



INQUIRY INTO MICROECONOMIC REFORM IN WESTERN AUSTRALIA: ISSUES PAPER

Response from AIIA

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INTRODUCTION

The Australian Information Industry Association (AIIA) is the peak national body representing multinational and domestic suppliers and providers of a wide range of information technology and communications (ICT) products and services.

We represent over 400 member organisations nationally, including global brands such as Apple, EMC, Google, HP, IBM, Intel, Microsoft and Oracle; international companies including Telstra; national companies including Data#3, SMS Management and Technology, Technology One and Oakton Limited; and a large number of ICT SME's.

Our members and their employees contribute to the nearly 8 per cent that ICT contributes to the Australian economy. All of our members, large and small are committed to developing Australia's digital capability and presence nationally and on the global stage.

AIIA is pleased to respond to the Western Australian Economic Regulation Authority's issues paper: *Inquiry into Microeconomic Reform in Western Australia*.

FOCUS OF OUR RESPONSE TO THE ISSUES PAPER

AIIA supports the premise of this inquiry, in particular the focus on the role that governments can play in increasing productivity across the economy. There is strong evidence supporting the value of microeconomic reform, in its various forms, in increasing productivity, with associated improvements in living standards. Productivity growth is a key driver of economic growth, and as such it should be a central focus within economic policy. Without it, it is difficult for an economy to maintain wages growth and business profitability.

The Inquiry Issues Paper highlights the potential opportunities for reform that may increase productivity and flexibility within the Western Australian economy. We believe it is important for the Western Australian government to consider microeconomic reform in its broadest definition, to ensure that all the potentially beneficial changes are captured by the Inquiry

recommendations. In particular, we would emphasise the role that government can play in enacting productivity improvements through its own interactions with industry, such as through purchasing arrangements, setting standards and communication and education. These should be on an equal footing with regulatory reform and competition policy, which are areas which often more closely associated with microeconomic reform.

The focus of this response is on how the Western Australian government can maximise the potential productivity gains to the State's economy from Information and Communications Technology (ICT). Our suggestions focus on how government can support, encourage and facilitate the take up of ICT innovation, which will achieve:

- *direct* benefits to government, in terms of resource savings and efficiencies,
- *broad*er benefits across the State economy, where government is able to influence the broader business environment and encourage take-up of new technology which will drive productivity growth.

On this second point, we believe there is a critical role for the Western Australian government to encourage innovation by:

- removing barriers to new solutions to service delivery,
- actively encouraging the uptake of new technology across the Western Australian economy,
- showing strong leadership in adapting to new technology, thereby 'setting the tone' across the economy.

This response provides a discussion on:

- the evidence supporting how ICT can drive productivity growth,
- the three key areas where we believe the Western Australian government can focus its efforts to enhance the productivity gains from ICT innovation.

ICT IS A DRIVER OF PRODUCTIVITY GROWTH

The potential of digital technology across a broad range of sectors, whether in the immediate or long term - is game changing.¹ Research by [Booz & Company](#) for example, shows that countries that increase their use of digitisation have realised significant gains in their economies, their societies, and the functioning of their public sectors.

It is estimated that digitisation has provided an additional US\$193 billion to the world economy and 6 million jobs worldwide over the last two years.² Furthermore, the economic impact of digitisation accelerates as countries move to more advanced stages of digitisation. [Booz & Company](#) make the point that countries that are digitally constrained (even if they have access to broadband infrastructure) receive less benefit largely because they have yet to establish the ecosystem that can capitalise on the benefits of digitisation.³

In Australia, our internet economy is forecast to grow twice the rate of GDP between 2012 and 2016 – from \$50b to \$70b. By way of example, in 2012 online retail sales were estimated to be around \$11.3b (5% of all retail spending). It is estimated they will continue to grow by about 15% a year – well above the 4% of traditional retail.⁴

Twenty one per cent of GDP growth in mature economies in the last 5 years can be attributed to the Internet.⁵ As the [2011 McKinsey Report *Internet Matters: The Net's sweeping impact on growth, jobs and prosperity*](#) points out, 75% of Internet economic impact spills over to and

¹ ibid

² K Sabbagh, R Friedrich, B El-Darwiche, M Singh, A Koster. *Digitisation for Economic Growth and Job Creation. Regional and Industry Perspectives*, in World Economic Forum. *The Global Information Technology Report 2013* Chapter 1.2, <http://www.weforum.org/reports/global-information-technology-report-2013>

