
The Parliament of the Commonwealth of Australia

RIDING THE INNOVATION WAVE

The Case for Increasing Business Investment in R&D

House of Representatives
Standing Committee on Science and Innovation

June 2003

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Foreword

Nothing is more compelling than an idea whose time has come. (Anon)

The Australian character is underscored by a pioneering and innovative spirit. Our unique history and geography combine to make us so. It is therefore not surprising that as a nation, we have developed a strong and deserved reputation for hatching great ideas.

Whilst this is an absolutely vital skill in taking up and maintaining a globally competitive position on today's economic stage, it is not of itself sufficient.

Our great ideas need the commercial impetus to help ensure "their time has come." They need not only the research but also greater development, to better expand the R&D equation. Business in Australia must invest in R&D with greater commitment, greater confidence and greater capital, if our best ideas are to not only catch, but successfully ride the innovation wave all the way to market.

The House of Representatives Standing Committee on Science and Innovation has spent just under twelve months examining this issue. In the report that follows, the Committee makes forty-eight recommendations designed to help the process of taking ideas forward, to help Australia better ride the innovation wave.

The Committee has been very impressed with the quality of submissions received. We have been extremely gratified by the preparedness of individuals, companies and organisations, to come forward and assist in the deliberations of the Inquiry.

There is no doubt that Australia has a strong and robust mix of researchers and businesses contributing to a growing commitment to R&D.

It is my personal hope that the recommendations made by the Committee will have a positive impact on two fronts. Firstly, in strengthening collaborative efforts between research agencies and business. Secondly, in furthering investment in the commercialisation of Australia's great ideas.

My thanks go to my colleagues on the Committee who worked extremely well together throughout the Inquiry. I am also indebted to each of the staff of the Secretariat for their wonderful support and assistance.

Gary Nairn MP

Chair



Membership of the Committee

Chair Mr Gary Nairn MP

Deputy Chair Ms Ann Corcoran MP

Members Mr Martyn Evans MP
 Mr John Forrest MP
 Ms Sharon Grierson MP
 Mr Michael Hatton MP
 Mr Peter Lindsay MP
 Mr Tony Smith MP
 Mr Ken Ticehurst MP
 Dr Mal Washer MP

Committee Secretariat

Secretary	Ms Catherine Cornish Mr Paul McMahon (to January 2003)
Inquiry Secretary	Mr Rod Power Ms Shelley McInnis (to December 2002)
Research Officer	Mr Jerome Brown
Administrative Officers	Ms Suzy Domitrovic Ms Lisa Kaida (to February 2003)



Terms of reference

Inquiry into Business Commitment to R&D in Australia

International comparisons indicate that while the public sector in Australia supports R&D at an impressive level, business investment is less impressive.

With particular consideration of:

- (i) the R&D drivers in small and medium-sized business;
- (ii) the needs of fast-growing companies; and
- (iii) the considerations by which major international corporations site R&D investment;

the committee seeks to address three questions:

- (i) what would be the economic benefit for Australia from a greater private sector investment in R&D?
- (ii) what are the impediments to business investment in R&D?
- (iii) what steps need to be taken to better demonstrate to business the benefits of higher private sector investment in R&D?



List of recommendations

Steps that might be taken by the Commonwealth government in order to better demonstrate to business the benefits of higher private sector investment in R&D

Recommendation 1

The committee recommends that, in order to increase awareness of the importance of innovation and commercialisation, the Commonwealth government:

- promote case studies which show the success of companies that have benefited from R&D;
- introduce a system of prestigious awards to recognise individuals and companies that successfully commercialise their inventions;
- encourage, and facilitate where appropriate, the formation of mentoring groups to provide advice to researchers and businesses about commercialisation; and
- conduct education programs about taking a new product to market.

Recommendation 2

The committee recommends that the Commonwealth government expand the mentoring services available to small and medium-sized enterprises beyond those currently offered by the COMET Program.

