



**THE HOUSE OF REPRESENTATIVES STANDING COMMITTEE  
ON  
INDUSTRY, SCIENCE AND RESOURCES**

***THE EFFECT OF CERTAIN PUBLIC  
POLICY CHANGES ON AUSTRALIA'S R&D***

**GOVERNMENT RESPONSE**



**APRIL 2000**

## Contents

INTRODUCTION .....	3
<b>LOSS OF "CRITICAL MASS" FOR R&amp;D</b>	
RECOMMENDATION 1 .....	5
RECOMMENDATION 2 .....	5
<b>LACK OF ADEQUATE DATA</b>	
RECOMMENDATION 3 .....	6
<b>LONG-TERM AND "PUBLIC GOOD" R&amp;D</b>	
RECOMMENDATION 4 .....	7
RECOMMENDATION 5 .....	8
RECOMMENDATION 6 .....	8
<b>CERTAIN POLICY CHANGES IN PUBLIC SECTOR R&amp;D</b>	
RECOMMENDATION 7 .....	9
<b>OUTSOURCING</b>	
RECOMMENDATION 8 .....	9
<b>THE NEED TO RETAIN "IN-HOUSE" EXPERTISE</b>	
RECOMMENDATION 9 .....	10
<b>OUTSOURCING AND HEALTH RESEARCH</b>	
RECOMMENDATION 10 .....	10
<b>CATEGORIES OF RESEARCH</b>	
RECOMMENDATION 11 .....	11
<b>R&amp;D FUNDING</b>	
RECOMMENDATION 12 .....	12
RECOMMENDATION 13 .....	12
RECOMMENDATION 14 .....	13
<b>THE R&amp;D TAX CONCESSION</b>	
RECOMMENDATION 15 .....	13
RECOMMENDATION 16 .....	15
<b>THE <i>R&amp;D START</i> PROGRAM</b>	
RECOMMENDATION 17 .....	15
<b>ACCESS TO VENTURE CAPITAL</b>	
RECOMMENDATION 18 .....	16
RECOMMENDATION 19 .....	17
<b>QUALIFICATIONS OF AUSTRALIAN MANAGERS AND FINANCIERS</b>	
RECOMMENDATION 20 .....	17

## INTRODUCTION

### *The House of Representatives Standing Committee's Report*

The House of Representatives Standing Committee on Industry, Science and Resources provided a report, *The Effect of Certain Policy Changes on Australia's R&D*, in August 1999. The Committee was asked to report on the effect of public policy changes, over the past ten years, in the areas of corporatisation, privatisation, outsourcing and competition policy reform on:

- the amount of R&D being carried out in Australia;
- the nature of the R&D being undertaken (that is, basic or applied);
- the relevance of the R&D to the commercial needs of industry;
- the level of investment in research infrastructure and equipment;
- the scientific and technological skills base and the demand for scientists, technologists and engineers; and
- the education and training opportunities for future research staff.

The Government is appreciative of the efforts of the Committee and its predecessor from the previous Parliament. Some aspects of the report were referred to the National Innovation Summit held over 10-11 February 2000 and these will be further considered by the newly formed Innovation Summit Implementation Group, which is due to report by 30 August 2000.

### *Overview of the Government's Response*

In agreement with the Committee, the Government acknowledges the benefits that have flowed to Australia as a result of the microeconomic reform process over the past decade. Policy-makers around the world have acknowledged that competition is a primary driver of innovation and R&D. A high level of domestic competition ensures that innovative Australian companies will grow and thrive. In turn, Australian companies will be better placed to compete and win in the global marketplace.

Due to the complexity of the national innovation system, the Government is seeking to develop a partnership approach to addressing any impediments that are constraining innovation within the Australian economy. While Government has a role, it is broadly acknowledged that other parties equally need to understand and embrace their respective roles. The National Innovation Summit, including the lead-in events and Working Groups, was the first critical step in developing a consensus between industry, Government and the research community on strategies to improve our innovation system.

The Committee's recommendations identified many of the broader policy issues, essential for Australia to be an important participant in the global economy.

