

GOH Speech for Mr Heng Swee Keat
Chairman of the National Research Foundation, at the 2026 President's
Science and Technology Awards Ceremony

28 August 2026, Nanyang Auditorium, Nanyang Technological University

President Tharman Shanmugaratnam,

Recipients of the 2026 President's Science and Technology Awards and Young Scientist Awards,

Ladies and gentlemen,

Good evening, and a very warm welcome to the **2026 President's Science and Technology Awards (PSTA)** Ceremony.

Celebrating excellence

2 Since their inception, these awards have recognised outstanding individuals and teams who have made high-impact contributions in science and technology, and their application.

3 The PSTA honours excellence that benefits Singapore and beyond, and seeks to inspire researchers and innovators in our community to pursue their work with renewed purpose and heightened ambition.

4 Tonight, we celebrate the achievements of some of the best of our scientific community – some of whom have contributed to science and technology for many decades, while others have made significant contributions even in their early professional years as young scientists.

5 It is very fitting that this event is being held in the Nanyang Auditorium, at NTU, a place long associated with the curiosity and spirit of discovery that we honour tonight.

Science at an extraordinary moment

6 We are at a particularly exciting moment in the development of science and technology. AI, particularly Generative AI, is fast becoming a powerful engine and a new norm for scientific discovery and application. AI can help researchers explore a much greater range of hypotheses, uncover hidden patterns, and shorten the path from discovery to impact.

7 At the same time, quantum technologies are moving steadily from lab to application. Together with AI, the rapid advances in quantum computing are opening up new research and innovation frontiers in healthcare, climate science, and advanced materials.

8 AI, quantum science, and advanced computing can accelerate convergence science, bringing together the concepts, approaches and techniques from different disciplines to tackle highly complex research questions.

9 While we pursue these exciting opportunities, however, we also need to consider difficult questions about how the development and deployment of new technologies should be governed, to reap the benefits while mitigating the risks of harm to individuals and societies. Adopting a responsible approach is critical to realising wider-spread benefits from research while preserving and growing public trust.

Singapore's long-term commitment to research and innovation

10 Singapore has consistently invested in science and technology for over three decades. Building on the strong foundation laid by Research, Innovation and Enterprise 2025 (**RIE2025**), we launched **RIE2030** in December last year.

11 This S\$37 billion plan has three main areas of focus: First, to contribute significantly to selected national economic and strategic priorities; second, to sustain investments to grow key sectors; and third, to keep our basic research capabilities and talent at the cutting edge.

12 RIE2030 also introduces a major new initiative in the form of **RIE Flagships** and **Grand Challenges**. For example, the RIE Grand Challenge on maximising healthy and successful longevity addresses critical gaps in scientific knowledge on ageing in Singapore that can lead to new approaches and solutions which could help Singaporeans live healthier for longer.

13 RIE investments in supercomputing and AI initiatives will enable us to ask bigger questions and solve harder problems. We have invested in a range of domains and intend to continue doing so. But at the heart of research and innovation across all these domains, a common element is: people – talented scientists, engineers and innovators with the imagination and ideas, as well as the skills to use the powerful tools and other resources at their disposal to make breakthrough discoveries and translate them into high-impact applications.

14 This evening, we celebrate the best amongst this talented community.

Research leaders of the future: Young Scientist Award recipients

15 This year's **Young Scientist Award recipients**, recognised by the Singapore National Academy of Sciences, are outstanding examples of researchers who are already making a mark globally, while at a relatively early stage of their careers.

16 **Dr Hou Yi** has made pioneering contributions to next-generation tandem solar cell technologies, achieving record performances in *perovskite* solar cells. As the founder of Singfilm Solar, a spin-off from NUS, he has translated laboratory breakthroughs into real-world energy solutions across AI infrastructure, wearable electronics and space power systems.

17 **Dr Liu Boxiang** develops AI and bioinformatics methods to uncover the genetic basis of complex human diseases, with a focus on Asian populations, which remain underrepresented in global genomic research. His work, including the first atlas of genetic variation in RNA splicing across cell types, is bringing the promise of precision medicine closer to these populations.

18 Together, they represent the vanguard of the next generation of Singapore's scientific leaders; curious, creative, rigorous and globally connected.

Advancing impact: The President's Science Award and President's Technology Award

19 Realising societal benefit from science requires it to move from the laboratory into the world. Tonight's **President's Science Award** and **President's Technology Award** are compelling illustrations of what that looks like in practice.

20 The President's Science Award this year honours **Professor Wu Jishan** from the National University of Singapore. Prof Wu's pioneering work in molecular carbon science has opened entirely new frontiers. Aromaticity, open-shell and topologically complex molecules, were seen as unpredictable, but he has shown they can be designed with intent.

