



Australian Government
**Department of Industry
Innovation, Science, Research
and Tertiary Education**

INNOVATION POLICY REPORT

MARCH 2012

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Australia's Biotechnology Industry

Over recent years Australia has developed into the leading location for biotechnology companies in the Asia-Pacific. The [Scientific American's world view](#) rates Australia in the top 5 countries on an intensity measure of biotechnology activity and support. According to the [2011 Australian Innovation Systems Report](#), Australia's biotechnology strengths include a world-class science base and infrastructure to support research and development, a culture of collaboration, and a transparent and efficient regulatory system.

Australia has strong biotechnology capabilities in four main areas: biomedical, agricultural; environmental; and industrial:

- Biomedical biotechnology refers to the use of biotechnology applications in the identification and treatment and of human diseases. The majority of biotech companies listed on the Australian Securities Exchange (ASX) are biomedical, and produce for example vaccines, blood products, anti-venoms, and diagnostics products. Australia is also home to numerous world class medical research organisations. The department has recently provided support for a research project undertaken by Victoria University to identify the challenges facing the global biopharmaceutical innovation system and their implications for both Australian firms and national policies. This project has recently been completed and the report will be released shortly.
- Agricultural biotechnology is the application of biotechnology to improve plant and animal production and to create new, high-value products. This includes techniques such as genetic engineering or marker-assisted breeding of plant and animal varieties. Plant biotechnology has been widely adopted in Australia and there is considerable ongoing research and development in the area. More information on gene technology, including plant biotechnology can be found on the [CSIRO website](#).
- Environmental biotechnology is the development, use and regulation of biological systems, often microbes, for remediation of contaminated environments. Examples of Australian innovation in this area include the development of bioremediation products for cleaning up pesticides in waste water, and for degrading oil-contaminated soil or direct oil spills.
- Industrial biotechnology is the practice of using living cells (bacteria, yeast, algae) or component cells like enzymes, to generate industrially useful products and processes. Australia has a broad capability in industrial biotechnology with research and commercial activities across biomining (using micro-organisms to extract metal from low grade or difficult ores), biomaterials (for example packaging plastics based on corn starch), and biofuels (bioethanol and biodiesel). The Australian Government is considering how best to facilitate the development of the local industrial biotechnology sector, and has recently released [two reports on the feasibility for producing commodities from biomass](#).

Innovative industries, such as biotechnology, represent a key source of employment growth for Australia into the future. According to the industry association [AusBiotech](#), the industry currently employs an estimated 50,000 Australians in the biotechnology, medical technology and pharmaceutical sectors. In addition to this, there are many thousands of direct jobs in the agricultural and industrial biotechnology sectors and indirect jobs in dependent areas such as clinical trial teams, medical research, and suppliers to the medical technology sector, and in services such as patent attorneys. These are high-skilled, high-wage jobs with long-term growth prospects.

Our success in biotechnology is underpinned by our strong performance in related public and private non-profit research, particularly in biomedical research. In the private sector, biotechnology R&D in 2009-10 performed by Australian firms was \$182 million, down from \$197 million in 2008-09 but up from \$144 million in 2007-08. Medical biotechnology research makes up 72% of biotechnology R&D by Australian businesses. As of June 2011, there are 147 health care and biotechnology companies listed on the Australian Securities Exchange with a market capitalisation of \$49.1 billion.

However in the future, biotechnology will play an increasing role in other areas than medical. It has the potential to improve the efficiency, productivity and environment impacts of the industrial, as well as agricultural sectors. The [OECD's Bioeconomy to 2030 report](#) explained that health (currently the most recognised biotech sector) accounted for 83% of all biotechnology R&D expenditures in 2003. However it will account for just 25% of the biotechnology gross value added in the OECD area in 2030 with biotechnology applications in primary production (36%) and industry (39%) being the largest contributors.

