## FUKUOKA STATEMENT

Australia and Japan have a strong history of academic and industrial cooperation on research, science and technology over many decades.

One of the highlights of this relationship has been the Australia-Japan Emerging Research Leaders Exchange Program (ERLEP) that has operated since 2009. The Japan Society for the Promotion of Science (JSPS), the Australian Academy of Technological Sciences and Engineering (ATSE, on behalf of the Australian Government) and the Engineering Academy of Japan (EAJ) jointly run the ERLEP.

The ERLEP has proved to be a particularly successful program in that it has targeted researchers identified as future leaders in both countries across a range of research priority areas and has involved institutional, as well as individual, collaborations.

The program now has 64 alumni that includes leading scientists, technologists and engineers with collective expertise in academia and industry, connected via a transdisciplinary cohort.

Members of the ERLEP alumni were hosted by the EAJ, the JSPS and the ATSE in Fukuoka, Japan, on December 4, 2017, to review the program outcomes. At this meeting we agreed to further leverage the value of the alumni in the future.

As a first step we will explore how the individual expertise and the transdisciplinary skill set of the ERLEP alumni could be engaged to address the challenges of global trends in innovation, which often emerge from the combination of completely different things, as well as the challenges arising from the unprecedented rate of technological change anticipated over the next decade.

The ERLEP alumni collectively have world-class research expertise in technologies spanning artificial intelligence, machine learning, ICT and informatics, and big data, as well as new and advanced materials and their broad applications, personalized robotics, 21<sup>st</sup> century STEM education practices, and health and wellbeing technologies. The application of this extraordinary transdisciplinary skill set could be engaged in three broad overarching areas: the built environment, the natural environment, and health and wellbeing.

The two Academies voice our strong support and commitment to working together to encourage future endeavors by the ERLEP alumni to explore a convergent approach to solving complex problems common not only to Australia and Japan, but also to take a transdisciplinary approach to an international sustainable development *solutions network*. We believe that such a process for the future of industry and the world economy will result in enhanced human security and well-being.

Dr. Hideaki Koizumi Executive Vice President EAJ

M. L. Hartle

Dr. Margaret Hartley Chief Executive Officer ATSE

December 4, 2017, Fukuoka, Japan