



TIAC

Technology and Industry Advisory Council

Western Australian Technology and Industry Advisory Council
2011–2012 Annual Activity Report

Hon John Day MLA
Minister for Science and Innovation
Level 13
Dumas House
2 Havelock Street
WEST PERTH WA 6005

Dear Minister

On behalf of the Western Australian Technology and Industry Advisory Council (TIAC), I am pleased to submit the TIAC Annual Activity Report for the year ending 30 June 2012. The enclosed report is 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* (ITD Act).

TIAC has also reported through the Department of Commerce Annual Report and Financial Statement in accordance with Section 26(3) of the ITD Act in compliance with Section 62 of the *Financial Administration and Audit Act 1985*.

Yours sincerely



Mr Alan Bansemer
Chair

31 August 2012

On behalf of Council members:

Current members (as of 30 June 2012)

Mr Alan Bansemer (Chair)	Professor Shaun Collin
Professor Lyn Beazley AO	Professor Barry Marshall AC
Mr Colin Beckett	Dr Jim Ross AM
Mr Brian Bradley (ex officio)	Mr Andy Farrant
Dr Mal Bryce (resigned 10 January 2012)	
Dr Beverley Ronalds (resigned 30 March 2012)	

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Introduction

TIAC is the key independent advisory body providing strategic, evidence-based advice to the State Government aimed at driving sustainable and diverse economic growth in Western Australia.

The members of the Western Australian Technology and Industry Advisory Council (TIAC) are appointed by the Minister for Science and Innovation, and endorsed by the State Cabinet, under the provisions of the *Industry and Technology Development Act 1998* (ITD Act).

Members are selected on merit to provide advice to the Western Australian Government on the strategic direction for industry, science and technology in Western Australia.

TIAC reports through the Minister to Parliament under Section 26(1) and Section 26(2) of the ITD Act. TIAC reports under the *Financial Administration and Audit Act 1985* through the Department of Commerce under Section 26(3) of the ITD Act.

TIAC membership

The members of TIAC during 2011–2012 were:

Mr Alan Bansemer

TIAC Chair
Director
Banscott Health Consulting Pty Ltd
(Term expiry: 30 June 2013)

Mr Andy Farrant

Principal
One Degree Advisory
(Term expiry: 30 June 2014)

Professor Lyn Beazley AO

Chief Scientist of Western Australia
(Term expiry: 30 June 2013)

Dr James Ross AM

Chairman
Earth Science Western Australia
(Term expiry: 30 June 2014)

Mr Colin Beckett

General Manager, Gorgon
Chevron Australia Pty Ltd
(Term expiry: 30 June 2013)

Mr Brian Bradley (ex officio)

Director General
Department of Commerce

Professor Shaun Collin

Western Australian Research Fellow
The University of Western Australia
(Term expiry: 30 June 2013)

Dr Mal Bryce AO (6 December 2010 to 10 January 2012)
Chair iVEC

Professor Barry Marshall AC

Nobel Laureate
The University of Western Australia
(Term expiry: 30 June 2014)

Dr Beverley Ronalds (6 December 2010 to 30 March 2012)
Group Executive
CSIRO Energy Group

Resignations and appointments

On 21 November 2011, Cabinet reappointed Professor Lyn Beazley for a further term of 18 months expiring on the 30 June 2013.

On 10 January 2012, Dr Mal Bryce officially resigned from his position as a member of TIAC.

On 22 March 2012, Cabinet re-appointed Dr Jim Ross and Professor Barry Marshall for a further term of two years expiring on the 30 June 2014.

On 30 March 2012, Dr Beverley Ronalds officially resigned from her position as a member of TIAC.

On 18 June 2012, Cabinet appointed Mr Andrew Farrant as a member of TIAC for two years expiring on the 30 June 2014.

Objects of the *Industry and Technology Development Act 1998*

The objects of the ITD Act (Section 3) are to:

1. promote and foster the growth and development of industry, trade, science, technology and research in the State;
2. improve the efficiency of State industry and its ability to compete internationally;
3. encourage the establishment of new industry in the State;
4. encourage the broadening of the industrial base of the State; and
5. promote an environment which supports the development of industry, science and technology and the emergence of internationally competitive industries in the State.

Functions of the Western Australian Technology and Industry Advisory Council

- 1) The Council, under Section 21 of the ITD 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 procure research, studies or investigations on any matter relating to the objects of the Act, including matters relating to the:
 - i) role of industry, science and technology in the policies of government;
 - ii) social and economic impact of industrial and technological change;
 - iii) employment and training needs and opportunities relating to industrial, scientific and technological activities in the State;
 - iv) adequacy of, priorities among and co-ordination of, scientific, industrial and technological activities in the State;

- v) methods of stimulating desirable industrial and technological advances in the State;
 - vi) application of industrial, scientific and technological advances to the services of the Government; and
 - vii) promotion of public awareness and understanding of development in industry, science and technology.
- 2) The Council may publish and make available any report or finding produced as a result of any research, study or investigation under subsection (1).
 - 3) The Council is to liaise with and advise any person, body or organisation with respect to the conduct of any research, study or investigation into a matter relating to industry, science and technology in the State.
 - 4) In carrying out its functions the Council is to:
 - a) have regard to the needs of the Western Australian community and the resources of the State;
 - b) promote developments in industry, science and technology that increase productivity and competitiveness; and
 - c) support developments that create employment opportunities.
 - 5) The Council has the power to do all things necessary or convenient to be done for or in connection with the performance of its functions.

Ministerial directions

The Minister, under Section 25 of the ITD Act, may give directions in writing to the Council with respect to the performance of its functions or the exercise of its powers.

During this financial year, the TIAC Chair received two directions in writing from the Minister for Science and Innovation, the Hon John Day.

The State Solicitor's Office (SSO) have indicated that a direction from the Minister can be taken as relevant in the financial year during which it must be reported in the annual report of the Council.

