



Australian Academy of Science

Ian Potter House, 9 Gordon Street, Canberra ACT 2601

Foreign Secretary: Professor Cheryl Praeger AM FAA

22 May 2018

The Hon. Stuart Robert MP
Chair, Joint Standing Committee on Treaties
PO Box 6021
Parliament House
Canberra ACT 2600

Dear Mr Robert,

Agreement on Scientific, Technological and Innovation Cooperation between the Government of Australia and the Government of the Italian Republic

The Australian Academy of Science is writing in support of the *Agreement on Scientific, Technological and Innovation Cooperation between the Government of Australia and the Government of the Italian Republic (Canberra, 22 May 2017)*, tabled in Federal Parliament on 8 May 2018 and currently under consideration by the Joint Standing Committee on Treaties.

Science is critical for Australia and its partners to understand and act on the challenges and opportunities in the 21st century. Science diplomacy is a powerful mechanism for advancing solutions to multi-national problems, and to enhancing economic productivity and competitiveness through innovation and collaboration. Australia's national interest depends on maintaining close engagement with other countries on matters of science and innovation.

Italy is a strong partner with Australia in science, technology and innovation. Scientific and technological cooperation has been increasing steadily in the past ten years, with more than 190 bilateral Memoranda of Understanding signed between Italian and Australian universities and research institutions. Italy is a priority country in the Commonwealth Government's Global Innovation Strategy of the National Innovation and Science Agenda.

The Italian Government has for many decades had a Science Attaché posted to the Italian Embassy in Canberra, demonstrating the Italian Government's commitment to establishing and strengthening bilateral scientific collaborations. The Academy has always had an excellent working relationship with the Science Attaché. In May 2017 the Academy hosted the Italy–Australia Science and Innovation Forum where a diverse range of areas for potential scientific collaboration between both countries were discussed. Nine Italian researchers delivered presentations on topics including space, agriculture and food, medicine and marine science.

A Science, Technology and Innovation Agreement with Italy will deliver benefits in several key areas of mutual interest to both countries.

Space science, physics and astrophysics

Space science is a key Italian priority in scientific collaboration with Australia, with a number of links already in place. The Italian National Institute for Astrophysics is a key partner in the Square Kilometre Array, and will collaborate in the design and engineering of the landmark low-frequency radio telescope to be built in outback Western Australia. The Italian National Institute of Nuclear Physics is working together with the Australian Centre of Excellence for Particle



Australian Academy of Science

Ian Potter House, 9 Gordon Street, Canberra ACT 2601

Foreign Secretary: Professor Cheryl Praeger AM FAA

Physics at the Terascale to establish a new underground laboratory in a gold mine in Stawell, Victoria, for research into Dark Matter. In the future, training and scientific exchange links with the Italian space agency, Agenzia Spaziale Italiana (ASI), will be important as Australia establishes its own recently-announced space agency. Shared strengths in satellite design and construction, telecommunications, earth observation, deep space exploration, positioning systems, cosmology and astrophysics will be expanded through enhanced scientific and technological linkages.

Medicine and health science

Italy and Australia share a focus on medical and health research, with particular emphasis on early and accurate diagnosis, healthy populations, and personalised medicine, with both countries developing strategies to deal with the social and economic impacts of an ageing population. Italy is currently investing in nano-medicine and new materials, regenerative medicine, smart drugs and smart delivery systems, new diagnostic imaging technologies, epidemiology and environmental determinants of health, artificial intelligence and robotics for health, and “big data” approaches to genomics and proteomics leading to personalised medicine. With strong expertise in these areas, Australia can contribute to bilateral partnerships to significant effect.

Renewable energies

The Italian Government has recently released the [National Energy Strategy](#), a ten-year plan to make the Italian energy system more sustainable and more secure, with a long-term goal of 28 per cent share of renewables in total energy consumption and a 55 per cent share of renewables in electricity consumption by 2030. Italian Government investment in renewable energy will reach €650 million in 2021. Energy security and renewable energy are areas of increasing strategic importance for Australia, and a bilateral agreement will foster industrial development in these fields.

Agriculture, food safety and food security

Italy and Australia share a strong interest in the food industry and a focus on sustainable farming, food safety, food security and the adaptation of the wine industry to a changing climate. Cooperation in these sectors is well established, and will increase under the auspice of a bilateral agreement.

Antarctica and the Southern Ocean

Italy and Australia are both members of the Scientific Committee for Antarctic Research and signatories to the *Antarctic Treaty* and the *Convention on the Conservation of Antarctic Marine Living Resources*. Both maintain research stations on Antarctica. The Italian Government considers Australian Antarctic Division and other Australian institutions as extremely valuable partners for Antarctic and Southern Ocean research. The Italian Government will soon release an Italian National Program of Research in Antarctic, allocation €7.1 million towards research activities.

Beyond these research areas, both countries recognise the benefits of internationalisation of science and research, and actively promote international knowledge exchange, the transfer of researchers and students, and mutual access to research infrastructure and landmark facilities. A science, technology and innovation agreement will greatly facilitate such exchanges, and will enhance an already strong tradition of scientific collaboration between Italy and Australia, and



Australian Academy of Science

Ian Potter House, 9 Gordon Street, Canberra ACT 2601

Foreign Secretary: Professor Cheryl Praeger AM FAA

will demonstrate the benefits of such agreements in promoting an inclusive, open international society.

If you would like to discuss any aspect of this submission or to arrange an appearance before the Committee, please contact Dr Stuart Barrow at stuart.barrow@science.org.au or 02 6201 9464.

Yours sincerely

Cheryl Praeger AM FAA
Foreign Secretary