

CAMBRIDGE CARES PRESS RELEASE

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Cambridge CARES celebrates ten years of collaboration in Singapore

Impactful research outcomes from a decade of collaboration between the University of Cambridge and major Singapore research partners to be showcased.

The **Cambridge Centre for Advanced Research and Education in Singapore (CARES)** will commemorate a decade of research in Singapore with a Scientific Showcase event on Friday 1st December. The milestone celebration will revolve around four themes: Digital Transformation; Chemical Technologies and Processes; From Emissions to Solutions; Lifelong Learning.

Her Excellency Kara Owen, the British High Commissioner to Singapore, will give the opening address of the event underscoring the strong bilateral relationship between the UK and Singapore in research and innovation as exemplified in CARES' activities. There will also be contributions from senior researchers from the key CARES partner universities (University of Cambridge, National University of Singapore and Nanyang Technological University) and industry and government stakeholders.

The morning programme will delve into the four themes, guiding attendees through a retrospective exploration of CARES' accomplishments. In the afternoon, the sessions will shift focus to examine how these research themes intersect with real-world issues, featuring external speakers from ExxonMobil, RINA, and AI Singapore to deliver insights into energy solutions, maritime decarbonisation, and Singapore's AI journey.

The event will offer attendees an opportunity to interact with a number of key public outputs of the CARES research programmes, brought together in one event for the first time:

- From the National Research Foundation's **Campus for Research Excellence and Technological Enterprise (CREATE)** sponsored **Centre for Carbon Reduction in Chemical Technology (C4T)** programme, lowcarbonship.com, a public calculator to allow shipping industry and regulators to explore and model alternative fuel options for maritime decarbonisation.
- Also from **C4T**, the beta launch of the Singapore Mackay Carbon Emissions Calculator. This calculator applies [the powerful approach](#) developed by Prof Sir David Mackay and the UK government to the Singapore context for the first time and combines it with strong technological capabilities developed in C4T's [World Avatar AI project](#) to provide fast, real-time scenario analysis for Singapore's low carbon journey.
- A panel, chaired by CARES Director Prof Markus Kraft and featuring panellists from A*STAR, World Bank Group, Siemens, and Oliver Wyman, will examine the transformative potential of AI and cyber-physical systems for climate mitigation, and economic and environmental transformation. The panel takes its inspiration from the book "[Intelligent Decarbonisation](#)" published recently by CARES and Springer and already accessed almost 20,000 times globally.
- Also sponsored by NRF CREATE, the **Centre for Lifelong and Individualised Cognition (CLIC)** programme will follow its recent highly successful "Brainiverse" science festival in August 2023, by unveiling an art book based on winning entries from the festival competition for

Singaporean students with special needs centred on the theme “Neurodiversity: No Brain is the Same”.

- CARES will also present several of its Singapore-based commercial spin-offs at the event: [Chemical Data Intelligence \(CDI\)](#), [Accelerated Materials Pte Ltd \(AM\)](#), and **DatumElectroniX (DEX)**. CDI develops software that uses the power of AI and machine learning to find new and more sustainable routes for key chemical reactions used in industry; AM exploits a patented technology invented in CARES that speeds up new nanomaterials production scale-up by up to 100x; and DEX offers consultancy to industry on technological opportunities in electrochemistry to decarbonise production processes.
- The collaborative efforts between CARES, the A*STAR coordinated **Pharma Innovation Programme Singapore (PIPS)** and the pharmaceutical industry on process innovations including use of digital twinning and distributed laboratory automation will also be showcased.

The Showcase will be attended by University of Cambridge senior leadership, senior Singapore government officials, industry stakeholders from the maritime, energy, advanced materials and pharmaceutical industries and policy makers from all the areas in which CARES works, including environmental and low carbon policy areas, education and lifelong learning policy and urban strategy.

Prof Anne Ferguson-Smith, University of Cambridge Pro-Vice Chancellor for Research, will close the event by looking forward to the coming decade for CARES.

[CARES extends a warm invitation to interested members of the press to attend CARES 10th Anniversary Scientific Showcase on 1 December 2023. Interviews with key personnel can be arranged with advance notice.](#)

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Olivia will be present and available for media contact on the day of the event. To arrange interviews with key figures please contact Olivia in advance to book.

About CARES

The Cambridge Centre for Advanced Research and Education (CARES) was established in 2013 as the University of Cambridge's first research centre outside the UK. It brings together researchers from the University of Cambridge, Nanyang Technological University, and the National University of Singapore to work on problems relevant to Singapore and the world at large.

CARES' largest programme is the Cambridge Centre for Carbon Reduction in Chemical Technology (C4T), which commenced in 2013 when CARES opened. This is a collaborative effort involving researchers from the University of Cambridge, Nanyang Technological University, and the National University of Singapore.

A further large programme began in October 2020 - the Centre for Lifelong Learning and Individualised Cognition (CLIC). CLIC brings together researchers from the University of Cambridge and NTU to focus on the neuroscience of learning.

CARES is a research partner in the Pharmaceutical Innovation Programme Singapore (PIPS), a public-private consortium that aims to develop full process automation in a laboratory to support R&D and manufacturing.

The latest CARES-hosted project is AMPLE which has emerged from research in the C4T programme that aims to rapidly scale up new material technologies with high quality and low cost. AMPLE is a recipient of the Central Gap Fund supported by the National Research Foundation.

To view the event programme, please visit <https://www.cares.cam.ac.uk/10anniversary/>

Public calculator to measure alternative fuels: <https://lowcarbonship.com/>

Chemical Data Intelligence website: <https://cdi-sg.com/>

Accelerated Materials website: <https://acceleratedmaterials.co/>