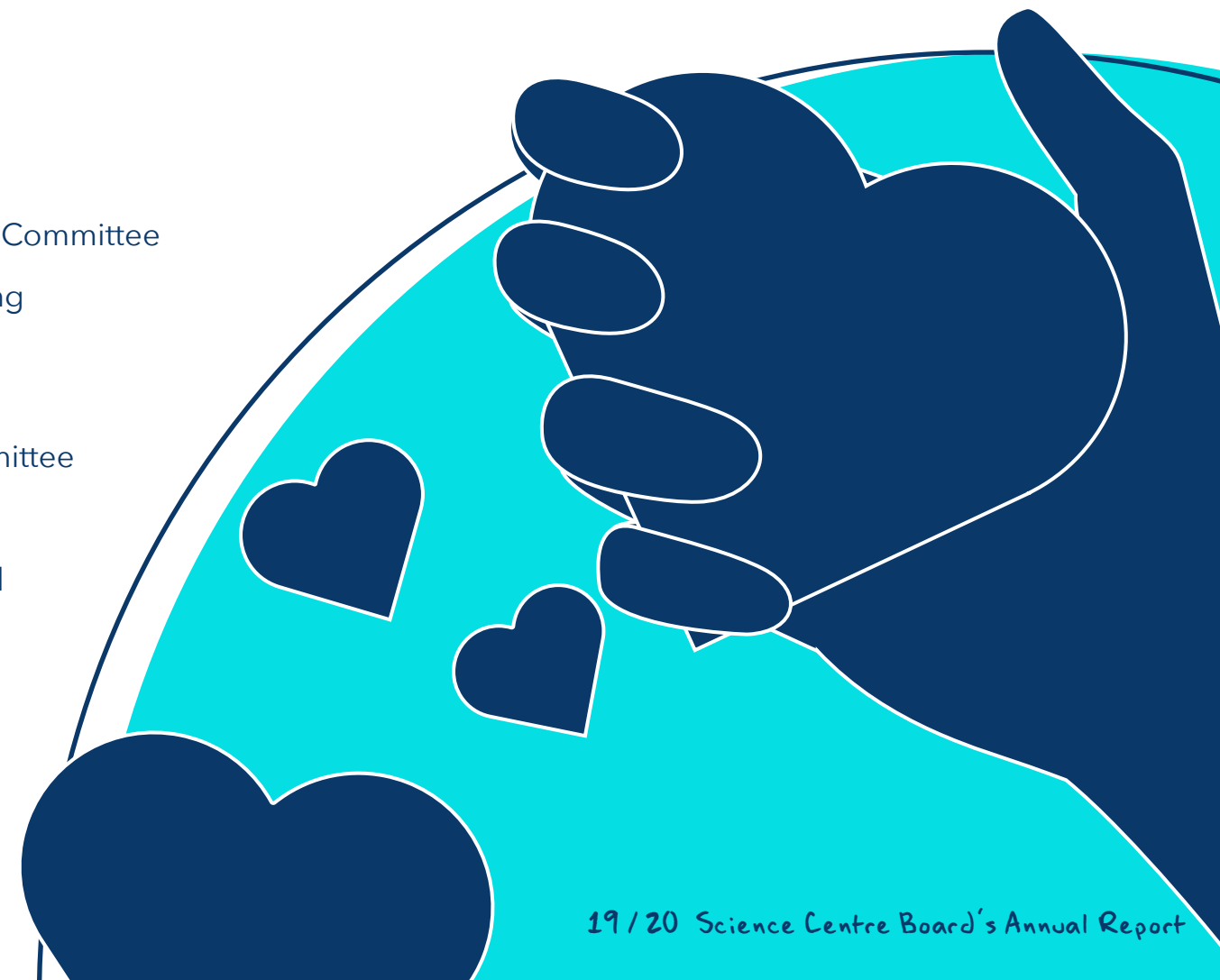
Science Buskers Festival 2019 Advisory Committee

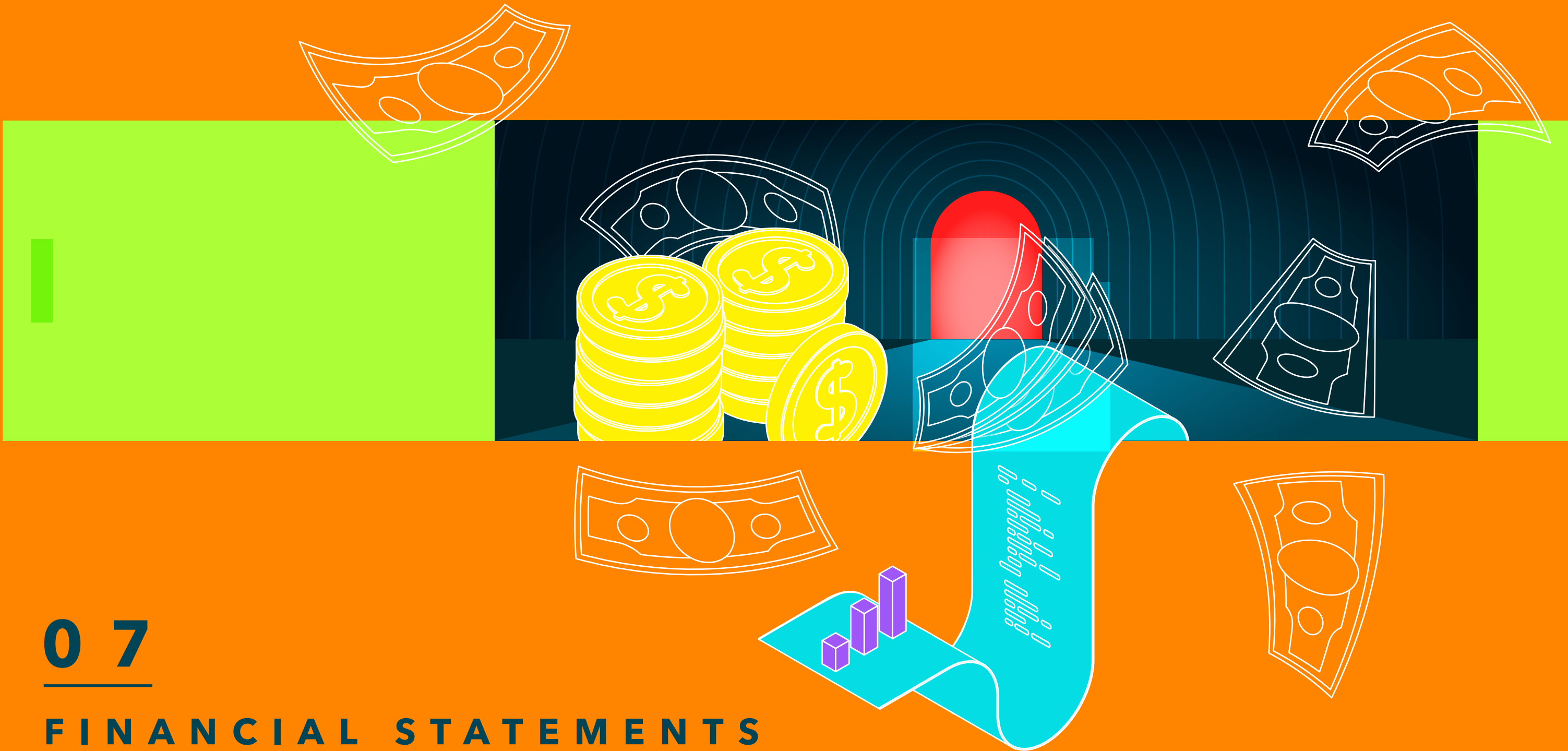
Sony Creative Science Award 2019 Organising Committee

National Science Challenge 2019 Review Committee

Engineering Innovation Challenge 2019 Steering and Working Committees

SAYES 2019 EXCO





07

FINANCIAL STATEMENTS

**SCIENCE CENTRE BOARD
AND ITS SUBSIDIARIES**
(Established under the Science Centre Act, Cap. 286)

REPORT AND FINANCIAL STATEMENTS

YEAR ENDED 31 MARCH 2020

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

REPORT AND FINANCIAL STATEMENTS

C O N T E N T S

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Statements of financial position	8
Statements of changes in equity	9
Consolidated statement of cash flows	10
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SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES


STATEMENT BY SCIENCE CENTRE BOARD

In our opinion,

- (a) the accompanying financial statements of Science Centre Board (the "Board") and its subsidiaries (the "Group"), as set out on pages 6 to 42 are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018, Act 5 of 2018, ("PSG Act"), the Science Centre Act (Cap. 286) ("SCB Act") and Statutory Board Financial Reporting Standards ("SB-FRS") so as to present fairly, in all material respects, the financial position of the Group and the Board as at 31 March 2020, and the financial performance, changes in equity of the Group and the Board, and cash flows of the Group for the financial year ended on that date;
- (b) the receipt, expenditure, investments of moneys and the acquisition and disposal of assets by the Board during the financial year have been in accordance with the provisions of the PSG Act, the SCB Act and the requirements of any other written law applicable to moneys of or managed by the Board; and
- (c) proper accounting and other records have been kept, including records of all assets of the Board whether purchased, donated or otherwise.