Recommendation 3

The committee recommends that the Commonwealth government ensure that the Australian Bureau of Statistics undertakes surveys of innovative activity in the Australian economy, such surveys to include details of the non-technological innovation that is taking place in Australia.

Recommendation 4

The committee recommends that relevant industry associations, in conjunction with the Australian Bureau of Statistics, identify the economic benefits of research ‘crossovers’ such as that between the minerals/mining sectors and the environment sector.

Recommendation 5

The committee recommends that the Commonwealth government, in consultation with the states:

- identify key R&D sectors for further development;
- encourage state governments and local councils to promote R&D within their jurisdictions; and
- assist the efforts of local governments to encourage small and medium sized enterprises to share information about research and commercialisation.

Recommendation 6

The committee recommends that the Commonwealth government, in conjunction with the states:

- assess the efficacy of current efforts to improve students’ knowledge of, and interest in, technology-oriented careers, with a view to introducing specific schemes to encourage young people to undertake the study of engineering and technology; and
- promote the interest of school students in such careers by publicising the achievements of successful engineers and technologists.

Recommendation 7

The committee recommends that the Commonwealth government seek to attract major international corporations to site their R&D facilities in Australia and actively manage an on-going relationship with these companies by:

- considering the use of a refundable tax offset whereby major international firms choosing to site new R&D investment in Australia can claim the offset;

- regularly meeting with the major international corporations already resident in Australia so as to refine, where necessary, the government's support programs in order to retain those companies' R&D investments; and
- incorporating input from international corporations into the operations of InvestAustralia.

Recommendation 8

The committee recommends that the Commonwealth government, as part of a program to support the take-up by Australian businesses of R&D that is developed offshore, consider developing programs to familiarise businesses with overseas research.

Recommendation 9

The committee recommends that the Commonwealth government waive the current 10% limit on overseas R&D that can be deducted, for investments of demonstrable benefit to Australia and where no equivalent domestic R&D provider is available.

Recommendation 10

The committee recommends that the Commonwealth government, as part of its efforts to increase the incentives for Australian firms to export, consider the following actions:

- increase the cap on the Export Market Development Grants Scheme to, at the least, maintain its real value;
- introduce a program to inform Australian high-technology companies about government procurement programs in other countries. For example, the United States government procurement programs (in advance of the release of actual tenders by US agencies); and
- accelerate the negotiation of trade agreements that facilitate access by Australian companies to overseas markets.

Recommendation 11

The committee recommends that the Commonwealth government:

- encourage small and medium-sized enterprises in industries with common interests to set up research funding bodies via voluntary sector levies; and

- develop a program (perhaps along the lines of the highly successful rural Research and Development Corporations) to financially assist such research bodies.

Recommendation 12

The committee recommends that the Commonwealth government investigate ways to better demonstrate to Australian superannuation funds the opportunities arising from investing in Australian small and medium-sized enterprises that conduct R&D (recognising the primary fiduciary duty of the funds to maximise returns to their members).

Recommendation 13

The committee recommends that the Commonwealth government consider a scheme, along the lines of the current Pooled Development Funds Program, to enable Funds or trusts whose *sole* purpose is to invest in R&D activities, to receive concessional tax treatment.

Recommendation 14

The committee recommends that the Commonwealth government make further changes to employee share option arrangements to boost the financial incentives for researchers to commercialise their research outcomes (possibly by removing the requirement to pay tax upfront on the issue of shares in a start-up company).

Recommendation 15

The committee recommends that the financial incentive for researchers, and those commercialising research outcomes, be improved by considering the introduction of a *tapered* capital gains tax in relation to assets held in new high-technology companies (whereby the tax is reduced in proportion to the length of time an asset is held).

Recommendation 16

The committee recommends that the Commonwealth government facilitate the involvement of small and medium-sized enterprises in government tender and purchasing processes by:

- incorporating a weighting within those processes which recognises the need to promote innovative activity; and
- investigating the establishment of a competitive small business set aside program, modelled on the United States Small Business Innovation Research Program, in which government agencies would be required to contract a portion of their R&D funds to small and medium-sized enterprises.

