



**Australian Government**  
**Department of Industry,  
Innovation and Science**

# Innovation Policy Report

October 2015

The Innovation Policy Report is produced by the Department of Industry, Innovation and Science, and aims to highlight developments in the innovation policy area. It also includes reference to relevant innovation documents and events.

If you would like to subscribe to the Innovation Policy Report, please [register your contact details](#).

# Table of Contents

<b>STRATEGIC POLICY INITIATIVES AND NEW DEVELOPMENTS.....</b>	<b>5</b>
Australia - Government.....	5
Policy Hackathon.....	5
Defence Technology.....	5
Entrepreneurs' Programme Grants.....	5
NSW: Jobs for NSW.....	5
NSW: Open Data and Digital Economy Drive Land and Property Information Reforms.....	6
NSW: Reform Agenda Unveiled.....	6
Northern Territory: Business Innovation Support Initiatives Program.....	7
SA: Big Data Connect Program.....	7
SA: Medical Device Partnering Program.....	8
SA: South Australian Investment Agency.....	8
TAS: Partnership with University of Tasmania.....	8
TAS: Support for Entrepreneurs.....	8
TAS: Agricultural Innovation.....	9
Australia – Non-Government.....	10
Spinifex Pharmaceuticals.....	10
Hatchtech.....	10
International.....	11
Austria: Developing an Open Innovation Strategy.....	11
USA: Behavioural Science.....	11
USA: Citizen Science and Crowdsourcing Toolkit.....	11
USA: Department of Defence Manufacturing Innovation Hub.....	11
USA: New USPTO Tool Allows Exploration of 40 Years of Patent Data.....	12

USA: Presidential Innovation Fellows .....	12
<b>Assessment of Innovation Performance .....</b>	<b>13</b>
Global Innovation Index 2015.....	13
2015 Global Startup Ecosystem Ranking.....	13
The Global Competitiveness Report 2015-2016 .....	13
<b>Events and Conferences.....</b>	<b>15</b>
Upcoming.....	15
Tech23 – 17 November 2015 .....	15
School on neutron scattering – 22-27 November 2015.....	15
Past.....	15
Launch of fintech accelerator <i>Stone &amp; Chalk</i> .....	15
NSW Department of Industry brings Chinese technology group <i>Kuang-Chi Science</i> to NSW.....	16
<b>Publications and Articles .....</b>	<b>17</b>
Senate Inquiry into Australia’s Innovation System Issues Paper .....	17
Opportunities for Innovation in Australia .....	17
Government Procurement Spend and Startups .....	17
Use of Prizes and Competitions by Government .....	17
The Innovation Imperative in the Public Sector .....	18
Australian Geography of Innovative Entrepreneurship.....	18
Internet of Things in Government .....	18
Why Businesses Back Innovation Centers.....	18
Scale-Up: The Experience Game.....	19
The Five Key Takeouts from the Chief Innovation Officer Summit in Sydney.....	19
All Boards Need a Technology Expert.....	19
The World’s Most Innovative Universities .....	20
This Week in Startups Australia.....	20

Data-Driven Innovation: Big Data for Growth and Well-Being.....	20
Technology and Australia’s Future .....	20
Innovation, Agricultural Productivity and Sustainability in Australia.....	21
Entrepreneurship at a Glance 2015 .....	21
Civic Crowdfunding Will Challenge Governments and Charities.....	21
The Metric Tide.....	21
Social Progress Index 2015.....	22
Enhancing the Effectiveness of Team Science .....	22

# Strategic policy initiatives and new developments

## Australia - Government

### Policy Hackathon

Assistant Minister for Innovation Hon. Wyatt Roy MP has sponsored a policy event to be run on 17 October to bring together representatives from startups, VC funds, accelerators and other components of the innovation ecosystem, with policy experts from government departments to collaborate in a one-day industry [policy hackathon](#). The goal is to present a set of creative new ideas to an audience of government officials by the end of the day, to give them the top-line thinking from which full policy can be developed and implemented.

### Defence Technology

Seven Australian organisations will [receive Australian Government funding](#) of \$14.2 million under the Capability and Demonstrator Program, managed by the Defence Science and Technology Group, to develop and demonstrate innovative technologies that can enhance defence capability.

### Entrepreneurs' Programme Grants

[Entrepreneurs' Programme commercialisation grants](#) have been offered to a further 24 Australian companies to help them push their innovative ideas into the global marketplace.