### *The National Innovation Summit*

A number of recommendations were explicitly directed to the National Innovation Summit. The National Innovation Summit was held in Melbourne on 10-11 February 2000 in conjunction with the Business Council of Australia (BCA). There was extensive consultation in the lead-up to the Summit, and the Steering Committee received approximately 70 submissions. Six Working Groups examined the key areas of institutional structures and interfaces; resource and infrastructure consolidation and cooperation; innovation and incentives; managing intellectual property; industrial innovation; and, the human dimension of innovation. The reports of these Working Groups were placed on the National

Innovation Summit website (<http://www.isr.gov.au/industry/summit/index.html>) and provided the background to deliberations by delegates at the Summit.

Facilitators at the Summit were provided with a briefing on the Committee's recommendations to include in discussion within Summit sessions, based around three broad themes:

- creating a competitive environment;
- investing in new ideas; and
- building industry-research linkages.

To progress the findings arising from the National Innovation Summit, an Innovation Summit Implementation Group has been established.

The Innovation Summit Implementation Group with representation from government, industry, research and education, is an ideal forum to address the issues that were referred to the Summit, by the Committee's report. Consequently, the Government will be able to confidently act on recommendations from the Innovation Summit Implementation Group, with an assurance that the major stakeholders and other affected parties have been consulted in the development of the appropriate plans of action.

The first report from the Innovation Summit Implementation Group is due to be submitted to Government on 30 August 2000. Clearly, a number of recommendations will be further examined during the post-Summit process and may be highlighted in the Innovation Action Agenda, to be developed by end 2000.

## **RECOMMENDATION 1**

The Committee recommends that the forthcoming National Innovation Summit's Working Group on "increasing critical mass in both public and private R&D" examine:

- establishing sectoral R&D brokers for collaborative, pre-competitive research; and
- the extent to which such collective research should be financed by industry levies as against public subsidies

### **Government's position:**

Agreed.

### **Comment:**

The National Innovation Summit Working Group on Resources and Infrastructure Consolidation and Cooperation considered the key issues associated with critical mass in public and private R&D. The Working Group presented a range of recommendations concerning research resources and infrastructure, which were used to inform discussions at the Summit. In particular, the breakout sessions on 'Strengthening Research and Research Infrastructure' and 'Clustering - Developing Critical Mass' examined the need to promote partnerships, linkages and cooperation. This session made a number of proposals in relation to this issue.

The Government is committed to encouraging collaborative R&D through a number of cooperative mechanisms, including the Cooperative Research Centres (CRCs) and the broad brokerage role of the Australian Research Council (ARC) to match the needs of the Government and industry to the excellence of Australian research.

Although the Government would like to see an increased use of R&D broking services for collaborative, pre-competitive research in Australia, the scope for its active involvement appears to be minimal. Past experience and work conducted for the National Innovation Summit confirms that industry prefers self-regulation and that government intervention may even be counterproductive in these matters.

**The Innovation Summit Implementation Group will comprise representation from the business, research, education and government sectors. The Group will consult with relevant parties to assess the feasibility of proposals from the Summit and formulate an appropriate action plan. The Group will advise by 30 August 2000 on a prioritised approach on specific actions identified at the Summit.**

## **RECOMMENDATION 2**

The Committee recommends that in recognition of the success of the CRC program, and its important role in re-establishing "critical mass" for R&D in sectors affected by public policy changes, the government at least maintain real funding for the program at current levels.

### **Government's position**

Agreed.

### **Comment:**

The Government already provides for indexation to maintain the real value of total funding for the CRC program.

The Government remains committed to the CRC Program and has made clear its intention to maintain funding for the program in key policy documents such as *'Science, Engineering and Technology - Investing in Tomorrow'* and *'Science - A Vision for Excellence'*.

Continued support was also demonstrated by the Government's acceptance of the Mercer/Stocker review - *Review of Greater Commercialisation and Self Funding in the Cooperative Research Centres Program (1998)*. The former Minister for Industry, Science and Tourism, the Hon John Moore, announced on 15 April 1998 that the Government would be strengthening its commitment to the CRC Program by adopting the key recommendations of the review, while retaining all of the programs existing strengths. The former Minister also stated that Commonwealth funding of \$138 million per year would continue.

The following table demonstrates that the Government has honoured its commitment to maintain CRC program funding.

Financial Year	Expenditure/Estimate
1998-1999	\$142.398 million
1999-2000	\$142.466 million
2000-2001	\$139.864 million *
2001-2002	\$145.775 million
2002-2003	\$148.026 million

\*The lower amount in 2000-2001 resulted from a transfer of funds from that year to 1998-99 and 1999-2000 to facilitate funding of new Centres in the 1998 Selection Round. Otherwise, the data demonstrates a steady increase in funding from the \$138 million level of 1997-98.

