



ACCI POLICY STATEMENT

INNOVATION POLICY

PRINCIPLES OF INNOVATION POLICY

It is widely accepted that innovation is the key to success for the modern economy. The OECD has estimated that innovation accounts for 50 per cent of long term economic growth in advanced industrial countries. Innovation has become critical to business around the world and is the basis for competition. It is the major determinant of enhanced productivity and competitive advantage at both the firm and nation level.

Innovation can be defined as applying new ideas to products, processes, services, organisation, management or marketing. But newness by itself is invention - it only becomes innovation when it yields market value.

Innovation policy first emerged as a concept towards the end of the 1970s. Early models tended to stress innovation as a simple linear sequential process with research and development (R&D) playing either an initiating (technology push) role, or a reactive (market pull) role. More recent analysis has stressed that innovation involves much more than R&D – such as the integration between R&D, manufacturing and marketing inputs, the importance of strong linkages with suppliers and leading edge customers and the use of collaborative research and marketing arrangements.

Successful innovation requires:

- a good working interaction between the science base and the business sector;
- competitive markets to force firms to innovate more rapidly;
- networking and collaboration between firms;
- an education system that underpins an innovation culture and promotes linkages between the research and industry sectors; and
- a strong and reliable system for the protection of intellectual property rights.

ACCI believes a robust innovation policy should exist in the context of a coherent and integrated industry policy, which is part of the broader economic policy framework.

Innovation policy should have three key foci – to create a broad policy environment which fosters and facilitates beneficial economic change, to encourage the development of human capital and the generation of new ideas and to facilitate the embodiment of new ideas in products, services and processes.

The key elements of an innovation policy are:

- integrated into economic and industry policy;
- implemented as part of a whole of government approach – across Commonwealth and State jurisdictions;
- recognition of special needs of small and medium enterprises;

- public funding of R&D in universities and research institutions, which recognises both the importance of industry-focused applied research and the need for general ‘pure’ research;
- emphasising cooperative approaches;
- development of human capital through education and training; and
- increased ‘user’ input into evaluation processes of government programs.

Measuring and Benchmarking Innovation

Government assistance should be defined by innovation activity not by business characteristic or market. Innovation assistance should be open to all business irrespective of size, sector, location, export focus etc.

Backing Australia’s Ability

The Government has extended its commitment to *Backing Australia’s Ability* (BAA). Originally introduced in mid 2001, the program represents the core of Australia’s national innovation strategy.

ACCI believes that there is sufficient funding overall through BAA and that the goals established under the strategy remain relevant. However, ACCI is seeking an increased focus on commercialisation amongst the suite of programs. Whilst Australia appears relatively successful at developing new and innovative products we have been less successful at getting these products to market. Furthermore, ACCI is also seeking improvements to the CRC program to ensure that it continues foster collaborative research activities between industry and research agencies.

POLICY OBJECTIVES

The overall objective of innovation policy should be to improve Australians’ quality of life and standards of living. These benefits flow from improvements in the range, quality and cost of existing goods and services and from the development of new products and services. This requires a policy framework that:

- ensures Australian businesses are not impeded in their search for innovation which improves competitiveness, quality and service;
- provides appropriate government support for research and networking activities that yield benefits to the community but which businesses might not be willing or able to undertake;
- a proper system of legal protection for intellectual property rights; and
- removing barriers to the international and national flow of ideas, technology and people, except such restrictions as are deemed to yield a net benefit to the Australian community.

Innovation policy should focus primarily on creating an environment in which new ideas are generated and translated into new products, services and processes by the private sector. However, there are things which the private sector alone will not supply or will not supply optimally. There remains a key role for government in continuing to supply, or at least ensure the supply of, genuine public goods (where a public good is defined as a good that will be under supplied by the private sector as you cannot exclude others from enjoying that good).

Even if Australians prove hugely successful as innovators in future, it will remain the case that the vast majority of the world’s new ideas and products will be developed elsewhere. Ensuring that Australians have access to the benefits of those innovations will be even more important for our future welfare than the ideas and products we develop ourselves.

The flow of these ideas and products to Australia takes several forms:

- through the international exchange of pure research results, knowledge and ideas – a process which is vastly enhanced by new means of communication such as the Internet;
- through the free exchange of goods and services which embody innovation;
- through technology transfer embodied in new investment and new production processes; and
- through the international movement of skilled and experienced personnel.

There is little governments can do to enhance the international exchange of ideas. Fortunately, there is also little which democratic governments can do to stop it. In this regard, their key role is ensuring a competitive and up-to-date telecommunications infrastructure and industry.

Free exchange of goods and services is much more a policy issue and one on which Australian governments have a mixed record. Australia should minimise its own barriers to trade and be an active advocate of trade promotion through agencies such as the World Trade Organisation. In addition to the long established benefits of free trade based on comparative advantage, new growth theories suggest two other benefits – larger markets provide greater incentives to innovate and importing other peoples' products and services gives us access to the ideas and innovations those products embody. This is even more the case for overseas investment, which allows Australia to use and imitate technologies and processes developed overseas.