Biotechnology is a rapidly growing and developing economic sector, and will continue to be so into the future. The competition to be a key player in this industry internationally will be intense, but the rewards of success through export earnings, high-skill, high-wage jobs and spillover benefits to other industries will be considerable.

The Department of Industry, Innovation, Science, Research and Tertiary Education publish the [Biotech Business Indicators](#) which provides quarterly information about the Australian biotechnology industry, using publicly available industry and market statistics.

PORTFOLIO DEVELOPMENTS

NEW: Industrial Transformation Research Program

Through the Australian Research Council's new [Industrial Transformation Research Program](#), the Government will invest \$236 million in quality R&D partnerships that will help transform our industries so they can prosper in a richer, fairer and greener Australia.

The Program will:

- focus on research areas that are vital for Australia's future economic prosperity—such as engineering, materials science and nanotechnology, communications, chemical engineering and biotechnology;
- support Industrial PhD students and researchers to gain 'hands-on', practical skills and experience in these important areas; and
- foster important partnerships between business and universities.

To achieve this, the Program will fund research hubs and training centres.

Industrial Transformation Research Hubs

These research hubs will encourage R&D projects that could help solve the big problems facing our industries today. In these hubs, managers, researchers and industry workers will work together to address everything from our need to reduce pollution in our manufacturing processes to our struggle to compete locally with a high Australian dollar.

Up to 20 research hubs will be established nationwide with initial funding for up to five years. This funding term gives our researchers and industry partners the flexibility to undertake comprehensive research programs that will help tackle our big industry challenges, as well as short-term projects that may help answer emerging issues or questions.

The Government will invest up to \$1 million per year in each hub with this investment being matched by industry partners.

Industrial Transformation Training Centres

These training centres will foster close partnerships between university-based researchers and the industry members who will use the research outcomes.

Up to 50 training centres will be established nationwide. Around 20 of the centres will include training in social impact, inclusion and industrial and community transformation.

As part of the training centres component, the Government will award up to 600 industrial PhDs to embed students in industry settings, directly harnessing research capability to address industry needs. Up to \$1 million per year will be

provided for each centre for up to three years. The 50 centres will be selected over a five year period.

NEW: Aboriginal and Torres Strait Islander Researchers' Network

The ARC is currently seeking expressions of interest for the establishment of a \$3.2 million [Aboriginal and Torres Strait Islander Researchers' Network](#). Expressions of interest close in January 2012. Shortlisted applicants will be invited to submit full Proposals in April 2012.

The Network will help Indigenous Australian researchers and research students to seize more research opportunities and advance their research in a supportive environment. In doing so, it is hoped the Network will help address the under-representation of Indigenous students among higher degree research student enrolments and completions.

Up to \$800,000 a year for four years has been committed under the ARC Special Research Initiatives scheme to establish and support the Network.

NEW: Global Services Jam

Canberra Service Innovation Jam – a part of the Global Service Jam 2012



From Friday 24 to Sunday 26 February 2012, some 55 service design thinkers from across the public service and private sector gathered at the [University of Canberra's Inspire Centre](#) to participate in the [Canberra Service Innovation Jam – a part of the Global Service Jam 2012](#). The Jam involved events in 85 cities from some 40 countries, with over 2000 Jammers participating. The secret

theme 'hidden treasure' was revealed at 6:30pm on Friday, and Jammers had 48 hours to design a brand new service around the concept 'hidden treasure'.

Jammers brainstormed ideas for services that related to the 'hidden treasure' concept. Ideas developed by participants were interesting and imaginative, and the process of generating them was creative and energetic. Each team then chose one concept to develop, research, market test, and prototype. 'Jamming sessions' - where participants contributed and collated ideas - were interspersed with presentations from mentors – experts in service design thinking.

[Social media was a key part of the Jam, with Jammers active on Skype, Twitter and key sessions streamed live and recorded for later access.](#)

The ideas chosen for development all appear to have commercial and social value, and included a web portal which inspires people, connects people to others in their current location, automated messages, message services, savings accounts for charity donations, recording portals that record and preserve stories of interest for future generations.