The Minister for Industry, Science and Resources, the Hon Nick Minchin, recently (19 January 2000) invited applications for the 2000 Selection Round and released revised program guidelines. The revised guidelines recognise that the CRC program plays an important role in establishing 'critical mass'. This is reflected in the following Government objective for the program:

- to enhance collaboration among researchers, between researchers and industry or other users, and to **improve efficiency in the use of intellectual and other research resources.**

The Government notes that the other objectives for the program are also equally important:

- to enhance the contribution of long-term scientific and technological research and innovation to Australia's sustainable economic and social development;
- to enhance the transfer of research outputs into commercial or other outcomes of economic, environmental or social benefit to Australia; and
- to enhance the value to Australia of graduate researcher.

### **RECOMMENDATION 3**

The Committee recommends that the government require organisations in both the public and private sectors, which are required to submit annual reports, to include in those annual reports information on their R&D expenditure. The government, in conjunction with the ABS and industry, should develop an agreed basis according to which such expenditure can be measured.

#### **Government's position:**

Agree in principle.

#### **Comment:**

While the Government supports the principle of improved reporting of R&D expenditure, it is also aware of the need to minimise the compliance costs associated with increased reporting requirements.

That said, it should be noted that:

- The Government already requires government agencies to report all expenditure. With the introduction of accrual accounting, reporting of R&D expenditure will be standardised.
- The Government can only encourage private sector agencies to publish their R&D expenditure and advise them on appropriate definitions and format for the report. It has been noted by the ABS that private sector companies are increasingly measuring and reporting on R&D and other intellectual capital indicators in their annual reports. This is driven by the realisation that intellectual capital gives rise to the difference between the book and market value of companies, as investors recognise the innovativeness of a company and value it accordingly.
- A break-out session at the National Innovation Summit noted the need to encourage firms of the value of measuring their innovation performance benefits for reasons such as allowing them to benchmark their innovation against national and international best practice.
- The ABS reports on public and private R&D on a consistent basis. The coverage of the ABS survey is comprehensive.

The National Innovation Summit Working Group on the Human Dimension considered the key issues associated with measuring innovation and R&D. The Working Group presented a range of recommendations concerning Human Dimensions, which were used to inform discussions at the Summit. In particular, the break-out session on “Measuring Innovation Performance” examined the need to measure innovation as an aid to improving our competitiveness. This session made a number of proposals in relation to this issue.

The Innovation Summit Implementation Group will consider the findings of the Summit.

#### **RECOMMENDATION 4**

The Committee recommends that, as part of ongoing reforms in the water sector, the government seek the agreement of the Council of Australian Government on common standards for:

- continued public access to water flow and water quality data collected by the former public sector water utilities; and
- ongoing responsibility, either through nominated public sector agencies or the new water service providers, for collecting such data and making it publicly available.

#### **Government’s position:**

Agree in principle.

#### **Comment:**

The Government agrees with the principle of common standards for access to water flow and quality data. However, it does not believe that the Council of Australian Governments is the appropriate body to consider this issue. The issue will be raised with the relevant Ministerial Council for their consideration.

It should be noted that the provision of water (flow and quality) is primarily the responsibility of the State and Territory governments.

### **RECOMMENDATION 5**

The Committee recommends that the government propose to the Council of Australian Governments that a stocktake of the R&D activities of utility service providers be carried out, to quantify any substantial loss of such activities - particularly those with a “public good” component - resulting from the application of competition policy and like reforms to the electricity, water, gas and telecommunications sectors. A possible mechanism for such a stocktake could be a review by the National Competition Council. Where functions with a net benefit to the community are no longer being performed due to lack of commercial incentives, those functions should be either:

- performed by the new service providers and funded by the government manner similar to a Community Service Obligation; or
- transferred to an appropriate public sector research agency, again with funding adjustments as required.

#### **Government’s position:**

Agree in principle.

#### **Comments:**

The Government agrees with the principle of an improved understanding of all parts of the national innovation system and the need to support R&D with a “public good” component. However, it does not believe that the Council of Australian Governments is the appropriate body to consider this issue. The issue will be raised with the relevant Ministerial Council for their consideration.

