Innovation Policy Report

June 2013

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Promoting Australian Innovation

Australia is a young and vibrant country with a strong entrepreneurial spirit, home to a diverse array of innovators and a great location to invest. Whilst our ingenuity and productivity is widely recognised in primary industries such as mining and agriculture, the diversity of other innovative Australian industries is often poorly understood by international audiences.

The Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (the Department) and Austrade are working together to promote innovative activities in Australia and enhance the competitiveness of Australia's innovation system through: attracting new international firms to invest in innovation; encouraging existing firms to expand their innovation activities in Australia; and facilitating research and commercialisation links between Australian and international entities. An initial output of this partnership is the Australia – Destination Innovation e-brochure. The brochure reports on many positive aspects of the contemporary Australian innovation landscape, including the following facts.

The Australian economy has recorded 22 years of uninterrupted annual growth and it regularly ranks in the top five most resilient economies in the world.

Australia has a sovereign debt rating of AAA, the lowest public debt among major advanced economies, transparent decision making processes across government and the lowest levels of official corruption for any major economy.

Australia is currently ranked as the second fastest location in the world to start a business and has the second highest percentage of adults engaged in early-stage entrepreneurial activity (after the US).

Due to its location, Australia has strong economic and social linkages with the rest of Asia and is well placed to benefit from the rapid growth that is expected in the region in coming years. By 2017, the International Monetary Fund estimates that the region will account for over 40 per cent of the world's economic output.

More than 2.1 million Australians speak an Asian language at home and 1.3 million speak a European language at home other than English.

Australia's multilingual workforce is highly educated. Australia's expenditure on tertiary education in 2012 was 1.62 percent of GDP, ahead of Japan, France, the UK and Germany.

Australia has a long-standing track record in world-class innovation, for example Australians made key contributions to medical breakthroughs such as penicillin, the bionic ear and the ultrasound scanner.

Australians enjoy the highest median wealth level in the world and have always been early adopters of innovations and new technologies. For example, in 2011 smartphone penetration in the Australian market was the second highest in the world.

The Australian Government has a long-standing demonstrable history of enabling innovation through sound policies and generous financial and

advisory support. In 2012 the Australian regulatory environment was ranked first in the INSEAD Global Innovation Index.

Australia has a highly sought after quality of life, world class infrastructure and low levels of crime, making it easier for companies to attract quality staff. With four of the world's ten most liveable cities, Australia ranks second on the United Nations' Human Development Index.

Given these facts, it is unsurprising then that an increasing number of innovative international companies are establishing facilities in Australia. Over 18,000 international companies are registered in Australia and many are involved in specific product development initiatives with Australian researchers and companies including Boeing, Canon, IBM, GE and Baosteel.

Australia has a strong economic base, highly talented people, innovative businesses, supportive governments and a very bright future. The work that is being undertaken by the Department and Austrade will increase understanding of these facts within the international investor community, creating new opportunities for innovation, collaboration and product development.

Departmental Developments

2013/14 Budget

The 2013/14 Australian Government Budget released on 14 May 2013 contains a number of new and enhanced initiatives for the Industry and Innovation Department portfolio, including:

- Bringing forward $160 million in Clean Technology Investment Program funding to 2014-15 to increase manufacturing investment and boost productivity and competitiveness;
- Commitment of $185.9 million over two years under the National Collaborative Research Infrastructure Strategy from 2013-14 to 2014-15 to secure Australian researchers' access to current major research facilities and the support infrastructure and networks necessary to undertake world-class research;
- The establishment of a $45 million Skills Connect Fund to provide industry with a single point of access for skills and workforce development support making it easier for enterprises to access Australian Government support to train their workers;
- An investment of $84.6 million over the next four years for an additional 1,650 Commonwealth supported places per year in targeted sub-bachelor and postgraduate courses;
- Extension of the Future Fellowships scheme, providing $135.3 million over five years to attract and retain the best and brightest mid-career researchers in Australia; and
- More than $68 million invested over four years from 2013-14 for the Alternative Pathways pilot to target priority skills areas through new training pathways into high-demand trade and technical occupations that are led by industry.

The 2013-14 Portfolio Budget Statement provides further detail on these initiatives and other Budget measures.

