

Western Australian

Technology & Industry

Advisory Council

Annual Activity Report

July 2003 – June 2004





WESTERN AUSTRALIAN
TECHNOLOGY & INDUSTRY ADVISORY COUNCIL

Annual Activity Report

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WESTERN AUSTRALIAN
TECHNOLOGY & INDUSTRY ADVISORY COUNCIL

Hon. Clive Brown MLA
Minister for State Development
19th Floor
197 St George's Terrace
PERTH WA 6000

Dear Minister

On behalf of Council I am pleased to submit the Annual Activity Report for the Western Australian Technology and Industry Advisory Council (TIAC) for the year ending 30 June 2004, for your information, and subsequent presentation to Parliament in accordance with Section 26(1) and Section 26(2) of the Industry and Technology Development Act 1998.

Council has also reported through the Department of Industry and Resources' Annual Report and Financial Statement in accordance with Section 26(3) of the Industry and Technology Development Act 1998 in compliance with Section 62 of the Financial Administration and Audit Act 1985.

Council acknowledges the valuable support given to TIAC by both your office and the Department of Industry and Resources.

Yours sincerely

□

JOHN THOMPSON
CHAIRMAN

1 July 2004

On behalf of Council Members:

Ms Sharon Brown
Dr Brian Hewitt
Dr Jim Limerick
Ms Stephanie Mayman

Mr Rob Meecham
Ms Catherine Moore
Ms Wendy Newman
Mr Graeme Rowley AM

Ms Vivienne Snowden
Professor Lance Twomey
Mr Tim Ungar

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1 Introduction

The Western Australian Technology and Industry Advisory Council (TIAC) was created by legislation in 1987 (Technology Development Amendment Act - No. 32 of 1987) and was continued under Section 20 of the Industry and Technology Development Act 1998.

TIAC was preceded by the Technology Review Group 1978-1983, and the Science, Industry and Technology Council (SITCO) 1983-1987.

Council is made up of representatives from various sectors of the State's economy who, in terms of the relevant Act, use their varied background and experience, to provide independent policy advice to the Minister so as to make a significant contribution to the development of strategies relating to the State's economic development.

Members of the Council are appointed, by the Minister, under Section 22 of the Industry and Technology Development Act 1998 so as to be representative of the interests of the people of the State. A list of members is provided in Appendix 3.

TIAC reports through the Minister to Parliament under Section 26(1) and Section 26(2) of the Industry and Technology Act 1998.

TIAC reports under the Financial Administration and Audit Act 1985 through the Department of Industry and Resources under Section 26(3) of the Industry and Technology Development Act 1998.

2 Objectives of the Industry and Technology Development Act 1998

The objectives of the Industry and Technology Development Act 1998 under Section 3 are to:

- (a) promote and foster the growth and development of industry, trade, science, technology and research in the State;
- (b) improve the efficiency of State industry and its ability to compete internationally;
- (c) encourage the establishment of new industry in the State;
- (d) encourage the broadening of the industrial base of the State; and
- (e) promote an environment which supports the development of industry, science and technology and the emergence of internationally competitive industries in the State.

3 Functions of the Western Australian Technology and Industry Advisory Council

The Council, under Section 21 of the Act is required to:

- (a) provide advice to the Minister, at the initiative of the Council or at the request of the Minister, on any matter relating to the objects of the Industry and Technology Development Act 1998; and

- (b) carry out, collaborate in or produce research, studies or investigations on any matter relating to the objects of the Act, including matters relating to the:
- role of industry, science and technology in the policies of Government;
 - social and economic impact of industrial and technological change;
 - employment and training needs and opportunities relating to industrial, scientific and technological activities in the State;
 - adequacy of, priorities among and co-ordination of, scientific, industrial and technological activities in the State;
 - methods of stimulating desirable industrial and technological advances in the State;
 - application of industrial, scientific and technological advances to the services of the Government; and
 - promotion of public awareness and understanding of development in industry, science and technology.

4 Outcomes

In order to deliver its objectives and provide its functions, Council has divided its programmes into two main areas:

- (a) provision of Ministerial advice; and
- (b) promotion and public awareness raising activities.

4.1 Provision of Ministerial Advice

The advisory role to the Minister on the objectives of the Act and the encouragement, promotion and use of technology in the State, centres around three key activities:

- (a) the development of reports on issues pertaining to the Act and the role of science, industry and technology development in the State. Council's reports are subjected to a public consultation phase before recommendations are submitted to the Minister;
- (b) the analysis of reports written or commissioned by various national and international technology and economic development focused organisations and when appropriate, the submission of recommendations to the Minister on strategies relevant to Western Australia; and
- (c) Council's participation on various State advisory and funding committees or councils.

4.1.1 Report Activity (July 2003 – June 2004)

In its advisory role to the Minister, Council has:

- (i) in conjunction with the ICT Forum, launched for public comment, a report titled, *Enabling a Connected Community: Developing Broadband Infrastructure and Services in Metropolitan Western Australia*;
- (ii) launched for public comment, the report titled, *Initiating and Supporting Major Economic Infrastructure for State Development: Defining the Issues*. This report is the first of two reports in a project titled, *Supporting Major Economic Infrastructure for State Development*.

Copies of TIAC's reports are available in the Parliamentary Library, State Library, the libraries of the various universities and on the Internet at www.wa.gov.au/tiac.

A copy of the Executive Summary of each of the above reports are provided at Appendices 1 and 2.

4.1.1.1 Background and Expected Use of Reports

The Government has taken up the issue of broadband infrastructure and services in a soon to be released State Communications Policy announced in its Industry Policy Statement launched in January 2004.

The Minister has indicated that issues raised in the two reports in the series, *Initiating and Supporting Major Economic Infrastructure for State Development* will be submitted to the Federal Government for consideration in relation to the review of State funding by the Grants Commission.

The Government's Industry Policy Statement, launched in January 2004, referred to the development of a Knowledge Economy Strategy. Other correlations between the Industry Policy and TIAC's reports titled:

- (i) *Drivers and Shapers of Economic Development in Western Australia in the 21st Century* (September 2000); and
- (ii) *Directions for Industry Policy in Western Australia within the Global Knowledge Economy* (March 2002);

are provided in Table 1 on page 4.

A summary of the outcomes from TIAC reports between 1998 and 2004 is provided in Appendix 5.

TABLE 1

Comparison of TIAC Industry Development Reports and the State Government's Industry Policy