The grants will help these companies by:

- matching the companies' investments dollar for dollar
- providing experienced Commercialisation Advisers to guide them through the commercialisation process.

### NSW: Jobs for NSW

Launched in August 2015, [Jobs for NSW](#) is a new organisation charged with taking a strategic approach to developing the competitive advantages of the NSW economy and attracting, developing and consolidating new and existing businesses in NSW. It will also help the NSW Government meet its target of creating 150,000 new jobs by 2019.

*Jobs for NSW* will be within the NSW Government's Industry, Skills and Regional Development Cluster. Former Telstra CEO and incoming CSIRO Chair David Thodey will be the inaugural chair of the *Jobs for NSW* Board. Further Board members, along with a CEO for *Jobs for NSW*, will be announced shortly, with the Board's first

meeting scheduled for November 2015. Five of the Board members will be leading members of the business community, bringing a wealth of commercial expertise to the *Jobs for NSW* Board. They will be joined on the Board by Simon Smith, Secretary of the NSW Department of Industry and Blair Comley, Secretary of the Department of Premier and Cabinet.

*Jobs for NSW* will replace the *State Investment Attraction Scheme* (SIAS) and *Regional Industries Investment Fund* (RIIF) and will use robust criteria to ensure the Program achieves the greatest possible economic impact. From established industries to emerging technologies, it will target the jobs of the future and guide the NSW Government on how to best maximise the State's resources, talent and potential.

## **NSW: Open Data and Digital Economy Drive Land and Property Information Reforms**

As part of a NSW Government reform package to bring property information services into the digital age, residential sales history data will now be available free of charge. Sales history data held by Land and Property Information (LPI) will be available on the [NSW Globe](#) application. This meets the Government's election commitment to make sales data available for free and in an open format by the end of October 2015. The Hon. Dominic Perrottet MP, Minister for Finance, Services and Property, said "Consumers expect the latest information at their fingertips anywhere, anytime - we are pleased to help them make affordable and informed choices when buying and selling property."

The NSW Government is looking to further reform LPI so that it continues to provide innovative and up to date data. The first plank of this reform will be a structural separation of LPI's operational and regulatory arms by early next year, along with a more transparent pricing framework.

## **NSW: Reform Agenda Unveiled**

The NSW Premier, the Hon. Mike Baird MP, recently outlined his [ambition for the State](#), setting thirty *State Priorities* including twelve *Premier's Priorities* that together define the NSW Government's vision for a stronger, healthier, and safer NSW. The NSW Premier has highlighted that achieving many of these priorities will require innovative solutions across Government and the private sector, including in job creation, service provision, and infrastructure capability.

The NSW Government aims to boost business confidence as the mining boom subsides, by positioning the state as Australia's prime location for business growth and investment. The Government wants to improve the ease of doing business in NSW, and continue the historic levels of infrastructure investment, maintain fiscal discipline to provide certainty to business, and improve business conditions.

Complementing this, the Government aims to create a business-friendly environment for NSW entrepreneurs, focusing on reducing or removing barriers, costs and complexity and making regulatory obligations easier to understand and implement.

The *Priorities* also highlight the need to improve the provision of Government services, for example the Government is working to increase the level of online transactions to 70% by 2018-19. The focus will be on overcoming barriers and constraints to online transactions and enabling new transactions to be carried out online. Work is also progressing to encourage people to make transactions online by providing secure online payment systems, live chat instant messaging support and SMS/email notifications, and by rapidly progressing the transition to *Service NSW*.

## **Northern Territory: Business Innovation Support Initiatives Program**

The [Business Innovation Support Initiatives \(BISI\) program](#) was launched on 1 July 2014 as a new initiative of the Northern Territory (NT) Government to directly support innovative Territory-based businesses and is continuously open for applications from business. BISI consists of a voucher and a grants scheme, and product, process and service innovations are eligible.

BISI vouchers encourage business-led partnerships between NT small to medium enterprises (SMEs) and providers of science, engineering, technology, design and innovation expertise, to stimulate and support innovative thinking and test the commercial viability of new ideas. Advice on intellectual property protection may also be supported.

By the end of September 2015, 13 applications were fully assessed and one in the eligibility stage with a further 20 applications are in preparation.

