

## **Engineering academies from around the world gather to shape a sustainable future in 50 years: Australia hosts CAETS 2025**

The Australian Academy of Technological Sciences and Engineering (ATSE) welcomed over 270 attendees from 28 countries, including participants from 25 member academies of the International Council of Academies of Engineering and Technological Sciences (CAETS), across four days, from 8-11 September, in Meanjin/Brisbane, during the annual meeting of CAETS.

The full-day public symposium on Wednesday 10 September, themed: ***Generations: An international symposium shaping a sustainable future in 50 years***, featured 42 speakers, including 15 from CAETS Academies, across eight exciting panel sessions, and the Olympics-focused ***Engineering the Games*** sessions on Thursday 11 September drew a packed crowd of CAETS delegates, early-career researchers and school students.

The opening [keynote address](#) at the *Generations* symposium was delivered by **Senator the Hon Tim Ayres, Australia's Minister for Industry and Innovation and Minister for Science**. Senator Ayres noted the importance of international collaboration and Australia's strong international connections and outlined how the Australian government is investing in Australia's capability and industrial competitiveness in the context of advanced technology and the energy transition.

The opening plenary panel discussion on ***Emerging technologies for global challenges***, was chaired by ATSE fellow and expert in robotics, AI and automation, Dr Sue Kaey, and featured insights from International Science Council President, Sir Peter Gluckman, Engineering Academy of Japan fellow and AI ethics expert, Dr Yuko Harayama, Australian National University computer vision expert, Dr Liang Zhang and global computing innovator, Chandrakant Patel.

Concurrent panel discussions featuring an impressive lineup of national and international experts explored the following topics:

***Enabling people and their potential***

***Responsible digital futures***

***Building global resilience and sustainability***

***Traditional Knowledges and western science***

***Future food security***

***Technology, the environment and climate change***

The closing plenary panel discussion, titled: ***Climate Tech Collaboration: An Asia-Pacific partnership for prosperity***, was chaired by ATSE fellow and Engineering Australia CEO, Romily Madew, with a panel of experts comprising Professor in Electrical Engineering, Dr Sivaji Chakravorti, Professor of Computing and Data Science, Dr Yonggang Wen, and International Network of Women Engineers and Scientists (INWES)-Asia Pacific Nations Network (APNN) Chairperson, Dr Juana Tapel.

### **Emerging themes from CAETS2025**

As we looked forward 50 years to 2075, some key takeaways were:

- As rapidly accelerating technological change is reshaping society, panellists emphasised the need to build resilient social systems alongside scientific and technical advances.
- The need to responsibly harness artificial intelligence, which is driving the next industrial revolution – as well as the urgency of developing metrics for its net positive impact and the challenge of managing its energy demands.
- The range of national contexts and challenges in achieving food security, mRNA-based solutions and sustainable food supply chain innovations, as well as the importance of making better use of existing resources.
- How, if we harness technology appropriately, in 50 years' time we have the opportunity to benefit from more personalised education, more preventative health care and live in cities that support health and wellbeing.
- The need for multidisciplinary and international global responses to many of our biggest challenges – like climate change, the energy transition, and food security – as well as emerging governance issues like ocean and space frontiers requiring international collaboration.
- The enormous opportunity of bringing together Traditional Knowledges with modern scientific, technological and engineering practices to guide a more sustainable future.
- How to fund the technology needed for a more sustainable and prosperous future – including engaging the private sector and making the solutions affordable and repeatable on a global scale.

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