STI OUTLOOK 2002 – COUNTRY RESPONSE TO POLICY QUESTIONNAIRE

AUSTRALIA

1. General framework and trends in science, technology, and industry policy

1.Overview and assessment of policies for science, technology, and industry

Science and technology policy — innovation as key driver of economic growth

The Australian Government believes that innovation – developing skills, generating new ideas through research, and turning them into commercial success – is critical to Australia's future prosperity. Innovation is not only the province of new or high-tech industries, but also essential to the future of many of Australia's traditional sectors such as agriculture, manufacturing and mining.

In recognition of the important contribution of innovation to Australia's continued economic and industrial success, there have been a number of recent major policy initiatives:

- The funding of higher education research announced in the White Paper, *Knowledge and Innovation* (1999) ***(http://www.innovation.gov.au/iap/Background/index.html}***.
- Doubling the funding available for medical and health care research from the National Health and Medical Research Council (NHMRC) (2000).
- The Innovation Statement *Backing Australia's Ability*, introducing an additional AUD 2.9 billion over five years ***{http://www.innovation.gov.au/industry/summit/index.html}***.

The latter complemented the 1996 Investing for Growth initiative of AUD 1.9 billion **{Search at http://www.industry.gov.au/content/publications.cfm}**.

Backing Australia's Ability provides particular focus on maintaining a strong R&D capability and increasing commercialisation. Major initiatives to achieve this include:

- Doubling of the funds available to support basic research in universities under the Australian Research Council (ARC) competitive research grants scheme (AUD 736 million);
- Additional funding for project-specific research infrastructure in universities amounting to AUD 583 million.
- Establishment of World Class Centres of Excellence in Information and Communications Technology and Biotechnology, totalling AUD 176 million.

- Provision of funds for researchers to acquire the most up-to-date equipment and facilities through a Major National Research Facilities program at AUD 155 million.

- Establishment of a Pre-seed Fund (AUD 78.7 million), which addresses the "early stage finance gap", and will function as a redeemable loan to be used in examining the costs and benefits of working towards the production of a marketable product from a research idea.

- Extension of the Commercialising Emerging Technologies (COMET) program (AUD 40 million), which serves to provide small start-up firms with a package of support covering training in management skills, business planning, market research, IP strategy, working prototypes and proven technology.

- Doubling of the Biotechnology Innovation Fund to AUD 40 million, which provides "proof of concept" funding to support firms commercialise biotechnology R&D.

- Continuation of the well established R&D Start competitive grants program (AUD 535 million) which supports R&D projects in firms on a 1:1 investment basis.

- Enhancement of the 125% R&D Tax Concession to include a Tax Rebate for firms performing R&D, who are in loss; and a 175% Premium for firms increasing their R&D expenditure relative to their previous three year record.

- An Innovation Access Program (AUD 100 million) to encourage technology diffusion both within Australia, and from international technology sources.

- The New Industries Development program (AUD 21.7 million) that aims to enhance the growth of new manufacturing businesses in the agricultural sector.

- Expansion of the CRC program by AUD 227 million to fund additional CRCs, and to enhance opportunities for participation by SMEs.

- Reforming the intellectual property protection system to include a new "innovation patent", and implementation of a 12 month grace period to protect a patent application against invalidation by self-publication or prior public use.

While the focus of the above discussion is on incentives, it is important to recognise that the Government's primary activities have been in establishing the macro-economic conditions that permit the co-evolution of both favourable technology and market environments. The incentives are largely to ensure ease of access to the appropriate skills and finance in the process of commercialisation.

The *Backing Australia's Ability* initiatives were developed through an extensive process of discussion and review that focused around an Innovation Summit held in February 2001. ***{http://www.innovation.gov.au/industry/summit/index.html}***.

Though not explicitly developed in a National Innovation System framework, a systemic approach was implicit in the process of policy development through the Innovation Summit. The Government described the full range of its innovation policies and programs, covering all areas of the National Innovation System, in the Report *Backing Australia's Ability — Real Results, Real Jobs: the Government's Innovation Report 2001-2002* released in September 2001. ***{Search at http://www.industry.gov.au/content/publications.cfm}***.

Industry policy

The Australian Government's approach to industry policy is based on the view that free and efficient markets provide the best mechanism for allocating resources and achieving healthy sustainable growth. At the same time, the Government recognises that it has an important role to play in facilitating and supporting industries' efforts to adjust and position themselves in a rapidly changing global environment.

The Australian Government aims to provide an environment that both enables and encourages its industry to be competitive on the world stage. Its industry policy focuses on forward-looking economy-wide policies which are designed to strengthen the competitive advantage of industries in all sectors of the economy.

The Government's underlying approach to industry policy is outlined in Investing for Growth: The Howard Government's Plan for Australian Industry (1997). It is based on:

- The pursuit of sound macroeconomic conditions and microeconomic reforms.
- A suite of business programs framed around the three drivers of economic growth:
  - Innovation.
  - Investment.
  - Exports.

Australia's macroeconomic policy settings have created a stable environment in which industry can invest with certainty and confidence. Inflation and interest rates, currently at 2.5% and 4.25% respectively, are at historically low levels.

The Government's commitment to microeconomic reform is continuing to reduce business costs by making product and labour markets more competitive. Recent reforms in taxation and telecommunications have made Australia even more competitive and enhanced its reputation as an attractive place to invest. Examples of these reforms include:

- The privatisation of Australia's telecommunications industry, formerly dominated by a public monopoly provider.
- A reduction in the company tax rate to 30% as at 1 July 2001.
- An extension of the existing capital gains tax exemption afforded to non-resident pension funds which invest in eligible venture capital projects in Australia to include additional non-resident venture capital investors (and limited partnerships thereof).

This supportive framework has been complemented by a range of programs which focus on enhancing business performance by fostering innovation, developing export markets and encouraging investment. In addition, through Action Agendas, the Government is working with industry to identify and remove impediments to growth in specific areas.

Key indicators that support the Government's approach to industry policy include:

- Strong economic growth averaging just under 3.5% since 1990 and just under 4.7% since 1998.

- Unemployment being reduced to 6.6% in 2000, its lowest level in over a decade.

- Solid export growth, with export volume growth of 9% in 2000-01.

- Foreign Direct Investment growing over 7% annually since 1990.

- The ranking of Australia as one of the world's six fastest growing "new economies" and noting that in the past deAUDe only Australia and the United States have experienced both an acceleration of multifactor productivity growth rates, and increased labour utilisation and labour productivity.

Major changes in the legislative, administrative, organisational, institutional or budgetary framework

Details of new Ministerial arrangements were announced following the return of the Howard Government at the Federal election in November 2001. Responsibility for science, which previously fell within the Department of Industry, Science and Resources (now the Department of Industry, Tourism and Resources) has been transferred to the Department of Education, Science and Training (formerly the Department of Education, Training and Youth Affairs). This move was intended to reflect the strong linkages between these sectors, particularly in light of the commitment of resources provided in Backing Australia's Ability, and includes responsibility for the three science agencies — the Commonwealth Science and Industrial Research Organisation (CSIRO), the Australian Nuclear Science and Technology Organisation (ANSTO) and the Australian Institute of Marine Sciences (AIMS) — and the Co-operative Research Centres (CRCs) as well as retention of the Australian Research Council (ARC). Responsibility for business innovation is retained by the Department of Industry, Tourism and Resources. Small business has now been added to the Department's responsibilities and responsibility for biotechnology is retained — as is responsibility for the Industrial Research and Development Board (IR&D Board). Responsibility for the information and communications technology industry is retained by the Department of Communications, Information Technology and the Arts.

