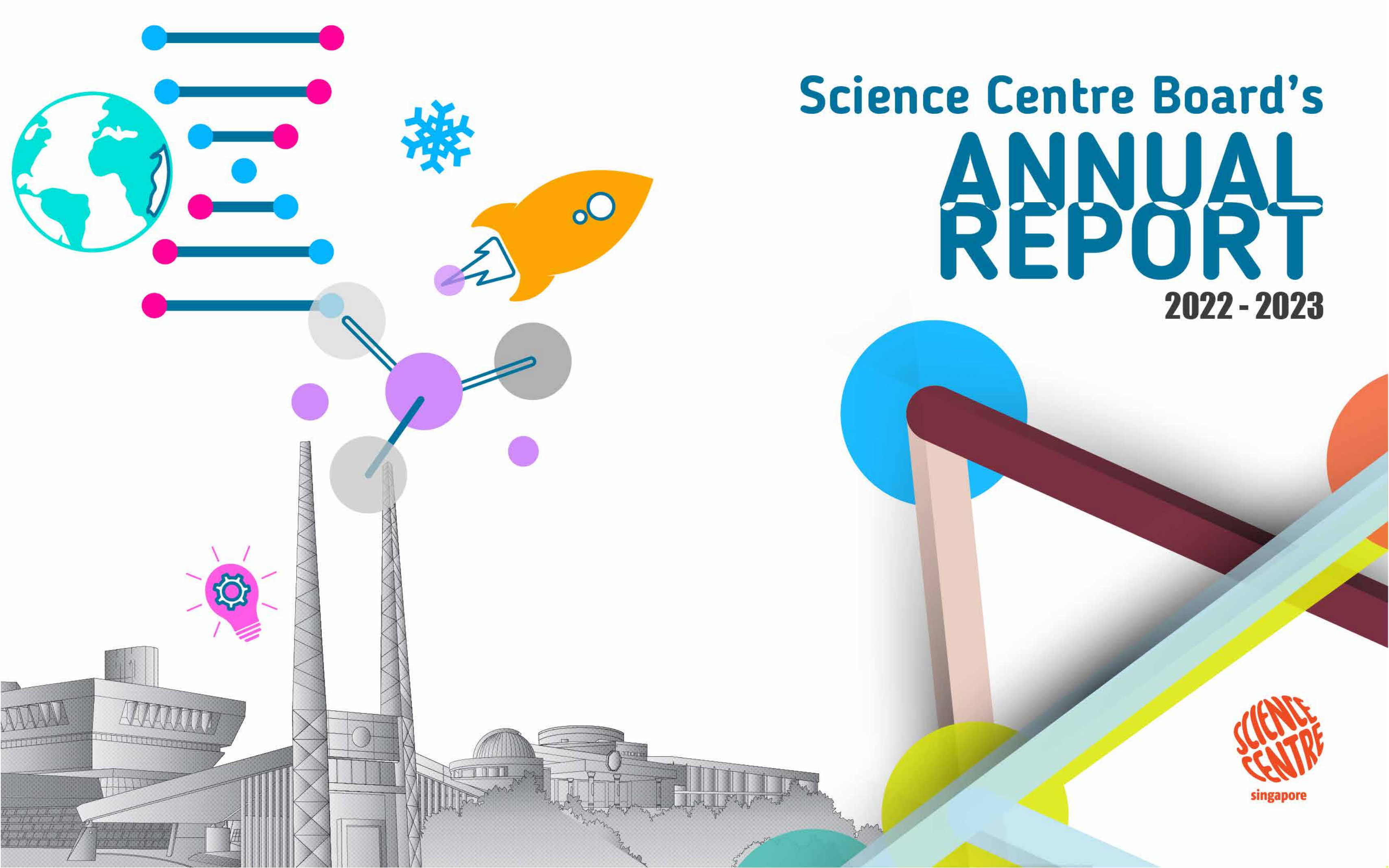


Science Centre Board's

ANNUAL REPORT

2022 - 2023



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01

MESSAGE FROM THE TOP

CHAIRMAN'S REVIEW
CHIEF EXECUTIVE'S REVIEW



Chairman's Review

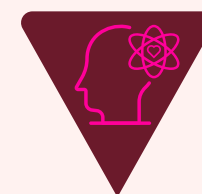


**MS
 Tan Yen Yen**

Chairman,
 Science Centre Board

When I look back on 2022, I feel a sense of accomplishment and gratitude. Thanks to the teamwork from the staff and volunteers, we enjoyed one of the most dynamic years in history celebrating science as the world resumed normalcy after battling the pandemic for about three years.

The work Science Centre Singapore (SCS) does to inspire young minds and nurture them into scientific thinkers could not be more important. As Singapore's premier science institution, it's a place where questions are important, where children are encouraged to explore, imagine, and tinker without the fear of failure. Helping guests discover their connections to STEM guides us in everything we do as science is all around us.



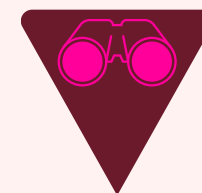
BEFRIENDING AND TRANSFORMING MINDS

Last year's post-pandemic recovery saw the STEM industry rebound to a healthier state of activity - nearing pre-pandemic levels. For the Centre, this has translated into opening our doors to families, youths, students, and tourists once again. Nothing was more rewarding than creating immersive and innovative experiences and programmes that captured the imagination of our guests - young and old, near and far.

The *Young Scientist Badge (YSB)* 40th anniversary event was one of my favourite programmes. It marks the culmination of a vibrant year-long engagement through the *YSB programme* which was introduced four decades ago to support our nation's push to develop talent and capabilities in STEM. For 40 years, *YSB* has been the crown jewel of SCS' outreach efforts as we nurtured curiosity and transformed wonder into learning opportunities, awarding over one million badges to young learners. Today, our potential to inspire learning has grown exponentially with the introduction of new badges which empower self-directed learning through a stimulating array of science activities.

SCS' ambition is not just to be an iconic educational resource for the community but also to attract a growing international audience and facilitate knowledge sharing beyond borders. The Centre was deeply honoured to be selected as the operating model for the proposed Sarawak Science Centre. Last year, we were invited to conduct master planning workshops in Kuching and had the privilege to host at the Centre, distinguished education leaders from Sarawak including YB Datuk Roland Sagah Wee Inn, Minister for Education, Innovation and Talent Development.

As stewards of SCS, it is our mandate and our privilege to welcome everyone to discover the transformative power of STEM and expose them to visionary experiences which are bold, new, and cutting edge.



LOOKING AHEAD

Last December, we were delighted to update the nation on the new Science Centre slated to open in the Jurong Lake District around 2027.

The new Science Centre will act as a large, interactive classroom for applied learning, with cutting-edge facilities for guests to learn about the world around them. Our mission has always been to bring science to life and the new Centre is poised to expand our outreach in dynamic ways. We will translate scientific discoveries and concepts into immersive exhibitions that capture the imagination and inspire exploration and engagement for learners of all ages and abilities.

For the past 45 years, we have enlightened and inspired millions through education and discovery. The future promises greater and exciting opportunities.

We could not have done it without the unstinting fortitude and energy of our valued partners and supporters. I hope that the educational programmes, events and exhibitions have inspired you just as they have inspired me. My heartfelt thanks to those who have contributed their time and energy on this journey including Mr Soh Gim Teik for serving as Deputy Chairman of the Board since 1 February 2019, and exiting Board members Mr Chew Kwee San, Ms Cherie Nursalim, Mr Chandran Nair, Mr Hian Goh, Ms Leonie Lee and Ms Yasmin Zahid. Their encouraging advice and immense support was especially crucial during the COVID-19 pandemic. I would also like to welcome Mr Lim Boon Wee as our new Deputy Chairman, and new members Mr John Cheng, Mr Oon Jin Teik, Mr Welby Altidor, Mr Richard Tan Chuan Lye, Mr Hoe Wee Meng and Ms Nichol Ng Wee Teng who joined us this year.

After a bright 2022, we move forward together with a renewed pledge to fulfill our purpose of creating experiences that demonstrate without a doubt that science is everywhere.

BUILDING BACK GREENER

Through our exhibitions and programmes, we find new ways to inspire people - particularly youths. Hence, we have put sustainability at the heart of our work to enlighten guests of our contribution and commitment to advancing Singapore's transition to a greener economy.

Last year in October, we unveiled the third iteration of the *Climate Changed* exhibition. With every iteration, since its initial launch in 2008, we refreshed the content to highlight the latest climate crisis threat and brought it to life using smart technologies. This time, we spotlighted the real and present climate crisis challenge against the background of the warmest decade ever recorded. It is also our biggest gamified exhibition to date, in line with our strategy to lower barriers to understand complex topics and strengthen guest engagement.

As part of the Centre's GREEN Plan - a long-term initiative, we've strengthened our water conservation efforts through innovative ways that include rainwater harvesting and rechanneling it to the Centre's Ecogarden. We will continue to intensify climate science and sustainability programming with ongoing exhibitions, workshops and shows. Saving the environment is a collective endeavour and together, we need to be mindful and solution-driven to empower the new generation of global problem solvers.



Chief Executive's Review



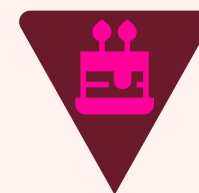
**Associate Professor
Lim Tit Meng**

Chief Executive,
Science Centre Board



"SCIENCE IS MAGIC THAT WORKS."

This quote by American author, Kurt Vonnegut, artfully and accurately captures the paradox of science - enigmatic and seemingly inexplicable yet grounded in reality. Science unlocks the mysteries of the universe, improves the quality of our lives, and makes the impossible possible. As I reflect on the past year, I am proud of the many ways the Centre has brought this magic to our community. The list is long, hence sharing a few of those extraordinary moments.

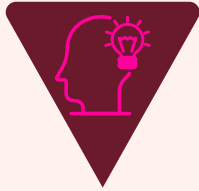


CELEBRATING 45 YEARS

The Centre celebrated a major milestone as we commemorated our 45th anniversary. Since 1977, we've taken great strides to deliver on our commitment to grow Singapore's talent-building efforts as STEM has always been at the heart of our nation's progress.

The past year was a culmination of all E.P.I.C (Experiential, Participatory, Image driven, Connected) initiatives we have created over the past four and a half decades. We pressed on with signature programmes such as the 25th edition of the *Sony Creative Science Award (SCSA)*, celebrated the 40th year of the *Young Scientist Badge programme*, and renewed iconic exhibits like the *Tesla Coil*, with an electrifying new concept titled the *Energy Titans Show*. We evolved our blockbuster STEM festival, *UNTAME*, by taking guests on a day-to-night adventure peppered with experiments, expert sharings, movies and music, and launched brand new experiences like *Escape @ Science Centre* that elevated gamified learning with STEM puzzles, riddles and physical challenges.

The steadfast ambition of the Centre is to reawaken curiosity about the world among people from all walks of life. I believe we've done well in living up to our aspirations over the past 45 years. As we look to the future, we can only imagine the new breakthroughs made possible by STEM, and the Centre will continue to play a vital role in fostering a love for science and discovery in all who visit.



GROOMING THE NEXT GENERATION OF STEM INNOVATORS

As we stand on the cusp of a new era, we are laser focused on engaging the drivers of tomorrow. Youth make up a significant proportion of the population in our island state, and are our greatest asset that possess the potential to yield a brighter future for everyone.

Hence the Centre has accelerated efforts to build STEM capabilities among young Singaporeans in the past year by strengthening their skill sets for growing industries via competitions such as *Robocup Open 2022* and *Asia Drone Championship* as well as create mentorship opportunities through programmes like *National STEM Talent Search*, to offer participants a rare chance to work with a Nobel Laureate in Physics.

Having had the privilege to interact with many of these students, I have witnessed the intellectual prowess and emotional capacity they possess to absorb new ideas, adapt to changes, and persevere through obstacles and failures to achieve the desired outcomes. This breaks the prejudice that youth can't be offered a seat at the decision-making table, as they lack knowledge and are overly idealistic. I am heartened that more organisations today, like the United Nations, are challenging this perception and making it a priority to engage young people.

I hope to see the Centre as a trailblazer in this mandate, by continuing to create platforms and possibilities to empower youth to drive change and shape the future.



FOSTERING INCLUSIVITY

We believe STEM is for everyone. It is a universal human endeavour that every person should have the opportunity to participate in and benefit from, regardless of their gender, ethnicity, socio-economic background, or any other factor.

We have done our best to practise what we preach through signature initiatives such as *DiscovHER* - our annual event that champions gender parity in STEM, and new programmes like Singapore's first *Special Education Coding Olympics*, which was testament to the inherent but often hidden skills that differently abled students have, like enhanced visual and spatial abilities. We also launched *Alienation*, a one-of-a-kind temporary exhibition to spotlight the science and social effects that prejudice, stereotypes and discrimination can have on people.

Even though we sharpened our focus on inclusivity, more can be done to unlock the STEM potential amongst all. In the coming years, we look forward to implementing steady infrastructural and programmatic changes, to build a warmer and more welcoming environment for all by addressing biases, being open to other perspectives, and embracing diversity.

I want to express my deepest gratitude to our dedicated staff and invaluable partners for another year of innovative achievements and inspiring discoveries. Thank you for your unwavering commitment to our mission of advancing science literacy and promoting a better understanding of the world around us.

I look forward to another magical year of fostering innovation, fuelling inspiration, and forging relationships at the home we call Science Centre Singapore.

02 OUR TEAM

BOARD MEMBERS
MANAGEMENT TEAM



Board Members



Ms Tan Yen Yen
Chairman



Mr Howie Lau



Mr Soh Gim Teik



Mr Lim Boon Wee
Deputy Chairman



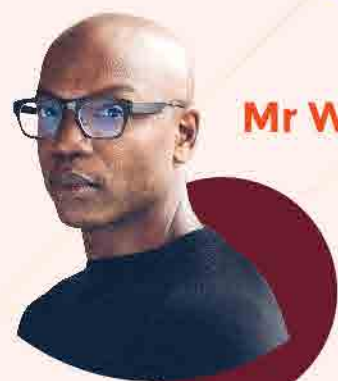
Mr Tony Zameczkowski



Mrs Nina Yang



Mr Chang Chee Pey



Mr Welby Altidor



Ms Hwang Yu-Ning



Mr John Cheng



Mdm Lee Lin Yee



Professor Ng Huck Hui



Mr Oon Jin Teik



Professor Phoon Kok Kwang



Ms Nichol Ng



Mr Hoe Wee Meng



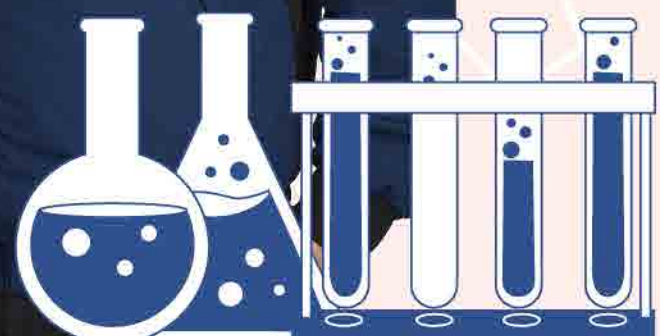
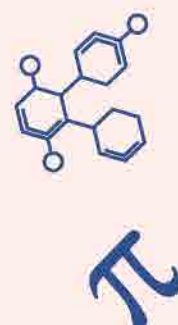
Mr Richard Tan



Management Team



**Associate Professor
Lim Tit Meng**
Chief Executive



Dr Anne Dhanaraj
Senior Director,
Education



Mr Daniel Tan
Senior Director,
Exhibitions & Galleries



Mr Barry Wong
Senior Director,
Corporate Resources & Operations
(From Jun 2022)



Mr Addison Goh
Senior Director,
Corporate Resources
(Until May 2022)

Mrs Veronica Heng
Director, Operations



Mrs Ong Me Lan
Director, STEM Inc



Mr Gerald Tee
Director,
Branding & Communications and
Operations



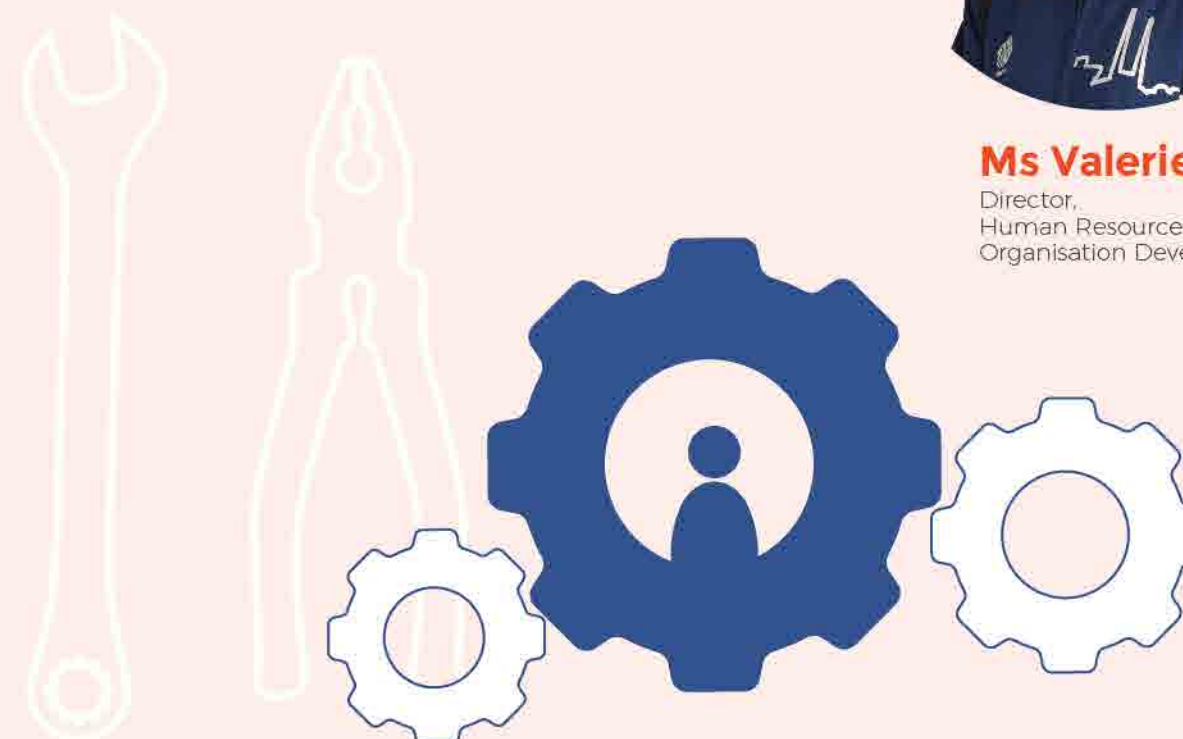
Ms Cham Lee Fin
Director,
Finance, Admin & Procurement



Dr Lee Song Choon
Director,
KidsSTOP™, Events & Engagement,
Schools & Professional Development



Ms Valerie Lee
Director,
Human Resources &
Organisation Development



Mr Eugene Wambeck

Deputy Director,
Exhibitions and Advancement &
Partnership



Mr Lee Lian Soon

Deputy Director,
Special Projects & Travelling Exhibitions and
Events & Engagement



Ms Joanna Sim

Deputy Director,
Digital Marketing &
Data Analytics



Mr Andrew Tan

Deputy Director,
Business Development and
General Manager,
Singapore Science Centre Global



Dr Kiruthika Ramanathan

Deputy Director,
Schools & Professional Development,
Digital Marketing & Data Analytics
(Until Jun 2022)



Mr Mohd Jaafar Bin Dollah

Assistant Director,
Facilities & Estate Management



Ms Kamaria A Ghani

Advisor, Advancement & Partnership
(Until Jul 2022)



Mr Harith Fadhirah

Assistant Director,
Exhibitions



Dr Florence Francis

Assistant Director,
Strategy & Innovation



03

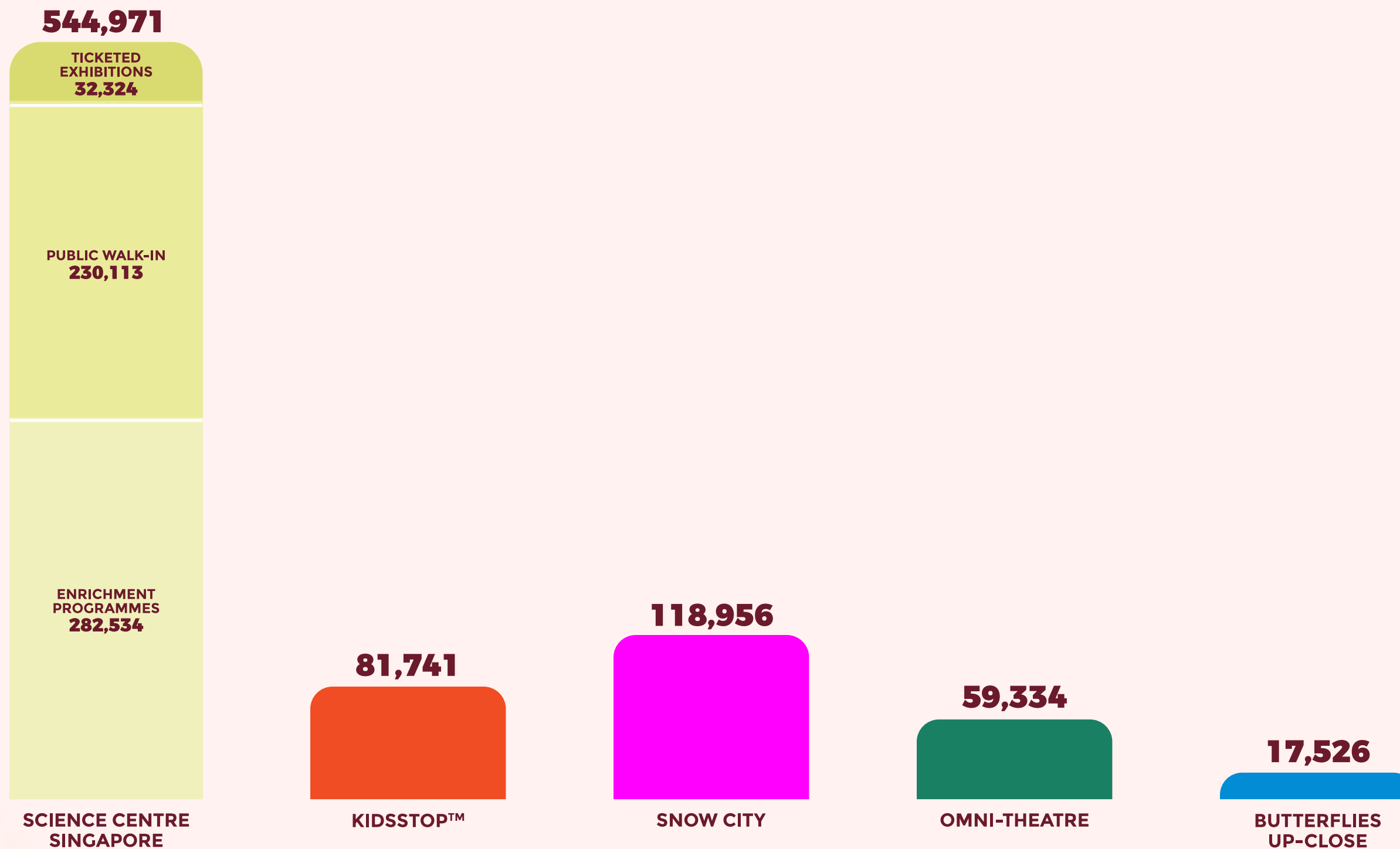
ACHIEVEMENTS & AWARDS

VISITORSHIP
LIST OF AWARDS



2022 - 2023

Visitorship



2022 - 2023

List of Awards

MOE Innergy Commendation Award
STEMTogether and SCS Zooms to You

TripZilla Excellence Awards for Activities & Attractions
Best Family Attraction - Science Centre Singapore
Most Popular Attraction for Children - KidsSTOP™