Participants reported that the Jam challenged them, caused them to undertake new ways of thinking, got them outside their comfort zone, and got them connected to new networks of people. Feedback was very positive. Participants were asked to describe the Jam in five words to a friend. Responses included: "engaging, dynamic, challenging, rewarding, intense, fun, interesting, social, fulfilling, cooperative and collaborative".

Clean Technology Investment Programs

Applications for the \$1 billion Clean Technology Investment Programs opened on 16 February 2012. These competitive merit-based grant programs will provide practical transitional assistance to help Australian manufacturers compete in a low-carbon economy.

The \$800 million [Clean Technology Investment Program](#), operating from 2011-12 to 2017-18, and the \$200 million [Clean Technology Food and Foundries Investment Program](#), operating from 2011-12 to 2016-17, are central elements of the Australian Government's Clean Energy Future plan. Together, these programs will support eligible manufacturers to invest in energy efficient capital equipment and low emissions technologies, processes and projects.

The funding contribution ratios are tiered according to the size of the grant requested and the size of the applicant's business. There is a minimum grant amount of \$25,000 but there is no maximum grant limit for a proposal within the total grant funding available.

Applications will be received and assessed on a continuous basis.

AusIndustry is conducting information sessions for potential applicants in capital cities between 5-22 March 2012.

Clean Technology Innovation Program

Second Round of Consultations

A second round of stakeholder consultations for the *Clean Technology Innovation Program* took place in early March. The Program is one component of the \$1.2 billion *Clean Technology Program* (incorporating: the *Clean Technology Investment Program*, the *Clean Technology Food and Foundries Program*; and the *Clean Technology Innovation Program*).

The \$200 million *Clean Technology Innovation Program* will operate over 5 years. It will provide funding to support research and development, proof of concept and early stage commercialisation activities to develop new products, processes and services, in the areas of clean energy, low-emission technology and other energy efficient technologies.

A second discussion paper on the *Clean Technology Innovation Program* was developed in response to the feedback on the 2011 discussion paper and associated consultations. This paper was available for comment on the Department's website in March 2012. Consultation sessions took place in Melbourne, Brisbane and Sydney. Feedback from the discussion paper and consultation sessions is being considered as the program design and documentation is finalised.

The *Clean Technology Innovation Program* is scheduled to open for applications in July 2012. Both the *Clean Technology Investment Program* and the *Clean Technology Food and Foundries Program* opened for applications on 16 February 2012 and information about these programs is available at: www.ausindustry.gov.au.

Commonwealth, State and Territory Advisory Council on Innovation (CSTACI)

The February/March meeting of CSTACI was held in Perth on Wednesday 29 February and Thursday 1 March. Items discussed at the meeting included:

- voucher schemes;
- Clean Energy Futures;
- AusIndustry working with State agencies to promote the R&D Tax Incentive; and
- the 2011 database of Innovation Initiatives developed by the Innovation Indicators Working Group.

Advisory Council on Intellectual Property (ACIP)

The Advisory Council on Intellectual Property (ACIP) is conducting a review into whether IP acts as an enabler or disabler of collaboration between industry and publicly-funded research organisations (PFROs), including universities.

From November 2010 to April 2011, industry stakeholders had the opportunity to provide submissions in response to key questions posed by ACIP, particularly questions concerning the treatment of intellectual property in collaborations. Within this same period, ACIP also held roundtable discussions with industry in Perth, Melbourne, Brisbane and Sydney.

From August 2011 to November 2011, representatives and staff of Australian PFROs had an opportunity to provide input regarding their collaborations with industry in recent years. ACIP also held roundtable discussions with PFRO participants in Brisbane, Adelaide, Melbourne and Sydney.

A report is currently being prepared, and is to be tabled for discussion at the next full ACIP board meeting in March.

