

Introduction

Background

- 1.1 On 7 December 2015, the Australian Government released the National Innovation and Science Agenda (NISA).¹ Through the \$1.1 billion NISA², the Government has aimed to boost the level of innovation and entrepreneurship nationally and ‘help to create a modern, dynamic, 21st century economy for Australia.’³
- 1.2 The NISA package is based on the *National Innovation and Science Agenda Report* and structured on the four key areas⁴ of:
 - Culture and capital ‘to help businesses embrace risk and’ provide incentives for ‘early stage investment in [business] startups’.
 - Collaboration ‘to increase the level of engagement between businesses, universities and the research sector to commercialise ideas and solve problems.’
 - Talent and skills ‘to train Australian students for the jobs of the future and attract the world’s most innovative talent to Australia’;
 - Government as an exemplar ‘to lead by example in the way Government invests in and uses technology and data to deliver better quality services.’⁵

1 Hon Christopher Pyne MP, Minister for Industry, Innovation and Science, ‘Agenda to Transform the Australian Economy’, *Media Release*, 7 December 2015.

2 Hon Malcolm Turnbull MP, Prime Minister and the Hon Christopher Pyne MP, Minister for Industry, Innovation and Science, ‘National Innovation and Science Agenda’, *Joint Media Release*, 7 December 2016.

3 Hon Malcolm Turnbull MP, Prime Minister and the Hon Christopher Pyne MP, Minister for Industry, Innovation and Science, ‘National Innovation and Science Agenda’, *Joint Media Release*, 7 December 2016.

4 Each of these areas includes a range of specific initiatives.

- 1.3 The NISA is designed to capitalise on Australia's:
- 'Unprecedented access to the global economy' through the new free trade agreements with China, Japan and Korea; and
 - The established and internationally recognised research undertaken by universities and institutions such as the Commonwealth Scientific and Research Organisation.⁶

About the Inquiry

Objectives and Scope

- 1.4 The purpose of the Inquiry into Australia's Future in Research and Innovation was to:
- ... investigate how the research and innovation sector can better assist in overcoming Australia's geographic, economic and labour challenges, with a focus on commercialisation including how technology imports and exports could be further facilitated.⁷
- 1.5 The Committee's Inquiry is one of four current Parliamentary Committee inquiries relating to innovation in Australia. Other Parliamentary Committee inquiries underway are:
- The House of Representatives Standing Committee on Agriculture and Industry - inquiring into the role of technology in increasing agricultural productivity in Australia, including relevant emerging technology and barriers to its adoption.
 - The House of Representatives Standing Committee on Education and Employment - inquiring into how Australia's tertiary system can meet the needs of a future labour force, including the extent to which students are graduating with the skills needed for jobs, and factors that discourage close partnerships between industry, the research sector and education providers.
 - The Senate Environment and Communications References Committee - inquiring into the future of Australia's video game development industry, including how regulatory and taxation frameworks can help

5 Hon Malcolm Turnbull MP, Prime Minister and the Hon Christopher Pyne MP, 'Minister for Industry, Innovation and Science, National Innovation and Science Agenda', *Joint Media Release*, 7 December 2016.

6 Hon Malcolm Turnbull MP, Prime Minister and the Hon Christopher Pyne MP, Minister for Industry, Innovation and Science, 'National Innovation and Science Agenda', *Joint Media Release*, 7 December 2016.

7 Terms of reference to the Inquiry into Australia's Future in Research and Innovation.

the local industry to grow, and how Australia can attract videogame companies to establish themselves in Australia.

- 1.6 While the main terms of reference for each of these inquiries differs, all are centred on the theme of innovation. The evidence received during the Committee's inquiry has commonality with these inquiries and includes: the role of technology in sustaining innovation, meeting the future needs of the labour workforce in regard to training and skills development and encouraging research for the purpose of commercialisation.
- 1.7 During this inquiry, the Committee received a diverse range of evidence on how to stimulate and maintain innovation within the Australian economy. The majority of the issues raised with the Committee which address the inquiry terms of reference are included in this report.

Role of the Committee

- 1.8 The Joint Select Committee on Trade and Investment Growth (the Committee) was appointed⁸ to:
- ... inquire into and report on any measures to further boost Australia's trade and investment performance, including, but not limited to: barriers to trade, reduction of red tape and structural challenges and opportunities for the Australian community.
- 1.9 Following the receipt of wide ranging evidence⁹ to its first inquiry, on 30 September 2015, the Committee wrote to the then Minister for Trade and Investment (the Minister), the Hon Andrew Robb AO MP, seeking to extend the Committee to enable it to further investigate issues brought before it during the inquiry. In this vein, the Committee sought, (in line with its resolution of appointment), to receive Ministerial endorsement for it to undertake an Inquiry into Australia's Future in Research and Innovation.
- 1.10 On 8 October 2016, the Minister referred the Inquiry into Australia's Future in Research and Innovation to the Committee.

8 The Joint Select Committee on Trade and Investment Growth was appointed by the Senate on 4 September 2014 and the House of Representatives on 23 September 2014. Commonwealth of the Parliament of Australia, *Senate Journals No. 52*, 4 September 2014, p. 1429; Commonwealth of the Parliament of Australia, *House of Representatives Votes and Proceedings No. 67*, 23 September 2014, p. 840.

9 Formal evidence (including submissions, exhibits and transcripts of evidence of public hearings) received during the Inquiry into Business Utilisation of Australia's Free Trade Agreements.

- 1.11 On 13 October 2015, the Parliament amended the Committee's Resolution of Appointment to enable it to continue its work for the remainder of the 44th parliament.¹⁰
- 1.12 On 3 December 2015, the Committee subsequently adopted the Inquiry into Australia's Future in Research and Innovation.

Inquiry Conduct

- 1.13 Following receipt of a Ministerial reference, the Inquiry was advertised via media release with submissions to be received by 11 February 2015. The Committee also invited submissions to the Inquiry from an extensive¹¹ range of organisations, including: the ICT¹², medical and bio-technology, technology, manufacturing, university and research, finance, alternative energy and finance sectors.
- 1.14 The Committee received 62 submissions and 23 exhibits to the Inquiry, which are listed at Appendixes A and B respectively. The Committee also held six public hearings in Canberra, Melbourne, and Sydney. Witnesses who appeared before the Committee at these public hearings are listed at Appendix C.
- 1.15 Submissions and transcripts of evidence are available at: [http://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Trade_and_Investment_Growth/Research_and_Innovation/Public Hearings](http://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Trade_and_Investment_Growth/Research_and_Innovation/Public_Hearings)

Report Structure

- 1.16 Chapter 2 outlines Australia's approach to innovation and its application to the education sector, particularly in the area of fostering and growing university research.
- 1.17 Chapter 3 discusses various ways to nurture innovation in Australia drawing on current global approaches to transform innovation from concept to commercialisation.

10 *Senate Journals No. 120*, 13 October 2015, p. 3234, the Parliament of the Commonwealth of Australia; *House of Representatives Votes and Proceedings No. 148*, 13 October 2015, p. 1634, the Parliament of the Commonwealth of Australia.

11 The Committee sent over 200 unsolicited letters inviting submissions.

12 Information and Communications Technology