Bronze Award for Best Campaign Pivot
SCS Zooms to You at Marketing Interactive PR Awards

Staff Awards

The Commendation Medal, National Day Awards 2022

- **Mohd Jaafar Bin Dollah**
Assistant Director, Facilities & Estate Management
- **Leung Pek Ker**
Senior Manager, Organisation Development (OD), HR & OD

The Long Service Medal, National Day Awards 2022

- **Halizah Binte Riduan**
Associate I, Admin Services, Education Services
- **Masliahna Binte Mohamad Ali**
Guest Experience & Retail Supervisor, Operations
- **Tan Lai Choo**
Workplace Safety & Health Officer, Operations
- **Tan Siew Kim**
Associate I, Finance, Admin & Procurement

Excellence in Facilitation - Merit Award in NXplorers Recognition Awards

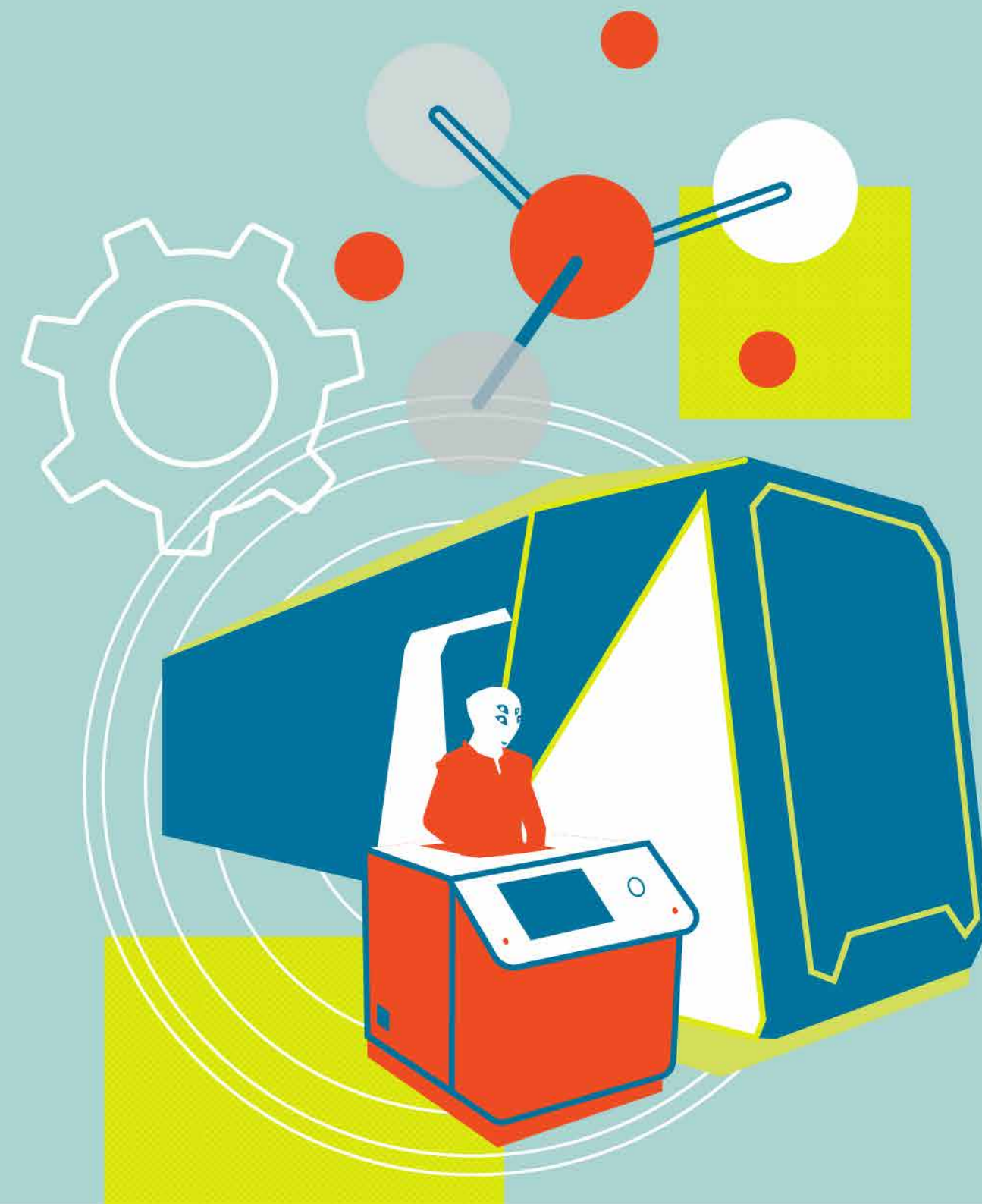
- **Camarine Heng Li Ling**
STEM Educator (EO), STEM Inc



04

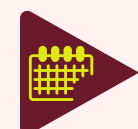
EXHIBITIONS & PROGRAMMES

GALLERY EXHIBITIONS
SPECIAL PROJECTS AND TRAVELLING EXHIBITIONS
SCIENCE OUTREACH PROGRAMMES AND COMPETITIONS, EVENTS & ENGAGEMENT
INFORMAL SCIENCE PROGRAMMES,
STEM INC AND PROFESSIONAL DEVELOPMENT
GALLERY EXPERIENCE
SINGAPORE SCIENCE CENTRE GLOBAL PTE LTD



Temporary Exhibition

Alienation



13 DEC 2022 -
30 SEP 2023



HALL A, MEZZANINE,
SCIENCE CENTRE
SINGAPORE

Alienation spotlights the social science behind prejudice, where guests are subjected to a mix of blatant and subtle prejudices by a fictional species in an immersive train carriage setup. It is designed to closely resemble day-to-day scenarios in which discrimination occurs such as in public transport.

Using thought-provoking and real-life references such as the social identity theory, the exhibition encourages guests to reflect on the prejudices they experience in their daily lives as well as the process and factors that develop stereotypes, prejudice and discrimination within us. Ultimately, guests are presented with the fact that they are always exposed to stimuli that can develop stereotypes within them, but it is how they act that matters.



**IMMERSIVE
EXPERIENCE**



**THOUGHT PROVOKING
AND REFLECTIVE**



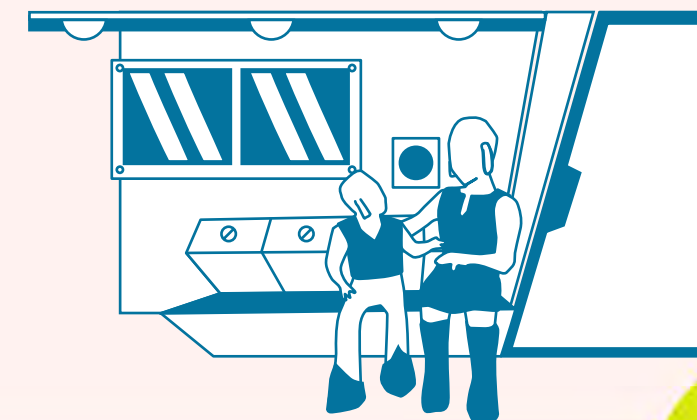
Alienation has an immersive train setup to reflect real life scenarios.



Experience various situations of prejudice within the train carriage.



Learn about the various stimuli that aid in forming stereotypes & prejudices.



Permanent Exhibition

Climate Changed Exhibition



HALL B,
SCIENCE CENTRE
SINGAPORE

Climate Changed is the third iteration of the Science Centre's climate change experience and is its most personal exhibition to date. In collaboration with Science North - Canada's leading interactive science centre - its *Climate Action Show* complete with wind and strobe lights features climate scientists and citizens who share the basics of climate change while educating guests on steps they might take to effect lasting climate action. This is followed by *Guilt Trip*, a gamified experience where guests embark on a "road trip" through themed zones to uncover the eco-friendliness of their current lifestyles.

The exhibition also features a wall mural titled *Catalyst*. This mural uses recycled materials, and has been computationally designed by Superstructure, a local firm making waves internationally for their thoughtful use of recycled materials in art and daily life. A mosaic of mirrors conveys the butterfly effect, where a single miniscule change can result in an unfathomable ripple effect on the environment. *Catalyst* reminds guests about the sheer volume of waste on Earth while showcasing their beauty and sustainable value.



GAMIFIED EXPERIENCE



CLIMATE CHANGE
COMMENTARY



INTERACTIVE DIGITAL
SHOW



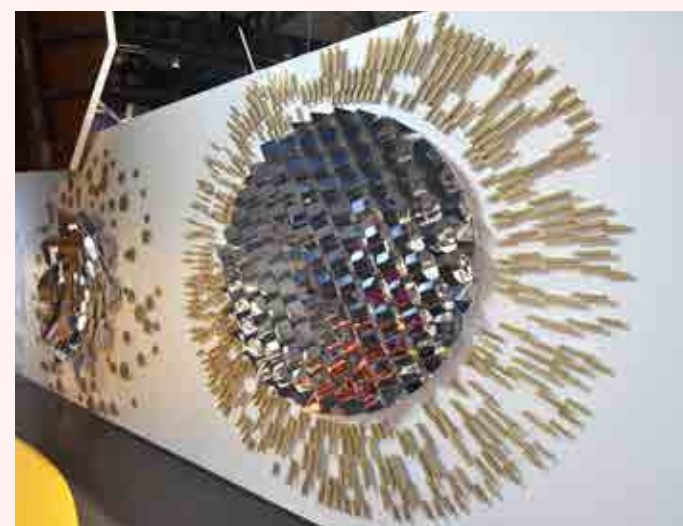
Guest of Honour Ms Grace Fu (second from right), Minister for Sustainability and the Environment, in front of the Climate Action Show barn during the launch of the Climate Changed Exhibition, together with (from left) Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board, Mr Lim Boon Wee, Deputy Secretary (Services), Ministry of Education, and Ms Tan Yen Yen, Chairman, Science Centre Board.



The Climate Action Show barn offers an interactive experience for guests.



Ms Grace Fu (front), Minister for Sustainability and the Environment and Ms Tan Yen Yen, Chairman, Science Centre Board engaging in the Guilt Trip experience during the Climate Changed Exhibition launch.



The Catalyst wall mural is a contemplative gallery that symbolises the cause and effect of climate change.

Permanent Exhibition

Entrance Experience

The new *Entrance Experience* aims to create a unique sense of arrival for our guests. Curated based on the theme of metamorphosis, the entrance has been transformed into a space that is dynamic, encompasses movement, and encourages community togetherness.

Moving through the plaza, guests can look forward to interacting with distinctive and attractive exhibits. These art-science installations are curated to excite and create a sense of wonder for the experiences that await at the Science Centre. The revamped entrance features barrier-free sheltered pathways to improve accessibility, and flexible multifunctional spaces for outdoor events.



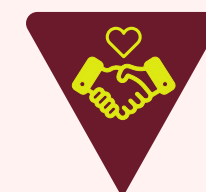
A dazzling canopy of leaves that change colours with the movement of the Sun and the guest's point of view.



VoxPopuAI is an AI exhibit that sings your words back to you with every guest interaction.



**REFRESHED FRONT
ENTRANCE**



**INVITING SPACE FOR
COMMUNITY-LED
PLACEMAKING**

Special Projects & Travelling Exhibitions

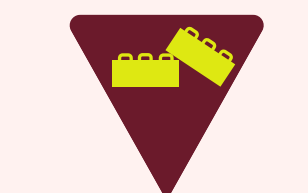
Brickman Wonders of the World LEGO® Brick Exhibition

 25 MAR - 3 JUL 2022

*Brickman® Wonders of the World – LEGO® Brick Exhibition Singapore** opened at the Centre as part of its 45th anniversary celebrations. Organised by Apollo Entertainment Media, the exhibition was built using over 1.4 million LEGO® bricks that collectively weighed more than 1.4 tonnes. Close to 5,000 hours were used to design this meticulous exhibition by a team of skilled LEGO® craftsmen as the Centre brought the world to Singapore amidst the COVID-19 pandemic.

The travelling exhibition had completed 11 successful runs and the Singapore edition featured more than 50 jaw-dropping models of the world's iconic monuments including the iconic Singapore Merlion, Tokyo Subway Map, Mona Lisa, and many more allowing guests to embark on a trip with no passport required! To stimulate imagination, creativity and encourage play-based learning, an additional 1,000,000 LEGO® bricks were scattered across the exhibition.

In a short four-month span, the exhibition drew over 34,000 guests and tremendous media traction with 256 pieces of coverage across all platforms, including The Straits Times, CNA938, AsiaOne, The New Paper and Asia News Today.



OVER 1.4 MILLION LEGO® BRICKS USED



PLAY-BASED LEARNING FOR OVER 34,000 GUESTS



MORE THAN 50 LEGO® MODELS OF ICONIC WORLD MONUMENTS



256 MEDIA HITS

*This was a ticketed exhibition.



Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board (left), Mr Ryan McNaught, Master Builder of the Brickman® Exhibitions (centre), and Mr Daniel Tan, Senior Director, Exhibitions & Galleries, Science Centre Board (right) having a candid moment at Brickman® Wonders of the World LEGO® Brick Exhibition.



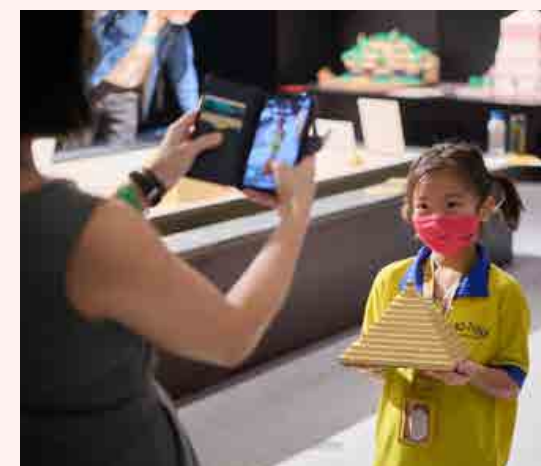
The RHS Titanic model was the heaviest installation at the exhibition at 120kg.



The exhibition featured LEGO® models of iconic monuments such as the Arc de Triomphe.



One of the many Master Builder Zones that was available at the exhibition.



Guests were able to get creative with the hands-on Master Builder Zones that were stationed across the exhibition.

Science Outreach Programmes and Competitions, Events & Engagement

International Science Drama Competition

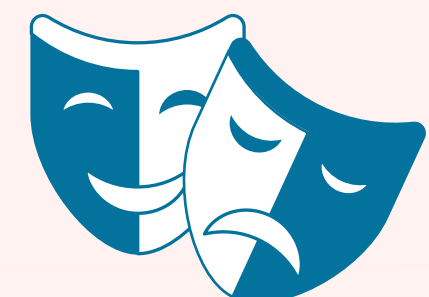
The International Science Drama Competition (ISDC) exemplifies the Centre's efforts to weave arts and science to promote STEM. This year's theme "Our Seas and Oceans for the Future" was aligned with United Nations General Assembly's declaration of 2022 as the International Year of Artisanal Fisheries and Aquaculture. Topics explored included preventing overfishing, protecting biodiversity and more.

Due to the pandemic, both the local and international competitions were held online via video submission from teams with seven countries competing in the grand finals. The Mind Museum in Philippines hosted the online award ceremony to cap off this exciting event.

	DATE	NUMBER OF TEAMS		
		JUNIOR CATEGORY	OPEN CATEGORY	SHORT FILMS CATEGORY
SINGAPORE FINALS	APR 2022	7	13	32
GRAND FINALS	AUG 2022	10	7	11

Countries participated:

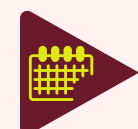
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Students used various musical and drama elements to shine the spotlight on topics such as marine biodiversity.

Science Outreach Programmes and Competitions, Events & Engagement

UNTAME: Spaces to Places



4 OCT -
11 DEC 2022



SCIENCE CENTRE
SINGAPORE

UNTAME is Science Centre Singapore's annual immersive, blended learning festival designed to spotlight and celebrate the power of STEM.

Themed "Spaces to Places", UNTAME was about redefining the spaces around us, into places with a new meaning and purpose. The festival took on a blended and immersive format that transformed spaces into places for creation, connection, and celebration. These experiences were designed across four key themes - living space (sustainability), outer space (astronomy), cyber space (digital sphere) & inner space (mental health & wellness) to reach a wide variety of audiences.

PIECES OF EARNED COVERAGE	137
ESTIMATED COVERAGE CIRCULATION	249,049,740
ESTIMATED PR VALUE	\$2,306,382
ADVERTISING VALUE EQUIVALENT (AVE)	\$768,793
SPONSORS & PARTNERS	40



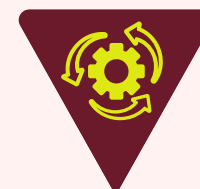
STEAM Festival's Sensory Theatre wowed guests with its participative and performance elements.



UNTAME Onsite featured a Blaster Battle mission as one of its highlights.



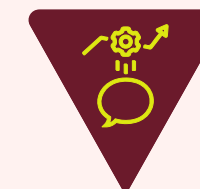
The After Dark event showcased an exclusive showing of the Fire Tornado show at night.



TRANSFORMATION OF
SPACES TO PLACES
THROUGH STEM
LEARNING



INCLUSIVITY ACROSS
DIVERSE AUDIENCES



SYNERGY IN
EXPERIENCES,
LEARNING AND
MESSAGING

Science Outreach Programmes and Competitions, Events & Engagement

UNTAME STEAM Festival



4 - 9 OCT 2022



SCIENCE CENTRE SINGAPORE



PRE-FESTIVAL ACTIVITIES PARTICIPANTS: 1,393

ONSITE FESTIVAL PARTICIPANTS: 1,800

Returning for the fourth year, *UNTAME STEAM Festival* presented creative approaches to STEAM-based learning with a myriad of educational and immersive experiences for children aged four to eight years old.

The Festival showcased the well-received Sensory Theatre performance as well as newly developed zones in collaboration with like-minded partners. It encouraged innovation and discovery among young children, while pushing boundaries in experiential learning.



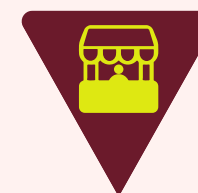
The Neighbourhood of Tomorrow installation was a community art project made up of cardboard boxes that was showcased as the centrepiece of the festival.



Various STEAM festival partners came onboard with activities for the young participants.



Participants joined Jo, Strelka and Ham on a journey through outer space to reach Mars as part of the performance by Sensory Theatre.



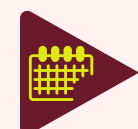
7 PARTNER SPOTLIGHT BOOTHS



15 IMMERSIVE HANDS-ON ACTIVITIES FOR CHILDREN

Science Outreach Programmes and Competitions, Events & Engagement

UNTAME Outreach



13 OCT -
19 NOV 2022



KITS SOLD:
1,628



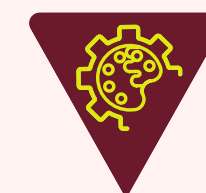
ONLINE & ONSITE
WORKSHOP
PARTICIPANTS:
839

UNTAME Outreach promoted STEM education in schools and to the public. Five hands-on activities were designed for the UNTAME LOCI kit to promote curriculum-relevant, yet explorative STEM learning. An exclusive viewing of the STAR Lecture by marine biologist, Dr Toh Tai Chong from NUS that touched on marine conservation was also incorporated into the Outreach programme.

Through donors and community fundraising, the Pay-It-Forward programme reached 273 beneficiaries who were given these LOCI kits and the opportunity to visit the Science Centre.



**PAY-IT-FORWARD
BENEFICIARIES: 273**



**5 HANDS-ON STEM
+ ART ACTIVITIES TO
STIMULATE LEARNING
AND CREATIVITY**



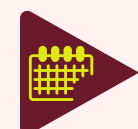
The LOCI Kit included STEM activities such as Code-a-Pet, Gyropaint and Stomp Rocket.



The Drone Obstacle workshop was developed to complement the LOCI Kit activities.

Science Outreach Programmes and Competitions, Events & Engagement

UNTAME Online - #UNTAMEspaces



1 OCT - 11 DEC 2022



UNTAME ONLINE WEBSITE



OVERALL REACH: 47,053



UNIQUE PLAYERS: 7,571

The *UNTAME Online* storyline, #UNTAMEspaces, was a continuation from 2021's edition where players were sent back to a timeline they had saved, only to find that it had been ravaged by an unknown negative black goo known as "The Void".

Players were tasked to traverse five virtual spaces to complete missions and restore the environment. The missions included videos, real-world pitstops and kit-complementary activities.

MISSIONS	VIDEO QUIZZES	OFFLINE MISSIONS	MINI GAMES
28	13	7	8

AGE GROUP	PERCENTAGE
65 AND ABOVE	1.2%
55 - 64	1.2%
45 - 54	4.3%
35 - 44	14%
25 - 34	34.3%
18 - 24	21.5%
13 - 17	6.4%
12 AND BELOW	17.1%

CATEGORY	TOTAL
MISSIONS DEVELOPED IN COLLABORATION WITH PARTNERS	15
MISSION PLAYTHROUGHS	59,763



Players were incentivised to complete the missions through attractive prizes.



The online gamified platform for UNTAME 2022 was titled #UNTAMEspaces.

Science Outreach Programmes and Competitions, Events & Engagement

UNTAME Onsite

 2 - 11 DEC 2022	 SCIENCE CENTRE SINGAPORE	 UNTAME DAY PARTICIPATION: 1,026
 UNTAME AFTER DARK PARTICIPATION: 1,429	 IMMERSIVE GAME-WORLD EXPERIENCE	 OFFICIAL LAUNCH: 2 DEC 2022

UNTAME Onsite was a major highlight as guests witnessed the Science Centre transform into an immersive game world named *METANU*. Participants had to take on physical missions in various exhibitions around the Centre to eliminate “The Void” as part of *UNTAME* overarching storyline. *UNTAME Onsite* was launched by Guest of Honour, Mr Chan Chun Sing, Minister for Education, who also shared updates and illustrations of the new Science Centre (NSC) as well as its updated completion time. The NSC update garnered a clean sweep of media coverage across all major outlets and vernaculars including CNA, ST, Tamil Murasu, Suria Berita, Lianhe Zaobao and more. *UNTAME Onsite* consisted of a day event (*UNTAME Day*) catered to young families and a night event (*UNTAME After Dark*) that targeted young adults aged 18 - 35 years old.

UNTAME After Dark featured popular musical acts and performances along with scrumptious food and beverage. Guests were also able to experience screenings of short science films and a crafter’s market.



GRAND SLAM OF MEDIA COVERAGE WITH OVER 1 MILLION IN AVE



Guest of Honour, Mr Chan Chun Sing, Minister for Education sharing illustrations of the new Science Centre.



The difficulty of the challenges was varied in accordance with the target audience for UNTAME Day and After Dark.



Popular acts being featured included Jean Seizure, a local musician.

Science Outreach Programmes and Competitions, Events & Engagement

Youth STEM Empowerment Programme

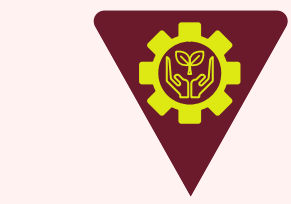


NUMBER OF PARTICIPATING STUDENTS:
118



NUMBER OF COMMUNITY HOURS SERVED:
9614

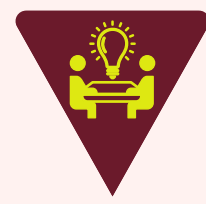
Youth Science Empowerment Programme (YSEP) is part of the Centre's commitment to the Youth Science Movement. The programme was organised in collaboration with Amazon Web Services (AWS), Bloomberg and the United States Embassy in Singapore. It aims to empower youths with STEM knowledge to address real-world problems as part of the United Nations Sustainable Development Goals (UNSDGs). Students, aged 13 to 15, were mentored in design thinking and technical skills, and worked on community projects from Engineering Good, Loving Heart and NUS Centre for Nature-based Climate Solutions. Selected students were also trained to present their learnings via a series of public outreach workshops at the regional libraries.



