



**2017/2018**



**TIAC Annual Activity Report**



Hon Mark McGowan MLA  
Premier; Minister for Public Sector Management; State Development,  
Jobs and Trade; Federal-State Relations  
Level 5, Dumas House  
2 Havelock Street  
WEST PERTH WA 6005

Dear Premier

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 2018, 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 Jobs, Tourism, Science and Innovation (JTSI) Annual Report and Financial Statement in accordance with Section 26(3) of the ITD Act and in compliance with Section 62 of the *Financial Management Act 2006*.

Yours sincerely



**Mr Alan Bansemer**  
**Chair**

27 August 2018

On behalf of Council members:

Current members (as of 30 June 2018):

Mr Alan Bansemer (Chair)  
Mr Andy Farrant  
Professor Lyn Beazley AO FTSE  
Professor Shaun Collin  
Professor Barry Marshall AC  
Mr Geoffrey Wedgwood (ex-officio)

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## Executive Summary

The Technology and Industry Advisory Council (TIAC), provides independent advice to the State Government on any matter relating to the Objects of the *Industry and Technology Development Act 1998* (ITD Act). TIAC is uniquely positioned to provide strategic, evidence-based advice identifying and encouraging innovation in industry, science and technology to drive sustainable economic growth and diversity in Western Australia.

The ITD Act ensures the existence and continuation of TIAC as a key independent advisory body reporting directly to the Minister responsible for the ITD Act.

TIAC, under the ITD Act, may independently publish any report that it prepares. TIAC reports through the Minister, to Parliament under Section 26(1) and Section 26(2) of the ITD Act. TIAC reports under the *Financial Management Act 2006* through the Department of Jobs, Tourism, Science and Innovation (JTSI) under Section 26(3) of the ITD Act.

The members of TIAC are appointed by the Minister and endorsed by the State Cabinet. Members bring a diversity of disciplines and perspectives along with a commitment to contribute to the development of Western Australia in their strategic advice to Government.

TIAC's strategy provides a vision for WA to grow diverse, sustainable and competitive industries that create more jobs and a robust society. TIAC's goal is to provide timely, independently, unbiased and actionable advice so that Government is an enabler for industry success, growth and diversification. TIAC strives to encourage facilitation between sectors and assists in technology transfer from one sector to another to solve issues that intersect across industry and science which can drive change, reduce inefficiencies and provide advances for the State.

## **TIAC Activities in 2017–2018**

### ***Advice to the Minister***

Advice is provided to the Minister responsible, following each Council meeting, with a summary of key discussion points provided.

Additionally, TIAC provided two advisory reports to the responsible Minister: *'Economic Growth, Diversity and New Energy Technologies'* (formerly titled TIAC Advisory Energy Report: *'New Technology Opportunities Driving Economic Growth'*) and *'Accessing Commonwealth Grant Funding'*.

### ***Implementation of Strategic Activities***

During the 2017–2018 financial year, TIAC progressed a number of activities and research projects, including consultation with key stakeholders. An overview is provided for each of these activities:

- TIAC Advisory Energy Report: *'Economic Growth, Diversity and New Energy Technologies'*.
- Discussion Paper: *'Accessing Commonwealth Grant Funding'*.
- Submission to the Economics Industry and Standing Committee – Inquiry into Microgrids and Associated Technologies in WA.

### ***Economic Growth, Diversity and New Energy Technologies***

Initial research highlighted the complexity, breadth and impact of the evolution and deployment of renewable energy technology and other associated supporting technologies. The research also highlighted the technological tension of trying to operate 21<sup>st</sup> Century technology in a system developed and based on mid-20<sup>th</sup> Century technology. Mr Andrew Hall, Inotek Corporation, a technology investor and advisor, supported TIAC undertaking a small study on the aforementioned project from the perspective of business end users, focusing on the opportunities and barriers for lowering energy costs.

The project identified a number of key themes and problems and encourages policy makers to think beyond the utility operations and think of energy as a key enabler of the economy. Low cost energy will drive the economy and deliver jobs. A copy of the report was circulated to numerous Ministers including: the Hon Mark McGowan MLA, Minister for State Development; Jobs and Trade; the Hon Bill Johnston MLA, Minister for Mines and Petroleum; Commerce and Industrial Relations; Electoral Affairs; Asian Engagement; the Hon Alannah MacTiernan MLC, Minister assisting the Minister for State Development, Jobs and Trade; and the Hon Ben Wyatt MLA, Treasurer; Minister for Finance; Energy; Aboriginal Affairs. The report was published on the TIAC website in January 2018.