21 This has given scientists new tools to control material properties, tools that are central to the future of electronics, photonics and quantum technologies. This is the kind of science that begins with deep intellectual curiosity and ends with transformative potential for industry.

22 Science asks, "why and how", using the scientific method to uncover the fundamental laws and truths that govern our natural world.

23 But engineering asks, “so what, and what if”, applying scientific and mathematical principles, creativity and ingenuity to design and build practical solutions.

24 A team from A*STAR and the Maritime and Port Authority of Singapore bridged these two fields to remarkable effect, and in doing so, made an impact far beyond our shores.

25 **Mr Wu Jian, Mr Thomas Ting Cheng Heong, Dr Yu Shengkai and Mr Tan Ren Kai** brought together better measurement methods, trusted digital records, and clear rules to make marine fuel transfers in Singapore more accurate and transparent.

26 Their work strengthened confidence in our bunkering sector and created a model that other countries now look to as a benchmark. Their achievement is a reminder that innovation does not always mean inventing something entirely new. Sometimes, the greater achievement lies in seeing how existing technologies can be combined, adapted and applied to solve important problems at scale.

27 For this outstanding achievement, they are being honoured with the President’s Technology Award.

Visionary leadership: The President’s Science and Technology Medal

28 The PSTA is not only about discoveries or deep science and innovative technologies, but also about individuals who have made an indelible mark on our innovation ecosystem.

29 Tonight we recognise one such person, **Er. Lee Chuan Seng**. Over a career spanning public service, industry leadership and national advisory roles, Chuan Seng has helped Singapore apply science and engineering to overcome its most complex constraints in land, energy, water and environmental sustainability.

30 His hallmark is a systems-level approach to national problem-solving. As a strong and highly effective advocate of the “System of Systems Synergies and Optimisation” workstream, he has championed whole-of-government efforts to synergise major initiatives, ranging from underground cavern development to renewable energy integration and climate resilience.

31 He also wears many hats. As Chairman of the Committee of Government Scientific Advisors, and of the Urban Solutions and Sustainability Technical Advisory Workgroup, he strengthened the bridge between science and policy, connecting national research priorities to agency implementation. As Founding President of the Singapore Green Building Council, Chuan Seng led the development of Green Mark standards and championed large-scale solar deployment.

32 He also pioneered Cement-Treated Mixed Materials, a technique that transforms waste residues from the Semakau Landfill into viable reclamation material.

33 Time and again, he has shown an ability to turn Singapore’s structural constraints into opportunities for innovation. Through visionary leadership, deep engineering expertise and an unwavering commitment to systems thinking, Chuan Seng has helped position Singapore as a leading exemplar of integrated, sustainable and science-enabled development.

34 **Tonight’s highest honour**, the President’s Science and Technology Medal, is awarded for distinguished, sustained and exceptional contributions to Singapore’s development through science and technology. It goes to Er. Lee Chuan Seng, a most deserving recipient in recognition of a lifetime of dedicated and impactful work.

Looking ahead together

35 The stories of our award recipients today trace the full arc from curiosity to impact: rigorous science, purposeful translation, and teamwork across disciplines, institutions and borders.

36 As we move deeper into RIE2030, I am confident that the RIE community will rise to the challenges and opportunities ahead. The convergence of AI, quantum, advanced materials and the life sciences is creating possibilities that we are only beginning to understand.

37 Singapore aspires to be at the frontier of such work, generating knowledge, building solutions, and doing so in ways that are responsible, inclusive and impactful.

RIE2025 Report and RIE2030 Plan

38 Singapore has come a long way as an RIE ecosystem. In the next few days, the National Research Foundation will unveil the **RIE2025 Report**. This is an inaugural report that will relate the progress that has been made and highlight some of our key achievements in the past five years, from Apr 2021 to Mar 2026.

39 These achievements include not just research outcomes, but also examples of how the translation of research has contributed to our economy, created new opportunities, and impacted Singaporeans' lives in a real way.

40 We will also be unveiling the **RIE2030 Plan**, which will set out our goals, plans and key initiatives for the next phase of Singapore's RIE journey. The **RIE2025 Report** and **RIE2030 Plan** mark an important milestone: they take stock of the progress our vibrant research community has achieved, and they chart a clear path forward as we continue to invest in science and technology as a cornerstone of Singapore's growth and resilience.

Conclusion

41 Thank you, President Tharman, for your presence and your unwavering support of research and innovation excellence.

42 To all our award recipients this evening, my heartiest congratulations. Your achievements are a source of pride for Singapore, and an inspiration to all who follow in your footsteps.

43 I wish everyone a wonderful evening.

Thank you.