On behalf of Science Centre Board and its subsidiaries



Ms Tan Yen Yen
Chairman

Associate Professor Lim Tit Meng
Chief Executive

13 July 2020

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF SCIENCE CENTRE BOARD

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Science Centre Board (the "Board") and its subsidiaries (the "Group") which comprise the consolidated statement of financial position of the Group and the statement of financial position of the Board as at 31 March 2020, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows of the Group and the statement of comprehensive income and statement of changes in equity of the Board for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 6 to 42.

In our opinion, the accompanying consolidated financial statements of the Group and the statement of financial position, statement of comprehensive income and statement of changes in equity of the Board are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018, Act 5 of 2018 ("PSG Act"), the Science Centre Act (Cap. 286) ("SCB Act") and Statutory Board Financial Reporting Standards ("SB-FRS") so as to present fairly, in all material respects, the financial position of the Group and the Board as at 31 March 2020 and the financial performance and changes in equity of the Group and the Board and cash flows of the Group for the year ended on that date.

Basis for opinion

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

Other Matters

The financial statements of the Group and the Board for the financial year ended 31 March 2019 were audited by another firm of auditors who expressed an unmodified opinion on those financial statements in their report dated 20 June 2019.

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF
SCIENCE CENTRE BOARD**

Information Other than Financial Statements and Auditor's Report Thereon

Management is responsible for the other information. The other information comprises the Statement by Science Centre Board set out on page 1, but does not include the financial statements and our auditor's report thereon.

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

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the provisions of the PSG Act, SCB Act and SB-FRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

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

Auditor's Responsibilities for the Audit of the Financial Statements

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

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

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

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF
SCIENCE CENTRE BOARD**

- (b) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- (c) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- (d) Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- (e) Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- (f) Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

Report on Other Legal and Regulatory Requirements

Opinion

In our opinion:

- (a) the receipts, expenditure, investment of moneys and the acquisition and disposal of assets by the Board during the year are, in all material respects, in accordance with the provisions of the PSG Act, SCB Act and the requirements of any other written law applicable to moneys of or managed by the Board; and
- (b) proper accounting and other records have been kept, including records of all assets of the Board whether purchased, donated or otherwise.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF

SCIENCE CENTRE BOARD

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

Auditor's Responsibility for the Compliance Audit

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

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



Public Accountants and
Chartered Accountants
Singapore

13 July 2020

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME Year ended 31 March 2020

GROUP	Note	General Funds		Restricted Funds		Total	
		2020	2019	2020	2019	2020	2019
		\$	\$	\$	\$	\$	\$
Income							
- Admission fees		4,692,485	4,969,071	-	-	4,692,485	4,969,071
- Proceeds from special projects		669,133	474,240	-	-	669,133	474,240
- Fees from courses and programmes		1,502,070	1,503,915	-	-	1,502,070	1,503,915
- Collections from exhibits and events		370,490	227,873	-	-	370,490	227,873
- Sales of merchandise and publications		1,109,512	838,327	-	-	1,109,512	838,327
- Service income		776,485	145,087	-	-	776,485	145,087
- Rental income		198,345	231,898	-	-	198,345	231,898
- Photo-taking income		162,813	185,233	-	-	162,813	185,233
		<u>9,481,333</u>	<u>8,575,644</u>	-	-	<u>9,481,333</u>	<u>8,575,644</u>
Other income	4	2,308,399	2,151,906	1,206,600	857,023	3,514,999	3,008,929
Other gains/(losses) - net	5	1	(12,418)	145,933	52,596	145,934	40,178
Expenses							
- Employee compensation	6	(20,410,397)	(21,029,818)	(127,673)	(46,001)	(20,538,070)	(21,075,819)
- Materials for exhibits and events		(8,109,168)	(7,396,561)	(624,194)	(526,078)	(8,733,362)	(7,922,639)
- Repairs and maintenance		(7,090,486)	(6,605,595)	(4,729)	(29,883)	(7,095,215)	(6,635,478)
- Publicity and promotions		(2,700,255)	(3,020,866)	(89,956)	(37,119)	(2,790,211)	(3,057,985)
- Depreciation	15	(3,388,824)	(3,625,747)	(11,189)	(9,726)	(3,400,013)	(3,635,473)
- Other expenditure	7	(4,252,438)	(3,590,454)	(346,888)	(160,459)	(4,599,326)	(3,750,913)
		<u>(45,951,568)</u>	<u>(45,269,041)</u>	<u>(1,204,629)</u>	<u>(809,266)</u>	<u>(47,156,197)</u>	<u>(46,078,307)</u>
(Deficit)/surplus before grants		(34,161,835)	(34,553,909)	147,904	100,353	(34,013,931)	(34,453,556)
Operating grants from government	16	33,219,233	31,074,923	-	-	33,219,233	31,074,923
Grants from other government agencies	10	2,376,364	1,998,537	-	-	2,376,364	1,998,537
Deferred capital grants amortised	20	1,217,267	1,216,924	11,189	9,726	1,228,456	1,226,650
		<u>36,812,864</u>	<u>34,290,384</u>	<u>11,189</u>	<u>9,726</u>	<u>36,824,053</u>	<u>34,300,110</u>
Surplus/(deficit) before tax		2,651,029	(263,525)	159,093	110,079	2,810,122	(153,446)
Income tax credit	8	5,623	13,738	-	-	5,623	13,738
Net surplus/(deficit) and total comprehensive income/(loss)		<u>2,656,652</u>	<u>(249,787)</u>	<u>159,093</u>	<u>110,079</u>	<u>2,815,745</u>	<u>(139,708)</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME (cont'd)
Year ended 31 March 2020

BOARD	Note	General Funds		Restricted Funds		Total	
		2020	2019	2020	2019	2020	2019
		\$	\$	\$	\$	\$	\$
Income							
- Admission fees		3,926,192	4,052,446	-	-	3,926,192	4,052,446
- Proceeds from special projects		673,351	476,580	-	-	673,351	476,580
- Fees from courses and programmes		1,126,283	1,047,284	-	-	1,126,283	1,047,284
- Collections from exhibits and events		370,490	227,873	-	-	370,490	227,873
- Sales of merchandise and publications		1,061,790	776,374	-	-	1,061,790	776,374
- Service income		172,236	39,797	-	-	172,236	39,797
		<u>7,330,342</u>	<u>6,620,354</u>	<u>-</u>	<u>-</u>	<u>7,330,342</u>	<u>6,620,354</u>
Other income	4	2,370,049	2,118,875	1,206,600	857,023	3,576,649	2,975,898
Other (losses)/gains - net	5	(999,999)	(9,098)	145,933	52,596	(854,066)	43,498
Expenses							
- Employee compensation	6	(19,599,494)	(20,273,478)	(127,673)	(46,001)	(19,727,167)	(20,319,479)
- Materials for exhibits and events		(8,021,179)	(7,279,659)	(624,194)	(526,078)	(8,645,373)	(7,805,737)
- Repairs and maintenance		(6,398,665)	(6,029,773)	(4,729)	(29,883)	(6,403,394)	(6,059,656)
- Publicity and promotions		(2,490,595)	(2,875,047)	(89,956)	(37,119)	(2,580,551)	(2,912,166)
- Depreciation	15	(3,043,677)	(3,252,329)	(11,189)	(9,726)	(3,054,866)	(3,262,055)
- Other expenditure	7	(3,723,600)	(3,286,840)	(346,888)	(160,459)	(4,070,488)	(3,447,299)
		<u>(43,277,210)</u>	<u>(42,997,126)</u>	<u>(1,204,629)</u>	<u>(809,266)</u>	<u>(44,481,839)</u>	<u>(43,806,392)</u>
(Deficit)/surplus before grants		(34,576,818)	(34,266,995)	147,904	100,353	(34,428,914)	(34,166,642)
Operating grants from government	16	33,219,233	31,074,923	-	-	33,219,233	31,074,923
Grants from other government agencies	10	2,376,364	1,985,433	-	-	2,376,364	1,985,433
Deferred capital grants amortised	20	1,189,310	1,188,967	11,189	9,726	1,200,499	1,198,693
		<u>36,784,907</u>	<u>34,249,323</u>	<u>11,189</u>	<u>9,726</u>	<u>36,796,096</u>	<u>34,259,049</u>
Net surplus/(deficit) and total comprehensive income/(loss)		2,208,089	(17,672)	159,093	110,079	2,367,182	92,407