For this reason, TIAC understands that the ministerial directions received by the Council in December 2010 have now been superseded by the directions received in February and March 2012.

A copy of both letters received can be found at Appendix 1 and Appendix 2.

TIAC activities in 2011–2012

Charter and Operating protocol

At its eighth meeting in March 2012, TIAC approved the annual revision of their Charter (Appendix 3) and Operating Protocol.

Managing Economic Expansion – The need for people and skills report

A report produced by the previous TIAC entitled *Managing Economic Expansion-The need for people and skills*, was endorsed by the new TIAC at its sixth meeting in October 2011.

The report, available on the TIAC website, analyses trends driving labour market outcomes in Western Australia and draws out implications for future development.

Addressing the ministerial directions

The ministerial directions have been progressed by TIAC as follows:

1. Direction:

- *In accordance with section 25 (1) of the ITD Act, I direct you, for reasons of practicality and efficiency, to organise the next TIAC meeting at the date most suitable to the majority of TIAC members, that being the 6 March 2012.”*

Action:

The eighth TIAC meeting, originally scheduled for the 14 February 2012, was rescheduled to the 6 March 2012 which was the date most suitable for the majority of TIAC members.

2. Direction:

- *I would like TIAC’s advice regarding the current objects of the ITD Act, specifically whether the objects are still relevant and effective*

Action:

TIAC organised two half day workshops to assist in formulating a response to the Minister for Science and Innovation. During the workshops TIAC considered how the Council could add value through the provision of advice to the Western Australian Government with a view to articulating a meaningful role for the Council.

3. Direction:

- *I would also be interested in receiving feedback from TIAC on the current ministerial directions and the extent to which they remain relevant to the role and activities of the Council.*

Action:

Advice from the State Solicitor's Office has indicated that the previous ministerial directions received in December 2010 have been superseded by the direction received from the Minister in March 2012. For this reason, the previous ministerial directions are no longer applicable to TIAC, so their relevance to the role and activities of the Council has not been considered.

Feedback on the Department of Commerce's Science Priorities Paper

TIAC provided feedback on the Department of Commerce's Science Priorities Paper (now known as the draft Science Policy Statement), in response to the request made by the Minister for Science and Innovation, at their sixth meeting in October 2011.

TIAC noted that key messages from the 2009 Western Australian Science and Innovation Review conducted by The Centre for International Economics on behalf of the then Minister for Science and Innovation, as well as the recommendations and outputs from TIAC's stakeholder consultation processes were key inputs into the creation of this priorities paper.

The paper articulates the Western Australian Government's policy position and principles for involvement in areas of science and research that are of strategic significance to the State.

TIAC's feedback was received by the Minister for Science and Innovation, and the Department of Commerce, and their comments were incorporated into the document.

CSTACI breakfast event

Earlier this year, the Commonwealth, State and Territory Advisory Council on Innovation (CSTACI) met in Perth to discuss the national innovation system.

As part of the CSTACI visit, TIAC hosted a networking event in collaboration with the Department of Commerce. Representatives from all State and Federal innovation and science agencies were invited.

The event provided an opportunity to exchange ideas with experts in the field of innovation from across Australia.

Stakeholder consultation forums

In early 2011 TIAC held stakeholder forums in three key sectors of:

- minerals (including minerals technologies);
- gas (including petroleum technologies); and
- environment.

Conducting the stakeholder forums was a key recommendation of the report *From Strength to Strength- An innovation plan for driving Western Australia's future prosperity*.

Through these forums TIAC members gathered stakeholder views and opinions to assist in increasing their understanding of the issues in each of the sectors and as

well as gaining an improved understanding of the role that the State Government could have in stimulating activity in these areas and how this could be achieved.

Two further consultations with key stakeholders in the health and medical sector were hosted by TIAC in October and November of 2011. TIAC commissioned Integral Development Associates Pty Ltd to coordinate these forums and prepare a summary report. These consultations were the last to be held out of the four value-creating sectors identified by the Council.

The invited participants at each consultation forum were key stakeholders from the sector drawn from industry, research and government. TIAC enlisted the services of Professor Bryant Stokes to assist with the identification of stakeholders within this industry. Council members aligned with the health and medical sector attended the respective sector forum as a TIAC representative. These members were:

- Professor Lyn Beazley, the Chief Scientist of Western Australia
- Professor Barry Marshall

A draft report was prepared following the forums and sent to the respective participants for their feedback. Summary reports of all the sectors were finalised at TIAC's ninth meeting in May 2012. TIAC agreed that the reports will be used to continually inform the work of the Council.

Research project: An analysis of the impact of key initiatives supporting primary and secondary STEM education in Western Australia and strategies to improve the teaching, literacy and perceptions of STEM.

The Science Education Committee with support from a working group of representatives from government and science education organisations undertook a preliminary research study to explore the role of external providers of science, technology, engineering and mathematics (STEM) education support.

The members of the Science Education Working Group were:

Jim Ross (Chair)
TIAC Member

Professor Lyn Beazley
TIAC Member

Mr Alan Brien
CEO, Scitech

Mr John Clarke
CEO, Science Teachers Association of Western Australia

Professor Shaun Collin
TIAC Member

Professor Vaille Dawson
Science & Mathematics Education Centre, Curtin University of Technology

Dr Pamela Garnett
Dean of Curriculum, St Hilda's Anglican School for Girls

Ms Louise Nielsen
Principle Consultant, Policy and Advice
Department of Education WA

Mr David Wood
Public Sector Commission
(former CEO, Curriculum Council)

The resulting report, *Productive partnerships: Advancing STEM education in Western Australian schools*, by Dr Renato Schibeci, was endorsed by TIAC at their eighth meeting in December 2011 and provided to the Minister for Science and Innovation in December 2011.

The report provides recommendations for suitable strategies to improve STEM teaching, literacy and perception in Western Australia's primary and secondary schools. A copy of the report is available on the TIAC website.