## ***Accessing Commonwealth Grant Funding***

TIAC has added its voice in support of agencies and applicants in approaching the Commonwealth Government in relation to funding for innovation in WA. Members acknowledged that WA does not perform well in accessing Commonwealth competitive funding programs and in particular the poor performance of WA researchers and industry partners in accessing important Commonwealth funding such as CRC, ARC and NHMRC grants. For example, no CRC's were previously headquartered in WA until March 2017 when a CRC was awarded for honey bee products.

In early 2017, TIAC commenced work with Belka Consulting to develop a short discussion paper on the issue of accessing Commonwealth research grants. The discussion paper summarised the types of support activities offered by other jurisdictions and sought to identify government interventions that have most impact and deliver outcomes. TIAC considered the discussion paper and developed advice that was presented to the Minister. On 15 August 2017, the 'Accessing Commonwealth Grant Funding' Project Paper was published on the TIAC website.

## ***Inquiry into Microgrids and Associated Technologies in WA***

The Economics and Industry Standing Committee (EISC) is a multi-party committee of the Legislative Assembly of the WA Parliament that reviews relevant topics and reports to the Assembly. In April 2018, TIAC made their submission to the EISC. Following the submission, the EISC invited TIAC to attend a hearing with the Committee in May 2018.

The hearing session was shared with JTSI and was attended by Ms Michele Clement, TIAC Manager Secretariat, Professor Lyn Beazley, TIAC Member and Mr Joe Ostojich, Deputy Director General, JTSI. TIAC members were subsequently asked to answer questions that were based on its submission to the Inquiry which the EISC were unable to address during the hearing. The response was submitted in June 2018.

## ***Advice to the Department of Jobs, Tourism, Science and Innovation***

The Department of Jobs, Tourism, Science and Innovation (JTSI), responsible for the *Industry and Technology Development Act 1998* (ITD Act), works on topics that are also a focus for TIAC and reports to the Minister responsible for liaising with TIAC. TIAC has provided advice to assist JTSI in activities related to the ITD Act and technology opportunities for the State:

1. Approaches to bioprospecting and bio-discovery to inform the development of new legislation.
2. Government Intellectual Property, issues on IP commercialization and its importance to the economy.
3. Innovation focus areas for the WA Government.
4. Response to the Commonwealth Innovation Statement with options and implications for the State Government.
5. Accessing Commonwealth funding.
6. New Energy and the Economy
7. Efficient approaches to developing magazine style web pages.

## ***Meetings with the Chief Scientist***

Mr Bansemer, TIAC Chair, has undertaken three meetings with the Chief Scientist to discuss this important issue and facilitate linkages within the sectors.

## Stakeholder Engagement

### *Engagement with Industry and Academic Institutions*

The 40<sup>th</sup> Council meeting on 1 August 2017 was held at Magellan Power in Bibra Lake. Mr Masoud Abshar, CEO, Magellan Power, provided members with an overview of the facility's activities, projected goals and outcomes. Mr Abshar explained to members the various products that Magellan had developed in WA and manufactured at the facility including AC and DC back-up power systems and grid supporting Energy Storage equipment. He highlighted recent products such as the Solar Smoother and the low cost Sky Eye, which will give his company a competitive advantage in the energy sector. Following the presentation members were provided with a tour of the Bibra Lake factory where many of the innovative products from Magellan Power are manufactured and are on display.



**Photo:** Left to Right: Mr Howard Shawcross, TIAC Secretariat, Mr Geoffrey Wedgwood, Deputy Director General, Mr Masoud Abshar, CEO of Magellan Power, Mr Mike Dickson, TIAC Secretariat, Professor Shaun Collin, TIAC Member, Professor Lyn Beazley, TIAC Member, Professor Barry Marshall, TIAC Member and Mr Andy Farrant, TIAC Member.