See accompanying notes to financial statements.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION
31 March 2020

ASSETS	Note	Group		Board	
		2020	2019	2020	2019
		\$	\$	\$	\$
ASSETS					
Current assets					
Cash and cash equivalents	9	24,079,561	30,248,848	23,726,177	29,618,122
Trade and other receivables	10	1,570,848	1,937,438	1,624,396	1,867,819
Financial asset at fair value through profit or loss	11	4,516,334	4,370,401	4,516,334	4,370,401
Other investment	12	1,018,000	-	1,018,000	-
Inventories	13	351,977	343,591	76,502	87,984
Total current assets		<u>31,536,720</u>	<u>36,900,278</u>	<u>30,961,409</u>	<u>35,944,326</u>
Non-current assets					
Other investment	12	-	1,018,000	-	1,018,000
Investments in subsidiaries	14	-	-	760,002	1,760,002
Property, plant and equipment	15	27,266,718	21,705,900	26,761,413	20,954,841
Total non-current assets		<u>27,266,718</u>	<u>22,723,900</u>	<u>27,521,415</u>	<u>23,732,843</u>
Total assets		58,803,438	59,624,178	58,482,824	59,677,169
LIABILITIES AND EQUITY					
Current liabilities					
Government grants received in advance	16	7,385,183	9,974,719	7,385,183	9,974,719
Other government grants received in advance	10	1,240,013	770,343	1,240,013	770,343
Sponsorship received in advance	17	2,592,241	2,105,200	2,592,241	2,105,200
Trade and other payables	18	4,834,851	5,853,774	4,541,061	5,512,983
Total current liabilities		<u>16,052,288</u>	<u>18,704,036</u>	<u>15,758,498</u>	<u>18,363,245</u>
Non-current liabilities					
Deferred income tax liabilities	19	37,150	37,150	-	-
Deferred capital grants	20	14,162,146	14,932,103	14,128,550	14,870,550
Total non-current liabilities		<u>14,199,296</u>	<u>14,969,253</u>	<u>14,128,550</u>	<u>14,870,550</u>
Capital, funds and accumulated surplus					
Capital account	21	2,979,983	2,979,983	2,979,983	2,979,983
Share capital	22	9,989,432	9,989,432	9,989,432	9,989,432
Omni-theatre development fund	24	-	122,780	-	122,780
Accumulated surplus					
- General funds		7,653,134	5,088,482	7,866,072	5,749,983
- Restricted funds	23	7,929,305	7,770,212	7,760,289	7,601,196
Total equity		<u>28,551,854</u>	<u>25,950,889</u>	<u>28,595,776</u>	<u>26,443,374</u>
Total liabilities and equity		58,803,438	59,624,178	58,482,824	59,677,169

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF CHANGES IN EQUITY
Year ended 31 March 2020

	Capital account	Share capital	Omni- theatre development fund	Accumulated surplus		
				General funds	Restricted funds	Total
	\$	\$	\$	\$	\$	\$
The Group						
Balance as at 1 April 2018	2,979,983	7,959,330	122,780	6,600,269	7,660,133	25,322,495
Issue of new shares (Note 22)	-	2,030,102	-	-	-	2,030,102
Total comprehensive (loss)/income	-	-	-	(249,787)	110,079	(139,708)
Dividends paid	-	-	-	(1,262,000)	-	(1,262,000)
Balance as at 31 March 2019	2,979,983	9,989,432	122,780	5,088,482	7,770,212	25,950,889
Total comprehensive income	-	-	-	2,656,652	159,093	2,815,745
Dividends paid	-	-	-	(92,000)	-	(92,000)
Deferred capital grants (Note 20)	-	-	(122,780)	-	-	(122,780)
Balance as at 31 March 2020	2,979,983	9,989,432	-	7,653,134	7,929,305	28,551,854
The Board						
Balance as at 1 April 2018	2,979,983	7,959,330	122,780	7,029,655	7,491,117	25,582,865
Issue of new shares (Note 22)	-	2,030,102	-	-	-	2,030,102
Total comprehensive (loss)/income	-	-	-	(17,672)	110,079	92,407
Dividends paid	-	-	-	(1,262,000)	-	(1,262,000)
Balance as at 31 March 2019	2,979,983	9,989,432	122,780	5,749,983	7,601,196	26,443,374
Total comprehensive income	-	-	-	2,208,089	159,093	2,367,182
Dividends paid	-	-	-	(92,000)	-	(92,000)
Deferred capital grants (Note 20)	-	-	(122,780)	-	-	(122,780)
Balance as at 31 March 2020	2,979,983	9,989,432	-	7,866,072	7,760,289	28,595,776

See accompanying notes to financial statements.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS
Year ended 31 March 2020

	Note	2020 \$	2019 \$
Operating activities			
Deficit before grants		(34,013,931)	(34,453,556)
Adjustments for:			
Depreciation		3,400,013	3,635,473
Loss on disposal of property, plant and equipment		3,291	3,309
Write-down of inventories		16,427	-
Sponsorships and donations		(1,129,014)	(795,874)
Changes in fair value of financial asset at fair value through profit or loss		(145,933)	(52,596)
Interest income		(486,120)	(346,139)
Operating loss before working capital changes		(32,355,167)	(32,009,383)
Change in working capital:			
Inventories		(24,813)	53,582
Trade and other receivables		(6,778)	2,141,225
Trade and other payables		(1,018,923)	887,310
Cash used in operations		(33,405,681)	(28,924,631)
Income tax refunded		5,623	2,635
Net cash used in operating activities		(33,400,058)	(28,924,631)
Investing activities			
Purchases of property, plant and equipment		(8,964,122)	(2,715,935)
Purchase of short-term bank deposits		-	(1,000,000)
Interest received		486,120	346,139
Net cash used in investing activities		(8,478,002)	(3,369,796)
Financing activities			
Government grants received		30,666,597	29,845,416
Sponsorship received		1,716,559	2,106,125
Other government grants received		3,432,428	279,965
Excess other government grants refunded		(14,811)	(81,271)
Issuance of share capital		-	2,030,102
Dividends paid		(92,000)	(1,262,000)
Net cash from financing activities		35,708,773	32,918,337
Net (decrease) increase in cash and cash equivalents		(6,169,287)	623,910
Cash and cash equivalents at beginning of financial year		28,248,848	27,624,938
Cash and cash equivalents at end of financial year	9	22,079,561	28,248,848

See accompanying notes to financial statements

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

1. GENERAL

Science Centre Board (the "Board") is a statutory board established in Singapore under the Science Centre Act (Cap. 286). The supervisory ministry is the Ministry of Education ("Government" or "MOE"). The registered office and principal place of business of the Board is 15 Science Centre Road, Singapore 609081.

The principal activities of the Board are to:

- (a) Promote interest, learning and creativity in science and technology through imaginative and enjoyable experience and contribute to the nation's development of its human resource;
- (b) Conduct supplementary science classes, lectures, demonstrations and workshops to complement the school science syllabi;
- (c) Produce and publish scientific literature in the form of magazines and guidebooks;
- (d) Organise activities and programmes for targeted and general audiences so as to bring science closer to the people; and
- (e) Screen planetarium programmes and OMNIMAX films to students and the general public, using state-of-the-art audio-visual projection systems.

The principal activities of the subsidiaries are set out in Note 15.

These financial statements are presented in Singapore dollars, which is the Group's functional currency.

These financial statements of the Board for the year ended 31 March 2020 were authorised for issue by the Board on 13 July 2020.

2. SIGNIFICANT ACCOUNTING POLICIES

2.1 Basis of preparation

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

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

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

Fair value for measurement and/or disclosure purposes in the consolidated financial statements is determined on such a basis, except for leasing transactions that are within the scope of SB-FRS 116 *Leases*, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in SB-FRS 2 *Inventories* or value in use in SB-FRS 36 *Impairment of Assets*.

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

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

2.2 Adoption of new and revised standards

In the current financial year, the Group has adopted all the new and revised SB-FRSs, INT SB-FRS and SB-FRS Guidance Notes that are effective from that date and relevant to the its operations. The adoption of these Standards do not result in changes to the Group's accounting policies and has no material effect on the amounts reported for the current or prior years except as disclosed below.

SB-FRS 116 *Leases*

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

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

In applying SB-FRS 116 for the first time, the Group has used the following practical expedients permitted by the Standard:

- For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as personal computers), the Board has opted to recognise a lease expense on a straight-line basis as permitted by SB-FRS 116. This expense is presented within other expenditure in the statement of comprehensive income.
- The Group accounted for operating leases with a remaining lease term of less than 12 months as at 1 April 2019 as short term leases.