The report was circulated to the Director General of the Department of Education and the heads of the Association of Independent Schools of Western Australia and the Catholic Education Office of Western Australia.

The Minister for Science and Innovation provided a copy of the report to the Minister for Education for her consideration.

Approval of TIAC Committee Guidelines

Schedule 1, Section 14 of the ITD Act states that TIAC may appoint committees to assist it in the performance of its functions and may discharge or alter any committee so appointed.

At TIAC's eighth meeting in December 2011, TIAC approved the TIAC Committee Guidelines which serve to guide the establishment and activity of all TIAC committees.

The committee guidelines outline the role of a committee as assisting TIAC in the performance of its function of providing advice to the Minister and carrying out, collaborating in or procuring research, studies or investigations.

Furthermore, a committee will determine its specific purpose and objectives within this broader role by drafting a terms of reference document for TIAC approval.

A copy of the TIAC Committee Guidelines is attached at Appendix 4.

Formalising the Science Education Committee

TIAC recognises that the State's capacity to achieve excellence in science and innovation depends heavily on the outcomes from education in science, technology, engineering and mathematics (STEM).

At TIAC's eighth meeting in December 2011, TIAC agreed to establish the Science Education Committee as a formal committee of TIAC.

The formal Committee held its first meeting on 2 February 2012 and its second meeting on 6 March 2012. The Committee's Terms of Reference and membership were finalised and approved by TIAC in April 2012 (Appendix 5).

Performance assessment of Department of Commerce science and innovation programs

In February 2011, TIAC commissioned an assessment of the Department of Commerce's science and innovation programs. The purpose of the assessment was to assess the level of success that projects from each program had in delivering the relevant program's aims and compare the impact of State Government investment in the programs.

Three of the department's programs were assessed retrospectively. These included the Western Australian Major Research Facility (WAMRF) Program, the Centres of Excellence (COE) in Science and Innovation Program and the Western Australian Premier's Research Fellowship (WAPRF) Program.

The final report was presented to TIAC at their fifth meeting in August 2011. Many difficulties were encountered in compiling the report, as the relevant information had not been gathered for all programs to allow sufficient comparison. Thus, TIAC determined that the report was not of sufficient quality and value to be released to the public, however, it was released to the Department of Commerce.

The Department of Commerce has since developed and implemented an Evaluation Framework for Science and Innovation Investments which is based on assessing intended benefits to the State.

TIAC's involvement on evaluation panels for the Department of Commerce.

The Western Australian Innovation Development Schemes, established under the ITD Act, provide for the delivery of programs that encourage science and innovation development in strategic areas of importance to Western Australia and enhance its competitive advantage through research and development.

Evaluation panels are convened by the Department of Commerce to evaluate applications for programs and recommend suitable applicants.

In 2011-12, three TIAC members were involved as Chairs of evaluation panels for four programs. These programs were the Research Facilities Program, the Innovation Investment Facilitation Program, the Western Australian Fellowships Program and the Innovation Co-investment Program.

TIAC's involvement on these evaluation panels provided valuable expert input.

Financial provisions

TIAC expenses are provided for under Section 15 of the ITD Act via the Western Australian Industry and Technology Development Account.

TIAC was allocated a total budget for 2011–2012 of \$551,000.

Members' remuneration

Council members' remuneration was recommended by the Public Sector Commissioner under provisions of Section 24 of the ITD Act as follows:

- | | |
|---|----------------------|
| (a) Chairperson's Salary: | \$40,000 (per annum) |
| (b) Member's Sitting Fee – Non-Public Sector: | \$660 (per meeting) |
| (c) Member's Sitting Fee – Public Sector: | Nil |

The recommendation is made pursuant to Premier's Circular 2010/02 – "State Government Boards and Committees" which excludes those on the public payroll from receiving fees.

TIAC met six times between July 2011 and June 2012: on 16 August 2011, 11 October 2011, 6 December 2011, 6 March 2012, 1 May 2012 and 26 June 2012.

Research Investment and Advisory Services Branch

In January 2012 the branch of the Department of Commerce providing support to TIAC changed its name to the Research Investment and Advisory Services Branch (RIAS), formally the Council Support Branch. As per the Operating Protocol between the Department of Commerce and TIAC, the branch provides a public interest disclosure officer and direct advice services to the Council.

The TIAC Executive Officer provides the following services to the Council:

- secretariat support:
 - minutes
 - agenda
 - conflict of interest registry
 - booking conference and event attendance;
- project management support;
- budget and financial administration; and
- direct advice.

The General Manager of the RIAS Branch is the main point of contact for TIAC, and liaises with the RIAS Branch and TIAC to ensure continuity of information and advice (as per the Operating Protocol).

The General Manager of the RIAS Branch and the TIAC Executive Officer also attend TIAC meetings as observers.

Financial statement

TIAC reports under the *Financial Administration and Audit Act 1985* through the Department of Commerce Annual Report and Financial Statements.

Outlook for 2012–2013

Research project: Opportunities for SME's in the resource sector

In 2010 the output of the mining and energy sectors was valued at \$92.5 billion (one third of the State's Gross State Product). Based on figures compiled by the Department of Mines and Petroleum existing, planned and possible investment in construction projects in these sectors is around \$300 billion. This activity is creating a marketplace that can enable existing Small to Medium Enterprises (SME's) to grow and new SME's to emerge.

TIAC members will produce a report that provides recommendations for new State Government strategies to enable SME's to provide a competitive level of goods and services to the mining and energy sectors, and develop products to increase the level of innovation in those industries.

A steering group has been formed, chaired by TIAC member Mr Colin Beckett.

As of 30 June 2012, Dr Martin West of AECOM has been appointed as the consultant to the project. A stakeholder questionnaire was developed and over 200 responses were received. The consultant will also be undertaking a number of structured interviews with key stakeholders in the near future, with a view to finalising the report in November 2012.

