WK Science & Innovation Network



UK Science & Innovation Network Country Summary

Singapore

Science and Innovation Landscape

Singapore has a population of 6.1 million people, a stable political system, a strong business and IP system and thriving education system. It has invested heavily in infrastructure and positioned itself as a regional hub for trade, finance and knowledge. It is the highest ranking Asian market in the 2023 Global Innovation Index and has been successful in attracting international investment and talent. Singapore currently invests over 1% of GDP on R&D activities and is highly productive, ranking 11th globally in proportion of researchers on <u>Clarivate's highly cited list</u>.

Singapore research structure

Singapore position in the 2023 Global Innovation Index: 5th

Singapore global ranking for researchers listed on Clarivate's 2023 Highly Cited Researchers list: 11th

Singapore's Research, Innovation and Enterprise Council (RIEC) is chaired by the Prime Minister and provides strategic direction and high-level coordination for Singapore's research and innovation strategy. The Agency for Science, Technology and Research (A*STAR) is the other main government organisation involved in driving Singapore's research agenda across institutes and local universities. Singapore has world class universities, including the National University of Singapore and Nanyang Technological University, who both sit within the top 40 universities worldwide.

Singapore's R&D interest and investments

Singapore's R&D strategy is set out in five year plans. The latest plan, 'Research, Innovation and Enterprise 2025 (<u>RIE2025</u>)', budgeted S\$25Bn (£15Bn) from 2021 to 2025 to support investments in research, innovation and enterprise in four strategic technology domains:

- Manufacturing, Trade and Connectivity
- Human Health and Potential
- Urban Solutions and Sustainability
- Smart Nation and Digital Economy

These domains are supported by three cross-cutting programmes:

- Academic Research
- Manpower
- Innovation and Enterprise

UK Science & Innovation Network Country Snapshot: Singapore

In the <u>February 2024 budget statement</u>, Singapore pledged S\$5Bn (£2.8Bn) towards a Future Energy fund to invest in energy transition infrastructure, targeting a transition to a net-zero future and supporting decarbonisation ambitions, as well as establishing a new National Cybersecurity Command Centre and investing S\$1Bn (£0.6Bn) towards enhancing AI capabilities to drive innovation and growth.

Further examples of recent investment and interest include:

- Quantum Engineering initiatives, including the <u>launch of three National platforms in 2022</u> and investing S\$23.5m (£13.8m) over 3.5 years.
- Delivery of the National AI strategy 2.0, launched in December 2023, <u>investing</u> S\$20m (£11.8m) in education and committing S\$500m (£300m) in high performance compute resources.
- Space, where three Singapore linked projects were <u>selected for funding by the UK Space</u> <u>Agency (UKSA)</u> in 2023 through the International Bilateral Fund.
- Communications and connectivity capabilities are supported via the <u>Future</u> <u>Communications Research and Development Programme</u>, launched in 2024, which has close to S\$70m (£41m) investment over 4 years.

UK-Singapore partnership on Science, Innovation & Technology

The UK-Singapore Partners in Science programme was initiated in 2004 and helped lay the foundations of our strong cooperation in science and research. The UK and Singapore agreed a new <u>Strategic Partnership</u> in Sep 2023, signed by both Prime Ministers, outlining enhanced cooperation in areas of research such as critical and emerging technologies, climate and global health. This follows on from the signing of a Digital Economy Agreement in 2022 designed to facilitate cross-country collaboration and provides support for businesses, which has also led to two new agreements signed in Jun 2023, committing shared expertise on Emerging Technologies and Data, promoting more business partnerships on Artificial Intelligence (AI) and shared regulatory practices and standards for data and AI.

The biennial UK-Singapore Strategic Dialogue in Science and Innovation is a platform for both governments (led by DSIT and the National Research Foundation) to develop and strengthen the bilateral relationship in Science and Innovation. Our current priorities include Critical and Emerging Technologies (such as AI and Engineering Biology), Global Health, Climate & Energy.

