Innovation Policy Report

February 2013

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Departmental Developments

Australian Innovation System Report 2012

The Australian Innovation System Report 2012 was released on 10 December 2012 by the Minister for Industry and Innovation, the Hon Greg Combet. This is the third report in an annual series on the performance of Australia's national innovation system.

The Report covers innovation trends in Australia and, where possible, benchmarks Australia's innovation performance against other Organisation for Economic Co-operation and Development countries. The 2012 Report indicatesthat innovation active firms are almost twice as likely to report an increase in productivity; three times more likely to export; more than twice as likely to create new jobs, and more than three times more likely to increase training opportunities for their employees, than non-innovating firms. Despite these payoffs, the Report indicates innovation performance of Australian businesses is can be considered poor by international standards.

With Australia's advantageous terms of trade likely to ease over the coming years as the resources boom subsides, this year's report highlights the critical role that innovation can play in driving Australia's future productivity growth.

The Compendium of Program Updates outlines the new or significant developments in government initiatives that foster innovation.

If you would like to receive a hard copy of the Report, please complete the Request Form located on the Report site above and email it to: InnovationReport@innovation.gov.au.

National Survey of Research Commercialisation 2010-2011

The National Survey of Research Commercialisation (NSRC) collects data on the commercialisation activities of Publicly Funded Research Organisations (PFROs) and measures the extent to which public researchers have successfully translated their ideas into valuable technologies, services, business models and other intellectual property.

The 2010-2011 report shows that, over time, there have been steady increases in the number of invention disclosures and in the number of patents and plant breeder rights issued worldwide to Australian PFROs; an increase in the number of, and capital raising and institutional equity for, start-up companies; increases in the value of research contracts and consultancies undertaken; and in direct sales recorded by PFROs. These increases demonstrate the continuing improvement of Australia's PFROs in developing and sharing the knowledge that they create.

The report features an analysis of Australia's PFROs Intellectual Property (IP) commercialisation activities through citation and technology transfer rates. This analysis identified that one-third of the IP rights associated with PFROs involve commercial entities or have been transferred to a corporation; that successfully commercialised patents tend to be stronger rights; are protected

in more countries, are more heavily referenced by third party patent applications and granted more frequently. The level of upfront investment in commercial patent rights is encouraging, suggesting that applicants have a higher confidence of an economic return, or have expectations of a commercial technology transfer agreement.

Commercialisation Australia New Magazine

Commercialisation Australia (CA) has issued the first edition of it's new quarterly magazine "*Value Proposition*". CA now has an impressive portfolio of Australian companies and organisations commercialising innovative products and services. Many are now gaining traction in the market, and some have already achieved market success.

Value Proposition will feature stories from CA Participants, Case Managers and others within the CA network. It will include regular sections titled: Domain, Adding Value, Going Global, The Network, Research Infrastructure, and Government Assistance.

The first edition marks the launch in December 2012 of Commercialisation Australia's Expert Network – the re-branded Volunteer Business Mentor Network. It also includes several stories focusing on the IT sector and doing business in the US Silicon Valley; and highlights current activities by the Advance network, including the upcoming Advance Innovation Summit in Silicon Valley, April 2013. It also includes a feature story on the Australian Clean Technologies Competition and information on the new Clean Technology Innovation Program.

The March 2013 issue of *Value Proposition* will feature several stories on manufacturing firms to coincide with National Manufacturing Week in early May 2013.

People can subscribe to the magazine by sending an email to camedia@innovation.gov.au

Australian Public Sector Innovation Indicators (APSII) Project Update

The APSII Project is developing a methodology to understand and measure innovation in the Australian Public Sector (APS). Since the last update of the APSII project in October 2012, analysis of the pilot survey and survey data has progressed. Preliminary analysis of the data collected and the survey instrument which covered 316 out of a total of 946 randomly-selected Senior Executive Service Band 1 officers from across the APS, were presented at the APSII project stakeholders' reference group meeting on 12 December 2012.

Preliminary pilot survey results show that:

- process innovation is the most common type of innovation in the APS; and
- defence and security services had the higher share of 'first to Australia' innovations.

The APSII project is of significant interest to the National Experts on Science and Technology Indicators (NESTI) Working Group on Public Sector

Innovation at the OECD and the outcomes of the project will inform discussions at a meeting of the group in April 2013. The Department will brief the Secretaries Board in early 2013, once the data has been fully analysed and the methodology finalised in light of the survey results. The Department will then also hold several Stakeholder and Technical Reference Group meetings to discuss the outcomes of the survey and the utility of the data as an indicator of innovation capacity within agencies, before presenting the final report to the Secretaries Board in mid-2013.