The Government agrees that R&D with a "public good" component should be supported. A level of "public good" or "spillover" benefits underpins the rationale for the existing level of Government support for R&D. However, the level and targeting of this support must be considered in the context of national priorities and the level of "public good" derived from Government expenditure in other areas.

Participants at the National Innovation Summit considered the issues raised within this recommendation at length. In particular, the Summit included break-out groups that considered "Strengthening Research and Research Infrastructure" and "Measuring Innovation Performance". These break-out groups made specific recommendations that relate to public funding of R&D and improving the measurement of innovation and R&D.

The Innovation Summit Implementation Group will consider the findings of the Summit.

### **RECOMMENDATION 6**

The Committee recommends that the government propose to the Council of Australian Governments that, in future, R&D activities undertaken by competition policy reform targets be identified at an early stage of the reform process. Where the continued performance of non-commercial “public good” and longer-term research is deemed to be desirable, arrangements should be made as per Recommendation 5.

#### **Government’s position:**

Agree in principle.

#### **Comment:**

The Government agrees with the principle of considering the impacts of national competition policy on "public good" R&D. However, it does not believe that the Council of Australian Governments is the appropriate body to consider this issue. The issue will be raised with the relevant Ministerial Council for their consideration.



As previously stated, the Government agrees that R&D with a "public good" component should be supported. A level of "public good" or "spillover" benefits underpins the rationale for the existing level of Government intervention in R&D. However, the level and targeting of this support must be considered in the context of national priorities and the level of "public good" derived from Government expenditure in other areas.

The Competition Principles Agreement is to be reviewed this year. The Government recommends that this recommendation should be considered within the context of this review.

#### **RECOMMENDATION 7**

The Committee recommends that the government bear in mind the public good when setting the external targets for Commonwealth research agencies.

##### **Government's position:**

Agreed.

##### **Comment:**

The Government's three main Government research agencies, the CSIRO, Australian Nuclear Science and Technology Organisation (ANSTO) and Australian Institute of Marine Science (AIMS) all have external earnings targets. These targets will continue to be set at levels that reflect the "public good" and the role that these agencies play within the wider context of Australia's innovation system.

It is the Government's view that targets for external earnings draw an appropriate balance between the "public good" research roles of these agencies and the need for their research to be economically and socially relevant.

The Government recognises that the most important role for these agencies is to conduct research that benefits the nation. External earnings requirements have been highly effective in encouraging stronger linkages with industry and other research areas. The results of such research can be disseminated widely so that Australian companies and other end-users in the community can receive the full benefits.

The Government securely funds Australia's largest Government research agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO). In last year's budget the Government provided CSIRO's forward funding on a triennium basis to enable CSIRO to formulate its strategic directions and research plans with confidence and to the best advantage of Australia's ongoing scientific needs. CSIRO received an extra \$82 million for the following three years. This funding gives effect to the Government's election commitment to restore the CSIRO's funding base following budget cuts by the former Labor Government. The Annual budget funding for the CSIRO is now almost \$600 million annually, reflecting the Government's focus on excellence in science and technology."

#### **RECOMMENDATION 8**

The Committee recommends that the government ensure that outsourcing processes which encourage innovation and take account of "public good" benefits are examined at the National Innovation Summit.

##### **Government's position:**

Agreed.

##### **Comment:**

As requested the Government referred the report's recommendation to the National Innovation Summit. It was included in information provided to facilitators, but there was no discussion generated on this issue.

It should be noted that the National Innovation Summit was a jointly administered event organised by the Commonwealth Government and the Business Council of Australia. The range of issues traversed at the Summit was extensive and it was not possible to cover all issues that relate to innovation.

#### **RECOMMENDATION 9**

The Committee recommends that the government acknowledge the need to retain sufficient “in house” R&D expertise to make informed decisions when contracting out services, and that the government requests the States to do likewise.

#### **Government’s position:**

Agree in principle.

#### **Comment:**

The Government acknowledges the importance of maintaining a level of ‘in-house’ R&D expertise in order to inform decisions concerning the outsourcing of services. However, it is not always efficient or effective for the Government to maintain the required levels of this type of ‘in-house’ expertise and in many cases the Government’s interests may be better served by obtaining external advice, especially on larger projects.