Recommendation 17

The committee recommends that the Commonwealth government minimise regulatory hurdles for businesses to conduct and take-up R&D by:

- promoting greater regulatory consistency across all tiers of Australian government;
- encouraging international harmonisation of regulations, especially with respect to Australia's major trading partners, and when negotiating new trade agreements; and
- ensuring that Australian regulations facilitate research and the take-up of new technology.

Recommendation 18

The committee recommends that the Commonwealth government, through the forum of the Council of Australian Governments (COAG), improve the public's access to spatial information by encouraging the states to make their spatial data available to the public at the cost of transferring the information, rather than at the cost of acquisition.

Recommendation 19

The committee recommends that the Commonwealth government, financial bodies and businesses harmonise Australian accounting standards to ensure that:

- they are not at odds with our major competitors;
- they are able to show the value of intellectual property held by a business; and
- they are able to indicate the innovative activity of the firm.

Recommendation 20

The committee recommends that the Commonwealth government, in order to stimulate greater recognition within companies of the benefits of the tax concession, allow the R&D tax concession to be treated by the company receiving it as a benefit to be recorded as operating income for accounting purposes (and offset against the company's tax expenses).

Steps that might be taken by the Commonwealth government in relation to specific R&D programs, in order to better demonstrate to business the benefits of higher private sector investment in R&D

Recommendation 21

The committee recommends that businesses be provided with greater certainty about the continuity of the Commonwealth government's R&D support programs, by ensuring that the programs are maintained for rolling periods of not less than five years.

Recommendation 22

The committee recommends that the Commonwealth government simplify and minimise the data requirements of companies registering for the tax concession or applying for R&D grant assistance, and specifically:

- reduce the number of government agencies requiring information from companies seeking R&D assistance (when possible, to a single contact point), with the agencies utilising enhanced data-sharing;
- minimise the length and complexity of registration and application forms;
- synchronise reporting cycles across agencies; and
- ensure consistent use of terms and definitions of terms in forms relating to R&D across agencies, including the Australian Bureau of Statistics.

Recommendation 23

The committee recommends that the Commonwealth government continue to simplify the various R&D programs and consider the introduction of a version of the Canadian *Preclaim* Scheme whereby businesses can get preliminary advice about their eligibility for the government's R&D schemes.

Recommendation 24

The committee recommends that the Commonwealth government ensure that regular evaluations of the R&D support programs take place, including assessment of the effect of tax concessions on the R&D outcomes of businesses.

Recommendation 25

The committee recommends that the Commonwealth government encourage the development of measures that can serve as ‘surrogates for productivity’. This would lessen dependence on Business Investment in R&D (BERD), which is a measure and not necessarily a good indicator of productivity, as well as contribute to the clearer identification of the results of government grants and subsidies, and provide fuller information of the success of converting research to innovation.

Recommendation 26

The committee recommends that, in order to better assess the effect of R&D support programs (including the tax concessions), the Australian Bureau of Statistics add a question to its business survey form asking companies to estimate the increased turnover generated by their use of the tax concession and/or other R&D support measures.

Recommendation 27

The committee recommends that the Industry Research and Development Board (IRDB) review the current guidelines for R&D Plans (required when registering for the tax concession) to provide that the Plans specify the technical risk factors and outline the risk mitigation strategies. To reduce the compliance burden on companies (especially small and medium-sized enterprises), the IRDB should provide a spreadsheet or similar template for carrying out net present value estimates and provide associated guidance.

Recommendation 28

The committee recommends that the Commonwealth government evaluate and consider extending the tax concession to cover the cost of intellectual property protection and patent applications for businesses that have already qualified for the tax concession.

Recommendation 29

The committee recommends that the Commonwealth government review the current eligibility criteria for the incremental tax concession to ensure that they maximise the conduct and take-up of business R&D, in particular, that the government consider the inclusion of essential non-labour R&D expenditure in relation to eligibility for the incremental tax concession.