There have been two BISI grant schemes launched and these schemes are competitive. The first round opened 24 November 2014 and closed 28 February 2015 and the second round opened 18 May 2015 and closed 18 August 2015. BISI grants support successful project applications by NT small to medium enterprises (SMEs) that can do their own in-house research and development in the areas of science, engineering, technology and design to test the commercial viability of new ideas.

The first round had four applications submitted, with one being successful for a grant and the second round had 10 applications submitted, currently in the assessment stage.

## **SA: Big Data Connect Program**

The South Australian Government has launched a \$240,000 programme to encourage local companies to explore opportunities for using 'big data' to improve productivity, competitiveness, and profitability. The [Big Data Connect Program](#) is

offered on a competitive basis, and is aimed at businesses that have little or no experience with big data, as well as those who already undertake some data analysis

### **SA: Medical Device Partnering Program**

The [Flinders University's Medical Device Partnering Program \(MDPP\)](#) has received an additional \$250,000 in State Government funding. The MDPP encourages collaboration between the relevant stakeholders in the innovation process, to leverage knowledge and fast-track development of medical devices. The MDPP also manages the State Government's Medical Technologies Program (MTP) which supports the development of early stage medical technologies.

### **SA: South Australian Investment Agency**

Michael Hnyda, an international expert and former head of the Welsh Government's trade and investment body, has been [appointed Chief Executive of South Australia's new investment agency](#). The State Government agency will oversee a \$15 million investment fund which will be available to companies looking to expand their operations or to establish a presence in South Australia.

### **TAS: Partnership with University of Tasmania**

The Tasmanian Government continues to explore opportunities to work with industry and researchers to support innovation in the State. Recently, Government finalised a new Partnership Agreement with the University of Tasmania, "Making the Future Partnership 2015–2025," which will strengthen the relationship between the parties and support research, higher education, growth, and the delivery of market and industry relevant qualifications across the State.

This Agreement builds on the existing Collaboration Agreement between the Government and the University's Australian Innovation Research Centre, which provides a platform for policy makers and researchers to collaborate, and to work together on specific initiatives such as the Tasmanian Innovation Census.

The Government has recently held discussions with the Australian Innovation Research Centre to identify opportunities to partner in research initiatives with a particular focus on supporting and driving innovation in regional areas.

### **TAS: Support for Entrepreneurs**

The Tasmanian Government is committed to providing ongoing support in mentoring, education and training to assist entrepreneurs and start-ups along pathways from ideas to market, and is actively facilitating discussions with a number of parties willing to support, partner and participate in the development and delivery of a successful entrepreneurship and innovation ecosystem in the State.

## TAS: Agricultural Innovation

As a founding partner, and through its investment in Sense-T, the Tasmanian Government is committed to supporting innovation, greater efficiency and growth in the State's agriculture and aquaculture industries.

With the support of its partners at the University of Tasmania, Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Australian Government, Sense-T is creating an economy-wide sensor network and a digital view of the State to provide a shared resource for communities, businesses and industries. Data is being collected on environmental conditions and variables, and fed into a central data platform to provide a shared resource available to business, researchers, government and individuals.

Through Stage 1 of the Sense-T projects, researchers from the CSIRO and University of Tasmania worked with industry partners in the aquaculture, beef, dairy, viticulture and water management sectors to use sensor technology and data analysis to inform decision making and boost productivity, efficiency and sustainability.

This included:

- developing an online pasture growth prediction tool to forecast pasture growth in the short term;
- developing tools to help vineyards avoid disease and make better management decisions;
- providing real time data on environmental conditions around shellfish farms; and
- helping irrigators in Tasmania's Ringarooma and South Esk river catchments to better manage their water use, benefiting farmers, regulators and the environment.

Sense-T Stage II industry research projects have now also commenced. Stage II projects will be delivered in the key fields of agriculture (including food, viticulture, fisheries and forestry), tourism, health and new financial services, and will use applied sensor technology and data science to solve practical problems, support economic growth, and help industries across Tasmania to improve their productivity, efficiency and sustainability.

The recently launched Sense-T National ICT Australia (NICTA) Logistics Lab is a \$2 million collaboration with NICTA which will extend Sense-T's data research program into freight, logistics and supply-chains by bringing together a team of transport and logistics experts, software engineers, mathematicians, and software developers to provide a multi-disciplinary approach to developing customised solutions.

## Australia – Non-Government

### Spinifex Pharmaceuticals

Australian-US drug developer Spinifex Pharmaceuticals is commercialising [EMA401](#), a new drug for the treatment of chronic pain, developed at the University of Queensland.