2013 Review of the Franchising Code of Conduct

On 4 January 2013, the Minister for Small Business, the Hon Brendan O'Connor, announced the commencement of a review of the Franchising Code of Conduct (Franchising Code), to be conducted by Mr Alan Wein. The Franchising Code is a mandatory code that is prescribed under the *Competition and Consumer Act 2010*. The purpose of the Franchising Code is to regulate the conduct of participants in franchising towards other participants in franchising. Broadly, it achieves this by requiring franchisors to disclose specific facts to franchisees and to follow set procedures in their dealings with franchisees. The Australian Competition and Consumer Commission is responsible for the administration and enforcement of the Franchising Code. The Department of Industry, Innovation, Science, Research and Tertiary Education provides policy advice to the government with respect to the Franchising Code, and will provide secretariat support to Mr Wein throughout the review.

Stakeholders are invited to provide feedback and comment on the terms of reference. Submissions close on 15 February 2013.

Manufacturing Leaders Group

On 16 August 2012, the Government accepted a recommendation from the non-government members of the Prime Minister's Manufacturing Taskforce for the creation of a Manufacturing Leaders Group (MLG). The Taskforce saw business, unions, researchers and government working together to set out a strategy for the future of Australian manufacturing. The Government wishes to see this collaborative and strategic approach continue.

The MLG is part of the Government's strategic mechanism that will continue this important dialogue. It will provide strategic advice to the Government, build better links between industry, the research sector and government, promote improved capabilities to build more competitive firms and workplaces, and to help Australian manufacturing seize the opportunities of the Asian Century. The Government sees the MLG as having an important role in assisting it to implement its response to the Taskforce's recommendations.

To achieve this, the MLG will focus on major productivity challenges such as building high-performance workplaces and engage with other parts of the economy such as capital markets and the mining, resources, construction and research sectors.

The MLG will:

- provide quality research, analysis and strategic advice to Ministers;
- support evidenced based research and analysis to underpin their advice;
- champion capability development to build better firms and workplaces;
- encourage industry led transformation; and
- improve linkages and collaboration between stakeholders, and with other industry policy bodies, to support the development and implementation of a coherent set of Government industry policies and programs.

On 6 December 2012, the Minister for Industry and Innovation, the Hon Greg Combet AM MP announced the membership of the MLG, which will comprise a high-level group of 22 people drawn from business, union and research leaders. It will be chaired by Boeing Australia and South Pacific President, Ian Thomas.

Mr Thomas will bring his considerable experience in the Asia-Pacific region to his role as chair of the Leaders Group. ACTU secretary, Dave Oliver, as deputy chair will continue the work he undertook on the Manufacturing Taskforce.

Advisory Council on Intellectual Property (ACIP) Report on IP and Collaboration

The Collaborations between the Public and Private Sectors: the Role of Intellectual Property report by the Advisory Council on Intellectual Property (ACIP) was presented on 8 November 2012 to the Parliamentary Secretary for Industry and Innovation, Mark Dreyfus.

The report acknowledged Australia's capacity to undertake world class research, but argued that greater collaboration with the private sector was needed to transfer this research into new technologies, products and services that benefit society.

Among the six key recommendations in the report, ACIP suggests:

- adjusting key performance indicators for publicly funded research organisations and universities to provide greater incentives to collaborate with industry;
- improving the way in which commercial agreements are negotiated; and
- helping small business to better engage with public researchers.

As well as identifying factors that affect the formation of private and public collaborations, the report highlights the role that IP plays in these collaborations. IP rights, in the form of patents, copyright, trademarks and industrial designs, assist knowledge transfer by providing a clear title to intellectual assets.

National Developments

Asian Century Business Engagement plan

The Asian Century Business Engagement (ACBE) plan is a four-year program that will run from 1 July 2013. It has been established to assist member-based business organisations harness commercial opportunities in Asia for small to medium sized Australian businesses. This program is part of the Australian Government's *Australia in the Asian Century* White Paper.

Under the plan, eligible applicants can be offered between $25,000 and $300,000 in grants. The grants are merit-based and competitive.

The key goals of the ACBE plan are to expand the capability of member-based business groups to:

- access in-market business networks more effectively and develop relationships with business contacts in Asian countries;
- identify and secure more opportunities for Australian firms in regional value chains in Asia;
- strengthen business links between Australia and Asia;
- influence corporate Australia to initiate closer engagement with Asia;
- raise the profile of Australian business capability in Asia; and
- increase awareness of Australia in Asia, and of Asia in Australia.
- The guidelines will be released at the same time as applications open for the ACBE plan in late February 2013.

Australia's Renewable Energy Sources to 2050

Renewable energy sources are projected to account for about half of Australia's electricity generation by 2049-50, according to the Australian Energy Projections to 2049-50 report released on 19 December 2012 by the Bureau of Resources and Energy Economics. The report contains long-term projections for Australia's energy consumption, production and trade to 2049-50. Australia's primary energy consumption is projected to grow by 21%. This growth reflects a long-term fall in energy intensity, accelerated by drivers such as the greater role of renewable technologies, which use less energy to generate electricity than fossil fuels, and carbon pricing.