Recommendation 30

The committee recommends that the Commonwealth government, once the existing R&D programs have been fully evaluated, consider adjusting the present incremental or 'Premium' tax concession by:

- ensuring that companies already conducting a high R&D expenditure relative to their turnover are eligible for the concession (thus maintaining the incentive to do R&D); and
- considering linking the tax concession regime to the national research priorities and/or to the particular industries in which Australia wishes to promote itself as a centre of excellence and/or to the high-growth areas of the economy and/or to whether the business is a small or medium-sized enterprise and/or to whether the R&D is undertaken collaboratively by the private and public sectors.

Recommendation 31

The committee recommends that the Commonwealth government enhance its promotion of the cash rebate (tax offset) program, especially to small and medium-sized enterprises, and industry associations.

Recommendation 32

The committee recommends that the Commonwealth government evaluate and consider adjusting the eligibility thresholds for access to the tax offset program.

Recommendation 33

The committee recommends that the Commonwealth government review its ongoing level of funding for the START program, in light of significant demand and the program's great success in assisting the establishment of small and medium-sized enterprises. Increased funding of programs like START and COMET might be particularly appropriate at times when the general profitability of business is constrained by a downturn in economic activity.

Recommendation 34

The committee recommends that the Commonwealth government expand the grants-based START program by introducing a scheme that provides loans to early-stage companies, with the requirement that those loans be paid back if the venture is successful (but which enables the loans to be converted back to grants if the venture is unsuccessful).

Recommendation 35

The committee recommends that, in relation to BITS incubator seed funds, the Commonwealth government consider:

- increasing the current eligibility threshold of \$450,000; and
- review the existing taxation treatment of the seed funds in order to maximise the encouragement of R&D by businesses.

Recommendation 36

The committee recommends that the Commonwealth government encourage universities to implement more flexible arrangements for university superannuation to remove an impediment to the movement of researchers between the public and private sectors.

Recommendation 37

The committee recommends that the Commonwealth government increase the incentives for researchers to work in businesses by:

- promoting the Graduate START program more widely;
- providing within the Graduate START scheme an option whereby up to an additional 100 post-doctoral students could be placed in businesses with the cost shared equally between government and business;
- encouraging research bodies such as the CSIRO to regularly meet representatives of the companies that currently conduct a high level of R&D in Australia; and
- consider the use of tax rebates to businesses employing new graduates in R&D activities.

Recommendation 38

The committee recommends that the Commonwealth and state governments take steps to increase the number of “research brokers” and technology diffusion coordinators in universities, industry associations and professional associations.

Recommendation 39

The committee recommends that the Commonwealth government, business associations and the universities improve the way that intellectual property is handled by industry and universities by taking the following measures:

- developing guidelines for public/private R&D collaborative projects;
- considering the introduction of appropriate revenue-sharing conditions into the award of some Australian Research Council (ARC) grants to enable researchers and universities to hold the licence to exploit their intellectual property; and
- the ARC considering making 'closed' R&D programs eligible for ARC grants (if only under certain specified circumstances).

Recommendation 40

The committee recommends that the Commonwealth government's 'Review of Closer Collaboration between Universities and Major Publicly Funded Research Organisations' examines how to encourage the research bodies to 'partner' with small and medium-sized enterprises, including the provision of equity.

Recommendation 41

The committee recommends that the Commonwealth government encourage universities to take the following measures to improve their governance arrangements so that they are less averse to commercialisation of their research:

- facilitate the flow of block grants to their associated business entities rather than through the university's financial system;
- allow for flexible funding arrangements where commercially sensitive technology is involved; and
- permit their staff to earn income above their usual salaries.

Recommendation 42

The committee recommends that the Australian Research Council make publicly available the information it holds on research which has been judged as being of high quality and which is likely to deliver national benefits.

Recommendation 43

The committee recommends that the Commonwealth government promote the involvement of small and medium-sized enterprises (SMEs) in Cooperative Research Centres, especially by way of non-cash contributions and through associations representing a number of SMEs within an industry.