Major shifts or changes in the balance of the use of different types of policy instruments

There have been no major shifts or changes in the use of different types of policy instruments. However, in Backing Australia's Ability, the Government committed to provide an additional AUD 3 billion over five years to science, research and innovation funding.

Backing Australia's Ability *focuses on three key elements in the innovation process:*

- Strengthening Australia's ability to generate ideas and undertake research – to ensure the flow of new ideas which underpin innovation, to create critical mass in leading research fields, and to build competitive advantage in ICT and biotechnology.

- Accelerating the commercial application of these ideas – by enhancing Australia's capacity to build and manage innovative enterprises, encouraging spin-off opportunities from industry research collaboration, strengthening Australia's intellectual property management processes, and increasing access to global research and technologies.

- Developing and retaining Australian skills – by increasing university places in critical fields, supporting on-going skills development and enhanced science and technology literacy, providing increased access to on-line learning opportunities, and further boosting Australia's skills base through immigration.

1.2. Changes in the nature and process of policy evaluation

Investing for Growth, the blueprint for the Government's approach to industry policy, was published in response to its Review of Business Programs (Mortimer Review), Going for Growth – Business Programs for Investment, Innovation and Export. The Government endorsed many of the recommendations outlined in the Mortimer Review and Investing for Growth continues to provide the underlying rationale for the Government's industry policy today (as identified in Section 1.1 above).

Industry policy design and evaluation

Investing for Growth outlines seven design criteria for business programs:

- Programs must have clear objectives and measurable performance indicators that focus on end results.
- Programs should avoid duplication with other programs.
- Programs should be of a scale and duration that are consistent with the market impediment being addressed.
- Programs must have clear eligibility and entitlement criteria.
- Programs should have risk management strategies that match the size of the risk and potential for fraud.
- Program funds should be directed to specific activities rather than to providers of services (to the maximum extent possible).
- Where there is a clear private benefit, programs should adopt a cost recovery regime, with the return put back into the program (to the maximum extent possible).

Before a proposal for a business program (involving budget outlays) is adopted as the right response to an identified need for government intervention, other alternatives must be considered to ensure that the most effective course of action is selected. The preferred approach will combine cost effectiveness, efficiency and recognition of the limited role for government. In other words, if all other considerations are equal, policy makers should choose the course of action which minimises government intervention and imposes least cost on the community.

2. Public sector research and public research organisations

2.1. Policy changes related to public sector R&D

As indicated above, following the Federal Election (10 November 2001), responsibility for science policy and programs (including CSIRO, ANSTO, AIMS and the CRC Program) was transferred to the Department of Education, Science and Training.

2.2. Reforming the organisation and governance of universities and other public research organisations

Please see Australia's recent response to the Ad hoc Working Group on Steering and Funding of Research Institutions questionnaire for information on public sector research and public research organisations.

3. Government support for private-sector R&D and innovation

3.1. Enhancing the effectiveness of policy instruments to provide public support for private sector R&D and innovation

R&D Tax Concession

The R&D Tax Concession is the principal Australian Government initiative to enhance and increase the amount of R&D conducted in Australia. It is an entitlement-based program which is driven by the market.

The Federal Government's Innovation Statement, Backing Australia's Ability, saw an enhancement of the R&D Tax Concession:

- Maintenance of the 125% R&D Tax Concession that supports all eligible R&D expenditure undertaken by firms.
- The introduction of a 175% Premium (incremental) R&D Tax Concession for additional R&D performed by businesses in Australia. This provides a higher level of support for those companies that increase their level of R&D expenditure. It is targeted at labour-related activities.
  - The 175% Premium will be provided in addition to the 125% R&D Tax Concession rewarding increases in R&D effort.
  - It allows companies to deduct 175% of additional eligible expenditure incurred on eligible R&D activities.
  - To be eligible, companies must increase their R&D expenditure during the year above a base level determined by their average claim history over the previous three years.
  - To qualify for the Premium, companies require a three year history of registering for and claiming the 125% Tax Concession, or alternatively, of receiving grants for R&D projects

under the IR&D Board's R&D Start program (a competitive R&D grants program). To avoid potential abuse, mandatory grouping rules and related measures are in place.

- The introduction of a new R&D Tax Rebate (or Offset) for small companies that undertake R&D.
  - This measure is available to companies with an annual turnover of less than AUD 5 million and who spend less than AUD 1 million on R&D for the year (both these tests are also subject to grouping rules).
  - The rebate allows small companies, particularly tax loss companies, to obtain a tax rebate equivalent to the 125% Tax Concession, and, where eligible, the 175% Premium R&D Tax Concession, when their tax liabilities are assessed.
- The adoption of more equitable treatment of expenditure on R&D plant and other assets used for R&D, in particular, pro-rata concessional depreciation of plant/depreciating assets and effective life depreciation (replacing accelerated write-off).
- The introduction of a requirement that R&D activities be the subject of an R&D plan in advance of the activities commencing. This is intended to reinforce the need for companies to think strategically about their R&D as a critical and ongoing part of their business. The R&D plan requirements for small companies — those with less than 20 employees — have been simplified to ensure that small companies are able to prepare an R&D plan without experiencing undue hardship.
- Companies can begin claiming the rebate and the 175% Concession for expenditure incurred in the first income year commencing after 30 June 2001.
- The changes to R&D plant were effective from noon 29 January 2001.
- The requirement for R&D plans will be implemented from 1 July 2002.

R&D Start

The R&D Start program is a competitive based scheme to assist Australian industry to undertake R&D and its commercialisation, through a range of grants and loans. It is available to non-tax exempt Australian companies, and is focussed on small to medium sized enterprises.

Under Backing Australia's Ability, R&D Start is to continue until 2006, providing further funding of AUD 535 million in addition to the AUD 419 million already committed to the program over that period. The Program has been redesigned to simplify and streamline program delivery so that it is administered flexibly to meet the needs of innovative firms.

3.2. Changes in the balance and/or priority of public support of business R&D and innovation

3.3. Assessments of the relative effectiveness of different policy measures

Key outcomes for the 1999-2000 financial year for the R&D Tax Concession:

- 2 840 companies were registered for the 1999-2000 financial year, with reported expenditure of AUD 4.2 billion.
- 67% of companies registered have reported R&D expenditure of less than AUD 500 000.
- Using Australian Standard Research Classification codes, general engineering, information, computer and communication technologies, and applied sciences and technologies continue to dominate the respective top three areas of research conducted by users of the Tax Concession.
- Companies with a turnover between AUD 1 million and AUD 5 million represent the largest group of registrants.