The company was supported by venture capital fund managers GBS Venture Partners, Brandon Capital Partners and the Medical Research Commercialisation Fund (MRCF) through their funds licensed under the Innovation Investment Fund (IIF), Pre-Seed Fund (PSF), Innovation Investment Follow-on Fund (IIF) programmes and registered under the Venture Capital Limited Partnerships (VCLP) programme.

In June 2015, Spinifex announced that it would be acquired by Swiss pharmaceutical giant Novartis for US\$200 million upfront. It was subsequently confirmed by Spinifex that they were eligible for up to US\$500 million in additional milestone payments. The acquisition is centred on Spinifex's new drug which could offer much-needed relief for millions of people around the world suffering from currently untreatable chronic neuropathic pain. The drug targets nerve receptors rather than the more common practice of blocking pain receptors in the brain. Possible applications include the treatment of pain associated with diabetes, shingles and chemotherapy.

### Hatchtech

Australian pharmaceutical company Hatchtech is commercialising [Xeglyze™ Lotion](#), a next generation human head lice treatment, developed at the University of Melbourne.

The company has been supported by venture capital fund managers GBS Venture Partners, OneVentures and Blue Sky Alternative Investments through their funds licensed under the Innovation Investment Fund (IIF), Pre-Seed Fund (PSF), Innovation Investment Follow-on Fund (IIF) programmes and registered under the Early Stage Venture Capital Limited Partnerships (ESVCLP) programme.

In September 2015, Melbourne-based pharmaceutical company, Hatchtech announced that it had signed an agreement with integrated pharmaceutical company Dr Reddy's Laboratories for up to \$279 million, including milestone payments, to commercialise its head lice treatment, Xeglyze™ Lotion, including the United States, Canada, India, Australia and New Zealand. Hatchtech will retain global rights for non-human applications of the lotion, as well as the right to commercialise the product for humans in territories outside of its agreement with Dr Reddy's.

## International

### Austria: Developing an Open Innovation Strategy

Austria has established [a consultation forum](#) for the development of a national open innovation strategy.

### USA: Behavioural Science

President Obama signed an [Executive Order](#) encouraging executive departments and agencies to develop strategies for applying behavioural science insights to their programmes, and formalising the Social and Behavioural Sciences Team which provides guidance and advice on applying behavioural sciences.

### USA: Citizen Science and Crowdsourcing Toolkit

The White House Office of Science and Technology Policy has published a [Citizen Science and Crowdsourcing Toolkit](#). The toolkit contains information, resources, and best practices federal agencies can use to harness the power of public participation. It includes process steps, case studies, a map of existing projects, a resource library, and information about relevant innovation communities.

### USA: Department of Defence Manufacturing Innovation Hub

The Obama administration will award a [Manufacturing Innovation Institute for Flexible Hybrid Electronics](#) to a consortium of 162 companies, universities, and non-profits led by the FlexTech Alliance.

A collaborative consortium, the FlexTech team includes more than 160 companies, nonprofits, independent research organizations and universities. The cooperative agreement will be managed by the U.S. Air Force Research laboratory (AFRL) and will receive \$75 million in Department of Defence funding over five years matched with more than \$90 million from industry, academia, and local governments. In total, the institute will receive \$171 million to invest in strengthening U.S. manufacturing.

Flexible hybrid electronics manufacturing describes the innovative production of electronics and sensors packaging through new techniques in electronic device handling and high precision printing on flexible, stretchable substrates. The potential array of products range from wearable devices to improved medical health monitoring technologies, and will increase the variety and capability of sensors that already interconnect the world.

## USA: New USPTO Tool Allows Exploration of 40 Years of Patent Data

The U.S. Department of Commerce's United States Patent and Trademark Office (USPTO) [has launched PatentsView](#), a new patent data visualization platform. The PatentsView beta search tool allows members of the public to interact with nearly 40 years of data on patenting activity in the United States.

PatentsView allows users explore technological, regional, and individual-level patent trends via search filters with multiple viewing options. The database links inventors, their organizations, locations, and overall patenting activity using enhanced 1976-2014 data from public USPTO bulk data files.

