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Departmental Developments

Business / Government Interactions Design Project
The Australian Centre for Excellence in Public Sector Design, a cross-agency initiative, has been asked to undertake a project looking at how to improve interactions between business and government.

Since September, the Centre has undertaken research, interviews and conducted a cross-agency design workshop, to explore the project. Through these processes the Centre has identified four challenge areas where design could be used to uncover new insights about how to significantly improve the interface between business and the public sector.

To keep up to date with the developments in the project, please refer to the Public Sector Innovation blog.

National Nanotechnology Research Strategy
The Department, through its National Enabling Technologies Strategy, supported the Australian Academy of Science in preparing a research strategy for nanotechnology. After 18 months of analysis and consultations, the research strategy is to be launched in early December 2012.

The strategy will help identify the strengths, challenges and opportunities that Australia has in nano-related fields of research. Given that nanotechnology is a term that covers a broad field of research, this strategy will provide focus for the research community and it should help to clarify the potential of nanotechnology in areas that stand to benefit from its development. Once released, the research strategy will be available on the Australian Academy of Science website.

Collaborative Research Networks Program
The Collaborative Research Networks (CRN) program is a research-specific program targeting smaller, less research-intensive or regional universities, intended to influence structural adjustment in the research and research training aspects of Australia’s higher education system.

An additional $19.6 million for three more projects was announced in July 2012, bringing total announced CRN funding to $81.1 million for 15 projects. The latter three projects are scheduled to commence during 2013 and will investigate topics including sports, sciences, cardiovascular diseases, Indigenous health and wellbeing, and healthy ageing.

In delivering CRN projects, the 15 lead institutions will benefit through institutions partnering in the projects, which have shared expertise and research focus. The expectation is this activity will lead to flow-on benefits for the research and innovation system as a whole.

Cooperative Research Centres program
Applications for the 15th CRC program selection round closed on 14 June 2012 and nine applications were received. Stage one of the assessment...
process has been completed and seven applications have been invited to stage two:

- CRC for Living with Autism Spectrum Disorders;
- Safeguarding Biodiversity CRC;
- Prostate Cancer CRC;
- The CRC for Cell Therapy Manufacturing;
- Resilient Regions CRC;
- The CRC for Alertness, Safety and Productivity; and
- The Vision CRC (supplementary application).

Stage two of the assessment process is currently underway. The outcomes of the 15th CRC selection round are expected to be announced in early 2013. Funding will be available from July 2013.

**Research Impact**

**Excellence in Innovation (EIA) for Australia symposium**

On 28 November 2012 the Australian Technology Network of Universities (ATN) and the Group of Eight (Go8) conducted a symposium on the findings of the recently completed Excellence in Innovation for Australia (EIA) trial.

Addresses were provided by a range of speakers in academic and industry leaders led panel discussions on EIA trial impact case studies, the impact of research on Australian society and the role of research as a driver of national productivity.

**Workshop on research impact assessment**

On 29 November 2012 the first of a series of workshops on research impact assessment was held at the Australian National University. The workshop was organised by the Department and hosted by the Crawford School of Public Policy.

The workshops will help set the research impact agenda and develop a common analytical framework. More workshops will be held over the next 12 months.

**The Place of Science in Policy Development in the Public Service Report (2012)**

The **APS 200 Project: The Place of Science in Policy Development in the Public Service report** was launched at the 13th annual *Science meets Parliament* event on 17 September 2012.

The report was to systematically review the ways in which scientific evidence is used to inform policy development in the Australian Public Service (APS). It identifies the key challenges of incorporating scientific evidence into policy, and proposes practical strategies to overcome these. The report’s
recommendations aim at achieving better government outcomes through enhancing science collaboration and capacity between researchers and policymakers, and across departments and agencies.

Departments are in the process of exploring the report findings and identifying next steps for implementing the recommendations.

**Australian Research Committee and the National Research Investment Plan**

The Australian Research Committee (ARCom) has developed, a national research investment plan to provide integrated and strategic advice on future research investments, including in the areas of human capital, infrastructure and collaborative activities.

The Plan is currently being considered by the Australian Government, and will provide a strategic framework and a set of principles to guide investment in science and research. It aims to ensure that Australia has the capacity to conduct research in areas of national priority in order to improve national wellbeing and achieve increased productivity.

**Australian Research Council: Major Grants Announcement**

On 5 November 2012, $360 million in funding for new research projects under the Australian Research Council’s National Competitive Grants Program (NCGP) was announced. The research projects will begin in 2013 and be administered over a period of up to three years.