An independent evaluation of the R&D Tax Concession, in late 2000, found that:

- Overall, the Tax Concession remains an important influence on R&D activity for a large number of firms.
- Over 80% of firms surveyed reported positive outcomes of the scheme in enabling the creation of a competitive edge in pursuing market opportunities.
- 56% of R&D investment led to a commercial outcome.
- The average inducement for increased R&D arising for firms using the Tax Concession was found to be 11.9%.

Some of the key outcomes for the 2000-01 financial year for R&D Start are:

- The IR&D Board provided almost AUD 231 million in funding assistance to 252 new projects, plus AUD 3.2 million in variations to existing projects. This is a significant increase over previous years.
- The majority of these were in Core Start grants – some 211 applications approved for almost AUD 202 million in assistance.
- Funding was provided to a range of sectors, with information, computer and communication technologies, general engineering, and applied sciences continuing to be offered the highest support in number and value. Approvals in the area of biological sciences saw a noticeable increase over last year's figures.

- More than 38% of projects approved went to companies with a turnover of less than AUD 1 million, with more than 70% going to companies with turnover of less than AUD 5 million.

An independent evaluation of R&D Start, in late 2000, found that:

- Over 83% of the firms (receiving R&D Start grants in the three years since 1997) reported new or improved products resulting from their projects.
- 60% – 80% of the firms found that involvement in the Start program had a significant impact on their ability to enter new product markets.
- Over 64% of firms were able to achieve additional sales as a direct or indirect result of their involvement in the Start program.
- The average increase in domestic sales was 32%, and exports 47%.
- Two-thirds of the R&D Start grant recipients had employed additional staff – an average increase of 22%.

4. Enhancing collaboration and networking among innovating organisations

4.1. Promoting collaboration and networking among innovating organisations

Please see Australia's recent response to the CSTP questionnaire on Public/Private Partnerships for Innovation for information on the Co-operative Research Centres program.

4.2. Strengthening industry-science relations

5. S&T human resources

5.1. Addressing real or perceived shortages of scientists and engineers

Shortages of scientists and engineers

2 000 additional targeted university places with a priority on programs in the areas of information and communications technology, mathematics and science have been established under *Backing Australia's Ability*. The new places are designed to address the unmet student demand for higher education place in these priority areas.

The initiative provides funding of AUD 151 million over five years at 2 000 new places each year, rising to nearly 5 500 as the students continue through the system, or 21 000 equivalent full-time student places over five years.

The Australian Government department with prime portfolio responsibility for monitoring skill shortages is the Department of Employment and Workplace Relations (DEWR). DEWR assess skill shortages by a

number of means including contact with employers, industry, employer and employee organisations, and education and training providers. The prime focus of DEWR's methodological approach to the assessment of skill shortages is surveying employers who recently advertised vacancies for selected skilled occupations.

In assessing skill shortages, this industry and employer intelligence is considered in conjunction with a range of statistical information on demand and supply trends for the selected occupations. The statistical information includes employer and vacancy trends.

Recently DEWR has increased the focus on specialisations in shortage as well as the generic skills and personal attributes of most concern to employers. These skills and attributes are identified in part through an analysis of advertised vacancies, but mainly from discussions with employers and industry organisations.

DEWR skill shortage assessment and monitoring has not identified widespread shortages in science and engineering, but rather only pockets of shortages for particular skills. Given such factors as the world economic environment, it seems unlikely that additional shortages in science and engineering will emerge in the short term. Recent skills monitoring and assessment, however, have confirmed that shortages in Information and Communications Technology (ICT) have eased considerably in recent months.

Electrical Engineers with specialist skills in manufacturing and mineral processing maintenance are in shortage in Western Australia. In Victoria there are shortages of Civil Engineers with supervisory/managerial experience in large-scale infrastructure projects, and Civil Engineers specialising in traffic engineering.

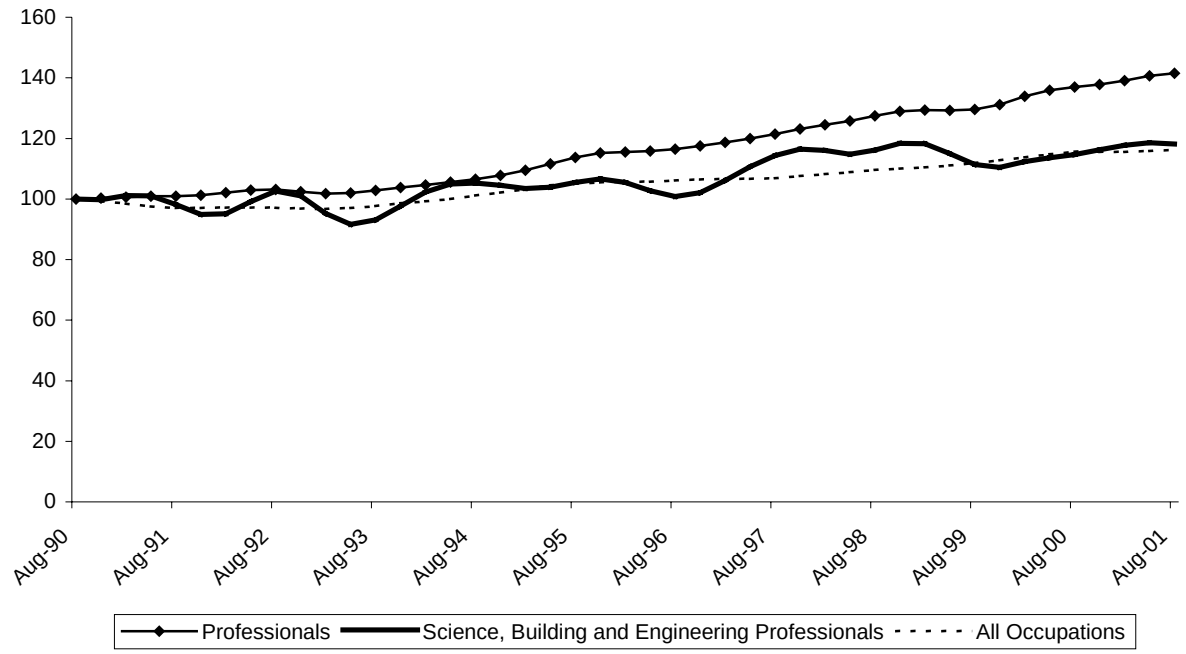
In this context, it is worth noting the report Demand and Supply of Primary and Secondary School Teachers in Australia (July 2001), published by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA), indicates that vacancies for science, mathematics and information technology secondary school teachers have been hard to fill in all States and Territories.

In addition to the skill shortages outlined above, there may from time to time be very small pockets of specific shortages, for example in relatively remote areas.

Employment trends

Overall employment growth for Science, Building and Engineering Professionals over the past deAUDe has grown at a slower rate than the average for all professional occupations. Nevertheless, Science, Building and Engineering Professionals have kept pace with the growth in total employment (see Figure 1).

Figure 1: Employment Trends for Science, Building and Engineering Professionals, All Professionals and Total Employment, August 1990 to August 2001
(Index: Aug 1990 = 100)



Source: DEWR trending of ABS *Labour Force Survey* data.

Within the occupational group Science, Building and Engineering Professionals, the rates of growth have varied appreciably between occupations. Medical Scientists and Life Scientists have experienced relatively strong employment growth over the past two years and deAUDe. Employment of Mechanical, Production and Plant Engineers declined slightly over the past deAUDe, but employment has picked up in the past two years (see Table 1).