Launch of Australia's Satellite Utilisation Policy

Australia's first ever space policy – Australia's Satellite Utilisation Policy – was released on 9 April 2013, providing certainty and strategic direction for Australian users of satellite technology.

The policy was launched at the Australian National University's Mt Stromlo Observatory by the Minister Assisting for Industry and Innovation, Senator Kate Lundy.

Key aspects of Australia's Satellite Utilisation Policy include:

- Giving priority to earth observations from space; satellite communications; and position, navigation and timing;
- Contributing to international 'rules of the road' for space through Australian space situational awareness infrastructure and diplomatic efforts;
- Building and retaining high quality Australian space expertise; and
- Developing a plan to meet projected growth in Australia's satellite information needs by modernising and consolidating Australia's ground infrastructure.

For further information about Australia's Satellite Utilisation Policy visit www.space.gov.au

Department hosts meeting with Canadian University

On 15 May 2013, a group of 27 staff and students from Polytechnique Montreal met with officials from the Department.

Polytechnique Montreal is Canada's second largest university and specialises in providing world-class engineering training. The university has strong linkages with industry through its research chair and industry partner programs.

The agenda for the meeting included a number of presentation sessions covering the following topics:

- The Department's key priorities, and stategies;
- The Government's Industry and Innovation Statement: A Plan for Australian Jobs;
- The state and compositon of Australian industries;
- Australia's Innovation system; and
- The respective roles AusIndustry and Austrade play in supporting and promoting innovation capabilities in Australia and abroad.

The meeting provided a valuable opportunity for the Department to promote Australia's innovative and ecomomic credentials and strentghen ties with Canada's future industry leaders and entrepenuers.

Launch of the Clean Energy Map

On 17 May 2013, the Minister for Climate Change, Industry and Innovation, Greg Combet, announced the launch of the Clean Energy Map.

The interactive, online map shows how the Australian Government's Clean Energy Future package is driving the transformation to a low carbon economy.

It features more than 1200 projects which are helping the environment by cutting greenhouse gas emissions and helping the economy by reducing energy costs, investing in innovative new technologies and creating new jobs.

The Map includes projects being carried out under measures such as the Renewable Energy Target, Solar Cities, Energy Efficiency Information Grants, the Carbon Farming Initiative and the Clean Technology Programs.

Map visitors can enter their postcode, or use GPS functionality, to identify projects in their region or neighbourhood.

Industry-Research Collaboration

Innovation and collaboration between business and researchers are high priorities for the Australian Government, and are key factors in its vision to build more profitable, sustainable and export-focused industries. The Department has launched new web pages and information about support and financial assistance available for businesses and researchers that want to collaborate.

Information is available via the Innovation website, the business.gov.au website and a factsheet titled 'Working together – Good for business, good for research' is also available.

The information outlines the benefits and value of collaboration, details Australian Government programs and services that provide financial support and advice and provides case study examples of collaborative projects and their positive outcomes.

Review of Research Training Arrangements

The Department is undertaking a review of research training arrangements.

The scope of the review will consider research training arrangements in universities and other organisations to ensure that they align with current policy objectives, including those of the National Research Investment Plan.

The review will also consider support mechanisms and determine system improvements to ensure Australia's postgraduate research students are internationally competitive and meet the demand of various workforce sectors and careers.

Stakeholders will be consulted throughout the review and details of progress of the review will be available on the department's website.

A Framework to Analyse the Social, Environmental and Economic Impacts of Enabling Technologies

Professors Susan Dodds, Ian Lowe, and Alan Petersen received a grant from the National Enabling Technologies Strategy to develop a framework for the systematic evaluation of the social, economic and environmental impacts of new and emerging technologies. Technologies have had profound impacts on the way we live, work and relate and on the ecosystems we live within. They have solved problems only to sometimes create or contribute to other problems. Increased understanding of potential impacts of enabling

technologies could assist government and others to mitigate possible and predicted adverse impacts, maximise social and economic benefits, ensure adequate regulation and better understand community values.

Although Social, Economic and Environmental assessment frameworks are already used to guide some federal and state government policy and investment decisions, these professors note that none are tailored to address the difficulties of assessing the impacts from enabling technologies.

