



**Australian Government**  
**Department of Industry**

# **Innovation Policy Report**

August 2014

# Table of Contents

<b>Developments in strategy and policy .....</b>	<b>2</b>
Australian Government: Entrepreneurs' Infrastructure Programme .....	2
Crowd Sourced Equity Funding .....	3
Australian Government: Changes to the R&D Tax Incentive .....	4
New CSIRO operating arrangements .....	4
BlueScope develop new integrated solar roofing system. ....	5
NSW: Agriculture Industry Action Plan.....	5
NSW: Minerals Industry Action Plan .....	6
NSW: Easy Access Intellectual Property Update .....	6
NSW: Smart Work Hubs.....	6
Ireland: Smart Futures programme.....	6
US: \$100m for 32 Energy Frontier Research Centers .....	6
US Cluster Mapping Website.....	7
US: Collaborate on pilot innovation corps activity.....	7
US: Incubators for Clean Technology Ventures .....	7
<b>Developments in funding programmes.....</b>	<b>8</b>
Australian Government: \$155 million Growth Fund.....	8
Australian Government: Manufacturing Transition Programme .....	8
Australian Government: Trade Support Loans Programme.....	9
Australia SKA Pathfinder (ASKAP) radio telescope: First images .....	10
Supercritical solar - new frontier for power generation .....	10
Opening of the Biosecure Immunology Laboratory .....	10
NSW: Design-Led Innovation.....	11
NSW: Small Business Innovation Assistance.....	11
NSW: Establishment of Industry-Led Knowledge Hubs.....	11
NSW: Research Attraction and Acceleration Program .....	11
NSW: Wine Industry .....	12
Australia-India Council Grants Program.....	12
Malta: Launch of the FUSION programme.....	12
US: \$2m in FAST grants awarded .....	13
<b>Assessment of innovation performance .....</b>	<b>14</b>
Australian Government: National Survey of Research Commercialisation .....	14
Showcasing innovation in the NSW manufacturing sector .....	14
OECD: Industry and Technology Policies in Korea .....	14
OECD: Smarter research spending would boost French innovation.....	14
<b>Events &amp; conferences .....</b>	<b>16</b>
Australian Technologies Competition 2014.....	16
National Resource Sciences Precinct launches in Perth.....	16
Biosecurity Futures Workshop.....	17
NSW Creative Achievement Awards.....	17
NSW: Powerhouse Museum Exhibition.....	18
Innovation Prize for Africa Winners Announced .....	18
EcoProcura 2014.....	18
<b>Publications .....</b>	<b>19</b>
Growing Opportunities: South Australian and Victorian Comparative Advantages .....	19
Design for future manufacturing competitiveness.....	19
The role of science, research and technology in lifting Australian productivity.....	19
ABS Summary of IT Use and Innovation in Australian Business, 2012-13 .....	20
NSW: Terms of Reference for the Minerals Industry Task Force.....	20
The Global Entrepreneur and Development Institute releases the latest Gender Index.....	21
Enterprise Europe Network.....	21
The silver lining: cloud computing and small and medium enterprises .....	21
Making in America: US Manufacturing Entrepreneurship and Innovation .....	22
NESTA: Lessons from highly innovative smaller countries.....	22

# Developments in strategy and policy

## Australian Government: Entrepreneurs' Infrastructure Programme

The new Entrepreneurs' Infrastructure Programme was announced in the 2014-15 Budget, as part of the Government's \$1.4 billion package (over four years) to facilitate business competitiveness. The Programme started on 1 July 2014.

### *About the Entrepreneurs' Infrastructure Programme*

The \$484.2 million Entrepreneurs' Infrastructure Programme aims to improve the capabilities of small to medium enterprises to become more self-reliant, competitive and grow. The Entrepreneurs' Infrastructure Programme offers three broad streams:

- Business Management;
- Research Connections; and
- Commercialising Ideas.

Support will be provided in a range of forms, such as:

- One-on-one advice from people with relevant private sector experience;
- Small co-contributions for re-engineering or growth opportunities for business; and
- Connection and collaboration opportunities.

The Programme is being delivered through the new Single Business Service initiative. Single Business Service streamlines the way businesses access industry information and services by putting their needs first - reducing red tape and providing quality, consistent services at the lowest possible cost.

Consultation with stakeholders including peak industry bodies, businesses, governments, and the research sector on the Programme occurred in June.

### *Services currently available under the Programme*

The Business Evaluation and Business Growth Grant elements of the Programme were launched on 1 July 2014. Eligible businesses can now request a business evaluation to improve business performance, and business growth grants to implement key recommendations.

### *Next steps*

Services under the Research Connections stream will be available from

Department of Industry

1 September 2014, and the Commercialising Ideas stream will be available from 1 November 2014. This phased approach balances the need for continuity of services while allowing further time for programme design and input from consultation.