<i>Drivers and Shapers of Economic Development in Western Australia in the 21st Century (September 2000)</i>	<i>Directions for Industry Policy in Western Australia within the Global Knowledge Economy: Sustainable Prosperity through Global Integration (March 2002)</i>	<i>State Government's Industry Policy: Building Future Prosperity: Creating Jobs & Wealth through Industry Development (January 2004)</i>
<p>The <i>Drivers and Shapers</i> report raised three challenges:</p> <p>(a) Structure of Trade and Production</p> <ul style="list-style-type: none"> ◆ Heavily dependent on commodity exports with relatively low growth opportunities. ◆ Mining, construction, agriculture and energy highly represented; and manufacturing, finance and business services relatively thinly represented. ◆ Significant exposure to greenhouse gas emission targets. ◆ Competing mainly via exchange rates and wages rather than through technology and innovation with declining terms of trade and negative implications for employment and living standards. <p>(b) Climate Change and Sustainable Development</p> <ul style="list-style-type: none"> ◆ Global environmental drivers will be among the most significant factors shaping the development of WA's economy and society over the next 10-20 years. ◆ Pressure to achieve sustainable development likely to be a major shaper. <p>Highest priority areas for WA's sustainability can be divided into three groups of issues:</p> <ol style="list-style-type: none"> (i) land and inland waters (the pollution of which is closely related to land degradation); (ii) the atmosphere (greenhouse and ozone depletion); and (iii) biodiversity. <p>(c) Demographic Trends and Changing Social Values</p> <p>e.g.</p> <ul style="list-style-type: none"> - Population Growth - Migration - Integration with Asia - Role of Aboriginal People - Attitudes to globalisation, the environment, green production, genetic modification, increasing inequality, isolation, rural and regional development. 	<p>The rise in the knowledge intensity of economic activities and the increasing globalisation of economic activities are driving pervasive change.</p> <p>The central challenge facing economies is to use the increased access to global markets and information sources that the new economy makes possible to offset the impact of global consolidation on the structure of their economies.</p> <p>It is vital that programmes are on a scale equal to the challenge facing WA – sufficiently well resourced and sufficiently targeted to make a real difference to the structure of economic activities in the State.</p> <p>Key directions should be:</p> <ol style="list-style-type: none"> 1. Strategic whole-of-government approach to industry policy. 2. Systematic programs to increase the number, scale and impact of globally oriented firms – the three key elements being: <ol style="list-style-type: none"> (i) strong investment attraction programme; (ii) support emergence of local firms to global competitiveness; (iii) linkage programme. 3. Initiatives to build the WA innovation system. 4. Programmes to generate increased leverage off national policies. 	<p>The challenge is to build a more diversified economy with growing capabilities that will thrive in the global knowledge economy.</p> <p>Goals</p> <ol style="list-style-type: none"> 1. Create a diversified economic base that provides sustainable, high quality jobs and income growth for all Western Australians. 2. Create a business and investment environment that is productive and internationally competitive. 3. Create superior quality of lifestyle based on sustainable use of natural environment and a vibrant and diverse culture. 4. Create fair and equitable opportunities for all Western Australians to enjoy rewards of a vibrant economy. <p>Approach</p> <ul style="list-style-type: none"> ◆ Generate understanding and consensus of sustainable industry development. ◆ Establishing effective partnerships. <p>Priorities</p> <ol style="list-style-type: none"> 1. Competitive and open business environment. 2. Continuing development of natural resources and endowments with a focus on developing and supporting a more diversified and sustainable economic base and ensuring that sustainability, native title, regional development and environmental issues remain part of the Government's approach to industry development. 3. Ensuring a strategic and responsive approach from Government. 4. Establishing supportive infrastructure. 5. Development of State's export capacity and investment promotion with a focus on developing an export culture; working with the Commonwealth to enhance access to international markets and develop trade relationships; growing capabilities in areas that will thrive in the global economy such as professional services, knowledge-based products and emerging technologies. 6. Promotion of innovation and enterprise. 7. Education and skills development. 8. Investment in quality of lifestyle. 9. Development of a Knowledge Economy Strategy.

In summary, it would seem that the State Government is indeed progressing toward the directions put forward by TIAC with regard to Industry Policy and the development of a Western Australian 'Knowledge Economy'.

4.1.2 Participation on State Advisory and Funding Committees and Councils

TIAC has accepted invitations for representation and participated in:

- (a) the Federal Government's Commonwealth, State and Territory Advisory Council on Innovation;
- (b) the Minister's Knowledge Economy Taskforce;
- (c) the Information and Communication Technologies Strategic Advisory Group to the Department of Education and Training; and
- (d) the Centres of Excellence State Funding Advisory Committee of the Office of Science and Innovation.

4.2 Promotion and Public Awareness Raising Activities

Council's promotional and public awareness raising programmes consist of two main types:

- (a) the 2020 Breakfast seminars, commenced in 1990, are short, economic development focused, information dissemination events; and
- (b) TIAC's Internet website, to promote and increase the public awareness of its reports and encourage school students to participate in TIAC's virtual Science and Technology Forum. This activity is managed in conjunction with the Science Teachers' Association (STAWA) Science Talent Search organisation.

TIAC's website received approximately 103,000 hits in March 2004 which represented a 20% increase on the highest figure of 80,000 in May 2003. An average of 76,500 hits per month were recorded during this report year with a total download of 12.5 gigabytes. The website hits and downloads are indicators of the relevance of TIAC's reports.

4.2.1 2020 Breakfast Seminars

The following 2020 Breakfast seminars were conducted in the 2003 – 2004 reporting year:

- (i) *Paddling Your Own Broadband Canoe;*
- (ii) *Western Australia's prospects in developing agricultural and agriculturally-based opportunities in the new Iraq;*
- (iii) *Initiating and Supporting Major Economic Infrastructure for State Development: Defining the Issues.*

4.2.2 Virtual Science and Technology Forum Activities

The virtual Science and Technology activities conducted were by involvement with the Science Teachers' Association of Western Australia (STAWA) Science Talent Search organisation to develop the *Science and Technology Forum Website* competition. Topics of the 2003 winners included:

- Middle Primary School – *The Bee Web*;
- Upper Primary School – *Project Phylum*;
- Lower Secondary School – *Earth in the Future*;
- Middle Secondary School – *The Ozone Layer*;
- Upper Secondary School – *Recity Cycle*.

The presentations may be viewed on TIAC's website at www.wa.gov.au/tiac.

5 Financial Provisions

The expenses of Council are provided for under Section 15 of the Industry and Technology Development Act 1998 via the Western Australian Industry and Technology Development Account.

The 2003 – 2004 Operational Budget was \$334,000.

6 Members' Remuneration

Council members' remuneration and allowances were determined under Section 24 of the Technology and Industry Development Act 1998 resulting in:

(a) Chairperson's Salary	\$40,000.00 (per annum)
(b) Member's Sitting Fee – Non-Public Sector	
Council Meetings	\$800.00 (per meeting)
Other Meetings	Nil
(c) Member's Sitting Fee – Public Sector	
Council Meetings	Nil
Other Meetings	Nil

Council conducted eleven Board meetings, eight Steering Committee meetings for the planning and development of its reports, three 2020 Breakfast seminars and participated in six meetings of other funding and advisory committees.

7 Executive Staff

Council is provided with a full time executive staff of 2.8 officers seconded from the Department of Industry and Resources.

TIAC's executive staff also provided secretarial and executive services to the Minister's Information and Communications Technology Industry Development Forum (ICT Forum).

The ICT Forum was established by Ministerial direction under Section 25 and 23(14) of the ITD Act 1998 as a committee of TIAC reporting through its Chair to the Minister for State Development.

The text of the Minister's direction is attached as Appendix 6 as per Section 25(2) of the ITD Act 1998.

8 Financial Statement

TIAC reports under the Financial Administration and Audit Act 1985 through the Department of Industry and Resources' Annual Report and Financial Statements.

9 Outlook for 2004 – 2005

Council has, over the past four years, been developing a series of reports under a theme titled, *Towards a Western Australian Knowledge Economy*. In this series, it has carried out studies which have discussed the advantages of:

- (i) encouraging the further development of a 'knowledge component' to Western Australia's traditional industry strengths in mining and agriculture; and
- (ii) diversifying the State's economy and exports by developing 'knowledge' industries supported by a knowledge infrastructure.