For example, the Industrial Research and Development Board is an independent statutory body of experts, that advises the Government on national industry-based R&D strategies and priorities and administers specific Government support programs for industry-based R&D.

The Government believes that this issue relates to promoting best practice in financial and contract management, in accordance with the relevant Commonwealth legislation. Management within individual organisations and agencies should determine the appropriate level and source of external input into contract decisions on behalf of the Commonwealth.

#### **RECOMMENDATION 10**

The Committee recommends that the Commonwealth Minister for Health raise with State Ministers for Health the need to make explicit financial provision for clinical research when outsourcing public hospital services.

#### **Government’s position:**

Noted.

#### **Comment:**

The Government places a high priority on health and medical research with a commitment announced in the May 1999 Budget to double research funding for the National Health and Medical Research Council (NHMRC) over the next five years. This represents additional funding of \$614 m over that period for NHMRC funded research.

Clinical research is an important component of health and medical research and Australia has an outstanding track record in this field. However, the Government is aware of risks to the levels of support for hospital-based clinical research that are arising through a range of hospital restructuring initiatives, including outsourcing.

Currently (2000) over 12% of NHMRC support for standard research projects, training awards and Fellowships is undertaken in the hospital system. This totals over \$17 million. A split of clinical and other research is not available.

Under the 1998-2003 Australian Health Care Agreements (AHCAs), State and Territory governments are responsible for ensuring the provision of public hospital services, including admitted and non-admitted patient services, free of charge to public patients on the basis of clinical need.

State and Territory governments are also responsible for the planning and provision of public hospital services, including:

- the total amount of funds available to the public hospital system;
- budgets for individual hospitals and the arrangements under which they are paid;
- the number and location of hospitals; and
- the range of services available at each hospital.

State and Territory governments may provide public hospital services through either public or private providers as long as public patient access to hospital services is maintained and that public patients continue to be treated free of charge on the basis of clinical need. Decisions about whether public hospital services are provided by the public or private sector are entirely matters for State and Territory governments.

Similarly, decisions relating to the allocation of AHCA funding to public hospitals for particular purposes, including clinical research, rest with State and Territory governments, and against this background, the AHCA's do not:

- require State and Territory governments to make explicit financial provision for clinical research when outsourcing public hospital services; or
- afford the Commonwealth the authority to raise issues regarding the direction of funds to particular purposes with State health ministers.

However, Schedule C of the AHCA's details the performance measures and information required under the Agreements, including for medical research and training. Accordingly, the Commonwealth is working with the States, through the Australian Health Ministers Advisory Council, to develop suitable performance indicators for research and training in the public hospital system. The indicators will be a means of identifying any changes over time to the levels of research support being provided.

#### **RECOMMENDATION 11**

The Committee recommends that the Department of Education, Training and Youth Affairs, the Department of Industry, Science and Resources and the Australian Bureau of Statistics continue to collect and analyse data annually on R&D in the higher education sector in such a way that comparisons over time and with the international arena are facilitated.

#### **Government's position:**

Agreed.

#### **Comment:**

The Government supports this recommendation and acknowledges the importance of obtaining accurate and reliable data to evaluate the performance of the higher education sector and inform the development of research and research training policy. The increasing diversity across the university research system requires data collection and analysis to continue to be undertaken by a variety of sources, both within and external to the Government.

The National Innovation Summit Working Group on the Human Dimension considered the key issues associated with measuring innovation and R&D. The Working Group presented a range of recommendations concerning Human Dimensions, which were used to inform discussions within several breakout sessions at the Summit. In particular, the breakout session on "Measuring Innovation Performance" examined the need to measure innovation as an aid to improving our competitiveness. This session made a number of proposals in relation to this issue.

The Innovation Summit Implementation Group will consider the findings of the Summit.

### **RECOMMENDATION 12**

The Committee recommends that the Department of Education, Training and Youth Affairs, further to its study of infrastructure funding under the Research Evaluation Program, undertake an audit to determine the state and level of usage of higher education research infrastructure.

#### **Government's position:**

Agree in principle.

#### **Comment:**

The Government notes that the Australian Research Council is jointly funding together with the three South Australian universities an audit or listing of research infrastructure facilities in South Australian universities. Minimum asset dollar value being audited is \$20,000 or more. The final report is likely to be finalised in March 2000.

