REMARKS BY MR HENG SWEE KEAT,
CHAIRMAN OF THE NATIONAL RESEARCH FOUNDATION
AT THE LAUNCH OF SCIENCE CENTRE QUANTA SCHOOL EXHIBITION
30 SEPTEMBER 2025

Ms Tham Mun See, Chief Executive of Science Centre Board

Ladies and Gentlemen,

1. Good afternoon and a very warm welcome to all of you.

Introduction

2. It is a pleasure to join you today at the opening of the Quanta School exhibition here at Science Centre Singapore. This is a wonderful initiative that brings quantum science out of theory and into the hands and minds of our young learners.

3. It is critical to instil in our youths both a sense of curiosity, to ask questions and explore the world around them, and at the same time, to apply what they learn to the real world. When I was Minister for Education, I launched the Applied Learning Programme (ALP). The ALP provides students a valuable platform for hands-on learning to explore how academic knowledge - in particular, scientific concepts - can be applied to address real world challenges. In this way, we can better prepare them for the future.

4. Today, the Quanta School – a vibrant learning space - embodies that spirit of sparking curiosity in our young and makes frontier technology, such as quantum science, tangible. The setting is familiar to all of us – a classroom where the teacher is away. But take a closer look at the objects in the classroom and you might be surprised. The class lamps behave spookily, and the windows are not as transparent as you would expect. The exhibition is designed to introduce quantum science in a relatable manner and provides a glimpse of cutting-edge quantum research and artefacts.

Relevance of Quantum Science

5. The United Nations has declared 2025 the International Year of Quantum Science and Technology (IYQ). Marking 100 years since the birth of quantum mechanics, it is a global effort to raise awareness of quantum science and its transformative potential. The launch of the Quanta School is our effort to support this global effort, by reaching out to schools, students and the public to demystify quantum science and inspire the next generation of scientists and innovators.

6. Quantum science may seem abstract, but it is already part of our everyday lives. From the transistors in our smartphones to atomic clocks, quantum technologies power essential systems like

the internet and GPS. Looking ahead, quantum technologies promise new revolutions in computing, communications and sensing. Recognising this potential, it is important for Singapore to position itself at the forefront of this revolution.

7. The story of our journey from discovering quantum phenomenon to real world application is a reminder that basic research remains critical, and translating basic insights to useful applications takes time – in this case, decades. The National Research Foundation will continue to support basic research – in fact, we are committing about one-third of the overall research, innovation and enterprise (RIE) budget to basic research, from RIE2025[1] and beyond.

Growing Singapore's quantum ecosystem

8. In 2024, I announced Singapore's National Quantum Strategy (NQS), an investment of almost $300 million by the National Research Foundation to deepen our national capabilities in quantum research, talent development, and industry collaboration. Led by the National Quantum Office (NQO), the strategy supports quantum initiatives driven by Singapore's universities and research institutes and graduate-level education. Now, with this Quanta School exhibition, younger students will get a chance to start their quantum education early. Families can also better understand why this is an important area of science and technology for Singapore and the world.

9. Singapore's quantum ecosystem is growing rapidly. Today, our ecosystem includes more than 300 researchers, alongside a vibrant community of promising startups and industry partners working together to advance quantum technologies and translate scientific breakthroughs into real-world applications.

10. The Centre for Quantum Technologies (CQT), Singapore's national centre for quantum research and education, has played a pivotal role in advancing quantum science since 2007. CQT has contributed directly to the Quanta School exhibition, working with the Science Centre to design exhibits that make complex quantum concepts engaging and accessible. Through outreach and support for young researchers, CQT is inspiring the next generation to see quantum not just as a subject, but as a career path, strengthening Singapore's position as a global hub for quantum innovation.

11. In the classroom of Quanta School, you will meet some young scientists who have started on this path. Among them is Ms Lim En Teng – I understand that she is here today - an undergraduate at the National University of Singapore, who spent her vacation as an intern at CQT. With their impressive work in developing tools for quantum networking, En Teng and her team has been invited to present the results at an international conference in August this year.

[1] RIE2025 is a five-year plan laying out Singapore's strategic efforts in research, innovation and enterprise to drive the nation's progress.

12. Singapore's National Quantum Scholarships Scheme (NQSS) is already supporting students like Mr Lee Kai Xiang, who is also here at today's the launch. Mr Lee discovered his passion for quantum physics in secondary school. Today, he is building a quantum computer using neutral atoms as part of his PhD research at the Centre for Quantum Technologies. Scholarships such as the NQSS offer fully funded Master's and PhD scholarships to nurture future leaders in quantum science and technology. These scholarships include attractive stipends, research allowances, and opportunities for industry attachments with local quantum startups. If you are passionate about quantum technologies, we encourage you to apply and start your journey in this growing field.

13. What is also critical – beyond developing promising young Singaporeans – is to continue to draw talented researchers to base themselves here. They will find Singapore's growing ecosystem attractive, and in turn, their breadth of knowledge and diverse perspectives will enrich those who are here in deepening their understanding and insights.

14. For almost 2 decades, our schools have been focusing on enhancing critical and creative thinking skills in our students. In 2023, MOE announced that a greater emphasis on adaptive and inventive thinking would be part of its enhanced 21st Century Competencies – or 21CC in short. I am heartened that the Science Centre Board (SCB) has been a significant part of this journey, working closely with schools that sign up for its initiatives centred on 21CC. These include programmes as the Research Development Programme, Young Sustainability Champion, and STEAMunity, which encourages students to solve real-world problems using STEM and arts skills to hone their critical and creative thinking.

15. Our students' journey, from curiosity to cutting-edge research, is a powerful example of what can happen when we nurture talent and provide opportunities. I am confident the Quanta School exhibition will pique the same interest in its future visitors.

Conclusion

16. Finally, I commend Science Centre Singapore and all the partners who made Quanta School possible. Your collective efforts have not only brought this exhibition to life. I trust you will continue to work together, to help shape Singapore's future as a global leader in quantum science and innovation.

17. Let us continue to nurture a culture of curiosity and exploration, learning and innovation, where every child, and every one of us, can discover the wonders of science.

18. I wish the Quanta School exhibition great success.

Thank you.