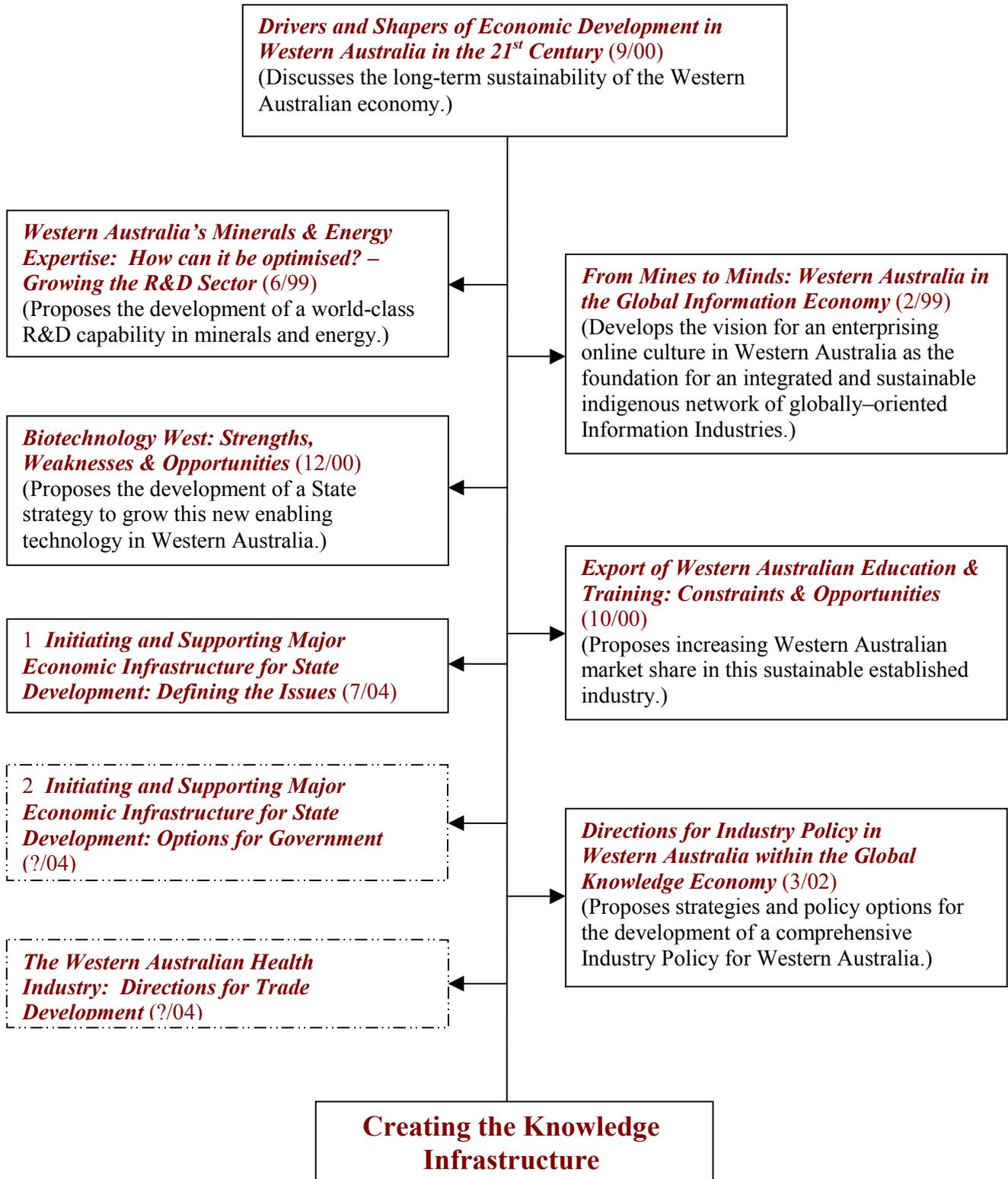
Council proposes to continue its reports to Government on various aspects which will emphasise the need to manage the consequences of globalisation, continue the development of a Western Australian Knowledge Economy and the diversification of the State's exports.

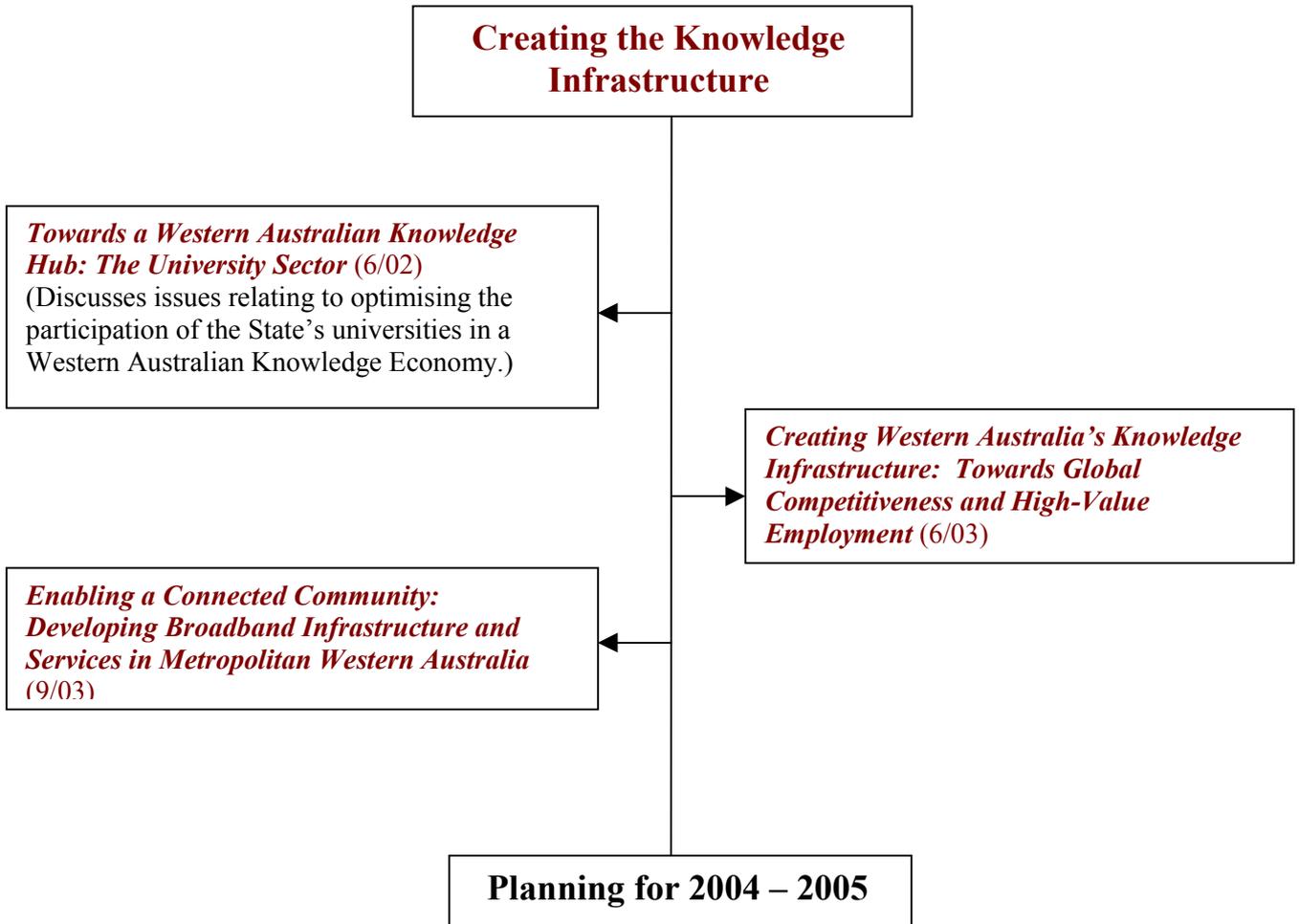
A diagrammatic summary of TIAC's series of reports under the theme, *Towards a Western Australian Knowledge Economy*, is provided on the following pages.

In the 2004 – 2005 reporting period, TIAC will launch, for public comment, the reports:

- (i) *Initiating and Supporting Major Economic Infrastructure for State Development: Options for Government*; and
- (ii) *The Western Australian Health Industry: Directions for Trade Development*.