Table 1: Employment Change for Science, Building and Engineering Professionals, to August 2001

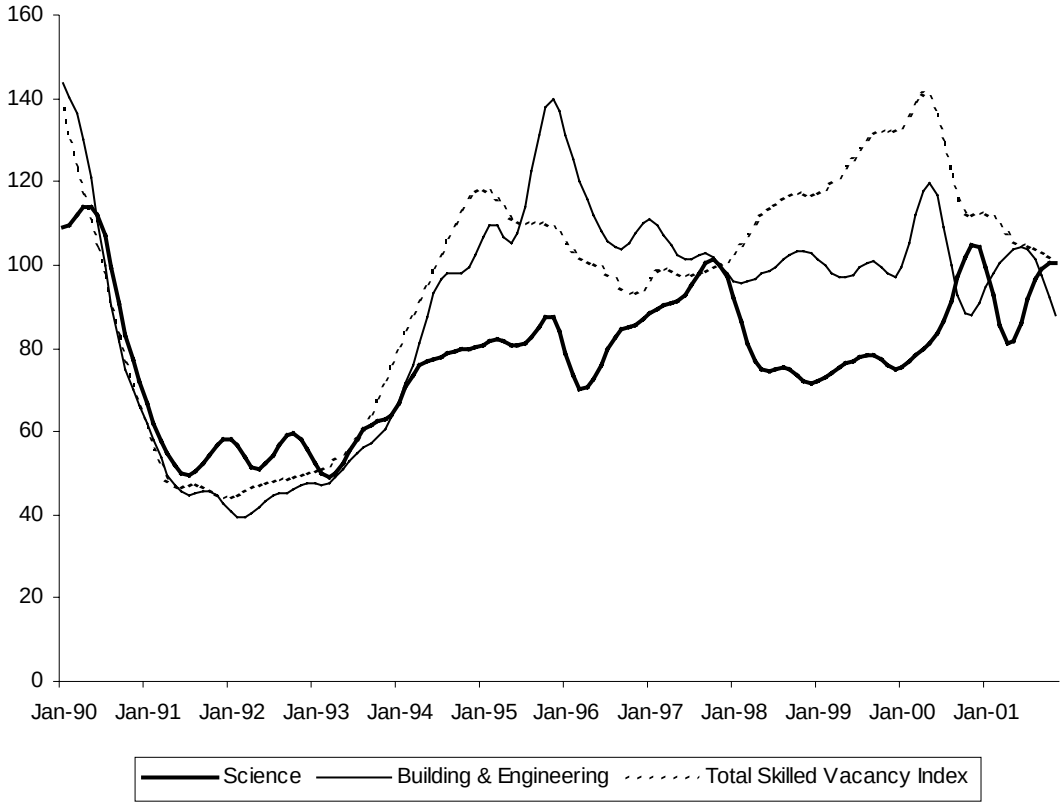
Occupation	Employed Aug-01	2 year change		5 year change		10 year change	
	(000's)	(000's)	%	(000's)	%	(000's)	%
PROFESSIONALS	1697.8	143.2	9.2	300.5	21.5	486.7	40.2
SCIENCE, BUILDING and ENGINEERING PROFESSIONALS	180.3	10.3	6.0	26.5	17.2	30.6	20.4
Chemists	7.2	0.6	8.6	0.5	7.9	-0.4	-5.7
Geologists and Geophysicists	6.4	-0.5	-7.2	1.0	18.3	1.0	18.0
Life Scientists	8.0	2.2	39.3	1.9	30.9	3.6	83.7
Environmental and Agricultural Science Professionals	17.0	-0.6	-3.2	3.0	21.7	6.5	61.7
Medical Scientists	18.7	4.5	31.9	5.5	41.4	10.3	124.1
Other Natural and Physical Science Professionals	5.0	0.9	21.6	0.1	1.8	0.3	6.3
Civil Engineers	28.1	0.8	2.9	4.7	20.0	5.6	24.8
Electrical and Electronics Engineers	24.9	-2.7	-9.7	4.0	19.0	0.8	3.5
Mechanical, Production and Plant Engineers	21.8	3.6	19.8	-0.3	-1.4	-1.9	-7.9
Mining and Materials Engineers	3.9	-1.9	-33.2	-0.4	-10.3	0.4	10.7
Engineering Technologists	0.1	-0.3	-70.2	-0.3	-67.4	-0.4	-75.7
Other Building and Engineering Professionals	11.7	0.1	1.0	1.4	13.7	0.4	3.3
ALL OCCUPATIONS	9171.4	338.2	3.8	793.0	9.5	1510.1	19.7

Source: DEWR trending of ABS *Labour Force Survey* data.

Vacancy trends

DEWR's Skilled Vacancies Index has recorded falls in advertised vacancies for Science Professionals, Building and Engineering Professionals, and for Skilled Occupations in general over the year to November 2001. Over the period, vacancies for Science Professionals declined by 4.2%, Building and Engineering decreased by 0.5%, and the total Skilled Vacancies Index fell by 9.4%. Vacancy trends are illustrated in Figure 2.

Figure 2: Vacancy Trends for Science Professionals and Building and Engineering Professionals, January 1990 to November 2001



Note: The Index is based on a count of skilled vacancies in the major metropolitan newspaper of each State and the Northern Territory, usually on the first Saturday of each month (the count is conducted on the second Saturday in January and when the first Saturday is part of a national long weekend). The data published are trend data (November 1997=100).
Source: DEWR Vacancy Index.

Employment of postgraduates

The most recently released results of the postgraduate destination surveys conducted in 2000 by the Graduate Careers Council of Australia indicate that a high proportion of those completing Masters research and PhD studies in science and engineering, and seeking full-time employment, gained full-time employment at the time of the survey (approximately four months after completion of their studies). For most science and engineering fields, more than 90% were in full-time employment at the time of the survey. For some fields, such as mining engineering and veterinary science, 100% were in full-time employment.

Accordingly, in general in engineering fields only a very small proportion of those surveyed were still seeking full-time employment at the time of the survey. The exception was aeronautical engineering, with more that half of those seeking full-time work being unable to find full-time work at the time of the survey.

Science fields tend to have a slightly higher proportion seeking full-time work than engineering fields. At the time of the survey, around one in ten of those available for full-time work were still seeking full-time

work in the life sciences, despite relatively strong employment growth in this field. A similar proportion were still seeking full-time work in physical sciences and geology.

5.2. Changes in training and education programmes for scientists and engineers

5.3. Policy responses to the international migration and mobility of S&T personnel

Migration has been a considerable source of engineers, scientists, aAUDemics and computer professionals for Australia over the last ten years or so. Between 1987 and 1999, Australia experienced a net gain of 55 000 in these professions from migration. The high volume of this 'brain gain' dispels concerns of any overall 'brain drain' from Australia, despite occasional skill shortages in some specialist fields. A commissioned from Monash University, entitled Skilled Labour: Gains and Losses shows that, for the years 1995-96 to 1999-2000 combined, there was a net gain of skilled workers in Australia in almost every occupation and that the annual net gain has been increasing over that period.