There is a downside to the pursuit of innovation. It implies that economic improvement is achieved largely by economic change, through new businesses displacing those which are established, new skills and technologies replacing those with which we are familiar and old industries withering as new ones find better ways to use scarce resources. This is a more disruptive and unsettling model of the world than one which sees economic growth as primarily doing more and more of what we already do, albeit with ever diminishing returns.

In this context, perhaps the most important policy role for government is to facilitate change at the broadest level. While it is clear that a public innovation policy can assist firms, governments can ultimately act only in an indirect way, as it is firms not governments that deliver innovative products, processes and services. But governments can do things to help provide the right conditions:

Create a Climate Conducive to Innovation

Governments should operate macro-economic and micro-economic policies conducive to trade and investment including:

- sound monetary policy;
- maintenance of a structural budget surplus;
- a taxation system which does not discourage trade or investment, particularly venture capital;
- the removal of tariff and non-tariff barriers to trade;
- promote international competition and technological development;
- encourage cooperation and communication since innovation will only flourish within a highly interactive system; and
- remove legislation or regulations that constitute a barrier to innovation.

Foster a Corporate Innovation Culture

The capacity to innovate by firms requires four essential qualities:

- imagination concerning new products, services or processes;
- the capacity to make maximum use of the external environment and to take on board new knowledge and skills;
- the ability to manage a project successfully through to market; and
- a culture that encourages risk taking.

Changing business culture and attitudes is primarily the responsibility of management. Governments can help by ensuring that their own education and training programs and wider activities promote a risk-taking learning culture.

Integration of Required Resources

Government should foster the development of human capital and of new ideas and their application in products, processes and procedures through:

- providing direct support for pure research and the institutions which conduct it;
- fostering an environment for applied research which is driven mainly by commercial rather than academic or bureaucratic priorities;
- facilitating cooperative pre-competitive research between industry participants and exploring other self-financing institutional arrangements for promoting research;
- promoting 'a critical mass of research and innovation' in both universities and research bodies such as CSIRO to support niche technologies;
- support for R&D; and
- providing a balanced framework for intellectual property rights, such as copyrights and patents, which is consistent with the costs and benefits of intellectual property protection and provides incentives for businesses to invest in research.

Successful innovation requires the integration of finance, technology, education and market information. Governments can assist by promoting interaction and transfer of information within the innovation system through:

- encouraging the development of networks and clusters, particularly cross sectoral networks like the Cooperative Research Centres program and Centres of Excellence;
- encouraging diverse and competitive financial markets;
- promoting demonstration centres;
- creating an education system encouraging science and engineering graduates; and
- providing intellectual property systems.

By creating the right environment, specific policy outcomes to enhance Australian innovation could include:

- correcting market failures and nurturing the innovation system;
- increasing the attractiveness of R&D investment as a home for venture capital from the financial community;
- ensuring public sector spending in research institutions and universities on R&D is relevant to industry through improved and increased linkages and supporting policy initiatives to increase linkages; and
- greater use and awareness of indicators, benchmarking and monitoring processes.

THE POLICY FRAMEWORK

The importance of innovation as a key driver of economic growth and the role of government in creating an environment in which innovation is fostered are increasingly being recognised by economic theories.

As the Industry Commission in its 1995 report, *Research and Development*, rightly concluded there is an economic justification for a government role in funding R&D as there is public benefit with externalities for the economy and spin off benefits as a result of the R&D.

The Australian Government has recognised the role of government to encourage and support innovation through its Innovation Action Plan - *Backing Australia's Ability* - released in January 2001.

Backing Australia's Ability provides an additional \$3.0 billion over five years to stimulate innovation. The program was extended in 2004 with the provision of a further \$5.3 billion package in funding for science and innovation.

ACCI believes that an appropriate level of public funding on R&D already exists in Australia. Australia's level of government-financed expenditure on R&D is high by international standards. According to the Australian Innovation Scorecard 2004 (a biennial series measuring innovation), in 2004 it was 0.78 per cent of GDP, or around 20 per cent above the OECD average. German public expenditure on R&D ranked at the same level.

Where Australia fares less well is on international comparison of Business Expenditure on R&D.

The Australian Innovation Scorecard 2004 shows that Business Expenditure on R&D increased to 0.79 per cent of GDP in 2004, up slightly from 0.72 per cent in 2002. However, it remains well below the 0.87 per cent of GDP achieved in 1995-96.

Against this framework, the following issues need to be addressed either by government and/or business:

- a national vision of the nature and importance of innovation;
- further development of private/public sector cooperation to sustain competitive R&D across all sectors of the innovation system and to foster commercialisation of public sector R&D outputs including a greater focus of higher education research on industry needs and priorities;
- sufficient funding, with minimal bureaucratic impost, for the Commercial Ready Program to satisfy the R&D and venture capital needs of business, especially SMEs, including at the development phase of near commercial projects;
- supply of skilled manpower and appropriate signals to the education and training system;
- support for the Prime Minister's Science Engineering and Innovation Council and its committees; and

- support for monitoring and evaluation of performance, eg maximising the extent to which existing ABS data can be used.

The imperative for these measures is clear. Innovation is essential if Australia is to achieve ongoing improvements in living standards and quality of life. A systematic and coordinated innovation policy which identifies and advances the appropriate roles of the private and public sectors would represent a major contribution to Australia's economic future.

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