Towards a Western Australian Knowledge Economy 1999 - Present





KEY:	
—————	Completed Reports
-----	Planned Reports

Copies of these reports can be obtained from our website: www.wa.gov.au/tiac



WESTERN AUSTRALIAN
TECHNOLOGY & INDUSTRY ADVISORY COUNCIL

In conjunction with



*Western Australian
Information and Communications Technology
Industry Development Forum*

**Enabling a Connected Community:
Developing Broadband Infrastructure and Services in
Metropolitan Western Australia**

September 2003

Additional copies of this report can be obtained from our website: www.wa.gov.au/tiac

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Executive Summary

“Broadband”: Key Infrastructure for Economic Performance

The development of broadband networks and services is a key issue for governments around the world. Broadband services are underpinning the development of e-commerce and an increasing range of other services. Access to bandwidth at globally competitive prices is an increasingly important determinant of competitiveness in the global knowledge economy. Policies that encourage the provision of affordable broadband access to a city’s firms can put them ahead of global competitors. Those that fail to do so risk condemning their economies to secondary or subordinate roles.¹

And so it is for Perth and for Western Australia more generally – effective broadband networks and services are integral “knowledge infrastructure” required to foster competitive industries and businesses employing a high-value and highly skilled workforce.

Put simply, broadband has the potential to revolutionise the way in which the community communicates, transacts and interacts.

World-class Broadband Infrastructure and Services: Metropolitan Western Australia Not There Yet

Metropolitan Western Australia does not currently have world-class broadband infrastructure and services. This is some way off. If metropolitan Western Australia is to achieve this status, strategic action by the Western Australian government and other stakeholders will be required. Without such action, the likely result will be Western Australia falling behind other States in terms of its economic performance, ability to attract investment in global value added industries and develop and retain a high skilled work force. It could also mean that Western Australia forgoes a major opportunity in which key public institutions (such as government service delivery agencies) interact with Western Australian citizens to provide better quality services.

What Makes Broadband Different?

Broadband has four critical differences in terms of functionality (i.e. what it can do). These are:

- always-on connectivity;²
- high-speed transmission³ — greater than those made possible by narrowband technologies;
- two-way functionality — enabling interactivity by users; and
- capacity to simultaneously carry multiple content and/or applications.

¹ International Telecommunications Union, 2001, Case Study: Broadband the Case of Australia, International Telecommunications Union, Geneva, p.1.

² ‘Always-on’ implies that users have access to a continuous service without the requirement to dial-up to a service every time Internet access is required.

³ There is a wide range of views as to what actually constitutes the minimum connection speed for broadband bandwidth. These range from speeds greater than what may be achieved through a dial-up connection (i.e. greater than 56 Kbps) to very high connection speeds (greater than 10 Mbps) to enable the utilisation of high quality multimedia technologies.

Availability of Broadband in Metropolitan Western Australia

There are a range of broadband access technologies and infrastructure platforms currently available in metropolitan Western Australia. In summary:

- Satellite is the most widely available access technology (effectively 100 per cent coverage);
- ADSL (in most cases reliant on Telstra's PSTN network) is available to approximately 65 per cent of businesses and households;
- HFC cable, only available to about eight per cent of the population;
- Fibre networks are concentrated in the CBD (Bright Communication's pilot study in South Perth and Como is the major exception); and
- Wireless technologies which are currently not widely available on a commercial basis.

Affordability of Broadband Services in Metropolitan Western Australia

Broadband services are less affordable (i.e. it costs more as a percentage of average income) than other telecommunications services. However, this outcome is somewhat distorted as the most widely available technology (satellite) is also the most costly.

Cable and ADSL, while not available to a significant proportion of the population, are nevertheless just as affordable as fixed telephony access and narrowband services.

In terms of interstate and international comparison, broadband services are more affordable in metropolitan Western Australia than in many other Australian capital cities and overseas jurisdictions. There is little correlation between affordability and take-up of broadband services. This suggests that particular attention needs to be paid to the development of content and applications.

Broadband Development and Use: Drivers and Impediments

Drivers

The factors expected to be most influential in driving the development of broadband infrastructure and services in the foreseeable future are:

- content and applications for the business and household user market, in particular, in the areas of multimedia entertainment, finance, health and education;
- increasing the awareness to overcome current information and knowledge gaps regarding broadband; and
- increasing competition and availability of terrestrial broadband access infrastructure.

These drivers are interdependent. Ideally the development of compelling broadband content and services, that are affordable and relevant, will drive new investment in broadband infrastructure and technologies. This, in turn, will trigger a virtuous cycle of investment and innovation in broadband services and infrastructure.

Impediments

Major impediments are:

- lack of available terrestrial access infrastructure, particularly in outlying suburbs;
- lack of understanding amongst the population of the potential functionality and benefits of broadband;
- uncertainty over options, costs and risks; and
- lack of a coordinated and strategic approach by government to creating and shaping demand and in planning and regulations.

A Strategy for Enabling Metropolitan Western Australia as a “Connected Community”

The Role of Government

It is clear that, at the very least, the government should play a lead role in creating a market environment conducive to consumers and the providers of broadband infrastructure and services interacting on an informed and rational basis.

Strategic Framework

Having regard to the range of economic, business and procedural considerations inherent in broadband development, a strategy which is overly focused on “technology-based” or “supply-side” actions is likely to fail. An effective strategy needs to be encompassing, also taking due account of demand-side factors (e.g. utilising demand aggregation as a lever) in facilitating the development of broadband infrastructure and services.

Taking account of the drivers of, and impediments to, the development and take-up of broadband and the dynamic nature of developments in the telecommunications market more generally, a strategic framework is proposed which consists of six components:

1. highlighting the broadband “value proposition”;
2. aggregating demand and leveraging government procurement;
3. streamlining government planning and management processes;
4. facilitating competition in broadband infrastructure provision;
5. overcoming the capacity limitations of ADSL; and
6. reviewing and communicating progress against strategic objectives.

1. Highlighting the Broadband “Value Proposition” (discussed in detail at 6.3.3)

A large proportion of the population of metropolitan Western Australia do not have a well developed awareness and understanding of broadband – what it is and its associated benefits, resulting in a low take-up by businesses and households. It is clear that until a significant proportion of businesses and households begin to understand and appreciate the full range of benefits associated with broadband services, take-up will continue to be low.

Education and awareness-raising initiatives need to focus on and emphasise ‘real world’ applications of broadband for residents and businesses (particularly SMEs) and simplifying ‘need to know’ technical information.

The government’s own initiatives regarding on-line service delivery also have the potential to raise awareness and therefore stimulate demand for broadband services.

Increased emphasis on e-work practices, which are not universally employed in Western Australian government agencies, would provide a stimulus to broadband usage.

2. Aggregating Demand and Leveraging Government Procurement (6.3.4)

There is currently a lack of affordable broadband services available in many areas of metropolitan Western Australia due to the fact that there is little competitive provision of broadband infrastructure outside the Perth CBD. While, over time, the roll-out of terrestrial broadband infrastructure may address this issue, as could developments in the satellite and/or wireless delivery systems, there are clear downsides to over reliance on “supply-side” developments as the catalyst for a step change in the availability of affordable broadband services.

Demand aggregation by government of telecommunications services has been shown in other jurisdictions to be an effective means of positively affecting the development of broadband infrastructure and services beyond government.

The effectiveness of current Western Australian government procurement and coordination arrangements in respect of using its purchasing power to leverage greater broadband infrastructure investment by the various carriers has to be questioned.

3. Streamlining Government Planning and Management Processes (6.3.5)

Government planning regulations have the potential to impact significantly on broadband infrastructure investment. There is merit in relevant government departments and agencies collaborating to assess existing state planning approval processes for the purposes of confirming their consistency and complementarity and the extent to which aspects of them may represent a barrier to future broadband infrastructure investment.