Electricity generation is projected to grow by 49%. Coal's share (including with carbon capture and storage) of total generation is projected to fall to 13% in 2049-50, while gas (including with and without carbon capture and storage, and integrated solar-gas technologies) rises to 36%. More than half of Australia's electricity is projected to be generated by renewable technologies. Wind will be the largest source of renewable generation (21% of total generation), while solar is projected to be the second largest (16%) and is the fastest growing over the projection period.

Major Electricity Projects Trending Towards Renewables

The EcoInvestor Magazine reports that large power generation projects in Australia are providing important information about the relative success and potential scale of different energy technologies. An increasing number of large projects are utilising renewable resources. In the first three quarters of 2012, there were more large renewable projects than non-renewables in Australia. Wind power has emerged as the leading renewable energy method and this is expected to continue for the foreseeable future. In the year to October 2012, there were nine large generation projects in Australia – four were gas, four were wind energy and one was hydro-electric. The four gas projects produced the largest combined amount of energy (872MW) while the four wind projects totalled less than half this amount (374 MW). The one hydro-electric project alone produced a similar amount of energy (300 MW) to the four wind energy stations. There were no coal, solar or biomass projects that were above the 30MW threshold for the analysis.

Looking ahead there are 20 projects that are either committed or under construction and 14 of these will use renewable energy. 12 of the renewable projects are wind powered and they will produce in total 1,945 MW of energy. A future solar project will produce 44 MW of energy, while the other renewable project is a 40 MW expansion of a hydro-electric scheme. Looking at less advanced projects that are planned for the future provides a similar outlook. Of the 133 less advanced projects, 72 are wind, 31 gas, 11 solar, six black coal, three geothermal, three ocean energy, two brown coal and one each of hydro-electric, biomass and oil.

CEDA 2012 Big Issue Survey Results

The results of Committee for Economic Development of Australia (CEDA) and Business Spectator's 2012 Big Issues survey have revealed that the big issues confronting business are ensuring Australia is positioned to take advantage from the rise of Asia, and the need for continued productivity improvement. CEDA Chief Executive, Professor the Hon. Stephen Martin said the survey, completed by more than 3000 people, provided some interesting results, with productivity again a key issue, but previous hot issues, such as industrial relations, falling off the radar.

Enhancing productivity, improving Australia's competitiveness, and encouraging innovation were ranked as the top three priorities for the Federal Government. These factors, along with timely infrastructure delivery, were viewed as the keys to adjusting to world conditions in 2025. Professor Martin said more than 70% of people surveyed agreed that the Asian Century would sustain the Australian economy to 2025, and that the Federal Government's Australia in the Asian Century White Paper was either important or critical to achieving our economic objectives in the Asia Pacific region.

Some of the areas to rate the lowest in helping Australia adjust were the availability of skilled labour, industrial relations reform, and the tax regime. All of which have received significant discussion in the media, but appear from this survey to not be as big a concern to the business community.

New South Wales

Innovate NSW

Innovate NSW is a new initiative to drive strategic collaboration between SMEs, researchers, major corporations and end-users to develop leading edge products and services in key industry sectors. It will address the State's biggest economic growth barriers and drive rapid advances in NSW innovative and industry capability. It will provide targeted assistance to promote collaboration between innovative SMEs and global corporate partners to bring new products and services to market, and open up new high growth business and export opportunities.

Innovate NSW will:

- Provide matched financial assistance of up to $15,000 for around 250 individual firms with high growth potential for market or technology validation opportunities. A key aim is to support the development of deeper collaboration by SMEs with customers, researchers and global companies; and
- Bring together consortia of over 60 innovative SMEs, large companies, researchers and end-users to develop solutions to address challenges and opportunities.

NSW Economic Development Framework

On 13 December 2012, the NSW Deputy Premier released the *NSW Economic Development Framework* along with the NSW Government's response to four 10-year Industry Action Plans – for the Digital Economy, International Education & Research, Manufacturing and Professional Services sectors, developed by their respective industry Taskforces.

The new Framework represents a new business model and signals a shift from industry assistance to capability building, innovation and collaboration across the economy. It acknowledges the importance of partnerships between industry, education and research organisations and all levels of government as key to achieving NSW's vision of dynamic economic growth.

The Framework is built on five key principles to make it easier to do business in NSW and position industry for long-term global competitiveness through innovation and productivity:

- Demonstrate Leadership – through stronger engagement with industry, implementing innovative and fiscally responsible economic policy, and advocating nationally for the needs of NSW major industries;
- Make it easier to do business – by improving the NSW Government's operations and processes to reduce costs and providing greater certainty through improving procurement and planning processes and easing the regulatory burden;
- Collaborate to drive innovation and competitiveness – by ensuring industry is better prepared to respond to new challenges, create new products and markets, and take advantage of emerging opportunities;

- Invest in critical infrastructure – by planning strategic and efficient infrastructure needed to drive the economy; and
- Raise the global profile of Sydney and NSW – by promoting the State in a more strategic and coordinated way to attract globally mobile businesses, entrepreneurs and talent to Sydney and NSW.