The Government notes that such a research infrastructure database could be extended nationally but recommends that the outcomes of the South Australian audit be identified first, before determining its applicability on a national scale. If the South Australian study is successful, the ARC could undertake a national audit along the same lines.

The Government also notes the high potential cost of such an audit on a national scale and need to obtain the broad support of the higher education sector before proceeding further.

Participants at the National Innovation Summit considered the issues raised within this recommendation at length. In particular, the Summit included break-out groups that considered "Strengthening Research and Research Infrastructure" and "Measuring Innovation Performance". These break-out groups made specific recommendations that relate to public funding of R&D and improving the measurement of innovation and R&D.

The Innovation Summit Implementation Group will consider the findings of the Summit.

### **RECOMMENDATION 13**

The Committee recommends that the Minister for Education, Training and Youth Affairs discuss with the Australian Vice Chancellors Committee the most appropriate methods of funding higher education research infrastructure.

#### **Government's position:**

Agreed.

#### **Comment:**

The Government has already undertaken extensive consultations with the Australian Vice-Chancellors Committee (AVCC), institutions, industry and other bodies on the mechanisms for funding research infrastructure. These consultations were undertaken on *New Knowledge, New Opportunities: A Discussion Paper on Higher Education Research and Research Training*. The consultations indicated strong support for the retention of the current arrangements for funding research infrastructure in higher education. This has been formalised in the Government's recent White Paper, *Knowledge and Innovation: A policy statement on research and research training*.

#### **RECOMMENDATION 14**

The Committee recommends that the government ensure that funding of higher education research infrastructure is discussed at the National Innovation Summit.

#### **Government's position:**

Agreed.

#### **Comment:**

The National Innovation Summit break-out session on 'Strengthening Research and Research Infrastructure' considered the issue of ensuring a level of research infrastructure (including higher education infrastructure) that encourages world class research. The range of proposals from this session, which included strategic priority-setting for investments in R&D, will be considered by the Innovation Summit Implementation Group over the coming months.

#### **RECOMMENDATION 15**

The Committee recommends that the government, in its review of business taxation (or as part of the National Innovation Summit deliberations) determine an appropriate policy response to the reduction in BERD from 1996-97 onwards.

#### **Government's position:**

Noted.

#### **Comment:**

The Government has a comprehensive policy framework in place to increase Australia's business expenditure on R&D. The Commonwealth Government's industry statement *Investing for Growth* sets out the Government's policy on innovation.

It should be noted that the concept of innovation is broader than simply R&D. The innovation system is complex and multifaceted and requires a broad range of policy responses.

Business expenditure on R&D is dependent on a range of factors only some of which the Government can control. An Australian Industry Group survey has revealed that 75% of companies cited the importance of factors such as trading conditions and profit pressures in influencing their decisions to change R&D expenditures.

The most recent BERD figures re those released by the Australian Bureau of statistics in June 1999 showing that business investment in R&D or as it is more commonly called Business Expenditure on R&D (BERD) declined 4% in 1997/98 over the previous year. The decline in BERD has not occurred because of a lack of Government support for BERD. On the contrary, this Government has increased its support for business innovation through a range of measures. Over the period 1996/97 to 1999-00, the Government has increased support for business innovation by 16% to \$664 million (at constant 1996/97 prices).

The Government's wide range of programs supporting innovation include:

- **125% R&D Tax Concession:** Enables companies to receive a tax deduction for eligible R&D expenditure. In 1997/98, 3278 companies claimed eligible R&D expenditure for projects totalling \$4.34 billion (latest figure). This represents a 4.6% increase over the previous year.
- **R&D Start program:** R&D Start will provide over \$700 million in grants and loans over the four year period to June 2002 to support R&D with high commercial potential. The IR&D Board approved \$190 million in Federal Government support under R&D Start for 1998/99. Together with companies' contributions, total R&D support was in excess of \$450 million. The 236 R&D Start projects involved 285 organisations, (238 companies and 47 research institutions).