The total funding announced comprised:

- $254.0 million awarded to 732 projects under the Discovery Projects scheme;
- $72.3 million awarded to 200 early career researchers under the Discovery Early Career Researcher Award (DECRA);
- $29.0 million for 72 projects under the Linkage Equipment, Infrastructure and Facilities scheme; and
- $4.3 million for 10 indigenous research projects under the Discovery Indigenous scheme.

Also announced, was $3.2 million in funding to Queensland University of Technology as the lead organisation for an Aboriginal and Torres Strait Islander Researchers’ Network funded for four years under the NCGP Special Research Initiatives scheme.

Further information is available from the

**Industrial Transformation Research Program**

Funding rules for the Australian Research Council’s Industrial Transformation Research Program were released on 25 November 2012. The Program offers a suite of funding schemes attractive to both university-based researchers
and industries. The program will fund the Industrial Transformation Research Hubs and Industrial Transformation Training Centres schemes. The government will invest up to $1 million per year for between one and five years in each research hub (along with investment by industry partners) and up to $1 million per year in each training centre for three years.

The Industrial Transformation Research Hubs for funding commencing in 2012 and the Industrial Transformation Training Centres for funding commencing in 2013 are seeking applications addressing the Industrial Transformation Priorities of future food storage; food processing; manufacturing capabilities; product opportunities and other food related.

**Australian Key Innovation and R&D Indicators Data Card**

The latest update of the “Australian Key Innovation and R&D Indicators Data Card” was released on 25 October 2012, and follows three recent data releases: Research and Development of Australian Businesses (BERD) and Selected Characteristics of Australian Businesses by the Australian Bureau of Statistics (ABS); and Science, Research and Innovation Budget Tables 2012-13 by the Department.

This publication contains key statistical information on R&D and other innovation indicators. Statistics focus on Gross R&D Expenditure (GERD) in Australia collectively spent by businesses, government, higher education and private non-profit organisation, and compares against latest available data from the Organisation for Economic Co-operation and Development. The innovation indicators present statistics on business innovation at the industry level, business collaboration for innovation and the Australian Government’s support for science, research and innovation.
National Developments

Australia in the Asian Century White Paper

On 28 October 2012, the Prime Minister released the Australia in the Asian Century White Paper, commissioned to consider the likely economic and strategic changes in the region and what more can be done to position Australia for the Asian Century. Specifically, the paper includes:

- the current and likely future course of economic, political and strategic change in Asia, encompassing China and India, the key ASEAN countries (Vietnam, Singapore, Malaysia, Thailand and the Philippines), as well as Japan and the Republic of Korea;
- that stronger Australian engagement with Southeast Asia, especially with our biggest neighbour, Indonesia, will remain important for our security and environmental policies.
- the domestic economic and social opportunities and challenges of the Asian Century for Australia;
- opportunities for a significant deepening of our engagement with Asia across the board, including in the economy, science and technology collaboration, clean energy, education, business-to-business and people-to-people links and culture;
- the political and strategic implications of the Asian Century for Australia; and
- the role of effective economic and political regional and global cooperation.

The White paper aims to forge stronger links between industry and research institutions, for Australia to be a leader in innovation, and take advantage of the opportunities of the Asian century. Innovation is seen as a central pillar of the plan to boost productivity growth and incomes. The White Paper has set a national policy objective:

‘By 2025, Australia will have an innovation system, in the top 10 globally, that supports excellence and dynamism in business with a creative problem-solving culture that enhances evolving areas of strength and attracts top researchers, companies and global partnerships.’

Australia-China University Leaders’ Forum

To celebrate the 40th anniversary of diplomatic relations between Australia and China, Universities Australia, China’s National Academy of Education Administration, the Department, and the Chinese Ministry of Education partnered in hosting the Australia-China University Leaders’ Forum on 26-27 November 2012. The forum was held at the Hotel Realm in Barton, Canberra.

Entitled “Celebrating 40 years of engagement – The future of Australia-China education collaboration”, the two-day forum showcased the history of successful university collaboration between Australia and China and explored possibilities for future collaboration.
Australia and China share a strong history of education engagement which is underpinned by agreements and partnerships between government agencies, education institutions and peak bodies in both countries. Australia and China are engaged in a rich breadth of cooperation, such as research and institutional collaboration, business and industry engagement, and student, academic and professional exchange. University leaders and representatives from government, industry and university peak bodies met to discuss these areas of mutual interest. The forum provided an opportunity for university representatives to further develop connections and determine strategies to deepen existing engagement, including considering the role Australian and Chinese institutions, industries and governments can play to best support those strategies.

**Australia’s Competitiveness Survey**

CPA Australia, in conjunction with Professor Michael Enright of the University of Hong Kong, is undertaking a research project exploring Australia’s international competitiveness. A key component of the project is the ‘Australia’s Competitiveness Survey’ undertaken in February to March 2012, which seeks the views of both Australian and non-Australian business decision-makers on Australia’s competitiveness.

