



# Smart systems key to increasing Australia's GDP, with jobs to grow to over 70,000 in 2014

New research from Access Economics highlights the economic benefits of intelligent technologies

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**Sydney, Australia - 22 May 2009:** IBM Australia today announced the findings of the 'The economic benefits of intelligent technologies' report conducted by Access Economics. Commissioned by IBM, the report reviews the potential economic benefits from the adoption of smart technologies and systems, and reveals that adopting smart technologies in electricity, irrigation, health, transport and broadband communications will contribute:

- A 1.5% increase in Gross Domestic Product (GDP) within ten years
- An increase in the Net Present Value (NPV) of GDP by \$35-80 billion over the first ten years
- An additional 70,000 jobs to the economy in 2014 alone

Smart systems will allow us to use this data far more effectively, providing the potential to radically alter our economy and society for the better. According to Glen Boreham, Managing Director, IBM Australia and New Zealand, this research demonstrates that the investment in smart technology has significant GDP and jobs benefits.

"This type of investment should form part of any stimulus package or budget allocations into the future. This is why we are delighted to see the government's announcement in the budget that it will provide \$100 million in this next financial year for an integrated system of renewable energy, smart grid and smart meter technology and infrastructure.

"This is exactly the type of investment we have been calling for. It is an important step forward and we strongly endorse it. IBM would like to see this type of smart technology approach adopted in all infrastructure projects," Mr Boreham said.

Whilst adoption of smart systems is encouraged by the Australian Government, deployment is still in its infancy, states Dr Ric Simes, Director of Access Economics.

"When you look at the large amounts of data that are collected on a daily basis and how that is being used, the benefits of investing in smart systems become extremely compelling. Given the improvements that could be made in terms of decision making and societal coordination, this will ultimately lift our economic efficiency and living standards," Dr Simes said.

## Key findings

- Smart systems offer the most promising path for Australia to lift its long-term economic growth potential.
- Adopting smart technologies in electricity, irrigation, health, transport and broadband communications will increase GDP by 1.5% within ten years, increase the net present value

(NPV) of Gross Domestic Product (GDP) by \$35-80 billion over the first ten years, and add more than 70,000 jobs to the economy in 2014 alone. In each of the five areas, the benefits far outweigh the initial capital costs involved.

- Smart systems will contribute to efficiencies and increase production throughout the economy – not just in the five areas selected.
- Investing \$3.2 billion in smart grid technology over seven years will lower electricity use by 4%; increase the NPV of GDP by \$7-16 billion over ten years; and create 17,600 jobs.
- Adopting smart systems through the irrigation areas of the Murray-Darling Basin will reduce water use by 15%; increase the NPV of GDP by \$420-670 million over ten years; and create 800 jobs.
- Investing \$6.3 billion in an integrated national electronic health records system will increase the NPV of GDP by \$6-13 billion over ten years; and create 12,000 jobs.
- Adopting Intelligent Transport System technologies will increase the NPV of GDP by \$12-26 billion over ten years, and create 30,000 jobs.
- It is understood that the NBN will provide fibre-to-the-home on a scale never seen before in the world, so there is insufficient data to quantify the economic benefits of this rollout. Instead, Access Economics has estimated the benefits of a less ambitious agenda: investing \$12.6 billion in national fibre-to-the-node broadband. This would: increase the NPV of GDP by \$8-23 billion over ten years; and create 33,000 jobs by 2011.

### **About the report**

The Access Economics report reviews the potential economic benefits from the adoption of smart technologies and systems. The report considers five areas where intelligent technologies and systems may make a significant contribution. These are in electricity, irrigation, health, transport and broadband communications.

The report explores the fact that the amount of data collected in all areas of human activity is vast and is expanding rapidly. Smart systems will allow us to use this data far more effectively, providing the potential to radically alter our economy and society for the better.

The aim is to estimate the magnitude of the potential economic benefits that could be delivered through the widespread adoption of smart technologies and systems. The report does not identify specific policy actions that could foster this adoption although it does emphasise the importance of complementary microeconomic reforms in order for the technologies to realise their potential.

A considerable literature involving Australian and overseas studies of aspects of the economic benefits of the smart technologies has emerged in recent years.

The findings from this literature have been used as a basis for estimating the economy-wide benefits of the adoption of smart technologies in each of the five areas identified. Access Economics' general equilibrium model of the Australian economy is used to analyse these economy-wide effects in a consistent fashion.

Given the difficulties involved in identifying and measuring many of the benefits that smart technologies are likely to deliver, a number of conservative assumptions have been adopted at various points of the analysis. In each of the five areas, the benefits far outweigh the initial capital costs involved.

The precise extent of the economic benefits is dependent on the state of the economy that applies when the technology is rolled out. The closer the economy is to full employment, further economic benefits will be reflected in higher productivity levels, while if the economy has spare resources, the benefits produce larger increases in employment. In addition, the total net benefits tend to be much larger in an economy that has spare capacity, as is currently the case in Australia where unemployment levels are rising.