The Department is currently analysing submissions as well as issues raised at the various roadshows used to inform stakeholders about the Programme. This analysis will inform design of the future elements of the Programme.

For further information about the Programme visit: [www.business.gov.au](http://www.business.gov.au)

## **Crowd Sourced Equity Funding**

The Corporations and Markets Advisory Committee (CAMAC) published its report on the regulation of crowd sourced equity funding in June 2014. CAMAC supports the facilitation of crowd sourced equity funding in Australia and recognises its potential ‘to encourage the Australian start-up entrepreneurial sector, especially in the crucial early stages of project and product development.’

CAMAC recommends the introduction of a regulatory regime specifically designed for crowd sourced equity funding and the report sets out a detailed framework for internet-based funding.

Some of the key features proposed by CAMAC are:

- to use crowd sourced equity funding a company will have to be either an “exempt public company” or a public (but not listed) company;
- an exempt public company will be a new classification of company which will be exempt from various compliance requirements applicable to public companies. An existing propriety or public company will be able to convert to an exempt public company in some circumstances. Exempt status will cease upon certain events which include on the company reaching, CAMAC suggests, \$5 million capital or \$5 million annual turnover;
- a company will only be able to raise \$2 million per annum through crowd equity funding;
- an investor will be limited to a \$2 500 investment per annum in any one company and an annual limit of \$10 000 for all investments;
- a standard disclosure template to provide guidance to companies raising funds and facilitate comparison with other share offers;
- offers can only be made through online intermediaries licensed by ASIC. Among other obligations, intermediaries will have to provide a generic risk disclosure statement to investors;

- intermediaries will also be required to enable crowd investors to communicate with each other and with the issuer during such time as the issuer is utilising its website; and
- companies will not be limited as to the classes of shares they may issue and the rights attaching to those shares, provided full disclosure is made. This, for example, will enable a company to issue shares without voting rights to crowd investors, should it so desire.

The Government will consider the proposals put forward in [CAMAC's report](#).

### **Australian Government: Changes to the R&D Tax Incentive**

The R&D Tax Incentive better targeting measure was announced by the previous government on 17 February 2013 as part of its Industry and Innovation Policy Statement, *A Plan for Australian Jobs*. The Government confirmed it would proceed with the measure on 6 November 2013. The better targeting measure limits access to the R&D Tax Incentive to companies with aggregated assessable income under \$20 billion. Companies affected will be entitled to claim R&D expenditure under the normal provisions in general tax law, for example, a deduction for business expenditure.

The *Tax Laws Amendment (Research and Development) Bill 2013*, which will give effect to the R&D Tax Incentive better targeting measure, is currently before the Senate.

As part of the 2014/15 Federal Budget, the Government announced a reduction in the rates of tax offsets available to companies under the R&D Tax Incentive by 1.5 percentage points. The rates of the refundable and non-refundable tax offsets will be reduced to 43.5 per cent and 38.5 per cent respectively, from 1 July 2014. Legislation to give effect to the announced reduction in rates of benefit is currently being drafted.

The R&D Tax Incentive programme will continue to provide generous, easy-to-access support for eligible companies in all sectors of the Australian economy - helping thousands of Australian companies each year to invest in R&D to develop new products, processes and services to take to market here and overseas.

### **New CSIRO operating arrangements**

CSIRO is implementing new operating arrangements. These changes are aimed at making it easier to do business with CSIRO and easier for staff to deliver science that makes a difference to people, industry and the planet. From July 2014, CSIRO will have three lines of business:

1. National facilities and collections;

2. Impact science - including the following nine Flagships: Agriculture; Biosecurity; Food and Nutrition; Digital Productivity and Services; Energy, Manufacturing; Land and Water; Mineral Resources; and, Oceans and Atmosphere; and
3. Services - including education, publishing, infrastructure technologies, SME engagement and CSIRO Futures.

### **BlueScope develop new integrated solar roofing system.**

BlueScope Steel has developed a building integrated photovoltaic thermal (BIPVT) roofing system that is able to be applied to existing buildings or new structures. The technology has adapted colorbond steel roofing panels to capture solar energy as either electricity or heat. It is hoped that the integrated system will lower the costs associated with photovoltaic energy by simplifying the installation process.

The technology is the product of a \$5 million project from BlueScope Steel, \$2.3 million of which was co-funded by the Australian Renewable Energy Agency. The roofing system can produce the 1.4 kW of electrical output and 3-6 kW of thermal output. It is designed to provide property owners an affordable, convenient and aesthetically pleasing photovoltaic option that can assist to reduce burdens on the electricity grid during periods of peak demand.