A total of 6,052 people responded to the survey, of which 4,912 came from Australia and 1,140 came from outside Australia. The number of respondents to each question varied as some survey questions were optional.

**Preliminary Findings of the Survey** demonstrated that overall Australia is internationally competitive with significant advantages in: governance, transparency and ethical standards; economic, social and political stability; and information technology and communication infrastructure.

However, the survey results identified there are still the following issues to be addressed including:

- Australian business’s lack of integration with, and understanding of Asia;
- improving Australia’s tax system to create a more competitive nation;
- the high cost of doing business, particularly staff costs;
- improving Australia’s industrial relations system should be a policy priority for government; and
- current focus on benchmarking Australia’s economic, social and regulatory performance and policies against OECD nations is largely outdated.

The findings conclude that businesses must do more to improve their own competitiveness, and the quality of business’ strategies, management, staff and other capabilities including innovation are key drivers of competitiveness for investment. It is also recommended that Australian policymakers should move beyond benchmarking Australia against other OECD nations and focus on Australia’s leading competitors regardless of whether they are OECD nations.
Smart Light Bulb Raises $1.3 Million through Crowdsourcing

A company with Australian founders and an innovative light bulb and control system has received pledges for over $1.3 million from 9,236 backers on the Kickstarter crowd funding platform. The company, LIFX, had sought to raise $100,000, so it had met its target many times over when the project was funded on 14 November 2012.

The LIFX is a LED light bulb that can be controlled from a mobile phone. It is WiFi enabled, energy efficient, multicoloured, dimmable, and can last for up to 25 years. It is marketed as a smart light bulb - one that can replace an existing bulb and can be operated from a mobile phone by downloading and installing a free app. It also works with the existing switch.

The LIFX Smartbulbs were designed and prototyped in Melbourne and San Francisco, where the business is now based. The plan is to manufacture via a partner with operations in Melbourne and Shenzhen.

When the project is finished, the backers who pledged at least US$69 will receive a light bulb and those who pledged more will receive more bulbs. In fact all of the pledge packages up to US$490 for 10 bulbs have sold out.

Australian Synchrotron

On 27 October 2012, it was announced that the Australian Synchrotron would be operated by Synchrotron Light Source Australia Pty Ltd., a wholly-owned subsidiary of the Australian Nuclear Science and Technology Organisation (ANSTO). Operation of the facility will commence after an integration period, currently expected to be completed by 31 December 2012. During the integration period, the current operator - Australian Synchrotron Company Ltd (ASCO) - will continue to operate the facility while working cooperatively with ANSTO to transition the operation.

Innovating to Globalise, Globalising to Innovate Roundtable

The University of Sydney Business School hosted the Innovating to Globalise, Globalising to Innovate roundtable on 24 October 2012. The roundtable reported on the results of the major research project carried out by the Discipline of International Business and its Innovation and Entrepreneurship Research Group.

The project involved a study of 25 Australia’s high-tech start-up firms (high-tech start-ups) over three years across four intellectual property-rich industries to obtain insights into the processes of innovation and international entrepreneurship.

The project identified three key findings in the characteristics of high-tech start-ups’ innovation journey:

1. Lengthy and non-linear pathways are the norm. The uncertain, non-linear process affects high-tech start-ups success and impacts upon their partnering activities. Through having well-established international
linkages, high-tech start-ups can mitigate some of the risks in this uncertain non-linear process.

2. **Resource links are critical.** High-tech start-ups generally face resource deficits due to their lack of track record and pre-existing sales. Most high-tech start-ups in this study went offshore to seek resources. Access to offshore resources is important for access to quality and connections for the start-up team. Also, equally important is high-tech start-ups having a credible and persuasive story or vision for attracting external support.

3. **Highly dependent on partnerships.** No start-up will own or control all the resources it needs to bring a new technology to market. Most high-tech start-ups in this study sought a development partner to assist in progressing their technology. Both domestic and international connectedness are important, as high-tech start-ups that can access resources through comprehensive network of contacts typically showed greater resilience and capacity to meet their development milestones.

The Project also highlights the need for governments and third-party allies to understand the distinctive internationalism pathway followed by high-tech start-ups, and provide assistance that is targeted to the challenges these firms face at each phase of their innovation journey.

**Understanding Productivity: Australia’s Choice**

The **Understanding Productivity: Australia’s Choice** report was released on 12 November 2012 by the McKell Institute. It explores Australia’s productivity performance and the policy measures that are being proposed to address it, and finds that performance is often misinterpreted. The report also examines the decline in ‘Multi-Factor Productivity’, which is a comprehensive measure of productivity performance encompassing labour inputs, capital and other sources of productivity.