## USA: Presidential Innovation Fellows

President Obama signed an Executive Order making the '[Presidential Innovation Fellows Program](#)' permanent. The Presidential Innovation Fellows Program seeks to recruit entrepreneurs, startup founders, and innovators with experience at large technology firms, to work with innovators inside government, deploy private sector strategies, and to focus on some of the biggest and most pressing challenges. Details of some of the projects are outlined in a [fact sheet](#).

# Assessment of Innovation Performance

## Global Innovation Index 2015

The [Global Innovation Index](#) (GII) ranks the innovation performance of 141 countries and economies around the world, based on 79 indicators. The GII is co-published by WIPO, Cornell University and INSEAD. The 2015 Index ranked Australia 17<sup>th</sup>.

“Australia maintains its 17th place overall GII rank and 10th place rank in the Input Sub-Index from 2014. It also maintains its top 10 rankings in three pillars: Human capital and research (9th), Infrastructure (4th), and Market sophistication (9th). It improves by three places in the Infrastructure pillar across two subpillars: ICTs (7th) and Ecological sustainability (27th). It also improves in Business sophistication by three places to 23rd, as a result of improvements made in two sub-pillars: Knowledge workers and Innovation linkages. In relation to innovation outputs, Australia also improved in Creative outputs by five places to 7<sup>th</sup> place, with improvements within all three sub-pillars. Australia’s main falls take place in Human capital and research (down two places) and Knowledge and technology outputs (down eight places).”

## 2015 Global Startup Ecosystem Ranking

The Global Startup Ecosystem Ranking is produced by Compass, a company, based on insights from interviews with over 200 entrepreneurs from 25 countries, data from 11,000 survey responses, and partnerships with a range of organisations. The report aims to inform entrepreneurs, investors, and policy makers.

[The 2015 report](#) ranked Sydney as 16<sup>th</sup> in the world, combining ratings across performance (20<sup>th</sup>), funding (16<sup>th</sup>), market reach (17<sup>th</sup>), talent (6<sup>th</sup>) and startup experience (10<sup>th</sup>).

“The startup ecosystems which made the biggest falls are Vancouver, Toronto, Sydney, and Seattle. Vancouver slipped out of the top 10 from position #9 to #18, Toronto slid from #8 down to #17, Sydney dropped from #12 to #16, and Seattle fell from #4 to #8. Again, all of these ecosystems did grow in the past three years, but not as fast as other environments, which puts them at risk of eventually being left behind.”

## The Global Competitiveness Report 2015-2016

The [Global Competitiveness Report 2015-2016](#) “assesses the competitiveness of 140 world economies. Using a mixture of quantitative and survey data, it ranks countries overall by combining 113 indicators grouped under 12 pillars of competitiveness: institutions; infrastructure; macroeconomic environment; health and primary education; higher education and training; goods market efficiency; labour

market efficiency; financial market development; technological readiness; market size; business sophistication; and innovation.”

Australia was ranked 21<sup>st</sup> overall and 23<sup>rd</sup> on the innovation pillar. Under Innovation Australia was ranked:

- 25<sup>th</sup> for Capacity for innovation
- 8<sup>th</sup> for Quality of scientific research institutions
- 27<sup>th</sup> for Company spending on R&D
- 21<sup>st</sup> for University-industry collaboration in R&D
- 70<sup>th</sup> for Government procurement of advanced tech products
- 17<sup>th</sup> for Availability of scientists and engineers
- 21<sup>st</sup> for PCT patents, applications/million population.

## Events and Conferences

### Upcoming

#### Tech23 – 17 November 2015

To be held on 17 November 2015, [Tech23 2015](#) is sponsored by CSIRO, and connects investors, entrepreneurs and innovators from across Australian enterprise, government, university and industry sectors.

#### School on neutron scattering – 22-27 November 2015

The Australian Nuclear Science and Technology Organisation (ANSTO) and the Australian Institute of Nuclear Science and Engineering (AINSE) [host a school on neutron scattering](#), i.e. an introduction to inelastic neutron scattering techniques including hands-on experiments and data analysis. The school is open to both local and international participants.

### Past

#### Launch of fintech accelerator *Stone & Chalk*

The fintech accelerator [Stone & Chalk](#) was officially opened at its new premises on Bridge St in the Sydney CBD, on 25<sup>th</sup> August by the Hon. Anthony Roberts MP, NSW Minister for Industry, Resources and Energy.