Currently there is no requirement for property developers to provide for telecommunications infrastructure in the same way that they are required to provide for essential service infrastructure such as electricity and water. As a result, economies are often lost because telecommunications providers have to duplicate work in order to roll-out network infrastructure.

Either mandating the installation of telecommunications ducting/conduit, or at the very least, including such matters in development guidelines would improve the situation.

The Western Australian government has at its disposal a range of infrastructure such as land, and property (e.g. easements for road and rail) that could be used for the provision of broadband infrastructure and services. Currently there is no encompassing policy approach to using, or even considering the use of, such assets for this purpose. There is a strong case for investigating the scope for an access regime to enable relevant government owned assets to be used for the purpose of routing or siting broadband infrastructure.

4. *Facilitating Competition in Broadband Infrastructure Provision (6.3.6)*

The roll-out of broadband infrastructure in metropolitan Western Australia is, by and large, the sole responsibility of Telstra. Given that Telstra's broadband infrastructure investment decisions are commercially-based and that there is a finite investment budget, there is a risk that the level of infrastructure investment in metropolitan Western Australia will be retarded relative to some other metropolitan areas where investment returns are greater. This has a double-barrelled effect – Western Australia falls behind in competitive terms and demand for broadband goes unsatisfied.

An imperative is for the Western Australian government to make representations to the Commonwealth concerning improvements in the regulatory framework in respect of network or partial facilities-based competition.

In some areas of metropolitan Western Australia there is currently little prospect of reliable and affordable broadband services becoming available as a result of market-based infrastructure investment. In these “unserviceable” (according to normal commercial criteria) areas, the government will need to decide whether to become directly involved in supporting infrastructure investment.

5. *Overcoming the Capacity Limitations of ADSL (6.3.7)*

Existing and future applications such as e-work, telemedicine, on-line learning, knowledge management and video conferencing will continue to drive the need for greater bandwidth. Moreover, more universal participation in on-line communities, e-commerce and e-government will simply not be possible given the current bandwidth capability of ADSL. In this regard, analysts expect the average household demand for bandwidth across Australia to increase from 2Mbps to at least 50Mbps by the end of the decade.⁴ For these reasons, ADSL should be regarded as a transitional technology.

6. *Reviewing and Communicating Progress against Strategic Objectives (6.3.8)*

The Western Australian government needs to monitor progress on the availability of broadband capacity against its strategic objectives and to communicate this to the community.

It is suggested that the following points should be given priority as part of a monitoring and communication agenda:

- ‘state of play’ with regard to broadband infrastructure development and the take-up of broadband services;
- changes in the geographic and demographic availability of broadband;
- changes in the broadband “affordability index”;
- new and ongoing Western Australian government initiatives which facilitate the development and take-up of broadband services; and
- benchmarking metropolitan Western Australia’s broadband “performance” against relevant interstate and international comparators.

⁴ See Budde, P. 2002, *Global Broadband — A Vision for National Policies*, Sydney.

Proposed Initiatives

The following initiatives, directed to the Western Australian government and its agencies, are proposed to give effect to the strategy to enable metropolitan Western Australia as a “connected community”. The proposals are:

1. Highlighting the Broadband “Value Proposition”

Establish a Broadband Advisory Committee (BAC) to advise the Western Australian government on broadband related issues. The Committee should comprise different user groups, providers (including representatives from ISPs and telecommunications carriers) and government nominees with acknowledged expertise.

The BAC should be responsible for:

- *identifying the core value propositions, and support mechanisms needed by various target groups (e.g. residents, SMEs) concerning broadband take-up and use; and*
- *formulating a communications strategy designed to raise and maintain a public awareness program to encourage the take-up and use of broadband services, with particular reference to target groups.*

The BAC in consultation with the Library and Information Service of Western Australia and local municipal councils should assess the potential to develop and enable local and State libraries throughout metropolitan Western Australia as “broadband showcase and support centres” with an emphasis on delivering and showcasing broadband-based services and facilitating public education and training in its application and use.

All State government departments and agencies should continue to expand the on-line delivery of government services by developing the Western Australia on-line and other e-government initiatives.

Assess the potential for increasing the use of telework in all government agencies and departments, including developing protocols governing telework practices, incorporating specifications for broadband access technologies.

2. Aggregating Demand and Leveraging Government Procurement

Examine the effectiveness of existing procurement processes having specific regard to the extent to which they allow for the aggregation of telecommunications spend on a whole-of-government basis, as well as their effectiveness in achieving the following outcomes:

- *improved telecommunications and broadband service delivery without significant additional expenditure;*
- *a better quality of service than previously prevailed;*
- *additional investment in broadband infrastructure;*
- *stronger competition for the provision of broadband services by encouraging market entry; and*
- *increased broadband access outside government (i.e. to businesses and households).*

Any additional savings from improved government procurement processes for telecommunications and broadband services should be earmarked for initiatives to improving the broadband infrastructure and to make it more universally available in metropolitan Western Australia.

Engage, through the BAC, the carriers to undertake a mapping of broadband availability in metropolitan Western Australia taking into consideration the extent to which Pair Gain and RIM technologies are an impediment to the delivery of DSL broadband access.

The BAC should undertake an assessment of current broadband demand and availability with the view of clearly identifying, at a sufficient level of detail for strategic planning purposes, those areas that currently do not have access to adequate bandwidth services. In this context, priority should be given to identifying community and business “clusters” in those areas which have an interest in, and a demand for, broadband services, with a view to assessing the potential for demand aggregation.

The BAC should undertake to develop and publish a broadband ‘demand aggregation guide’ which would provide interested groups (e.g. communities and business clusters) with the information necessary to undertake a needs assessment in respect of their broadband services and for developing a business case as basis for discussions/negotiations with infrastructure and service providers and relevant government agencies.

3. Streamlining Government Planning and Management Processes

Assess existing State planning approval processes for the purposes of confirming their consistency and complementarity and the extent to which they are a barrier to broadband infrastructure investment, with a view to amending the arrangements as necessary.

Develop and implement a protocol, involving the Western Australian government, telecommunications infrastructure providers and local councils in metropolitan Western Australia, covering roles, responsibilities and cooperative arrangements in relation to the provision of broadband infrastructure.

Establish and implement policy guidelines for Western Australian government agencies to ensure consistency in dealings with telecommunications infrastructure providers on operational issues (e.g. in respect of conditions of access to rights of way and easements).

Develop relevant planning regulations governing the provision of telecommunications conduit of a size suitable for multi-carrier access in new residential, industrial and commercial developments, including government infrastructure projects (e.g. rail, road, water and sewerage) and the provision of ducting within all new multi-tenant buildings to allow for the installation of telecommunications and broadband cabling.

Assess the benefits of allowing councils in metropolitan Western Australia to own and take responsibility for the maintenance of telecommunications conduit as well and to charge commercial rental for such conduit where ownership exists.

4. Facilitating Competition in Broadband Infrastructure Provision

Make representation to the Australian Competition and Consumer Commission (ACCC) in respect of providing greater third party access to the local loop, with a view to enabling the greater use of Customer Access Network infrastructure by third parties as well as facilitating greater access to key content for third parties.

In collaboration with telecommunications carriers and providers of DSL services, undertake an assessment to identify those exchange areas considered to be commercially non-viable in terms of broadband services and investigate the potential for sharing infrastructure, with a view to limiting the duplication of network assets.

5. Overcoming the Capacity Limitations of ADSL Proposed Initiative

Develop and implement a protocol, involving the Western Australian government, telecommunications infrastructure providers and local councils in metropolitan Western Australia, covering roles, responsibilities and cooperative arrangements in relation to the provision of broadband infrastructure.