- It considers that the decline is the result of large falls in productivity in a small number of specific industries, notably mining, utilities and agriculture.
- It found no evidence that the decline was due to factors such as business regulation or changes to the industrial relations regime.

The report emphasises that improved productivity is central to rising living standards and sustainable economic growth, and that living standards will be even more dependent in the future on increasing our rate of productivity growth, particularly in trade-exposed sectors. It recommends that a productivity strategy focus on:

- support for enhanced innovation capability and performance of firms;
- adoption of management practices which draw on improvements in management education and engaging with talent and creativity; and
- expansion of participatory work methods, and improvements to skills formation and utilisation.
International Developments

Joint research and innovation meetings with the European Commission and German Government

In October 2012, the Department led an Australian delegation to the 12th Australia-EU Joint Science and Technology Cooperation Committee meeting (Brussels, 15-16 October), and Australia-Germany Joint Science and Technology Meeting (Bonn, 18-19 October). The EU meeting included an Australia-EU Research and Innovation Dialogue, attended by approximately 60 researchers and officials from Australia and Europe. A delegation of Australian research leaders, led by the Chief Scientist for Australia, Professor Ian Chubb, discussed clean energy, preventive health, and biodiversity in parallel sessions. In addition, an innovation policy dialogue, co-chaired by Mr David Miles, Chair of the Innovation Australia Board, focused on policies and actions to promote an innovative culture, including enterprise networks and mechanisms to drive strategic research priority setting and implementation, and better connect the business and research communities.

Over the the coming year, Australia and the EU will work together to define a new, targeted Australia-EU research and innovation cooperation roadmap that will focus on cooperation that can have substantial impact in addressing shared societal challenges. Preparation will be underpinned by longer-term strategic cooperation possibilities identified by the Australia-EU Research and Innovation Dialogue, and the ‘Connecting Australian-European Science and Innovation Excellence’ project. At the Australia-Germany Joint Science and Technology Meeting, there was agreement to support bilateral mobility of researchers and foster the involvement of industry in collaborations.

Connecting Australian-European Science and Innovation Excellence (CAESIE)

A new, Australia-EU bilateral cooperation project, under the EU’s current research and innovation funding program, the Seventh Framework Programme (FP7), commenced in October 2012. This project will support the early stages of the innovation cycle by fostering interaction between researchers, small to medium enterprises, and other innovation actors from Europe and Australia, to address three major societal challenges: clean energy; healthy ageing; and sustainable cities. The Australasian Industrial Research Group is a key partner in the project, together with the Department and the Australian Academy of Technological Sciences and Engineering.

As an important introduction to the CAESIE project, in the first half of 2013, a series of planning sessions will be held in Europe and Australia to engage research leaders and industry participants in identifying priorities for collaboration under the project.

Research Data Alliance

The Research Data Alliance (RDA) is an initiative aimed at accelerating international data-driven innovation and discovery by facilitating research data
sharing and exchange, use and re-use, standards harmonisation, and discoverability.

The RDA is being established by an initial three research funding organisations:

- The Australian Government through the Australian National Data Service supported by the National Collaborative Research Infrastructure Strategy Program and the Education Investment Fund (EIF) Super Science Initiative;
- The European Commission through the iCordi project funded under the 7th Framework Program; and
- The United States of America through the RDA/US activity funded by the National Science Foundation.

The international launch and first plenary of the RDA is scheduled for March 2013 in Gothenburg, Sweden. To date, over 120 US and international participants are helping with creation of the organisation and populate its first efforts. Scientific and data leaders from the US, Australia and the European Union are members of RDA’s organisational steering committee.

**World Energy Forum 2012**

The annual [World Energy Forum](#) was held on 22-24 October 2012 in Dubai. It provided an opportunity for world leaders and delegates to discuss and debate key energy issues and to set the agenda for the future of the energy industry in terms of how the world can tackle growing energy demand and reduce global warming.

The [World Energy Awards 2012](#) were also held as part of the Forum. The World Energy Awards are presented to individuals, organisations and governmental bodies for outstanding contributions in the fields of energy, environment and sustainable development.

The 2012 [World Energy Award for Technology Innovation](#) was bestowed upon the Global Smart Grid Federation (GSGF). The GSGF was established in April 2010 to bring together Smart Grid initiatives from around the world. Smart Grid is an electricity network that can intelligently integrate actions of all users connected to it, generators, consumers and those do both, in order to efficiently deliver sustainable economic and secure electricity supplies.

**Policies that encourage innovation in middle-income countries**

On behalf of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), Charles River Associates investigated the conditions necessary to encourage innovation in middle-income countries.