ALIGN WITH UNSDGs



DESIGN THINKING



REAL-LIFE PROBLEM-SOLVING SKILLS



Group photo featuring participating students and Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board during the YSEP Graduation Ceremony.



Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board, learning more about the prototypes created for the underserved community.



Mr Simon Tan, Regional Manager, Amazon Web Services learning more about a prototype created to combat the effects of climate action.

Science Outreach Programmes and Competitions, Events & Engagement

National Robotics Competition



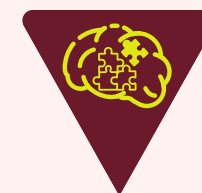
23 AUG -
10 SEP 2022



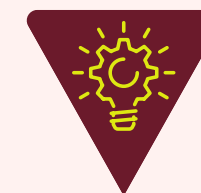
ANNEXE HALL,
SCIENCE CENTRE
SINGAPORE

Since 1999, Science Centre Singapore has organised the *National Robotics Competition (NRC)* with support from the Ministry of Education, various partners, and sponsors, attracting more than 60,000 participants and 240,000 supporters to date. In 2022, the 24th edition of *NRC* secured record-breaking participation numbers with 735 teams amounting to 2,509 participants amidst the evolving COVID-19 safety regulations.

This year's theme "My Robot, My Friend" was adapted from the 2022 World Robot Olympiad (WRO) as the Centre wanted to focus on ways robot-human interaction could be beneficial, safe and applied in everyday situations. A new pre-school category for children aged five to six was also introduced to plant the seeds of creativity and innovation among the young. These participants learned to build and code robots while picking up problem-solving skills.



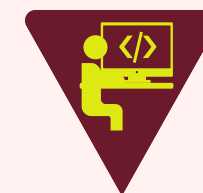
PROBLEM SOLVING SKILLS



CREATIVITY AND INNOVATION



TEAM SPIRIT



BASICS OF CODING AND REAL-WORLD APPLICATIONS



A candid group photo at the award ceremony featuring Guest-of-Honor, Ms Chong Phit Lian, Chairman, Singapore Science Centre Global Private Limited, Science Centre staff & NRC partners.



Primary school students presenting their ideas to the NRC judges.



Primary school teams were excited and geared up for their RoboMission presentation.



Kindergarten students from the newly launched pre-school category playing with their robot inventions.



Two secondary school participants having a nerve-wracking moment during their robot run.

Science Outreach Programmes and Competitions, Events & Engagement

Amazon Cyber Robotics Challenge



PARTICIPANTS IN INTRODUCTION TO BLOCK CODING WORKSHOP:
1,507



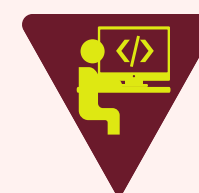
PARTICIPANTS IN INTERMEDIATE CODING WORKSHOP:
93

PARTICIPANTS IN TRAINING CAMP:
672

PARTICIPANTS IN CODERZ CODING CHALLENGE:
676

The *Amazon Cyber Robotics Challenge* was curated specially for Primary Three to Secondary Four Singapore students to equip the next generation of coders with the basics of computer science and coding. The Challenge provided equal opportunities for the underserved communities in a first-of-its-kind virtual robotics programme while developing the students' computational thinking and creative problem-solving skills.

In all, the programme reached out to 2,276 students across three categories - *Introduction to Block Coding Workshop*, *Intermediate Coding Workshop*, and *CoderZ Coding Challenge*.



BASICS OF CODING AND ITS REAL-WORLD APPLICATION



Participants at the Introduction to Block Coding workshop.



Ms Junko Mizobuchi, Head of Public Relations, Amazon Singapore, presenting the award to LCCL Coding Academy, the first place winner for CoderZ Coding Challenge secondary category.

Science Outreach Programmes and Competitions, Events & Engagement

AMPower



9 - 11 JUN 2022



8 - 10 DEC 2022



NUMBER OF PARTICIPANTS:
18 IN JUNE 2022
17 IN DEC 2022

This science outreach programme organised by the Centre was sponsored by Amgen Singapore Manufacturing and supported by Uplift Programme Office, Ministry of Education.

It was specifically catered for engaging youths from underprivileged communities in meaningful science workshops, building friendships with their peers and family members and empowering them in STEM fields. Participants were identified through partner community organisations including Chinese Development Assistance Council (CDAC), Eurasian Association (EA), Yayasan MENDAKI and Singapore Indian Development Association (SINDA).



**ENGAGE
YOUTHS FROM
UNDERPRIVILEGED
COMMUNITIES**



**OPPORTUNITY TO
BOND**



STEM EMPOWERMENT



Sharing by an Amgen staff volunteer as he give students a glimpse into STEM work-life.



Participants learning about the science behind pizza in one of the AMPower workshops.



Group photo of AMPower participants at the Centre.

Science Outreach Programmes and Competitions, Events & Engagement

Abbott Young Scientist Programme



NUMBER OF BENEFICIARIES:
42

NUMBER OF MENTORS:
53

Organised in partnership with Abbott Laboratories with support from the Ministry of Education, the *Abbott Young Scientist* programme celebrated its 10th Year Anniversary this year. The award was presented to 42 primary school students from 29 schools. Students underwent a six-month mentorship to work on a STEM project of their interest. The mentors included Science Centre's staff as well as student mentors from Temasek Junior College, Nan Chiau High School and National University of Singapore. The mentors were integral in helping these *Young Scientists* explore STEM in real-life settings, beyond their classroom.

The award ceremony was held on 13 August 2022, titled "Abbott Young Scientist for a Day", where the students presented their STEM projects in person to 220 guests. The event was graced by Guest of Honour, Mrs Chua-Lim Yen Ching, Deputy Director-General of Education (Professional Development), Ministry of Education.



MENTORSHIP PROGRAMME



Group photo of guests, mentors, and Abbott Young Scientists.



Mikko Lee Ruxuan (right), a 2013 alumna of the programme shared about her STEM inspiration. The event was graced by Guest of Honour, Mrs Chua-Lim Yen Ching, Deputy Director-General of Education (Professional Development), Ministry of Education.



Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board, interacting with one of the student's volcano experiments.

Science Outreach Programmes and Competitions, Events & Engagement

KLA Science Kit

 **NUMBER OF BENEFICIARIES:**
150

In collaboration with KLA Foundation, an *Electromagnetism kit* was developed. This was part of a year-long science outreach programme targeted at children and their families to make science accessible and inclusive, while inspiring experiential learning. The kits were delivered to the homes of 150 beneficiaries, who had the opportunity to attend the 'Journey of Michael Faraday' electromagnetism workshop conducted by Science Centre's educators.

Students also had an exclusive factory visit to KLA where they were able to see their theoretical learning from the workshop come to life. These experiences helped to pique their interest to pursue a career in science.



The KLA Electromagnetism Kit.



Group photo of beneficiaries attending the 'Journey of Michael Faraday' workshop.



INCLUSIVITY IN STEM



EXPERIENTIAL LEARNING

Science Outreach Programmes and Competitions, Events & Engagement

Singapore Science & Engineering Fair

 **JUDGING PERIOD:**
9 FEB - 30 MAR 2022

 **355 JUDGES**

 **HELD VIRTUALLY AMID THE PANDEMIC**

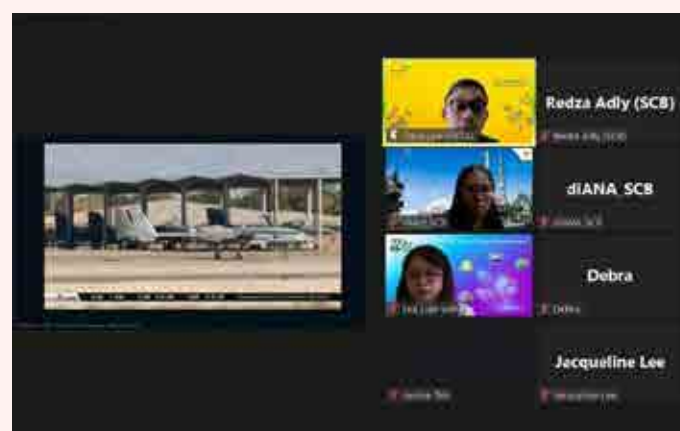
Singapore Science & Engineering Fair (SSEF) 2022 was developed with an online approach due to the COVID-19 pandemic. Despite the restrictions, the competition received 539 project registrations, with 497 in the main category, and 355 judges who volunteered from various Institutes of Higher Learning (IHLs) and Research Institutes (RIs). Fringe activities included the *SSEF* talks and the *SSEF Learning Journey*, "A Hundred Hows" which showed the application of STEM in everyday life. The *SSEF* talks featured STEM experts as they shared and interacted with students about their industry experience. This year, there were five featured speakers from A*STAR Advanced Remanufacturing Technology Centre (ARTC), Defence Science & Technology Agency (DSTA), Public Utilities Board (PUB), Home Team Science and Technology Agency (HTX) and DSO National Laboratories. The Centre also worked with Singapore Polytechnic, Bee Amazed Garden and Vertivegies to develop four videos which were uploaded to the *SSEF* website.

SSEF is affiliated to the highly prestigious *Regeneron International Science & Engineering Fair (ISEF)*, which is regarded as the Olympics of science competitions, where participants compete for awards, prizes and scholarships. Six projects from *SSEF* represented Singapore at the Regeneron ISEF where they clinched four awards.

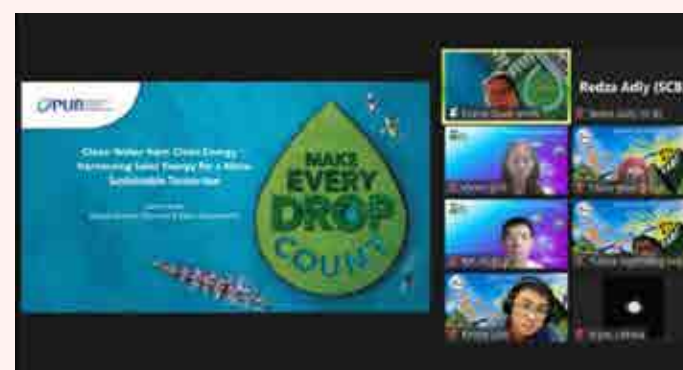
Ten organisations (Institute of Chemical Engineers, Singapore Association for the Advancement of Science, Singapore Society for Microbiology and Biotechnology, Yale-NUS College, Singapore University of Technology and Design, The Electrochemical Society: Singapore Chapter, Singapore Mathematics Society, The Institution of Engineers, Singapore, James Dyson Foundation and L'Oreal) sponsored special awards for 46 projects.



Eight students represented Singapore at the Regeneron International Science & Engineering Fair (ISEF) 2022.




SSEF Virtual STEM Talk by DSO & DSTA.



SSEF Virtual STEM Talk by PUB.

FOR PERFORMING WELL AT ISEF 2022

Materials Science



MALCOLM SOW MIAO GENG
NUS High School of Mathematics and Science



Materials Science



LEE RUI XUAN
Nanyang Junior College




Chemistry



ANNIKA LIU XINAN
Raffles Institution



China Association for Science and Technology



**ANSELMO KLEMENT CHUA
BRANDEN ZHAO KANG JUN**
Clementi Town Secondary School



Four awards were won by Singapore's delegates at the Regeneron International Science & Engineering Fair 2022.



FRINGE ACTIVITIES:
23 FEB -
25 MAR 2022

CATEGORY	NUMBER OF REGISTERED PROJECTS	NUMBER OF SCHOOLS REGISTERED
MAIN CATEGORY	497	35
JUNIOR SCIENTIST CATEGORY	42	16
TOTAL	539	51

MAIN CATEGORY	
GOLD	25
SILVER	33
BRONZE	35
MERIT	37
TOTAL	130

JUNIOR SCIENTIST CATEGORY	
DISTINCTION (PROJECT)	3
MERIT (PROJECT)	4
DISTINCTION (VIDEO)	2
MERIT (VIDEO)	6
TOTAL	15

Science Outreach Programmes and Competitions, Events & Engagement

Singapore Science Buskers



19 APR -
29 OCT 2022

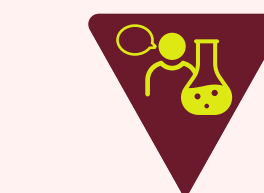


920
PARTICIPANTS
GROUPED INTO
352 INDIVIDUALS/
TEAMS



**SOCIAL MEDIA
OUTREACH:**
9,888 VOTES VIA
UNTAME ONLINE

Previously known as the Science Buskers Festival, *Singapore Science Buskers (SSB) 2022* marked the 15th year of the event. The festival encourages communicating science in a creative manner. This competition gave contestants the opportunity to do a “show-and-tell” on any science topic. The results were based on audiences’ votes and judges’ scores.



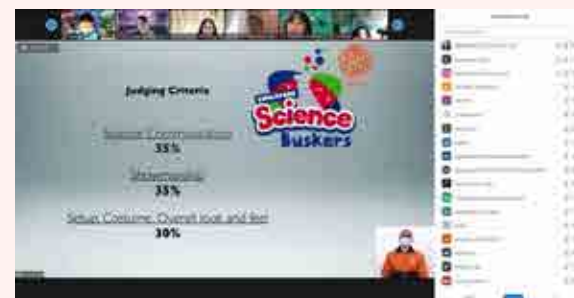
**PROMOTE SCIENCE
THROUGH CREATIVE
COMMUNICATION**



Finalists masterclass at the Science Centre.



Participants gearing up for their final presentation to the judges.



Virtual Science Busking workshop.

Science Outreach Programmes and Competitions, Events & Engagement

National STEM Championship



22 MAR -
16 SEP 2022



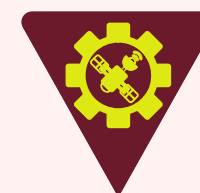
40 TEAMS,
160 STUDENTS
PARTICIPATED



VIEWERSHIP:
>300,000
(NATIONAL TV
AND SOCIAL
PLATFORM)

Previously known as the National Science Challenge, the *National STEM Championship* is a media driven project that aims to create an interest and awareness in STEM amongst students and the public. The competition was revamped in 2022 to include technology, engineering and mathematics to better align with the research, innovation, and enterprise landscape in Singapore.

Split into four different phases - Qualifying Rounds, Quarter Finals, Semi Finals and Grand Finals, teams went through different STEM-related challenges and Raffles Institution emerged as the winner of the 2022 *National STEM Championship*. The Grand Finals was held on 16 September 2022 at the MediaCorp studio.



**MEDIA DRIVE PROJECT
TO PROMOTE STEM**



A group photo featuring Guest of Honour Ms Sun Xueling, Minister of State, Ministry of Home Affairs and Ministry of Social and Family Development, judges, participants and MediaCorp celebrities at the grand finals.



Participants in the Qualifying Round - Practical.



Participants answering questions at the 'Kids Ask' challenge.



Participants working on their prototype at the challenge.

Science Outreach Programmes and Competitions, Events & Engagement

Tan Kah Kee Young Inventors Award



28 FEB -
4 NOV 2022



706
PARTICIPANTS
WITH 313 ENTRIES



355,966
BROAD-BASED
OUTREACH

The 2022 *Tan Kah Kee Young Inventors' Award (TKKYIA)* encouraged young students to be curious and apply scientific principles to create innovative solutions through their inventions.

The award was jointly organised by the Tan Kah Kee Foundation (TKKF) and the Ministry of Education with support from Science Centre Singapore. The award ceremony was graced by Ms Gan Siow Huang, Minister of State, Ministry of Education and Ministry of Manpower on 17 September, and featured an exhibition of all 46 award-winning entries. There were 244 attendees consisting of 97 winning participants. The programme featured online quizzes and a hybrid webinar to motivate and inspire the participants through the sharing of judging criteria, insights, and past experiences from judges.



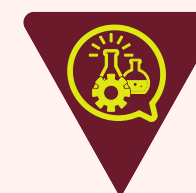
The award ceremony, held at Science Centre Singapore.



Guest of Honour Ms Gan Siow Huang, Minister of State, Ministry of Education and Ministry of Manpower giving a speech to the winners of TKKYIA 2022.



STIMULATE
CREATIVITY AMONGST
THE YOUNG



PROMOTE SCIENTIFIC
AND TECHNOLOGICAL
RESEARCH

Science Outreach Programmes and Competitions, Events & Engagement

National STEM Talent Search

 18 APR - 3 AUG 2022

 64 PROJECTS

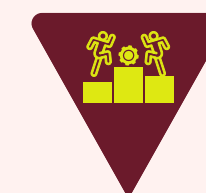
National STEM Talent Search (NSTS) has been running this competition since 1995 with support from the Ministry of Education. This competition aims to sustain a passion for science among the young and reward students who have performed well in scientific research. This year's iteration was also significant as the full competition was conducted in-person after two years - a much welcome shift from its virtual format during the COVID-19 pandemic. Shortlisted participants were able to discuss the viability of their proposed solutions with the judges face to face.



8 WINNERS



SUSTAIN PASSION FOR SCIENCE FROM YOUNG




PRESTIGIOUS STEM COMPETITION



Winners of the National STEM Talent Search with (from bottom left) Professor Ho Teck Hua, NSTS 2022 Chairperson, Nobel Laureate Professor Sir Konstantin Sergeevich Novoselov, Chief Judge of NSTS 2022, and (bottom right) Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board.

Science Outreach Programmes and Competitions, Events & Engagement

Sony Creative Science Award

 3,861 TOYS

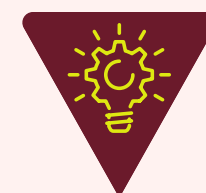
 4,721 STUDENTS
81 SCHOOLS

This year marked *Sony Creative Science Award (SCSA)* 25th anniversary. Jointly organised by Science Centre Singapore (SCS) and the Sony Group of Companies in Singapore, with the support of the Ministry of Education (MOE), the easing of COVID-19 restrictions midway through the year, allowed the resumption of planned on-site activities.

This year's competition produced 3,861 toys by 4,721 students from 81 schools. Of these, 39 schools organised an internal competition, called *SCSA (Schools)*, before submitting their winners to Science Centre Singapore for the main competition. The award ceremony was graced by Mr Desmond Lee, Minister for National Development & Minister-in-charge of Social Services Integration.

In celebration of its 25th anniversary, a roving exhibition was hosted at Tampines, Jurong and Woodlands Regional Libraries showcasing winning toys through the years.

SCSA 2022 also gave birth to the competition's new tagline "Igniting Fun, Creativity & Innovation" to continue igniting the joy of creation amongst young toy makers. There was also a People's Choice contest on SCSA's Facebook page for supporters to vote for their favourite toys.



CREATIVITY AND INNOVATION



Guest of Honour, Mr Desmond Lee, Minister for National Development & Minister-in-charge of Social Services Integration, interacting with first prize winner of the WhizKid category at the award ceremony.



Students with their toy boats at the on-site hands-on challenge for the final judging round at the Science Centre.



Roving exhibition at Tampines Regional Library featuring past years' winning toys.

Science Outreach Programmes and Competitions, Events & Engagement

Singapore Amazing Flying Machine Competition



16 MAR -
16 APR 2022



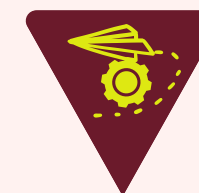
ONLINE &
SINGAPORE EXPO

The 13th iteration of the *Singapore Amazing Flying Machine Competition (SAFMC)* jointly organised by DSO National Laboratories and Science Centre Singapore and supported by the Ministry of Defence (MINDEF) continues to be the largest flying machine competition in Singapore. *SAFMC* encourages participants to push the boundaries of innovation by designing extraordinary flying machines through their aerodynamics knowledge.

In conjunction with DSO's 50th anniversary, enhanced categories were introduced for the competition. Participating teams had the exciting opportunity to push boundaries by using wearable, collaborative, and swarm technologies for their flying machines.



EXPLORE THE SCIENCE
BEHIND FLIGHT



DESIGN THEIR OWN
FLYING MACHINES



Guest of Honour, Mr Heng Chee How, Senior Minister of State, Ministry of Defence, and Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board interacting with SAFMC participants.



Demo teams from category A to E with Guest of Honour, Mr Heng Chee How, Senior Minister of State, Ministry of Defence, Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board and Mr Cheong Chee Hoo, Chief Executive Officer, DSO National Laboratories.



Demonstration of drone mission during the award ceremony.




Demonstration of drones performing their mission during the award ceremony.

CATEGORY	NUMBER OF TEAMS	NUMBER OF PARTICIPANTS	WINNERS
A PAPER PLANES (PRIMARY)	128	330	TEAM 3 YEW TEE PRIMARY SCHOOL
B UNPOWERED GLIDERS (SECONDARY / IP)	199	791	APOLLO 22 RAFFLES GIRLS' SCHOOL (SECONDARY)
C1 RADIO CONTROL FLIGHT - FIXED WING (SECONDARY / IP)	47	172	NEKOSUKI VICTORIA SCHOOL
C2 FPV FLIGHT - NOVICE (ALL SCHOOLS)	79	130	AKSANTARA B INSTITUT TEKNOLOGI BANDUNG, (INDONESIA)
C3 FPV FLIGHT - ADVANCED (ALL SCHOOLS)	15	15	SPI SINGAPORE POLYTECHNIC
D1 SEMI AUTONOMOUS (POLYTECHNICS/ UNIVERSITIES)	11	42	DLS SINGAPORE POLYTECHNIC
D2 AUTONOMOUS (POLYTECHNICS/ UNIVERSITIES)	4	17	BLUP NANYANG POLYTECHNIC
E SWARM (OPEN)	4	26	TTSQUARE SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

Science Outreach Programmes and Competitions, Events & Engagement

Asia Drone Championship

 19 - 20 NOV 2022

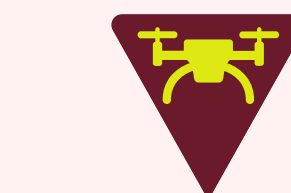
 ANNEXE HALL,
SCIENCE CENTRE
SINGAPORE

Since 2018, Science Centre Singapore and Multi Rotor Association Singapore have been co-organizing the *Asia Drone Championship (ADC)* - an exciting drone racing competition, where top-tier drone pilots from across Asia compete for the coveted *ADC championship*. For the first time, the tournament was held at the Centre with drone pilots from 11 countries (including Singapore) battling out in a unique indoor neon-electro themed racetrack over two days. Through this exciting spectacle, guests were introduced to the latest STEM technologies in an engaging manner.

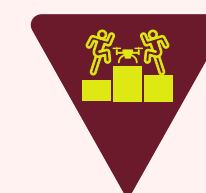
Guests were also treated to a variety of exciting fringe activities, including drone simulation, drone soccer, quizzes and even slot car racing.