6. Reviewing and Communicating Progress Against Strategic Objectives

Prepare and publish, on an annual basis, a report which, inter alia, sets out:

- *'state of play' and temporal changes concerning broadband infrastructure development and the take-up of broadband services;*
- *changes in the geographic and demographic extent of broadband availability;*
- *changes in the broadband "affordability index";*
- *new and ongoing Western Australian government initiatives designed to facilitate the development and take-up of broadband services in Western Australia and assessments of the extent to which these have been successful;*
and
- *benchmarking of metropolitan Western Australia's broadband "performance" against relevant interstate and international comparators.*



WESTERN AUSTRALIAN
TECHNOLOGY & INDUSTRY ADVISORY COUNCIL

Initiating and Supporting Major Economic Infrastructure for State Development: Defining the Issues

May 2004

Additional copies of this report can be obtained from our website: www.wa.gov.au/tiac

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Executive Summary

Overview of Report

This report, *Initiating and Supporting Major Economic Infrastructure for State Development: Defining the Issues*, has been prepared by the Technology and Industry Advisory Council to enable a better understanding amongst community stakeholders of the issues relating to the provision of economic infrastructure to facilitate State development, with particular reference to Commonwealth–State financial relations.

This report – which is the first of two – seeks to define and discuss the issues relating to development of major economic development projects and the provision of infrastructure to support them, highlighting the roles of the Commonwealth and State governments. The report draws on some of the key issues raised in *The Review of Commonwealth-State Funding Final Report* (The Garnaut Report) and focuses them on the economic development issues that face Western Australia and other States.

This report aims to stimulate discussion amongst stakeholders with the goal of achieving productive debate between governments about how these issues might be resolved. Approaches include policy changes and reforms to Commonwealth–State revenue sharing arrangements.

A second report, *Initiating and Supporting Major Economic Infrastructure for State Development: Options for Government*, will examine possible approaches for State and Commonwealth governments to better facilitate infrastructure provision for major projects.

The Role of Major Projects in the Economy

The economy of Western Australia is in large part driven by the resources sector, which also makes a major contribution to the national economy, particularly through exports. Other States and Territories – notably Queensland and the Northern Territory – also have economies in which the resources sector plays a major role.

The resources sector, with its growing value-adding component, will continue to underpin the economy of Western Australia for many decades. It can be expected to continue as the largest exporter of goods in the nation.

Western Australia’s rich resources endowment presents significant opportunities for resources development and processing. The opportunities include:

- a second LNG plant;
- new gas processing industries;
- additional iron ore mines;
- expansion of downstream processing of iron ore into direct reduced iron;
- continued expansion of the world leading alumina production region of the South West;
- potential development of an aluminium smelting industry; and
- development of a large-scale paper pulp mill.

The Challenge of Attracting New Investment

To be competitive in international markets, major developments need to be built and operated to world's best practice, and generally to be at world-scale. The proponents of projects that are not tied to particular resources, such as gas processing projects, seek the lowest cost/lowest risk/highest return location for their developments. Projects that depend on a resource for their location (e.g. oil and gas production and mining and minerals processing projects) often compete for capital funds with similar projects being proposed elsewhere by their owners.

Other countries with similar endowments of gas and other resources compete aggressively with Australia to attract investment in major projects. In order to continue to attract investment, which is often footloose, Australia must itself be internationally competitive as an investment destination. This means that it must be at, or close to world best practice with respect to costs, approvals, regulation, energy supply and infrastructure.

This does not mean that Australia should enter into 'subsidy competition' with other countries. This is counter to industry and national interests, and is at odds with at least the spirit of World Trade Organisation (WTO) rules, which preclude payment of subsidies to export or import-competing industries. These rules limit the manner by which Australia or other WTO member nations can provide investment incentives.

The Role of Commonwealth-State Financial Relations

Imbalances between State and Commonwealth governments in the costs of providing infrastructure and revenues for development were highlighted in the Garnaut Report. The report said that the current approach of the Commonwealth Grants Commission distributes the revenue benefits from economic development around the nation, without similarly sharing many of the costs of economic development borne by State governments.

A striking example is in Western Australia, where the Commonwealth gains the majority of tax revenues from offshore gas fields, while the State bears the majority of the cost of government funded infrastructure to support these developments. This lowers the financial incentive for the State to provide such infrastructure, particularly in the light of pressure to raise expenditure on health, education and law and order programs, plus infrastructure required to support growing populations in service towns, and to maintain the State's 'AAA' credit rating.

This artificial division of the costs and benefits associated with major projects means that it may not be an economically rational decision for the State to commit funds to their development, though for Australia as a whole, it may be rational to do so. In practice, however, Western Australia has continued to provide funds.

Further, the Garnaut Report found that equalising the fiscal effects of a State's good or poor economic performance dulls incentives for growth-promoting policies and distorts decision-making.

The Commonwealth Grants Commission recently conceded that Western Australia's costs of providing services to be above average, with reasons including:

- the structure and nature of the economy, including the effect of the large mining and primary industry sectors on the need for regulation and research; and
- the dispersed population, which results in higher costs of communication, roads, freight, allowances for staff working in remote areas and diseconomies of scale in service provision.

Infrastructure for Major Projects

Resources operations are typically located in rural and remote regions of Western Australia and other parts of the nation, close to the deposits of minerals, coal, oil and gas on which the industry is based. In order to be developed, these operations require infrastructure such as electricity, gas and water supplies, roads, ports, railways and worker accommodation.

Infrastructure can be provided in several ways:

- Project developers can provide it themselves (for example an iron ore railway and port).
- Specialist infrastructure providers, including Government Business Enterprises, can construct and operate infrastructure and receive payment from users (e.g. a gas pipeline or electricity supply).
- Public-private user-pays arrangements can be put in place (e.g. cooperative water supply arrangements).
- Where none of the above options are feasible, governments may provide infrastructure, e.g. multi-user ports, water supply facilities and roads, for which they usually charge users, and education and health facilities in towns that service developments, for which they usually do not charge.

Difficulties in Providing Infrastructure

There are increasing difficulties in providing essential infrastructure for major projects. Resources projects find it increasingly difficult to provide infrastructure themselves and remain competitive in the global marketplace. Third party infrastructure providers also find it less attractive than previously to provide infrastructure on commercial terms. Changing government priorities and limited funds mean that resources for government infrastructure provision are severely limited.

This report examines 10 case studies of projects in Western Australia and other States. From these case studies, reasons for difficulties in providing infrastructure to support major projects include:

- the remote location of many projects and the consequent paucity of infrastructure such as roads, energy and water supplies, and ports;
- the common-user nature and economies of scale of such infrastructure and the consequent inefficiencies of construction and use by single projects;
- increasing competition from projects in other, often lower cost countries and declining real prices for minerals and energy products mean that Australian projects constantly have to reduce their capital and operating costs.
- project proponents report that construction costs in remote parts of Australia such as the Pilbara are 20 to 30 per cent higher than comparable locations in other countries;
- complex approvals processes can cause delays and increase costs in establishing infrastructure and projects;
- commodity price risk and the greater risk of stranded infrastructure assets when infrastructure is provided by government or the private sector for single projects;

- regulatory policies and processes which can lead to increased risk and lower returns for third party infrastructure providers;
- changes to the corporate taxation system which have reduced depreciation allowances and consequently the financial attractiveness of infrastructure projects relative to other investments;
- inconsistency of approach and lack of coordination between governments on how they facilitate major projects and provision of infrastructure – e.g. the Western Australian government prefers to fund common user infrastructure directly, while the Commonwealth provides funds to project developers to provide their own infrastructure which they are obliged to make available to others;
- World Trade Organisation rules prohibit direct subsidy to individual export projects and require that infrastructure provided or funded by government be multi-user in nature; and
- while governments generally have healthier balance sheets than some years ago, some are moving away from providing infrastructure and services for major projects where these can be provided more efficiently by the private sector, thus freeing up State resources for the priority areas of health, education and community infrastructure and services.