To date the team has reviewed the available literature and developed a draft framework. This framework was road tested at a workshop, hosted by the Department, on 16 May 2013. The workshop was attended by representatives from regulatory, policy, research and state government agencies. Workshop discussions covered specific details of the appropriateness of the questions included in the framework and the extent to which they can be measured, as well as broader issues such as how the assessments could be triggered, who would be responsible for their conduct, what would happen with the outcomes, and at what point in a technology's development should assessment be undertaken.

The final framework and accompanying report are expected to be finalised by the end of June. Further information about the project can be obtained by contacting Natasha Flores at: natasha.flores@innovation.gov.au

Expediting Clinical Trial Reform in Australia

The Government announced that it will invest $9.9 million over five years through the Expediting Clinical Trial Reform in Australia measure in the Industry and Innovation Statement, A Plan for Australian Jobs. The measure builds on the recommendations of the Clinical Trials Action Group. This investment aims to reposition Australia as a global leader in clinical research and research translation, presenting an opportunity for the industry to create and expand high-tech and high-value jobs and boost investment. This initiative aims to standardise costs and streamline administration in order to reposition Australia as a global leader in clinical research and the commercialisation of new medical technologies.

The Commonwealth, State and Territory Advisory Council on Innovation meeting

The Commonwealth, State and Territory Advisory Council on Innovation (CSTACI) held its regular biannual meeting on 11-12 April 2013 in Canberra. Representatives from all states and territories, as well as from New Zealand, shared innovation initiatives being conducted and planned in their jurisdictions, and worked on identifying avenues for cross-jurisdictional collaboration. Among the issues discussed were various states' and territories' actions on open access to government data, as well as the Department organising a workshop on R&D data collection in collaboration with the Australian Bureau of Statistics. The next CSTACI meeting is scheduled to be held on 30-31 October 2013 in Canberra.

The Coordination Committee on Innovation meeting

The Coordination Committee on Innovation (CCI) held its first meeting for 2013 on 3 May in Canberra. Representatives of over twenty Australian Government departments and agencies shared information on innovation activities underway across government. The CCI meeting included a report from its recently established Horizon Scanning Working Group, which identifies emerging issues and opportunities for innovation policy, and provides CCI member agencies with recommendations for response. The issues identified by the Horizon Scanning Working Group for this meeting were Collaborative Consumption, Innovation Pessimism, and Engagement with Africa. The next CCI meeting is scheduled for November 2013.

Australia Intellectual Property Report 2013

On 18 April 2013, IP Australia released the Australia Intellectual Property Report 2013. The publication provides the latest statistics for all rights administered by IP Australia. Using the latest available research to show how IP rights impact firms, people and the economy, it places IP rights within the Australian economy and innovation landscape.

Key findings include:

- 90 percent of patent applications are from non-residents;
- The majority of trade mark applications are from Australian residents;
- Australians file more patents abroad than at home;
- China is the top international destination for Australian trade mark filers; and
- IP rights could protect more than 60 percent of intangible investment in Australia.

The Australian Research Council

Excellence in Research for Australia (ERA)

The Australian Research Council (ARC) is currently undertaking a review of ERA 2012. The review has sought feedback on the ERA 2012 process to inform improvements to ERA for 2015 and beyond.

A total of 62 responses have been received as part of the consultation: 35 from universities, 13 from individuals, eight from peak bodies, four from representative cohorts, and two from other organisations.

In general, responses confirmed that ERA 2012 has built upon the successes of ERA 2010, further enhancing its role in providing a robust and useful tool for evaluating research excellence in universities. Further analysis will be undertaken by the ARC in order to identify and apply possible improvements for ERA 2015.

In addition to this, the ARC has commissioned a Benefits Realisation Review (BRR) of the ERA program. This review will provide an assessment of the benefits of ERA, both monetary and non-monetary. An independent

organisation has been engaged to undertake the BRR which will involve consultation with key stakeholders in the sector.

To refine the evaluation process and methodology the ARC has also engaged former ERA Research Evaluation Committee members and international expertise to review ERA 2012 policies. All of these reviews will contribute to further consultations with the sector about the design of ERA 2015.