So far BlueScope's BIPVT technology has been used to replace the roof of a residential home in the Sydney suburb of Glebe, as well as second property in the Illawarra region of NSW.

Although Solar Cell producer Dyesol offer a building integrated photovoltaic (BIPV) system, BlueScope's technology is the first integrated system available in Australia, that also provides the option of generating thermal output. It is hoped the extra flexibility offered by the BlueScope system will assist to expand the Australian market for BIPV and BIPVT systems in the future.

### **NSW: Agriculture Industry Action Plan**

Agriculture is a key component of the NSW economy. A 10-year Agriculture Industry Action Plan (AIAP) is being developed with the aim of addressing a mix of economic, environmental and social pressures that will face the industry over the long term and to promote the growth of the industry.

The AIAP Taskforce has consulted widely in determining recommendations to address key issues for the industry in areas of productivity, innovation, labour, education, regulation and markets. The AIAP will be submitted for NSW Government consideration in 2014.

### **NSW: Minerals Industry Action Plan**

The NSW minerals industry, including coal, is the source of almost a third of NSW's total exports (merchandise and services combined, 2012-2013). The NSW Government has established a new industry-led taskforce to develop a Minerals Industry Action Plan to provide recommendations on strategies to drive growth, innovation and productivity in the sector over the next decade. A Taskforce report is expected to be submitted to the Minister for Energy and Resources before the end of 2014.

### **NSW: Easy Access Intellectual Property Update**

The NSW Government is encouraging industry and universities in NSW to collaborate to commercialise intellectual property (IP) developed by the universities through the Easy Access IP program. Four NSW universities – Macquarie University, University of Wollongong, University of New South Wales (UNSW) and University of Technology Sydney – currently utilise the Easy Access IP approach. The Easy Access IP movement originated at the University of Glasgow and is now in use by a number of universities around the world. UNSW is the Australasian Ambassador for Easy Access IP.

### **NSW: Smart Work Hubs**

NSW Trade & Investment is exploring how [Smart Work Hub](#) pilot projects can support flexible work practices and offer commuters an alternative work location closer to home. Five pilot projects were announced in June 2014, and will be operational by 31 December 2014 in Western Sydney and the NSW Central Coast.

### **Ireland: Smart Futures programme**

A new three year programme, [Smart Futures](#), was launched in April 2014 in Ireland to encourage more students to study Science, Technology, Engineering and Mathematics (STEM). The programme seeks to improve the strategic coordination and alignment of industry-outreach resources and drive the uptake of students selecting STEM subjects at post-primary and third level.

### **US: \$100m for 32 Energy Frontier Research Centers**

The United States Energy Secretary announced the award of US\$100 million for [Energy Frontier Research Centers](#) (EFRCs) to accelerate scientific breakthroughs needed to build the 21<sup>st</sup> century energy economy. These awards are the second round of funding for EFRCs and research supported by this initiative will enable fundamental advances in energy production, storage and use.

## **US Cluster Mapping Website**

The [United States \(US\) Cluster Mapping and Registry](#) project, a national economic initiative at Harvard Business School's Institute for Strategy and Competitiveness and supported by the Economic Development Administration was announced in June 2014. The project aims to bolster US competitiveness by understanding the economic performance of clusters and regions across the country. A new website offers access to open data about regional economies and clusters, empowering regions, economic developers, and businesses, and also integrates statistical analyses using county-level business data.

## **US: Collaborate on pilot innovation corps activity**

A [collaboration](#) between the United States National Science Foundation and the National Institutes of Health (NIH) aims to offer NIH-funded researchers training to help them evaluate their scientific discoveries for commercial potential, with the goal of accelerating the translation of biomedical innovations into applied health technologies.

## **US: Incubators for Clean Technology Ventures**

Funding of US\$3.2 million was announced in June to launch the [National Incubator Initiative for Clean Energy](#). The Incubator aims to create a national support network to serve the clean energy small business and entrepreneur community. The initiative will create a suite of technological and training resources, connect critical industry and energy sector partners, enhance incubator best practices, and boost access to information about industry resources to move innovative clean energy technologies emerging from universities and federal laboratories into the national and global marketplace.

## Developments in funding programmes

### Australian Government: \$155 million Growth Fund

On 30 April 2014 the Government announced a [\\$155 million Growth Fund](#) that will help industry adjust to the wind-down of car manufacturing in Australia.