Implementation of actions and tracking of performance against the objectives outlined in the *NSW Economic Development Framework* will be monitored by an annual Business Leadership Forum. The inaugural Business Leadership Forum will be held in September 2013.

NSW Procurement Reform: Strategic Directions Statement

On 30 November 2012, the NSW Minister for Finance and Services released a Strategic Directions Statement for procurement reform in the NSW Government.

The objective of the reform program is to ensure that the NSW Government has a world class procurement system which delivers value for money, is aligned with business needs, leads to service delivery improvement and supports a competitive and innovative NSW economy.

To achieve these objectives, six strategic directions have been identified in the Statement:

- Strategic, Agile Procurement;
- Simplification and Red Tape Reduction;
- Effective Category Management across Government;
- Supporting agencies in a Devolved Environment;
- Industry Engagement; and
- Innovation.

Tasmania

Innovation in Difficult Times - 2010 Tasmanian Innovation Census

The Tasmanian Innovation Census (TIC) is a 2010 survey of all Tasmanian businesses with five or more full-time employees. A key objective of the census is to produce a set of indicators that promote a deeper understanding of the character of innovation across the Tasmanian economy, including a picture of the changing nature of innovation since the first innovation census in 2007.

This second Tasmanian Census covers a challenging period for Tasmanian firms, including the effects of the Global Financial Crisis, , the closing of businesses in industries as diverse as marine manufacturing and paper production, and a rapid decline in the forestry sector after 2008. At the same time, the high Australian dollar has to place pressure on local manufacturers and exporters, and reduced the cost of investing in advanced production and IT equipment, opening up new avenues for innovation.

On a positive note, many Tasmanian businesses responded to these difficult times by increasing investments in innovative equipment. Conversely, investment in in-house R&D, essential to the future competitiveness of the Tasmanian economy, declined, with the percentage of R&D intensive firms falling from18.2% in fiscal year (FY) 2005/06 to 12.9% in FY 2009/10. The 2010 Census also found that a large majority (87.1%) of Tasmanian businesses introduced at least one type of innovation between 1 July 2007 and 30 June 2010.

International Developments

The Innovation Capabilities of Nations: Five Key Performance Measures

INSEAD, the international business school, issued the 'Measuring Innovation Capabilities of Nations' report, which gives valuable insights into the progress of the United Arab Emirates (UAE) in becoming a knowledge-based economy. The Report used a framework that measures innovation capability via a set of five key indicators: the abilities to access, anchor, diffuse, create and exploit knowledge.

The report finds that the UAE has a mixed record on these five innovation capability pillars. It shows a significant ability to access knowledge from around the world. This can be attributed to its adoption of advanced ICT and the presence of a strong talent pool and a host of international enterprises. Likewise, the UAE has a strong knowledge anchoring ability assisted by a relatively investment-friendly environment and ease of doing business. With rapid development of its human capital, it also attains a high level of the diffusion of new knowledge, skills and techniques in the economy. However, the UAE still has room for improvement is in its ability to create new knowledge and commercially exploit innovations.

The report compares eight select Global Federation of Competitiveness Councils (GFCC) member countries along the five innovation capability pillars in terms of their capacity, performance and efficacy. The comparision countires were Australia, Brazil, Egypt, Russia, Saudi Arabia, South Korea, the UAE and the USA. The USA, the only country with visibly high capacity and performance, has an innovation-based economy that encourages start-ups and has developed an advanced venture capital investment community. Russia and Brazil, make up for their lack of capacity with revenues from exporting natural resources. South Korea's low performance in relation to its high capacity, particularly when compared to the USA, is probably explained by the strong role played by its multinationals in terms of creating value chains overseas, rather than concentrating their activities at home. Brazil has achieved a relatively strong performance compared to its capacity thanks to a significant local market and integrated value chains.

Global 2013 R&D Spending Forecast

Global economic conditions will continue to affect R&D investment in 2013, according to the 2013 Global R&D Funding Forecast, prepared in the US by Battelle with R&D magazine, which expects global R&D spending to grow by $53.7-billion (3.7%) in 2013 to $1.5-trillion. The report examines five key industry sectors of the R&D enterprise including life sciences; information & communication technologies (ICT); aerospace; defence and security; energy, chemicals and advanced materials.

The forecast acknowledges that globally R&D investments have become highly competitive with nations often seeking to outspend others in order to maintain a competitive edge. Internationalization of R&D now pits the US,

China, Japan and the European Union against each other, and emerging economies have developed strong R&D programs that are now challenging in a number of specific R&D areas. The US government is expected to fund $129-billion of R&D in 2013, a 1.4% decline on the $131-million forecast for 2012, with ongoing budget and deficit concerns straining its ability to invest in R&D. US industrial R&D funding is forecast to reach $262-billion in 2013, a 2.3% increase over the 2012 estimate of $256-billion.