It is important to address these reasons, to ensure the policy environment does not create gaps that make Australia as a whole less able to provide infrastructure for major projects. The lack of infrastructure mitigates against quick foreign investment decisions, while conversely the availability of infrastructure will assist the State with investment attraction and, as a result, a growth in the Australian economy.

Approaches to Reducing Impediments

State and Commonwealth governments recognise the need to ensure that infrastructure is available to facilitate development of major projects in rural and remote locations.

The Commonwealth government has implemented a number of approaches, including:

- ‘effective life’ depreciation provisions for capital assets to reflect their economic rather than physical life, which for some classes of infrastructure assets, have partially compensated for the loss of accelerated depreciation provisions under the New Tax System of 1999;
- a current Productivity Commission review of the regulations applying to gas pipelines in Australia, which is examining the benefits, costs and effects of the Gas Access Regime, including its effect on investment in the sector and in upstream and downstream markets; and
- a review of the Commonwealth’s approach to investment attraction (the Blackburne Review) and the restructuring and refocus of the Commonwealth inward investment agency, *Invest Australia*;
- accreditation of State environmental assessment processes for the purposes of the Commonwealth Environmental Protection and Biodiversity Conservation Act; and
- funding of project developers to provide infrastructure by some State governments and the Commonwealth under its *Strategic Investment Coordination Program* (as noted, there has been a lack of coordination between some governments in facilitating infrastructure in the same area due to differences of approach).

There are also approaches being developed at State level. Government initiatives in Western Australia include:

- implementation of the recommendations of a review of approvals processes in Western Australia (the Keating Review) which sought to streamline these processes;
- a restructure of two Western Australian industry departments into one entity (*Department of Industry and Resources*) and its enhanced focus on investment attraction; and
- provision of multi-user infrastructure in industrial zones (including the Burrup Peninsula).

Despite these initiatives, however, several of the fundamental policy gaps outlined remain.

Experience Elsewhere

Internationally, other countries have experienced similar challenges in ensuring that essential infrastructure is provided to facilitate development and economic growth. Countries such as Singapore and Qatar have responded by providing development-ready sites for major industry, complete with most infrastructure requirements.

Other federations have recognised the issues of vertical fiscal imbalance and the potential impact on incentives on state and provincial governments to provide infrastructure.

In Canada, the debate on the differential between the federal and provincial governments on taxing and spending powers appears to be just as intense as in Australia. The issue of financing the infrastructure which is required to make project developments succeed has also been recognised as important to the Canadian economy.

Efforts have been made by the Canadian government to address this issue. *Infrastructure Canada* was created in 2002 to manage and lead federal participation in the development and implementation of a long-term strategy to meet Canada's modern infrastructure needs. It provides strategic advice and research and is responsible for coordinating and managing infrastructure funding programs, and one of its aims is to promote sustainable economic development.

In the United States, fiscal equalisation plays a minor role in fiscal federalism. Intergovernmental transfers in the United States usually address specific functions or programmes, but this does not generally result in a high degree of fiscal equalisation. In any case, State governments in the United States have greater taxing powers than their Australian counterparts.

Government funding of infrastructure to support major projects appears to be less common, with more emphasis given to lowering overall costs or providing support not directly tied to infrastructure in order for major projects to proceed.

The next TIAC Report, *Initiating and Supporting Major Economic Infrastructure for State Development: Options for Government*, will examine in more detail the approaches of other nations.

Defining the Issues

The case studies and international experiences reviewed in this report reveal a myriad of issues to be relevant in the provision of infrastructure for major projects. Amongst these issues, some are consistently important to the commitments that governments make and to the outcomes of major economic development. There are also some that are approached less well than they should be. The issues of primary importance are as follows:

1. The cohesiveness of the approach to government involvement – where there are several governments involved (as there always will be in Australia), the extent to which they integrate their approaches, communicate with each other and have common approaches to information required and timing of commitments:
 - Importantly, this also includes consistency in terms of form of commitment. The practice of the Commonwealth government providing funds to the proponent for common user infrastructure while the State governments tend to fund infrastructure directly can and has led to poor outcomes.
2. The consistency and transparency of governments' rationale for involvement – the certainty with which the public and proponents can understand how governments will become involved and why:
 - This includes the use of methods to assess the value of infrastructure at a micro level – such as cost-benefit analysis – and that information being made available to the public.
3. Management of risks – how support can be provided and policies implemented that:
 - Do not result in government funding infrastructure or projects directly that do not proceed or do not deliver the expected benefits;
 - Assist private sector infrastructure providers to achieve returns commensurate with risks.
4. The use of direct support versus the use of incentives – as is the case in Canada, governments can provide support through generic incentives rather than targeted assistance, with project proponents and private sector infrastructure providers fully responsible for project specific infrastructure:
 - Accelerated depreciation for certain asset classes and regulatory regimes that provide incentives for investment are two examples.
5. The importance of policy and the business environment in influencing the attractiveness of investment in major projects and infrastructure – with negative examples in Australia including:
 - Approvals processes that remain complex, time consuming and costly, despite government efforts to streamline them;
 - High construction costs in remote parts of Australia, notably the Pilbara;
 - Regulatory policies and processes relating to infrastructure such as gas pipelines that have increased risks and reduced returns for investors.

Any discussion on funding of infrastructure for major economic development must also take into account the wider policy issues affecting investment in projects and infrastructure in Australia.

6. The need for Commonwealth-State financial arrangements which provide incentives to States and Territories to foster major development for national benefit.

The Key Issues

The issue of infrastructure provision to support economic development is multi-faceted and requires a comprehensive and cooperative policy approach by both Commonwealth and State governments. Addressing issues that inhibit investment – such as construction costs in rural and remote locations and tax treatments of high cost, long-life assets – is important to both facilitate investment in major projects, and to encourage the private sector to provide infrastructure. Addressing aspects of Commonwealth-State financial relations is also an important component of a comprehensive approach.

The issues identified in this report provide a basis on which to consider the range of options to address these and their relative merit. The second TIAC report *Options for Government* will examine possible approaches in detail.

Western Australian Technology and Industry Advisory Council Membership

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Publications of TIAC 1988 – 2004

Publication Title	Date
Support for West Australian Software Industry	July 1988
New Challenges & Opportunities	July 1988
Technology Parks	July 1988
Intelligent Buildings: What role for the WA Government?	Sept 1988
US State Government Policies Designed to Encourage the Commercialisation of New Ideas: Some Recommendations for WA	Sept 1988
WA Software Industry (Second Report)	Oct 1988
An Industrial Science Policy for Western Australia: Some Seed Ideas	Oct 1988
Towards a West Australian Science Policy for the 1990's	Nov 1988
Inquiry into Venture Capital in Western Australia	March 1989
The Case for a New Branch of Manufacturing to Provide <u>Smart</u> Equipment for the Mining Industry	March 1990
The Export Debate	May 1990
Tomorrow's People in Science & Technology	March 1991
Bentley Technology Precinct: An Exploratory Study	Sept 1992
The Western Australian Technology School of the Future: A Feasibility Study	Oct 1992
Capturing Opportunities in Asia with Western Australian Science & Technology	Nov 1992
Telecommuting 2000: Making the Future Work for Western Australia	Dec 1992
Telework 2000: Making the Future Work for Western Australia	July 1993
R&D and the State's Economic Development: What is the best fit?	April 1994
Medical Research Infrastructure Funding in Western Australia	April 1995
Towards an Information Infrastructure Policy for Western Australia – the Business Aspect	Feb 1996
Financing Options for Regional Infrastructure in Western Australia	Nov 1996
Telecommunications Deregulation – Is Western Australia Prepared?	Dec 1996
Western Australia's Minerals and Energy Expertise: How can it be optimised? – Defining the Issues – A Background Paper	Sept 1997