Research project: Creating an environment that supports innovation

TIAC strongly advocates the view that encouraging innovative approaches to developments in science and technology can assist in driving sustainable economic growth. This view is supported by evidence of science and technology led economic growth in locations including Israel, Singapore, Finland, and the San Diego region in California. TIAC argues that success in these activities will lead to a broadening of the Western Australia's economic base providing diversity outside the resources sector to assist in securing the State's future prosperity.

TIAC is undertaking a review that aims to gather evidence to assist in building a comprehensive rationale demonstrating:

- the benefits of creating an environment that encourages innovative approaches to developments and investment in science and technology;
- the ways that the State Government can create such an environment;
- the resulting outcomes and economic impacts of both private and government investment in science and technology; and
- the value of an independent advisory body to provide long-term strategic advice to government on matters relating to economic growth and development.

As of 30 June 2012, Dr Doug McGhie and Dr David Morrison of Science Matters have been appointed as consultants. The report is expected to be finalised in September 2012.

Research project: Innovation in the regions

TIAC recognises that innovation is a key driver of economic development. Identification of the success stories of regional innovation and an improved understanding of the factors that underpin this success would assist in the development of strategies to stimulate innovation in regional areas of Western Australia.

TIAC is undertaking a review that aims to identify examples of successful innovation in regional areas of Western Australia and explore the factors that have contributed to this success, or factors which have impeded success, in order to provide recommendations for new State Government strategies to stimulate innovation in regional Western Australia and add value to the State.

A steering group has been formed, chaired by TIAC member Mr Brian Bradley.

As at 30 June 2012, the procurement process to select a suitable consultant has progressed to the stage of evaluating the submissions.

Research project: Feasibility study into the establishment of research facilities in the Kimberley region of Western Australia

In June 2011 the Premier announced a \$63 million package to support the State Government's Kimberley Science and Conservation Strategy.

Massive changes are underway in the Kimberley, creating a need for scientific research to inform decision-makers and stakeholders within government and cultural and commercial interests.

Given this current situation, TIAC agreed that there is merit in exploring whether existing and future research in the Kimberley would benefit from the establishment of new research facilities in the region, and if so, what form any new facilities would take. TIAC is considering conducting a feasibility study into the facilities required to build the capacity to conduct collaborative, multi-disciplinary research, focused on tropical science in the Kimberley region of Western Australia. The study would not be limited to purpose built infrastructure and would examine the means to build collaboration through existing facilities including methodologies for data integration.

A steering group has been formed chaired by TIAC member and Chief Scientist, Professor Lyn Beazley.

The steering group is working on a proposed terms of reference for the study. TIAC will consider the terms of reference before approving progression of this project.

Appendices

Appendix 1

Ministerial direction February 2012



Minister for Planning; Culture & the Arts; Science & Innovation
Government of Western Australia

Our Ref: 33-15458

Mr Alan Bansemer
Chairman
Technology and Industry Advisory Council
69 Punrak Road
SERPENTINE WA 6125

Dear Mr Bansemer *Alan*

I understand that you have requested that the Technology and Industry Advisory Council's (TIAC) next meeting, scheduled for 14 February 2012, be rescheduled to 6 March 2012.

According to the *Industry and Technology Development Act 1998* (ITD Act) Schedule 1, section 8(1) meetings are to be held at intervals no longer than two months. Given that the last meeting of TIAC was held on 6 December 2011, the proposed meeting would be held outside of the two month interval.

In accordance with section 25 (1) of the ITD Act, I direct you, for reasons of practicality and efficiency, to organise the next TIAC meeting at the date most suitable to the majority of the TIAC members, that being 6 March 2012.

Yours sincerely

JOHN DAY
MINISTER FOR PLANNING;
CULTURE AND THE ARTS;
SCIENCE AND INNOVATION

01 FEB 2012

Appendix 2

Ministerial direction March 2012

09 MAR 2012



Minister for Planning; Culture & the Arts; Science & Innovation
Government of Western Australia

Mr Alan Bansemer
Chair, Technology and Industry Advisory Council
Department of Commerce
Locked Bag 14
Cloisters Square
PERTH WA 6850

Dear Mr Bansemer 

REVIEW OF THE ITD ACT AND MINISTERIAL DIRECTIONS FOR TIAC

In accordance with the stipulations of the *Industry and Technology Development Act 1988* (The ITD Act) the responsible Minister is to carry out a review of the operation and effectiveness of the Act every five years. I am currently undertaking this review.

Under Section 32(2) of the ITD Act, the review is required to consider the effectiveness of the operations of the Technology and Industry Advisory Council (TIAC) and consider any other matters that I deem relevant to the operations and effectiveness of this Act.

In addition, as per the provisions in the ITD Act, I may give directions in writing to the Council with respect to the performance of its functions or the exercise of its powers. I understand that TIAC is currently operating under ministerial directions that were issued in December 2009, and that these ministerial directions provide focus for your activities.

I have now reached the point in the review where I would like TIAC's advice regarding the current objects of the ITD Act. I wish TIAC to have a realistic and practical role in providing advice to the Minister for Science and Innovation and the Government. From this standpoint I would like TIAC's advice regarding the current objects of the ITD Act, specifically whether the objects are still relevant and effective. I would also be interested in receiving feedback from TIAC on the current ministerial directions and the extent to which they remain relevant to the role and activities of the Council.

I look forward to receiving your feedback.