The objective was to evaluate the policies of host governments that encourage investment in innovative activities and the implications for future innovation policy.
The report focuses on eight case study countries: Brazil, China, Colombia, India, Malaysia, Russia, South Africa, and South Korea.

While pharmaceutical R&D is still heavily concentrated in high-income countries, there is a trend of such activities moving into middle-income countries.

The combination of public and private inward investments over the past decade in South Korea and China, and to a lesser degree in India and Brazil, have greatly upgraded their domestic capabilities in basic and clinical research.

A key component to achieve this long term is to have a consistent policy framework, co-ordinate industrial and health policy, strong intellectual property and an environment that encourages partnership between the different stakeholders.

Africa

Africa Capacity Building Initiative

The $US24 million Africa Capacity Building Initiative has been launched by the UK Royal Society and the UK Department for International Development. It aims to develop scientific capacity of African countries, by providing equipment and training for African scientists, and to establish researcher exchange programs between the United Kingdom and Africa.

The initiative will build links between African research laboratories and strengthen their research capacity through mentoring. The funding will go towards the establishment of 30 research consortia.

Europe

4th European Innovation Summit

The 4th European Innovation Summit took place at the European Parliament in Brussels on 9 -10 October 2012. Discussion included:

- the common understanding that Europe can recover from the current economic downturn only through long-term, sustainable growth. With an ageing labour force and increased competition for limited natural resources, this growth will have to be funded upon greater productivity, which in turn can only be unlocked through innovation;

- Europe should not only promote investment in research, but also ensure that the results are turned into innovative services and products and taken up on the market;

- integration of research, technology development and commercialisation will be mirrored by the new EU innovation funding framework Horizon 2020;

- all European funding for research and innovation will be brought under one umbrella. This will simplify the application process and improve both the effectiveness and efficiency of the funding programs;
• the importance of effective early science education; and
• research management at universities needs to further evolve and adapt to become more international, cross-disciplinary, and dependant upon scientific networks and links with the private sector and industry.

**Digital Agenda: European Commission consults on Future and Emerging Technologies**

The European Commission is launching a public consultation to identify promising and potentially game-changing directions for future technological research.

The research directions for future and emerging technologies will shape Europe’s economy for decades to come. The Commission invited scientists, researchers, engineers, innovators, artists, entrepreneurs and individuals to submit their ideas, which closed on 30 November 2012.

The consultation is structured under two themes: (1) research direction in Future and Emerging Technologies (FET) and (2) arguments for the importance of this research. All interested parties can submit their ideas on what this research should be and its expected impact. The contributors to the public consultation are invited to answer a series of concrete questions on FET research and its contribution to some of the great societal challenges of our age, like global warming, energy supply, pollution, ageing of society, global crises, peace or democratic deficit.

The answers to the public consultation will be used as input for identifying topics for future FET work programs.

**Regional Innovation Scoreboard**

The Regional Innovation Scoreboard 2012 published on 6 November 2012, provides a comparative assessment of how European regions perform with regard to innovation.

The report covers 190 regions across the European Union, Croatia, Norway and Switzerland. The Regional Innovation Scoreboard is based on the methodology of the European Union Innovation Union Scoreboard.

The results show that there is considerable diversity in regional innovation performance not only across Europe but also within the Member States. Most of the European countries have regions at different levels of innovation performance. The most pronounced examples are France and Portugal: in both countries the performance of regions (including overseas territories) ranges from innovation leaders to modest innovators. Other countries with wide variations in performance are Czech Republic, Finland, Italy, the Netherlands, Norway, Spain, Sweden and the United Kingdom: all have at least one region in three different innovation performance groups. The most homogenous countries in performance are the moderate innovators - Greece, Hungary, Poland and Slovakia, where all regions except one each are also moderate innovators. The situation is similar in Romania and Bulgaria where most regions are modest innovators.
Erasmus for Young Entrepreneurs program supports more than 2600 young EU entrepreneurs

On the eve of SME week 15-21 October 2012, the European Commission’s Erasmus for Young Entrepreneurs Programme reached an important milestone: supporting more than 2,600 entrepreneurs as more than 1,300 exchanges between new and established entrepreneurs had been organised to date.

Since 2009, Erasmus for Young Entrepreneurs enables new entrepreneurs - be they ‘would-be’ entrepreneurs armed with a credible business plan or entrepreneurs who started their own business in the last three years - to gain valuable skills and experience. The program allows them to spend time with experienced Host Entrepreneurs in another Member State and learn first-hand how to manage a small or medium sized business. The program's specific objectives are to promote on-the-job-training, exchanges of experience and information between partners, and to enhance market access, identification of potential partners and networking. The program is financed by the European Commission and operates across the European Union, with all 27 EU countries participate in the Program.