OECD Mixed Modes of Innovation

This OECD Mixed Modes of Innovation: An Empiric Approach to Capturing Firms' Innovation Behaviour reports on a study which used exploratory data analysis techniques to develop typologies of innovation modes or strategies for groups of firms. By analysing micro-level survey data from 18 countries, it identified five innovation modes:

- *IP/technology innovating* which in many countires is complemented by in-house R&D and new-to-market activities;
- *marketing based innovating* which includes forms of product innovation, leaning towards new-to-firm imitating, with marketing expenditures for the introduction of innovations;
- *process modernising* which links process innovations with equipment spending and training;
- *wider innovating* with combinations of management and business strategy changes, including new sales and distribution methods; and
- *networked innovating* involving bought-in R&D or licences and formal collaboration and leaning towards accessing information from universities.

The study found that in most countries one or more innovation modes are positively associated with labour productivity. However, there is no consistent cross-country pattern as to which modes show significant associations with productivity. There is no ‘single’ mode or form of innovation across countries that underlies the overall impact of innovation, and there appear to be major national differences in patterns of competitive and comparative advantage with respect to levels of productivity, as well as growth in turnover and employment. Importantly, sectoral innovation orientations are embedded in national systems, as well as exhibiting a degree of convergence at sectoral level.

Global Intellectual Property Center’s International IP Index

Measuring Momentum, the inaugural edition of the Global Intellectual Property Center’s (GIPC) International IP Index, was released on 11 December 2012.

This index highlights the strengths and weaknesses of 11 economically and geographically diverse countries including the US, UK, Australia, Canada, Mexico, Chile, Malaysia, Russia, Brazil, China, and India. It examines all major areas of IP rights. The five major categories (Patents; Copyrights; Trademarks; Enforcement; and Membership and ratification of international

treaties) are divided into 25 indicators, based upon existing international standards and best practices, believed to be indicative of a robust IP environment that encourages economic growth and innovation.

Of the 11 countries assessed, only four - US, UK, Australia and Canada rank above 50%, while at the bottom of the list are the four BRIC countries: Brazil, Russia, India and China.

Cooperative Patent Classification (CPC) system launched

Formal launch of the Cooperative Patent Classification (CPC) system, a global classification system for patent documents, was announced on 2 January 2013 by the US Patent &Trademark Office (PTO) and the European Patent Office (EPO).

The launch of the CPC represents the collaborative efforts of both offices to create a bilateral classification system, and is a significant achievement in harmonization in the patent system at the international level. The CPC is a product of a joint partnership between PTO and EPO to develop a common, internationally compatible classification system for technical documents used in the patent granting process that incorporates the best classification practices from both offices. It will be used by PTO and over 45 patent offices, a user community of more than 20,000 patent examiners, all sharing the same classifications. Since October 2010, the PTO and EPO have worked jointly to develop the CPC system, which includes about 250,000 classification symbols based on the International Patent Classification (IPC) system, enabling examiners and patent users globally to conduct searches by accessing the same patent document collections. CPC is expected to lead to more efficient prior art searches and enhance efficiency through work-sharing initiatives to reduce duplicative work.

Advance Innovation Summit 2013

Following the 2012 Advance Innovation Summit in Silicon Valley, five of the participating companies successfully raised funding in Australia, with one of these, CryptoPhoto, winning the 2012 Shell Innovation Challenge ICT category. Applications for the 2013 Advance Innovation Program closed in December.

During 2012, Advance met with Australian incubators, accelerators and research bodies to build relationships within the start-up eco-system and generate awareness of the program, and the initiative was also marketed via government innovation programs.

For the 2013 program, criteria have been expanded to target ‘companies with an existing, working prototype’ rather than just very early stage companies. Around 80 applications were received, of measurably higher quality than in the previous year.

Selection processes have been enhanced, with initial screening by a Selection Committee of Australian entrepreneurs, market participants and investors to select 50 applicants to pitch at workshops over March-April 2013

in Sydney, Melbourne and Brisbane, from which half will be invited to the 22-26 April 2013 Summit with top-tier investors in Los Angeles and Silicon Valley. Advance has increased its pool of mentors from 25 to 40, so all participants can be matched with an experienced mentor from a relevant industry to prepare them for the Silicon Valley experience.

Asia

Asia Social Innovation Awards 2012

The Asian Social Innovation Award was established in 2008 to create a pathway for the sustainable development of a social innovation culture in the Asian region. The Award is the first innovative social enterprise event in Asia to apply a simple mechanism to engage the general public to participate in discussion, and to deliver positive and concrete innovative solutions to tackle social problems. Using 200-500 words, or an idea via video format, applicants were required to propose an innovative social enterprise concept within the areas of social inclusion, aging population, or poverty. The 2012 Award winners were announced in late December and provided ideas for social innovation which the general public can engage in.

Singapore's Innovation Voucher Scheme

The Singapore Innovation Voucher Scheme (IVS) has been expanded to cover three new areas – productivity, HR development and financial management – in addition to technology- related projects. It has been renamed as the Innovation & Capability Voucher (ICV) to reflect its expanded scope and purpose.