Recommendation 44

The committee recommends that AusIndustry monitor the expenditure by CRCs on projects involving the universities to ensure that the smaller, often regionally-based universities are able to participate fully in the CRC program.

Recommendation 45

The committee recommends that the Commonwealth government encourage Research and Development Corporations to increase their commercial expertise by:

- employing managers with commercial skills;
- establishing commercial entities based on their research; and
- possibly registering a greater number of entities under the Corporations Law.

Recommendation 46

The committee recommends that the Commonwealth government:

- promote the opportunities for very early phase commercialisation by university researchers (such as developing a prototype) under the existing R&D programs; and
- encourage the study of commercialisation as part of the relevant undergraduate courses.

Recommendation 47

The committee recommends that, in order to reduce ambiguity about eligibility for the R&D tax concession and to facilitate R&D that involves *small* innovative steps, the Commonwealth government consider amending Section 73B(2B) (i) of the Income Tax Assessment Act broadly along the following lines: 'Whilst it may be possible to estimate the probability of obtaining the technical or scientific outcome on the basis of current knowledge and experience, this probability is sufficiently low that the investment is unlikely to go ahead without the benefit of a special tax treatment for the investment.'

Recommendation 48

The committee recommends that the Commonwealth government review the current definition of R&D to ensure that its technological orientation continues to be relevant to the type and extent of innovation occurring in Australia and, in particular, that it recognises the importance of R&D in the services sector.



List of abbreviations

AAS	Australian Academy of Science
ABF	Australian Business Foundation
ABS	Australian Bureau of Statistics
ACCI	Australian Chamber of Commerce and Industry
ACIS	Automotive Competitiveness and Investment Scheme
AEEMA	Australian Electrical and Electronic Manufacturers
AFFA	(Commonwealth Department of) Agriculture, Fisheries and Forestry Australia
ANAO	Australian National Audit Office
AIA	Australian Innovation Association
AIG	Australian Industry Group
AIRG	Australian Industrial Research Group
AIIA	Australian Information Industry Association
AMIRA	Australian Mineral Industries Research Association International Ltd
'Angels'	High net-worth individuals prepared to invest in the early stage of a business

ANSTO	Australian Nuclear Science and Technology Organisation
ANZAAS	Australian & New Zealand Association for the Advancement of Science
APIC	Australian Paper Industry Council
AQIS	Australian Quarantine Inspection Service
ARC	Australian Research Council
ATG	Australian Technology Group
ATO	Australian Taxation Group
ATS	Australian Technology Showcase
ATSE	Australian Academy of Technological Sciences and Engineering
AusIMM	Australasian Institute of Mining and Metallurgy
AVCA	Australian Venture Capital Association
AVCC	Australian Vice-Chancellors' Committee
BAA	Backing Australia's Ability
BCA	Business Council of Australia
BERD	Business Expenditure on Research and Development
BIF	Biotechnology Innovation Fund
BITS	Building on Information Technology Strengths
CCRC	Cotton Cooperative Research Centre
CGT	Capital gains tax
CITA	(Commonwealth Department of) Communications, Information Technology and the Arts
COMET	Commercialising Emerging Technologies Program
CRC	Cooperative Research Centre
CRDC	Cotton Research and Development Corporation

CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSSIP	Cooperative Research Centre for Sensor Signal and Information Processing
DEST	(Commonwealth) Department of Education, Science and Technology
DITR	(Commonwealth) Department of Industry, Tourism and Resources
DSTO	Defence Science and Technology Organisation
EFIC	Export Finance and Insurance Corporation
EFS	Export Facilitation Scheme
EMDG	Export Market Development Grants
EU	European Union
FASTS	Federation of Australian Scientific and Technological Societies
FDA	(United States) Food and Drug Administration
FRDC	Fisheries Research and Development Corporation
FWPRDC	Forest and Wood Products Research and Development Corporation
GERD	Gross Expenditure on Research and Development
GOVERD	Government Expenditure on Research and Development
GWRDC	Grape and Wine Research and Development Corporation
GRDC	Grains Research and Development Corporation
GSK	GlaxoSmithKline
HECS	Higher Education Contribution Scheme
HERD	Higher Education Expenditure on Research and Development
ICT	Information and Communications Technology
IEAust	Institution of Engineers, Australia