*Stone & Chalk* is an independent, not-for-profit fintech hub with the objective of helping foster and accelerate the development of world-leading fintech start-ups, and will operate as the centre of the local fintech ecosystem. *Stone & Chalk* was made possible through support from the Department of Industry's *Financial Services Knowledge Hub* and from within the business community. *Stone & Chalk* can accommodate up to 200 entrepreneurs through a combination of dedicated labs, full and part-time desks, secure offices and casual 'drop in' spaces. It will also offer an events space to host master classes, meet-ups and conferences. Once opened, start up co-creation programs leveraging technology platforms will also be launched to maximise acceleration potential.

The event was attended by the Premier, the Hon. Mike Baird MP and the *Jobs for NSW* Chair David Thodey. Forty-one companies, both domestic and international, have been selected as the initial startup line-up for *Stone & Chalk*, spanning a wide range of industries from superannuation, to data analytics, consumer technologies and crypto-currencies. Companies are all at varying stages of growth, with established players alongside yet-to-launch ventures and early stage startups.

Minister Roberts said at the event: “Sydney is at the nexus of Australia’s finance, digital, creative and startup sectors and we’re ideally located for growth in the Asia Pacific region. *Stone & Chalk* is a great example of the exciting collaborations that are developing out of the NSW Government’s *Knowledge Hubs* initiative.”

*Stone & Chalk* is an example of the NSW Government's commitment to helping innovative companies develop and grow, and create jobs for the future.

### **NSW Department of Industry brings Chinese technology group *Kuang-Chi Science* to NSW**

Senior representatives from Chinese technology group *Kuang-Chi Science* came to Sydney mid-September, sponsored by the Department of Industry, [to meet with NSW companies and see their innovations](#). The visit was an opportunity to promote NSW's capabilities in the space and related technologies sector. This included broader opportunities in NSW such as world class IP, and research and development skills in robotics, un-manned systems, machine learning and sensing technologies.

## Publications and Articles

### Senate Inquiry into Australia's Innovation System Issues Paper

[This Issues Paper](#) is aimed at providing context, identifying issues, and stimulating discussion in relation to the Terms of Reference being addressed by the Senate Economic References Committee in its Inquiry into Australia's Innovation System. The Paper covers the role of a National Innovation System, current levels of investment in research and development, education and skills, industrial transformation, collaboration, the contribution of start-up businesses and management practices. Some policy issues and options are also identified, with a view to activating current and future sources of competitive advantage.

### Opportunities for Innovation in Australia

[This blog post](#) looks at some of the opportunities for innovation in Australia. "The embrace of innovation by Australian firms has taken a long time, partly due to the difficulty of changing the mindsets of senior executives who run these organizations. However, it is clear that in a variety of industries across the globe, the terms of competition have changed and Australia is no exception. In conversations with senior managers at Australian organizations, I am discovering a growing interest in innovative strategy, business transformation, 'design thinking' and 'business model innovation'. These conversations often begin with a reactive or defensive tone reflecting a need to respond to market or technological threats. However at some organizations the discussions have begun to advance beyond that stage: managers at some firms start to view innovation as an opportunity to reconsider their existing ways of doing things, engage new stakeholders and to develop new capabilities."

### Government Procurement Spend and Startups

[This article](#) considers analysis showing that less than 3% of the UK government's procurement spend goes to startup companies (defined broadly as companies less than 5 years old and with a turnover of less than £2m). "But while spend on SMEs has increased from 6.5% in 2010 to over 25% in 2015, Spend Network's analysis shows that spend on startups remains low. Many of the government's reforms are potentially too recent to have an impact that would show up in the data, but as Lord Young's Report on Small Firms urges, we also need to go further in increasing transparency, having more pre-procurement engagement and continuing the drive to reduce the number of large contracts, which are only viable for large companies."

### Use of Prizes and Competitions by Government

[This blog post](#) explains how challenge prizes or competitions fit with the Australian Government Procurement Rules. "As part of the innovation activity, currently underway across a number of agencies, there has been some discussion of

conducting competitions to generate and develop good ideas. Consequently, I have been asked how prizes or gifts can be managed in the context of the Commonwealth grants and procurement frameworks.”

## **The Innovation Imperative in the Public Sector**

The public sector has to become more innovative if it is to tackle today’s complex challenges and meet society’s changing expectations. But becoming truly innovative requires deep and broad changes to organisational culture and operations. Drawing on evidence emerging from the OECD Observatory of Public Sector Innovation’s collection of innovative practices from around the world, [this report](#) looks at how to create a government where innovation is encouraged and nurtured.