- **Innovation Investment Fund (IIF) program:** Provides equity capital for small new technology firms on a 2:1 basis with private equity through licensed funds management companies. The Industry research and Development (IR&D) Board has called for applications under round 2 of the program, with applications closing on 31 March 2000. Combined with private sector capital, up to \$345 million will be available for investment under this program following the allocation of the round 2 funds.
- **Pooled Development Fund (PDF) program:** PDF has already made a major contribution to the venture capital industry with over \$327 million capital raised by 70 PDFs since 1992. These funds have invested \$196 million in over 185 small and medium enterprises.
- **Technology Diffusion program (TDP):** Approximately \$90 million has been allocated to the TDP over the four year period to June 2002 to facilitate access to leading edge technologies.
- **Commercialising Emerging Technologies (COMET) program:** COMET provides funding support of \$30 million in pre-seed support for around 500 Australian firms over the next 3 years. COMET was launched in November 1999.
- **Venture Awareness program:** The program commenced in February 2000 and the Government has committed \$1 million per annum over three years to assist Australian investment funds such as superannuation funds to better evaluate venture capital investments in Australia.

Other schemes that focus on R&D are:

- **Automotive Competitiveness and Investment Scheme (ACIS):** The total benefits payable under this scheme are \$2 billion over five years.
- **Shipbuilding Innovation Scheme (SIS):** SIS provides \$40.5 million over four years to boost shipbuilding research.
- **Textile Clothing and Footwear Strategic Investment Program (TCF SIP):** This scheme funds 45% of eligible R&D activities as part of a five year, \$700 million package.
- **Renewable Energy Equity Fund (REEF):** This program will provide a one-off sum of \$19.5 million of Commonwealth funds to be matched on a 2:1 basis with private-sector capital. It is modelled on the successful IIF program and is focused on the renewable energy sector.

In total the Government has delivered a real rise of 3.6% in overall funding for Commonwealth science agencies in this triennium. This includes real increases of:

- 1.4% for the CSIRO;
- 18.6% for ANSTO; and
- 2.9% for AIMS.

The Government notes also that its recent business tax reforms have created strong incentives for innovation, including R&D and innovation. The reduction of the corporate tax rate and reforms to the capital gains tax regime will provide higher rewards to investors and companies that take on risk and create wealth. In addition, the reduction in the corporate tax-rate will give companies higher after tax earnings to invest in R&D.

The environment for innovation in Australia is also being addressed through a number of other activities:

- IP Australia, in conjunction with the Attorney-General's Department, has established a committee to review Australia's intellectual property legislation. The review will determine whether the intellectual property system is meeting the needs of Australian business while maximising the benefits of domestic and global competition. A draft report will be released in April 2000.
- The Government, through *Invest Australia*, considers the provision of investment incentives to strategic investment projects, in limited and special circumstances, on the basis of a number of criteria, one of which involves providing a significant boost to Australia's R&D capability.
- *Biotechnology Australia* has developed a National Biotechnology Strategy to ensure Australia captures the benefits arising from the medical, agricultural and environmental applications of biotechnology. Issues examined include commercialising R&D, impediments to investment in biotechnology research, and management of biotechnology intellectual property.

The issue of the decline in Business Expenditure on R&D (BERD) was also the subject of discussion at the National Innovation Summit, particularly at the break-out group 'Innovation Incentives'. The group made a number of recommendations in relation to the tax treatment of R&D and the need for long term stability in incentives programs. As noted above, the recommendations of the break-out groups will be considered by the Innovation Summit Implementation Group over the coming months.

The Government recognises that there is no "quick-fix" for Australia's BERD performance. However, the Government is working closely with industry and the research community to increase our levels of expenditure on R&D.

#### **RECOMMENDATION 16**

The Committee recommends that the government maintain the current definition of activities eligible for the R&D tax concession.

#### **Government's position:**

Agree in principle.

#### **Comment:**

The Government understands and supports the need for stability in the legislative environment for the R&D Tax Concession. However there may be circumstances where revision to the definition of R&D activities may be necessary to ensure that the policy intent of the Concession in providing support to genuine R&D is maintained.

#### **RECOMMENDATION 17**

The Committee recommends that the government request that the forthcoming National Innovation Summit evaluate the effectiveness of the R&D Start program, and the appropriate balance between targeted assistance and the generally-available tax concession

#### **Government's position:**

Disagree with recommendation that the Summit evaluate effectiveness of the *R&D Start* program.

Agree with recommendation that the Summit examine the appropriate balance between targeted assistance and the generally-available tax concession.

**Comment:**

The National Innovation Summit was not the appropriate forum in which to conduct a specific evaluation of the *R&D Start* Program. The Department of Industry, Science and Resources has committed itself to conduct an evaluation of the *R&D Start* Program its Portfolio Budget Statement for 1999/2000.