The fund supports initiatives to transition workers to new jobs, help businesses find new markets and invest in capital equipment, and support regions to invest in infrastructure projects through five elements:

- A \$30 million Skills and Training Programme to help automotive workers recognise their skills and train them for new jobs, while they are still employed;
- A \$15 million boost to the Automotive Industry Structural Adjustment Programme to extend the programme until 30 June 2018 and provide employment support to help redundant automotive workers find new jobs;
- A \$20 million Automotive Diversification Programme to help automotive supply chain firms capable of diversifying to find new markets;
- A \$60 million Next Generation Manufacturing Investment Programme to accelerate private sector investment in high value manufacturing sectors in Victoria and South Australia;
- A \$30 million Regional Infrastructure Programme to support investment in non-manufacturing opportunities in regions affected by the closure of the car manufacturing industry.

The Australian Government contribution to the Growth Fund is \$101 million. Holden and Toyota are each contributing \$15 million to the Growth Fund. The South Australian and Victorian state governments will each contribute \$12 million.

The various elements of the fund will be phased in from July 2014.

### Australian Government: Manufacturing Transition Programme

The Manufacturing Transition Programme (MTP) is a new \$50 million national grants programme which will assist firms to invest in a major change into higher value or niche manufacturing activities by providing grants ranging from \$1 million up to \$10 million. Applicants will be expected to contribute at least three dollars for every dollar of grant funding awarded. Grants will be awarded on a competitive merit based process.

The Australian manufacturing industry is diverse, ranging from relatively low

value added food and beverage products to higher value, knowledge intensive products such as medical devices, pharmaceuticals and electronics.

In order to remain competitive, Australian manufacturers must begin to move away from traditional low-value manufacturing and into more knowledge-intensive and niche manufacturing. The Australian Government recognises the need to adapt our manufacturing industry and is committed to encouraging investment in strategic high-value manufacturing markets which exploit Australia's competitive advantages.

By supporting firms to transition their operations into higher value manufacturing activities, the MTP aims to improve a firm's competitiveness and sustainability and create new business opportunities for the future.

The MTP will be open for applications later in 2014. Further information on this initiative will become available on [business.gov.au](http://business.gov.au) and through the hotline on 13 28 46.

### **Australian Government: Trade Support Loans Programme**

[Trade Support Loans](#) will encourage more people to take up a trade and complete their qualification in areas of critical importance to the nation.

The Trade Support Loans Programme represents an investment of \$439 million (in fiscal balance terms) over the forward estimates and will support Australian Apprentices in skill shortage areas through concessional, income contingent Trade Support Loans of up to \$20 000 per individual. Trade Support Loans were a Government election commitment in 2013 and are a 2014-15 Budget measure.

Trade Support Loans will be available to Australian Apprentices undertaking a Certificate III or IV qualification that leads to an occupation listed on the National Skills Needs List or a Certificate II, III or IV agricultural qualification; or a Certificate II, III or IV horticulture qualification in rural or regional Australia.

Payments will be made in monthly instalments in arrears and Australian Apprentices apply and may then opt in every six months for a further six instalments. Apprentices will have access to the greatest financial support in the early years when they need it the most with access to \$8 000 in their first year, \$6 000 in the second, \$4 000 in the third and \$2 000 in the fourth year.

As an additional incentive to complete, apprentices who successfully complete their apprenticeship will have their Trade Support Loan amount reduced by 20 per cent. Apprentices won't make any repayments until they are earning a sustainable income (over \$53 345 in 2014-15).

## **Australia SKA Pathfinder (ASKAP) radio telescope: First images**

ASKAP is developing and proving technologies for the international Square Kilometre Array (SKA) telescope, which will start construction in Australia and South Africa in 2018. In early June 2014 the first images from ASKAP were captured. These images show that ASKAP is now working as a fully-fledged radio telescope after just a few months of commissioning. They clearly demonstrate the revolutionary potential of CSIRO's new phased array feed technology.

## **Supercritical solar - new frontier for power generation**

CSIRO has used solar energy to generate hot and pressurised 'supercritical' steam, at the highest temperatures ever achieved in the world outside of fossil fuel sources.

Commercial solar thermal power plants around the world use subcritical steam, operating at similar temperatures but at lower pressure. If these plants were able to move to supercritical steam, it would increase the efficiency and help to lower the cost of solar electricity.

The world record, set in May 2014, was at a pressure of 23.5 megapascals (a measure of force per unit area), and temperatures up to 570 degrees Celsius. It is the combination of pressure and temperature demonstrated at scale that makes this such a breakthrough for solar power.

The \$5.68 million research program is supported by the Australian Renewable Energy Agency and is part of a broader collaboration with Abengoa Solar, the largest supplier of solar thermal electricity in the world.

## **Opening of the Biosecure Immunology Laboratory**

CSIRO and Deakin University officially opened the new high-tech national research facility, located inside the [Australian Animal Health Laboratory](#) in Geelong on 6 May 2014.

The new laboratory will provide more specialised techniques, at a cellular level, to help pin-point the immune mechanisms employed by various animal hosts. This new world-class facility will be critical in helping develop new, more natural, therapeutics and boost work in preventing, detecting and treating emerging infectious diseases.