National Competitive Grants Program

Special Research Initiative for a Science of Learning Research Centre

The ARC is funding a new research centre to investigate the complex issues of the human learning process. The centre will bring together education professionals and high quality researchers in areas ranging from neuroscience and cognitive development through to pedagogy and educational technology. The research undertaken through the centre will aim to identify new teaching practices that are based on solid scientific evidence.

Through the ARC's Special Research Initiatives scheme the Australian Government has committed funding of up to $4 million per year for a period of up to four years. The centre is a key recommendation of the Prime Minister's Science, Engineering and Innovation Council Expert Working Group report, Transforming Learning and the Transmission of Knowledge (2009).

The selection processes for the Special Research Initiative for a Science of Learning Research Centre has now been completed, and the outcomes were announced on 7 May 2013. Two applications were received. A total of $16 million in funding over four years was awarded to The University of Queensland for the Special Research Initiative for a Science of Learning Research Centre.

Industrial Transformation Research Program

The Australian Government is investing in the development of new research partnerships and the expansion of existing partnerships in key areas of national importance. This investment will transform the nature of research partnerships between academia and industry bringing them to the forefront of research excellence and market leadership.

The ARC Industrial Transformation Research Program (ITRP) offers a suite of funding schemes attractive to both university-based researchers and industries. This dynamic Program will fund research hubs and research training centres and support Higher Degree by Research students and postdoctoral researchers in gaining real-world practical skills and experience through placement in industry.

The first ITRP round addressed the Industrial Transformation Priorities of future food storage; food processing; manufacturing capabilities; product opportunities and other food related research. Funding outcomes were announced on 1 May 2013. Four Industrial Transformation Research Hubs were approved with a total approved funding, over the life of these projects, of $14.5 million. There are 13 Partner Organisations involved with these

projects. They have committed a total of $21.35 million in cash and in-kind funding. This represents $1.47 from Partner Organisations for every dollar of funding from the ARC.

In addition, four Industrial Transformation Research Centres were approved with a total approved funding, over the life of the centres, of $9.3 million. There are 19 Partner Organisations involved with these projects. They have committed a total of $5.5 million in cash and in-kind funding. This represents $0.59 from Partner Organisations for every dollar of funding from the ARC.

The second round of ITRP will have a dual focus: food and manufacturing. The Program will continue to address research areas that are vital for, and assist with, Australia's future food storage, food processing, food manufacturing capabilities and product opportunities. In addition, the Program will target product design and development, manufacturing techniques, defence manufacturing, and firm organisation and management.

Future Fellowships

As part of the 2013–14 Commonwealth Budget, the Australian Government announced an additional $135.3 million to the ARC to continue the Future Fellowships scheme for an additional selection round, supporting 150 researchers. The five-year scheme was due to terminate after the current selection round for funding commencing in 2013.

National Developments

Telehealth Projects – NBN

Funding of $20.3 million, announced on 8 May, has been allocated to nine telehealth projects, that will use the National Broadband Network (NBN) to pilot new methods of healthcare delivery.

The projects will help demonstrate the importance of high-speed broadband to the future of healthcare.

The projects will reach around 2,500 patients in 50 NBN communities, including the CSIRO delivering early intervention services to allow specialists in metropolitan hospitals to identify eye diseases in remote Western Australia and the Torres Strait using video-conferencing and medical imaging.

The Royal District Nursing Service will also be involved, using in-home monitoring to allow nurses to support chronically ill and elderly patients and reduce the frequency of home visits; while Feros Care will help seniors to stay at home longer through daily monitoring of their wellbeing; and the Hunter New England Health District will assist cancer patients in rural and regional areas to assess and manage their symptoms, with the support of a care coordinator and other medical professionals through high-definition video conferencing.

2013 Defence White Paper

The 2013 Defence White Paper was released on 3 May 2013. It complements the *National Security Strategy*, and the *Australia in the Asian Century White Paper*, and forms a statement of the priority the Government places on Australia's security and prosperity, and on maintaining a strong Australian Defence Force to meet Australia's national security challenges.

The 2013 Defence White Paper highlights that Defence will improve the transition of innovative ideas from conception through to capability. It will develop an integrated innovation program seeking to capture new ideas and realise them as a capability. A Defence Innovation Realisation Fund, with funding of $10 million per year, will be established, which will help enable technology at varying stages of development to be fast tracked through to capability. The Defence Innovation Forum will also be established to bring industry and academia together to generate innovative proposals with Defence. These will closely align with similar initiatives being established under A Plan for Australian Jobs: the Government's Industry and Innovation Statement, such as the Industry Innovation Precincts and Enterprise Solutions Program.