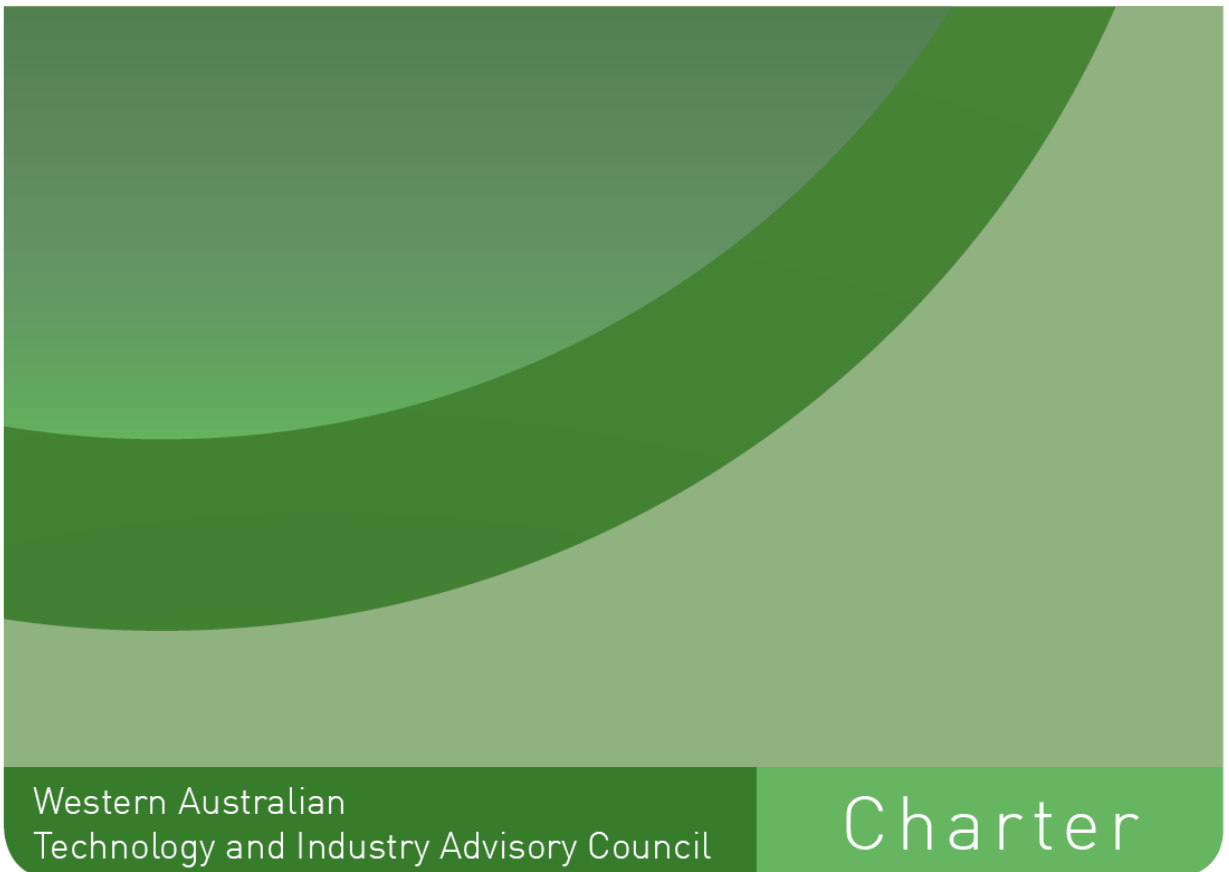
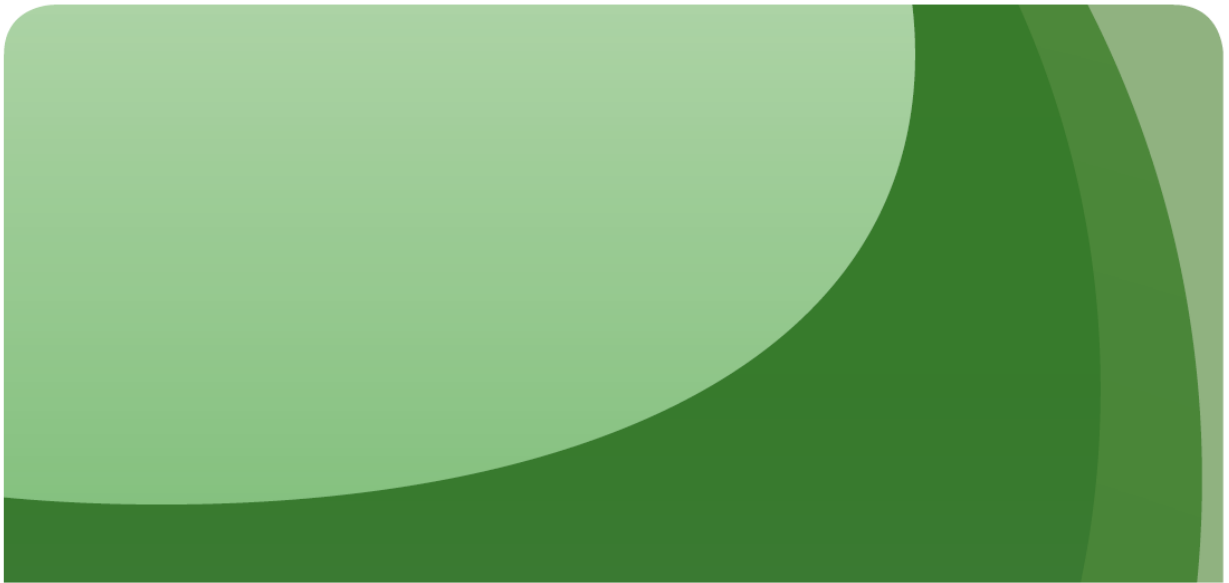
Yours sincerely



JOHN DAY
MINISTER FOR SCIENCE AND INNOVATION

Appendix 3

TIAC Charter (Version 2)



Western Australian
Technology and Industry Advisory Council

Charter

WESTERN AUSTRALIAN TECHNOLOGY AND INDUSTRY ADVISORY COUNCIL CHARTER

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Introduction

The Technology and Industry Advisory Council (Council) is established under the *Industry and Technology Development Act 1998* (ITD Act).