European Commission Social Innovation Prize to create solutions for today’s challenges

On 1 October 2012, European Commission President José Manuel Barroso inaugurated the European Commission's Social Innovation Prize at the Gulbenkian Foundation in Lisbon. The Prize aims to support and boost social innovation and enable individuals to create positive change for their societies. Social innovators design public services that are better tailored to citizens’ needs and greater value for money. In 2013 three outstanding ideas will each be awarded a €20,000 cash prize by Antonio Tajani, Vice President of the European Commission.

The 2012-2013 competition invites proposals that address the specific challenge of “unlocking potential and creating new work.” An expert jury will select a maximum of 30 semi-finalists for mentoring and from these will confirm some 10 finalists; from these three winners will be selected who each receive a prize of €20,000 in May 2013 by Antonio Tajani, Vice President of the European Commission. After the ceremony winners and finalists will be offered additional mentoring support to mature their implementation plan.

The Competition is open to individuals, organisations or groups, established or resident in EU member states and in countries with an agreement to participate in the Competitiveness and Innovation Programme. Applications close 21 December 2012.

UK

4Growth Campaign

The UK National Endowment for Science, Technology and the Arts, in conjunction with the Campaign for Science and Engineering, is leading a
petition, called the 4Growth campaign, to urge the UK Government to reinvest the proceeds of the upcoming sale of its 4G mobile spectrum, into the development of new innovative technologies.

Later this year the UK Government will auction its 4G mobile spectrum. Industry experts predict this could raise up to GBP 4 billion.

The 4Growth campaign sets out a number of policy proposals to re-invest proceeds from the sale and stimulate a renaissance in UK science and technology development. The policy proposals highlight four key areas for investment, including:

- **People Skills** – GBP 750 million will be directed towards training more people in science and technology and unlocking the potential of existing researchers.

- **Finance** – GBP 500 million will be used to expand the highly successful Smart awards for small business innovation and to create a co-funded venture capital scheme specifically aimed at science and technology investments.

- **Demand for Emerging Technologies** - GBP 1.25 billion will be invested in new challenge prizes; helping small businesses come up with innovative solutions for government contracts; and establishing a new Vision Fund for directed technological research.

- **Investment in Infrastructure** – GBP 1.5 billion will be directed towards boosting the UK’s engineering sector by accelerating existing plans to upgrade and build new scientific labs; and establish a program of new, high-profile technology demonstrators.

The 4Growth campaign has the backing of a number of high profile supporters, including: physicist, Brian Cox; former Astronomer Royal and President of the Royal Society, Lord Rees; and former Chief Secretary to the Treasury and Science Minister, Lord Waldegrave.

**The Research and Bolar Exceptions in UK: proposals to exempt clinical and field trials using innovative drugs from patent infringement**

On 24 October 2012, the UK Government launched a consultation with stakeholders regarding the exemption of clinical and field trials using innovative drugs from patent infringement.

The purpose of this consultation is to obtain stakeholder views on proposals to amend section 60(5) of the Patents Act 1977 to provide an exception to patent infringement for activities involved in preparing or running clinical or field trials which use innovative, or non-generic, drugs. Evidence is also being sought of the costs and specific examples of the burdens which current legislation places on stakeholders.

The government has prepared an initial assessment of the impacts of the measures proposed in the consultation. More thorough evidence is being sought through the consultation on which to base policy decisions and legislation.
The consultation is directed at all interested parties including owners of pharmaceutical patents and bodies involved in the organisation or performance of clinical or field trials using pharmaceuticals in the UK. Submissions are invited until 19 December 2012.

US

TechAmerica’s Big Data Report


Big Data has the potential to transform government and society itself. Hidden in the immense volume, variety and velocity of data that is produced today is new information, facts, relationships, indicators and pointers, that either could not be practically discovered in the past, or simply did not exist before. This new information, effectively captured, managed, and analysed, has the power to enhance profoundly the effectiveness of government.

The Commission’s mandate was to demystify the term “Big Data” by defining its characteristics, describe the key business outcomes it will serve, and provide a framework for policy discussion. Although there clearly is intense focus on Big Data, there remains a great deal of confusion regarding what the term really means and the value it will provide to government agencies seeking to optimize service outcomes and innovate. This report approaches Big Data from the perspective of the key mission imperatives government agencies must address, the challenges and the opportunities posed by the explosion in data, and the business and inherent value Big Data can provide.

US National Network for Manufacturing Innovation

Nearly 1,000 companies, universities, individuals, and other manufacturing stakeholders have weighed in with ideas on the design of a new National Network for Manufacturing Innovation (NNMI), as proposed by President Obama in March 2012.

The Request for information listed 21 questions on the technological focus, structure, operation, and governance of the proposed nationwide network and its individual Institutes for Manufacturing Innovation (IMIs). Following this consultation a draft ‘white paper’ will be issued detailing the proposed design of NNMI, which also will undergo public review and comment.