Australian Innovation System (AIS) Report 2012

The second report in the series, the Australian Innovation System Report 2011, was released on 29 July 2011.

The 2012 report will have the same overall structure as used in previous reports, including key indicators monitoring the Government's *Powering Ideas* targets, tables and charts, updates on program information, features and case studies, and the 2012-13 Science, Research and Innovation Budget Tables as an Appendix.

The Department has contacted a number of internal and external stakeholders including Commonwealth, State and Territory government departments and agencies for input into the 2012 Report.

While there is no optimal time for the release of the AIS report due to continual data releases throughout the year, the intention this year is to publish the report in late August, early September, to take advantage of a major OECD data release expected in late July 2012, which will update many of the international comparisons.

The report and the companion document – a Compendium of case studies - are both available from www.innovation.gov.au/AISReport

Joint Research Engagement Grant – Engineering Cadetships

Prime Minister Julia Gillard and former Innovation Minister Senator Kim Carr announced the [JRE Grant – Engineering Cadetships](#) on 9 December 2011.

The Joint Research Engagement (JRE) Grant – Engineering Cadetships will enable participating universities to support the research training costs associated with higher degree by research students undertaking a cadetship in the area of engineering or science. Cadetships will involve a combination of formal research training (research doctorate or research masters) with a university and employment by a business to carry out R&D activities.

The JRE Grant - Engineering Cadetship scheme will run from 2012 to 2015 with the Australian Government providing \$12.75 million in funding over this period. Approximately 265 commencing engineering cadetships are expected to be delivered each year. Participating universities will receive an additional \$5,000 per student annually to supplement the research training costs for each domestic student participating in the scheme.

This JRE Grant – Engineering Cadetships will enable the universities to customise the student's research training experience and enhance their career prospects as well as to increase overall collaboration between universities and industry to strengthen R&D outcomes. The initiative will take advantage of the newly established R&D Tax Incentive to encourage companies to build innovative capacity within their workforces, with businesses that engage cadets able to claim eligible expenditure under the R&D Tax Incentive.

Actual delivery of the scheme will not commence until March 2012, after interest from universities in participating has been ascertained

Cooperative Research Centres program

Outcomes of 14th selection round

The outcomes of the 14th selection round were announced on 22 November 2011, with \$148 million awarded to two new CRCs and four extension CRCs.

The six successful bids were Automotive Australia 2020 CRC, CRC for Low Carbon Living, CRC for Polymers, CRC for Water Sensitive Cities, Invasive Animals CRC and the Plant Biosecurity CRC. These CRCs are due to commence operations from 1 July 2012.

15th selection round

Applications for the 15th selection round opened on 13 February 2012 and close on 14 June 2012. The priorities for the 15th CRC selection round are social innovation, sustainable regional communities and clean manufacturing. Outcomes are expected to be announced in December 2012.

Further information about the CRC program can be found at www.crc.gov.au.

Research Training Quality in Australia

A discussion paper on research training quality: Defining Quality for Research Training in Australia was released in October 2011 as part of the implementation of the Australian Government's research workforce strategy. The aim of the paper was to invite debate around issues of quality in research training and how it can be measured and encouraged in Australia.

Sixty-three submissions were received from higher education institutions, research agencies, peak bodies and individuals. The sector appears to be focussed on the issue of quality in research training and many of the submissions explore matters comprehensively. Key points covered include: minimum standards and the role of

TEQSA, physical resources, supervision, research excellence in the research training environment, broader skills training and issues around the Australian Postgraduate Award guidelines. The submissions will be published on the department's website.

The paper is the first step in the review of the Research Training Scheme (RTS), which provides funding to eligible higher education providers to support research training for domestic students undertaking higher degrees by research. This review supports the government's ambitions to underpin higher education in Australia with a firm commitment to quality.