CATEGORY	PARTICIPANTS
FIRST-PERSON VIEW RACE (FPV) INTERNATIONAL OPENS	50
FREESTYLE VIDEOS SUBMISSION	39

RANKING	MAIN RACE	INDIVIDUAL SPEC RACE	TEAM SPEC RACE
1ST	KOREA - MINJAE KIM	SINGAPORE - IZZ THAQIF	SINGAPORE
2ND	KOREA - MINSEO LEE	THAILAND - PAKIN SIRIKUL	TAIWAN
3RD	KOREA - HYEONJIN JANG	KOREA - GAYEON MO	SINGAPORE



INDOOR DRONE RACE



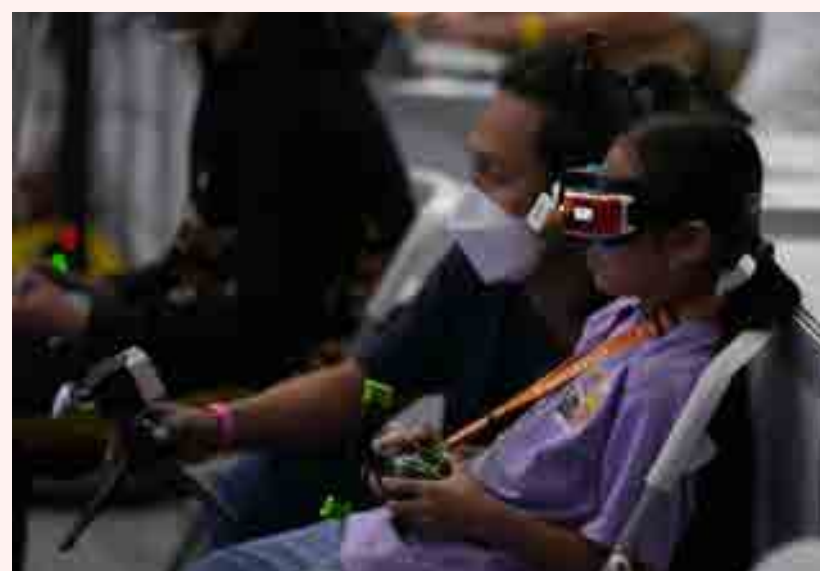
REGIONAL COMPETITION



Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board giving out an award to the main race winner, MinJae Kim.



Guests were able to try out fringe activities such as slot car racing at ADC 2022.



Pilots racing in action at ADC 2022.



A glimpse of the neon-electro themed indoor racetrack that was unique to ADC 2022.



Pilots preparing to start their race.

Informal Science Programmes, STEM Inc and Professional Development

Young Scientist Badge 40th Anniversary



FEB 2022
OCT 2022



**PARTICIPATION
NUMBERS FOR YSB40
AWARD CEREMONY:
556**

The *Young Scientist Badge (YSB) Programme*, Science Centre Singapore's longest-running initiative, commemorated 40 years of igniting interest and passion in STEM among young learners in 2022. Inaugurated in 1982 with just four badges, the programme has expanded its collection to include more than 20 different STEM disciplines and engaged more than a million learners in self-directed learning.

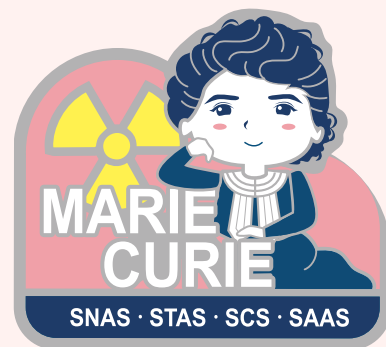
The Centre celebrated this milestone with a special *Young Scientist Badge 40th Anniversary (YSB40)* event where Guest of Honour, Mr Chan Chun Sing, Minister for Education, announced the launch of three new badges – the multidisciplinary, “*I am a Young Marie Curie*” and “*I am a Young Margaret Fountaine*” badges, as well as the “*I am a Young Digital Fabricator*” badge, in partnership with Infocomm Media Development Authority (IMDA), Institution of Engineers, Singapore (IES), Singapore Land Authority (SLA), Singapore Telecommunications Limited, The Singapore Institute of Biology (SIBiol) and Temasek Foundation.

YSB alumni members in various STEM professions were invited to the ceremony and their experiences were featured on posters. Students from various primary schools, including Special Education schools, also showcased their projects and participated actively in completing learning trails at the Centre.

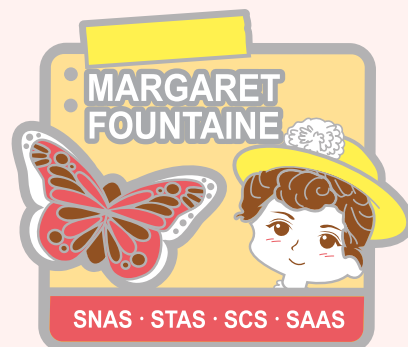
YSB40 also received strong media support and was widely covered by key outlets such as CNA, The Straits Times, Tamil Murasu and Lianhe Zaobao as they highlighted the launch of the new badges as well as the YSB journey of several alumni.



Launch of the multidisciplinary badges and the Young Digital Fabricator badge by (from left) Ms Irene Tan, Vice-Chairperson, Science Teachers Association of Singapore (STAS), Professor Ng Huck Hui, Board Member, Science Centre Board, Guest of Honour Mr Chan Chun Sing, Minister for Education, Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board and Dr Ang Wai Hoong, Former STAS Chairperson.



"I am a Young Marie Curie" badge



"I am a Young Margaret Fountaine" badge



"I am a Young Digital Fabricator" badge



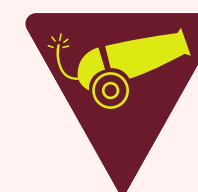
Guest of Honour, Mr Chan Chun Sing, Minister for Education and Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board, interacting with school students at the YSB40 project booths.

YSB PHYSICAL TRAIL PARTICIPATION NUMBERS	NUMBER OF BADGES GIVEN OUT IN 2022	NUMBER OF BADGES GIVEN OUT SINCE INCEPTION (1982)
5,818	19,784	1,106,247

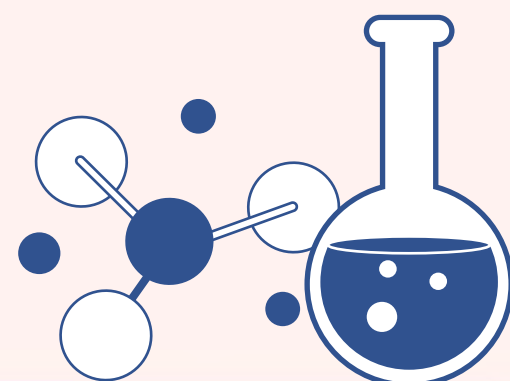
NUMBER OF PARTNERS FOR YSB40	
1.	INFOCOMM MEDIA DEVELOPMENT AUTHORITY (IMDA)
2.	INSTITUTION OF ENGINEERS, SINGAPORE (IES)
3.	SINGAPORE LAND AUTHORITY (SLA)
4.	SINGAPORE TELECOMMUNICATIONS LIMITED (SINGTEL)
5.	THE SINGAPORE INSTITUTE OF BIOLOGY (SIBIOL)
6.	TEMASEK FOUNDATION



40TH ANNIVERSARY OF THE YOUNG SCIENTIST BADGE PROGRAMME



LAUNCH OF THREE MULTI-DISCIPLINARY BADGES



Informal Science Programmes, STEM Inc and Professional Development

Young Sustainability Champion

 98 PARTICIPANTS

The *Young Sustainability Champion (YSC)* programme aims to raise awareness on United Nation's Sustainable Development Goals (UNSDG) among youths by engaging them in creating sustainable solutions for the community. The theme for 2021-2022 was centred on "Food Sustainability". Based on this theme, participants used design thinking to gain a deeper understanding of issues, empathise with stakeholders, prototyped possible solutions, and tested their ideas in authentic situations. Students were also guided by mentors to address their challenge statement.

PHASE 1: ONLINE CERTIFICATION & BADGE PROGRAMME	PHASE 2: DESIGN THINKING WORKSHOPS		PHASE 3: SOLUTIONING, PROTOTYPING & BOOTCAMP		PHASE 4: DEMONSTRATION DAY, JUDGING AND PRIZE PRESENTATION	
(JUNIOR & SENIOR) REGISTERED FOR YSC BADGE	STEM MASTERCLASSES FOR SHORTLISTED PARTICIPANTS		JUNIORS	SENIORS	PROJECT GROUP (JUNIORS)	PROJECT GROUP (SENIORS)
	JUNIORS	SENIORS				
46,577	117	67	105	67	7	7



Ms Grace Fu, Minister for Sustainability and the Environment, interacting with the junior winning team who created a portable biodigester from food waste.



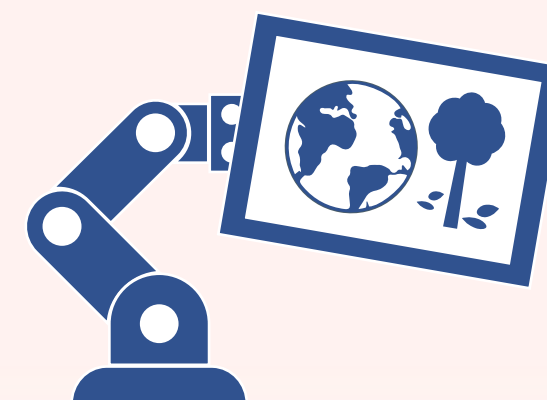
Ms Li Lang Heng (far left) Senior Director, Temasek Foundation, Ms Grace Fu (middle), Minister for Sustainability and the Environment, and Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board interacting with the senior winning team who worked on a novel method to develop seed bombs from discarded coffee grounds.

SOCIAL MEDIA REACH AND ENGAGEMENT

527,508

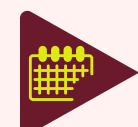
PARTNERS ENGAGED

1.	GROUND UP INNOVATION LABS FOR DEVELOPMENT
2.	ON HAND AGRARIAN
3.	CITY SPROUTS
4.	BEE AMAZED GARDEN
5.	INSECTTA
6.	ATLAS AQUACULTURE
7.	SPUDNIK LABS
8.	ONE KIND IDEAS
9.	UNITED NATIONS DEVELOPMENT PROGRAMME
10.	NANYANG POLYTECHNIC
11.	INTEL



Informal Science Programmes, STEM Inc and Professional Development

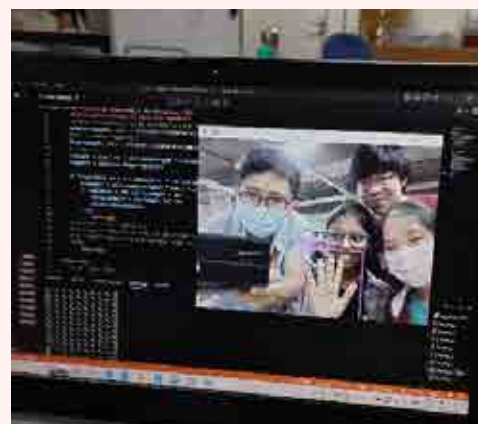
Research & Development Programme

 1 - 12 DEC 2022

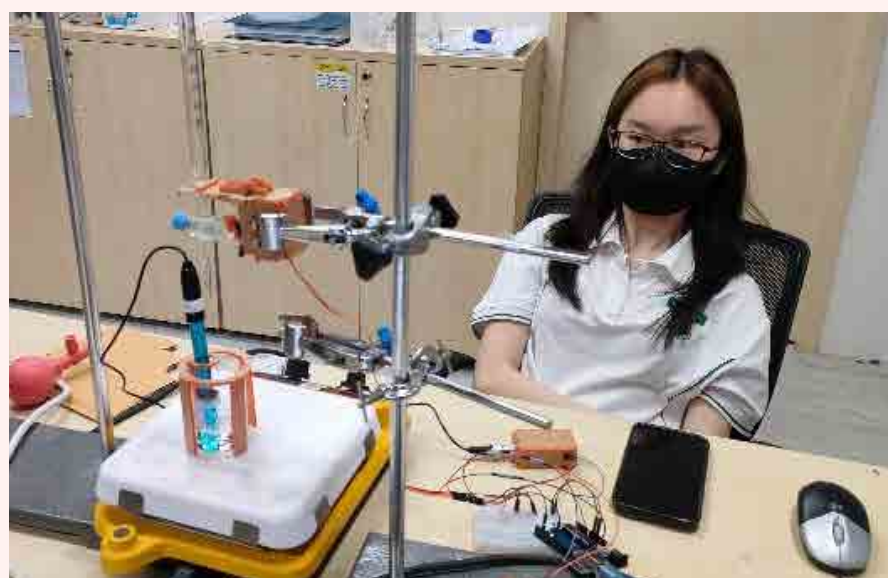
CRADLΣ's *Research & Development Programme (RDP)* allowed students to embark on applied science and engineering projects such as 'computer vision-controlled robotic hand', 'automated titrator' and many more. In their projects, the students utilised science and engineering knowledge to research on a given topic or construct a working prototype under the guidance of a CRADLΣ mentor. Through this process, students were trained in the necessary prototyping tools and gained a deeper understanding of the applied science and engineering concepts.



A group photo with RDP students and their mentors.



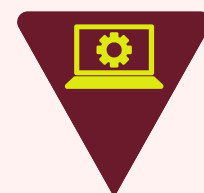
A group of RDP students successfully programmed hand detection through computer vision via the Python software.



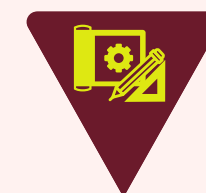
An RDP student testing her automatic titrator prototype.



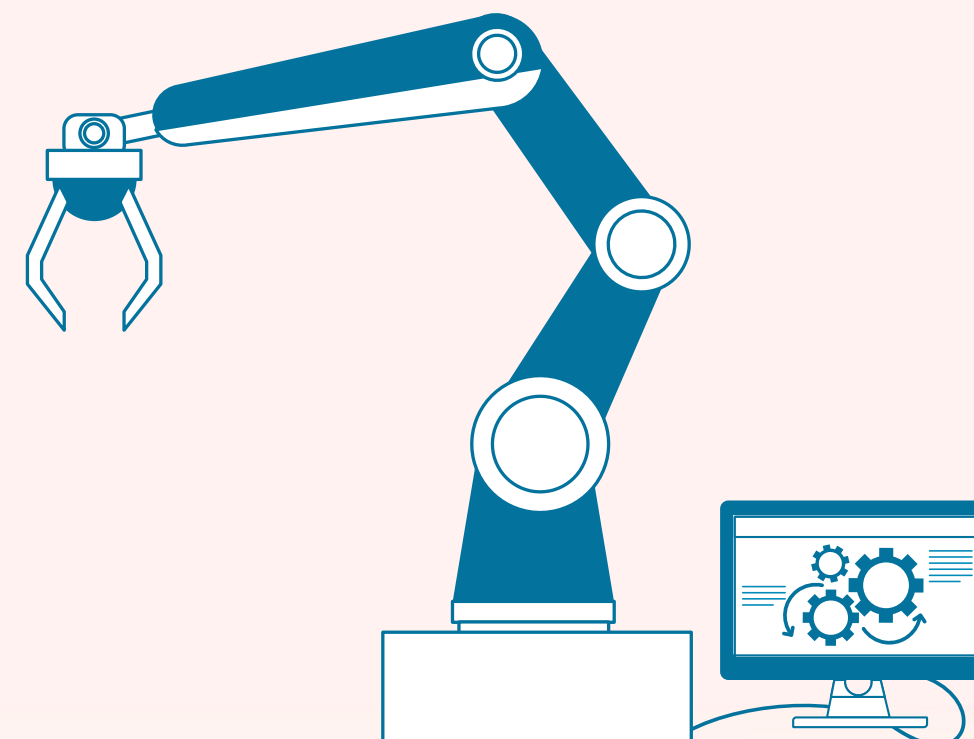
An RDP student sending a light beam carrying data across the lab.



**APPLIED SCIENCE
& ENGINEERING
PROJECTS**



**PROTOTYPING
SKILLS**



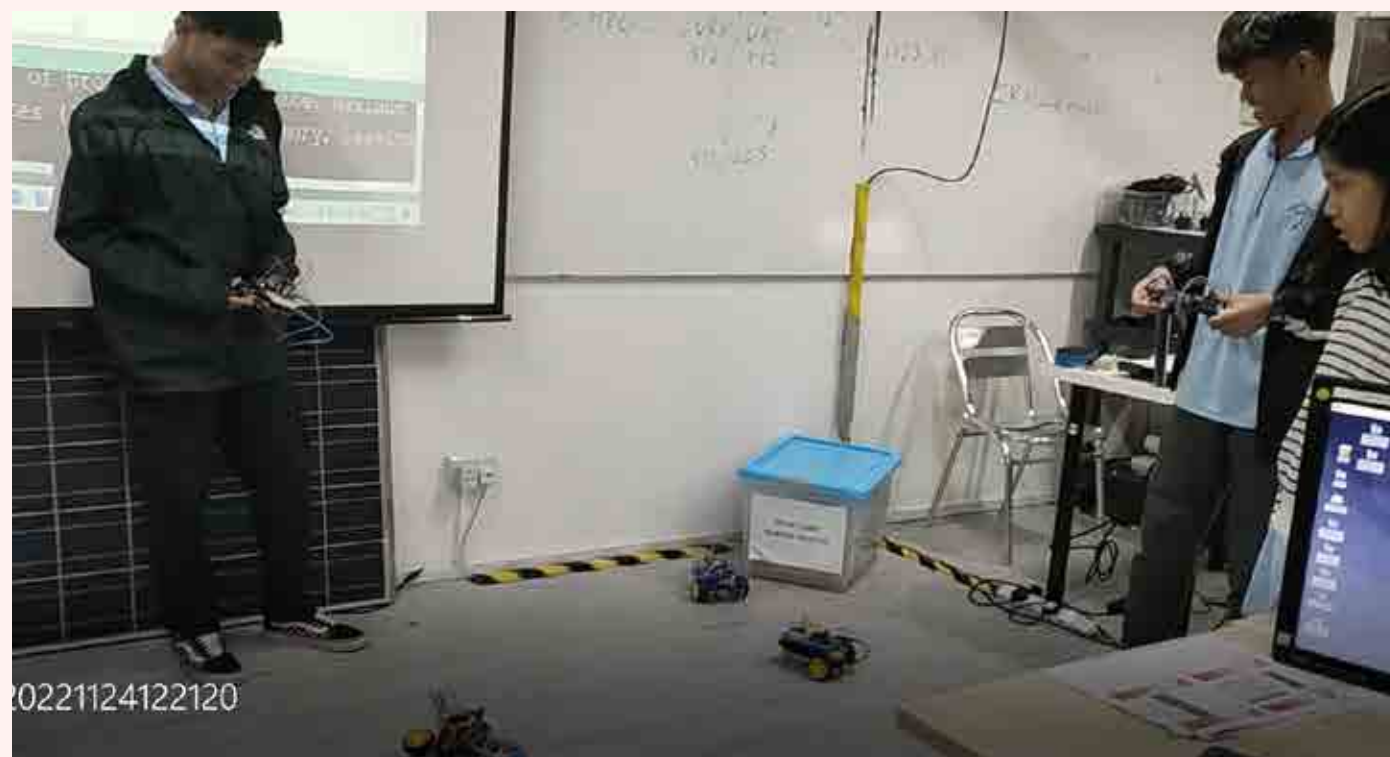
Informal Science Programmes, STEM Inc and Professional Development

A*STAR Robotic S.M.A.R.T Camp



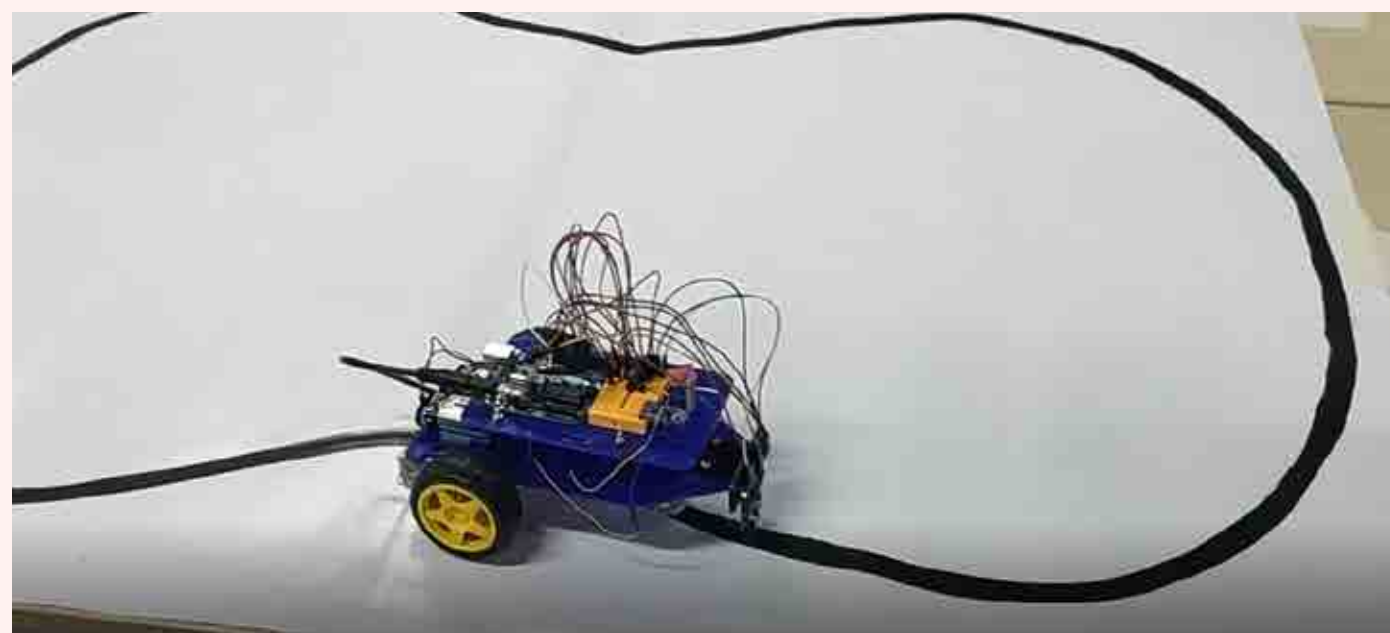
23 - 24 NOV 2022

In partnership with the Agency for Science, Technology & Research (A*STAR), this camp provided underprivileged students with STEM opportunities beyond their school curriculum. In the two-day camp, 10 students ranging from 12 to 14 years old learned about actuators, electronics and computer algorithms. This also included the assembling of various robotic vehicles, such as a Bluetooth™ remote-controlled vehicle, an autonomous line tracking robot, and a robot controlled via an ISM band radio data link.



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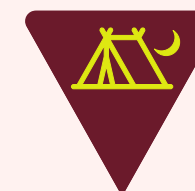
Students trying out their built and programmed ISM Radio Robotic Vehicle.



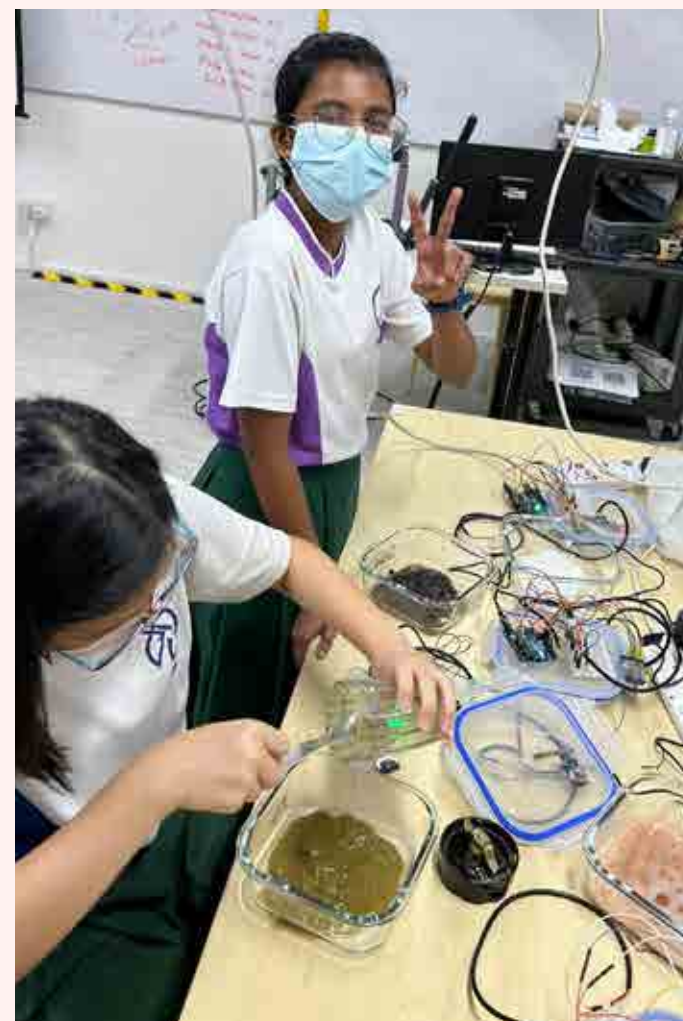
A successful line tracking robotic vehicle built and programmed by a group of students.



