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The Parliament of the Commonwealth of Australia

# Inquiry into Australia's Future in Research and Innovation

Joint Select Committee on Trade and Investment Growth

May 2016  
Canberra

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# Contents

Chair's Foreword .....	v
Membership of the Committee .....	vii
Terms of Reference .....	ix
Abbreviations.....	xi
Recommendations .....	xv

## REPORT

<b>1 Introduction .....</b>	<b>1</b>
Background .....	1
About the Inquiry .....	2
Objectives and Scope .....	2
Role of the Committee .....	3
Inquiry Conduct.....	4
Report Structure.....	4
<b>2 The Foundations of Innovation: Education and Research.....</b>	<b>5</b>
Australia's Innovation System.....	5
Performance of Australia's Innovation System.....	7
Role of Innovation and Science Australia.....	10
Emerging Opportunities .....	11
<b>Education — An Innovation Approach to Skills and Training.....</b>	<b>12</b>
Role of Universities and TAFES.....	12
STEM Education .....	13
Other Innovation Skills .....	15
Early Stage Research .....	16

Funding Public Sector Research.....	16
Basic Research.....	20
<b>Research Collaboration.....</b>	<b>21</b>
Encouraging Public Sector Demand for Collaboration .....	22
Encouraging Business Demand for Collaboration.....	27
<b>Successful Examples of Collaboration .....</b>	<b>29</b>
Overseas Examples.....	29
Australian Examples .....	29
Public Sector Commercialisation Strategies.....	30
Concluding Comments.....	34
<b>3 Nurturing Innovation.....</b>	<b>37</b>
Introduction.....	37
Developing the Start-up Sector.....	38
Co-location.....	38
Private Sector Incubators and Accelerators .....	39
<b>Attracting Finance.....</b>	<b>40</b>
Debt Financing.....	41
Equity Financing.....	42
<b>Government Support for Innovation and Commercialisation .....</b>	<b>48</b>
Innovation Hubs and Incubators.....	48
Direct Business Assistance.....	50
Encouraging Equity Investment.....	53
Research and Development Tax Incentive .....	55
Intellectual Property .....	59
Concluding Comments.....	64

## APPENDIXES

Appendix A - Submissions.....	69
Appendix B - Exhibits .....	73
Appendix C – Hearings and Witnesses .....	75



## Chair's Foreword

Australia faces a world of rapid change as technology creates new products, new processes, and new industries. New innovative companies are expected to significantly contribute to Australia's economy and assist in its diversification, increasing employment and improving its global competitiveness.

Australia has a well-educated population, world-leading universities and research organisations generating new knowledge and inventions, coupled with a stable business environment providing opportunities for small and large companies.

The foundations of Australia's innovation system are strong and yet our record of building on these foundations has been mixed. Australia's efficiency in translating investments in the research sector into outcomes that have tangible social and economic benefit could be improved.

Australia's level of research collaboration between universities and business is amongst the lowest in the OECD. An avenue of opportunity for improvement is the exchange of knowledge and meaningful information between business and the research sector.

Increased collaboration could assist businesses develop novel solutions to the real-world problems they are facing. Collaborative research is also key to developing the disruptive, new-to-the-world technologies that could form the basis of significant new companies and industries.

Although growing, Australia's venture capital market is still small by global standards. Innovative ideas are the fuel for new and improved goods and services, but their development requires capital investment. As a venture capitalist remarked to the Committee, 'the idea cannot come to fruition without the capital, and capital, without an idea, is useless.'<sup>1</sup>

Through this inquiry the Committee has examined Australia's innovation system from the creation of ideas through research and innovative thinking, through to the commercialisation of these ideas.

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<sup>1</sup> Mr Danny Gilligan, Cofounder and Managing Director, Reinventure, *Official Committee Hansard*, Sydney, 9 March 2016, p. 4.

The recently released National Innovation and Science Agenda (NISA) has been largely welcomed by both the public and private sectors. The NISA contains a suite of measures aimed at positioning Australia as ‘a leading innovator; open to adapting and evolving to improve the wellbeing and quality of life for all Australians.’

The Committee has recommended the identification of potential new innovation industries, and a review of overseas commercialisation assistance models to inform additional ways of encouraging the commercialisation of Australian innovation. The Committee has also recommended a timely review of the NISA initiatives, and careful examination of the possible measures designed to encourage the innovation sector.

I would like to thank all the individuals, business organisations and government agencies who assisted the Committee by providing useful and insightful information to the inquiry. I would also like to acknowledge the contribution of Committee members and thank them for their work throughout the 44<sup>th</sup> Parliament.