IIF	Innovation Investment Fund
IMD	International Institute for Management Development
IMS	Intelligent Manufacturing Systems
IP	Intellectual Property
IRDB	Industry, Research and Development Board
ISIG	Innovation Summit Implementation Group
MCA	Minerals Council of Australia
MSD	Merck, Sharp & Dohme (Australia)
MNC	Multinational corporation
NEIS	New Enterprise Incentive Scheme
NHMRC	National Health and Medical Research Council
OECD	Organisation for Economic Cooperation and Development
PBS	Pharmaceutical Benefits Scheme
PDF	Pooled-Development Fund
PIIP	Pharmaceutical Industry Investment Program
PMSEIC	Prime Minister's Science, Engineering and Innovation Council
PSF	Pre-Seed Fund
RACI	Royal Australian Chemical Institute
R&D	Research and Development
RDC	Research and Development Corporation
REEF	Renewable Energy Equity Fund
RIRDC	Rural Industries Research and Development Corporation
RMIT	Royal Melbourne Institute of Technology
ROI	Return on Investment

SBA	(United States) Small Business Administration
SBIF	Small Business Investment Fund
SBIR	(United States) Small Business Innovation Research Program
SME	Small to medium sized enterprise
SPIRT	Strategic Partnerships with Industry- Research and Training Scheme
TAS	Technology Advisory Service
TIA	Taxation Institute of Australia
US	United States
VCLP	Venture Capital Limited Partnerships



Executive summary

1. In July 2002 the Minister for Science, the Hon. Peter McGauran MP, asked the committee to inquire into the commitment of Australian business to research and development (R&D). The committee's terms of reference required it to address a number of factors bearing on business expenditure on R&D (BERD). The report is structured in line with the terms of reference.
2. The first element of the terms of reference involved assessing the relative level of BERD in Australia compared to countries in the Organisation for Economic Cooperation and Development (OECD). Chapter 2 contains this analysis and leads to the conclusion that Australia's BERD is relatively low but increasing, when compared to other OECD countries. Given the general productivity, innovative activity and national competitiveness of the Australian economy in recent years, there are grounds for optimism about developments affecting business R&D in Australia (Chapter 2). However, the committee considers that it is important to seize every opportunity to increase the level of BERD.
3. The committee examined in some detail the Commonwealth government's support for R&D. Chapter 3 considers the Commonwealth government's expenditure on science and innovation. It also describes the extensive range of Commonwealth R&D programs. Many of these are designed specifically for small and medium-sized enterprises (SMEs). Also, many of the programs are relatively new and need time to bed-down.
4. Chapter 4 assesses BERD in Australia and finds that it is on a rising trendline. While just under half of BERD is spent in the manufacturing sector, R&D expenditure in the services sector is rising rapidly. Foreign firms are responsible for over 40% of BERD. Funding of BERD is largely internally generated from businesses.

5. The second element of the committee's terms of reference required it to examine the R&D drivers in SMEs and the needs of fast-growing companies. These are set out in Chapter 5. The committee concludes that the drivers of SMEs and fast-growing companies include:
- company profit;
 - successful commercialisation of R&D;
 - establishment of a distinctive presence in the market;
 - access to capital;
 - the general level of economic activity in Australia;
 - speedy access to markets, especially overseas markets;
 - government incentive programs and government tender/purchasing policies;
 - collaboration with public sector research bodies;
 - knowledge of the industry sector in which the firm operates;
 - the presence of major international corporations (and large companies generally); and
 - the national macroeconomic environment, including the education, taxation and legal systems.
6. The committee was also required to examine the considerations by which major international corporations site their R&D investment. Chapter 6 analyses the evidence from major international corporations and other bodies. The committee concludes that the large international firms make decisions about where to conduct their R&D on grounds which include:
- cost and control concerns;
 - the extent to which a country is innovation-friendly;
 - the standard of pre-competitive research support and the quality of skilled personnel;
 - the legal, financial, taxation and regulatory environment;
 - the consistency of government policy and incentive programs;
 - the national 'brand' of a country; and
 - access to markets.

