

International science collaborations

As at 27 October 2020

Modern science is built on partnerships and collaborations surpassing national borders, in pursuit of innovative solutions to pressing global challenges. The pan-national research effort in response to the COVID-19 challenge demonstrates the power of science, to which international collaboration is indispensable. This pandemic has seen an unprecedented level of international scientific cooperation and good will to combat the impact of the virus on the world, including international groups working rapidly to find a vaccine for COVID-19.

Maintaining support for international research collaborations allows scientists to exchange ideas and engage in productive scientific progress that build on synergies to the benefit of the host nation as well as its partners. These interactions create shared interests, providing a basis for diplomatic engagement that can be valuable in promoting harmonious international relations and building strategic partnerships that are fundamental to scientific advancement and human and environmental well-being. Science has time and time again proven itself to be an effective and powerful soft power asset playing an important role in building strategic partnerships between countries.

The last 50 years have seen dramatic changes in science and technology. To continue advancing the frontiers of human knowledge, scientific infrastructure has grown even more sophisticated and technologically advanced. Interdisciplinary science has grown, and new disciplines have emerged. Technological advances have increased the capacity and speed of research. The exponential increase in computational capacities, for example, has enabled significant quantities of data to be collected and analysed. Modern communication and the abundance of data have led to an increasing pace of the exchange of ideas and rate of international collaboration between researchers.

These developments mean that science has become more and more complex. Science and technology have come a long way from the days when our geographical isolation drove Australia's innovation. Now, no single scientist can understand all, no single institution can afford all the facilities required to do leading-edge science, and no single country can alone address the big scientific challenges of our time.

For the size of our population, Australia is particularly productive in a range of scientific fields. Nevertheless, more than 96 per cent of global science takes place beyond our borders.

Australia has always recognised the benefit we derive from collaboration with other nations in science. From everything from the Human Genome Project, the international search for gravitational waves, the Square Kilometre Array radio telescope, and the crusade to develop and manufacture a vaccine(s) and treatments for COVID-19.

The Academy recognises the need for the nation to maintain robust national security protections. In evolving these protections to safeguard Australian science, such regulation

must be evidence-based, proportional and designed to encourage the continuation of productive international scientific engagement, rather than hinder it. There will be severe negative implications for the quality of Australian science and knock-on consequences for economic productivity from any unnecessary restrictions of international research collaboration.

The Academy holds that all scientists should be free to go about their work, promote their research in appropriate fora without fear of intimidation or violence from individuals, groups or governments.

Consistent with the International Science Council's Principle of Freedom and Responsibility in Science (Statute 7), the Academy reiterates its belief that scientist-to-scientist engagement should transcend racial, cultural, political and religious beliefs, and provide a continuing opportunity for nations to engage in harmonious dialogue and co-existence.