There is no material impact on the Group, other than expanded disclosures, upon adoption of the standard on 1 April 2019 as SB-FRS 116 does not change substantially how a lessor accounts for leases. Under SB-FRS 116, a lessor continues to classify leases as either finance leases or operating leases and account for those two types of leases differently.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

2.3 Standards issued but not yet effective

Management has considered and is the view that the adoption of relevant new/revised SB-FRS/FRS that are issued as at the date of authorisation of these financial statements but effective only in future periods will not have a significant impact on the financial statement of the Board and the Group in the period of initial adoption.

2.4 Basis of consolidation

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

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

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

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

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

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

Income or expenditure and each component of other comprehensive income are attributed to the owners of the Board. Total comprehensive income of subsidiaries is attributed to the owners of the Board.

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

In the Board's financial statements, investments in subsidiaries are carried at cost less accumulated impairment losses in the Board's financial statements. On disposal of investments in subsidiaries, the difference between disposal proceeds and the carrying amounts of the investments are recognised in profit or loss.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

2.5 Financial instruments

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

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets and financial liabilities, as appropriate, on initial recognition.

Classification of financial assets

Debt instruments that meet the following conditions are subsequently measured at amortised cost:

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

By default, all other financial assets are subsequently measured at fair value through profit or loss (FVTPL).

Amortised cost and effective interest method

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

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

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

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

Financial assets at FVTPL

Financial assets that do not meet the criteria for being measured at amortised cost are measured at FVTPL.

Financial assets at FVTPL are measured at fair value as at each reporting date, with any fair value gains or losses recognised in profit or loss to the extent they are not part of a designated hedging relationship. The net gain or loss recognised in profit or loss is included in the "other (losses)/gains - net" line item (Note 5). Fair value is determined in the manner described in Note 11.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

Impairment of financial assets

The Group recognises an allowance for expected credit losses ("ECLs") for all debt instruments not held at FVTPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is recognised for credit losses expected over the remaining life of the exposure, irrespective of timing of the default (a lifetime ECL).

For debtors, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment which could affect debtors' ability to pay.

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

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition, any difference between the carrying amount and the sum of proceeds received is recognised in the profit or loss.

Financial liabilities and equity instruments

Classification as debt or equity

Financial liabilities and equity instruments issued by the Group are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Equity instruments are recorded in the capital account at the proceeds received, net of significant direct issue costs.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

Trade and other payables

Trade and other payables are initially measured at fair value and subsequently measured at amortised cost, using the effective interest method, except for short-term balances when the effect of discounting is immaterial.

Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or expired.

2.6 Leases

The Group as lessee

The Group assesses whether a contract is or contains a lease, at inception of the contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Right-of-use assets which constitute leasehold land are depreciated over the lease term of 99 years if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term.

The right-of-use assets are presented within Note 15.

The Group applies SB-FRS 36 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the Note 2.9.

The Group as lessor

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

2.7 Inventories

Inventories are stated at the lower of cost (weighted average method) and net realisable value. Cost comprises cost of purchase and other costs incurred in bringing the inventories to their present location and condition. Net realisable value represents the estimated selling price less all estimated costs to be incurred in marketing, selling and distribution.

2.8 Property, plant and equipment

Property, plant and equipment are carried at cost, less accumulated depreciation and any accumulated impairment losses.

Depreciation is charged so as to write off the cost of assets over their estimated useful lives, using the straight-line method, on the following bases:

Buildings	20 to 50 years
Leasehold improvements	5 years
Furniture and office equipment	3 to 5 years
Motor vehicles	10 years
OMNIMAX films	2 years

No depreciation is provided on assets under construction.

The following items are written off in the year of construction or purchase:

Exhibits
Films (other than OMNIMAX)
Cost of publications and souvenirs
Property, plant and equipment costing below \$2,000 each

The estimated useful lives, residual values and depreciation method are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis.

The gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amounts of the asset and is recognised in profit or loss.

Fully depreciated assets still in use are retained in the financial statements.

2.9 Impairment of non-financial assets

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

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

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

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

2.10 Provisions

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

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

2.11 Income recognition

Income is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties.

Income is recognised when the Group satisfies a performance obligation by transferring a promised good or service to the customer, which is when the customer obtains control of the good or service. A performance obligation may be satisfied at a point in time or over time. The amount of income recognised is the amount allocated to the satisfied performance obligation.

(a) Admission fees

Admission fees are recognised upon the sale of admission tickets to visitors and members. Where such tickets are sold via agents, revenue is recognised at the point of sale unless the difference from recognising revenue over the validity period of the tickets is expected to be material, in which case, an adjustment is made to recognise revenue over the validity period of the tickets.

(b) Proceeds from special projects

Proceeds from special projects are income from the organisation of temporary exhibitions. Income from such projects is recognised upon the sale of tickets to visitors.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

- (c) Fees from courses and programmes
Fees from courses and programmes are recognised over the duration of the courses and programmes.
- (d) Collections from exhibits and events
Collections from exhibits and events comprise mainly of collections from rental of travelling exhibitions and events and are recognised on a straight-line basis over the rental period.
- (e) Sales of merchandise and publications
Sales of merchandise and publications are recognised at the point of sales of the merchandise and publications.
- (f) Service income
Service income from provision of services for set up of travelling exhibitions and organisation of corporate events are recognised when services have been rendered.
- (g) Rental income
Rental income from operating leases (net of any incentives given to the lessees) is recognised on a straight-line basis over the lease term.
- (h) Photo-taking income
Income from photo-taking is recognised upon the sale of photos to visitors and members.

Other income

- (i) Donations and sponsorships
Donations and sponsorships are received or receivable to meet approved expenditure for specific projects or purposes. Donations which are voluntary and generally non-reciprocal transfers shall be measured at the amount of increase in net assets recognised by the Group and recognised in profit or loss as income in the financial year upon receipt.
A sponsorship arises when the Group receives assets or services and is expected to provide consideration of approximately equal value to the sponsor. Sponsorships are recognised in profit or loss as income in the financial year upon receipt of the sponsorship or over the duration of the sponsorship period when (or as) the performance obligation is fulfilled. The amount that is not utilised for the specific projects or purposes is included in the sponsorship received in advance account.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

- (j) Interest income
Interest income is recognised over time, on a time proportion basis using the effective interest method.
- (k) Management fee
Management fee for the provision of services to government agencies is recognised over the period the services are rendered.

2.12 Government grants

Grants from the Ministry of Education are recognised as a receivable at their fair value when there is reasonable assurance that the grants will be received and the Group will comply with all the conditions associated with the grant.

Government grants receivable are recognised as income over the periods necessary to match them with the related expenses which they are intended to compensate, on a systematic basis. Government grants that are receivable as reimbursement for expenses already incurred are recognised in profit or loss in the period in which they become receivable.

2.13 Deferred capital grants

Government grants and contributions from other government organisations utilised for the purchase or construction of depreciable assets are recorded in the deferred capital grants account (shown as liability on the balance sheet).

Government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred capital grants in the balance sheet and recognised in the statement of comprehensive income over the periods necessary to match the depreciation of the assets financed with the related grant

On the disposal of property, plant and equipment, the balance of the related grants is recognised in profit or loss to match the net book value of property, plant and equipment disposed.

2.14 Employee compensation

- (a) Defined contribution plans
The Group pays fixed contributions into separate entities such as the Central Provident Fund on a mandatory basis. The Group has no further payment obligations once the contributions have been paid. The Group's contributions are recognised in profit or loss when they are due.
- (b) Employee leave entitlement
Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the end of the reporting period.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

2.15 Sponsorship Fund

The Sponsorship Fund is set up to account for contributions received from private organisations and individuals for specified purposes. The Sponsorship Fund has been conferred the Institute of Public Character status under Section 37(2)(c) of the Charities Act since 1 April 2008. The income from the Sponsorship Fund will be used to further the objectives of the Sponsorship Fund. The principal sums of the Sponsorship Fund are presented separately in the balance sheet. The Sponsorship Fund is classified as a restricted fund in accordance with SB-FRS Guidance Note 1.

2.16 Endowment Fund

The Endowment Fund is set up to account for contributions received from private organisations, individuals and other government agencies for specified purposes. The Endowment Fund was conferred the Institute of Public Character status under Section 37(2)(c) of the Charities Act from 1 April 2008 to 31 March 2013. The income from the Endowment Fund will be used to further the objectives of the Science Centre Board and specific capacity training for staffs. The principal sums of the Endowment Fund are presented separately in the balance sheet. The Endowment Fund is classified as a restricted fund in accordance with SB-FRS Guidance Note 1.