The 41<sup>st</sup> Council meeting on 11 October 2017 was held at the Australian Marine Complex in Henderson. Mr Gordon Milner, Business Development Manager, AMC Management (WA) Pty Ltd, provided members with an overview of the facilities, capabilities and use of the Australian Marine Complex-Common User Facility (AMC-CUF) by various industries, including oil and gas, resources, marine and defence. Mr Milner explained to members that AMC Management are the facility managers of the AMC-CUF. They are responsible for marketing, operating and maintaining the AMC-CUF. The AMC Management is contracted to LandCorp and works closely with JTSI for business development and investment attraction.



**Photo:** Panoramic view of the Australian Marine Complex

The 42<sup>nd</sup> Council meeting on 14 December 2017 was held at the offices of JTSI. Mr Jonathan Smith, General Manager, AMC Management, provided members with an overview of the Defence Industry Infrastructure at the AMC-CUF. Mr Milner also attended the TIAC meeting. Members discussed a draft of TIAC's new Vision and Strategy documents for finalisation at their next meeting.

The 43<sup>rd</sup> Council meeting on 7 March 2018 was held at the offices of JTSI. Ms Clement and Mr Farrant agreed to collectively draft the submission for the Economic and Industry Standing Committee 'Inquiry into Micro-grids and Associated Technologies in WA'. The Council also finalised the TIAC Vision and Strategy documents and agreed to forward these to the Premier with an overview. This information was sent to the Premier on 6 April 2018.

TIAC has benefited from receiving feedback on the challenges industry faces in research, innovation, science and industry in WA. TIAC's engagement with its constituents allows TIAC to provide the Minister with informed fact-based independent advice. The feedback from these meetings is also being considered in future TIAC activities.

## ***Outlook for 2018–2019***

TIAC's strategic activities underpin TIAC's focus moving forward. Future initiatives include:

- To deliver unbiased and actionable advice to the WA State Government that provides timely and relevant leverage points so Government adapts to be a relevant and positive enabler for industry success, growth and diversification.
- To deliver timely, independent, unbiased, actionable and trusted advice. Continually apply innovative thinking; leverage local, national and international networks and knowledge bases to stimulate change and growth so that WA's status as a leading place to do business is recognised and attractive for enterprises of all sizes.
- Identify opportunities and promote developments in industry, science and technology that increases productivity, competitiveness, growth and diversification.
- Support developments that create employment opportunities.

On 13 February 2018, the ITD Act transferred to the Hon Mark McGowan MLA, Premier; Minister for Public Sector Management; State Development, Jobs and Trade; Federal-State Relations. JTSI is responsible for assisting the Premier in the administration of the ITD Act. It is also responsible for implementing the function of TIAC.

TIAC will continue to work with the Minister responsible and his office to identify specific areas of advice that will support the Minister and progress the objectives of the ITD Act.

## ***Future Engagement Activities***

In order to facilitate and provide the responsible Minister with informed fact-based independent advice, TIAC also intends to meet with private and public organisations to improve the flow of information and to gain insights into important issues in 2018 and beyond. TIAC also intends to develop an expert advisory network to provide timely and prioritised advice on emerging trends.

## TIAC Membership

The members of TIAC during the 2017–2018 financial year were:

### **Mr Alan Bansemer, TIAC Chair and Director, Banscott Health Consulting Pty Ltd**

Mr Alan Bansemer has over 35 years' experience in the health sector, including six years as the West Australian Health Commissioner and eight years as the Deputy Secretary to the Commonwealth Department of Human Services and Health. He currently runs his own private consultancy group, Banscott Health Consulting Pty Ltd, providing strategic advice to health departments throughout Australia.



Mr Bansemer has chaired a number of committees including the Medicare Schedule Review Board and General Practice Consultative Committee. In addition, he has served as a member of numerous health advisory committees including the Australian Health Ministers' Advisory Council, Health Insurance Commission and Australian Institute of Health and Welfare.

Mr Bansemer has a Bachelor degree in Economics from the University of Adelaide and Post Graduate Diploma in Business Administration from the South Australian Institute of Technology.

### **Mr Andrew (Andy) Farrant, Principal, One Degree Advisory**

Mr Andy Farrant has over 25 years' management experience, serving as a company director in a range of not-for-profit and commercial entities. In his last job, Mr Farrant was the General Manager and Company Secretary for Poseidon Scientific Instruments, a defence firm specialising in radio frequency technology. In this role he was responsible for leading a team that developed the signal receivers for the Murchison Widefield Array, a precursor project for the Square Kilometre Array Radio Telescope.