Research My World – Crowd Funding to support research projects

On 8 May 2013 Deakin University launched a partnership with the crowd funding site Pozible.com to crowd source funding from members of the public for research projects.

Crowd funding facilitates global micro investment in projects for a non-monetary return (i.e. copy of the product produced). Across Australia and internationally crowd funding has been successfully used to foster innovation in a number of entrepreneurial fields.

The project being undertaken by Deakin and Pozible, called Research My World, is the first concerted approach to using a crowd sourcing strategy to seek funding for research projects in Australia. Members of the public are offered the opportunity to make tax-deductible donations to a range of small research projects. Eight research projects seeking funding of between $5,000 and $20,000 are involved in the project.

NSW

Global Talent Hub Project

NSW Trade & Investment in partnership with The Committee for Sydney have launched an international survey aimed at identifying which work, personal and lifestyle factors influence highly skilled, talented individuals when deciding where to locate. The survey forms part of the Sydney as a Global Talent Hub project - a key initiative of the NSW Economic Development Framework.

The survey closes on 4 June 2013 and has been distributed to over 100,000 people across the world through various distribution networks. Survey analysis will be undertaken by the University of Canberra, and it is expected that the results will form an important part of the evidence base underpinning a future Global Talent strategy for Sydney.

NSW Disability Industry Innovation Awards

The NSW Disability Industry Innovation Awards are an initiative of the NSW Government in partnership with National Disability Services (NDS). Following the success of the 2012 Awards, NDS are calling for nominations for the 2013 NSW Disability Industry Innovation Awards program.

The Awards formally recognise and reward excellence in innovation demonstrated by the people and organisations that make a difference in the lives of people with disability. The purpose of these awards is to acknowledge outstanding achievements made by non-government, community based organisations or individuals working in the industry.

International Developments

Europe

UK: Cyber Security Vouchers for SMEs

On 23 April 2013, the UK Government, announced a new Cyber Security Innovation Voucher for Small to Medium-sized Enterprises (SMEs).

According to the Innovation Strategy Board, businesses are the biggest victims of cyber crime, so, as part of its Cyber Security Strategy, the Government is looking to make the UK one of the most secure places in the world to do business online.

An Innovation Voucher helps companies to access knowledge from universities, colleges and other centres of expertise. With funding from the Department for Business, Innovation and Skills (BIS), the Cyber Security Innovation Voucher will support SMEs, entrepreneurs and early-stage start-ups who want to protect and grow their online business.

The new Innovation Voucher, which joins a range of Innovation Vouchers from the Technology Strategy Board, will allow SMEs to bid for up to £5,000 from a £500,000 pot, to help improve their cyber security by bringing in outside expertise.

The guidance published by BIS to help small businesses increase their awareness of cyber security and make it part of their normal risk management procedures, shows that more small businesses than ever are at risk of losing confidential information through cyber attacks.

The 2013 UK Information Security Breaches Survey found that 87 percent of small businesses across all sectors experienced a breach within the last year. This increase of over 10 per cent since 2012 has cost small businesses up to 6 percent of their turnover, when they could protect themselves for far less.

R&D funding for food and drink sector in the UK - "Nutrition for Life" Competition

The Technology Strategy Board, together with the Biotechnology and Biological Sciences Research Council, and Scottish Enterprise, will invest up to £8.5m to stimulate innovation in the food and drink sector, and has announced a "Nutrition for Life" Competition.

Sitting between primary producers and retailers, the food processing sector has an important impact on food safety and quality, and forms a significant part of UK manufacturing output. The aim of this competition is to encourage innovative technologies and processes, to ensure that what people eat and drink can be made as safe and healthy as possible.

Projects must be business-led and collaborative. The Technology Strategy Board has allocated up to £7million to fund collaborative R&D projects, with up to a further £1.5million being available for smaller-scale feasibility studies.