The new laboratory is equipped with state-of-the-art equipment, thanks to a long standing collaboration between CSIRO and Deakin University, with input from the University of Georgia, USA. It will be made available as a national resource with operational funding support from the National Collaborative Research Infrastructure Strategy.

## **NSW: Design-Led Innovation**

NSW Trade and Investment is supporting a design-led innovation initiative to encourage better business response to the immediate challenges of technological change and global competition. The initiative includes a focus on manufacturing SMEs in areas of high manufacturing concentration. The Department is coordinating a series of workshops, in partnership with the Commonwealth's Entrepreneur's Infrastructure Programme, which are being held at Olympic Park in Western Sydney, Newcastle, Parramatta, Wollongong and Sydney CBD, during 2014.

## **NSW: Small Business Innovation Assistance**

To ensure NSW capitalises on growth of small businesses, the NSW Small Business Commissioner's Office has developed a range of resources under the [Small Biz Connect](#) program to assist small businesses identify key areas for improvement and support their commercial sustainability. These include Design Thinking "health checks" designed to encourage design-led and innovative solutions for small business.

The NSW Government announced in the NSW 2014-15 Budget that it will deliver \$14 million to support Small Business Commissioner's programs including the Small Biz Connect, and dispute resolution services. This includes \$1.1 million of new funding over four years for specialist small business advisors with language skills to support small businesses from non-English speaking backgrounds in Western Sydney.

## **NSW: Establishment of Industry-Led Knowledge Hubs**

NSW Trade and Investment is assisting industry to establish knowledge hubs which will provide a platform for collaboration and networks with links to research capabilities, SMEs and start-ups. Planning and preparation work is in process for hubs in Medical Technology; Digital Creative; Transport & Logistics; Energy; and Financial Services industries.

A knowledge hub designation provides a mechanism to recognise existing NSW industry strengths and focus activity to improve industry-research interaction, innovative activity, and enhance NSW's global competitiveness.

## **NSW: Research Attraction and Acceleration Program**

Under this program, the NSW Government provides funding for significant research projects being undertaken at research centres and universities in NSW. In 2013-14, the NSW Office of Science and Research supported two Cooperative Research Centres, two Australian Research Centres of Excellence, as well as projects at Macquarie and Sydney Universities and the Cancer Institute NSW.

In 2014-15, the NSW Government is providing over \$13 million for the Research Attraction and Acceleration Program, including funding for National ICT Australia, to drive continued investment to develop the State's research and development capabilities.

### **NSW: Wine Industry**

NSW is Australia's second largest wine producing state, accounting for 34 per cent of Australia's wine industry and nine per cent of Australia's top 20 wine exporters.

In March 2014, the Department of Primary Industries (DPI) contracted the Australian Wine Research Institute (AWRI) to deliver a one-year skills pilot program (with potential to be extended to 3 years) with the aim of improving industry productivity and profitability by addressing issues such as better management of pests, diseases, nutrients and water.

DPI, NSW Wine Industry Association and Charles Sturt University are conducting collaborative research at the National Wine and Grape Industry Centre in Wagga to implement innovation in the NSW wine industry and assist in building the capacity of industry to face significant domestic and international competition.

### **Australia-India Council Grants Program**

The Australia-India Council's annual grant funding round closed on 3 August 2014. The programme welcomes funding applications from individuals and organisations in Australia for projects which are likely to promote long-term contact and cooperation between Australia and India. The grants are intended to provide seed funds for innovative proposals relevant to the mission and goals of the Council. The Council gives priority to projects in the areas of Arts, Culture and Heritage, Education, Science, Technology and Design, Social initiatives, Public Policy activities and Tourism.

### **Malta: Launch of the FUSION programme**

The Malta Council for Science and Technology launched the [FUSION](#) programme in June 2014. This funding programme aims to support research and innovation with the ultimate goal of promoting and supporting local research and innovation as well as providing the necessary handholding in order to enable researchers and technologists to turn their innovative ideas into a market ready reality. FUSION is supported through Malta Government funds managed by the Malta Council for Science and Technology and will run from 2014 to 2020.

## **US: \$2m in FAST grants awarded**

US\$2 million of United States Federal and State Technology (FAST) partnership program grants have been awarded to 22 state and local economic development agencies, business development centres, colleges and universities. These grants will support programs for innovative, technology-driven small businesses under the agency's FAST partnership program that's designed to stimulate economic development among small, high-tech businesses through federally-funded innovation and research and development, such as Small Business Innovation Research and Small Business Technology Transfer programs.