The issue of the appropriate balance between targeted assistance and the generally available R&D Tax Concession was considered by the Innovation Incentives break-out group at the National Innovation Summit. The aim of the session was to increase the levels of innovation to create an internationally competitive economy, using a mix of broad-based and selectively targeted incentives for technology-based innovation. One of the major issues considered was the balance between entitlement-based (tax concession) schemes and competitive grants. The group generally made a number of recommendations in relation to government incentives.

The Innovation Summit Implementation Group will consider the recommendations of the break-out group.

**RECOMMENDATION 18**

The Committee recommends that the government request that the forthcoming National Innovation Summit evaluate (a) the extent to which the Innovation Investment Fund is developing a self-sustaining venture capital market, and (b) whether the Innovation Investment Fund is successfully targeting the projects and companies which should be supported.

**Government's position:**

Disagree.

**Comment:**

The Government considers that the National Innovation Summit was not the appropriate forum for an evaluation of the success of the Innovation Investment Fund Program. The Government has already committed to a timetable for evaluating the Innovation Investment Fund, which takes into account the long-term nature of the investments made under the program. A progress report on the IIF program will be conducted during the financial year 2001/02, with a full evaluation to be conducted in 2003/04.

That said, the issue of 'Raising finance for Innovation' was considered at the National Innovation Summit. This session did generally consider the impact of the Innovation Investment Fund. The breakout group noted that there was a lack of funds available for pre-seed, seed and start-up investment and recommended that the Government 'Expand and promote programs such as the Innovation Investment Fund (IIF) and Pooled Development Fund (PDF) programs...' to address this issue. This and other relevant recommendations made by the break-out group will be considered by the Innovation Summit Implementation Group as described above.

There is also some empirical evidence that the IIF program has already had a positive effect on the development of a self-sustaining venture capital industry. Many industry commentators have attributed the current record levels of early stage investment activity in the venture capital market to the IIF program. However, there is little evidence to suggest that the Australian venture capital market has reached a stage of maturity where it is "self-sustaining".



### **RECOMMENDATION 19**

Further to Recommendation 18, the Committee recommends that the government ensure that the evaluation canvasses whether additional measures are required to complement the Innovation Investment Fund.

#### **Government's position:**

Agree in principle.

#### **Comment:**

The Government acknowledges that development of the Australian venture capital market may require policy responses other than the Innovation Investment Fund Program. In recognition of this, the Government announced the introduction of the Commercialisation of Emerging Technologies (COMET) program on 17 November 1999. COMET is a new program that is helping small businesses and individuals to commercialise innovative products, processes and services here in Australia. It will get young, innovative businesses to the point of market-readiness by focussing on supporting the key factors that investors and venture partners look for when deciding whether to invest.

The Government has already made substantial reforms to the Pooled Development Fund (PDF) program to facilitate higher flows of venture capital finance and has recently introduced the Venture Awareness initiative to encourage Australian institutional investors to invest more in venture capital.

As mentioned previously, the Innovation Summit break-out group 'Raising finance for Innovation' addressed this issue broadly. The group noted that more pre-seed, seed and start-up funding is needed for the commercialisation of Australia's innovations and also suggested a number of measures that could assist with this. These suggestions ranged from alterations to taxation treatment to promotion of entrepreneurship. These issues are to be considered by the Innovation Summit Implementation Group.

### **RECOMMENDATION 20**

The Committee recommends that the Commonwealth Minister for Education, in co-operation with the tertiary institutions, science and technology organisations and bodies such as the Australian Institute of Management, develop innovation courses for use in management training.

#### **Government's position:**

Agree in principle.

#### **Comment:**

While recognising the importance of innovation in management training for the future of Australian industry and business, the development of such courses and curricula is the responsibility of universities, peak bodies and industry.

It should be noted that the Government has included innovation in management related to science-education as an area for funding in the recent Science Lectureships initiative. The initiative provides funding of \$25 million over three years to support innovative projects in science-related education, including the establishment of university lectureships and innovative course development.

The need to introduce innovation concepts and entrepreneurship generally into the Australian environment was identified as an important issue by a number of break-out groups at the National Innovation Summit. Consequently, this issue will be one of those considered by the Summit Implementation Group.