2.17 Omni-Theatre Development Fund

The Omni-Theatre Development Fund was set up to account for contributions received from private organisations and individuals. The principal sums of the Omni-Theatre Development Fund, consisting of donations and sponsorships received, are kept intact. The Omni-Theatre Development Fund is classified under general funds in accordance with SB-FRS Guidance Note 1.

2.18 Income taxes

Income tax for the financial year comprises current and deferred tax.

Current tax is the expected tax payable on the taxable income for the year, using tax rates (and tax laws) enacted or substantively enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised, using the balance sheet method, providing for all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the tax rates (and tax laws) that have been enacted or substantively enacted at the end of the reporting period.

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

The carrying amount of deferred tax assets is reviewed as at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2020

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

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

Current and deferred tax are recognised as an expense or income in profit or loss.

2.19 Foreign currency transactions

In preparing the financial statements, transactions in currencies other than the Group's functional currency are recorded at the rate of exchange prevailing on the date of the transaction. As at each reporting date, monetary items denominated in foreign currencies are retranslated at the rates prevailing at the end of the reporting period.

Exchange differences arising on the settlement of monetary items, and on retranslation of monetary items are included in profit or loss for the period.

2.20 Cash and cash equivalents

Cash and cash equivalents in the statement of cash flows comprise cash at bank and on hand, deposits with financial institutions and cash held by Accountant-General's Department, which are subject to an insignificant risk of changes in value.

The Board is required to participate in the Centralised Liquidity Management Framework ("CLM") in accordance with the Accountant-General's Circular No. 4/2009 dated 2 November 2009. All selected bank accounts of the Board maintained with selected banks are linked up with the Accountant-General's Department's ("AGD") bank accounts for available excess cash to be automatically aggregated for central management on a daily basis. The deposits held with AGD are short-term highly liquid investments that are readily convertible to known amounts of cash and are classified in cash and cash equivalents as "Deposits held with AGD".

Cash at bank and on hand represents funds that are derived from non-government sources/entities, which are not required to be included in the CLM.

2.21 Share capital

Ordinary shares to the Minister for Finance are classified as equity.

2.22 Capital account

The capital account represents the grant given by the MOE to contribute towards the repayment of the outstanding accumulated interest on a Government loan taken.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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2.23 Dividends

Dividends are recognised when the dividends are approved for payment to the Ministry of finance under the Capital Management Framework - Finance Circular Minute No. M26/2008.

3. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

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

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

Management is of the opinion that there are no critical judgements and key sources of estimation uncertainty at the end of the reporting period that have a significant effect on the amounts recognised in the financial statements.

4. OTHER INCOME

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Donations and sponsorship	1,129,014	795,874	1,129,014	795,874
Rental income	1,014,091	910,548	1,101,865	987,603
Interest income	486,120	346,139	486,120	346,139
Management fee	718,312	670,200	819,322	764,560
Others	167,462	286,168	40,328	81,722
	<u>3,514,999</u>	<u>3,008,929</u>	<u>3,576,649</u>	<u>2,975,898</u>

5. OTHER GAINS/(LOSSES) - NET

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Fair value changes on financial asset at FVTPL	145,933	52,596	145,933	52,596
Impairment loss on investment in subsidiary	-	-	(1,000,000)	-
Net currency translation gains/(losses)	1	(12,418)	1	(9,098)
	<u>145,934</u>	<u>40,178</u>	<u>(854,066)</u>	<u>43,498</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

6. EMPLOYEE COMPENSATION

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Wages and salaries	17,403,555	17,934,771	16,678,568	17,260,955
Employer's contribution to Central Provident Fund	2,737,256	2,775,192	2,654,182	2,692,841
Other staff benefits	397,259	365,856	394,417	365,683
	<u>20,538,070</u>	<u>21,075,819</u>	<u>19,727,167</u>	<u>20,319,479</u>

7. OTHER EXPENDITURE

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Professional, consultancy and other fees:				
- subsidiaries	-	-	40,050	80,100
- non-related parties	1,541,930	960,103	1,448,187	858,779
Cost of merchandise and publications	281,619	430,407	220,108	366,203
Printing, stationery and office supplies	134,056	163,727	117,062	149,165
Rental of equipment and venue and lease fees of films	402,917	149,071	202,616	105,493
Postage, telephone and courier charges	71,467	87,242	61,427	74,940
Loss on disposal of property, plant and equipment	3,291	3,307	3,291	2,684
Transport and travelling expenses	562,702	418,640	535,357	378,196
Refreshment and entertainment expenses	208,270	158,142	207,559	156,814
Property tax	109,126	109,929	109,126	109,929
GST input tax (non-claimable)	1,020,348	1,062,639	1,020,348	1,062,639
Royalties	36,454	38,988	36,454	38,988
Others	227,146	168,718	68,903	63,369
	<u>4,599,326</u>	<u>3,750,913</u>	<u>4,070,488</u>	<u>3,447,299</u>

8. INCOME TAX CREDIT

	Group	
	2020	2019
	\$	\$
Tax (credit) expense attributable to surplus/(deficit) is made up of:		
- Deferred income tax (Note 19)	-	11,057
Overprovision in preceding financial years:		
- Current income tax	(5,623)	(2,635)
- Deferred income tax (Note 19)	-	(22,160)
	<u>(5,623)</u>	<u>(24,795)</u>
Income tax credit	<u>(5,623)</u>	<u>(13,738)</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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The income tax credit varied from the amount of income tax credit determined by applying the Singapore tax rate of 17% (2019 : 17%) to surplus/(deficit) before tax as a result of the following differences:

	Group	
	2020	2019
	\$	\$
Surplus/(deficit) before tax	<u>2,810,122</u>	<u>(153,446)</u>
Tax expense (credit) calculated at a tax rate of 17% (2019 : 17%)	477,721	(26,086)
Effects of:		
- Surplus of the Board exempted from tax	(402,421)	(15,709)
- Expenses not deductible for tax purposes	4,511	16,150
- Income not subject to tax	(178,733)	(8,207)
- Deferred tax assets not recognised	98,922	43,961
- Overprovision in preceding financial years	(5,623)	(24,795)
- Others	-	948
Income tax credit	<u>(5,623)</u>	<u>(13,738)</u>

As a statutory board, the Board is exempted from income tax.

Deferred income tax assets are recognised for tax losses and capital allowances carried forward only to the extent that realisation of the related tax benefits through the future taxable profits is probable. Deferred tax assets have not been recognised in respect of tax losses and deductible temporary difference amounting to approximately \$1,116,516 (2019 : \$822,212) and \$641,743 (2019 : \$354,153), respectively, because it is not probable that future taxable profit will be available against which the Group can use the benefits therefrom.

9. CASH AND CASH EQUIVALENTS

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Deposits held with AGD	15,406,416	24,192,838	15,406,416	24,192,838
Cash at bank and on hand	6,673,145	4,056,010	6,319,761	3,425,284
Short term bank deposits	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>
	<u>24,079,561</u>	<u>30,248,848</u>	<u>23,726,177</u>	<u>29,618,122</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2020

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

	2020	2019
	\$	\$
Cash and cash equivalents (as above)	24,079,561	30,248,848
Less: Short term bank deposits with maturity of more than 3 months	<u>(2,000,000)</u>	<u>(2,000,000)</u>
Cash and cash equivalents per consolidated cash flow statement	<u>22,079,561</u>	<u>28,248,848</u>

Short term bank deposits at the balance sheet date bear average effective interest rate of 1.65% to 2.01% (2019 : 1.22% to 2.01%) and have a tenure of 6 months (2019 : 6 to 12 months).

Deposits held with the Accountant-General's Department ("AGD") earn interest based on fixed deposit rates determined by financial institutions with which AGD deposits the monies.

10. TRADE AND OTHER RECEIVABLES

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Trade receivables:				
- subsidiaries	-	-	300,732	97,441
- related parties	333,586	-	142,227	-
- external parties	109,729	428,398	109,729	327,824
Trade receivables - net	<u>443,315</u>	<u>428,398</u>	<u>552,688</u>	<u>425,265</u>
Sponsorship receivables	65,392	165,896	65,392	165,896
Other government grants receivable (see below)	404,795	677,559	404,795	677,559
Government grant receivable	287,372	351,745	287,372	351,745
Deposits	15,059	18,830	-	-
Prepayments	271,763	193,754	254,445	154,175
Other receivables	83,152	101,256	59,704	93,179
	<u>1,570,848</u>	<u>1,937,438</u>	<u>1,624,396</u>	<u>1,867,819</u>

Other government grants refer to grants received from Ministries, Organs of States and other Statutory Boards.