## Assessment of innovation performance

### Australian Government: National Survey of Research Commercialisation 2014 Collection

The Department conducted the National Survey of Research Commercialisation (NSRC) over June and July with universities, medical research institutes and publicly funded research organisations to collect commercialisation performance information for 2012 and 2013.

Following this year's survey, the NSRC data collection will comprise valuable time series data spanning 2000-13. The 2012-13 survey data will be published electronically on the Department's [website](#) in late 2014.

### Showcasing innovation in the NSW manufacturing sector

In response to recommendations detailed in the [NSW Manufacturing Industry Action Plan](#), NSW Trade & Investment worked with industry to select businesses for the making of [video case studies](#) highlighting the diversity, global reach, innovation, competitiveness and world-class quality to be found throughout the manufacturing sector in NSW. Businesses selected for case studies shown during National Manufacturing Week in May 2014, included: RØDE Microphones, the Byron Group, and Croker Oars.

The competitiveness of NSW manufacturers is critical to maintain the sector's status as the fifth largest employer in NSW, responsible for around a third of Australia's total manufacturing output. NSW is showing sustained signs of growth in the export-driven market of high-skill manufacturing products and services. To support this, the Supply Chain Accelerator pilot program provides assistance to exporters to develop globally competitive supply chains in key NSW industries through capacity building.

### OECD: Industry and Technology Policies in Korea

A [recent OECD](#) review addresses Korea's industry and technology policies and institutions, and provides policy recommendations. The report identifies reforms to reinforce the Korean innovation system, such as creating greater incentives to commercialise publically-funded research strengthening services sector productivity through structural reform and more fully assessing the economic impact of public support measures.

### OECD: Smarter research spending would boost French innovation

The OECD's [Review of Innovation Policy: France](#) suggests that making public research institutions more accountable and channelling more funds into the most promising R&D projects would help restore France's former prowess in

Department of Industry

science and technology. The review recommends completing partly implemented structural changes to enable more excellence-based financing, better evaluation of public research and closer coordination between industry and the public sector. Universities should be given a greater role alongside the country's powerful public research organisations.

## Events & conferences

### Australian Technologies Competition 2014

The [Australian Technologies Competition](#) will award its 2014 winners at a gala dinner event, hosted by former host of ABC's New Inventors James O'Loughlin, in Sydney on 16 September.

The Australian Technologies Competition builds capabilities in innovative Australian SMEs and encourages the next wave of entrepreneurship and investment in the industries of the future. Over a nine month period participating firms: receive two months of mentoring and training; participate in showcasing activities to Australian corporate customers; and have the opportunity to participate in a trade mission to Asia, supported by the Department and Austrade.

Since its inception, the Competition has worked with over 300 Australian SMEs and identified over \$300 million in project opportunities:

- As part of the Prime Minister's recent trade mission to China, finalist of the 2013 energy award, RayGen Resources, signed a \$60 million export deal and has directly accredited their participation in the Competition with this outcome;
- Winner of the 2013 mining award, Queensland based Global Future Solutions, manufacturers of non-toxic fracking fluids, directly accredits the profile they gained from the Competition with growing their sales tenfold, and has enabled them to generate investment funding to support the establishment of domestic production facilities in Queensland;
- The 2012 winner, enLighten Australia, manufacturers of LED lighting equipment, have experienced growth in revenue of over 250 per cent since their win;
- The 2011 winner, SMAC Technologies has secured over 90 new contracts across Asia, the United States and Australia, attributing much of their success to the business fundamentals and profile gained through the Competition.

### National Resource Sciences Precinct launches in Perth

On Tuesday 8 April, the Hon Ian Macfarlane MP, Minister for Industry, launched the National Resource Sciences Precinct (NRSP) in Perth, Western Australia.

The NRSP is a CSIRO, Curtin University and The University of Western Australia collaboration connecting the world's best researchers with industry and government to tackle some of the most complex challenges facing the

Department of Industry

resources sector. The NRSP is one of the five global research precincts outlined in CSIRO's 2011-15 Strategy.

During the launch, the appointment of an independent chair for the NRSP was announced. Managing Director and Chief Executive of Transfield Services, Graeme Hunt, has taken up the inaugural position bringing almost 40 years of industry experience to the table.

### **Biosecurity Futures Workshop**

The CSIRO Biosecurity Flagship and CSIRO Futures, in partnership with Animal Health Australia, the Plant Biosecurity Cooperative Research Centre (CRC), and the Invasive Animals CRC, are developing a report on Biosecurity Futures.

The *Biosecurity Futures* report will use strategic foresight to identify the major biosecurity trends and risks that Australia may need to respond to over the next 20-30 years, within a global context.

The report will provide a clear, consistent position that stimulates thinking and discussion around Australia's biosecurity future amongst senior leadership in government, industry and research organisations.