His career also spans across the field of arts management serving as the Chief Executive Officer for Country Arts WA, the Media and Marketing Manager at Perth Theatre Trust, a Director of Regional Arts Australia and the Chair of Federal Ministerial Advisory Committee Playing Australia. He currently is the Principal Consultant at One Degree, a boutique consultancy firm specialising in leadership and communications.

Mr Farrant is a graduate of the Australian Institute of Company Directors. He holds a Post Graduate qualification in Arts Administration and is a trained science specialist teacher.

## **Professor Lyn Beazley AO FTSE**

After graduating from Oxford and Edinburgh Universities, Lyn built an internationally renowned research team in Neuroscience that focused on recovery from brain damage, with much of her investigations undertaken as Winthrop Professor at The University of Western Australia. Currently Lyn is Sir Walter Murdoch Distinguished Professor of Science at Murdoch University.



Lyn was honoured to be Chief Scientist of Western Australia from 2006 to 2013, advising the Western Australian Government on science, innovation and technology, as well as acting as an Ambassador for science locally, nationally and internationally. With extensive experience serving on advisory bodies, Lyn currently serves on several boards including the Federal Government's Bionic Vision Australia. Lyn was a Trustee of the Western Australian Museum from 1999 to 2006 and currently is Patron of the Friends of the Museum. Recently Lyn joined the Board of the Western Australian Art Gallery Foundation.

In 2009, Lyn was awarded Officer of the Order of Australia and elected a Fellow of the Australian Academy of Technological Sciences and Engineering later that year. In 2011, she was inducted into the inaugural Western Australian Women's Hall of Fame, followed by being elected a Fellow of the Australian College of Educators and a Companion of Engineers Australia. Lyn has worked to promote Science, Technology, Engineering and Mathematics to the community, especially to young people and in 2012, Lyn was thrilled to become the second recipient of the Governor's Award for Giving in recognition of her enthusiastic philanthropy. In 2014, Lyn was accorded the honour of being inducted into the Western Australian Science Hall of Fame and in November 2015 was thrilled and honoured to be announced as WA Australian of the Year for 2015.

**Professor Shaun Collin, Deputy Director, UWA Oceans Institute and School of Biological Sciences, The University of Western Australia**

Professor Shaun Collin is a world leader in comparative neurobiology and Winthrop Professor at The University of Western Australia. Shaun has a BSc (Hons) and MSc from The University of Melbourne and a PhD from The University of Queensland.



Professor Collin, a former WA Premier's Research Fellow, is a world leader in how animals perceive and process their sensory world under different environmental conditions. He uses innovative techniques in anatomy, electrophysiology, bioimaging, molecular biology and behaviour to understand the evolution and mechanisms of neural processing for a range of senses including vision, hearing, olfaction and electroreception. Professor Collin's research is being incorporated into shark mitigation technologies, improving aquaculture industries, identifying the effects of anthropogenic disturbances such as underwater noise and dredging activities, with the ultimate aim of informing management strategies to conserve Australia's unique biodiversity.

Professor Collin has held many of the world's most prestigious fellowships in places such as the Scripps Institution of Oceanography in the United States (US); the Marine Biology Laboratory in Woods Hole in the US; The University of Tuebingen in Germany; The University of Montreal in Canada; the University of Washington (Friday Harbor) in the US; and The University of Queensland in Brisbane. He is the author of over 250 international scientific publications including nine books on sensory systems of primarily aquatic vertebrates. Professor Collin has played an important role in the implementation of the Blueprint for Marine Science 2050 in Western Australia.

## **Professor Barry Marshall AC, Nobel Laureate, The University of Western Australia**

Professor Barry Marshall is a Nobel Prize Laureate for Physiology or Medicine. This prize was awarded jointly to Professor Marshall and Professor Robin Warren in 2005 in recognition of their 1982 discovery of the bacterium, *Helicobacter pylori* that causes peptic ulcer disease. Their work is acknowledged as the most significant discovery in the history of gastroenterology and is compared to the development of the polio vaccine and the eradication of smallpox.



In 1998, Professor Marshall was made a Fellow of the Royal Society, and in 2008 he was elected as a Foreign Member to the prestigious US National Academy of Science. He was awarded a Companion in the General Division of the Order of Australia in 2007.

