



AIAA - Industry Leadership

Green ICT - Environment & Sustainability



Loretta Johnson - AIAA presentation to KANZ 051109



Environment & Sustainability Summary

AIIA believes that the ICT community can contribute positively to the environmental sustainability of Australia through better waste management, less water consumption and more efficient energy use that reduces Greenhouse Gas emissions. These improvements can be made within the ICT sector itself as well as through the provision of ICT-enabled solutions across all vertical industry sectors that see better environmental outcomes across the entire Australian economy.

✓ AIIA believes that the ICT sector has a significant role to play as Australia transforms into a low-carbon economy. The ICT sector itself has to become more environmentally responsible, but is also a major contributor of solutions across the broader economy that can greatly benefit environmental outcomes.

✓ AIIA calls on the Federal and State Governments to ensure that the ICT sector in Australia adopts an increasing number of globally-accepted industry standards for environmental sustainability, but that the industry is not burdened with excessive regulation or the introduction of Australian-only schemes that put Australian ICT firms at a globally competitive disadvantage.

✓ AIIA believes that Federal and State governments, employers of ICT workers and ICT specialists themselves need to be educated and informed about the increasing number of choices available to them for ICT products and services that can impact upon environmental outcomes.

✓ AIIA believes awareness needs to be raised and incentives provided for business and government to adopt more environmentally sustainable ICT technologies and practices.