NNMI will consist of up to 15 regional IMIs, funded by a proposed onetime, $1-billion federal investment, along with matching contributions for each institute from private-sector, state, and local sources. NNMI will help integrate capabilities, focus expertise, and address cross-cutting challenges in technical areas of manufacturing.
India

India Inclusive Innovation Fund
The National Innovation Council is poised to launch its India Inclusive Innovation Fund that will focus on providing risk capital funding to enterprises that create and deliver technologies and solutions aimed at enhancing the quality of life at the bottom of the Pyramid. The fund will aspire to a corpus of Rs.5,000 crore but will be launched with an initial corpus of Rs.500 crore with contribution from the government, banks, institutions and multilateral agencies.

The fund will support investment at different stages of the enterprise development cycle – from early stages, through later phases of scaling-up of potentially successful solutions and business models.

Global Innovation Roundtable 2012
The National Innovation Council (NInC), hosted the second Global Innovation Roundtable (GIR) on 1-2 November 2012 in New Delhi. The 2012 GIR was a follow-on effort of the first Global Innovation Roundtable in 2011.

The 2012 Roundtable saw participation from heads of Innovation policy from 20 Governments across the world, including Australia, as well as leading global Innovation experts, and private enterprises. The Roundtable aimed to create a global platform for sharing experiences, best practices and enabling collaborations to meet key development challenges, and develop a paradigm for inclusive innovation. A range of issues related to nurturing the innovation eco system and outlining deeper collaboration on innovation among nations were discussed at the roundtable, including India’s implemented platforms in: Open Government; Crowdsourcing Innovation (particularly the Open Source Drug Discovery Platform); Innovation for Education (regarding the availability of existing education content); and Innovation for Health content (regarding the availability of existing health content).

The National Innovation Council will now work with interested participants to take these ideas forward in an institutionalised manner to foster and develop collaborative projects.

The National Innovation Council’s annual ‘Report to the People’ 2012 was also presented at the Roundtable.

Release of the Report to the People 2012
The Indian National Innovation Council presented its second Annual ‘Report to the People 2012’ to the President of India, Shri Pranab Mukherjee on 2 November 2012. The Report highlights the activities and initiatives the Council has undertaken to strengthen the innovation ecosystem in India. It builds on the previous work of the Council and outlines the new initiatives in the past year such as:

- the launching of the National Innovation Scholarships in 2013 by the Ministry of Human Resource Development, wherein 1000 students across
India will be awarded Rs. 25,000 per year. It is aimed at encouraging innovative thinking and problem solving among school children in India;

- creating ‘Tod Fod Jod’ Centres in schools to provide hands-on learning environment that encourages students to dismantle and reassemble everyday products to understand the concepts behind them in a practical and fun manner; and

- the India Grand Challenge programme to be launched this year where the Council will be outlining challenges in areas including education, health, agriculture, energy, and water in order to find innovations that will impact the lives of people in India.

By playing the role of a catalyst, the Council aims to trigger a movement towards innovative thinking that will transfer the nation to a nation of problem solvers and solution providers.

**India-OECD Collaborative Workshop on Education and Innovation**

The India-OECD Collaborative Workshop on Education and Innovation was held in New Delhi in May 2012. It was the launch event for an India-OECD Initiative on Education and Innovation. It was a joint event hosted by the OECD’s Centre for Education Research and Innovation (CERI), the Planning Commission, Government of India, and the Confederation of Indian Industry (CII). The workshop targeted Indian stakeholders and there were approximately 160 participants with representatives from a number of different institutions.

A [summary report of the workshop](#) was released on 1 October 2012. The workshop’s discussions focused on India while aligning it to the CERI’s Innovation Strategy for Education and Training: Education for Innovation; and Innovation in Education. Some highlights of the workshop’s discussions included:

- the concept of moving from invention to implementation;

- identifying the importance of the conditions for innovation rather than the innovations themselves, which need to be understood when looking at international best practices;

- the need to focus on renewal of teaching methods to stimulate thinking, creativity, collaboration and engagement; and

- the need to shift away from rote learning and traditional teaching methods to encourage critical and innovative thinking, and entrepreneurial skills.

**Oz Fest Showcases Australia in India**

On 16 October 2012, Prime Minister Gillard launched the [Oz Fest Showcase](#) in Delhi.

Oz Fest is the biggest Australian cultural festival ever staged in India and brings together 24 Australian Government, business, institutional and production partners to present a program that concludes on 5 February 2013.
The festival includes performances and activities by Australian musicians, dancers, comedians, chefs, photographers and film-makers. It aims to build cultural understanding between the Australian and Indian communities so that stronger ties can be forged between the two nations.