Publications of TIAC 1988 – 2004 (Cont'd)

Publication Title	Date
Research & Development: Role of the State Government in attracting External Funding	May 1998
From Mines to Minds: Western Australia in the Global Information Economy	Feb 1999
Western Australia's Minerals and Energy Expertise: How can it be optimised? – <i>Growing the R&D Sector</i>	June 1999
Technology, Skills and the Changing Nature of Work	April 2000
Drivers and Shapers of Economic Development in Western Australia in the 21st Century	Sept 2000
Export of Western Australian Education and Training: Constraints and Opportunities	Oct 2000
Biotechnology West: Strengths, Weaknesses and Opportunities	Dec 2000
Directions for Industry Policy in Western Australia within the Global Knowledge Economy	Mar 2002
The Organisation of Knowledge: Optimising the Role of Universities in a Western Australian Knowledge Hub	Jun 2002
Creating Western Australia's Knowledge Infrastructure: Towards Global Competitiveness and High-Value Employment	Jun 2003
Enabling a Connected Community: Developing Broadband Infrastructure and Services in Metropolitan Western Australia	Sept 2003
Initiating and Supporting Major Economic Infrastructure for State Development: Defining the Issues	May 2004

Summary of Outcomes of TIAC Reports 1988 – 2004: Indicators

Report Title	Date Published	Possible Indicator of Implementation – Date
<i>Towards a West Australian Science Policy for the 1990s</i>	1988	Launch of a State Science and Technology Policy (1997).
<i>Inquiry into Venture Capital in Western Australia</i>	1989	Part of Industry Policy (2004).
<i>Bentley Technology Precinct: An Exploratory Study</i>	1989	Precinct Plan implemented (2004).
<i>The Western Australian Technology School of the Future: A Feasibility Study</i>	1992	Part of ALP election promise (2001).
<i>Tomorrow's People in Science and Technology R&D and the State's Economic Development: What is the best fit?</i>	1991 1994	Issues and elements contributed to the formation of the Science Council and contained in OSI projects (2001).
<i>Research and Development: Role of the State Government in attracting External Funding</i>	1998	
<i>Medical Research Infrastructure Funding in Western Australia</i>	1995	
<i>Towards and Information Infrastructure Policy for Western Australia – the Business Aspect</i>	1996	Issues relating to ICT and Telecommunications Policy included as part of Industry Policy (2004). Proposed development of ICT Strategy and Telecommunications Strategy (2004).
<i>Telecommunications Deregulation – Is Western Australia Prepared?</i>	1996	
<i>From Mines to Minds: Western Australia in the Global Information Economy</i>	1999	
<i>Western Australia's Minerals and Energy Expertise: How can it be optimised? – Defining the Issues – A Background Paper</i>	1997	One of the proposed Research Institutes under the OSI plan (2003-2004).
<i>Western Australia's Minerals and Energy Expertise: How can it be optimised? – Growing the R&D Sector</i>	1999	
<i>Drivers and Shapers of Economic Development in Western Australia in the 21st Century</i>	2000	Quoted in Innovate WA Policy – ALP (2001).
<i>Export of Western Australian Education and Training: Constraints and Opportunities</i>	2000	Part of Industry Policy (2004).
<i>Biotechnology West: Strengths, Weaknesses and Opportunities</i>	2000	Part of Coalition election promise (2001).
<i>Directions for Industry Policy in Western Australia within the Global Knowledge Economy</i>	2002	Industry Policy Statement launched 2004.
<i>The Organisation of Knowledge: Optimising the Role of Universities in a Western Australian Knowledge Hub</i>	2002	Elements and issues contributed to OSI Research Institutes plan (2004).
<i>Creating Western Australia's Knowledge Infrastructure: Towards Global Competitiveness and High-Value Employment</i>	2003	Issues and elements to contribute to the Government's Knowledge Economy Strategy (2004).

Our Ref : 24676

Mr John Thompson
Chairman
WA Technology & Industry Advisory Council
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BENTLEY WA 6102

Dear Mr Thompson

Establishment of the Information and Communications Technology Industry Development Forum under the ITD Act 1998

The Information and Communications Technology Industry Development Forum (ICT Forum) has been operating out of TIAC's offices for the last two years. I would like to restructure, formalise and establish the ICT Forum under Section 25 and Section 23(14) of the ITD Act 1998 as a committee of TIAC for a term of three years.

I am taking this action to initiate implementation of some of the recommendations made in the joint TIAC/ICT Forum 'Broadband' report relating to a 'Broadband Advisory Committee' (BAC) and other ICT issues relating to the 'Knowledge Economy'.

I have attached for your information the terms of reference for the ICT Forum. The extra resources required for the operations of the ICT Forum will be included in TIAC's budget.

The ICT Forum will report directly to the Minister through its Chairman.

Yours sincerely

CLIVE BROWN MLA
MINISTER FOR STATE DEVELOPMENT

Att.

INFORMATION AND COMMUNICATIONS TECHNOLOGY INDUSTRY DEVELOPMENT FORUM

TERMS OF REFERENCE

Scope

As a vital part of this State's future development, the Information and Communications Technology Industry Development Forum (ICT Forum) is concerned with:

- (a) the advancement of the Information and Communications Technology (ICT) Industry in Western Australia;
- (b) the industry's capacity to support the creation and maintenance of high quality jobs throughout the State's economy;
- (c) access to ICT services throughout the state and ensuring the overall interests of Western Australia are served;
- (d) the promotion of ICT as a driver of competitiveness and efficiency across industry; and
- (e) the facilitation of ICT as a key enabler in a Western Australian 'Knowledge Economy'.

Strategic Role

To advise the Minister for State Development on policies and strategies necessary to ensure the continuing development of the Information and Communications Technology Industry and the application of information and communication technologies across industry and the community generally in Western Australia and to ensure the provision of cost effective, high quality telecommunications across the state.

Outcomes

The Forum will assist the Government:

- (a) in setting the environment for the development and attraction of expanded and new business opportunities for Western Australia in information and communications;
- (b) by providing policy advice, which will facilitate the establishment of "leading edge" telecommunication systems in the State;
- (c) by providing policy advice on meeting the ICT needs of both regional and metropolitan Western Australia;
- (d) by advising the Minister on broadband related issues namely;
 - (i) identifying the core value propositions and support mechanisms needed by various target groups (eg. residents, SMEs, non-metropolitan areas) concerning broadband take-up and use; and
 - (ii) advising on a strategy designed to raise and maintain a public awareness programme to encourage the take-up and use of broadband services by target groups; and
- (d) by providing advice to the Minister, at the initiative of the Forum or at the request of the Minister, on any matter relating to the ICT industry and ICT applications generally.

Operations

The Forum will meet a maximum of 10 times per year with working parties established and meeting as required from time to time.

An Executive Officer from the Technology & Industry Advisory Council will co-ordinate meetings and prepare minutes. The Forum is to submit to the Minister a copy of the minutes of each meeting within 14 days after the meeting at which the minutes were confirmed.

This Forum will report through the Chairperson to the Minister for State Development.

Recommendations for action will be made to the Minister through the Chairperson. This will include business cases to support funding requests to conduct research or undertake specific projects.

Membership

An independent Chairperson will be appointed by the Minister.

The Forum will consist of up to 16 people with the option of initiating working parties with additional expert membership to progress specific projects.

The members will be appointed for their own strategic skills rather than as representatives of sectors or associations of the industry.

The Minister for State Development will appoint members.

Members will be appointed for three -year terms.