³ K Sabbagh, R Friedrich, B El-Darwiche, M Singh, A Koster. *Digitisation for Economic Growth and Job Creation. Regional and Industry Perspectives*, in World Economic Forum. *The Global Information Technology Report 2013* Chapter 1.2 <http://www.weforum.org/reports/global-information-technology-report-2013>

⁴ Deloitte, *Digital Disruption. Short Fuse Big Bang*. 2012, http://www.deloitte.com/view/en_AU/au/news-research/luckycountry/digital-disruption/index.htm

⁵ *Internet Matters: The Net's sweeping impact on growth, jobs and prosperity*. McKinsey Global Institute. May 2011, http://www.mckinsey.com/insights/high_tech_telecoms_internet/internet_matters

subsequently arises from a broad range of traditional industries not simply those in the 'business of the Internet' (i.e. technology based businesses).⁶

IBM's 2012 [Report A Snapshot of Australia's Digital Future to 2050](#) – identifies the profound social and economic impact of broadband across an extensive array of industry sectors. The Report predicts that 10% of Australia's 509 industries (accounting for 23% of the nation's revenue) will not function without high speed broadband; a further 17% of industries (also 23% of the nation's revenue) will use it to drive step changes in their business; and 70% of industries (accounting for 54% of revenue) will benefit from generalised productivity gains.⁷

Deloitte's [Digital Disruption. Short fuse, big bang](#)⁸ Report similarly notes the profound and disruptive impact of the digital age on key industries including retail trade, finance, ICT and media, arts and recreation, professional services, real estate in the immediate term and education, health, transport and government services in the longer term.

[Booz & Company](#) make the point that “ . . . access to ICT services is no longer the primary issue facing policymakers. Instead, the critical question is how to maximise the adoption, utilisation, and impact of these services. Digitalisation has emerged as a key driver and enabler of socioeconomic benefits.”⁹

All this is say that the economic impact of ICT and specifically high speed ubiquitous broadband is indisputable. ICT presents clear opportunities to achieve significant microeconomic benefits across industry, business and Government's at all levels.

⁶ Ibid

⁷ A Snapshot of Australia's Digital Future to 2050, IBISWorld, p 10, <http://www-07.ibm.com/ibm/au/digitalfuture/index.html>

⁸ Deloitte, Digital Disruption. Short Fuse Big Bang. 2012 , http://www.deloitte.com/view/en_AU/au/news-research/luckycountry/digital-disruption/index.htm

⁹ K Sabbagh, R Friedrich, B El-Darwiche, M Singh, A Koster. Digitisation for Economic Growth and Job Creation. Regional and Industry Perspectives, in World Economic Forum. The Global Information Technology Report 2013 Chapter 1.2 2013 <http://www.weforum.org/reports/global-information-technology-report-2013>

REFORMS TO DRIVE PRODUCTIVITY GROWTH THROUGH ICT

This submission discusses three emergent technologies where the Western Australian government should play a leading role in enabling and encouraging take up across the Western Australian economy.

- Cloud computing
- Open data
- Big data and analytics

For each, the key principles that we would emphasis are:

- the potential for government efficiencies and resource savings;
- the potential broader benefits where governments are more open and accepting of these emerging technologies'
- the important role for government in showing leadership in the take-up of new technology.

Cloud Computing

Cloud computing services facilitate new ways of working and collaborating and more flexible options for businesses through the ability to obtain the information and communication capacity they need, when they need it. It allows ICT to be delivered over the internet and consumed as a service, on demand, across a wide range of locations and devices.

It enables simple, convenient and on demand access to a shared pool of computing resources that can be configured to maximize economies of scale. Cloud services offer a viable and affordable alternative to expensive and resource intensive in-house IT solutions and hardware and software investments, particularly where this is not core to the business. These gains hold enormous potential for all organisations otherwise burdened by IT overheads which, in many cases, are difficult to maintain and costly to keep up to date.

The benefits of cloud computing can be grouped into three broad categories:

- **Direct cost savings** (reduced cost per unit of output): Cloud computing provides Government the opportunity to significantly achieve cost savings through reduced

capital expenditure on ICT hardware/software; adoption of a pay per use model; and reduced ICT support and maintenance costs. Technical complexity related to set up, operations and maintenance is taken care of by the cloud provider, enabling businesses to focus on their business rather than the technology that supports it.