## **Australian Geography of Innovative Entrepreneurship**

[This paper](#) explores the patterns of innovative entrepreneurship in Australia, showing the distribution and concentration of business creation, research and development (R&D), patenting and trademark activity across various regions of Australia. When innovation and entrepreneurship activities are examined geographically within Australia relative to the size of a region’s population, the paper finds that during the period 2008–14 these activities are concentrated in the major metropolitan areas of Australia, Sydney in particular.

## **Internet of Things in Government**

[This report](#) examines some of the possibilities of the Internet of Things in Government. “What were once imaginative toys for a tech-savvy spy may soon be a new class of tools for public servants more generally. As governments work to deliver quality services in increasingly complex environments, devices that have already begun to make life easier and more efficient for companies and consumers can also help create greater public value.”

## **Why Businesses Back Innovation Centers**

[This article](#) shares some research findings about companies that have established ‘Innovation Centres’. “These digital innovation centers consist of teams of people and often physical sites that are set up by organizations in a global tech hub, with the goal of leveraging the ecosystem of startups, venture capitalists, accelerators, vendors, and academic institutions that these hubs provide.” Findings included that:

- 61% of companies with innovation centers have a presence in the Silicon Valley
- The primary objective of a digital innovation center is to accelerate digital innovation by rethinking the customer experience, improving operational

efficiency and testing new business models through the use of digital technologies such as Big Data, the Internet of Things, Social Media, Mobile, Robotics, Augmented Reality and 3D Printing

- Innovation centers are proving an effective means to cultivate the agile startup mentality needed to remain at the forefront of the market.

## **Scale-Up: The Experience Game**

[A report](#) from THNK and Deloitte, *Scale-Up: The Experience Game*, analysed the startup data to identify commonalities and patterns of those that become 'scale-ups' or achieve significant growth. The report includes findings that:

- Scale-up founders typically have the research background and industry experience that qualifies them as true masters of their particular trade
- The founding team members of scale-ups typically have multi-year experience in leading others
- Founders of scale-ups are older, typically in their forties. The founders of the majority of unicorns have twice as much work experience as startup founders. They also have experience-rich backgrounds, both in a professional and a personal sense
- For startups and scale-ups, the data showed that scale-ups took more than two times longer for market launch.

## **The Five Key Takeouts from the Chief Innovation Officer Summit in Sydney**

[This post provides a summary](#) of the Chief Innovation Officer Summit. "Chief innovation officers with executive responsibility reporting to the CEO or managing director are also a rarity. Although there are exceptions, Australian organisations are yet to embrace innovation as a core competency and this is reflected in a lack of agenda setting at board level. In other cases, innovation is happening 'off to the side' or in siloes—sometimes outsourced—and not being incorporated into the business for maximum transformative effect."

## **All Boards Need a Technology Expert**

[This article](#) argues the case for having sufficient technology expertise on company boards. "Technology is the most important agent of change today; hardly any industry is immune to both its value-creating and disruptive potential. Yet I perceive a large gap between the direct experience of non-executive directors and the

experience required to challenge and support chairmen and CEOs in their quest to bring the best technology to their business.”

## **The World’s Most Innovative Universities**

Reuters has compiled a [list of the 100 most innovative universities](#). “Reuters set out to find and rank the world’s top 100 innovative universities empirically, building a methodology that employs 10 different metrics. The criteria focused on academic papers, which indicate basic research performed at a university, and patent filings, which point to an institution’s interest in protecting and commercializing its discoveries. Compiled by the Intellectual Property & Science business of Thomson Reuters, the list uses proprietary data and analysis tools.”

## **This Week in Startups Australia**

[This edition](#) of This Week in Startups Australia looks at the role of government. “NSW Minister for Innovation Victor Dominello tells us about NSW’s new Data Analytics Centre, Charnelle Mondy tells us about the City of Sydney’s draft plan for promoting startups, and Michelle Williams gives us a peek into the forthcoming StartupWeek Sydney. Find out if government can play a role in Australia’s startup community, on this episode of TWISTA.”

## **Data-Driven Innovation: Big Data for Growth and Well-Being**

[This OECD report](#) “finds that countries could be getting much more out of data analytics in terms of economic and social gains if governments did more to encourage investment in ‘Big Data’ and promote data sharing and reuse.