As part of this review process the department held public information meetings in all capital cities. The meetings were attended by a range of university staff (Deputy-Vice Chancellors (Research), Deans of Graduate Studies, supervisors and researchers) and research students. Officers from the Australian Research Council attended a number of sessions.

For more information, visit our research workforce strategy website at:
<http://innovation.gov.au/Research/ResearchWorkforceIssues/>

NATIONAL DEVELOPMENTS

The Australian Innovation Festival

The 11th annual [Australian Innovation Festival](#) will be held from 26 April to 31 May 2012. The festival showcases the best of Australian innovation and entrepreneurship. This year's theme is 'Creating the Knowledge Economy', focussing on the four Cs – Creativity, Connections, Collaboration and Commercialisation.

The 2012 festival is expected to be similar in scope to the 2011 festival, which featured 725 events across the country, attended by 420 844 people. The state-by-state breakdown of events was:

- Australian Capital Territory - 27
- New South Wales – 308
- Northern Territory – 15
- Queensland – 61
- South Australia – 30
- Tasmania – 23
- Victoria – 143
- Western Australia – 118

Queensland - Sustainable Energy Innovation Fund

The [Queensland Sustainable Energy Innovation Fund \(QSEIF\)](#) first funding round for 2012 closed on 24 February. The QSEIF supports Queensland-based organisations to develop and commercialise sustainable technologies to reduce energy and water consumption. To be eligible, projects must be likely to produce outcomes of commercial value and have a strong innovation focus. The QSEIF provides up to 80 per cent project funding, with the remaining 20 per cent from the applicant organisation or project partners. Funding is paid retrospectively when agreed milestones are reached. Applications for the next round open on 8 May.

2012 Australian Government Information and Communication Technology awards nominations open

Nominations for the seventh annual [Australian Government Information and Communication Technology \(ICT\) awards](#) opened on 1 February. The Australian Government ICT awards are administered by the Department of Finance and Deregulation. The suite of awards recognises excellence and innovation in the use of ICT across all spheres of government. There are two streams in the Awards program: the Excellence in eGovernment Awards which recognise specific

project initiatives, and a suite of Awards which recognise individual and/or team based practices. Award streams within the Individual and/or team based practices include [Government 2.0 Innovator](#), [ICT Professional of the Year](#), [ICT Young Professional of the Year](#), and [Women in ICT](#).

Victoria - a new direction for manufacturing

The Victorian Government has released a new strategy for manufacturing on the 19 December 2011, outlined in the report '[A more competitive manufacturing industry – new directions for industry policy and manufacturing](#)'. The strategy was informed by the Victorian Competition and Efficiency Commission's [2011 inquiry Victorian's manufacturing industry](#), which found that:

- policy should focus on the challenges facing individual businesses and move away from targeting specific industries;
- innovation is crucial to the productivity and competitiveness of manufacturing businesses; and
- the depth and strength of the networks within which businesses are embedded is critical to their awareness of the means and need to innovate and improve productivity.

The strategy is a shift in industry policy thinking, moving away from targeting industry sectors to targeting the challenges faced by individual businesses in achieving high performance. The strategy acknowledges that actions and decisions made within individual firms drives productivity growth. Addressing the barriers to growth experienced by Victorian manufacturing firms necessitates a flexible approach that is focused on lifting productivity and performance at the firm level. There are five initiatives underpinning the Victorian Government's manufacturing strategy:

1. A world class specialist manufacturing service;
2. Productivity and innovation networks;
3. Investing in technology;
4. Support for small manufacturers; and
5. Niche and specialist skill

The new [Victorian Manufacturing Council](#) will monitor and publicly report on the implementation of the manufacturing strategy. Expressions of interest to join the Council closed 31 January 2012. Members of the Council will be appointed over the next couple of months.