The competition comprises two strands:

- Strand 1: Feasibility studies must be collaborative, and may attract up to 65 percent public funding of project costs (75 percent for SMEs). Feasibility study projects are expected to range in size from £50,000 to £100,000 and to last from six to 12 months.
- Strand 2: With collaborative R&D projects, the Board is primarily seeking to fund industrial research, with a business partner attracting 50 percent public funding of their project costs (60 percent for small and medium businesses). Collaborative R&D projects are expected to range in size from £250, 000 to £1million and to last from one to three years.

The collaborative R&D and feasibility study elements of this competition both open for applications on 20 May 2013.

Previous 'Nutrition for Life' funding calls have resulted in a host of innovative projects, including one - 'Baking with Sound' - which harnesses ultrasonic sound to provide better results in baked products, such as bread and gluten-free foods.

Competition to reward the best eHealth solution developed by an EU SME 2013

With the endorsement of the Health and Wellbeing Unit of DG CONNECT of the European Commission, TICBioMed organises the second edition of the EU SME eHealth Competition. This initiative rewards the best eHealth solutions produced by European SMEs.

Its objective is to support business success of small and medium businesses by giving them visibility together with marketing opportunities to attract customers, partners and external capital.

Fifteen of the most innovative European SMEs were selected to participate on the Competition Final which took place on 13 May 2013 in Dublin.

UK's Innovation Delivery Plan for 2013-14 published by the Technology Strategy Board

The 2013-14 Innovation Delivery Plan, announced on 14th May 2013, sets out how the Technology Strategy Board intends to support business-led innovation projects over the financial year, in order to accelerate economic growth. The Plan outlines a range of tools to support and encourage business innovation and help remove barriers. It also provides information on forthcoming funding competitions for businesses, to help bring new products and services more quickly to market.

The Plan is part of the UK Government's drive for growth, and aligns with the 2011-2015 industrial strategy, Concept to Commercialisation. The overall budget this year is £440million, and the Delivery Plan sets find out how the funding and other activities will support business innovation.

The key actions are:

- Enhancing support for high growth SMEs;
- Helping high growth SMEs access complementary financial support;

- Realising the strategic vision of Catapult centers;
- Enhancing support for companies accessing EU programs;
- EU and international strategy;
- Developing the role of government as a lead customer. This includes the five-fold scale up of the SBRI program;
- Helping businesses to access other sources of support;
- Connecting and convening in the new innovation-support landscape.

More information:

View the key actions from the 2013-14 Delivery Plan (as at May 2013).

Read the full 2013-14 Delivery Plan

Read Concept to Commercialisation

North America

US: Competitions Launched for Manufacturing Institutes

On 9 May 2013 the Obama administration announced Competitions to create three new manufacturing innovation institutes that build on the initial success of a pilot institute, the National Additive Manufacturing Innovation Institute (NAMII) in Youngstown, Ohio, with a federal commitment of $200 million across five federal agencies – Department of Defense (DOD), Department of Energy (DOE), Department of Commerce (DOC), NASA, and the National Science Foundation.

Two of the proposed new manufacturing innovation institutes, led by DOD, will be focused on Digital Manufacturing and Design Innovation and Lightweight and Modern Metals Manufacturing. A third, led by DOE, will focus on Next Generation Power Electronics Manufacturing. A comprehensive agenda to invest in American manufacturing has been outlined by the president and begins with his vision for a National Network for Manufacturing Innovation (NNMI), a model based on approaches used successfully by other countries including Germany's acclaimed Fraunhofer Institutes.

It is intended that each institute will serve as a regional hub to bridge the gap between basic research and product development, linking companies, universities and community colleges, and federal agencies to co-invest in technology areas that encourage investment and production in the US. Such an innovation infrastructure offers a unique 'teaching factory' that allows for education and training of students and workers at all levels, while providing shared assets to help companies, especially small manufacturers, access the latest capabilities and equipment to design, test, and pilot new products and manufacturing processes.

All three new institutes will be selected through an open, competitive process, led by DOD and DOE, with review from a multiagency team of technical experts. The winning teams will be selected and announced later this year.

Federal funds will be matched by industry co-investment, support from state and local governments, and other sources.

Like the pilot NMII, these Institutes are expected to become financially self-sustaining, and the plan to achieve this objective will be a critical evaluation criterion in the selection process.

US President signs Open Data Executive Oder (E.O.)