Other government grants

	Group and Board	
	2020	2019
	\$	\$
Other government grants receivable	404,795	677,559
Other government grants received in advance	<u>(1,240,013)</u>	<u>(770,343)</u>
	<u>(835,218)</u>	<u>(92,784)</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

Movement in other government grants receivable/(received in advance) is as follows:

Group	Receivable		Received in advance		Total	
	2020	2019	2020	2019	2020	2019
	\$	\$	\$	\$	\$	\$
Beginning of financial year	677,559	92,121	(770,343)	(1,990,216)	(92,784)	(1,898,095)
Less: Grants received during the year	(689,902)	(143,758)	(2,742,726)	(140,407)	(3,436,628)	(284,165)
Add: Amount recognised in profit or loss	417,138	729,196	1,959,226	1,269,341	2,376,364	1,998,537
Add: Amount transferred to deferred capital grants (Note 20)	-	-	298,819	5,468	298,819	5,468
Less: Amount returned	-	-	14,811	81,271	14,811	81,271
Add/less: Others	-	-	4,200	4,200	4,200	4,200
End of financial year	404,795	677,559	(1,240,013)	(770,343)	(835,218)	(92,784)

Board

Board	Receivable		Received in advance		Total	
	2020	2019	2020	2019	2020	2019
	\$	\$	\$	\$	\$	\$
Beginning of financial year	677,559	92,121	(770,343)	(1,990,216)	(92,784)	(1,898,095)
Less: Grants received during the year	(689,902)	(143,758)	(2,742,726)	(127,303)	(3,436,628)	(271,061)
Add: Amount recognised in profit or loss	417,138	729,196	1,959,226	1,256,237	2,376,364	1,985,433
Add: Amount transferred to deferred capital grants (Note 20)	-	-	298,819	5,468	298,819	5,468
Less: Amount returned	-	-	14,811	81,271	14,811	81,271
Add/less: Others	-	-	4,200	4,200	4,200	4,200
End of financial year	404,795	677,559	(1,240,013)	(770,343)	(835,218)	(92,784)

11. FINANCIAL ASSET AT FAIR VALUE THROUGH PROFIT OR LOSS

	Group and Board	
	2020	2019
	\$	\$
Fullerton Conservative Balanced Fund ("Fullerton Fund")	4,516,334	4,370,401

The Fullerton Fund has a nominal value amounting to \$3,900,000 (2019 : \$3,900,000).

The fair value of the Fullerton Fund is provided by the Fund Manager and determined based on estimated valuations derived from market quotations and are within level 2 of the fair value hierarchy.

Changes in the fair value of the financial asset at fair value through profit or loss amounting to \$145,933 (2019 : \$52,596) have been included in the statement of comprehensive income for the year.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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12. OTHER INVESTMENT

	Group and Board	
	2020	2019
	\$	\$
Quoted corporate bond classified at amortised cost	1,018,000	1,018,000

The quoted corporate bond has nominal value amounting to \$1,000,000 (2019 : \$1,000,000), with coupon rate of 2.58% (2019 : 2.58%) per annum and matures on 24 September 2020 (2019 : 24 September 2020). The average effective interest rate of the bond is 2.17% (2019 : 2.17%). The bond carries a fixed coupon rate.

The fair value of the bond is provided by banks employing generally market accepted valuation parameters and techniques. The bond has fair values amounting to \$991,500 (2019 : \$1,002,600) and is within level 1 of the fair value hierarchy.

13. INVENTORIES

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Finished goods	351,977	343,591	76,502	87,984

Inventories comprised finished goods held at cost for resale purposes.

The cost of inventories recognised as an expense and included in "Other expenditure" amounts to \$281,619 (2019 : \$430,407) for the Group and \$220,108 (2019 : \$366,203) for the Board.

At 31 March 2020, the write-down of inventories to net realisable value by the Group and Board amounted to \$16,427 (2019 : \$28,222) and \$83 (2019 : \$584) respectively.

14. INVESTMENTS IN SUBSIDIARIES

	Board	
	2020	2019
	\$	\$
Unquoted equity investments at cost	1,760,002	1,760,002
Less: Accumulated impairment loss	(1,000,000)	-
Net carrying amount	760,002	1,760,002

During the financial year, the Board recognised an impairment loss of \$1,000,000 of its investment in Singapore Science Centre Global Pte Ltd as the recoverable amount of the investment is less than the carrying amount.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES**NOTES TO THE FINANCIAL STATEMENTS
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Details of the subsidiaries are as follows:

Name of companies	Principal activities	Country of business/ incorporation	Proportion of ownership and voting power held	
			2020 %	2019 %
Singapore Science Centre Global Pte Ltd ("SSCG")	Investment holding, marketing and promotional activities for related entities and participation in joint ventures and collaboration projects, with educational and entertainment elements, on an academic and commercial basis.	Singapore	100	100
<i>Held by SSCG</i>				
Snow Venture Pte Ltd	Proprietor and operator of entertainment centre.	Singapore	100	100

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

15. PROPERTY, PLANT AND EQUIPMENT

Group

	Leasehold land*	Buildings	Leasehold improvements	Furniture and office equipment	Motor vehicles	OMNIMAX films	Assets under construction	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Cost:								
At 1 April 2018	3,754,976	42,740,996	22,815,078	16,742,779	268,315	602,594	2,660	86,927,398
Additions	-	2,450	2,212,671	219,788	-	-	281,026	2,715,935
Disposals	-	-	(216,606)	(335,634)	(244,556)	-	-	(796,796)
Reclassifications	-	-	-	2,660	-	-	(2,660)	-
At 31 March 2019	3,754,976	42,743,446	24,811,143	16,629,593	23,759	602,594	281,026	88,846,537
Additions	-	-	3,323,928	1,603,341	-	-	4,036,853	8,964,122
Disposals	-	-	-	(3,212,574)	(7,236)	(157,662)	-	(3,377,472)
Reclassifications	-	-	-	281,026	-	-	(281,026)	-
At 31 March 2020	3,754,976	42,743,446	28,135,071	15,301,386	16,523	444,932	4,036,853	94,433,187
Accumulated depreciation:								
At 1 April 2018	1,320,516	27,641,891	20,215,742	14,256,540	261,368	602,594	-	64,298,651
Depreciation charge	36,377	1,084,773	1,472,844	1,039,523	1,956	-	-	3,635,473
Disposals	-	-	(216,606)	(334,482)	(242,399)	-	-	(793,487)
At 31 March 2019	1,356,893	28,726,664	21,471,980	14,961,581	20,925	602,594	-	67,140,637
Depreciation charge	36,377	1,071,809	1,300,642	990,642	543	-	-	3,400,013
Disposals	-	-	-	(3,211,574)	(4,945)	(157,662)	-	(3,374,181)
At 31 March 2020	1,393,270	29,798,473	22,772,622	12,740,649	16,523	444,932	-	67,166,469
Carrying amount:								
At 31 March 2020	2,361,706	12,944,973	5,362,449	2,560,737	-	-	4,036,853	27,266,718
At 31 March 2019	2,398,083	14,016,782	3,339,163	1,668,012	2,834	-	281,026	21,705,900

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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Board

	Leasehold land*	Buildings	Leasehold improvements	Furniture and office equipment	Motor vehicles	OMNIMAX films	Assets under construction	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Cost:								
At 1 April 2018	3,754,976	41,478,610	21,376,843	16,042,720	268,315	602,594	2,660	83,526,718
Additions	-	-	2,186,616	175,204	-	-	281,026	2,642,846
Disposals	-	-	(147,656)	(287,096)	(244,556)	-	-	(679,308)
Transfers	-	-	-	2,660	-	-	(2,660)	-
At 31 March 2019	3,754,976	41,478,610	23,415,803	15,933,488	23,759	602,594	281,026	85,490,256
Additions	-	-	3,292,072	1,535,804	-	-	4,036,853	8,864,729
Disposals	-	-	-	(3,212,574)	(7,236)	(157,662)	-	(3,377,472)
Transfers	-	-	-	281,026	-	-	(281,026)	-
At 31 March 2020	3,754,976	41,478,610	26,707,875	14,537,744	16,523	444,932	4,036,853	90,977,513
Accumulated depreciation:								
At 1 April 2018	1,320,516	26,413,404	19,353,502	13,998,600	261,368	602,594	-	61,949,984
Depreciation charge	36,377	1,060,134	1,241,181	922,407	1,956	-	-	3,262,055
Disposals	-	-	(147,656)	(286,569)	(242,399)	-	-	(676,624)
At 31 March 2019	1,356,893	27,473,538	20,447,027	14,634,438	20,925	602,594	-	64,535,415
Depreciation charge	36,377	1,060,134	1,080,975	876,837	543	-	-	3,054,866
Disposals	-	-	-	(3,211,574)	(4,945)	(157,662)	-	(3,374,181)
At 31 March 2020	1,393,270	28,533,672	21,528,002	12,299,701	16,523	444,932	-	64,216,100
Carrying amount:								
At 31 March 2020	2,361,706	12,944,938	5,179,873	2,238,043	-	-	4,036,853	26,761,413
At 31 March 2019	2,398,083	14,005,072	2,968,776	1,299,050	2,834	-	281,026	20,954,841