South Australia - Building Innovation Fund

The South Australian [Building Innovation Fund](#) aims to demonstrate innovative ways to reduce the carbon footprint of existing commercial buildings. The fund offers grants in two streams: capital works stream offers grants for implementing leading edge approaches in retrofitting commercial buildings; and Feasibility and

case study stream provides funding toward feasibility and case studies that demonstrate leading edge approaches to retrofitting commercial buildings. Applications for round 4 of the fund closed on 24 February 2012.

The State of Corporate Social Responsibility

The Australian Centre for Corporate Social Responsibility has released its annual review of the state of corporate social responsibility (CSR) in Australia. The review was based on an online questionnaire of 355 CSR managers in a broad range of industries. It made the following key findings:

- Innovation is not yet a key strategic priority for CSR managers. CSR has gained recognition in the business community, but it is less clear whether CSR is seen as a progressive and entrepreneurial approach to strategic innovation.
- Some organisations (e.g. the National Australia Bank, Mission Australia, PriceWaterhouse Coopers and the ABC), are reaping advantages from innovation due to their CSR practices, CSR is not yet a driver of innovation across Australian industry.
- CSR pioneer organisations have stronger reputations, lower risks and stronger competitive advantage than organisations that are moderately committed to CSR.
- Managing carbon is the top priority for CSR managers in 2012, particularly in mining and utilities industries.
- CSR managers are increasingly reporting difficulties with assessing CSR initiatives as a key obstacle to more widespread adoption of CSR practices.

The full report is available for download at <http://www.accsr.com.au/html/stateofcsr.html>

INTERNATIONAL DEVELOPMENTS

Thomson Reuters 2011 Top 100 Global Innovators

Thomson Reuters released the top [100 global innovators report](#) and awards.

The list analyses patent data and compares innovative companies across the globe. Of the top 100 world leaders in innovation, 40% were from the USA, 29% from Europe and 31% from Asia. No Australian companies made the list this year.

To measure how innovative companies are, Thomson Reuters developed a proprietary protected methodology using four criteria. Global innovators excelled in patent:

- Success - high ratio of application to granted patents in last three years;
- Global - patented with relevant authorities in China, Europe, Japan and US;
- Influence - patents cited frequently by others in the last ten years; and
- Volume - filed large number of patents.

The report found that globally:

- The US leads in semi-conductor and electronic component manufacturing;
- Asia leads in computer hardware and automotive manufacturing;
- Europe leads in machinery manufacturing; and
- France leads in scientific research and has the most companies on the list of any one nation.

Deloitte Shift Index

The [Deloitte Centre for the Edge](#) has released the [2011 Shift Index report](#). The report expands on the themes of its 2009 report to define, analyse, quantify and predict the results of long-term changes in the global business environment. resulting from new technology and public policy, increased flow of capital, talent and knowledge and improvements in digital infrastructure, and are together termed the 'Big Shift'. Deloitte analyses these changes to produce the Shift Index – a measure and predictor of US business performance.

Key findings and recommendations of the report include:

- Return on business investment is in long-term decline in the US;
- Lay-offs and other short-term solutions do not improve business performance in the long term;
- Ease of information flow because of improved digital infrastructure is empowering consumers in the marketplace and society; and

- Business should embrace passionate workers and innovative systems and technologies to reverse the decline in performance.

Intellectual Assets and Innovation: The SME Dimension

The OECD has recently published a study on [Intellectual Assets and Innovation: The SME Dimension](#).

The study explores the relations between SME intellectual asset management, innovation and competitiveness in different national and sectoral contexts. Also, it explores the intellectual property (IP) regulatory landscapes and SME intellectual asset management practices and challenges in nine countries: Australia, Italy, the Nordic Group (Denmark, Finland, Iceland, Norway and Sweden), the United Kingdom and the United States. Further, it investigates effectiveness of regulatory frameworks and policy measures to support SME access to IP rights, identifying best practices and proposing policy recommendations. Insights are provided on the ability of SMEs to access and utilise the protection systems available to them and identifies key challenges for SMEs in gaining full value from IP rights.