ASSEMBLE ROBOTIC
VEHICLES



LEARNING BEYOND THE
CLASSROOM



Students experimenting on food samples as part of the school-based R&D experience programme.

Informal Science Programmes, STEM Inc and Professional Development

School-Based R&D Experience Programme

Under this programme, schools can book mentors to provide and oversee research projects for select student teams.

In 2022, CRADLΣ mentored two teams from Kranji Secondary School for over 25 hours of project work at the Centre. Students planned and conducted their experiments, tested samples and logged data for results and analysis. Both teams were presented with a distinction award at the Hwa Chong Institution Science Research Projects competition. Similar project mentorships were provided to Anderson Secondary School, Chung Cheng High (Yishun) Secondary School, and Chua Chu Kang Secondary School.

Science Mentorship Programme

Science Mentorship Programme (SMP) is an ongoing collaboration with the Ministry of Education (MOE) that enables secondary school students to team up with mentors to conduct extended research projects. In 2022, CRADLΣ Mentors offered four original research projects, that garnered two merit awards and one distinction award by MOE's panel of judges.

At the *Singapore Science and Engineering Fair (SSEF)*, a 2021 CRADLΣ SMP project on intelligence gathering via SONAR received a silver award as well as the Research & Innovation Award for Multidisciplinary Research by Singapore University of Technology and Design (SUTD).



**STUDENT
MENTORSHIP
PROGRAMME**



Informal Science Programmes, STEM Inc and Professional Development

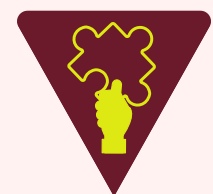
STEM Inc Efforts

STEM Inc continued its support to STEM ALP schools through the curation of new lesson resources, consultation sessions, professional development workshops and organisation of communities of practice events relevant to the various contextual themes for primary and secondary STEM ALP schools. 2022 was replete with meaningful exploits including nurturing culinary wellness, facilitating creative expression and forging a stellar STEM imprint overseas.

The 'Eat Your Farm Competition' was a health and food science challenge that enabled students from 11 schools to join a food innovation technology learning journey to Republic Polytechnic. The students also attended online workshops on food nutrition, hydroponics and Micro:bit, and curated 18 delectable dishes for judges at the finals of the event.

In a new venture, a small group of students from Nanyang Girls' High School embarked on an artistic two-week mentorship programme at the Centre's Digital Fabrication Space. They picked up invaluable digital fabrication skills as well as abstract art knowledge from local artist, Daniel Peh to produce an inspirational blend of STEM-infused art pieces which were featured in an avant-garde showcase for public.

The Teacher Professional Development (PD) roadmap for overseas educators funded by Temasek Foundation, enabled 150 teachers in Malaysia to be trained in 2D and 3D CAD prototyping, Micro:bit and curriculum design. This newfound knowledge served to help them engage students in solving STEM challenges in their local context.



**ACTUALISE
INSPIRATION**



**EMPOWERMENT AND
CO-CREATION FOR
STUDENTS**



**TEACHERS, STUDENTS
AND THE PUBLIC**



Student teams from Seng Kang Secondary School with their Certificates of Participation from the Eat Your Farm competition.



Nanyang Girls' High School student, Luck Syang, presenting her art piece at the project showcase held in the Centre's Digital Fabrication Space.

Informal Science Programmes, STEM Inc and Professional Development

Professional Development Efforts

STEM Community of Educators in Leading and Learning (STEM CeLL) at the Centre is a unit dedicated to STEM-related professional development (PD) for educators since January 2022. The unit aims to deepen and broaden teachers' knowledge and skills to strengthen their readiness in delivering STEM education through informal learning spaces. The unit has reached out to about 1,000 educators ranging from pre-school to tertiary levels through various platforms.

Thursdays with STEM

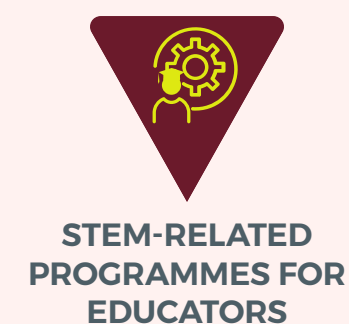


JAN - SEP 2022



OVER 500 EDUCATORS REACHED

A series of STEM-related learning journeys, webinar sharings, and workshops were offered to educators on Thursday afternoons between January and September. STEM Industry partners (e.g. Amgen), Institutes of Higher Learning (e.g. ITE College West) and industry professionals were invited to share their experience and insights. Science Centre workshops such as *Modelling & Simulation with AI* and virtual exhibition tours were also offered in this programme. In addition, this programme provided customised workshops, request-based learning journeys for local and overseas educators, and teacher briefings for key student programmes. These efforts engaged over 500 educators.



Learning journey and sharing session for US Educational Leaders.



Educators at a learning journey to Agency for Science, Technology & Research (A*STAR) ARTC's Factory of the Future.

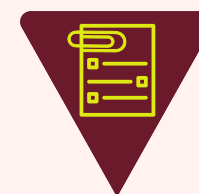
Informal Science Programmes, STEM Inc and Professional Development

Teacher Work Attachment

In collaboration with the Academy of Singapore Teachers (AST), this programme was offered for four weeks during the June and November holidays, and on other occasions upon request. Ten roles were offered for both science and non-science teachers, in which they were assigned Science Centre mentors to share their knowledge and expertise. The Centre hosted 14 educators from the Primary, Secondary, Special Needs schools and Tertiary Institutions as part of this attachment.



A group photo featuring teachers from the work attachment alongside their Science Centre mentors.



WORK ATTACHMENT



MENTORSHIP OPPORTUNITY

In-Situ PD

Another collaboration with AST was the design and facilitation of STEM lessons. Teacher participants had a pre-demo session by Master Teachers (MTTs) on the overview of STEM Education, viewed a live demo lesson conducted by Science Centre education officers from CRADLΣ and STEM Inc and a post-demo lesson discussion with the MTTs on lesson design and facilitation.

This programme is conducted twice a year with each run having three sessions. Demo lessons are conducted with students from the upper primary and lower secondary levels for each run. 112 teachers across the primary and secondary schools had gained insights to STEM teaching and learning through In-Situ PD last year.



Post-demo lesson PD with primary MTTs.



Demo lesson observed by secondary school teachers.

Informal Science Programmes, STEM Inc and Professional Development

Mentoring School-Based Student Research



28 JUL 2022

CRADLΣ mentors conducted a professional development workshop for teachers and school leaders on enabling and mentoring school-based student research projects. The programme was very well received by the 10 attendants, garnering a perfect feedback score.



Teachers participating in activities during the "Discovery of the World through Inquiry-based Learning" workshop.

Pre-School Teachers



335 EDUCATORS

In collaboration with the Early Childhood Development Agency (ECDA), the Science Centre developed a series of workshops for early childhood educators under ECDA's Continuing Professional Development (CPD) and Innovation Guidance Project (IGP). These workshops include a range of topics such as kitchen science which help to strengthen scientific knowledge in teaching and learning. In 2022, 335 educators benefitted from these workshops.



Participants and trainers discussing artefact examples produced in student research projects.

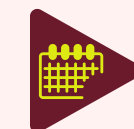
Gallery Experience

International Days @ Science Centre

Specific International Days recognised by the United Nations are commemorated to raise awareness on social issues where STEM has an impact. The Centre aims to promote the UN's Sustainable Development Goals through creative science programmes and activities.

WORLD HEALTH DAY

To highlight the importance of life saving skills, a CPR race event was held in partnership with the Ministry of Health's Unit for Pre-hospital Emergency Care (UPEC).



8 -10 APR 2022



INTERACTION
NUMBERS:
504

INTERNATIONAL DAY AGAINST DRUG ABUSE AND ILLICIT TRAFFICKING

To commemorate this day, the Twin Towers at the Centre were lit up in turquoise as a reminder towards building a drug-free society. Online content curated in collaboration with Central Narcotics Bureau (CNB) was also uploaded onto the Science Centre website to raise awareness and educate the public on the harmful effects of drugs.



26 JUN 2022



Science Centre's Twin Towers were lit up in turquoise on 26 June 2022.



Event collaterals for CPR race activity.





Guests learning about how their sleep cycle changes as they age.

INTERNATIONAL DAY OF OLDER PERSONS (IDOP):

 1 - 9 OCT 2022

 INTERACTION NUMBERS: 4,893

Themed “Joyful Agers, Grooving through Wellness” - a variety of hands-on activities around wellness and ageing were organised at the Centre for guests to participate.

WORLD BRAILLE DAY:

 7 - 31 JAN 2023

 INTERACTION NUMBERS: 2,163

World Braille Day activities were organised and held to raise awareness about the importance of braille as a means of communication for the visually impaired.



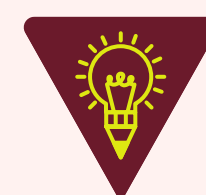
Senior guides engaging guests with a busking performance.



Guests trying out World Braille Day activities at the Centre.



RAISE AWARENESS ON SOCIAL ISSUES



CREATIVE SCIENCE PROGRAMMES AND ACTIVITIES

Gallery Experience

Energy Titans Show



OFFICIAL
RE-LAUNCH
22 JAN 2023

Touted as a revamp of the Centre's former long running *Tesla Coil* show, it was re-launched with a new name and a fresh concept in conjunction with the existing *Energy Story* exhibition at the Centre to offer an elevated experience for guests. *Energy Titans Show* presents a condensed history of humanity's discovery and use of energy, particularly electrical energy, through a series of live demonstrations.

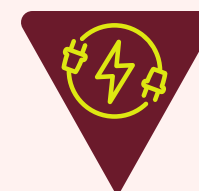
Guests were dazzled by a display of spectacular lightning arcs that produce music, and a Faraday cage challenge, involving live audience participation.



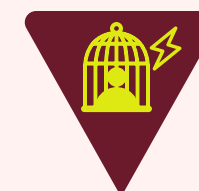
The Energy Titans Show in action.



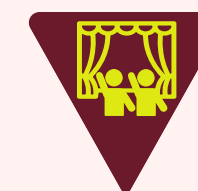
The Faraday Cage Challenge allows guests to be a part of the show.



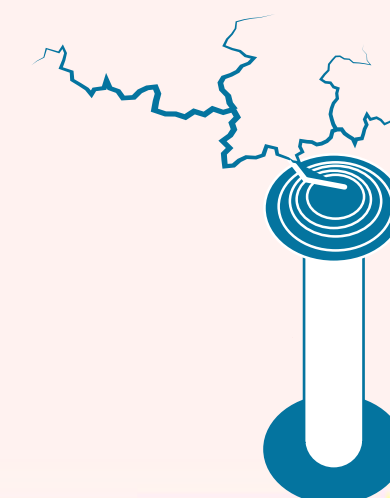
DISPLAY OF
ELECTRICAL ENERGY



LIVE DEMONSTRATION



AUDIENCE
PARTICIPATION





The key art for the Tinker Fest 2022 featured the main theme of "ARCADE" in its design.



Guests created unique projects by turning anything conductive into a touchpad through the MakeyMakey activity.



Guests having fun at the Ring Toss activity at Tinker Fest.



Guests participating in the Catapult activity.



Guests designed and created their own marble maze at the Tinker Fest.

Gallery Experience

Tinker Fest



28 MAY -
26 JUN 2022



INTERACTION
NUMBERS:
22,230

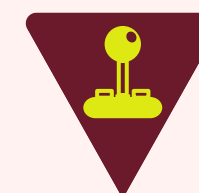
An annual celebration of innovation and creativity, this year's theme of "ARCADE", encouraged participants to tinker and create games.

Sponsored by *3M Gives* and powered by Science Centre Singapore, the festival involved families, educators and makers in a month-long celebration of learning through play, exploration and experimentation.

Guests participated in a range of hands-on activities where they built their own arcade games using recyclable materials such as cardboard, wood, and plastic.



LEARNING THROUGH
PLAY AND
EXPLORATION



"ARCADE" THEMED

Gallery Experience

GeNiUS Week



2 - 11 SEP 2022



INTERACTION
NUMBERS:
2,213

GeNiUS Week was a week-long holiday programme on chemistry where guests had the opportunity to participate in fun and easy to understand hands-on activities.



Guests participating in the magical ink activity.



Science Centre staff engaging guests in the Dipty chromatography activity.

***“Fun for the kids!
Hope to see more
chemistry activities”***

- Steven
6 SEP 2022

***“Activities were
fun, and we can try
them at home too”***

- Samantha Poh
9 SEP 2022

Gallery Experience

Sci-sational Christmas



12 - 26 DEC 2022



INTERACTION
NUMBERS:
21,261



SHOW AND TELL

During the year-end festive period, guests joined our beloved elves on an icy adventure at the Centre's "Snow Academy".

They learnt about the science of ice and were also treated to "Show & Tell" sessions that featured exciting ice-related demonstrations such as "Hot Ice" and Quantum Levitation.



Guests participating in the 'Ice Melting Inquiry' activity station at the Scientist for a Day (SFAD) section of the Centre.



Guests engrossed in the Show & Tell performance .

"Fantastic event with professional demonstrators who are able to engage the curiosity of the young."

- Mah Ka Weng
12 DEC 2022

"Ruby has done a great job - the show was very engaging"

- Sufen
22 DEC 2022

"Great initiative. Good for families. Facilitators were great!"

- Eugene Siow
24 DEC 2022

"Excellent show. Very interesting. Great presentation."

- Smriti
21 DEC 2022



The Key Visual for DiscovHER.



Guests learning how a bioreactor works at a partner's (Amgen) activity booth.



Mr Daniel Tan, Senior Director, Exhibitions, Science Centre Board, giving a welcome address to the participants of Generally Speaking STEM Edition Launch.



Guests participating in various activities at the DiscovHER partners' booths.

Gallery Experience

DiscovHER



8 - 19 MAR 2022



GENERALLY SPEAKING STEM EDITION LAUNCH



NUMBER OF ATTENDEES: 59

In its sixth year, *DiscovHER* continued to celebrate *International Day of Women and Girls in Science*, and champion the work done by women in STEM. The programme seeks to inspire girls to pursue STEM careers.

This was done through activity booths set up by the Centre's partners from the STEM industry, as well as a poster exhibition featuring local scientists providing insights on their STEM journey.

DiscovHER also supported the launch of *Generally Speaking* STEM edition, a conversation card deck developed by NTU POWERS and GEN aimed at gamifying tough questions and bridging conversations on gender and generational perspectives on the STEM industry. The launch was attended by Guest of Honour, Ms Low Yen Ling, Minister of State, Ministry of Culture, Community and Youth & Ministry of Trade and Industry, Chairperson of Mayors' Committee & Mayor, South West District, who also participated in the fireside chat to talk about gender equality in STEM.

PARTNER COMPANIES FOR DISCOVHER

1.	UNITED WOMEN SINGAPORE
2.	JUNIOR ACHIEVEMENT SINGAPORE X JOHNSON & JOHNSON
3.	SHIOK MEATS
4.	3M
5.	AMGEN
6.	ABB
7.	CENTRE FOR QUANTUM TECHNOLOGIES (CQT)
8.	SMART NATION SINGAPORE X SINGAPORE POLYTECHNIC
9.	AMILI
10.	ABBOTT

Five video clips featuring female STEM professionals were posted on social media to grow interest in STEM among young girls.



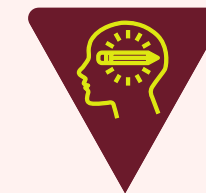
Poster exhibition of local female scientists that gave insights on their STEM journeys.



Guests interacting with a hologram at a partner's (Smart Nation & Singapore Polytechnic) activity booth.



CHAMPION WOMEN IN STEM



INSPIRE GIRLS TO PURSUE STEM CAREERS

Gallery Experience

3M Girls Can Tinker Programme



28 MAR 2023

The *3M Girls Can Tinker* initiative aims to balance gender equality by reaching out to girls, aged 10 to 14 from disadvantaged backgrounds, through specially curated programmes that infuse art and science with tinkering.

3M Girls Can Tinker is an extension of the *3M Tinkering Headstart* programme. It offers girls from low-income families and home shelters access to the Centre's STEM education programmes. As part of the programme, the girls worked on projects that expanded their creativity and also allowed them to learn science concepts. They were also able to pick up skills such as using woodworking equipment.



Learners got to experiment with colours, paint on canvas and build their own easel in the mural wall clock activity.



Students with their vehicle prototypes from the RC vehicle activity.

LIST OF ACTIVITIES	
1.	RC VEHICLE
2.	MURAL WALL CLOCK
3.	WOODEN MACHINES
4.	WOOD-SLICED FRIDGE MAGNET
5.	GENDER EQUALITY IN STEM

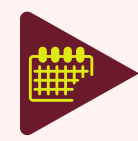
TARGET NUMBER OF BENEFICIARIES	200
BENEFICIARIES TO DATE	108



INCLUSIVITY IN STEM

Singapore Science Centre Global Pte Ltd

Sarawak Science Centre Consultancy Project



2020 - 2022



SARAWAK, MALAYSIA

In 2022, Singapore Science Centre Global (SSCG) completed a master planning consultancy project with the Ministry of Education, Innovation and Talent Development (MEITD), Sarawak, for the development of a new Science Centre in Kuching, Sarawak. The project commenced in November 2020, and had to be carried out remotely in the initial phase due to the COVID-19 pandemic.

In April 2022, following the relaxation of COVID-19 measures and reopening of borders, a team of Science Centre consultants conducted an onsite workshop with key stakeholders in Kuching, one of the deliverables of the consultancy project.

Later in July, SSCG hosted YB Datuk Roland Sagah Wee Inn, Minister for Education, Innovation and Talent Development (MEITD), Sarawak and his team of delegates at Science Centre Singapore.



**BUILDING STAFF
COMPETENCY IN THE
REGION**



Delegates at the consultancy workshop discussion for the new Sarawak Science Centre in Kuching, Sarawak, East Malaysia.



A participant sharing his team's ideas on the Sarawak Science Centre, with consultants Associate Professor Lim Tit Meng, Chief Executive, (first left) and Mr Daniel Tan, Senior Director, Exhibitions & Galleries (second left) from Science Centre Board.

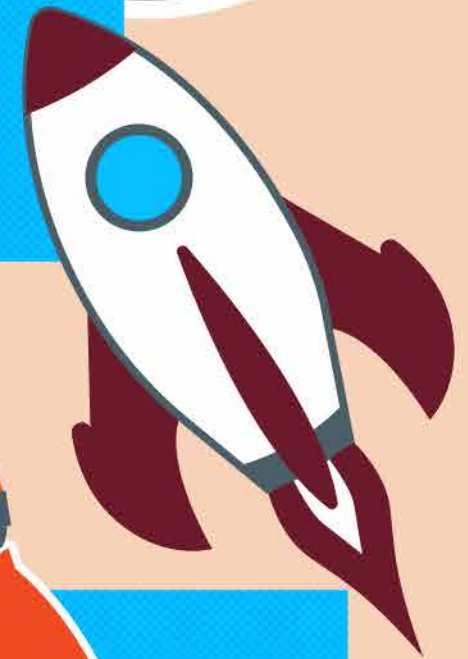
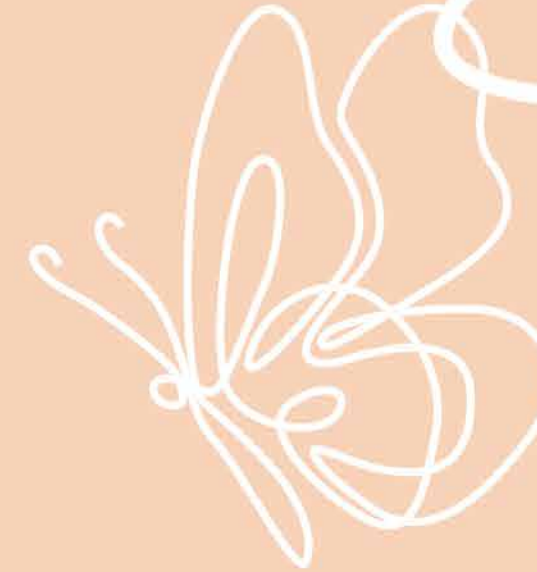
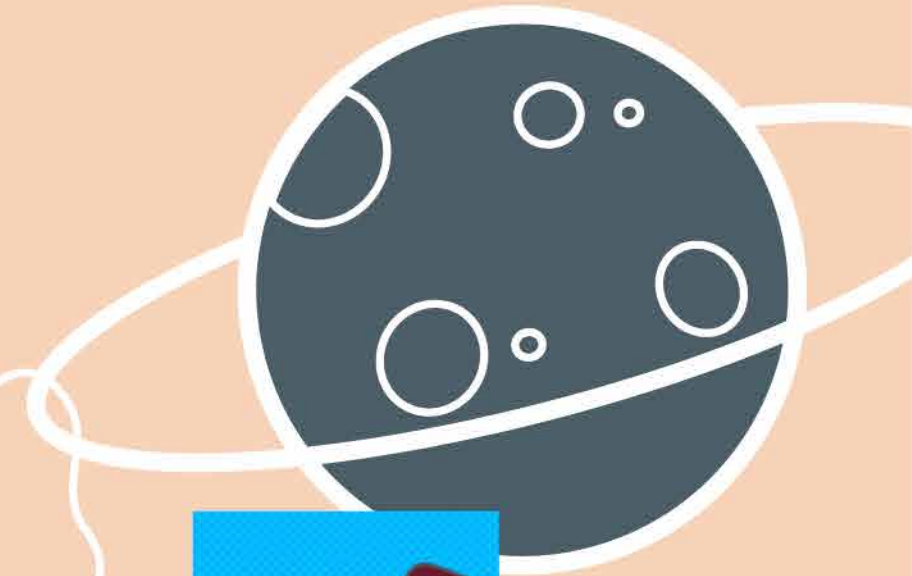


A group photo featuring YB Datuk Roland Sagah Wee Inn, Minister for MEITD, Sarawak (front row, fourth from right), his team of delegates along with Science Centre's consultancy team during their visit to the Centre in July.

05

GROUP OF ATTRACTIONS

KIDSSTOP™
SNOW CITY
OMNI-THEATRE &
BUTTERFLIES UP-CLOSE



KidsSTOP™

Abbott GROW Show You Can! 2022



13 TEAMS

This year's theme 'GROWing Up Strong and Healthy!' aimed to instill the importance of a healthy lifestyle among young children.

Abbott GROW Show You Can! allows children to develop confidence and spark their interest in science and the arts through curated creative performances. The event was sponsored by Abbott Nutrition International. Team Healthy Kidz from Skool4kidz Campus @ Sengkang Riverside Park bagged the top prize.



LEARN ABOUT SCIENCE
THROUGH PERFORMANCES



Participants from Skool4kidz Campus @ Sengkang Riverside Park taking a group photo.



A performer from Yuvabahrathi International School acting as the unhealthy devil who likes junk food.



Healthy Superboy, the main character from the skit by PCF Sparkletots @ Tampines East Block 262, sharing about the benefits of healthy eating.

KidsSTOP™

KidsSTOP™ Academy



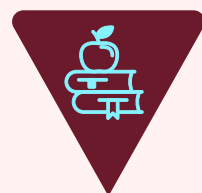
19 NOV 2022



42 GRADUATES

This initiative advocates the continuous pursuit of science knowledge from a young age and encourages children to inquire and investigate through exciting and fun-filled activities.

A graduation ceremony honoured 42 young ones. The *LEAP award* was presented to children aged three to eight years who took part in holiday programmes while the *SuperStar TOT award* was given to participants aged two to three years for completing 10 *TOTally Science* workshops, Singapore's first-ever toddler science programme.