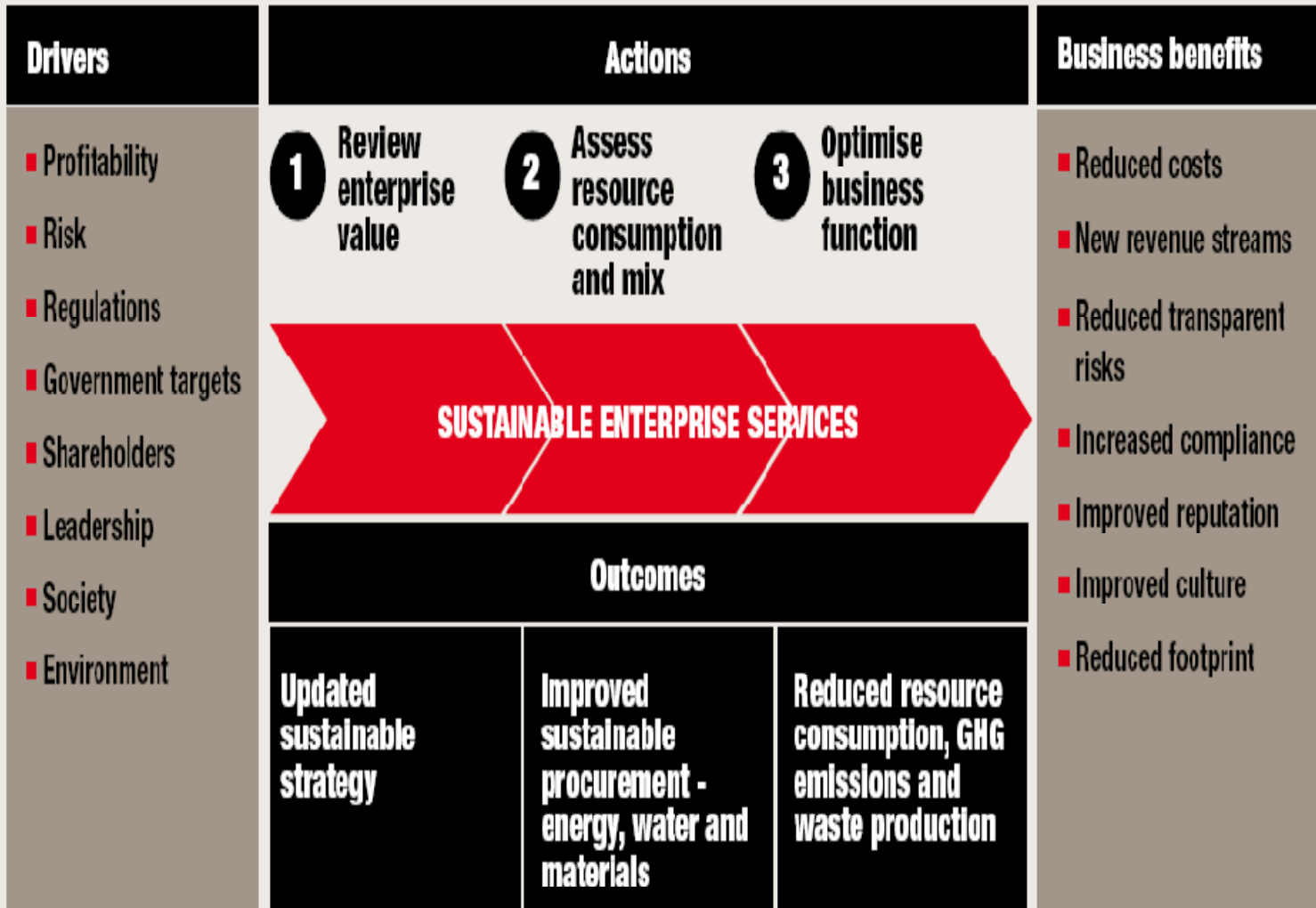


Environment & Sustainability Policy Positions

- Australian Federal and State Governments should encourage and provide incentives for the development of innovative technologies by the Australian ICT industry to meet Australian and global environmental sustainability needs. **AIIA and DEWHA working on industry input to sustainability plan now.**
- Federal and State Governments should assist consumers and businesses become more efficient in their use of ICT to reduce Australia's greenhouse gas emissions, water consumption and waste through improved procurement, innovative technologies and good practices. **AIIA sees this as an outcome of joint industry/government consultation.**
- Australian Federal and State Government agencies should be required to adopt ICT technologies and good practices that minimise their own environmental footprint. **DEWHA sustainability plan should deliver this.**
- Federal and State Governments should support the use of ICT to improve the measurement, monitoring and reporting of greenhouse gas emissions, water consumption and waste across the Australian economy. **CPRS a driver here?**
- Federal and State Governments should help raise community and business awareness of the important contribution ICT and ICT-enabled solutions can make to improved environmental sustainability across all industry verticals and economic activities.



FIGURE 1 SUSTAINABILITY MODEL FOR BUSINESS





IT – PART OF THE PROBLEM.... AND THE SOLUTION

NOW

2020

2% global emissions

6%

1.2 billion PCs globally

4.2billion

Data centres footprint
76mtGHG emissions (2002)

259mtGHG

Leverage technology across all industry sectors to reduce emissions by 15% through to 2020. Opportunity of \$1.5trillion AUD (smart 2020 report)



MEMBER SURVEY

Australian Government agencies are generally more advanced in Green ICT than their private industry counterparts.

The biggest areas of difference are in Enterprise and Data Centre issues, where government does substantially better, and in Lifecycle (procurement and disposal), where government does marginally worse.

✓ **End User ICT Efficiencies** –

Government are making better use of green ICT technologies such as CRT monitors and thin clients, and in practices such as powering down PCs when not in use.

✓ **Usage of ICT as a Low-Carbon Enabler**

– Government does well in this very important area. ICT's greatest potential as we transition to a low-carbon economy is in enabling other areas of the organisation to increase their energy efficiency.

Government has a great opportunity to show leadership.



A robust strategy on Sustainability needs to include ICT

- IT is 40% of the average corporate electricity bill
- Electricity demand from IT is a growing concern
- Desktops contribute 43% of the IT emissions profile
- IT presents solutions for other areas of the business



✓ **Enterprise and Data Centre ICT Efficiencies** – Government is reasonably advanced in its use of green data centre technologies such as server virtualisation and advanced cooling capabilities, and in practices like hot aisle / cold aisle layouts. The main reason the government is so far ahead of private industry in this area is the generally larger size of government instrumentalities, which means they have larger data centres and more areas where they can bring Green ICT technologies and techniques to bear.

❖ **Green ICT Lifecycle** – Government is marginally behind, but Lifecycle (which covers the environmentally friendly procurement and disposal of ICT equipment) is still the highest index, for both government and private. Organisations have been aware of the importance of recycling and environmentally sound disposal practices since long before Green ICT became an issue, and there is less room for improvement here than in other areas.



Australian Government ICT Managers are:

- More driven by policy than by costs savings
- Ahead of private industry – size and scale factors
- More concerned about climate change
- More accountable – CIO ‘owns’ the issue
- Advanced in measurement
- Voter/community concern drives policy

Why?

The Whole-of-Government ICT Sustainability Plan

- Targets
- Energy Management plans
- Procurement



✓ **Green ICT Measurement and Monitoring** – Government is ahead of private industry in all areas of measurement, and particularly in the measurement of the energy consumption and carbon footprint of the ICT function. But it is the lowest of the five indices, indicating substantial room for improvement.



BROADBAND AND GREEN ICT

- Opportunities for smart grid developments
- Government driven
- Data management from two-way flows enhanced over fast NBN
- Innovation potential
- Efficiencies and economic growth