EU-India Research and Innovation Cooperation

Europe and India signed a new [Declaration on Research and Innovation Cooperation](#) on 10 February 2012. The Declaration is expected to strengthen existing cooperation efforts between the two countries and is seen as an important step towards the finalisation of an Indo-European Research and Innovation Partnership, which is expected by the end of the year. The Declaration was signed at the EU-India Summit in New Delhi by the Commissioner for Trade Karel de Gucht and by Mr. Ashwani Kumar, Minister of State for Science & Technology.

Research and innovation are key pillars for creating sustainable growth and new jobs as part of the Indian 'Decade of Innovation' and the 'Europe 2020' strategy and the 'Innovation Union Flagship Initiative'. Máire Geoghegan-Quinn, the European Commissioner for Research, Innovation and Science, said that the joint declaration will boost the Indo-European alliance for research and innovation to promote innovation needed to tackle societal challenges including food security and climate change, and is an investment in growth and jobs in this difficult period for the global economy.

Europe

Joint Workshop on Smart Specialisation Strategies

The concept of smart specialisation is that economic growth can be supported, especially in regional areas, through encouraging entrepreneurs, firms, and researchers to identify and exploit pre-existing assets in terms of science, technology innovation and education. These assets can then be specialised to help improve competitiveness and exploit the innovation potential of the region. This is a move away from the more traditional approach of imposing specialisation

on a region as part of a national policy of specialisation in topics deemed appropriate by government.

On 22-24 November 2011 a two part Workshop on Smart Specialisation Strategies was held in Spain. The first part of the conference looked at the role of smart specialisation in a European context, hosted by the Andalusian Government. It looked at the tendency across countries and regions in Europe to try to emulate what successful regions or countries do, instead of trying to find an original area for expertise. A number of examples were presented of regional policies aimed at smarter specialisation. These were focussed on how to fit into the European Cohesion Policy and so access EU funding. Primarily the examples were of supporting better linkages between researchers, firms and government.

The second part was an OECD workshop on the Working Party on Technological and Innovation Policy project: "Smart Specialisation Strategies for Cluster Development in Global Value Chains". This project aims at documenting member country's experience with smart specialisation-related policies, and to provide information on the development of smart specialisation strategies and will deliver a final report in December 2012. The Australian case study will use the Rural Research and Development Corporations (RDCs), as an example of supporting entrepreneurial discovery.

United Kingdom

NESTA Centre for Innovation Prizes

The National Endowment for Science, Technology and the Arts (NESTA) is establishing a [centre for innovation prizes](#) in the UK. The centre is part of a package of measures announced on December 8 2011 by the Department for Business, Innovation and Skills. The Department will invest £250,000 per year in a prize fund, to be used by the Centre to run inducement prizes that spur new innovations.

The centre will be a hub for expertise in designing, setting up and running challenge prizes to tackle social and technological challenges in the public interest. Prizes offer a reward to whoever can first, or most effectively, meet a defined challenge are referred to as challenge or inducement prizes.

There has been a growing interest in the use of challenge prizes in recent years and NESTA are establishing the Centre in response to this interest. It is anticipated that the prizes will:

- Provide expertise on identifying suitable topics for, designing and delivering challenge prizes - in partnership with and on behalf of others;
- generate discussion and evidence on when and how challenge prizes could best be used; and
- act as a hub to bring together prize practitioners and researchers, and people and organizations' who are interested in, or could benefit from, challenge prizes.

NESTA will be working with leading UK and international experts in the private, public and not-for-profit sectors over the coming months to design in more detail what the Centre will do and how it will work.

UK Catapult Centres

The UK has [announced two new Catapult centres](#). The first Catapult, in high value manufacturing, opened for business in October 2011, less than a year after the £200m+ technology and innovation centre program was announced. Two more Catapults, in cell therapy, and offshore renewable energy, are on schedule to open by summer 2012. The Catapults in Space Applications, and Connected Digital Economy, both announced in January 2012 and due to open in Autumn 2012, brings the total of Catapults announced so far to five.