In the context of globalisation of the labour market, many Australians travel overseas to take up employment opportunities. Australia may benefit from the movement of Australian professionals including if these Australians return they will bring new skills and experiences which may contribute to the Australian skill base and the potential for economic growth, and the international linkages these Australians have established could become conduits for the flow of goods, services and information.

Labour shortages around the world means that traditional immigration countries, including Australia, are increasingly having to compete for skilled migrants with countries that, in the past, have not been significant players in the market.

The Skill Stream of Australia's Migration Program is specifically designed to target migrants who have skills that will contribute to the Australian economy. Such migrants help address specific skill shortages in Australia and enhance the size, skill level and productivity of the labour force. Most Skill Stream migrants are selected via a points test relating to skill, age, English language standards and skill shortages. We also take account of other attributes such as Australian qualifications, fluency in languages other than English and spouse's skills.

Skill Stream visas are also granted to people under a number of initiatives designed to encourage a more balanced geographical dispersal of the skilled intake and address skill shortages existing in specific regions of Australia. In 2001-02 Australia plans to grant permanent visas to 45 500 Skill Stream migrants (54% of the Migration Program). This is an increase of nearly 14% on the planned Skill Stream intake for 2000-01 (40 000 places).

Recent initiatives introduced in Australia to facilitate the recruitment of skilled workers:

- The introduction, on 1 July 1999, of a new points test for skilled migrants, favouring migrants with skills in demand, including Information Technology skills. This will enhance the economic impact of Skilled Migration.

- Related to the new points test is the introduction of the Migration Occupations in Demand List (MODL) to target migrants with skills in demand nationally.

- A special contingency reserve of 5 000 places in the Skill Stream was introduced for the 1999-2000 Migration Program. This contingency reserve was intended to come into operation only when the 35 000 migrant places available in this Stream had been taken up. However,

the use of this reserve has now been modified in the context of recent measures relating to Information and Communications Technology (ICT) workers (see below).

- For 2001-02, the Skill Stream contingency reserve has been expanded to 8 000 places to accommodate any increased demand from successful overseas students obtaining an Australian qualification in a skill that is in national shortage, particularly ICT skills.

- The Federal Government has also introduced policy changes to enable eligible overseas students who have studied in Australia to migrate permanently on the basis of their skills, without leaving Australia.

- In addition, the Federal Government has recently announced the introduction of a range of immigration measures aimed at attracting more highly qualified ICT workers to Australia.

- Amendments to the Employer Nomination Scheme and Business Skills categories have been introduced to increase Australia's competitiveness for these migrants.

- There is continued emphasis on encouraging State/Territory Governments to take advantage of migration categories designed to help migrants settle outside the major capital cities, particularly in rural and regional Australia.

These changes have enabled Australia to attract more young, English-speaking, skilled migrants who were trained to Australian standards.

New points test

The new points test that was introduced on 1 July 1999 has been a success in attracting young migrants with qualifications in high demand. The MODL, introduced as part of the new points test, has been very successful, with around 50% of all applications having MODL occupations. The major category attracted is Information Technology Professionals, who account for 25% of all skilled migrants entering under the new points test. Another important characteristic of the new points test is that 50% of applicants are former overseas students who have undertaken studies in Australia, and who have the advantage of qualifications easily recognised in Australia and prior experience of life and work in Australia.

Initiatives to attract ICT professionals

As mentioned previously, the Australian Government has recently introduced a package of measures aimed at attracting more highly skilled ICT workers to Australia and retaining Australian-educated overseas ICT students. The package of measures ensures that Australia can build on its competitive skilled migration system and retain its position in the crucial global ICT skills marketplace.

A key change in this regard, from 1 July 2001, is to allow overseas students with Australian qualifications in ICT to apply for and be granted their permanent residence visas without leaving Australia.

Other measures to attract ICT workers include:

- A legally based Ministerial Direction to all immigration decision makers to give immediate priority processing to ICT professionals applying under the Temporary Business (Long Stay) visa and the Skill Stream of the Migration Program.

- The Department of Immigration and Multicultural and Indigenous Affairs (DIMIA) will liaise with employers in the ICT industry to develop an industry-wide labour agreement for ICT professionals to enable them access to the streamlined processing and entry provided by these agreements.

- All ICT occupations will be recognised as "key" positions, removing the need for employers to test the labour market when looking to nominate an overseas worker for long-term temporary entry.

- ICT specialisations on the MODL will be reviewed in consultation with DEWR and the National Office for the Information Economy (NOIE) and with representatives from the ICT industry on a six monthly (rather than annual) basis to identify ICT specialist shortages.

- DIMIA has also been scrutinising the possibility of allowing electronic lodgement of Temporary Business (Long Stay) applications over the Internet. This will help to further speed up processing.

Initiatives to attract foreign students

As mentioned previously, recent reforms have introduced new onshore provisions to enable highly skilled overseas students to be processed for a permanent skilled visa without leaving Australia. This change is available to a range of applicants with occupations at certain points levels under the general points test. The recent changes do not change the eligibility requirements for migration to Australia of overseas students that have been in place since 1 July 1999. Rather, there is now a further concession that enables certain students to remain in Australia rather than apply from overseas.

Over the past few years, the export of education industry has grown rapidly. Student visa grants increased by some 23% in 2000-01 and universities have been by far the fastest growing sector of the industry. This growth has been, in part, due to actions the Federal Government has taken to streamline visa processing as well as policy changes linking the overseas student program to the skilled migration program.

The reforms to the student visa program have been devised with the long-term benefit to Australia's very valuable overseas education industry in mind. Protecting the reputation of the industry and expanding access to high risk markets in a sustainable manner while preserving the integrity of the student visa program have been paramount objectives. The changes are essential and were carefully planned on the basis of intensive consultations with industry and have been implemented to build on Australia's competitive advantage in the international education industry.

The transparency, objectivity and consistency offered by these changes will allow providers, their agents and key stakeholders to be confident of visa outcomes. This confers a significant benefit on those involved in developing marketing strategies, particularly in higher risk markets. It will enable them to target specific markets with a high degree of certainty as to outcomes.

Strengthening the system of processing student visas will ultimately result in more genuine students being attracted to study in Australia. While short-term structural adjustments are anticipated and inevitable, in the mid to long-term a student visa program which succeeds in facilitating the entry of genuine students will further enhance the quality and reputation of the industry, attracting more students and benefiting the reputable providers of education.

Temporary entry initiatives

The Australian Government also recognises the benefits to be gained through the temporary entry of skilled workers, including business people, to Australia.

Skilled long-term temporary entrants make a major contribution to Australia's international competitiveness, bringing with them new ideas, new skills, technology, understanding and contacts. They also help fill skills shortages. Australian business is increasingly turning to skilled temporary workers to supplement critical skill shortages in industries where local recruitment and training efforts are insufficient to meet demand.

Australia offers a streamlined system of entry for employers wanting to bring in skilled workers on a permanent or temporary basis. As a consequence of some key initiatives, temporary entry to Australia has continued to rise in importance. In 1999-2000, the contribution of net temporary migration to population growth has exceeded that of net permanent migration for the first time.