ADVOCATE THE
CONTINUOUS PURSUIT OF
SCIENCE KNOWLEDGE



Group photo with KidsSTOP™ Academy graduates.



Kim Mariyam, a KidsSTOP™ Academy LEAP PhD graduate, receiving her certificate from Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board.



Aaron Jude Enriquez, a SuperStar TOT recipient, receiving his certificate from Dr Lee Song Choon, Director of KidsSTOP™, Events & Engagement, Schools & Professional Development, Science Centre Board.

KidsSTOP™

3M Girls Can Tinker: STEAM Playshop

 **LAUNCHED ON
28 APR 2022**

 **9 WORKSHOPS**

 **101 BENEFICIARIES**

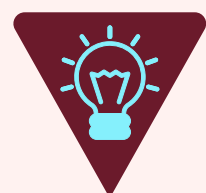
STEAM Playshop, a year-long science outreach programme specifically targeted at underprivileged girls aged 5 - 12 years old, was launched at MOE Kindergarten @ Northshore Primary School by Dr Janil Puthuchery, Senior Minister of State, Ministry of Communications and Information & Ministry of Health.

Curated and conducted by KidsSTOP™ with the support of 3Mgives, *STEAM Playshop* was designed to promote inclusivity in science education for young learners. By providing children of all backgrounds with opportunities to explore and experiment with science, the programme fosters problem-solving skills, collaboration, creativity and a lifelong learning interest in STEM.

The media launch for this programme garnered positive coverage from local publications including tier one title, *The Straits Times*.



INCLUSIVITY IN STEM



**HONING
PROBLEM-SOLVING SKILLS**



Group photo at the media launch featuring (from left) Madam Gan Ser Min, Vice-Principal, Northshore Primary School, Dr Lee Song Choon, Director, KidsSTOP™, Events & Engagement, Schools & Professional Development, Science Centre Board, Dr Janil Puthuchery, Senior Minister of State, Ministry of Communications and Information & Ministry of Health, Koa Yi Tong Elva, Student Representative, Mr. Kevin McGuigan, Vice-President and Managing Director, 3M Southeast Asia Region and Country Leader of Singapore, and Mrs Christine Lam, Principal, Northshore Primary School.



Dr Janil Puthuchery, Senior Minister of State, Ministry of Communications and Information & Ministry of Health, learning with MOE Kindergarten @ Northshore students about the components of an electric circuit at the 3M Girls Can Tinker media launch.



Students from My First Skool 51 Fernvale Link tinkering and building their own village diorama with the educators.

KidsSTOP™

SCS Inclusion Team



117 BENEFICIARIES
(EXCLUDING SCHOOL WORKSHOPS)

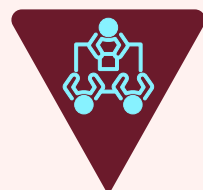
This initiative aims to promote interest, learning and creativity in science and technology through imaginative and enjoyable experiences for all.

Tapping on the growing demand for inclusive learning spaces, the team aspired to make science learning accessible to people of all backgrounds and abilities.

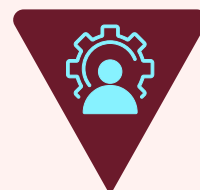
The SCS Inclusion Team executed a series of initiatives involving various Special Education (SPED) institutions and committed partners such as educators, job coaches, students, trainees, and the general public. Together, they created awareness, provided employment and learning opportunities for people of diverse needs and abilities.

Key Highlights:

- Partnered Rainbow Centre for an eight-week programme to engage youths and their caregivers in a weekly hands-on science workshop, as well as a learning journey to the Centre.
- Collaborated with Grace Orchard School and Presbyterian Community Services on the exchange of best practices in science learning as well as inclusive education through the Universal Design for Learning (UDL) Framework.
- Extended internship and work experience opportunities to students and trainees from SPED schools such as Grace Orchard School and APSN Delta Senior School.



**LEARNING OPPORTUNITIES
FOR PEOPLE OF
DIVERSE NEEDS**



**INCLUSIVITY AND
ACCESSIBILITY TO STEM**



Activities being conducted for adults with special needs at the Rainbow Centre.



Grace Orchard School educators engaging in hands-on science activities during their professional development training at KidsSTOP™.



A complimentary workshop was conducted for SPED students in commemoration of World Autism Awareness Day.



Grace Orchard School students doing gallery work as part of their internship at KidsSTOP™.

KidsSTOP™

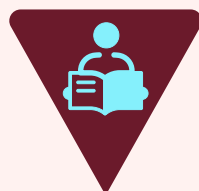
STEAM Fun Race with Northshore Primary School



240 STUDENTS

KidsSTOP™ teamed up with Northshore Primary School to bring STEAM learning to their Primary One and MOE Kindergarten students.

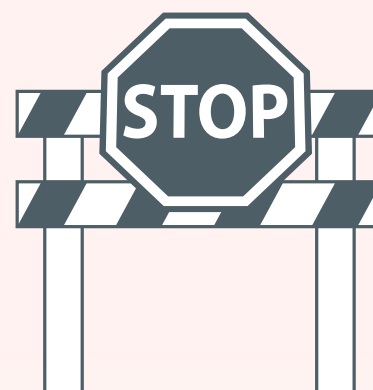
In celebration of Earth Day in April, the Primary One cohort participated in a sustainability-themed fun race. Through a series of STEAM activities and obstacle courses, students learnt the importance of environmental protection for animals and different ways to practice the 3Rs (Reduce, Reuse, Recycle) in their daily lives.



STEAM LEARNING FOR
YOUNG STUDENTS



SUSTAINABILITY-THEMED
FUN RACE



Students learning about the colour composition of markers and ink chromatography while decorating a reusable bag.



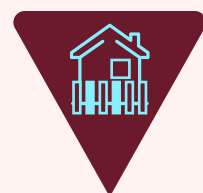
Students reusing materials from home to create their own personal bin for their desks in school.

Snow City

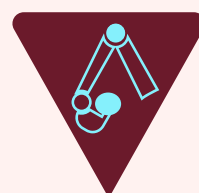
Snow Fun House @ Changi Airport Terminal 3

 27 MAY - 11 JUL 2022

Changi Airport Group engaged *Snow Fun House* for the third time as part of their mid-year campaign. Themed Peanuts Snow Hangout, guests enjoyed sliding down a 12-metre snow luge, played with the snow excavators, and took photos with Snoopy snow sculptures.



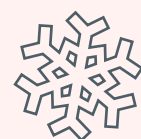
SNOOPY ICE AND SNOW SCULPTURES



SNOW EXCAVATORS



12-METRE SNOW LUGE



The snow excavators at the Snow Fun House were very popular among children.



Guests enjoyed sliding down a 12-metre snow luge at the Snow Fun House.



Guests had an icy cool time playing and making snowballs together.



The Snoopy snow sculpture was one of the main photo-taking spots at the Snow Fun House.



Younger children enjoyed the mini snow slide.

Snow City

Nightlife @ Snow City

24 SEP 2022
10 DEC 2022
25 FEB 2023

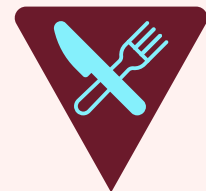
To entice young adults and tourists, Snow City organised after hours activities at the snow chamber such as *Dining in the Snow*, *Ice Bar* experiences and *Sub-Zero parties*. In February, the team hosted a familiarisation trip for inbound travel agents to experience *Dining in the Snow* with a mouth-watering hotpot spread served in sub-zero temperature. Snow City was also engaged for the third time to host the “*Snow Rave*” party. The event attracted 300 guests.



Travel agents enjoyed a sumptuous “Dining in the Snow” hotpot dinner



Guests enjoyed beverages served in ice shot glasses at the ice bar.



DINING IN THE SNOW



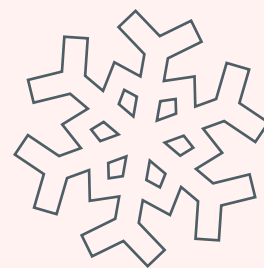
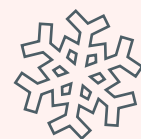
SUB-ZERO PARTIES



ICE BAR EXPERIENCES



Partygoers let loose at the sub-zero “Snow Rave” party.

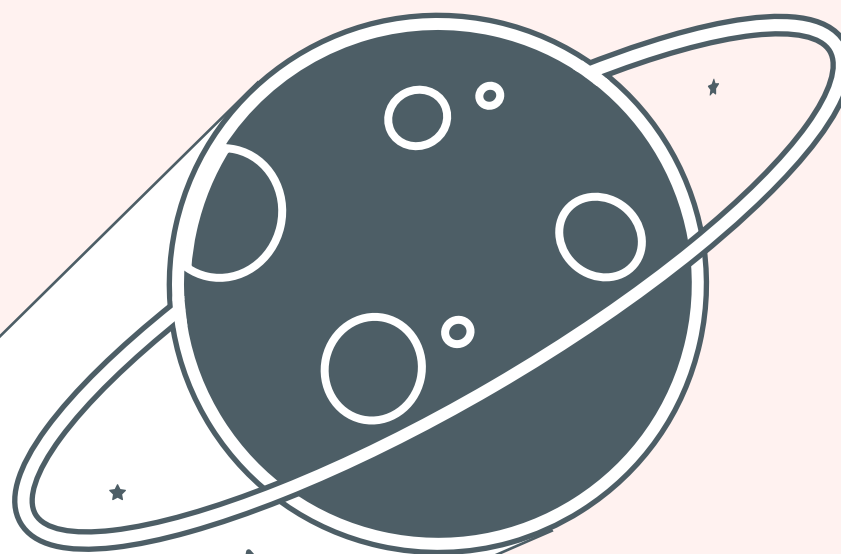


Omni-Theatre

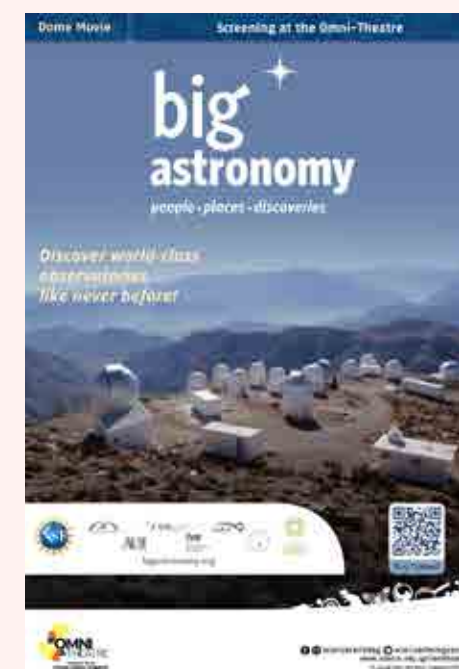
The Omni-Theatre continued to marvel guests as Southeast Asia's first 8K, 3D digital dome theatre. Guests were treated to two new shows, *Sea Lions: Life by a Whisker* and *Big Astronomy*. The former, spotlighted the preservation of the endangered Australian Sea Lion, while the latter took guests on a journey to explore world-class observatories. In its 35th year, the Omni-Theatre hosted numerous VIPs, including the Chilean Embassy for the premiere of *Big Astronomy*. In addition, *Exploring New Worlds*, an immersive live planetarium show presented by the Centre's science educators during the year-end school holidays, received rave reviews from the public.



**SOUTHEAST ASIA'S
FIRST 8K, 3D DIGITAL DOME
THEATRE**



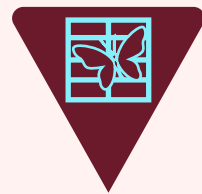
(From Left) Associate Professor Lim Tit Meng, Chief Executive, Science Centre Board with Mr Nestor Alejandro Guerrero Soto, Deputy Head of Mission, Embassy of Chile in Singapore, at the premiere of *Big Astronomy*.



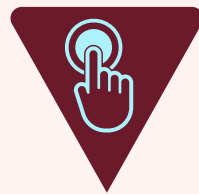
The official poster of *Big Astronomy* at the Omni-Theatre.

Butterflies Up-Close

In its seventh and final year of operation, Singapore's first indoor butterfly sanctuary continued to mesmerise guests with over 500 butterflies representing 10 species. In addition to enlightening the general public, the sanctuary also opened its doors to guided tours for school groups. As part of these tours, informative worksheets were given out to students to enhance their knowledge on the metamorphosis of a butterfly.



**SINGAPORE'S FIRST
INDOOR BUTTERFLY
SANCTUARY**



**FINAL YEAR OF
OPERATION**



Over the last seven years, Butterflies Up-Close had attracted visitors through its immersive and engaging setup.



A Butterflies Up-Close banner showcasing the common rose butterfly.

06

COMMUNITY & PARTNERS

VOLUNTEER PROGRAMMES
SUSTAINABILITY EFFORTS
LIST OF SPONSORS
**SPONSORSHIP FUND, CONFLICT OF INTEREST POLICY
AND GOVERNANCE ON REMUNERATION**
BOARD SUB-COMMITTEES & PROJECT COMMITTEES
BOARD MEETINGS AND ATTENDANCE



Volunteer Programmes

Corporate Volunteer Programme 2022



**JUN 2022 -
MAR 2023**



**CORPORATE
SOCIAL
RESPONSIBILITY**



73 VOLUNTEERS



**285
VOLUNTEERING
HOURS**

From June to December 2022, corporate volunteers from Abbott, Amgen Singapore Manufacturing and KLA Foundation worked with the Centre during Abbott Family Science Day, AMPower and KLA factory visit respectively to conduct interactive hands-on activities for the underserved communities. 66 volunteers contributed 264 hours for this initiative.

Between June 2022 to March 2023, the Centre also had volunteers from 3M who co-facilitated 3M Tinkering Headstart and 3M Girls Can Tinker programmes for beneficiaries. In all, seven volunteers contributed 21 hours through the role of workshop facilitators and made it a fruitful experience for everyone involved.



3M corporate volunteers interacting with beneficiaries at the Tinkering Studio.



A group photo featuring corporate volunteers from 3M, Science Centre staff and beneficiaries.



Sustainability Efforts

Sustainability at the Centre

The Science Centre is committed to making a positive impact on the planet. As part of the Centre's 45th anniversary and to further strengthen the organisation's sustainability agenda, the SCB GREEN Plan - a framework outlining the current and future green initiatives, was rolled out in 2022.

From reducing the carbon footprint, implementing eco-friendly practices, raising awareness on water conservation among staff through electronic direct mailers (EDM) and dressing in blue during Singapore World Water Day, the Centre is dedicated to doing its bit for a greener planet. This includes the revamp of the *Climate Changed* exhibition to spark conversations about the volatile state of our environment. The Centre also collaborated with sustainability community leaders such as marine biologist, Dr Toh Tai Chong, to run workshops for students as part of the outreach activity for *UNTAME*.

SCB GREEN PLAN

The SCB GREEN plan comprises three pillars - eduGREEN, advoGREEN & evoGREEN. Each pillar has a dedicated goal to promote a sustainable culture within the organisation as well as the community. The SCB GREEN Plan was featured via an AI powered video at *IES (Institute of Engineering, Singapore) Green Festival* - an event that explored and reimagined engineering possibilities for a sustainable future through talks, games and exhibitions.

Overall, the Centre's sustainability initiatives are carefully aligned within the SCB GREEN Plan pillars and are closely monitored via monthly reports to the senior management. Furthermore, a cross-department sustainability committee actively runs some of these initiatives while finding new methods to inculcate environmentally-friendly habits among staff.



The Centre's staff during a mass phototaking session on World Water Day.



The SCB GREEN Plan framework.



Science Centre staff got creative as they dressed in blue to advocate for water conservation as part of World Water Day.



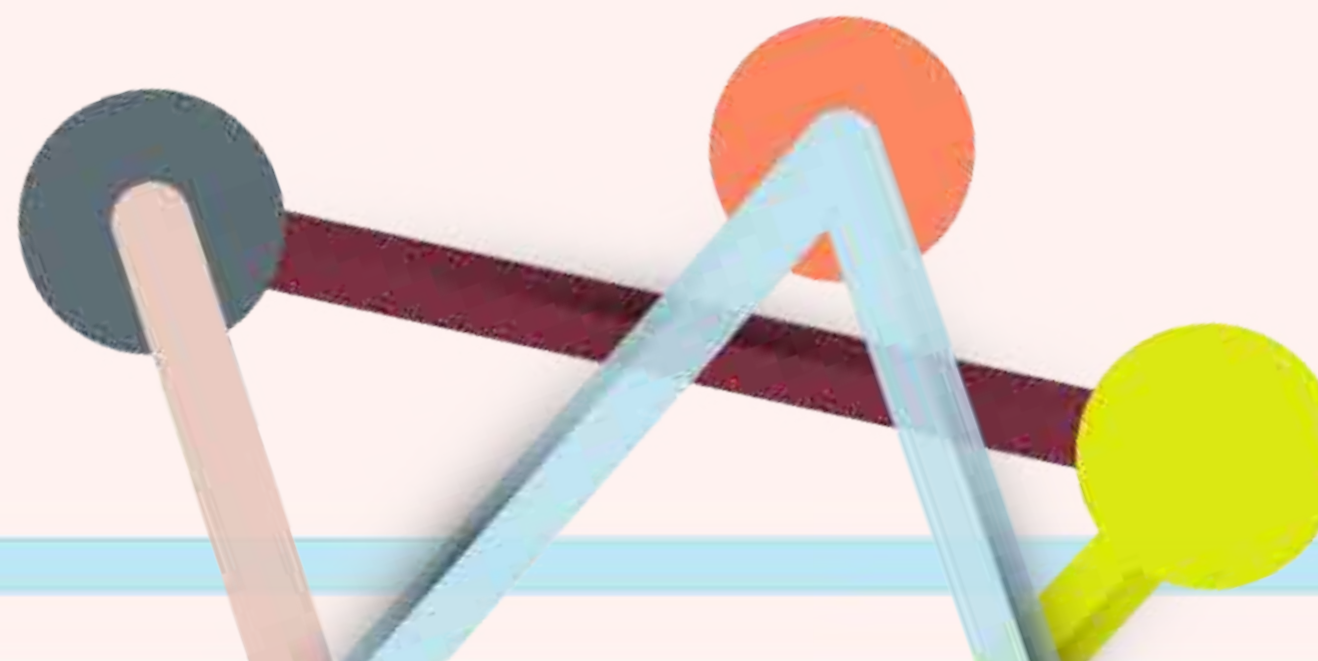
The SCB GREEN plan was launched during the Centre's 45th anniversary celebration.

Our Sustainability Milestones:

REDUCED WATER CONSUMPTION	AVG 2018 - 2020	2022*	TARGET FOR 2030: 10% LESS THAN AVG 2018 - 2020
YEARLY TOTAL (M ³)	41,246	37,078	37,121
GROSS FLOOR AREA (M ²)	30,477	30,477	30,477
WATER EFFICIENCY INDEX (WEI)	1.35	1.22	1.22

* As of 2022, the Centre has already met its water consumption target.

REDUCED ENERGY CONSUMPTION	AVG 2018 - 2020	2022	TARGET FOR 2030: 10% LESS THAN AVG 2018 - 2020
YEARLY TOTAL (KWH)	6,297,679	5,833,463	5,667,911
GROSS FLOOR AREA (M ²)	30,477	30,477	30,477
ENERGY UTILISATION INDEX (EUI)	206.64	191.41	185.97





Young Sustainability Champion participants presenting their projects on food composting after weeks of ideation and prototyping.

Other Sustainability Efforts:

Offices in the building had undergone a de-lamping exercise to improve energy efficiency. Furthermore, rainwater is being harvested to water plants at the Ecogarden as well. Food digester trials are also being conducted with selected tenants as the Centre attempts to convert food waste into compost for the surrounding greenery.

ENERGY SAVINGS FROM SEPTEMBER 2022 DE-LAMPING EXERCISE		
BEFORE	NOW	SAVINGS
18W LED OFFICE LIGHTS	14W LED OFFICE LIGHTS	17,940 KWH PER YEAR



858 M³ RAINWATER HARVESTED FOR SCS NURSERY AT THE ECOGARDEN



FOOD DIGESTOR TRIAL RUN AT SCS FOOD VENDOR, STELLAR KITCHEN BAR



2022 - 2023

List of Sponsors

3M SINGAPORE
ABBOTT MANUFACTURING SINGAPORE PTE LTD
AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH
AMAZON ASIA-PACIFIC HOLDINGS PTE LTD
AMAZON WEB SERVICES
AMGEN SINGAPORE MANUFACTURING PTE LTD
BLOOMBERG SINGAPORE PTE LTD
CHERVON SINGAPORE PTE LTD
DANISCO SINGAPORE PTE LTD
DEFENCE SCIENCE & TECHNOLOGY AGENCY
DSO NATIONAL LABORATORIES
EDUCATION DEVELOPMENT CENTER, INC
ENERGY MARKET AUTHORITY OF SINGAPORE
EU YAN SANG INTERNATIONAL LTD
HEALTH PROMOTION BOARD
HOME TEAM SCIENCE & TECHNOLOGY AGENCY
JAMES DYSON FOUNDATION
KLA-TENCOR (SINGAPORE) PTE LTD
MINISTRY OF HEALTH
MINISTRY OF SUSTAINABILITY AND THE ENVIRONMENT
SINGAPORE NUCLEAR RESEARCH AND SAFETY INITIATIVE (SNRSI)
SHELL EASTERN PETROLEUM PTE LTD
SINGAPORE ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
SINGAPORE LAND AUTHORITY
SINGAPORE TELECOMMUNICATIONS LTD
SMART NATION AND DIGITAL GOVERNMENT OFFICE
SONY ELECTRONICS ASIA PACIFIC PTE LTD
SP GROUP
TAN KAH KEE FOUNDATION
TEMASEK FOUNDATION
THE INSTITUTION OF ENGINEERS, SINGAPORE
U.S. EMBASSY IN SINGAPORE

2022 - 2023

Sponsorship Fund

SCIENCE CENTRE BOARD SPONSORSHIP FUND PROGRAMMES & ACTIVITIES:

- 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 and guides;
- 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 system.

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.

Governance on Remuneration

REMUNERATION DISCLOSURE:

The number of senior management staff who received annual remuneration exceeding \$100,000 for Financial Years 2021 and 2022 are shown in the table below.