The voucher now allows SMEs to pay for services in these areas with the aim of encouraging SMEs to start upgrading and enhance their capabilities. Technology innovation services under IVS are still supported under ICV. These include technical feasibility studies, technical support and knowledge development, which are categorised under the area of Innovation under ICV.

Europe

EU Unitary Patent Protection

After 30 years of discussions, the EU unitary patent will become a reality in January 2014 in at least 25 of the current 27 Members States of the European Union, once the provisions have been translated into national law. Under the new regime, the cost of an EU patent will be cut by up to 80%, making the zone more competitive in relation to the US and Japan, thereby giving a much-needed boost to Europe's innovative capacity. An inventor will be able to apply to the European Patent Office for an EU unitary patent valid in all 25 EU member states party to the agreement. Spain and Italy opted out, considering that the new system did not give due recognition to their languages, but may join later. Patent applications may be made in English, French or German, and if written in another language will be required to be translated into one of the three patent languages.

The European Parliament has ensured that translation costs will be fully reimbursed for SMEs, non-proft organisations, universities and public research organisations based in the EU. It also ensured that renewal fees, which account for a large share of toal costs, will be set at a level that takes account of the special needs of small firms so that they can benefit fully from the lower costs.

Entrepreneurship as a main driver for economic growth

To help return to growth and higher levels of employment, Europe has presented an Entprepreneurship Action Plan to support entrepreneurs and bolster entrepreneurial culture in Europe. With 4 million new jobs created every year, new companies, especially small and medium sized enterprises (SMEs), create the most new jobs in Europe. Consequently, European Commission Vice President Antonio Tajani has presented an action plan to support entrepreneurs and revolutionise entrepreneurial culture in Europe.

The plan stresses the key role of education and training to nurture new generations of entrepreneurs, and includes specific measures to help budding entrepreneurs among young people, women, seniors, migrants, and the unemployed. It addresses obstacles to entrepreneurship such as ambitious measures to facilitate start-ups and new businesses, make transfers of business ownership more successful, improve access to finance, and give honest entrepreneurs a second chance after bankruptcy.

India

Australia-India Relationship Continues to Grow

The last decade has seen a rapid expansion of the trading relationship between Australia and India. Two-way trade has grown in value from $3.3-billion in 2000 to over $20-billion in 2011. Commonwealth and state governments in Australia are working together on several initiatives to strengthen this relationship further.

On 12 May 2011, Trade Minister Craig Emerson and Indian Minister for Commerce and Industry Anand Sharma formally launched negotiations to conclude an Australia-India Comprehensive Economic Cooperation Agreement. Similar to the elements covered in Australia's existing bilateral Free Trade Agreements, a Comprehensive Economic Cooperation Agreement would include coverage of investment and trade in goods and services. Prime Minister Singh and Prime Minister Gillard reaffirmed the importance of achieving a high quality agreement during Prime Minister Gillard's 15-17 October 2012 visit to India.

The Australia-India Council Grants Program is seeking applications for projects that will build greater ties between the two countries. The current round is open until 12 February 2013. The Council will give priority to projects in the following areas (listed in order):

- Public Policy Activities (including media links);
- Science/Technology/Environment;

- Social initiatives (including public health and sport);
- Education; and
- The Arts (including literature and film).

The Victorian Government will be hosting a super trade mission to India on 11-15 March 2013 and it is expected that over one hundred organisations will participate.

The Australia-India CEO's Forum began in 2012 and will continue in 2013. The CEO's Forum is considering how Australian and Indian businesses can develop stronger relationships and provides advice to governments on how they can facilitate this. The two co-chairs are Mr Lindsay Fox AC and Mr Naveen Jindal. Prime Minister Gillard addressed the previous meeting in Delhi and the forum is strongly supported by the Australian Government.

The first Australia India Youth Dialogue on Australian soil took place on 30 January - 2 February 2013. The first two days were held in Melbourne and the final day in Sydney. Recommendations from the Dialogue will be considered by the Australian Government.

Ozfest, a festival celebrating Australian and Indian cultural ties began in October 2012 and concluded on 6 February 2013. The festival involved the Australian Government and 24 government, business, institutional and production partners. Early indications are that it has been very successful in promoting Australian business and entertainment in India.

Science, Technology and Innovation Policy 2013

The Indian Prime Minister, Dr. Manmohan Singh, addressed the Indian Science Congress, Science for Shaping the Future of India, on 3 January 2013, and released the Science, Technology and Innovation Policy 2013.

The Policy aims to position India among the top five global scientific powers by the year 2020. It aims to produce and nurture talent in science, stimulate research in universities, develop young leaders in the field of science, reward performance, create a policy environment for greater private sector participation in research and innovation and forge international alliances and collaborations to meet the national agenda.

The Prime Minister outlined that the Policy aims to invest in popularizing science not only in schools and colleges – as is being done through the INSPIRE programme – but also in homes, workplaces and communities through communication methods including the high-speed optical fibre National Knowledge Network.

The Policy aims to leverage science in establishing an inclusive society that seeks to solve major social problems through the application of science.