In recent times, growth industry sectors such as the ICT sector, health care and education industries have taken particular advantage of Australia's Temporary Business Entry provisions to help meet their recruitment needs. For example, Australia had a net gain of over 8 000 ICT professionals to Australia. During 1999-2000, 34 965 people (including dependants) were granted Long Stay Business Visas to fill shortages in Australian businesses. Approximately one quarter of primary applicants visaed were employed in the Information Technology industry.

Since October 1999, a number of major initiatives designed to assist business visitor entry have been implemented:

- *Broader use of Business Visitor Visas* – In October 1999, the Australian Government announced changes to the business visitor visa policy to allow overseas media representatives, sports people and visiting professionals to enter Australia on a short stay business visitor visa, rather than on "sponsored" visas as was previously the case.

- *Extension of the Short Validity Business Electronic Travel Authority (ETA)* – The Short Validity Business ETA was made available to all ETA-eligible countries on 1 February 2000. This new visa allows holders to enter Australia once and stay for three months after the date of arrival in Australia. The visa is valid for twelve months and is free of Australian Government charges.

- *Sponsored Business Visitors* – The sponsored business visitor visa class was introduced was introduced on 1 July 2000. This new visa program enables a small group of business visitor applicants who have difficulty establishing their bona fides overseas to provide overseas decision-makers with stronger evidence of their intention to depart Australia before their visas expire. The program requires a sponsorship by an Australian party, and an undertaking by the sponsor that the visitor will abide by the conditions of their visa and will return home before the visa expires.

In addition to these initiatives, Australia has an advantage in recruiting overseas workers in that, unlike many other countries, there is streamlined processing for both immigration and work permission. Spouses of temporary entrants are also allowed to work.

Employer Nomination Scheme (ENS)

The Australian Government has also introduced amendments to the ENS category to increase Australia's competitiveness for these migrants. The objective of Australia's ENS is to enable Australian employers to recruit skilled workers from overseas if unable to fill specific positions from the Australian labour market or through their own training efforts. It is a demand-driven program and employers may sponsor staff for permanent entry. To make this program more responsive to the needs of employers, labour market testing in the ENS category has been waived for positions identified in the MODL, which include skills in ICT, accounting and nursing. Further changes have been made to enable overseas students in Australia with these skills to apply for employer nominated migration without meeting the normal experience requirements.

State and Territory initiatives

The Australian Government has also developed a suite of initiatives aimed at enabling State and Territory governments to have a greater input into the selection of Skill Stream migrants and to encourage a more balanced dispersal of Australia's migrant intake. The most recent initiative, the Skill Matching visa, was introduced on 1 July 1999. It has specific features designed to complement major reforms to the Skill Stream selection arrangements that came into effect on 1 July 1999 and is designed to link skilled migrants with either specific skilled vacancies or skill shortages in specific areas of Australia.

The Skill Matching visa enables State and Territory governments and employers to nominate skilled people to migrate to Australia. The visa is not points-tested. Applicants who meet threshold criteria relating to age, skills and English language ability have their occupational and personal details placed on a skill matching database which is distributed electronically to state and territory governments and some regional development agencies. State/Territory governments and employers can nominate applicants from the database for migration.

6. International co-operation and globalisation

6.1. Promoting international co-operation in science, technology and innovation

To ensure access to the best overseas technology and science, the Government will provide AUD 100 million over the next five years for the Innovation Access Program. The new program enhances Australian firms' access to new technologies, and accelerates the use of e-commerce business solutions, especially for small and medium enterprises. It also showcases Australian science and technology overseas and develops international bilateral agreements that support strategic science and technology.

The Innovation Access Program (IAccP) commenced in July 2001 replacing the former Technology Diffusion Program (TDP). The IAccP builds on the lessons learnt from the TDP and will provide funds for a more flexible range of projects that will increase access to innovation.

IAccP uses consultations, strategic forums and workshops to identify and promote technology access with key countries and in priority sectors and technologies. These are complemented by competitively based funding support for a range of technology access and international science and technology activities and projects in the priority areas identified. Further information on the program is available from www.innovation.gov.au.

Support is available for a wide range of activities including:

- Strategic, leading edge, collaborative SET activities under Australia's S&T agreements and co-operations programs, to give researchers and business access to leading edge SET.

- Assistance for business organisations to increase access to new technology for Australian firms through activities such as:

  - bringing in global specialists to facilitate the practical transfer of world class technologies, skills and expertise to Australian firms;

  - undertaking overseas technology study missions by industry groups; and

  - other activities which accelerate the take up of world class technologies and expertise required to allow Australian firms to effectively compete in the new global sourcing environment.

- Strategic demonstration of Australian science, engineering and technology internationally, to increase awareness of Australia's capacity in leading edge skills and technologies.

6.2. Fostering international collaboration in research

6.3. Attracting foreign direct investment into local high-tech industries and R&D activities

7. Industry-related policies

7.1. Globalisation

Action Agendas

Action Agendas provide a whole-of-government approach to building a more competitive Australia. They represent a partnership between industry and Government, with both working together to identify impediments to growth, harness competitive advantage and maximise opportunities for development. The outcome of an Action Agenda is a series of agreed initiatives on the part of industry, the Federal Government and, where appropriate, State and Territory governments. These initiatives target the challenges and opportunities particular to that industry, and facilitate industry to better position itself to capture future growth opportunities. Through industry-wide planning and the implementation of strategic actions by industry and government, Action Agendas offer an opportunity to create long-term, sustainable competitive advantages.

There are currently 27 Action Agendas at various stages of development and implementation. Significant outcomes delivered through Action Agendas include: commitments and actions to improve the efficiency and effectiveness of supply chains; improved export performance through the better integration of industry and Government objectives and activities; and better promotion and targeting of education and training initiatives.

Programs to improve inter-firm co-operation

Since the mid-1990s, there has been a continuing effort at the national and state and territory levels of government in Australia to realise the potential of inter-firm co-operation by establishing programs to foster the formation of business networks and encouraging firms to improve the management of their supply and value chains as a way of enhancing competitiveness on international and domestic markets.

At the national level, three programs are significant. These are:

- The Business Networks Program (1995-98) which showed how business networks can assist small to medium enterprises (SMEs) to undertake strategic business activities and achieve outcomes that might otherwise be beyond their reach.

- The Supply Chain Partnerships Program (1996-99) which assisted businesses to become more competitive and innovative by encouraging the development of effective supply chain relationships between customer companies and their suppliers.

- The Value Chain Management Program, a three-year program that commenced on 1 July 1999 with funding of AUD 3.2 million, and is part of the Federal Government's commitment to build durable partnerships between industry and government with the aim of capturing emerging opportunities and overcoming barriers to growth.

By April 2002, the 22 demonstration projects completed through the Program will cover the following sectors:

- Printing and publishing.
- Textiles, clothing, footwear and leather.
- Automotive components.
- Electronics.
- Light metal alloys.
- General manufacturing.
- Secure transmission of commercial information over the Internet.
- Tourism.
- Air traffic control – aircraft noise minimisation.
- Services to mining.
- Delivery of aged care services.

The Federal Government has provided up to AUD 100 000 in grant funding for each demonstration project. Small to medium enterprises, particularly those with an entrepreneurial, innovative culture, have made a significant contribution to the Value Chain Management Program.

