

Heng Swee Keat, Chairman of the National Research Foundation unveils Singapore Scientific Conference 2025; 8-10 Dec 2025

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Theme : A Sustainable Future Through Science and Technology “Singapore’s \$37 billion investment in five-year RIE2030 plan to strengthen national research and innovation ecosystem. We will fund research and innovation to advance key national and economic priorities, build capabilities in AI, data and computation to enable cutting-edge research and innovation, and further strengthen our talent pool and basic research capabilities.” asserts Heng Swee Keat, Chairman of the National Research Foundation



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The **Singapore Scientific Conference 2025** happening from **Dec 8-10th** marks a significant milestone as it coincides with Singapore's SG60 celebrations, reflecting six decades of scientific excellence and innovation. The event brought together global speakers and delegates to explore the frontiers of science and innovation, while highlighting the nation's journey from a technology adopter to a trusted global partner in research and innovation. Guided by sustained public investment in research, innovation, and enterprise, Singapore continues to build a robust talent base and advance cutting-edge research, with a strong focus on addressing global challenges and shaping a sustainable future.

During the inaugural day on Dec. 8th, **Heng Swee Keat, Chairman of the National Research Foundation**, graced the Singapore Scientific Conference 2025 and, in his opening remarks, he underscored that, as science, technology, and innovation continue to advance, it is imperative to embrace this spirit even more to strengthen humanity and protect the planet

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The Singapore Scientific Conference 2025 united perspectives from diverse disciplines and regions. The theme of this year's conference is **"A Sustainable Future Through Science and Technology"**. Singapore aims to establish itself as a Global-Asia Node of Technology, Enterprise, and Innovation—a trusted, neutral platform fostering collaboration among leading minds to exchange ideas, build partnerships, and transform scientific excellence into solutions for shared global challenges.

Research, Innovation and Enterprise 2030 (RIE2030)

Singapore's sustained investments in Science and Technology, coupled with a growing focus on Innovation and Enterprise, have established a strong foundation of talent and research excellence. Country's researchers are globally recognized for advancing scientific knowledge across diverse fields, while our universities and research institutions consistently rank among the best worldwide

Chairman, Heng Swee Keat explained "Last Friday, we released Research, Innovation and Enterprise 2030 or RIE2030, our latest five-year plan to strengthen our national research and innovation ecosystem. The Government has allocated \$37 billion for RIEC 2030. This is about 1% of our projected GDP, and a 32% increase over the last 5 years."

Emphasizing on key aspects of RIE2030, he stated:

(i) We will fund research and innovation to advance key national and economic priorities, build capabilities in AI, data and computation to enable cutting-edge research and innovation, and further strengthen our talent pool and basic research capabilities.

(ii) We will continue to fund basic academic research, with about one-third of the total budget allocated for basic research. This will enable us to develop a broad base of scientific capabilities and intellectual property that we can draw on later.

"As the cornerstone of any successful research endeavor is the breadth and depth of talent, we will continue to attract and develop a critical mass of high-calibre scientific talent. We will also broaden our talent pool to include scientific innovators and entrepreneurs, in addition to researchers and scientists." The initiative is an integral component of Singapore's Research, Innovation, and Enterprise 2030 (RIE2030) plan, as stated by Chairman Heng Swee Keat.

To cultivate a strong pool of science innovators, Singapore recently launched the Activate Global Fellows – Singapore programme. Hosted by NTU in partnership with US-based non-profit Activate, this initiative provides funding and access to networks and resources to support deep-tech startup founders. Additionally, Singapore is introducing the NRF Postdoctoral Award to nurture young research talent. This award offers competitive research grants and salaries for up to four years,

enabling promising researchers to lead independent research projects.

"We will continue to unite bright young minds from Singapore and around the world through initiatives like the Global Young Scientists Summit (GYSS) platform connecting emerging scientific leaders with Nobel laureates, Turing Prize winners, and Millennium Technology Prize recipients. By fostering meaningful interactions, GYSS aims to inspire collaborations that can evolve into long-term partnerships. The next GYSS is scheduled for January 2026." explains Chairman, Heng Swee Keat.

This year's Singapore Science Conference is yet another example of how Singapore scientists, innovators and industry partners are coming together, to explore the frontiers of science and innovation, and to be inspired.

Forging a "Sustainable Future Through Science & Technology"

Singapore places a strong focus on sustainability, which is a key thrust in the RIE 2030 plan. Climate change is no longer a distant threat, but a clear existential issue for a low lying island nation. It is also a threat to the entire planet, as ecosystems and biospheres are so deeply integrated. The chairman encouraged collaborative approaches towards adapting, innovating, and sharing solutions for a sustainable future for all.