The Prime Minister added that in recent years India has taken some policy measures in this direction, including encouraging sharing of and access to Government-owned data for research and creating new mechanisms like Innovation Complexes, Technology Business Incubator and Innovation Universities in an effort to bring about convergence of interests among the various players in science.

United Kingdom

Nesta Report on Tackling Worklessness through Innovation

The Nesta report, Making it Work: Tackling Worklessnes thorough Innovation, for a new systematic approach to innovation in the UK jobs market.

With unemployment levels continuing to rise in the UK, Nesta argues that the current mainstream approaches to tackling worklessness are ineffective and overlook how intermediaries could be better used to connect supply and demand and what alternative ways exist to stimulate demand. The processes and institutions by which people are matched to jobs and jobs to people, it says, are too often taken for granted when thinking about how to create jobs. Innovation in these areas, it argues, could help create jobs and work, over and above what has been done in the past.

Nesta identifies three steps which could be taken to reinvigorate the jobs market:

1. **Experiment with different ideas**. Local areas should commit to a suite of innovation programs and measures designed to create or shape new markets, support self–employment, and use intermediaries to improve the efficiency of job–matching.
2. **Prototype**. Measure and assess what works (and what doesn't) in a pragmatic and methodical way, so that successful models can be scaled up.
3. **Establish an international independent evidence centre** for **the labour market** with a global learning/knowledge exchange network to help make the case for sustaining, scaling and diffusing successful innovations.

Nesta Report on Innovation in Policy

In order to respond effectively to a changing context of complexity and uncertainty, governments need to consider innovating the processes and practices of public policy itself. The Nesta Innovation in Policy report aims to frame discussion between policymakers, researchers and practitioners around the dilemmas and challenges involved in developing policymaking practices that can respond productively to current crises and persistent, unresolved, public problems.

Many of the most pressing challenges faced by governments are those that confound traditional bureaucratic problem-solving systems of problem definition, administration and resolution. Problems like environmental preservation, economic growth, unemployment, or healthcare are characterised by their complex nature, and necessarily cut across different policy domains, professional sectors, organisations and political and administrative jurisdictions.

This report explores the ways in which innovation can be used to help improve the capacity of the public sector to deal productively and continuously

with public problems, and identifies five policy principles to drive this paradigm shift:

1. **Focus on Outcomes - not Solutions**. Public services are a matter of continuous facilitation rather than implementing 'solutions'. Their purpose, content, limits and outcomes have to be explored through creative and systematic iteration and adaptation. These practices develop over time and are reliant on numerous people, systems, organisations, institutions and stakeholders. They are never perfectly established as a solution to a problem, but need to 'live' continuously and dynamically within a community of people in order to create value.
2. **Experimentation**. The idea of experimentation in relation to public governance and policy development has connotations of risk and therefore it is not widely practiced. However, the use of structured methods such as foresight and prototyping can be applied to anticipate and 'rehearse the future' in a more active and productive way, thereby managing risk and expectation and learning from (low–cost) failure.
3. **Excercising a new type of authority**. Public bureaucracies are dominated by traditional models of authority. However, in the digital age where communication and collaboration can occur much more rapidly and easily, the role of the public sector needs to change to one that enables not only collaboration with private actors, but actively encourages new types of environments for collaboration and co-production.
4. **Re-thinking useful evidence.** Building innovation capability in public governance requires other kinds of illustrations and representations to help decision makers relate empathetically to the people and the problem at hand. Creative methods building on ethnographic methodology, co-design approaches and social and interactive media provide opportunities to capture the experience and insights of citizens, to add legitimacy to interpretation and allow for processes of co-producing outcomes.
5. **Designing for policy.** Unlike the traditional understanding of policymaking and governance as the rational development of models, design is predisposed to more iterative creation and stewardship, closing the gap between development of the model and its implementation. Rather than formulating a plan that sits distinct from practical application, it is in the testing and iteration that the plan truly comes to life.

Crowding In

Nesta have published Crowding In to guide businesses, charities, financial institutions and government in how to make the most of crowdfunding. The publication outlines the recent and significant growth of crowdfunding, its various models, the crowdfinding process, and the benefits and opportunities. NESTA notes that the current figure for crowdfunding investment in the UK is £120 million, and predicts that it is possible that within three years

crowdfunding could provide around £15 billion of finance per year in the UK, and that with the right frameworks and standards, it could grow even further.

United States

Report on the Future of the US Research Enterprise

Changes to the US Research and Development Tax Credit are recommended, along with other initatives, in the report Transformation and Opportunity: The Future of the US Research Enterprise, released on 30 November 2012 by the President's Council of Advisors on Science and Technology (PCAST).

The report finds that the expansion of global competition over the past 20 years and a growing corporate emphasis on near-term results and reducing future risk has undermined private-sector support of basic and early-applied research that is essential for innovation and long-term economic growth.