Objective

The objects of the ITD Act under Section 3 are:

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

According to Section 21 of the ITD Act:

1. The Council is 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 this Act; and
 - b. carry out, collaborate in or procure research, studies or investigations on any matter relating to the objects of this Act, including matters relating to:
 - i. the role of industry, science and technology in the policies of government;
 - ii. the social and economic impact of industrial and technological change;
 - iii. employment and training needs and opportunities relating to industrial, scientific and technological activities in the State;
 - iv. the adequacy of, priorities among and co ordination of, scientific, industrial and technological activities in the State;
 - v. methods of stimulating desirable industrial and technological advances in the State;
 - vi. the application of industrial, scientific and technological advances to the services of the Government; and
 - vii. the promotion of public awareness and understanding of development in industry, science and technology.
2. The Council may publish and make available any report or finding produced as a result of any research, study or investigation under subsection (1).
3. The Council is to liaise with and advise any person, body or organization with respect to the conduct of any research, study or investigation into a matter relating to industry, science and technology in the State.
4. In carrying out its functions the Council is to —
 - a. have regard to the needs of the Western Australian community and the resources of the State;
 - b. promote developments in industry, science and technology that increase productivity and competitiveness; and

- c. support developments that create employment opportunities.
- 5. The Council has the power to do all things necessary or convenient to be done for or in connection with the performance of its functions.

Reviewing

The Charter and Code of Conduct will be reviewed annually.

Reporting Structure

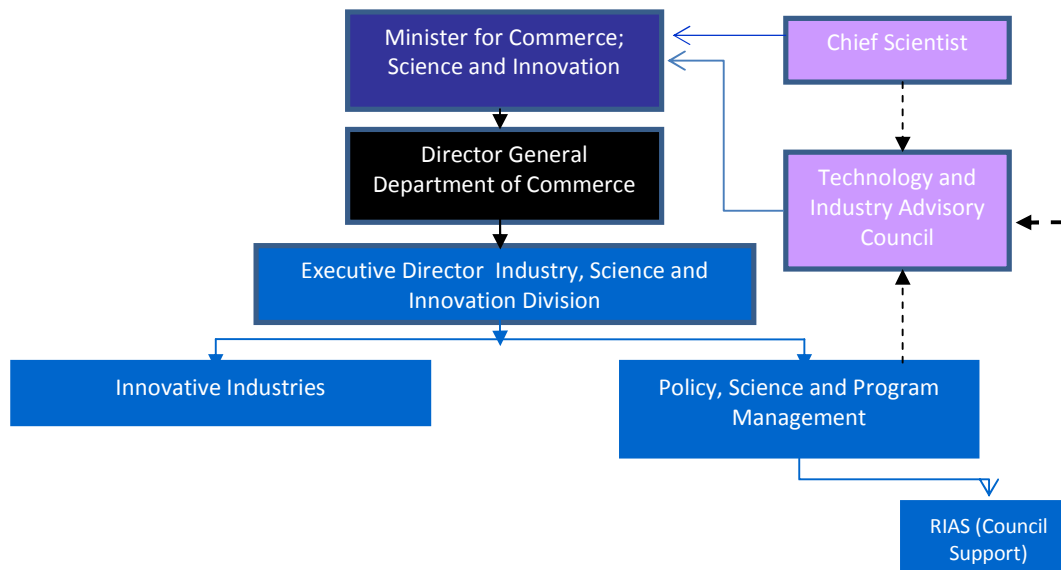


Diagram: Technology and Industry Advisory Council reporting structure in relation to the Department of Commerce.

Structure of the Council

The Council will include members with wide experience in industry and innovation in practice. As per ITD Act 1998, Part 6, Section 22(2).

The Minister is to appoint a chairperson of the Council from among the appointed members of the Council, as per ITD Act 1998, Part 6, Section 22(3).

Members will be appointed for a term as specified in their appointment, not exceeding three years, but may from time to time be re-appointed, as per ITD Act 1998, Schedule 1 Section 23(1).

Resignation, removal, etc.

As per ITD Act 1998 Section 23 Schedule 1 (2.1 and 2.2).

Minister may give directions

The Minister may give directions in writing to the Council with respect to the performance of its functions or the exercise of its powers, either generally or in relation to a particular matter, and the Council is to give effect to any such direction, as per ITD Act 1998, Part 6, Section 25(1).

The text of a direction given under subsection (1) is to be included in the annual report of the Council under Section 26.

Operations

The Council will meet at the times and places that the Council determines at intervals not longer than 2 months.

The General Manager, Research Investment and Advisory Services Branch (RIAS) will be the main point of contact between TIAC and the Department of Commerce. The General Manager will be invited to attend TIAC meetings as an observer.

An Executive Officer, appointed by the Department of Commerce, will coordinate meetings and prepare minutes which will be recorded and stored in accordance with public sector record management standards.

The Chairperson, will submit a copy of the minutes of each meeting to the Minister within 14 days after the meeting at which the minutes were confirmed.

Annual report of the Council

The Council, must, as soon as practicable after 1 July, and in any event on or before 31 August, in each year, prepare and give to the Minister a report on its operations and proceedings for the previous financial year, as per ITD Act 1998, Part 6, Section 26(1).

The Minister is to cause the Council's report to be laid before each House of Parliament within 7 sitting days of the House after the Minister has received it, as per ITD Act 1998, Part 6, Section 26(2).

This section does not affect any duty of the accountable authority of the department under Part 5 of the *Financial Management Act 2006* to prepare and submit an annual report containing information about the Council or the operation of that Act in relation to that annual report.

Remuneration or Sitting Fees

Members are remunerated under Section 24 of the ITD Act 1998.

On 24 November 2010, the Public Sector Commissioner provided a determination for remuneration of TIAC members being:

- a. Chairman - \$40,000 per annum; and
- b. Members - \$660 per day for meetings of 4 hours or more or \$430 per day for meetings less than 4 hours.