In support of the development of the report, more than 50 leading scientists, policy makers, industry representatives and economists attended workshops in Canberra in May to discuss the future trajectory and challenges for biosecurity in Australia.

### **NSW Creative Achievement Awards**

In response to a recommendation within the NSW Creative Industries Action Plan, the NSW Government launched the NSW Creative Laureate and NSW Emerging Creative Talent Awards to celebrate and reward outstanding achievements that help raise the global profile of NSW Creative Industries. The winners were announced by the Deputy Premier at the inaugural event on 28 May during Vivid Sydney 2014.

The independent Judging Panel determined that Animal Logic won the NSW Creative Laureate. This is a multi-award winning company that provides digital animation and visual effects (VFX) for the feature film and television industries. Animal Logic's work includes: *The Lego Movie*, *The Great Gatsby*, *Legends of the Guardians: The Owls of Ga'Hoole*, *Walking with Dinosaurs: The Movie*, *The Matrix*, and Academy award winning *Happy Feet*.

Animal Logic Co-Founder and CEO Mr Zareh Nalbandian, has been assigned the title of 2014 Ambassador for NSW Creative Industries to help promote NSW as a global creative centre.

The NSW Emerging Creative Talent Award was awarded to Jason van

Department of Industry

Genderen for his internationally acclaimed short "pocket films", filmed with a mobile phone camera, which demonstrate leadership in originality and innovation, including through his creative application of technology.

### **NSW: Powerhouse Museum Exhibition**

The annual Engineering Excellence Awards exhibition is a collaboration between the Powerhouse Museum and the Sydney Division of Engineers Australia. The exhibition showcases innovative Australian Engineering projects that have been developed for both local and global markets and this year runs from 6 February 2014 to 11 January 2015.

The judging panel comprises practitioners and academics from the engineering community.

### **Innovation Prize for Africa Winners Announced**

AgriProtein are recent winners of the [Innovation Prize for Africa](#), an initiative of the African Innovation Foundation which rewards African innovators in various sectors for creating solutions to Africa's biggest challenges. AgriProtein uses flies reared on a very large scale to lay eggs that are hatched into larvae on organic waste material; the larvae are then harvested and dried into a natural and sustainable feed for chicken and fish.

### **EcoProcura 2014**

The EcoProcura 2014 conference will be held in Ghent, Belgium on 24 - 26 September 2014. EcoProcura 2014 has the theme of examining sustainable public procurement from the perspective of cost-efficiency; and is targeted to procurers from all levels of government, policy-makers, business, suppliers, manufacturers, multipliers and representatives from the European Commission and European Parliament.

EcoProcura 2014 will examine the cost-efficient use of public money through procurement; development of integrated sustainable public procurement strategies; implementation of the new European Public Procurement Directives; and how public procurement can stimulate innovation.

# Publications

## **Growing Opportunities: South Australian and Victorian Comparative Advantages**

[Reviews of the South Australian and Victorian economies](#) were announced by the Prime Minister and the Minister for Industry on 18 December 2013 in response to Holden's decision to close its manufacturing operations by 2017. The scope of the reviews was broadened as a result of Toyota's announcement that it would cease manufacturing by 2017.

The panels' report, [Growing Opportunities: South Australian and Victorian Comparative Advantages](#), found that the South Australian and Victorian economies remain strong and are in a good position to weather the closure of car making in Australia over the next three years. Key growth sectors for the future were identified, such as: advanced manufacturing; food and agriculture; health and biomedical; oil and gas; and mining equipment technology and services. The report noted that refocussing publicly-funded research to better meet business driven needs will help capture opportunities in these growth sectors.

## **Design for future manufacturing competitiveness**

A new report recently launched by Minister Macfarlane contains practical advice to help manufacturing firms remain competitive by transitioning to high value-added products. The report, [Design for future manufacturing competitiveness](#), discusses how companies can apply design principles to all aspects of their work to turn their ideas into products and services their customers want.

The advice presented in the report is based on a series of workshops and surveys with more than 300 participants from the manufacturing industry; and in-depth case studies with high performing Australian manufacturing firms who have found success in lifting their competitiveness through the adoption of new processes.

The Department commissioned the University of Technology Sydney, in collaboration with CSIRO, to develop the report, which was released on 10 June 2014.

## **The role of science, research and technology in lifting Australian productivity**

The Australian Council of Learned Academies has published its report, [The role of science, research and technology in lifting Australian productivity](#) which examines the role of science, research and technology in lifting Australian productivity. The report lists 25 key findings about Australia's current

Department of Industry

performance and outlines opportunities to boost innovation driven productivity. This report has three major conclusions:

- building Australia's future industries will depend on adopting technological innovation to develop high-value products and services for a global market;
- improving collaboration in Australia, between businesses and between business and publicly funded research, will significantly enhance innovation. International collaboration is also critically important. Both domestic and international collaboration improves the productivity and competitiveness of Australian technology-based firms; and
- an innovative workforce that combines technical and non-technical disciplines, and enables good business management, is essential to underpin the competitive advantage of Australian industries and realise opportunities to lift productivity.