The report states that if current challenges to US basic and early applied research are not addressed, innovation may migrate increasingly overseas. In that case, the US risks losing not only jobs but entire new industries, and many scientific benefits could lose momentum.

Among specific actions recommended by the PCAST report are:

- The Research and Experimentation Tax Credit, often called the R&D tax credit, should be made permanent, and the rate of the alternative simplified credit raised from 14% to 20%. The credit also needs to be made more useful to small and medium enterprises that are R&D-intensive by including refundable tax credits, transferable tax credits, and modifications to the definition of "net operating loss" to give advantage to R&D expenditures;
- Total R&D expenditures should grow moderately to 3% of gross domestic product (GDP) from the current level of about 2.9%, and the executive and legislative branches should work jointly to develop policy incentives aimed at enhancing the share of that investment made by private industry (currently about 66% of the total);
- Improve undergraduate STEM education through the adoption of empirically validated best practices in order to attract and retain the most talented and motivated STEM students; and
- The US must attract and retain, both for universities and industry, the world's best researchers and students from abroad, and federal immigration policies must support these goals. For example, by offering a fast-tracked, long-term visa to foreign STEM graduates from accredited US universities.

US Federal Technology-Transfer Report

The National Institute of Standards and Technology (NIST) has released an annual report, Federal Laboratory Technology Transfer - Fiscal Year 2010, on technology transfer from federal laboratories that details efforts to move results of public investment in R&D to meet marketplace and other needs.

The latest report describes the licenses, cooperative R&D agreements, and other mechanisms used by federal labs at 11 agencies to conduct these tech-transfer activities, and tallies over 18,000 active collaborative relationships with private entities and others, as well as the more than 4,700 inventions, 1,830 patent applications and 1,143 issued patents generated by these federal labs.

Among the federal technologies that have been adopted successfully by the private sector are new tests developed by the Center for Disease Control and Prevention that can detect HIV-1 and identify how recently the individual was infected, and the NIST-developed Advanced Combinatorial Testing Suites technology which provide a systematic way for testing complex software failure modes.

The report will help serve as a baseline to measure progress toward achieving the challenge issued to the federal agencies in an October 2011 Presidential Memorandum, to significantly increase technology transfer over the next five years. It stressed using innovation to accelerate development of new US industries, products and services, and directed federal agencies with labs to establish goals and measure performance, streamline administrative processes, facilitate local and regional partnerships to accelerate tech-transfer, and support commercialization by the private-sector.

Amended SBIR and STTR rules

Amended regulations on the eligibility for the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs were issued by the Small Business Administration (SBA) in December 2012.

The purpose of the SBIR program is to stimulate technological innovation by strengthening the role of innovative small business concerns in Federally-funded research and research and development (R/R&D). The purpose of the STTR program is to stimulate a partnership of ideas and technologies between innovative small business concerns and research institutions.

The amended rule (RIN 3245-AG46) implements provisions of the National Defense Authorization Act for Fiscal Year 2012, which address ownership, control and affiliation for SBIR and STTR program participants.

SBA's current regulations state that to be eligible for the SBIR Program, the business must be 51% owned and controlled by U.S. citizens or permanent resident aliens, or 51% owned and controlled by another business that is 51% owned and controlled by U.S. citizens. In addition to this current eligibility requirement, the SBA's new regulation will also permit 51% ownership and control by U.S. domestic venture capital operating companies (VCOCs), hedge funds or private equity firms.

One potential benefit of the rule is to increase participation in the SBIR and STTR program by allowinjg more businesses to access these programs. SBA believes this will increase competition, which will ultimately increase the quality of proposals and spur innovation.

US Patent Small Claims Court?

Comments are being sought by the Patent & Trademark Office (PTO) on whether the US should develop a small claims proceeding for patent enforcement. The PTO seeks information about core characteristics of a patent small claims proceeding including features, such as subject matter jurisdiction, venue, case management, appellate review, available remedies, and conformity with the US constitutional framework. Among items of interest to PTO is whether there's a need and desire for this type of proceeding, circumstances when it's needed, and what features it should possess.

The PTO has had several recent discussions with federal judges, academia, private practitioners, and various stakeholder groups including bar and industry associations, to explore the desirability and need for a patent small claims proceeding in the US.

The President's Council of Advisors on Science and Technology

The first meeting of the President's Council of Advisors on Science and Technology (PCAST) for 2013 took place on January 4 at the National Academy of Sciences.

This was PCAST's second meeting since President Obama won re-election for a second-term. PCAST had the opportunity to meet with President Obama in November and discuss with him the challenges and opportunities in the domains of science & technology and innovation going forward. They also discussed how PCAST could be most helpful in advancing the nation's priorities in science, technology, innovation and STEM education in the President's second-term.

A number of the issues that the President has made clear will be on his second term agenda were on the PCAST agenda for their January meeting. This included the opportunities and challenges of Open Government, which is an issue that revolves around participation, inclusion, and effectiveness. They will also consider achieving better health outcomes for more Americans, and the challenges and opportunities at the intersection of energy and climate change.