Oz Fest promotes Australia’s open innovative economy and culture and it is particularly aimed at younger Indian audiences. The festival has a budget of $3 million, of which $1 million has been provided by the Australian Government.

Oz Fest complements a range of recent high level meetings between Australian and Indian Prime Ministers, Ministers and business leaders and reflects the rapidly expanding ties between Australia and India.
Education and Skills Update

Finalisation of the renegotiation of the National Agreement for Skills and Workforce Development (NASWD) and the National Partnership for Skills Reform

In the 2011-2012 Commonwealth Budget, the Commonwealth committed $1.75 billion over five years for a new National Partnership (NP) Agreement to drive reform of the training system.

Implementation Plans associated with the Skills Reform NP are currently being developed by the states for agreement by the Commonwealth. The agreed reforms will create a more accessible and equitable training system; a more transparent Vocational Education and Training (VET) sector; a higher quality training sector; and a more efficient sector that responds to the needs of students, employers and industry.

In making the sector more accessible and equitable, jurisdictions will introduce a national entitlement to training, that will enable any working age Australian without a qualification access to government-subsidised training up to at least a Certificate III.

These reforms will deliver the improvements necessary to ensure the VET system can respond effectively and efficiently to industry needs at a time when the economy is undergoing significant and rapid change.

Foundation Skills Workforce Development Project

Data shows that a significant proportion of working age Australians need to build their foundation skills (language, literacy, numeracy and employability skills) to fully engage in education, training, work and the community. Foundation skills delivery must be of high quality and flexible enough to upskill adults in a range of contexts and with varying degrees of competencies. This is crucial to meet the National Foundation Skills Strategy target that two thirds of working age Australians will have literacy and numeracy skills at Adult Literacy and Life Skills Survey Level 3 or above by 2022.

The Foundation Skills Workforce Development Project (the Project) features a package of integrated actions to build the skills of the foundation skills workforce, including Language, Literacy and Numeracy (LLN), Adult and Community Education (ACE) and VET practitioners.

The Project is focused on building the capacity of the education and training workforces to deliver foundation skills (national priority area 4). It includes:

- a web based foundation skills resource hub & document repository (funded until 31 December 2015);
- four large scale workforce development projects;
- at least 20 workshops to be held around Australia; and
- support for a National Foundation Skills Champions Network.
National VET Equity Advisory Council (NVEAC)
Tertiary Education, Skills and Employment Action Plan

On 22 August 2012 the Standing Council on Tertiary Education, Skills and Employment (SCOTETSE) endorsed the Access and Participation Principals Committee (APPC) to develop an Aboriginal and Torres Strait Islander Action Plan for Tertiary Education, Skills and Employment. The purpose of the plan is to highlight the commitment of the Australian Government to closing the gap outlined in existing national partnerships and agreements as well as jurisdictional policy across the VET, higher education and employment sectors.

In its capacity as an APPC expert representative, NVEAC is leading this project and engaging a suitability qualified and experienced contractor to coordinate and draft the plan. A project working group consisting of representatives from the Department’s VET Reform and Higher Education Divisions is supporting the development of the project.

It is anticipated that the plan will be completed by February 2013 and presented to SCOTETSE for approval in June 2013.

AsiaBound Grants Program

The recent release of the Australian in the Asian Century White Paper highlighted education and skills as vital components to strengthening Australia’s relationship in the region.

Through the White Paper, the Australian Government has committed a larger number of university students studying overseas and a greater proportion undertaking part of their degree in an Asian country by 2025.

The announcement of the new $37 million AsiaBound Grants Program on 31 October 2012 will provide over 10,000 places for Australian students to take up study opportunities in Asia. The program will provide grants to help students across the board to participate in semester length and short term study exchanges at tertiary institutions in Asia. In addition, grants for intensive language training as well as access to Commonwealth loans through OS-HELP will provide students with the means to prepare for their study experience in Asia.

Applications for AsiaBound will open in the first half of 2013.

Prime Minister Australia Asia Awards Briefing Program

The Prime Minister's Australia Asia Awards Briefing Program was held in Canberra on 5-6 December 2012.

The briefing program equipped Award Holders with the tools to optimise their Award experience and to best represent themselves, their institution and their country. The program included sessions on support services, media and networking skills.
The Prime Minister’s Australia Asia Awards are prestigious scholarships offered under the Endeavour Awards program and annually support 60 of the best and brightest university students from Australia and Asia to undertake international research, study and internships.

The aims of the Awards include to develop internationally aware, skilled future leaders and to establish enduring education and professional linkages.

The Prime Minister’s Awards Presentation Dinner was held on 6 December 2012 at the National Gallery of Australia.