NUMBER OF EMPLOYEES	FY2022	FY2021
BETWEEN \$100,000 - \$200,000	-	-
BETWEEN \$200,001 - \$300,000	2	2
BETWEEN \$300,001 - \$400,000	2	1



2022 - 2023

Board Sub-Committees and Project Committees



EXECUTIVE COMMITTEE (EXCO)

Chairman	Ms Tan Yen Yen
Deputy Chairman	Mr Soh Gim Teik (until 31 Jan 2023) Mr Lim Boon Wee (from 1 Feb 2023)
Members	Mr Soh Gim Teik (from 1 Feb 2023) Mr Howie Lau (from 1 Feb 2023) Mrs Nina Yang (from 1 Feb 2023) Mr Chew Kwee San (until 31 Jan 2023) Mr Hian Goh (until 31 Jan 2023) Ms Cherie Nursalim (until 31 Jan 2023) Mr Chandran Nair (until 31 Jan 2023)



PROJECTS & INVESTMENT COMMITTEE (PIC)

Chairman	Mr Chew Kwee San (until 31 Jan 2023) Mrs Nina Yang (from 1 Feb 2023)
Members	Mr Chang Chee Pey Mr Tony Zameczkowski Ms Hwang Yu-Ning Mr Welby Altidor (from 1 Feb 2023) Mr John Cheng (from 1 Feb 2023) Mr Oon Jin Teik (from 1 Feb 2023) Ms Leonie Lee (until 31 Jan 2023)



AUDIT & RISK MANAGEMENT COMMITTEE (ARMC)

Chairman	Mr Soh Gim Teik
Members	Mr Richard Tan (from 1 Feb 2023) Professor Phoon Kok Kwang Mdm Lee Lin Yee Professor Ng Huck Hui Mr Hoe Wee Meng (from 1 Feb 2023) Mr Hian Goh (until 31 Jan 2023) Ms Leonie Lee (until 31 Jan 2023) Ms Yasmin Zahid (until 31 Jan 2023)



DIGITAL CAPABILITIES COMMITTEE (DCC)

Chairman	Mr Hian Goh (until 31 Jan 2023) Mr Howie Lau (from 1 Feb 2023)
Members	Professor Ng Huck Hui Professor Phoon Kok Kwang Mr Tony Zameczkowski Ms Cherie Nursalim (until 31 Jan 2023) Mr Hoe Wee Meng (from 1 Feb 2023) Ms Nichol Ng (from 1 Feb 2023)



NEW SCIENCE CENTRE DEVELOPMENT COMMITTEE (NSCDC)

Chairman	Ms Tan Yen Yen
Members	Mr Lim Boon Wee (from 1 Feb 2023) Mr Soh Gim Teik Mr Howie Lau (from 1 Feb 2023) Ms Hwang Yu-Ning Mr Chang Chee Pey Mr Welby Altidor (from 1 Feb 2023)

2022 - 2023

Board Meetings and Attendance

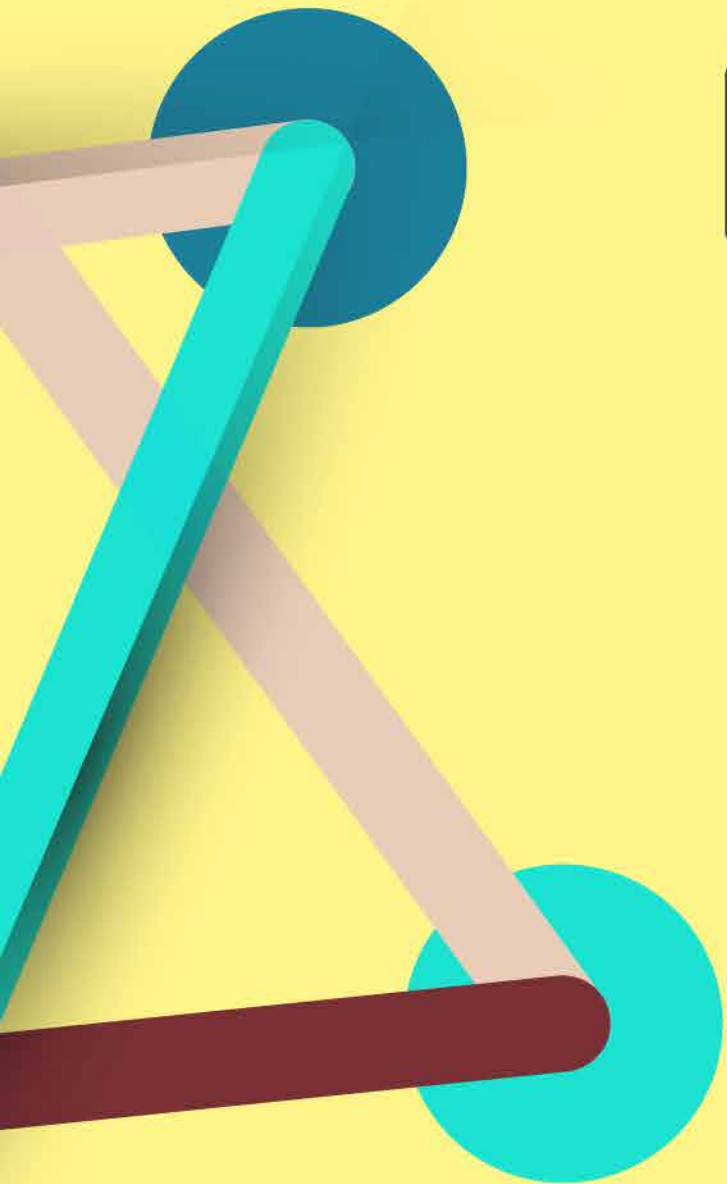
BOARD MEMBERS	DATE JOINED	DATE RETIRED	TOTAL MEETINGS ATTENDED
MS TAN YEN YEN	15 APR 2011	-	5 OUT OF 5
MR SOH GIM TEIK	1 FEB 2015	-	3 OUT OF 5
MR HIAN GOH	1 FEB 2015	31 JAN 2023	1 OUT OF 4*
MR CHANDRAN NAIR	1 FEB 2015	31 JAN 2023	2 OUT OF 4*
MR CHEW KWEE SAN	1 JUL 2014	31 JAN 2023	3 OUT OF 4
MS HWANG YU-NING	1 FEB 2019	-	5 OUT OF 5
MR HOWIE LAU	1 FEB 2017	-	3 OUT OF 5
PROFESSOR NG HUCK HUI	1 FEB 2019	-	3 OUT OF 5
MR CHANG CHEE PEY	1 FEB 2019	-	4 OUT OF 5
MDM LEE LIN YEE	1 FEB 2021	-	5 OUT OF 5
MS YASMIN ZAHID	1 FEB 2019	31 JAN 2023	2 OUT OF 4*
MS LEONIE LEE	1 FEB 2017	31 JAN 2023	3 OUT OF 4
MS CHERIE NURSALIM	1 FEB 2015	31 JAN 2023	2 OUT OF 5*
MR TONY ZAMECZKOWSKI	1 FEB 2021	-	1 OUT OF 5*
MRS NINA YANG	1 FEB 2021	-	4 OUT OF 5
PROFESSOR PHOON KOK KWANG	1 FEB 2021	-	5 OUT OF 5
MR LIM BOON WEE	1 FEB 2023	-	1 OUT OF 1
MR WELBY ALTIDOR	1 FEB 2023	-	1 OUT OF 1
MR OON JIN TEIK	1 FEB 2023	-	1 OUT OF 1
MR RICHARD TAN	1 FEB 2023	-	1 OUT OF 1
MR JOHN CHENG	1 FEB 2023	-	1 OUT OF 1
MS NICHOL NG	1 FEB 2023	-	1 OUT OF 1
MR HOE WEE MENG	1 FEB 2023	-	1 OUT OF 1

* While Mr Hian Goh, Mr Chandran Nair, Ms Yasmin Zahid, Ms Cherie Nursalim and Mr Zameczkowski were unable to attend most of the Board meetings, due to the work & travelling commitments, they have actively provided inputs via the Board's sub-committees.



07

FINANCIAL REPORT



**SCIENCE CENTRE BOARD
AND ITS SUBSIDIARIES**
(Established under the Science Centre Act 1970)
REPORT AND FINANCIAL STATEMENTS
YEAR ENDED 31 MARCH 2023

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

REPORT AND FINANCIAL STATEMENTS

C O N T E N T S

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Statements of comprehensive income	6 - 7
Statements of financial position	8
Statements of changes in equity	9
Consolidated statement of cash flows	10
Notes to financial statements	11 - 41

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 41 are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018 ("PSG Act"), the Science Centre Act 1970 ("SCB Act"), the Charities Act 1994 and other relevant regulations (the "Charities Act and Regulations") 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 2023, and the financial performance, changes in equity of the Group and the Board, and cash flows of the Group for the year then ended;
- (b) the receipts, expenditure, investments 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
- (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



Dr Lim Tit Meng
Chief Executive

4 July 2023

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 2023, 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 41.

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 ("PSG Act"), the Science Centre Act 1970 ("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 2023 and the financial performance and changes in equity of the Group and the Board and cash flows of the Group for the year then ended.

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 *Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities* ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information Other than Financial Statements and Auditor's Report Thereon

Management is responsible for the other information. The other information comprises the Statement by 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.

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

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, Charities Act and Regulations 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.
- (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.

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

- (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 – PSG Act and SCB Act

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.

Opinion – Charities Act and Regulations

During the course of our audit, nothing has come to our attention that causes us to believe that during the year:

- (a) the Science Centre Board – Sponsorship Fund has not used the donation moneys in accordance with its objectives as required under Regulation 11 of the Charities (Institutions of a Public Character) Regulations; and
- (b) the Science Centre Board – Sponsorship Fund has not complied with the requirements of Regulation 15 of the Charities (Institutions of a Public Character) Regulations.

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.

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

SCIENCE CENTRE BOARD

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, SCB Act, Charities Act and Regulations, 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 Responsibilities for the Compliance Audit

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

4 July 2023

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME Year ended 31 March 2023

GROUP	Note	General Funds		Restricted Funds		Total	
		2023	2022	2023	2022	2023	2022
		\$	\$	\$	\$	\$	\$
Income							
- Admission fees		3,929,627	2,601,646	-	-	3,929,627	2,601,646
- Proceeds from special projects		152,908	558,765	-	-	152,908	558,765
- Fees from courses and programmes		1,226,266	927,086	-	-	1,226,266	927,086
- Collections from exhibits and events		229,484	331,136	-	-	229,484	331,136
- Sales of merchandise and publications		1,600,384	1,165,632	-	-	1,600,384	1,165,632
- Service income		666,085	373,576	-	-	666,085	373,576
- Rental income		252,671	157,822	-	-	252,671	157,822
- Photo-taking income		132,714	124,538	-	-	132,714	124,538
		8,190,139	6,240,201	-	-	8,190,139	6,240,201
Other income	4	1,720,819	1,850,822	2,076,331	2,433,234	3,797,150	4,284,056
Other losses - net	5	-	-	(222,094)	(71,135)	(222,094)	(71,135)
Expenses							
- Employee compensation	6	(26,920,107)	(24,394,053)	(110,155)	(146,139)	(27,030,262)	(24,540,192)
- Materials for exhibits and events		(6,712,950)	(4,640,222)	(1,287,583)	(1,998,193)	(8,000,533)	(6,638,415)
- Repairs and maintenance		(9,038,683)	(7,518,353)	(2,079)	(16,456)	(9,040,762)	(7,534,809)
- Publicity and promotions		(2,152,462)	(1,717,407)	(195,227)	(95,564)	(2,347,689)	(1,812,971)
- Depreciation	14	(4,368,306)	(3,131,655)	(11,941)	(11,725)	(4,380,247)	(3,143,380)
- Other expenditure	7	(3,861,439)	(2,936,732)	(270,995)	(321,209)	(4,132,434)	(3,257,941)
		(53,053,947)	(44,338,422)	(1,877,980)	(2,589,286)	(54,931,927)	(46,927,708)
Deficit before grants		(43,142,989)	(36,247,399)	(23,743)	(227,187)	(43,166,732)	(36,474,586)
Operating grants from government	15	48,580,509	33,620,296	-	-	48,580,509	33,620,296
Grants from other government agencies		417,039	751,208	-	-	417,039	751,208
Deferred capital grants amortised	19	2,339,497	1,285,815	8,420	9,321	2,347,917	1,295,136
		51,337,045	35,657,319	8,420	9,321	51,345,465	35,666,640
Surplus/(Deficit) before tax		8,194,056	(590,080)	(15,323)	(217,866)	8,178,733	(807,946)
Income tax (expense)/credit	8	(39,185)	3,828	-	-	(39,185)	3,828
Net surplus/(deficit) and total comprehensive income/(loss)		8,154,871	(586,252)	(15,323)	(217,866)	8,139,548	(804,118)

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME (cont'd)
Year ended 31 March 2023

BOARD	Note	General Funds		Restricted Funds		Total	
		2023	2022	2023	2022	2023	2022
		\$	\$	\$	\$	\$	\$
Income							
- Admission fees		2,811,891	1,495,443	-	-	2,811,891	1,495,443
- Proceeds from special projects		152,908	558,765	-	-	152,908	558,765
- Fees from courses and programmes		1,021,638	797,570	-	-	1,021,638	797,570
- Collections from exhibits and events		229,484	331,136	-	-	229,484	331,136
- Sales of merchandise and publications		1,544,694	1,125,502	-	-	1,544,694	1,125,502
- Service income		11,659	8,893	-	-	11,659	8,893
		<u>5,772,274</u>	<u>4,317,309</u>	<u>-</u>	<u>-</u>	<u>5,772,274</u>	<u>4,317,309</u>
Other income	4	1,618,562	1,365,246	2,076,332	2,433,234	3,694,894	3,798,480
Other losses - net	5	-	-	(222,094)	(71,135)	(222,094)	(71,135)
Expenses							
- Employee compensation	6	(26,037,158)	(23,607,778)	(110,155)	(146,139)	(26,147,313)	(23,753,917)
- Materials for exhibits and events		(6,763,012)	(4,664,744)	(1,287,583)	(1,998,193)	(8,050,595)	(6,662,937)
- Repairs and maintenance		(8,269,549)	(6,980,427)	(2,079)	(16,456)	(8,271,628)	(6,996,883)
- Publicity and promotions		(2,081,758)	(1,649,726)	(195,227)	(95,564)	(2,276,985)	(1,745,290)
- Depreciation	14	(4,174,076)	(2,962,635)	(11,942)	(11,725)	(4,186,018)	(2,974,360)
- Other expenditure	7	(3,388,107)	(2,625,525)	(270,995)	(321,209)	(3,659,102)	(2,946,734)
		<u>(50,713,660)</u>	<u>(42,490,835)</u>	<u>(1,877,981)</u>	<u>(2,589,286)</u>	<u>(52,591,641)</u>	<u>(45,080,121)</u>
Deficit before grants		(43,322,824)	(36,808,280)	(23,743)	(227,187)	(43,346,567)	(37,035,467)
Operating grants from government	15	48,580,509	33,620,296	-	-	48,580,509	33,620,296
Grants from other government agencies		417,039	751,208	-	-	417,039	751,208
Deferred capital grants amortised	19	2,307,037	1,270,196	8,420	9,321	2,315,457	1,279,517
		<u>51,304,585</u>	<u>35,641,700</u>	<u>8,420</u>	<u>9,321</u>	<u>51,313,005</u>	<u>35,651,021</u>
Net surplus/(deficit) and total comprehensive income/(loss)		7,981,761	(1,166,580)	(15,323)	(217,866)	7,966,438	(1,384,446)

See accompanying notes to financial statements.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION
31 March 2023

ASSETS	Note	Group		Board	
		2023	2022	2023	2022
		\$	\$	\$	\$
Current assets					
Cash and cash equivalents	9	39,710,102	28,740,500	37,812,367	26,706,974
Trade and other receivables	10	2,781,184	3,721,789	3,117,724	4,019,190
Financial asset at fair value through profit or loss	11	5,762,830	5,984,924	5,762,830	5,984,924
Inventories	12	139,012	104,192	21,022	24,967
Total current assets		48,393,128	38,551,405	46,713,943	36,736,055
Non-current assets					
Investments in subsidiaries	13	-	-	660,002	660,002
Property, plant and equipment	14	25,330,985	24,150,169	25,082,522	23,831,952
Total non-current assets		25,330,985	24,150,169	25,742,524	24,491,954
Total assets		73,724,113	62,701,574	72,456,467	61,228,009
LIABILITIES AND EQUITY					
Current liabilities					
Government grants received in advance	15	16,941,398	13,428,934	16,941,398	13,428,934
Other government grants received in advance	10	1,695,230	945,085	1,695,230	945,085
Sponsorship received in advance	16	1,316,791	1,732,439	1,316,791	1,732,439
Trade and other payables	17	5,544,448	5,697,693	5,109,691	4,902,323
Total current liabilities		25,497,867	21,804,151	25,063,110	21,008,781
Non-current liabilities					
Deferred income tax liabilities	18	6,418	37,150	-	-
Deferred capital grants	19	11,458,365	12,658,315	11,416,643	12,628,909
Total non-current liabilities		11,464,783	12,695,465	11,416,643	12,628,909
Capital, funds and accumulated surplus					
Capital account	20	2,979,983	2,979,983	2,979,983	2,979,983
Share capital	21	10,908,360	10,488,403	10,908,360	10,488,403
Accumulated surplus					
- General funds		14,901,889	6,747,018	14,286,156	6,304,395
- Restricted funds	22	7,971,231	7,986,554	7,802,215	7,817,538
Total equity		36,761,463	28,201,958	35,976,714	27,590,319
Total liabilities and equity		73,724,113	62,701,574	72,456,467	61,228,009

See accompanying notes to financial statements.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

STATEMENTS OF CHANGES IN EQUITY
Year ended 31 March 2023

	Capital account	Share capital	Accumulated surplus		Total
			General funds	Restricted funds	
	\$	\$	\$	\$	\$
Group					
Balance as at 1 April 2021	2,979,983	9,990,181	7,333,270	8,204,420	28,507,854
Issuance of share capital (Note 21)	-	498,222	-	-	498,222
Total comprehensive loss	-	-	(586,252)	(217,866)	(804,118)
Balance as at 31 March 2022	2,979,983	10,488,403	6,747,018	7,986,554	28,201,958
Issuance of share capital, net (Note 21)	-	419,957	-	-	419,957
Total comprehensive income	-	-	8,154,871	(15,323)	8,139,548
Balance as at 31 March 2023	<u>2,979,983</u>	<u>10,908,360</u>	<u>14,901,889</u>	<u>7,971,231</u>	<u>36,761,463</u>
Board					
Balance as at 1 April 2021	2,979,983	9,990,181	7,470,975	8,035,404	28,476,543
Issuance of share capital	-	498,222	-	-	498,222
Total comprehensive loss	-	-	(1,166,580)	(217,866)	(1,384,446)
Balance as at 31 March 2022	2,979,983	10,488,403	6,304,395	7,817,538	27,590,319
Issuance of share capital	-	419,957	-	-	419,957
Total comprehensive income	-	-	7,981,761	(15,323)	7,966,438
Balance as at 31 March 2023	<u>2,979,983</u>	<u>10,908,360</u>	<u>14,286,156</u>	<u>7,802,215</u>	<u>35,976,714</u>

See accompanying notes to financial statements.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS
Year ended 31 March 2023

	Note	2023	2022
		\$	\$
Operating activities			
Deficit before grants		(43,166,732)	(36,474,586)
Adjustments for:			
Depreciation	14	4,380,247	3,143,380
Loss on disposal of property, plant and equipment	7	89,284	-
Write-down of inventories		36,544	59,262
Donations and sponsorship	4	(2,033,408)	(2,421,577)
Changes in fair value of financial asset at fair value through profit or loss	5	222,094	71,154
Interest income	4	(153,218)	(64,635)
Operating loss before working capital changes		(40,625,189)	(35,687,002)
Change in working capital:			
Inventories		(71,364)	2,439
Trade and other receivables		69,273	(428,769)
Trade and other payables		(153,245)	771,729
Cash used in operations		(40,780,525)	(35,341,603)
Income tax (paid) refunded		(69,917)	3,828
Net cash used in operating activities		(40,850,442)	(35,337,775)
Investing activities			
Purchases of property, plant and equipment		(5,650,347)	(2,136,563)
Purchase of financial assets, held to maturity		-	(1,000,000)
Placement of short-term bank deposits		(1,000,000)	-
Interest received		153,218	64,635
Net cash used in investing activities		(6,497,129)	(3,071,928)
Financing activities			
Government grants received		53,196,165	32,965,809
Sponsorship received		1,828,794	975,627
Other government grants received		1,872,257	254,171
Issuance of share capital		419,957	498,222
Net cash from financing activities		57,317,173	34,693,829
Net increase (decrease) in cash and cash equivalents		9,969,602	(3,715,874)
Cash and cash equivalents at beginning of financial year		26,740,500	30,456,374
Cash and cash equivalents at end of financial year	9	<u>36,710,102</u>	<u>26,740,500</u>

See accompanying notes to financial statements.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2023

1. GENERAL

Science Centre Board (the "Board") is a statutory board established in Singapore under the Science Centre Act 1970. 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 and guides;
- (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 13.

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 2023 were authorised for issue by the Board on 4 July 2023.

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 Public Sector (Governance) Act 2018 ("PSG Act"), the Science Centre Act 1970 ("SCB 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 2023

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 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.

2.3 Standards issued but not yet effective

Management has considered and is of the view that the adoption of relevant new/revised SB-FRSs/FRSs 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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2023

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.

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.

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NOTES TO THE FINANCIAL STATEMENTS 31 March 2023

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

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.

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).

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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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 ECL 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.

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 have expired.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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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 14.

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.

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

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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 \$5,000 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.

Management has received the notification and approval from Ministry of Finance to proceed with the next stage of development of the New Science Centre in January 2022 and April 2023 respectively. Hence, management has commenced accelerated depreciation of relevant Property, Plant and Equipment from 1 April 2022 onwards, resulting in an increase in annual depreciation of \$1,100,000.

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.

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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2023**

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.

(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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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(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.

Service income from consultancy services are recognised as a performance obligation satisfied over time. Revenue is recognised for these installation services based on the stage of completion of the contract. Management has assessed that the stage of completion based on achieving a series of performance-related milestones is an appropriate measure of progress towards complete satisfaction of these performance obligations under SB-FRS 115.

(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.

(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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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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.

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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2023

The objectives of the Fund are:

- (a) to promote interest, learning and creativity in science and technology;
- (b) to organise science related activities, exhibitions, workshops, lectures and programmes for targeted and general audiences; and
- (c) to produce and publish scientific literature in the form of magazines and guidebooks.

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 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.

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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS 31 March 2023

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.

2.18 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.

2.19 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.

2.20 Share capital

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

2.21 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.

2.22 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.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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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	
	2023	2022	2023	2022
	\$	\$	\$	\$
Donations and sponsorship	2,033,408	2,421,577	2,033,408	2,421,577
Rental income	815,352	530,028	877,092	542,086
Interest income	153,218	64,635	153,218	64,635
Management fee	418,097	382,648	583,457	746,128
Others	377,075	885,168	47,719	24,054
	<u>3,797,150</u>	<u>4,284,056</u>	<u>3,694,894</u>	<u>3,798,480</u>

5. OTHER LOSSES - NET

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Fair value changes on financial asset at FVTPL	(222,094)	(71,154)	(222,094)	(71,154)
Net currency translation gains	-	19	-	19
	<u>(222,094)</u>	<u>(71,135)</u>	<u>(222,094)</u>	<u>(71,135)</u>

6. EMPLOYEE COMPENSATION

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Wages and salaries	23,174,607	21,122,393	22,407,386	20,456,431
Employer's contribution to Central Provident Fund	3,421,245	3,041,428	3,305,663	2,922,044
Other staff benefits	434,410	376,371	434,264	375,442
	<u>27,030,262</u>	<u>24,540,192</u>	<u>26,147,313</u>	<u>23,753,917</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

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7. OTHER EXPENDITURE

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Professional, consultancy and other fees	778,913	760,678	672,953	660,502
Cost of merchandise and publications	651,591	556,967	663,929	544,442
Printing, stationery and office supplies	79,630	66,681	70,092	56,844
Rental of equipment and venue and lease fees of films	427,375	277,022	238,162	243,410
Postage, telephone and courier charges	58,327	68,234	52,096	60,619
Loss on disposal of property, plant and equipment	89,284	-	89,284	-
Transport and travelling expenses	289,400	107,249	272,772	105,223
Refreshment and entertainment expenses	91,702	28,288	91,470	28,055
Property tax	92,129	89,158	92,129	89,158
GST input tax (non-claimable)	1,239,453	1,092,990	1,239,453	1,092,990
Others	334,630	210,674	176,762	65,491
	<u>4,132,434</u>	<u>3,257,941</u>	<u>3,659,102</u>	<u>2,946,734</u>

8. INCOME TAX EXPENSE (CREDIT)

	Group	
	2023	2022
	\$	\$
Current income tax expense (credit)	<u>39,185</u>	<u>(3,828)</u>

The income tax expense (credit) varied from the amount of income tax expense (credit) determined by applying the Singapore tax rate of 17% (2022 : 17%) to surplus (deficit) before tax as a result of the following differences:

	Group	
	2023	2022
	\$	\$
Deficit before tax	<u>8,178,733</u>	<u>(807,946)</u>
Tax expense (credit) calculated at a tax rate of 17% (2022 : 17%)	1,390,385	(137,351)
Effects of:		
- (Surplus) Deficit of the Board exempted from tax	(1,354,295)	235,356
- Expenses not deductible for tax purposes	20,570	13,439
- Income not subject to tax	(5,518)	(42,611)
- Utilisation of previously unrecognised deductible temporary differences	(7,480)	(8,360)
- Others	(4,477)	(64,301)
Income tax expense (credit)	<u>39,185</u>	<u>(3,828)</u>

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

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9. CASH AND CASH EQUIVALENTS

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Deposits held with AGD	32,335,885	14,457,077	32,335,885	14,457,077
Cash at bank and on hand	4,374,217	12,283,423	2,476,482	10,249,897
Short term bank deposits	3,000,000	2,000,000	3,000,000	2,000,000
	<u>39,710,102</u>	<u>28,740,500</u>	<u>37,812,367</u>	<u>26,706,974</u>

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

	2023	2022
	\$	\$
Cash and cash equivalents (as above)	39,710,102	28,740,500
Less: Short term bank deposits with maturity of more than 3 months	<u>(3,000,000)</u>	<u>(2,000,000)</u>
Cash and cash equivalents per consolidated cash flow statement	<u>36,710,102</u>	<u>26,740,500</u>

Short term bank deposits at the balance sheet date bear average effective interest rate of 0.53% to 2.69% (2022 : 0.21% to 0.60%) and have a tenure of 3 to 12 months (2022 : 6 to 12 months).

