CAETS
International Council of Academies of Engineering & Technological Sciences

CAETS Statement on
Shaping a Sustainable Future

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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 Keay, 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 Zheng 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, Romilly 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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The following CAETS Member Academies endorsed this statement:

Argentina Academia Nacional de Ingenieria	Netherlands Academy of Engineering
Australian Academy of Technological Sciences and Engineering	Royal Society Te Aparangi of New Zealand
Canadian Academy of Engineering	Nigerian Academy of Engineering
Chinese Academy of Engineering	Pakistan Academy of Engineering
Croatian Academy of Engineering	Academy of Engineering of Poland
Engineering Academy of the Czech Republic	Academy of Engineering Sciences of Serbia
Danish Academy of Technical Sciences	Academy of Engineering of Singapore
Council of Finnish Academies	Slovenian Academy of Engineering
National Academy of Technologies of France	South African Academy of Engineering
National Academy of Science and Engineering of Germany	Real Academia de Ingenieria of Spain
Hungarian Academy of Engineering	Royal Swedish Academy of Engineering Sciences
Indian National Academy of Engineering	Swiss Academy of Engineering Sciences
Irish Academy of Engineering	Royal Academy of Engineering of the United Kingdom
Engineering Academy of Japan	National Academy of Engineering of the United States
National Academy of Engineering of Korea	National Academy of Engineering of Uruguay
Academy of Engineering of Mexico	

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Engineering a better future