

President's foreword

This Annual Reporting period includes the first days of a new Federal Labor Government with its plans for extensive reviews of Australia's Innovation System and commitments to strengthening Australian science and mathematics education. The Australian Academy of Science is well-placed to contribute to these considerations from its record of promoting science and technology as the key drivers of socioeconomic development, and from its activities as outlined in this report. The Academy's broad spectrum of activities as outlined in this report demonstrates how the Academy continues to act as an authoritative source of independent scientific advice on national issues, and on maintaining and strengthening the resources and capabilities of the research community.

A cornerstone of the Academy's activities is the work of the 21 National Committees and the three task forces. This has included the formation of two new committees: the National Committee for Brain and Mind and the National Committee for Data for Science. A symposium on *The value of mathematical sciences* at the Shine Dome discussed the importance of a strong base in mathematics and statistics for research and applications in industry, and a major project nearing completion is a decadal strategic review in space science research. The Committees were also involved with a number of major national and international meetings during the year, such as *The International Union for Quaternary Research Congress*, and forthcoming events such as the *21st International Congress of Theoretical and Applied Mechanics* in August 2008.

The Academy's 2007 policy document on *Research and innovation in Australia: A policy statement* was launched at the National Press Club in September 2007 with ten recommendations aimed at increasing the opportunities for the nation to realise its potential as a major contributor to a global, knowledge-based economy. This was part of a number of science policy activities for the year as detailed in this report, and included the workshop on *Future directions for Australian climate change science* hosted by the Academy in association with the Department of Climate Change, the Bureau of Meteorology and CSIRO in March 2008, and opened by Senator Penny Wong, Minister for Climate Change and Water.

Fostering the opportunities for the development of early career researchers continues as an important activity at the Academy and is well-supported by our Fellows. Key events have included a workshop on *Enhancing the quality of the experience of postdocs and early-career researchers* in February 2008, which was opened by Senator Kim Carr, Australian Minister for Innovation, Industry, Science and Research. In addition, the Annual Symposium included once again a Career Development Workshop addressing communications skills and the impact of cognitive illusions on scientific judgement. These events, focusing on young researchers, are supported by scientific programs such as the symposium on *Australian Frontiers of Science* in February 2008 that bring together the best young Australian scientists to discuss emerging technologies, new opportunities and cutting-edge advances in their fields.

The Academy manages and supports a number of active bilateral and international programs. Through the International Science Linkages – Science Academies Programme, 91 leading Australian scientists have been awarded travel grants to undertake collaborative research in Asia, Europe and North America. In addition, there was the fourth annual joint China-Australia symposium on *Sustaining global ecosystems*, organised in collaboration with the Chinese Academy of Sciences and the Australian Academy of Technological Sciences and Engineering, in Beijing in August 2007.

I am pleased to report on the continuing success of the Academy's science education programs. *Primary Connections* has now published ten curriculum units for incorporating the teaching of science with literacy in Australian primary schools. To date more than 80,000 units have been distributed in Australia and overseas and about 400 professional learning facilitators have been trained. In addition, Julia Gillard, Deputy Prime Minister, will launch a new *Primary Connections* unit at Mossfiel Primary School in Victoria. The Academy also received funding from the Department of Education, Employment and Workplace Relations for a *Science by Doing* pilot program for a new approach to improve secondary students' engagement with science.

The Academy is grateful for the generous time and valuable contributions provided by its elected Council members. In that connection I thank outgoing Councillors Sally Smith and Bob Williamson for their significant contributions to Academy activities over the years. Bob Frater, as Secretary (Physical Sciences) and Vice-President, has also come to the end of his term and has provided much valuable time, advice and support. I would also like to thank the Secretariat for their professionalism and commitment to the work and ideals of the Academy.

The Academy relies on sponsorship from a number of sources to undertake many of its activities. I express my unreserved thanks to them and to the Australian Foundation for Science for their support.

Kurt Lambeck PresAA FRS
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