-
7. The committee's terms of reference also required it to examine the economic benefit to Australia of greater BERD. Chapter 7 concludes that Australia would gain from a higher level of BERD, though it needs to be borne in mind that there are limits to the amount of BERD that businesses will outlay. The principal constraint is set by what businesses perceive to be their returns in the marketplace from R&D expenditure.
 8. The penultimate element of the committee's terms of reference required it to consider the impediments to BERD in Australia. Submitters and witnesses pointed to a diverse range of impediments which, in their view, affected the government's efforts to increase the level of BERD. Chapter 8 provides a broad 'map' - or overview - of views about R&D in Australia. The impediments to BERD were said to relate, in varying degrees, to:
 - the location of Australia and the relative size of our economy in the global context;
 - aspects of the Australian culture and the way that Australia 'projects' itself to the world;
 - Australia's industry structure;
 - the management 'culture' in Australia;
 - the actions of foreign companies;
 - the commercialisation of research;
 - the challenge of marketing globally;
 - the higher education and financial sectors;
 - regulatory activity both in Australia and overseas;
 - government policies and programs designed to facilitate R&D;
 - financial incentives for both scientists and entrepreneurs; and
 - a shortage of skills.
 9. The final element of the terms of reference required the committee to set out the steps that should be taken to better demonstrate to business the benefits of a higher level of BERD. Chapters 9 and 10 set out the committee's recommendations in this regard. A list of the committee's detailed recommendations is at pages *xiii-xxiii*.

10. In Chapter 9 the committee recommends that the Commonwealth government take steps designed to:

- raise public awareness of the importance of innovation and commercialisation (Recommendations 1-4);
- identify national research priorities and encourage the efforts of states and local governments to promote R&D (Recommendations 5 and 6);
- encourage major international corporations to conduct R&D in Australia (Recommendation 7);
- improve the take-up of overseas R&D by Australian companies (Recommendation 8) and recognise special circumstances when R&D conducted overseas by Australian companies should be eligible for the R&D tax concessions (Recommendation 9);
- encourage exporting (Recommendation 10);
- encourage industry associations of SMEs (Recommendation 11);
- increase the capacity of SMEs to access capital (Recommendations 12 and 13);
- improve financial incentives for individuals to conduct R&D and to commercialise the outcomes of research (Recommendations 14 and 15);
- improve government tender and purchasing policies so as to facilitate the involvement of SMEs (Recommendation 16);
- reduce regulatory barriers to business R&D (Recommendations 17 and 18); and
- improve accounting standards and practices so as to better recognise the importance of R&D (Recommendations 19 and 20).

11. In Chapter 10 the committee recommends that the Commonwealth government take steps designed to:

- improve the consistency of R&D programs (Recommendation 21);
- improve the administration of the R&D programs (Recommendations 22 and 23)
- evaluate the R&D programs (Recommendations 24 to 26);
- improve the general (or flat) tax concession (Recommendations 27 and 28);
- adjust the incremental or 'Premium' tax concession (Recommendations 29 and 30)

- raise awareness of the cash rebate (tax offset) program (Recommendations 31 and 32);
- improve the START program (Recommendations 33 and 34);
- improve the BITS program (Recommendation 35);
- improving collaboration between the public and private sectors (Recommendations 36 to 44);
- adjust the Australian Research Council's *Linkage* Program (Recommendation 45);
- provide additional support for early phase commercialisation (Recommendation 46); and
- reconsider the definition of R&D (Recommendations 47 and 48).