7.2. Manufacturing

Automotive

Automotive Competitiveness and Investment Scheme

The Automotive Competitiveness and Investment Scheme (ACIS) commenced on 1 January 2001 and is scheduled to conclude on 31 December 2005. The scheme is directed towards encouraging production, investment and innovation in the Australian automotive industry and to increasing its global competitiveness in the context of trade liberalisation. Eligible participants include vehicle producers, component producers, automotive machine tool and tooling producers, and automotive service providers.

ACIS will provide more than AUD 2 billion in structural adjustment assistance, making it one of the largest industry development schemes to be provided by the Federal Government. Tariffs on passenger motor vehicles, currently at 15%, are legislated to step down to 10% on 1 January 2005.

Textiles, Clothing and Footwear

Textiles, Clothing and Footwear (TCF) Post 2000 Assistance Package

The Textiles, Clothing and Footwear (TCF) Post 2000 Assistance Package comprises seven elements, all of which aim to increase the international competitiveness of Australia's TCF industry be encouraging increased investment in new plant and equipment and innovation and supporting restructuring activities in TCF-dependent communities located in regional Australia.

The seven elements of the Package are:

- Tariff pause – a pause in the reduction of tariffs applicable to TCF goods as they were at 30 June 2000, until 1 January 2005.

- The TCF (SIP) Scheme – a AUD 678 million scheme, which provides support directly to TCF entities by way of five different grants.

- The Expanded Overseas Assembly Provisions – a AUD 40 million revenue forgone scheme, which is designed to allow the importation of clothing and footwear assembled overseas from Australian fabric and leather without the payment of duty on the re-imported Australian components.

- A National Framework for Excellence in TCF Education and Training – a AUD 10 million grant program that commenced on 27 March 2001 which aims to develop a collaborative national TCF education and training infrastructure.

- The Technology Development Fund (TDF) – a AUD 10 million grant program that commenced on 27 March 2001 which aims to encourage the development of new technologies designed to enhance business competitiveness in Australia's TCF industry.

- The TCF Market Development Program (MDP) – a AUD 12.5 million grant program that commenced in March 2001 which aims to develop and implement strategies to increase the competitive capabilities of Australia's TCF industry in the global market.

- The TCF Action Agenda – a partnership established between government and industry to analyse industry strengths and weaknesses and provide the basis for future planning by all stakeholders in the industry. The Action Agenda resulted in the creation of an industry forum which is currently undertaking projects in value chain management, industry leadership and is developing a strategic plan for industry. The forum has received AUD 1 million to assist its activities.

Shipbuilding

Shipbuilding Innovation Scheme

The Shipbuilding Innovation Scheme (SIS) provides assistance to shipbuilders registered under the Bounty (Ships) Act 1989 for eligible R&D expenditure incurred related to the construction or modification of a bountiable vessel.

SIS aims to encourage a strengthened focus on product R&D and design innovation in the Australian shipbuilding industry. It provides assistance of up to 50% of eligible R&D expenditure incurred up to a total of 2% of the eligible costs incurred in the construction or modification of bountiable vessels. The eligible R&D activities must be carried on during the period commencing 1 July 1999 and ending 30 June 2004. SIS is not payable where another form of Federal assistance has been paid for the same activities.

7.3. Services

Services

The Services and Emerging Industries Division of the Department of Industry, Tourism and Resources undertakes research and develops public policy for service industries, with a focus on knowledge-intensive business services.

The business services sector has been identified as a priority in a number of recent reports commissioned by the Department, including the Australian Services Sector Review and in Creating Value by Transforming Knowledge.

- Business services has been identified as one of the most dynamic and fastest growing sectors in the Australian economy.

- It is a key enabler for growth and productivity across a range of industries.

The importance of business services to industrial competitiveness and economic growth was also considered in a joint OECD/Australia Workshop on Innovation and Productivity in Services, hosted by the Department in November 2000.

- The Workshop identified the importance for governments in ensuring that service industries are more comprehensively included in policy development.

- Findings of the Workshop were published in August 2001 in the OECD report Innovation and Productivity in Services.

The High Opportunity Study of World Wide Work – Globally Distributed Expert Business Services explores the potential for Australia to export business services to customers located in time zones opposite to Australia's working day.

The Department of Industry, Tourism and Resources is building a business services work program around the recommendations and policy implications of these reports.

Biotechnology

Two major biotechnology initiatives designed to promote innovation and productivity in Australia are the Biotechnology Centres of Excellence program and the Biotechnology Innovation Fund (BIF). These initiatives were outlined in the Federal Government's Innovation Statement, Backing Australia's Ability, and complement the Government's strong ongoing support for biotechnology. The Australian Biotechnology Report 2001 estimates that the Federal Government spent AUD 307 million or 9.3% of the total Federal research and development budget on biotechnology research and development in 2000-01.

Biotechnology Centres of Excellence Program

Backing Australia's Ability allocated AUD 46.5 million over five years to establish one or more biotechnology centres of excellence. The Centres of Excellence program is designed to help establish Australia as a regional and world centre for biotechnology innovation and application. Key objectives of the program are the development and application of critical technologies for biotechnology commercialisation, and the facilitation of major collaborative projects.

The Centres of Excellence program aims to:

- Provide the necessary critical mass of multi-disciplinary skills to attract investment by research institutes, multinational firms and Australian companies.

- Help retain, attract and develop expertise and skills in biotechnology. The program will complement the existing Co-operative Research Centres (CRC) and Australian Research Council (ARC) Special Research Centre Programs.

Biotechnology Innovation Fund

The AUD 40 million Biotechnology Innovation Fund (BIF) is a new, competitive, Federal Government grants program which aims to increase the rate of commercialisation of Australian biotechnology research. It provides funds to eligible Australian companies to reduce the cost of proving the commercial viability of new biotechnology discoveries.

Commencing in May 2002, the program is a three year, nation-wide, merit-based, competitive grants program which operates as a part of Australia's National Biotechnology Strategy. Individual grants are limited to a maximum AUD 250 000 and are provisional on 50% of the funds coming from within the company or another financial source such as State and Territory governments and/or private investors.

Information and Communications Technology

ICT Centres of Excellence Program

The establishment of a world-class ICT Centre of Excellence is aimed at strengthening Australia's ability to generate breakthrough technologies that will spur our local industries, generating jobs and wealth. Backing Australia's Ability will provide an additional AUD 129.5 million over five years while industry contributions are expected to build over time to around 25%, bringing the total investment in the Centre to more than AUD 160 million over five years.

The Centre will focus on the commercialisation of new technologies, both ICT innovation itself and high-level ICT adaptation, to ensure economic and social return on Australia's ICT talent. It will engage in multi-disciplinary ICT research aimed at producing fundamental advances in information and communications technology as well as ICT projects of commercial relevance to industry. The Centre will also provide a significant facility for post-graduate research training.

Tourism

Best Practice Standards

The Australian Government is financially supporting the tourism industry desire to continually improve quality through industry based accreditation schemes. Such schemes can assist the various elements of the tourism industry to identify causes and indicators of business and customer benefit, and develop systems of benchmarking companies against industry norms.