The migration of economic and social activities to the Internet and the advent of The Internet of Things – along with dramatically lower costs of data collection, storage and processing and rising computing power – means that data-analytics is increasingly driving innovation and is potentially an important new source of growth.

The report suggests countries act to seize these benefits, by training more and better data scientists, reducing barriers to cross-border data flows, and encouraging investment in business processes to incorporate data analytics.”

## **Technology and Australia’s Future**

[This report](#) from the Australian Council of Learned Academies (ACOLA) draws from the expertise of Australia’s four Learned Academies and considers how new technologies arise, how their impacts occur, to what extent they can be predicted, what technologies mean to people and how society’s interaction with technology influences behaviour.

The report makes 18 major findings, including the disruptive role that new information and communication technologies, especially data analytics, can have on existing business – from transportation to mining, healthcare and education.

Other findings focus on the skills that Australia needs to invent and harness new technologies and develop competitive strengths that outlive the resources boom.

## **Innovation, Agricultural Productivity and Sustainability in Australia**

[This OECD report](#) looks at innovation and agricultural productivity in Australia.

“Australia’s agriculture and food industries are well placed to contribute to the economy’s future growth given the robust prospects of global food demand and the continuing high international competitiveness of these sectors. There are, however, important challenges that call for new ways to exploit agricultural resources and human capital. The decade-long decline in agricultural productivity growth needs to be overcome, coupled with the need to accommodate uncertainties about the impacts of climate change and to respond to societal demands in the areas of sustainable development and animal welfare. The agro-food sector also needs to absorb exchange-rate and cost pressures created by the mining boom. To tap additional opportunities of the higher value food segments, Australian agri-businesses need new knowledge and capabilities to seize demand signals and value opportunities, particularly from more affluent consumers in Asian markets.”

## **Entrepreneurship at a Glance 2015**

[Entrepreneurship at a Glance](#), a product of the OECD-Eurostat Entrepreneurship Indicators Programme, presents an original collection of indicators for measuring the state of entrepreneurship, along with key facts and explanations of the policy context. The 2015 edition features a special chapter on the international activities of SMEs.

## **Civic Crowdfunding Will Challenge Governments and Charities**

[This article](#) suggests that civic crowdfunding will provide challenges to government. “Crowdfunding, civic or otherwise, and alternative forms of collaborative financing arguably reflect a drive to democratise financial markets – from venture capital and startup investment markets to community bonds. This is assisted by the broader fintech movement, with its digital currencies and block chain developments. We are witnessing the unbundling of age-old financial institutions and systems.”

## **The Metric Tide**

The Independent Review of the Role of Metrics in Research Assessment and Management was set up in April 2014 in the UK to investigate the current and potential future roles that quantitative indicators can play in the assessment and management of research. Its report, [‘The Metric Tide’](#), was published in July 2015; for details see

The review was chaired by James Wilsdon, professor of science and democracy at the University of Sussex, supported by an independent and multidisciplinary group of experts in scientometrics, research funding, research policy, publishing, university management and research administration. Through 15 months of consultation and evidence-gathering, the review looked in detail at the potential uses and limitations of research metrics and indicators, exploring the use of metrics within institutions and across disciplines.

## **Social Progress Index 2015**

The Social Progress Imperative (SPI), which includes both the Social Progress Index and the Social Progress Network, was incorporated as a non-profit in the United States in 2012. 2015 marks the third year the [Social Progress Index](#) has been published, and also the third year of activity of the Social Progress Network. The SPI measures the multiple dimensions of social progress, benchmarking success, and catalyzing greater human wellbeing. The original idea for the Social Progress Index was conceived within the World Economic Forum's Global Agenda Council on Philanthropy and Social Investing, chaired by The Economist's New York Bureau Chief Matthew Bishop, who took up the challenge in 2009 to increase the impact that social entrepreneurs, business leaders and policy makers can have in the world.

## **Enhancing the Effectiveness of Team Science**

[Enhancing the Effectiveness of Team Science](#) synthesizes and integrates the available research to provide guidance on assembling the science team; leadership, education and professional development for science teams and groups. It also examines institutional and organizational structures and policies to support science teams and identifies areas where further research is needed to help science teams and groups achieve their scientific and translational goals. This report offers major public policy recommendations for science research agencies and policymakers, as well as recommendations for individual scientists, disciplinary associations, and research universities.