The recommendation is made pursuant to Premier's Circular 2010/02 – "State Government Boards and Committees" which excludes those on the public payroll from receiving fees.

Code of Conduct

This Code of Conduct (Code) is based on the Western Australian Public Sector Code of Ethics (Code of Ethics) as issued by the State Government's Public Sector Commissioner. It is applicable to most public sector bodies, including boards, and Councils created for a public purpose under Western Australian legislation.

In this Code, "member" means a Technology and Industry Advisory member duly appointed by the Minister under the ITD Act 1998.

Members are expected to:

- Act with care and diligence and make decisions that are honest, fair, impartial, and timely and consider all relevant information.
- Treat people with respect, courtesy and sensitivity and recognise their interests, rights, safety and welfare.
- Use the resources of the state in a responsible and accountable manner that ensures the efficient, effective and appropriate use of human, natural, financial and physical resources, property and information.

Personal behaviour

Members are expected to:

- act ethically and with integrity;
- act according to the legislative requirements, policies and ethical codes that apply;
- make decisions fairly, impartially and promptly, considering all available information, legislation, policies and procedures;
- treat members of the public and colleagues with respect, courtesy, honesty and fairness, and have proper regard for their interests rights, safety and welfare;
- not harass, bully or discriminate against colleagues, members of the public and support staff;
- contribute to a harmonious, safe and productive work environment by their work habits, and professional workplace relationships; and
- serve the government of the day by fulfilling their purpose and statutory requirements.

Communication and official information

Members are expected to:

- not disclose official information or documents acquired through their work, other than as required by law or where proper authorisation is given;
- not misuse official information for personal or commercial gain for themselves or another;

- adhere to legal requirements, policies and all other lawful directives regarding communication with Parliament, ministers, ministerial staff, lobbyists, members of the media and members of the public generally; and
- respect the confidentiality and privacy of all information as it pertains to individuals.

Fraudulent and corrupt behaviour

Members are expected to:

- not engage in fraud or corruption;
- report any fraudulent or corrupt behaviour;
- report any breaches of the code of conduct; and
- understand and apply the accountability requirements that apply.

Use of public resources

Members are expected to:

- be accountable for official expenditure;
- use publicly-funded resources diligently and efficiently. These include office facilities and equipment, vehicles, cab charge vouchers, corporate credit cards;
- not use office time or resources for party political work or for personal gain, financial or otherwise;
- keep to policies and guidelines in the use of computing and communication facilities, and use these resources in a responsible and practical manner; and
- be careful to ensure that any travel for official purposes is only done so when absolutely necessary.

Record keeping and use of information

Members are expected to:

- record actions and reasons for decisions to ensure transparency;
- ensure the secure storage of sensitive or confidential information;
- comply with the public sector record keeping plan; and
- where permissible, share information to fulfil their role.

Conflicts of interest

Under Schedule 1 (16). *Disclosures of Interests* of the ITD Act 1998, a member who has a material personal interest in a matter being considered or about to be considered by the Council must, as soon as possible after the relevant facts have come to the member's knowledge, disclose the nature of the interest at a meeting of the Council. Penalty: \$5,000.

A disclosure under subclause (1) is to be recorded in the minutes of the meeting.

In addition, members are expected to:

- ensure personal or financial interests do not conflict with their ability to perform their official duties in an impartial manner;
- manage and declare any conflict between their personal and public duty; and
- where conflicts of interest do arise, ensure they are managed in the public interest.

Public Sector Requirements

The Public Sector Commissioner monitors compliance with the WA Public Sector Code of Ethics and applicable codes of conduct. The Commissioner may report any public sector bodies, found to be in breach of the codes, to their relevant Minister and to Parliament.

Accordingly members on appointment will

- Receive a copy of this Charter and are expected to read and abide by it.
- Receive a copy of the Western Australian Public Sector Code of Ethics and are expected to read and comply with it.
- Receive a copy of the ITD Act 1998 and are expected to read and abide by it.

The Board accepts the minimum requirements set out in the Conduct Guide for Boards and Committees. This code of conduct builds on these minimum requirements.

Legislation, Policies and Procedures

Members will be subject to the following legislation, policies and procedures.

Relevant legislation

Auditor General Act 2006
Contact with Lobbyists Code
Corruption and Crime Commission Act 2003
Equal Opportunity Act 1984
Fair Trading Act 1987
Financial Management Act 2006
Financial Administration and Audit Act 1985
Freedom of Information Act 1992
Industrial Relations Act 1979
Industry and Technology Development Act 1998
Occupational Safety and Health Act 1984
Parliamentary Commissioner's Act 1971
Public Interest Disclosure Act 2003
Public Sector Management Act 1994
State Records Act 2000
State Superannuation Act 2000
State Supply Commission Act 1991
Statutory Corporations (Liability of Directors) Act 1996
Western Australian Equal Opportunity Act 1984
The Criminal Code

Other general requirements may be imposed by:

Administrative Instructions, Approved Procedures, Public Sector Commissioner's Circulars, Premiers Circulars and Delegations, Treasurer's Instructions

Relevant policies/guidelines

Western Australian Public Sector Code of Ethics 2002

Public Sector Standards in Human Resource Management 2001

Department of Premier and Cabinet Disciplinary Procedures Guide

Equal Opportunity Policy

Grievance Resolution Policy and Guidelines

Bullying Policy Among Staff at DOCEP

Prevention of Violence Against DOCEP Employees

Reporting Misconduct Policy and Procedures

Freedom of Information 1 & 2

Penalties for Non Compliance with Records Management Legislation

Customer Service Charter

Occupational Health and Safety Policy

Appendix 4

TIAC Committee Guidelines

PURPOSE

The Technology and Industry Advisory Council (TIAC) Committee Guidelines will serve to guide the establishment and activity of a TIAC committee and will apply to all TIAC committees.