Inbound Tourism Operators

The Australian Government is working closely with industry, state governments and other stakeholders to continually improve inbound tourism quality in Australia. In particular, the Government is contributing to the development and funding of an Industry Code of Conduct (to set minimum standards for operators) and to improve consumer awareness of the push for quality within Australia, and to provide recourse for any visitors unhappy with their experience.

North Asia Initiatives

The Australian Government has undertaken research to identify the main factors impacting on changes in the growth rates of key markets – particularly in the North Asia region. The Government has also undertaken research on key competitiveness indicators relevant to the sustainable growth of Australia's international tourism sector. It will be working closely with State governments and industry to implement strategies to address any impediments to growth and to capitalise on the strengths of Australia's tourism sector.

Statistical Measurement Improvements - Australian Tourism Satellite Account (ATSA)

With the development of a methodology for a tourism satellite account, both in Australia and internationally, Australia produced its first Tourism Satellite Account in October 2000. The Account related to the year 1997-98. As the ATSA is a part of the official National Accounts, the results have enjoyed an acceptance as official and credible measures of tourism's contribution to the economy.

Annual estimates of the major variables of the account will be produced, using the ATSA results as a benchmark. It is expected that a full ATSA will be produced at three-yearly intervals. The first Australian

Tourism Satellite Account, released in October 2000, enables comparability of tourism's economic performance with that of other sectors of the economy, for the first time.

Tourism Dotcom

The National Online Tourism Strategy, Tourism Dotcom, recognises that the uptake of online technologies such as the Internet and e-commerce will have a major impact on the competitiveness of the tourism sector. Currently, 13 Federal Government Departments and Agencies are involved in the implementation of the Strategy deliverables, including the Australian National Training Authority (ANTA) and Co-operative Research Centre for Sustainable Tourism.

Australian Tourism Data Warehouse

The Australian Tourism Data Warehouse (ATDW) is a co-operative effort between the Commonwealth Government (through the Australian Tourist Commission) and the State and Territory Tourism Commissions to facilitate web storage of Australian destination and product information.

Space

International Space Advisory Group

In 2001, the Australian Government convened the International Space Advisory Group (ISAG) to identify opportunities for Australian involvement in the International Space Station and other international space programs, and to assess the potential scientific and commercial benefits in pursuing such opportunities. The Group comprises leaders from Australia's space-related industry and research sectors and government representatives.

The Group is preparing a report for Government consideration in early 2002, detailing strategies to enhance international collaboration and build on the skills and capabilities of our domestic industry.

7.4. Intangible Investment

Commercialising Emerging Technologies (COMET) program

Backing Australia's Ability has committed a further AUD 40 million to the COMET program, which was initially announced in November 1999. COMET provides financial assistance for services, namely the Tailored Assistance for Commercialisation (TAC) scheme and the Management Skill Development (MSD) scheme. MSD offers up to 50% support for successful applicants to participate in existing management development programs offered by the private sector or tertiary institutions, up to a maximum of AUD 5 000. COMET also provides mentoring services by business advisers experienced in the commercialisation of emerging technologies to assist clients in achieving their commercial objectives.

Small Business Enterprise Culture Program (SBECP)

SBECP was announced in 1999 with funding of AUD 6.4 million over three years. The program provides additional funding for skills development initiatives, mentoring services and to support women in small business. SBECP aims to develop and enhance the business skills of small business owner-managers and demonstrate the contribution that such skills can make to business viability and growth by supporting initiatives designed to enhance small businesses' access to skills development, mentoring and information services.

Intellectual Capital

The Business Competitiveness Division in the Department of Industry, Tourism and Resources has undertaken work in the area of intellectual capital through a published paper titled Invisible Value: The Case for Measuring and Reporting Intellectual Capital, available on the ITR website. The Division does not have any programs or initiatives which specifically encourage firms to invest in managerial or employee training.

Training

The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) – National Careers Task Force has the responsibility to manage and monitor the National Career Information System (NCIS). The NCIS is an online occupational and career information system providing a single comprehensive and effective Internet-based career exploration service. In 2000, **education.au limited**, a private company owned by the Australian Ministers of Education and Training, was contracted to build the new system. Development of NCIS began in January 2001 and completion is scheduled for May 2002.

Enterprise and Career Education Foundation (ECEF) enables school-industry partnerships, bringing enterprise and career knowledge into the school bringing a greater diversity of learning experiences. A key role for ECEF is the promotion of structured workplace learning for Year 11 and 12 students. In 2001, around 90 000 students will have been provided with new education and career opportunities through ECEF-funded programs.

The National Industry Skills Initiative (NISI) is an industry-led process designed to establish the steps that industry, government and the partnership of the two could take to redress industry skills shortages. This was in response to the high level of concern from industry about skill shortages.

New Apprenticeships describes the "new" national apprenticeship and traineeship arrangements which came into effect in 1998. The main characteristics include a contract of training between employer and apprentice or trainee, public funding and support for employers, choice of training provider, and a wider range of occupations and industries than the previous competency-based training. The system also uses national training packages, apprenticeships in schools, and a continued role for group training companies.

7.5. Corporate Responsibility

Energy Efficiency Best Practice (EEBP)

The Australian Government's Energy Efficiency Best Practice (EEBP) program is helping industry sectors stretch beyond convention and redefine best practice in energy management.

Through a unique and proven focus on innovation, training and benchmarking, EEBP is making a difference and working with a growing list of industry sectors. It is also producing a range of practical tools and publications that are useful across all sectors interested in improving energy performance.

EEBP is a key component of the Australian Government's package of measures to address climate change, announced in November 1997. The program was allocated AUD 10.3 million over five years to support development and implementation. EEBP aims to stimulate energy-efficient good practice in industry, leading over time to best practice. It works in co-operation with other government organisations to optimise the benefits of the range of greenhouse gas reduction, competitiveness and innovation programs.

AUSTRALIAN WEBSITES

Department of Education, Science and Training
www.dest.gov.au

Department of Industry, Tourism and Resources
www.industry.gov.au

Department of Communications, Information Technology and the Arts
www.dcita.gov.au

Department of Health and Ageing
www.health.gov.au

Department of Employment and Workplace Relations
www.dewr.gov.au

Department of Immigration and Multicultural and Indigenous Affairs
www.immi.gov.au

Australian Research Council
www.arc.gov.au

National Health and Medical Research Council
www.nhmrc.gov.au

Chief Scientist
www.industry.gov.au/science/cs/cs.html

Prime Minister's Science, Engineering and Innovation Council
www.industry.gov.au/science/pmseic/pmseic.html

IP Australia and Advisory Council on Intellectual Property
www.ipaustralia.gov.au

Office of the Gene Technology Regulator
www.health.gov.au/ogtr/index.htm

Backing Australia's Ability: An Innovation Action Plan for the Future
www.innovation.gov.au/iap/index.html

Knowledge and Innovation: A Policy Paper on Research and Research Training
www.dest.gov.au/archive/highered/whitepaper/default.asp

Investing for Growth
www.industry.gov.au/growth

Science Portal
www.scienceandindustry.gov.au/science/index.cfm

Industry Portal
www.scienceandindustry.gov.au/industry/index.cfm