* These are right-of-use assets with upfront payments.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2020

16. GOVERNMENT GRANTS RECEIVED IN ADVANCE

	Group and Board	
	2020	2019
	\$	\$
Beginning of financial year	9,974,719	11,204,226
Add: Grants received during the year	30,666,597	29,845,416
Less: Amount transferred to deferred capital grants (Note 20)	(36,900)	-
Less: Amount recognised in profit or loss	(33,219,233)	(31,074,923)
End of financial year	<u>7,385,183</u>	<u>9,974,719</u>

17. SPONSORSHIP RECEIVED IN ADVANCE

	Group and Board	
	2020	2019
	\$	\$
Beginning of financial year	2,105,200	762,156
Add: Sponsorship granted during the year	1,514,433	1,957,515
Less: Amount transferred to deferred capital grants (Note 20)	-	(36,363)
Less: Amount recognised in profit or loss	(1,025,397)	(578,108)
Less: Amount transferred to others	(1,995)	-
End of financial year	<u>2,592,241</u>	<u>2,105,200</u>

18. TRADE AND OTHER PAYABLES

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Trade payables to:				
- external parties	765,660	1,906,718	625,582	1,778,257
- related parties	175,023	-	175,023	-
- subsidiaries	-	-	8,911	26,650
	<u>940,683</u>	<u>1,906,718</u>	<u>809,516</u>	<u>1,804,907</u>
Other payables to:				
- non-related parties	1,016,122	903,802	1,014,321	895,100
- other government agency	73,322	84,833	74,093	81,068
- subsidiaries	-	-	3,142	1,920
Deposits received	138,881	97,377	102,942	113,417
Deferred income	391,653	547,581	310,928	413,067
Other accruals for operating expenses	2,274,190	2,313,463	2,226,119	2,203,504
	<u>4,834,851</u>	<u>5,853,774</u>	<u>4,541,061</u>	<u>5,512,983</u>

Other payables to subsidiaries are unsecured, interest-free and repayable on demand.

19. DEFERRED INCOME TAX LIABILITIES

	Group	
	2020	2019
	\$	\$
Beginning of financial year	37,150	48,253
Tax credited to profit or loss (Note 8)	-	(11,103)
End of financial year	<u>37,150</u>	<u>37,150</u>

The movement in deferred income tax liabilities pertains to accelerated tax depreciation.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2020

20. DEFERRED CAPITAL GRANTS

Group	Government		Others		Total	
	2020	2019	2020	2019	2020	2019
	\$	\$	\$	\$	\$	\$
Beginning of financial year	14,854,810	15,908,138	77,293	208,784	14,932,103	16,116,922
Add: Transferred from						
- government grants (Note 16)	36,900	-	-	-	36,900	-
- other government grants (Note 10)	-	-	298,819	5,468	298,819	5,468
- sponsorship (Note 17)	-	-	-	36,363	-	36,363
- omni-theatre development fund (Note 24)	-	-	122,780	-	122,780	-
Less: Amount recognised in profit or loss	(1,049,324)	(1,053,328)	(179,132)	(173,322)	(1,228,456)	(1,226,650)
End of financial year	<u>13,842,386</u>	<u>14,854,810</u>	<u>319,760</u>	<u>77,293</u>	<u>14,162,146</u>	<u>14,932,103</u>

Total deferred capital grants received (included in government grants received) since inception of the Board	<u>74,538,859</u>	<u>74,501,959</u>	<u>14,292,380</u>	<u>13,870,781</u>	<u>88,831,239</u>	<u>88,372,740</u>
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Board

	Government		Others		Total	
	2020	2019	2020	2019	2020	2019
	\$	\$	\$	\$	\$	\$
Beginning of financial year	14,887,340	15,940,668	(16,790)	86,744	14,870,550	16,027,412
Add: Transferred from						
- government grants (Note 16)	36,900	-	-	-	36,900	-
- other government grants (Note 10)	-	-	298,819	5,468	298,819	5,468
- sponsorship (Note 17)	-	-	-	36,363	-	36,363
- omni-theatre development fund (Note 24)	-	-	122,780	-	122,780	-
Less: Amount recognised in profit or loss	(1,049,324)	(1,053,328)	(151,175)	(145,365)	(1,200,499)	(1,198,693)
End of financial year	<u>13,874,916</u>	<u>14,887,340</u>	<u>253,634</u>	<u>(16,790)</u>	<u>14,128,550</u>	<u>14,870,550</u>

Total deferred capital grants received (included in government grants received) since inception of the Board	<u>74,538,859</u>	<u>74,501,959</u>	<u>14,098,437</u>	<u>13,676,838</u>	<u>88,637,296</u>	<u>88,178,797</u>
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SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

21. CAPITAL ACCOUNT

The Board's capital account represents:

- (a) the grant of \$1,640,347 given by the MOE in the financial year 1993/94 to contribute towards the repayment of the outstanding accumulated interest on a Government loan taken in 1984 for the purchase of a piece of leasehold land for the Omni-Theatre; and
- (b) the conversion of a Government loan and the related outstanding accumulated interest amounting to \$1,339,636. The loan was utilised by the Board in 1988 to finance the building of the Omni-Theatre. The conversion of the loan and outstanding accumulated interest to capital was approved by the Ministry of Finance in the financial year ended 31 March 2001.

22. SHARE CAPITAL

	Group and Board	
	2020	2019
	\$	\$
Beginning of financial year	9,989,432	7,959,330
Issue of new shares	-	2,030,102
End of financial year	<u>9,989,432</u>	<u>9,989,432</u>

In the previous financial year, 2,030,102 ordinary shares were issued for a total consideration of \$2,030,102 as part of the Capital Management Framework for Statutory Boards under Finance Circular Minute M26/2008. The shares are fully paid and are held by the Minister for Finance, a body corporate incorporated by the Minister for Finance (Incorporation) Act (Cap. 183).

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

23. RESTRICTED FUNDS

Restricted funds comprise of the Sponsorship Fund and the Endowment Fund:

Statement of Comprehensive Income - Restricted Funds

<u>Board</u>	<u>Sponsorship</u>	<u>Endowment</u>	<u>Total</u>
	\$	\$	\$
2020			
Other income	1,153,285	210,438	1,363,723
Expenses	<u>(1,140,203)</u>	<u>(64,427)</u>	<u>(1,204,630)</u>
Net surplus for the year	13,082	146,011	159,093
Accumulated surplus brought forward	91,746	7,509,450	7,601,196
Accumulated surplus carried forward	<u>104,828</u>	<u>7,655,461</u>	<u>7,760,289</u>
2019			
Other income	816,534	102,811	919,345
Expenses	<u>(805,600)</u>	<u>(3,666)</u>	<u>(809,266)</u>
Net surplus for the year	10,934	99,145	110,079
Accumulated surplus brought forward	80,812	7,410,305	7,491,117
Accumulated surplus carried forward	<u>91,746</u>	<u>7,509,450</u>	<u>7,601,196</u>

Sponsorship income relates to expenditure incurred which will be subsequently reimbursed by the sponsors of the events. The amount reimbursable is correspondingly recorded as sponsorship receivables under trade and other receivables (Note 10).