Britain's 50 New Radicals

The National Endowment for Science, Technology and the Arts (NESTA,) in partnership with [the Observer](#), has identified 50 inspirational people and organisations who are changing Britain for the better. The selection process involved nominations for those applying approaches in practical and scalable ways, through social, technological, scientific and artistic methods. An expert panel of [judges](#) selected the top 50. It is hoped that the list will offer some recognition, as well as motivate and provoke others to innovate and build on the ideas raised.

United States

Top 10 U.S. Government Investments in 20th Century American Competitiveness

The Centre for American Progress has released what it considers the [top 10 US Government investments in US competitiveness](#) in the last century.

A significant portion of the investments consist of large scale physical infrastructure including Ellis Island, the Panama Canal, the Hoover Dam, the Interstate Highway System. The other six investments were science and education heavy: the Space Race; the GI Bill (a system of support for returning war veterans focused on education); the Elementary and Secondary Education Act; the Defense Advanced Research Projects Agency (DARPA); and the Human Genome Project. Only one, the Marshall Plan, did not fall into the infrastructure or science/education categories.

Findings of Harvard Business School's Survey on U.S. Competitiveness

Harvard Business School (HBS) has released [Prosperity at Risk](#), a report on the competitiveness of the US. The report is based on a study of nearly 10,000 HBS graduates who work in almost every US state and almost every country in the world. The report finds that US competitiveness is viewed negatively and is perceived to be falling in future outlooks.

While labour costs are cited as a factor for moving jobs offshore, a more detailed analysis paints a picture that is less black and white. To begin with the analysis reveals that it is no longer just a few companies such as Japan or Germany that the US is competing with, but increasingly the entire world. A map marking countries which survey respondents had marked as potential places to take jobs from the US was easier to define by the countries that hadn't been considered than those who had.

Further the factors driving the most pessimism were related to larger structural issues including a complicated tax code, increasingly political instability, uncertainty about government policy and an education system that was viewed as failing at the initial stages. Relatively few responses to open ended questions cited labour costs as the largest issue facing jobs growth in the US. As the report states "It is sobering to see that access to skilled labor was less often a reason to stay in the United States than it was a reason to leave".

As the report points out these findings are especially relevant as US politicians promote job creation schemes that often focus on low paid jobs with relatively low skill levels – exactly the area in which the US is facing the most offshore competition – instead of addressing business conditions and improving the capacity of the workforce.

President's 2013 Budget Request seeks increase in R&D expenditure

On 13 February, President Obama submitted the [Federal Budget](#) Request for Fiscal Year 2013 to Congress. The President's 2013 Budget proposes \$140.8 billion for Federal R&D, which is 1.4% above the 2012 enacted level. A key aim of the budget is to enable the economy to be built on American manufacturing, American energy, and skills for American workers. Investment in R&D was identified as a way to spur innovation to accomplish these and other crucial goals. However, the 2013 Federal Budget Request has declined overall spending.

Small business size

The Small Business Administration (SBA) published a final rule which raises some size definitions of small businesses in the 'Professional, Scientific and Technical Services' and 'Other Services' sectors. The rule will increase 37 of the revenue-based size standards in 34 industries and three sub-industries, and also increase one size standard in the 'Other Services' sector. The SBA evaluated all of the revenue-based size standards in these sectors, taking into account structural characteristics within individual industries, including average company size, degree of competition, and federal government contracting trends, to ensure that size definitions reflect current economic conditions within those sectors. This size standard review will continue for several more years.

The SBA has determined that increasing size standards in these sectors will enable more small businesses to retain their small business status, and give federal agencies a larger selection of small businesses to choose from for small business procurement. The SBA estimates up to 8,350 additional businesses will become eligible for its programs as a result of these revisions. A White Paper on the new sizes, *Size Standards Methodology*, can be found at: www.sba.gov