Mr Ken O’Dowd MP  
Chair



## Membership of the Committee

**Chair** Mr Kenneth (Ken) O'Dowd MP

**Deputy Chair** Mr Patrick (Pat) Conroy MP

**Members** Hon Bruce Billson MP (From 22.02.16)

Mr Clive Palmer MP

Senator Joseph (Joe) Bullock (Until  
13.04.16)

Mr Antony (Tony) Pasin MP

Ms Terri Butler MP

Senator Dean Smith

Senator the Hon Joseph Ludwig  
(From 18.04.16)

Senator Zhenya Wang

Senator the Hon Ian Macdonald

### Participating Members

Senator Christopher (Chris) Back

Senator Jenny McAllister

Senator Cory Bernadi

Senator Anne McEwen

Senator Catryna Bilyk

Senator James McGrath

Senator Carol Brown

Senator Bridget McKenzie

Senator David Bushby

Senator Claire Moore

Senator the Hon Doug Cameron

Senator Ricky Muir

Senator Matthew Canavan

Senator Barry O'Sullivan

Senator the Hon Kim Carr

Senator James Paterson (From 16.03.16)

Senator the Hon Jacinta Collins

Senator Nova Peris

Senator the Hon Stephen Conroy

Senator Helen Polley

Senator Sam Dastyari

Senator Linda Reynolds

Senator Sean Edwards

Senator David Fawcett

Senator Katy Gallagher

Senator the Hon Bill Heffernan

Senator Sue Lines

Senator the Hon Joseph Ludwig

(Until 18.04.16)

Senator Gavin Marshall

Senator Anne Ruston

Senator Zed Seselja

Senator the Hon Lisa Singh

Senator Glenn Sterle

Senator Anne Urquhart

Senator John Williams

Senator the Hon Penny Wong

## Committee Secretariat

Secretary

Ms Stephanie Mikac

Inquiry Secretary

Dr John Carter

Senior Research Officer

Mr Tim Brennan

Administrative Officers

Ms Carissa Skinner





## Terms of **R**eference

The Joint Select Committee on Trade and Investment Growth was established 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.

As part of its remit, the Committee will 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.





## Abbreviations

AAH	Australian Academy of Humanities
AAS	Australian Academy of Science
ACCI	Australian Chamber of Commerce and Industry
AIG	Australian Industry Group
AIMI	Australian Innovation and Manufacturing Incentive
AMT	Advanced Manufacturing Tax
AMWU	Australian Manufacturing Workers' Union
ANSTO	Australian Nuclear Science and Technology Organisation
ARC	Australian Research Council
ATN	Australian Technology Network
CADET	Centre for Advanced Design in Engineering Training
CSEF	Crowd-Sourced Equity Funding
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DET	Department of Education and Training
DFAT	Department of Foreign Affairs and Trade
DIIS	Department of Industry, Innovation and Science
ECA	Export Council of Australia
ERA	Excellence in Research for Australia
ESVCLP	Early Stage Venture Capital Limited Partnership

GDP	Gross Domestic Product
GFC	Global Financial Crisis
GII	Global Innovation Index
GMC	Geelong Manufacturing Council
IIP	Industry Innovation Program
IP	Intellectual Property
ISA	Innovation and Science Australia
MFC	Manufacturing Finance Corporation
MP	Member of Parliament
NHMRC	National Health and Medical Research Council
NISA	National Innovation and Science Agenda
OECD	Organization for Economic Cooperation and Development
PIV	Premium Investor Visa
OPAL	Open Pool Australian Lightwater
R&D	Research and Development
SIV	Significant Investor Visa
SME	Small to Medium-Sized Enterprise
STEM	Science, Technology, Engineering and Mathematics
TAFE	Technical and Further Education
UK	United Kingdom of Great Britain
US	United States
USA	United States of America
UTAS	University of Tasmania
UTS	University of Technology Sydney

VCPE	Venture Capital or Private Equity
VC	Venture Capitalist
WIPO	World Intellectual Property Organisation
WSU	Western Sydney University





# Recommendations

## 2 The Foundations of Innovation: Education and Research

### Recommendation 1

The Committee recommends that Innovation and Science Australia identify emerging industries where strategic research investment could enable Australia to become a world leader.

### Recommendation 2

The Committee recommends that the Department of Education and Training review overseas models of university-business collaboration with a view to identifying strategies which could be introduced in Australia.

## 3 Nurturing Innovation

### Recommendation 3

The Committee recommends that the initiatives introduced as part of the National Innovation and Science Agenda be reviewed after three years of operation to determine their effectiveness and whether the programs should be expanded.

### Recommendation 4

The Committee recommends that the Treasury undertake a close examination of a patent box scheme. If a patent box is introduced, it should be subject to a sunset clause after three years of operation. A review should be undertaken to determine the effectiveness of the patent box scheme and whether it should be extended and for how long.

**Recommendation 5**

The Committee recommends that the Treasury undertake a close examination of the proposal for a Manufacturing Finance Corporation. Should such a corporation be established, it should be reviewed after a period of five years to determine its effectiveness.

**Recommendation 6**

The Committee recommends that the Treasury undertake a close examination of the proposal for an Advanced Manufacturing Tax. Should such a tax be introduced, it should be subject to a sunset clause at which point a review should be undertaken to determine its effectiveness and whether it should be continued.