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2020

Statement of Financial Position - Restricted Funds

Board	Sponsorship	Endowment	Total
	\$	\$	\$
<u>2020</u>			
ASSETS			
Current assets			
Cash and cash equivalents	4,883,963	2,179,447	7,063,410
Trade receivables	138	-	138
Other receivables	272	6,191	6,463
Sponsorship receivable (Note 10)	65,392	-	65,392
Other investment (Note 12)	-	1,018,000	1,018,000
Financial asset at FVTPL (Note 11)	-	4,516,334	4,516,334
	<u>4,949,765</u>	<u>7,719,972</u>	<u>12,669,737</u>
Non-current asset			
Property, plant and equipment	26,451	-	26,451
	<u>26,451</u>	<u>-</u>	<u>26,451</u>
Total assets	<u>4,976,216</u>	<u>7,719,972</u>	<u>12,696,188</u>
LIABILITIES			
Current liabilities			
Trade and other payables	2,252,696	64,511	2,317,207
Sponsorship received in advance (Note 17)	2,592,241	-	2,592,241
	<u>4,844,937</u>	<u>64,511</u>	<u>4,909,448</u>
Non-current liabilities			
Deferred capital grants	26,451	-	26,451
	<u>26,451</u>	<u>-</u>	<u>26,451</u>
Total liabilities	<u>4,871,388</u>	<u>64,511</u>	<u>4,935,899</u>
NET ASSETS	<u>104,828</u>	<u>7,655,461</u>	<u>7,760,289</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2020

Board	Sponsorship	Endowment	Total
	\$	\$	\$
<u>2019</u>			
ASSETS			
Current assets			
Cash and cash equivalents	2,138,171	2,117,609	4,255,780
Trade receivables	33,426	-	33,426
Other receivables	4,912	7,184	12,096
Sponsorship receivable (Note 10)	165,896	-	165,896
Financial asset at FVTPL (Note 11)	-	4,370,401	4,370,401
	<u>2,342,405</u>	<u>6,495,194</u>	<u>8,837,599</u>
Non-current assets			
Other investment (Note 12)	-	1,018,000	1,018,000
Property, plant and equipment	37,640	-	37,640
	<u>37,640</u>	<u>1,018,000</u>	<u>1,055,640</u>
Total assets	<u>2,380,045</u>	<u>7,513,194</u>	<u>9,893,239</u>
LIABILITIES			
Current liabilities			
Trade and other payables	145,459	3,744	149,203
Sponsorship received in advance (Note 17)	2,105,200	-	2,105,200
	<u>2,250,659</u>	<u>3,744</u>	<u>2,254,403</u>
Non-current liabilities			
Deferred capital grants	37,640	-	37,640
	<u>37,640</u>	<u>-</u>	<u>37,640</u>
Total liabilities	<u>2,288,299</u>	<u>3,744</u>	<u>2,292,043</u>
NET ASSETS	<u>91,746</u>	<u>7,509,450</u>	<u>7,601,196</u>

24. OMNI-THEATRE DEVELOPMENT FUND

The Omni-Theatre Development Fund was set up with contributions received from private organisations and individuals. The income of this fund is taken to the profit or loss and is used for:

- (i) replacing the various specialised and highly technical projector systems and sound equipment;
- (ii) leasing of OMNIMAX movies; and
- (iii) producing Planetarium shows.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

	Group and Board	
	2020	2019
	\$	\$
Beginning of financial year	122,780	122,780
Less: Amount transferred to deferred capital grant (Note 20)	(122,780)	-
End of financial year	-	122,780
Represented by:		
Cash at bank and on hand	-	122,780

25. OPERATING LEASE ARRANGEMENTS

(a) Group as a lessor

Operating leases, in which the Group is the lessor, relate to retail space leased to third parties with lease terms of between 1 to 2 years and the lessees are required to pay either absolute fixed annual increase to the lease payments or contingent rents computed based on their sales achieved during the lease period.

Disclosure required by SB-FRS 116

The lessee does not have an option to purchase the property at the expiry of the lease period.

The unguaranteed residual values do not represent a significant risk for the Group, as the properties leased out are mainly located in prime locations.

Maturity analysis of operating lease payments:

	Group	Board
	2020	2020
	\$	\$
Year 1	517,505	460,505
Year 2	148,611	110,611
	666,116	571,116

Disclosure required by SB-FRS 17

The future minimum lease receivables under non-cancellable operating leases contracted for at the balance sheet date but not recognised as receivables, are as follows:

	Group	Board
	2019	2019
	\$	\$
Not later than one year	643,004	716,004
Between two and five years	702,455	617,455
	1,345,459	1,333,459

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

26. FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT

(a) Categories of financial instruments

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

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Financial assets, at amortised cost	25,378,646	31,992,532	25,096,128	31,331,766
Other investment	1,018,000	1,018,000	1,018,000	1,018,000
Financial assets, at FVTPL	4,516,334	4,370,401	4,516,334	4,370,401
	30,912,980	37,380,933	30,630,462	36,720,167
Financial liabilities, at amortised cost	(4,443,198)	(5,306,193)	(4,230,133)	(5,099,916)

(b) Financial risk management policies and objectives

The Group's activities expose it to a variety of financial risks: market risk (including foreign currency risk, price risk and interest rate risk), credit risk and liquidity risk.

The Board is responsible for setting the objectives and underlying principles of financial risk management for the Group. The Board then establishes detailed policies such as risk identification and measurement and exposure limits.

The information presented below is based on information received by the key management.

(i) *Foreign currency risk management*

The Group has no significant exposure to foreign currencies as its operations are substantially denominated in Singapore dollars, which is also its functional currency.

(ii) *Price risk management*

To manage its price risk arising from these investments, the Group manages its investment portfolio in accordance with investment guidelines and limits set by the Group for the portfolio. For its equity securities designated at fair value through profit or loss, the impact of a 5% increase in the fair value of the Fund at the reporting date on net surplus would have been an increase of \$225,817 (2019 : \$218,520). An equal change in the opposite direction would have decrease net surplus by \$225,817 (2019 : \$218,520).

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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(iii) Interest rate risk management

Interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

The Group's exposure to cash flow interest rate risk arises from interest-bearing assets consisting mainly of cash balances and fixed deposits maintained/managed by AGD. The cash balances and fixed deposits maintained/managed by AGD under centralised liquidity management are placed with high credit quality financial institution and are expected to move in tandem with market interest rate movements. The Group is not exposed to interest rate risk arising from held-to-maturity financial assets as the bonds carry a fixed coupon rate.

As the Group does not have other significant interest-bearing assets at floating rates, the Group's income is substantially independent of changes in market interest rates. Accordingly, no sensitivity analysis is presented. Information relating to the Group's interest rate exposure are disclosed in the respective notes to the financial statements.

(iv) Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. In managing credit risk exposure, credit review and approval processes as well as monitoring mechanisms are applied.

The Group's major classes of financial assets are cash and cash equivalents with AGD, debtors and equity securities placed with reputable financial institutions. Bonds held for investment are of at least investment grade as per globally understood definition.

The maximum exposure to credit risk for each class of financial assets is the carrying amount of that class of financial instruments as presented on the statement of financial position.

There is no significant concentration of credit risk due to the Group's large number of customers. Trade and other receivables that are neither past due nor impaired are substantially institutions and companies with a good collection track record with the Group. For financial assets, the Group adopts the policy of dealing only with high credit quality counterparties.

The Group believes that no impairment allowance is necessary in respect of these receivables as the ECL is not material.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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The following is an aging analysis of trade and other receivables:

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Current	338,180	239,641	448,029	302,695
Past due 0 to 2 months	34,699	109,477	67,712	52,663
Past due over 2 months	70,436	79,280	36,947	69,907
	<u>443,315</u>	<u>428,398</u>	<u>552,688</u>	<u>425,265</u>

Management has assessed and determined that there has been no significant change in credit quality from the date credit was initially granted and hence the receivables are still considered recoverable.

(v) Liquidity risk management

Liquidity risk is the risk that the Board will not be able to meet its financial obligations as and when they fall due. The Board's approach to maintain liquidity is to ensure sufficient funding from the government and other government agencies and maintains a level of cash and cash equivalents deemed adequate by management to finance its operations.

All financial liabilities in 2020 and 2019 are repayable on demand or due within 1 year from the end of the reporting period.

(vi) Fair value of financial assets and financial liabilities

Management considers that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the financial statements approximate their fair values.

There was no transfer between Level 1 and Level 2 of the fair value hierarchy during the current and previous financial years.

(c) Capital risk management policies and objectives

The Board's objectives when managing capital are to ensure that the Board is adequately capitalised and to fulfill objectives for which monies of the Board may be applied under the Act. To achieve these objectives, the Board may secure grants from Government or other government agencies, return as capital to shareholders, issue new shares, or obtain new borrowings.

The Board defines capital as share capital, capital account, funds and accumulated surplus. The Board monitors its net surplus/deficits. The Board's approach to capital management remains unchanged from the previous financial year.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2020**

27. SIGNIFICANT RELATED PARTY TRANSACTIONS

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

In addition to the information disclosed elsewhere in the financial statements, the following transactions took place between the Group and related parties at terms agreed between the parties:

(a) Income from government related entities

	Group	
	2020	2019
	\$	\$
Admission fees/ Proceeds from special projects/ Fees from courses and programmes/ Sales of merchandise and publications from government schools	393,778	334,113

(b) Donations and sponsorships

	Group	
	2020	2019
	\$	\$
Donations and sponsorships from other government agencies	-	24,178

(c) Key management personnel compensation

Key management personnel compensation is as follows:

	Group		Board	
	2020	2019	2020	2019
	\$	\$	\$	\$
Wages and salaries	1,220,552	1,097,554	1,085,486	973,360
Post-employment benefits: - contributions to CPF	76,102	67,059	63,712	56,208
	<u>1,296,654</u>	<u>1,164,613</u>	<u>1,149,198</u>	<u>1,029,568</u>

Science Centre Singapore Group of Attractions