BACKGROUND

TIAC is established under the *Industry and Technology Development Act 1998* (ITD Act). According to Section 21 of the ITD Act, the functions of TIAC are to:

- provide advice to the Minister (for Science and Innovation), at the initiative of TIAC or at the request of the Minister, on any matter relating to the objects of the ITD Act; and
- carry out, collaborate in or procure research, studies or investigations on any matter relating to the objects of the ITD Act.

The objects of the ITD Act under Section 3 are:

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

Schedule 1, Section 14 of the ITD Act states that TIAC may appoint committees to assist it in the performance of its functions and may discharge or alter any committee so appointed.

ROLE

If TIAC determines that it requires ongoing, expert assistance in providing advice on a specific issue or topic, a committee may be established by TIAC. In such circumstances, the role of a committee is to:

assist TIAC in the performance of its function of providing advice to the Minister and carrying out, collaborating in or procuring research, studies or investigations.

A committee will determine its specific purpose and objectives within this broader role by drafting a terms of reference document for TIAC approval.

MEMBERSHIP

A committee will be made up of approximately five members, including the Chair, and will not exceed seven members. A committee will consist of at least one TIAC member who will be appointed as Chair.

Committees will be made up of members with wide experience relevant to a committee's purpose and role as specified in its terms of reference. Members will be appointed by the Chair and approved by TIAC.

Committee membership will be reviewed as part of the review of a committee's terms of reference, at least on an annual basis.

Between annual reviews, and subject to the approval of TIAC, the Chair may co-opt additional members (not to be remunerated) if additional skills and experience are required on a specific and non-ongoing matter.

Committee Guidelines

Members can resign from the committee at any time. Notification of resignation must be in writing, addressed to the committee Chair. TIAC will be notified of any resignation at the next scheduled TIAC meeting.

REPORTING AND APPROVALS

A committee reports to TIAC and will uphold the following procedures:

- a committee will submit a terms of reference document, detailing its purpose and objectives, to TIAC for approval before the commencement of any further activity;
- a committee will seek TIAC approval before carrying out, collaborating in or procuring any research, studies or investigations;
- a committee will seek TIAC approval for any expenditure;
- a committee will provide TIAC with updates regarding committee activities, to be noted at every TIAC meeting, or more frequently if initiated by the committee Chair or requested by TIAC;
- a committee activity and outcomes report will be submitted to TIAC to be included in the TIAC Annual Report;
- a committee will submit its meeting minutes to be noted by TIAC and will notify TIAC of any decisions reached out-of-session;
- a committee will notify TIAC of any decisions reached without consensus or in the absence of a number of members; and
- a committee will submit any advice or recommendations to TIAC.

DECISION MAKING

If a committee is unable to come to a consensus on any specific matter, the decision of the present majority will apply. If there is an even number of members present and a vote results in a tie, the Chair will have an additional, deciding vote. Please note that this decision making process is different to that of TIAC.

Committee discussion can also take place out-of-session, if deemed necessary by the Chair. Any decisions made out-of-session require the input in writing of at least a quorum, if not all, members. 'In writing' includes by email.

SUPPORT

A Project Officer from the Research Investment and Advisory Services Branch (RIAS) of the Department of Commerce will be made available to support the activities of a committee.

Further information on the support provided by RIAS is contained in the TIAC Operating Protocol.

REMUNERATION

Eligible committee members will be paid such remuneration, travelling expenses and other allowances as the Minister determines on the recommendation of the Public Sector Commissioner.

The recommendation will be made pursuant to Premier's Circular 2010/02 – "State Government Boards and Committees" which excludes those on the public payroll from receiving fees.

QUORUM

At least 50 per cent of committee members are required for a quorum.

Committee Guidelines

GOVERNANCE

TIAC committees are required to note and uphold the following:

- TIAC Operating Protocol; and
- TIAC Charter.

REVIEWING

The Committee Guidelines will be reviewed by TIAC, in consultation with its committees, at least on an annual basis.

- A committee's activities, terms of reference and membership will also be reviewed by TIAC, in consultation with its committees, at least on an annual basis.

Appendix 5

Science Education Committees terms of reference

Science Education Committee

Terms of Reference

PURPOSE

The Science Education Committee (the Committee) will assist the Western Australian Technology and Advisory Council (TIAC) by providing strategic advice for the State Government on matters relating to science, technology, engineering and mathematics (STEM) education, communication and engagement, in order to ensure continuing development and enhancement of science and innovation in Western Australia.

OBJECTIVES

The Committee will advise TIAC on the following:

- the State's needs in STEM education, communication and engagement;
- opportunities and mechanisms to enhance STEM education, communication and engagement; and
- the findings of any research, study or investigation, initiated by or reviewed by the Committee including possibilities for implementation.

The Committee will support the development of recommendations by TIAC to the State Government with respect to enhancing STEM education, communication and engagement.

MEMBERSHIP

Dr Jim Ross (Chair) – TIAC member and Chair of Earth Science WA;

Mr Alan Brien – Chief Executive Officer, Scitech;

Mr John Clarke – Chief Executive Officer, Science Teachers Association of Western Australia;

Dr Pam Garnett – Past Chair of Education Working Group of the Premier's Science Council and Dean of Curriculum St Hilda's Anglican School for Girls;

Ms Glenda Leslie – Curriculum Consultant P-12 Science, Association for Independent Schools Western Australia;

Ms Louise Nielsen – Principal Consultant, Policy and Advice, Department of Education; and

Mr David Wood – Chief Learning, Teaching and Innovation Officer, Catholic Education Office of Western Australia.

MEETINGS

The Committee will meet approximately 4 – 6 times per year for a duration of 2 hours. Committee members will also undertake approximately 10 hours of work out of session per year.

GOVERNANCE

The Science Education Committee will uphold the TIAC Committee Guidelines, Operating Protocol and Charter.