Professor Marshall continues to work as a Senior Principal Research Fellow at The University of Western Australia and is an Honorary Clinical Professor of Medicine and a consultant gastroenterologist at Sir Charles Gairdner Hospital. He treats patients with antibiotic resistant *Helicobacter pylori* infections and leads a team undertaking varied research into the bacterium, from clinical microbiology through to genomics and systems biology. His Helicobacter Research Laboratory is located within the Marshall Centre for Infectious Diseases Research and Training, of which he is a Director. In 1996, he was a founder of Tri-Med Distributors Pty Ltd, a company specialising in the distribution and marketing of products for the detection and cure of *Helicobacter pylori*. In addition, he founded Ondek Pty Ltd in 2005 to develop and commercialise derivatives of *Helicobacter pylori* that are unable to colonise the gut, but have beneficial therapeutic effects. The first product being developed at Ondek is an immunotherapy for the treatment of eczema. Other products will address allergic asthma and food allergies in children.

## **Mr Geoffrey Wedgwood (ex-officio), Deputy Director General, Department of Jobs, Tourism, Science and Innovation**

Mr Geoffrey Wedgwood joined JTSI as Deputy Director General in September 2016.

He has more than 20 years of resources sector related experience, particularly in oil and gas, mineral sands, iron ore and mining services. His experience covers both the public and private sectors and includes senior management roles with Woodside Petroleum Ltd, Iluka Resources Limited, Mineral Resources Limited and senior advisory and consulting roles with previous WA Ministers for Resources Development and Energy and State Development.

## **Resignations and Appointments**

Mr Alan Bansemer (Chair), Professor Lyn Beazley AO, Professor Shaun Collin, Mr Andrew Farrant and Professor Barry Marshall continued to serve as members through 30 June 2018 under Section 1 of Schedule 1 of the ITD Act.

On 1 July 2017, JTSI was formed. Following the Machinery of Government changes, Mr Lex McCulloch, former A/Director General, Department of Commerce, ceased his ex-officio role on 30 June 2017. Mr Geoffrey Wedgwood, Deputy Director General of JTSI commenced the role as ex-officio on 19 July 2017.

## **Operating Protocol**

The Secretariat drafted a revised version of the original Operating Protocol. The newly drafted version was designed to provide a simplified outline of the aligned goals to enhance industry and technological development in WA between TIAC and JTSI. A new version was also sought to reflect the new structure of the Labor Government. The Operating Protocol is pending approval and will be sought following the appointment of a permanent Director General of JTSI.

## **TIAC Secretariat**

As per the Operating Protocol between JTSI and TIAC, the Department provides a team of staff (known as the Secretariat) to TIAC, who provide the following support:

- secretariat support:
  - minutes;
  - agenda;
  - conflict of interest registry; and
  - booking conference and event attendance.
- project management support;
- budget and financial administration;
- public interest disclosure officer, direct advice and desktop research; and
- website maintenance.

The Manager, Secretariat and the Executive Officer are the main point of contact for TIAC. Their role is to liaise with JTSI and TIAC to ensure continuity of information and advice (as per the Operating Protocol). On 30 October 2017, Ms Michele Clement, Belka Consulting was appointed the Manager. The Manager, Secretariat and the Executive Officer are invited to attend TIAC meetings as observers. Other Departmental staff may be invited to attend TIAC meetings at TIAC's discretion.

## **Financial Statement**

TIAC reports under the *Financial Management Act 2006* through the JTSI Annual Report and Financial Statements.

## **Financial Provisions**

While there is capacity for TIAC expenses to be provided for under Section 15 of the ITD Act via the Western Australian Industry and Technology Development Account, TIAC's budget is currently provided as part of the JTSI annual operating budget.

## **Remuneration of Council Members**

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 was 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 on five occasions between July 2017 and June 2018: 1 August 2017; 11 October 2017; 14 December 2017; 7 March 2018 and 22 May 2018.

## **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 this 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 coordination 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 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.

## **Ministerial Directions**

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

On 13 February 2018, the ITD Act was transferred to the Hon Mark McGowan MLA, Premier; Minister for Public Sector Management; State Development, Jobs and Trade; Federal-State Relations. On 6 March 2018, the 'Instrument of Delegation' was signed off by the Premier which delegates and authorises powers to the Director General of JTSl.