### **ABS Summary of IT Use and Innovation in Australian Business, 2012-13**

The latest [ABS Summary of IT Use and Innovation in Australian Business](#) publication presents information from the 2012-13 Business Characteristics Survey. The publication finds that as at 30 June 2013, almost one in four businesses (23 per cent) had some form of innovative activity that was still in development and that almost two in five businesses (37 per cent) had introduced at least one type of innovation during the 2012-13 reference period. It is also noted that the proportion of businesses that reported abandoning at least one type of innovative activity during the year ended 30 June 2013 was 6 per cent - this rate has been consistent at between 6 per cent and 7 per cent for the past three years.

### **NSW: Terms of Reference for the Minerals Industry Task Force**

The NSW Government has [established a new industry-led taskforce to develop a Minerals Industry Action Plan](#) to provide recommendations on strategies to drive growth, innovation and productivity in the sector over the next decade. The [Terms of Reference](#) for the Taskforce have been published. The Taskforce will be seeking feedback on its draft Industry Action Plan when it is released.

The Minerals Plan will be one of eight Industry Action Plans commissioned by the Government.

## **The Global Entrepreneur and Development Institute releases the latest Gender Index**

The [latest Gender-Global Entrepreneur and Development Index](#), released on 2 June 2014 at the Dell's Women's Entrepreneurs Network in Austin, Texas, ranks Australia second after the United States as one of the best places in the world for female entrepreneurship. This 17-country pilot analysis aimed to identify the entrepreneurial "North Star", the destination on the economic growth horizon fostering high potential female entrepreneurship. However, the report notes that the "tall poppy syndrome" often meant that while there was a good environment for starting new businesses in Australia, not enough women were grasping the opportunity.

## **Enterprise Europe Network**

Steered by the European Commission, the [Enterprise Europe Network](#) is helping SMEs realise innovations, create new business partnerships and access finance. With a network of more than 600 partners active across 54 countries, Europe's SMEs can explore their global potential without leaving home.

## **The silver lining: cloud computing and small and medium enterprises**

A [paper](#) released by the Grattan Institute explores issues raised at a workshop run by the Institute and Google on how policymakers and business can accelerate the spread of cloud computing among SMEs. It uses cloud computing – the delivery of on-demand information technology services over the Internet – as a case study for how online technologies can benefit smaller firms. Workshop participants agreed that government and industry can remove obstacles to the use of cloud computing and help SMEs capture its benefits. The industry itself should lead the education of SMEs on the case for cloud computing. Yet government can:

- choose policy settings that promote broader productivity growth and innovation;
- ensure interaction with government over the internet is the default for all businesses;
- provide an appropriate policy environment for investment in broadband networks that meet the needs of small business.

## **Making in America: US Manufacturing Entrepreneurship and Innovation**

The report [Making in America: US Manufacturing Entrepreneurship and Innovation](#), has been released by the Executive Office of the President of the United States of America, which describes how new technologies are reducing the cost, increasing the speed, and making it easier for entrepreneurs and manufacturers to translate their ideas into products made in America.

## **NESTA: Lessons from highly innovative smaller countries**

The paper [When Small is Beautiful: Lessons from highly innovative smaller countries](#) released in June 2014, analyses the world's most innovative countries with populations of less than ten million. It focuses on Finland, Estonia, Israel, Singapore and the Basque Country. It finds that crucially these smaller countries have generally not copied the strategies of their larger counterparts (the US, Germany, Japan and South Korea). Lacking large domestic markets, or the scale to be at the leading edge of research in every field, they have made the most of their existing advantages, and developed others. The five themes that emerge from these case studies are:

- the importance of downstream innovation, not just basic research – the first notable feature of these innovative small countries is how good they are at turning good ideas and early-stage innovation into commercial successes;
- openness to the world, its ideas and opportunities – no country has a monopoly on good ideas or on innovations, and it seems that small countries that do best at innovation are also good at adopting the good ideas of others;
- a government whose wider policies support innovation and technology – all the governments of these small innovative nations do not just support innovation directly with research funding and favourable tax regimes. They also promote it through their wider activities;
- strong but flexible institutions – small innovative countries tend to possess well regarded innovation institutions which tend to be part of or related to the state but somewhat removed from central political control; and
- a sense of national mission – the final characteristic is perhaps the hardest to evidence but one that is widely attested by people in these countries themselves.