Key collaborations between the UK and Singapore include:

• Joint Research and Innovation Programmes:

- The ASEAN-UK Regional Training and <u>Workshop on Engineering Biology</u> was funded by the UK Department of Science Innovation and Technology (DSIT) and held in Singapore in 2024.
- UK Research and Innovation <u>is partnering with NRF</u> to support research focused on infectious diseases with epidemic or antimicrobial resistance potential, with calls open in 2024.
- The <u>New Variant Assessment Platform (NVAP</u>), led by UK Health Security Agency (UKHSA) was formed in partnership with Singapore's National Centre for Infectious Diseases (NCID). This partnership is a significant step forward to enhance global efforts in combatting COVID-19 and support Southeast Asia in new COVID variant

assessment. This provided access to a synergy of world-leading virus assessment expertise and capabilities from the UK and Singapore.

- £6 million joint programme on <u>Marine Plastics</u> (January 2020)
- <u>EUREKA GlobalStars</u> competition between Singapore, Belgium, the Czech Republic, Denmark, the Netherlands, Spain, Turkey, and the UK – with UK match funding up to £1 million in support of successful UK-Singapore projects (May 2019)

• Joint Centres and Laboratories:

- Cambridge Centre for Advanced Research and Education in Singapore (<u>CARES</u>) based at the NRFs CREATE facility the centre hosts research collaborations between the University of Cambridge, Nanyang Technological University, National University of Singapore and industrial partners. These include the Centre for Lifelong Learning and Individualised Cognition (CLIC) and Cambridge Centre for Carbon Reduction in Chemical Technology (C4T)
- <u>The CLIC</u> was launched in 2021 and built on UK-Singapore strong bilateral S&IT ties through Cambridge CARES. CLIC is the first social science initiative that is conceptualised to translate research-inspired learning applications in basic neuroscience to our homes, schools and workplaces.
- Imperial Global: Singapore based at the NRF CREATE facility, the Imperial College London centre undertakes research and innovation projects in collaboration with universities, industry, government, and third-sector partners from across the Singapore ecosystem.

• Joint Agreements:

- UK Department for Science, Innovation and Technology <u>signed two MoUs in 2023</u> with the Singapore Ministry of Communications and Information and the Smart Nation and Digital Government Office on Emerging Technolgies and Data.
- A <u>new MoU was signed in 2023</u> between the National Physical Laboratory, Technology Centre for Offshore and Marine, Singapore and A*STAR to support R&D collaboration in the development of Maritime Autonomous Surface Ships and other smart maritime systems.
- <u>UK-Singapore Green Economy Framework</u> (GEF) was established in 2023 to facilitate greater collaboration between UK and Singapore industry and academic partners in green transport, low carbon energy technologies, and carbon markets and sustainable finance.
- The UK Science and Technology Facilities Council and Singapore Space and Technology Limited <u>signed a new partnership agreement in 2023</u> to support space tech start-ups and joint ventures.
- UK's Government Digital Services (GDS) and Singapore's GovTech signed an <u>MoU in</u> <u>2022</u> to deepen collaboration in digital public services following a previous agreement in 2019.
- Innovate UK and Enterprise Singapore signed an <u>MoU in 2021</u> to strengthen cooperation in co-innovation and joint R&D, launching the Singapore-UK Bilateral Co-Innovation Programme.
- The Alan Turing Institute and DSO National Laboratories in Singapore <u>signed a new</u> <u>MoU</u> in 2020 to drive research in Counter Terrorism, Countering Mis- and Disinformation, and Humanitarian Aid and Disaster Relief.

- National Biofilms Innovation Centre <u>signed two MoUs</u> with the Singapore Centre for Life Sciences Engineering (SCELSE) and the Singapore National Biofilm Consortium (SNBC) in 2019
- UK Universities in Singapore Network an initiative that aims to facilitate engagement by UK universities with Singaporean organisations and a strengthened connection to collaboration opportunities in research, innovation and education. The Network launched the UK-Singapore Universities Alliance for Entrepreneurship and Innovation (UKSAEI) in 2021 to accelerate collaborations between the UK and Singapore.

SIN South East Asia

The South East Asia regional SIN team, based in Singapore, working with Embassies and High Commissions throughout the region, develops and supports cooperation on research and innovation with local partners in South East Asia and with partners across the UK.

SIN Singapore Contacts

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