Deposits with AGD refers to cash that is managed by AGD as set out in the Accountant-General's Circular No. 4/2009 Centralised Liquidity Management for Statutory Boards and Ministries. During the financial year ended 31 March 2023, the effective interest rate of the deposits with the AGD ranged from 0.49% to 2.85% (2022 : 0.28% to 0.41%) per annum.

10. TRADE AND OTHER RECEIVABLES

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Trade receivables:				
- subsidiaries	-	-	449,673	479,537
- related parties	-	369,118	-	369,118
- external parties	319,022	203,604	278,920	175,780
Trade receivables - net	319,022	572,722	728,593	1,024,435
Sponsorship receivables	375,590	586,624	375,590	586,624
Other government grants receivable (see below)	903,531	1,563,829	903,531	1,563,829
Government grant receivable	377,206	352,300	377,206	352,300
Deposits	302,793	97,353	251,680	1,000
Prepayments	454,266	330,245	437,304	272,714
Other receivables	48,776	218,716	43,820	218,288
	<u>2,781,184</u>	<u>3,721,789</u>	<u>3,117,724</u>	<u>4,019,190</u>

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
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Other government grants

	Group and Board	
	2023	2022
	\$	\$
Other government grants receivable	903,531	1,563,829
Other government grants received in advance	<u>(1,695,230)</u>	<u>(945,085)</u>
	<u>(791,699)</u>	<u>618,744</u>

11. FINANCIAL ASSET AT FAIR VALUE THROUGH PROFIT OR LOSS

	Group and Board	
	2023	2022
	\$	\$
Fullerton Conservative Balanced Fund ("Fullerton Fund")	<u>5,762,830</u>	<u>5,984,924</u>

The Fullerton Fund has a nominal value amounting to \$4,900,000 (2022 : \$4,900,000). There was an increase in investment of \$Nil (2022 : \$1,000,000) in the current year.

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 a loss of \$222,094 (2022 : \$71,154) have been included in the statement of comprehensive income for the year.

12. INVENTORIES

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Finished goods	<u>139,012</u>	<u>104,192</u>	<u>21,022</u>	<u>24,967</u>

Inventories comprised finished goods held at cost for resale purposes.

The cost of inventories recognised as an expense and included in "Other expenditure" amounted to \$651,591 and \$663,929 (2022 : \$556,967 and \$544,442) for the Group and Board respectively.

At 31 March 2023, the write-down of inventories to net realisable value by the Group and Board amounted to \$36,544 (2022 : \$59,262) and \$120 (2022 : \$129) respectively.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2023**

13. INVESTMENTS IN SUBSIDIARIES

	Board	
	2023	2022
	\$	\$
Unquoted equity investments at cost	1,760,002	1,760,002
Less: Accumulated impairment loss	(1,100,000)	(1,100,000)
Net carrying amount	660,002	660,002

Details of the subsidiaries are as follows:

Name of companies	Principal activities	Country of business/ incorporation	Proportion of ownership and voting power held	
			2023 %	2022 %
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
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14. 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 2021	3,754,976	42,743,446	28,165,991	15,290,787	16,523	444,932	5,231,526	95,648,181
Additions	-	-	755,968	547,646	-	-	832,949	2,136,563
Disposals	-	(90,836)	(1,308,509)	(2,648,277)	-	-	-	(4,047,622)
Reclassifications	-	-	99,831	74,822	-	-	(174,653)	-
At 31 March 2022	3,754,976	42,652,610	27,713,281	13,264,978	16,523	444,932	5,889,822	93,737,122
Additions	-	5,800	1,178,863	235,295	-	-	4,230,389	5,650,347
Disposals	-	(175,430)	(41,600)	(1,493,938)	-	-	-	(1,710,968)
Reclassifications	-	-	-	140,737	-	-	(140,737)	-
At 31 March 2023	3,754,976	42,482,980	28,850,544	12,147,072	16,523	444,932	9,979,474	97,676,501
Accumulated depreciation:								
At 1 April 2021	1,429,647	30,860,137	24,217,867	13,522,089	16,523	444,932	-	70,491,195
Depreciation charge	36,375	1,060,625	1,395,844	650,536	-	-	-	3,143,380
Disposals	-	(90,836)	(1,308,509)	(2,648,277)	-	-	-	(4,047,622)
At 31 March 2022	1,466,022	31,829,926	24,305,202	11,524,348	16,523	444,932	-	69,586,953
Depreciation charge	381,492	1,799,672	1,526,418	672,665	-	-	-	4,380,247
Disposals	-	(103,354)	(41,600)	(1,476,730)	-	-	-	(1,621,684)
At 31 March 2023	1,847,514	33,526,244	25,790,020	10,720,283	16,523	444,932	-	72,345,516
Carrying amount:								
At 31 March 2023	1,907,462	8,956,736	3,060,524	1,426,789	-	-	9,979,474	25,330,985
At 31 March 2022	2,288,954	10,822,684	3,408,079	1,740,630	-	-	5,889,822	24,150,169

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

**NOTES TO THE FINANCIAL STATEMENTS
31 March 2023**

Board

	Leasehold land*	Buildings	Leasehold improvements	Furniture and office equipment	Motor vehicles	OMNIMAX films	Assets under construction	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Cost:								
At 1 April 2021	3,754,976	41,478,610	26,707,875	14,476,235	16,523	444,932	5,231,526	92,110,677
Additions	-	-	603,518	538,137	-	-	832,949	1,974,604
Disposals	-	-	-	(2,537,746)	-	-	-	(2,537,746)
Transfers	-	-	99,831	74,822	-	-	(174,653)	-
At 31 March 2022	3,754,976	41,478,610	27,411,224	12,551,448	16,523	444,932	5,889,822	91,547,535
Additions	-	-	1,157,779	137,704	-	-	4,230,389	5,525,872
Disposals	-	(175,430)	(41,600)	(1,381,032)	-	-	-	(1,598,062)
Transfers	-	-	-	140,737	-	-	(140,737)	-
At 31 March 2023	3,754,976	41,303,180	28,527,403	11,448,857	16,523	444,932	9,979,474	95,475,345
Accumulated depreciation:								
At 1 April 2021	1,429,647	29,593,806	22,834,228	12,959,833	16,523	444,932	-	67,278,969
Depreciation charge	36,375	1,060,135	1,333,108	544,742	-	-	-	2,974,360
Disposals	-	-	-	(2,537,746)	-	-	-	(2,537,746)
At 31 March 2022	1,466,022	30,653,941	24,167,336	10,966,829	16,523	444,932	-	67,715,583
Depreciation charge	381,492	1,798,022	1,418,894	587,610	-	-	-	4,186,018
Disposals	-	(103,354)	(41,600)	(1,363,824)	-	-	-	(1,508,778)
At 31 March 2023	1,847,514	32,348,609	25,544,630	10,190,615	16,523	444,932	-	70,392,823
Carrying amount:								
At 31 March 2023	1,907,462	8,954,571	2,982,773	1,258,242	-	-	9,979,474	25,082,522
At 31 March 2022	2,288,954	10,824,669	3,243,888	1,584,619	-	-	5,889,822	23,831,952

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

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2023

15. GOVERNMENT GRANTS RECEIVED IN ADVANCE

	Group and Board	
	2023	2022
	\$	\$
Beginning of financial year	13,428,934	15,096,443
Add: Grants received during the year	53,196,165	32,965,809
Less: Amount transferred to deferred capital grants (Note 19)	(1,103,192)	(1,013,022)
Less: Amount recognised in profit or loss	(48,580,509)	(33,620,296)
End of financial year	<u>16,941,398</u>	<u>13,428,934</u>

16. SPONSORSHIP RECEIVED IN ADVANCE

	Group and Board	
	2023	2022
	\$	\$
Beginning of financial year	1,732,439	2,613,155
Add: Sponsorship granted during the year	1,228,925	771,932
Less: Amount recognised in profit or loss	(1,644,573)	(1,652,648)
End of financial year	<u>1,316,791</u>	<u>1,732,439</u>

17. TRADE AND OTHER PAYABLES

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Trade payables to:				
- external parties	1,132,925	1,326,801	772,038	1,100,983
- related parties	-	152,709	284,468	152,709
- subsidiaries	-	-	7,329	1,926
	<u>1,132,925</u>	<u>1,479,510</u>	<u>1,063,835</u>	<u>1,255,618</u>
Other payables to:				
- non-related parties	201,959	150,415	169,017	152,442
- other government agency	128,273	161,608	108,518	167,789
- subsidiaries	-	-	47,117	9,662
Deposits received	172,034	135,156	178,550	137,600
Deferred income	440,317	660,155	162,531	146,244
Other accruals for operating expenses	3,468,940	3,110,849	3,380,123	3,032,968
	<u>5,544,448</u>	<u>5,697,693</u>	<u>5,109,691</u>	<u>4,902,323</u>

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

18. DEFERRED INCOME TAX LIABILITIES

	Group	
	2023	2022
	\$	\$
Beginning and end of financial year	<u>6,418</u>	<u>37,150</u>

The movement in deferred income tax liabilities pertains to tax payment.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2023

19. DEFERRED CAPITAL GRANTS

Group

	Government		Others		Total	
	2023	2022	2023	2022	2023	2022
	\$	\$	\$	\$	\$	\$
Beginning of financial year	12,311,237	12,796,603	347,078	111,266	12,658,315	12,907,869
Add: Transferred from						
- government grants (Note 15)	1,057,820	624,094	45,372	388,928	1,103,192	1,013,022
- other government grants (Note 10)	-	-	44,775	32,560	44,775	32,560
Less: Amount recognised in profit or loss	(2,210,194)	(1,109,460)	(137,723)	(185,676)	(2,347,917)	(1,295,136)
End of financial year	<u>11,158,863</u>	<u>12,311,237</u>	<u>299,502</u>	<u>347,078</u>	<u>11,458,365</u>	<u>12,658,315</u>
Total deferred capital grants received (included in government grants received) since inception of the Board	<u>76,220,773</u>	<u>75,162,953</u>	<u>14,764,980</u>	<u>14,719,608</u>	<u>90,985,753</u>	<u>89,882,561</u>

Board

	Government		Others		Total	
	2023	2022	2023	2022	2023	2022
	\$	\$	\$	\$	\$	\$
Beginning of financial year	12,343,767	12,829,133	285,142	66,271	12,628,909	12,895,404
Add: Transferred from						
- government grants (Note 15)	1,057,820	624,094	45,372	388,928	1,103,192	1,013,022
Less: Amount recognised in profit or loss	(2,210,194)	(1,109,460)	(105,264)	(170,057)	(2,315,458)	(1,279,517)
End of financial year	<u>11,191,393</u>	<u>12,343,767</u>	<u>225,250</u>	<u>285,142</u>	<u>11,416,643</u>	<u>12,628,909</u>
Total deferred capital grants received (included in government grants received) since inception of the Board	<u>76,220,773</u>	<u>75,162,953</u>	<u>14,538,477</u>	<u>14,493,105</u>	<u>90,759,250</u>	<u>89,656,058</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2023

20. 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.

21. SHARE CAPITAL

	Group and Board	
	2023	2022
	\$	\$
Beginning of financial year	10,488,403	9,990,181
Issue of new shares	477,629	498,222
Refund of shares	(57,672)	-
End of financial year	10,908,360	10,488,403

In the current financial year, 477,629 (2022 : 498,222) ordinary shares were issued for a total consideration of \$477,629 (2022 : \$498,222) 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 1959.

In the current financial year, a refund of 57,672 (2022 : Nil) ordinary shares for a total consideration of \$57,672 (2022 : \$Nil) was made to cap equity of a development project under debt-equity financing at 40% of final costs.

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 2023

22. RESTRICTED FUNDS

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

Statement of Comprehensive Income - Restricted Funds

Board	Note	Sponsorship	Endowment	Total
		\$	\$	\$
2023				
Income				
Donation and sponsorship		2,033,408	-	2,033,408
Interest income		9,778	33,146	42,924
Other gains/(losses) - net		-	(222,094)	(222,094)
		<u>2,043,186</u>	<u>(188,948)</u>	<u>1,854,238</u>
Expenses				
Employee compensation	(a)	110,155	-	110,155
Materials for exhibits and projects		1,287,583	-	1,287,583
Repairs and maintenance		2,079	-	2,079
Publicity and promotions		195,227	-	195,227
Depreciation	(e)	11,942	-	11,942
Other expenses	(b)	267,935	3,060	270,995
		<u>1,874,921</u>	<u>3,060</u>	<u>1,877,981</u>
Surplus (Deficit) before grants		168,265	(192,008)	(23,743)
Deferred capital grants amortised	(g)	8,420	-	8,420
Surplus (Deficit) for the financial year, representing total comprehensive income (loss) for the financial year		<u>176,685</u>	<u>(192,008)</u>	<u>(15,323)</u>
Accumulated (deficit)/surplus brought forward		(293,389)	8,110,927	7,817,538
Accumulated (deficit)/surplus carried forward		<u>(116,704)</u>	<u>7,918,919</u>	<u>7,802,215</u>
2022				
Income				
Donation and sponsorship		2,421,577	-	2,421,577
Interest income		4,163	7,494	11,657
Other gains/(losses) - net		19	(71,154)	(71,135)
		<u>2,425,759</u>	<u>(63,660)</u>	<u>2,362,099</u>
Expenses				
Employee compensation	(a)	122,248	23,891	146,139
Materials for exhibits and projects		1,998,193	-	1,998,193
Repairs and maintenance		16,456	-	16,456
Publicity and promotions		95,564	-	95,564
Depreciation	(e)	11,725	-	11,725
Other expenses	(b)	318,089	3,120	321,209
		<u>2,562,275</u>	<u>27,011</u>	<u>2,589,286</u>
Deficit before grants		(136,516)	(90,671)	(227,187)
Deferred capital grants amortised	(g)	9,321	-	9,321
Deficit for the financial year, representing total comprehensive loss for the financial year		<u>(127,195)</u>	<u>(90,671)</u>	<u>(217,866)</u>
Accumulated (deficit)/surplus brought forward		(166,194)	8,201,598	8,035,404
Accumulated (deficit)/surplus carried forward		<u>(293,389)</u>	<u>8,110,927</u>	<u>7,817,538</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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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).

Statement of Financial Position - Restricted Funds

Board	Note	Sponsorship	Endowment	Total
		\$	\$	\$
2023				
ASSETS				
Current assets				
Cash and cash equivalents	(c)	335,826	2,148,642	2,484,468
Trade and other receivables	(d)	600,811	10,446	611,257
Sponsorship receivable (Note 10)		375,590	-	375,590
Financial asset at FVTPL (Note 11)		-	5,762,830	5,762,830
		<u>1,312,227</u>	<u>7,921,918</u>	<u>9,234,145</u>
Non-current asset				
Property, plant and equipment	(e)	16,606	-	16,606
Total assets		<u>1,328,833</u>	<u>7,921,918</u>	<u>9,250,751</u>
LIABILITIES				
Current liabilities				
Trade and other payables	(f)	123,822	3,000	126,822
Sponsorship received in advance (Note 16)		1,316,791	-	1,316,791
		<u>1,440,613</u>	<u>3,000</u>	<u>1,443,613</u>
Non-current liability				
Deferred capital grants	(g)	4,923	-	4,923
Total liabilities		<u>1,445,536</u>	<u>3,000</u>	<u>1,448,536</u>
NET (LIABILITIES)/ASSETS		<u>(116,703)</u>	<u>7,918,918</u>	<u>7,802,215</u>

Charities Act and Regulation

As required for disclosure under regulation 17 of the Charities (Institutions of a Public Character) Regulations, the Sponsorship Fund has received total tax deductible donations of \$258,775 (2022 : \$92,350) in the current financial year.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2023

Board	Note	Sponsorship	Endowment	Total
		\$	\$	\$
2022				
ASSETS				
Current assets				
Cash and cash equivalents	(c)	979,786	2,148,292	3,128,078
Trade and other receivables	(d)	119,926	1,602	121,528
Sponsorship receivable (Note 10)		586,624	-	586,624
Financial asset at FVTPL (Note 11)		-	5,984,924	5,984,924
		<u>1,686,336</u>	<u>8,134,818</u>	<u>9,821,154</u>
Non-current asset				
Property, plant and equipment	(e)	28,548	-	28,548
Total assets		<u>1,714,884</u>	<u>8,134,818</u>	<u>9,849,702</u>
LIABILITIES				
Current liabilities				
Trade and other payables	(f)	262,491	23,891	286,382
Sponsorship received in advance (Note 16)		1,732,439	-	1,732,439
		<u>1,994,930</u>	<u>23,891</u>	<u>2,018,821</u>
Non-current liabilities				
Deferred capital grants	(g)	13,343	-	13,343
Total liabilities		<u>2,008,273</u>	<u>23,891</u>	<u>2,032,164</u>
NET (LIABILITIES)/ASSETS		<u>(293,389)</u>	<u>8,110,927</u>	<u>7,817,538</u>

Notes

(a) Employee compensation

	Sponsorship		Endowment	
	2023	2022	2023	2022
	\$	\$	\$	\$
Wages and salaries	103,403	113,637	-	-
Employer's contribution to Central Provident Fund	6,327	8,111	-	-
Other staff benefits	425	500	-	23,891
	<u>110,155</u>	<u>122,248</u>	<u>-</u>	<u>23,891</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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(b) Other expenses

	Sponsorship		Endowment	
	2023	2022	2023	2022
	\$	\$	\$	\$
Professional, consultancy and other fees	73,778	140,820	3,000	3,000
Printing, stationery and office supplies	20,155	7,226	-	-
Rental of equipment, venue and facilities	120,000	106,726	-	-
Postage, telephone and courier charges	3,294	17,654	-	-
Transport and travelling expenses	9,284	11,964	-	-
Refreshment and entertainment	35,948	17,858	-	-
Others	5,476	15,841	60	120
	<u>267,935</u>	<u>318,089</u>	<u>3,060</u>	<u>3,120</u>

(c) Cash and cash equivalents

	Sponsorship		Endowment	
	2023	2022	2023	2022
	\$	\$	\$	\$
Cash at bank and in hand	335,826	979,786	148,642	148,292
Short-term bank deposits	-	-	2,000,000	2,000,000
	<u>335,826</u>	<u>979,786</u>	<u>2,148,642</u>	<u>2,148,292</u>

(d) Trade and other receivables

	Sponsorship		Endowment	
	2023	2022	2023	2022
	\$	\$	\$	\$
Trade receivables	11,397	7,798	-	-
Other receivables due from Science Centre Board	589,414	112,128	-	-
Other receivables	-	-	10,446	1,602
	<u>600,811</u>	<u>119,926</u>	<u>10,446</u>	<u>1,602</u>

Other receivables due from Science Centre Board are unsecured, interest-free and are repayable on demand.

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
31 March 2023

(e) Property, plant and equipment

	Sponsorship		Total
	Leasehold improvements	Furniture equipment	
	\$	\$	\$
Cost:			
At 1 April 2021	210,000	61,604	271,604
Additions	-	17,608	17,608
At 31 March 2022	210,000	79,212	289,212
Disposals	-	(2,719)	(2,719)
At 31 March 2023	<u>210,000</u>	<u>76,493</u>	<u>286,493</u>
Accumulated depreciation:			
At 1 April 2021	210,000	38,939	248,939
Depreciation charge	-	11,725	11,725
At 31 March 2022	210,000	50,664	260,664
Depreciation charge	-	11,942	11,942
Disposals	-	(2,719)	(2,719)
At 31 March 2023	<u>210,000</u>	<u>59,887</u>	<u>269,887</u>
Carrying amount:			
At 31 March 2023	-	16,606	16,606
At 31 March 2022	-	28,548	28,548

(f) Trade and other payables

	Sponsorship		Endowment	
	2023	2022	2023	2022
	\$	\$	\$	\$
Trade payables	4,613	132,137	-	-
Accrued operating expenses	97,033	110,884	3,000	-
Other payables due to Science Centre Board	-	-	-	23,891
Other payables to other government agency	22,176	19,470	-	-
	<u>123,822</u>	<u>262,491</u>	<u>3,000</u>	<u>23,891</u>

Other payables due to Science Centre Board are unsecured, interest-free and repayable on demand.

(g) Deferred capital grants

	Sponsorship	
	2023	2022
	\$	\$
Beginning of financial year	13,343	22,664
Less: Amount recognised in profit or loss	(8,420)	(9,321)
End of financial year	<u>4,923</u>	<u>13,343</u>

SCIENCE CENTRE BOARD AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS
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23. 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.

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	
	2023	2022	2023	2022
	\$	\$	\$	\$
Year 1	278,139	344,513	218,139	305,513
Year 2	116,219	50,051	116,219	50,051
	<u>394,358</u>	<u>394,564</u>	<u>334,358</u>	<u>355,564</u>

24. 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	
	2023	2022	2023	2022
	\$	\$	\$	\$
Financial assets, at amortised cost	42,037,020	32,132,044	40,492,787	30,453,450
Financial assets, at FVTPL	5,762,830	5,984,924	5,762,830	5,984,924
	<u>47,799,850</u>	<u>38,116,968</u>	<u>46,255,617</u>	<u>36,438,374</u>
Financial liabilities, at amortised cost	(5,104,131)	(5,037,538)	(4,947,160)	(4,756,079)

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(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 \$288,142 (2022 : \$299,246). An equal change in the opposite direction would have decrease net surplus by \$288,142 (2022 : \$299,246).

(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 reputable financial institutions 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.

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(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.

The following is an aging analysis of trade and other receivables:

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Current	197,736	543,681	395,544	752,043
Past due 0 to 2 months	79,778	28,720	87,287	50,463
Past due over 2 months	41,508	321	245,762	221,929
	<u>319,022</u>	<u>572,722</u>	<u>728,593</u>	<u>1,024,435</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 2023 and 2022 are repayable on demand or due within 1 year from the end of the reporting period.

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(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.

25. 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	
	2023	2022
	\$	\$
Admission fees/ Proceeds from special projects/ Fees from courses and programmes/ Sales of merchandise and publications from government schools	<u>468,436</u>	<u>353,507</u>

(b) Key management personnel compensation

Key management personnel compensation is as follows:

	Group		Board	
	2023	2022	2023	2022
	\$	\$	\$	\$
Wages and salaries	1,362,637	1,271,027	1,198,647	1,120,688
Employer's contribution to Central Provident Fund	69,004	60,704	57,424	49,710
	<u>1,431,641</u>	<u>1,331,731</u>	<u>1,256,071</u>	<u>1,170,398</u>

THANK YOU!



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