On 9 May 2013 the Obama administration announced new steps to make information generated and stored by the federal government more open and accessible to innovators and the public, in an effort to fuel entrepreneurship and economic growth while raising government transparency and efficiency.

The new steps include an Executive Order (E.O.) signed by President Obama and an Open Data Policy released by the Office of Management and Budget (OMB) and the Office of S&T Policy (OSTP). The E.O. requires that, in future, data generated by the government be made available in open, machine-readable formats, while safeguarding privacy, confidentiality, and security appropriately.

It is expected that data which was earlier inaccessible to entrepreneurs and researchers, will now be able to be used to generate new products and services, build businesses, and create jobs.

US Federal R&D data meetings

On 14-17 May 2013, the US National Academy of Sciences hosted a pair of two-day meetings, organised by the National Science Foundation (NSF) with the cooperation of other agencies, to seek broad input from concerned stakeholder groups concerning issues related to expanding public access to the results of federally-funded R&D, including peer-reviewed journal articles and digital scientific data, as part of the planning process called for in the Memorandum on Expanding Public Access to the Results of Federally-Funded Research, released by the White House Office of S&T Policy (OSTP) on 22 February 2013.

The meetings focused on public access and data allowed members of the public and representatives of concerned stakeholder groups and communities to voice their concerns about issues related to public access to the results of federally-funded R&D and to allow agencies covered by the 22 February 2013 memo and others which are complying with its terms voluntarily to consider these views as the agencies develop their respective plans, which are due to OSTP on 22 August 2013.

US: NSF microbusiness survey plan

The National Science Foundation's (NSF) National Center for Science and Engineering Statistics (NCSES) plans to conduct a pilot of a new Microbusiness Innovation Science & Technology (MIST) Survey to collect R&D and other innovation-related data from small, independent US microbusinesses (less than five employees). NSF has consulted with other federal agencies and has not found another project similar in scope to MIST.

In addition to collecting the general information, such as primary business activity, year business was formed, and number of employees, the new survey will also collect the following:

- Business data on R&D activity and funding;
- Number of employees and R&D employees;
- Sales of goods and services;
- Operating agreements and licensing activities with universities, other businesses, and government agencies (federal, state, and local);
- Experience with several forms of technology transfer;
- Use and importance of patents and other forms of intellectual property;
- Sources of technical knowledge; and
- Demographic and entrepreneurial characteristics of the business owner.

CSES has the task of measuring the role of Science and Technology in the US economy and abroad, and a major component of this activity is its sponsorship of the Business R&D Innovation Survey, which collects information annually on R&D and related activities performed within the US by industrial firms.

South America

South American climate change think-tank launched

South America has launched its first think-tank aimed at providing climate change knowledge to decision-makers to help them design tools tailored to local needs.

The Regional Centre for Climate Change and Decision-Making was launched earlier this year (19 March 2013) in Montevideo, Uruguay, where it will have its headquarters and where it is organising its first training event for policymakers.

Attendees will hear from scholars, leaders and decision-makers from various countries, disciplines and economic sectors and discuss the latest trends in and knowledge about decision-making and climate change.

After that, the centre will provide national and regional training courses tailored to specific local needs to help put the latest development concepts and science into practice.

The overall aim is to provide a critical mass of decision-makers who incorporate the complexity of climate change in their everyday decisions and develop new management tools.

Education and Skills Update

The comic strip 'All U need is space' helps students discover space

In April 2013, EU released All U Need Is Space, the first comic strip from the European Commission designed to bring young pupils closer to the benefits of space applications.

To be used in schools, the comic intends to make pupils understand how space technologies can improve their daily lives and how they can be applied in practical terms.

All U Need Is Space is about the daily life of a teenage schoolgirl named Elena. Every page contains explanatory boxes with useful information divided into two sections, 'Did you know' and 'What are we doing', which provide the reader with more specialised knowledge. These boxes shed light on how space technology helps with weather forecasts, pollution, rescue operations, remote medical assistance, automated cars, agriculture, climate change and communications amongst other crucial themes. The comic also features a game in every page, which makes the reading more fun and attractive and a list of useful websites has been included at the back of the book for those who want more information.

The booklet will soon be available in 24 languages, including English.