A major domain of RIE2030 plan is to tackle Urban Solutions and Sustainability – how a city can find innovative solutions to our land and carbon constraint. To tackle the challenges, Singapore has identified five priority areas: decarbonization; climate change adaptation; land resilience; sustainable urban development; and innovation translation.

"For instance, our coastal protection research programme is developing cutting-edge solutions to safeguard Singapore against rising sea levels – from nature-based solutions that harness mangroves and coastal ecosystems, to advanced engineering approaches that can withstand the forces of climate change. We have announced a plan to build a Long Island, off the East Coast of Singapore" announced Heng Swee Keat.

The global energy transition is one of the most critical issues in tackling climate change and in enabling countries to meet the growing energy demands, which is rising sharply as companies invest in AI and data centres. Singapore is actively exploring with partners in the region, to source for renewable sources of energy. In addition, established the Nuclear Research and Safety Institute, to build a deeper understanding of nuclear technologies and safety requirements, as countries around the world build nuclear facilities to meet their needs.

Sustainability research in RIE2030 leverages resources and capabilities across the ecosystem, extending beyond individual domains to drive innovative, collaborative solutions for a sustainable future.

For example, Singapore's Trusted Research and Real-World Data Utilisation System, or TRUST data system, was established to enable trusted and secure access to research, health and administrative datasets for health-related research, is being extended beyond healthcare to support our Cities of Tomorrow programme. Through TRUST, researchers working on heat resilience can securely access and analyse integrated datasets from multiple agencies – energy consumption patterns, urban planning data, environmental monitoring information – to develop comprehensive solutions for managing Singapore's urban heat challenge.

Similarly, AI is being deployed to tackle sustainability challenges, from optimising energy systems and predicting climate impacts to enhancing resource efficiency across our economy.

In the Manufacturing, Trade and Connectivity domain, market trends are emerging for sustainable products and early signs of a more mature industrial system developing globally. Following this, Singapore is advancing its capabilities in the bioeconomy, leveraging energy, chemicals, and biotechnology to create new high-value industrial activities anchored in the energy and chemicals sectors which will be transformed.

Singapore is also investing in alternative feedstocks and bioprocess development – areas that hold strong promise for transforming our approach to manufacturing and resource utilisation.

"By developing technologies that can convert waste streams, agricultural residues, and other non-traditional materials into valuable products through advanced bioprocessing, we can reduce our dependence on conventional raw materials, minimize waste, and create new circular economy opportunities. These capabilities will be essential as the world transitions towards more sustainable production systems." explains the Chairman.

"While our research ecosystem is small compared to those of major economies, it can be highly effective if we break down silos – across disciplines, across industries. The best innovation comes at the intersection of different disciplines and stakeholders.

So, we seek to bring together the best minds from around the world, promote a collaborative spirit, and create solutions that benefit Singapore and the world. “ added Heng Swee Keat.

Strategic Importance of International Collaborations

On December 5, 2025, the Research, Innovation and Enterprise 2030 (RIE2030) plan received endorsement during the 15th Research, Innovation and Enterprise Council (RIEC) meeting. Chaired by Senior Minister Lee Hsien Loong and featuring ministerial members from the Singapore Government alongside global leaders in science, technology, and industry, the RIEC provides strategic guidance on Singapore's research and innovation efforts.

Singapore is committed to strengthening strategic collaborations with major research institutions and companies globally. As part of this effort, the National Research Foundation (NRF) announced the establishment of the Singapore-Horizon Europe Complementary Fund. Horizon Europe, the European Union's flagship research and innovation funding program, aligns with Singapore's priorities in areas such as next-generation clean energy technologies, precision medicine, and artificial intelligence.

The Complementary Fund will support research activities conducted in Singapore by eligible entities as part of Horizon Europe projects. Additionally, the NRF will set up National Contact Points in Singapore to connect local research entities, promote grant opportunities, and encourage participation. Grant applications for 2026–2027 will open soon, and the NRF will host dialogue sessions to provide further details.

Chairman Heng Swee Keat urged potential collaborators, including many present, to connect with the NRF. The NRF will host dialogue sessions in the coming weeks to provide further details. We anticipate researchers from Singapore collaborating with international partners to engage in Horizon Europe programs.

Chairman Heng Swee Keat's call to action emphasizes the importance of collaboration and innovation in tackling global challenges. By fostering new connections and discoveries, Singapore aims to lead in building a sustainable future, leveraging science and technology to create impactful solutions for the nation and the world.