- **Productivity improvements** (increased output per unit of cost): Cloud based services enable the business to change and grow without the need for detailed capacity planning and technology upgrades; service capacity can be adjusted to meet the needs of the business with only the capacity used chargeable. Rather than rely on potentially risky forecasts and predictions, cloud computing solutions enable IT capability to adapt and expand on an ad hoc, as needed basis - in line with actual business fluctuations.
- **Innovation** (ability to delivery new products and services): Cloud computing services enable organisations to achieve additional benefits through business flexibility and agility, collaboration and the ability to improve product/service speed to market. With the ability to support remote and mobile business operations, it also provides opportunities for new, innovative business and service delivery models.

In summary, adoption of a whole of government cloud computing policy has the potential to deliver significant productivity and efficiency benefits across Western Australian Government agencies through reduced ICT spending, increased flexibility and agility, improved output from a more flexible and productive workforce, access to the latest technologies, innovation and new business and delivery models and significant economies of scale.

Open Data

Governments are key collectors and producers of large amounts of data – economic, demographic, spatial etc. These data have a broader value to the community, as recent examples have shown. Open access to government data allows innovators to develop a range of services and products that can be valuable to government agencies, business and the broader community. For example, data can be used to develop mobile applications and tools

which can provide readily accessible information to facilitate access to public services and facilities (such as public amenities) and decision making by business and individuals (such as investment decisions). These applications have the capacity to reduce negative impacts of information gaps and asymmetries across the community.

For government, open data access *across* government improves the quality of policy development and alignment of government operations. It also has the capacity to reduce the costs to government of providing information to the community – broader access to information will reduce the costs of on-going information requests and queries from the community. The overall quality of this interaction is also likely to be improved where the breadth of information provided is enhanced.

As jurisdictions around Australia and around the world show, an open data policy stimulates the development and delivery of innovative new products by the private sector, typically more quickly and at no cost to government and with the broader community usually the main beneficiary. Key benefits of an open data approach include:

- Enhanced collaboration between government, business and the community;
- Opportunities to innovate service delivery;
- Opportunities to reduce the cost to deliver services;
- Service innovation;
- Increased transparency, hence confidence in government's ability to deliver services;
- Improved access to information to improve decision making;
- Increasing the flow of data and information sharing.

Removing barriers to data access is an important reform that the Western Australian government should invest in. The costs associated with this reform would be minimal, compared with the potential broader benefits (as noted above). This reform would ensure that Western Australia keeps in touch with the most recent innovations across governments in Australia and internationally, and would have important benefits across the Western Australian community.

Big Data and Analytics

Big Data refers to high volumes of a variety of structured and unstructured data that moves and changes at speed, provides deep analytic capability and creates innovative new insights to inform more insightful decision-making. It is characterized by volume, variety and velocity. This extends to additional attributes, value and veracity where the 'worth' of data (in economic and political terms) and data quality are included.

Using data intelligently to provide insight and value has the potential to transform Government, drive innovation and stimulate economic growth. Developments in smart data analytics combined with access to scalable, high performance computing capability the ability to identify otherwise disconnected trends; improve business level decision making; inform evidence based policy development; improve compliance; inform the development of preventative service models/approaches; and understand and ultimately influence customer/client/citizen behaviour.

For government, big data and data analytics benefits include:

- The ability to target and appropriately personalise services to individual customers or customer groups, thus ensuring service delivery policy objectives are achieved - the right services are delivered to the right people/groups;
- Real time, accurate service provision;
- Improved data management practices (e.g through better business process management, redundant data collection processes can be reduced by reusing data collected from separate processes/sources);
- advanced problem solving capabilities;
- use of predictive analytic capability to reveal insights that can support more effective decision-making;
- improved compliance models;
- the ability to identify cost savings and opportunities to increase efficiency, which will directly contribute to an improvement in productivity.

CONCLUSION

As indicated in this response, to ensure the objectives of the Inquiry can be met, AIIA strongly encourages the Western Australian government to consider microeconomic reform in its broadest definition. It is critical that the role that government can play in enacting productivity improvements through its own interactions with industry, such as through purchasing arrangements, setting standards and communication and education are included in scope and that these be considered on an equal footing with regulatory reform and competition policy, which are areas which often more closely associated with microeconomic reform. In this context AIIA believes there is enormous potential to leverage the productivity and efficiency benefits of a broad range of emerging ICTs.