



Information Economy Agenda 2009-2014

Delivering our digital future



**Government of
South Australia**

Minister's Foreword



Hon Michael O'Brien MP
Minister for Science and
Information Economy

A handwritten signature in black ink that reads "Michael O'Brien".

The IE Agenda recognises that a healthy information economy ecosystem brings social, environmental and economic benefits. But more than that, a healthy information economy is essential if South Australia is to compete in global markets and to maintain the levels of personal wealth and enviable lifestyle we currently enjoy.

The first Information Economy Agenda was released in February 2006, defining priority areas and related actions supporting South Australia's Strategic Plan (SASP), with the focus firmly on economic development.

Three years later, our focus is on fast, always-on communications, digital literacy, social inclusion and rich content.

How will South Australia continue to maximise the tremendous opportunities that the global information economy offers? The answer is by empowering every South Australian citizen – individually and collectively – to maximise their participation in the information economy; by encouraging innovative approaches to problems, resulting in new products, new services, and new businesses. The Government of South Australia's role is to establish and maintain an environment where this empowerment and innovation can take place through policies, programs and leading by example.

The IE Agenda 2009-2014 identifies three key interrelated elements of the information economy as connectivity, capability and content – the three C's. This recognises that connecting to high-speed broadband; building a confident, educated and digitally literate population; and supporting our local creative content and ICT industry are the ingredients necessary to succeed in a fiercely competitive global economy.

This Agenda was developed in consultation with the State Government's Information Economy Advisory Board (IEAB) and leading stakeholders from ICT associations, the education sector, industry, government agencies and community organisations, who provided feedback on the qualities that drive a successful information economy for the State.

I extend my gratitude to all who have contributed and look forward to your further feedback as we continue to meet the challenges of the ever-changing, globalised landscape.



An ideal information economy requires all our citizens to participate collectively and embrace digital technologies.

When the three C's of the digital world - **Connectivity**, **Capability** and **Content** - are sustained within a collaborative environment, the result is greater innovation, economic growth and wellbeing.



Information Economy Agenda Review 2009-2014

Our vision of the future is for South Australians to embrace the digital world and become leaders in the use of digital technologies to drive our global competitiveness, productivity, innovation and economic sustainability.

This Information Economy Agenda 2009-2014 sets out a framework for delivering our digital future.

Today the global financial crisis, climate change and a world competing for talent and capital mean that we face a radically changing future. South Australia will not succeed if it aims to be just a bit better than average. We can succeed by using the dynamic convergence of digital technologies to drive our personal, social and economic objectives. This may include decreasing greenhouse gases, increasing connectivity of health patients to doctors and hospitals, or undertaking lifelong learning. It may include teleworking or increasing basic digital literacy so you can find a job and obtain skills. It may include seeking new digital businesses and business models to become more productive.

The term “information economy” was coined a decade or so ago, yet ICTs today permeate every aspect of our lives. But this is only the start. The “internet of things” is on the horizon.

Already we live in a world where both human beings and goods can be tracked in real time from a home computer; where medical students can be trained using virtual hands-on, or “haptic”, systems that simulate real surgery and real human tissue; and where access to online information, investment, markets and skills has become crucial to progress.

Many of the new products, services, business processes and applications we currently enjoy are enabled by ICT, and innovations that increase productivity and creativity are continually being developed. More and more, inanimate objects will be embedded with “smarts”.

At the heart of this activity is the internet which, according to the Organisation for Economic Co-operation and Development (OECD), will “more than ever, be a catalyst for globalisation and innovation”. The internet allows us to transform the way we use resources, travel, communicate with one another, learn and earn a living. Access to the internet is critical, dependent on the availability and uptake of high-speed broadband appropriate to users’ needs. Connection to one another and the world, and using new and emerging digital technologies, are crucially important to our success.

In an environment characterised by rapid change, geographic location is no longer a barrier to success. Governments around the world are encouraging greater participation in the information economy for the benefit of their local economies and citizens. The State’s future therefore depends on our response to the impacts of globalisation on our local economy.

The Information Economy Advisory Board (IEAB) believes that South Australia can compete and succeed in the global information economy by combining specialisation with diversity: specialisation in areas of known strength such as geospatial technologies, creative industries, indigenous arts, resources, education and defence and diversification of investments to ensure we do not put all our efforts in one basket.

“Collaboration and focus on areas of strength are crucial to the State’s success – connectivity through the internet provides the key to realising our potential...”

Chris Marlin
Chair, Information Economy Advisory Board

Information Economy Agenda priority areas

South Australia's Information Economy Agenda defines priority areas and actions in support of South Australia's Strategic Plan (SASP) and provides a framework for managing initiatives and partnerships between government, business, education and communities.

With the goal to maximise the social and economic benefits of ICT for the State, the IE Agenda's previous five priority areas were:

- Infrastructure
- Industry development
- Online content and applications
- Skills
- Social inclusion

Since the release of the IE Agenda in 2006, the world has witnessed profound changes. Millions of people worldwide are now connected using online social networks. Mobile devices are perceived as the communication platform of the future. Climate change is no longer a side issue but a mainstream concern. Attention is turning to the role that online networking can play in population health and wellbeing.

In light of these dramatic shifts in focus, it is time to review the IE Agenda's appropriateness and alignment with government policies.

South Australia's Strategic Plan (SASP) has identified broadband usage as a target towards a productive and economically sustainable State.

BUSINESS

EDUCATION

COMMUNITIES

GOVERNMENT

SASP Target 4.8 Broadband usage in South Australia to exceed the Australian national average by 2010, and be maintained.

While telecommunications infrastructure in the State is much improved, South Australia still trails the rest of the nation in the uptake of broadband. Skills shortages and a lack of confidence in using digital technologies stand in the way of the State achieving its potential. Innumerable emerging opportunities in the areas of digital capability and technology-based productivity growth require a rapid response.

To keep pace, we need:

- **Connectivity** - affordable broadband infrastructure
- **Capability** - businesses, individuals and government ready and willing to grasp opportunities
- **Content** - compelling online materials that support our social, education and business lives

These are the three C's driving South Australia's information economy.

We will measure our success by increased creativity, a globally competitive economic base, connected communities and citizen wellbeing.

“People in the biotech space are in general highly ICT competent and connected. The biotech industry is relying increasingly on high speed internet access as well as usage of high-performance computing”

Dr Jurgen Michaelis, CEO, Bio Innovation SA



The Three C's - Driving our information economy

CONNECTIVITY

Affordable broadband – the infrastructure of innovation – any time, any place

CAPABILITY

A skilled workforce and empowered businesses and communities. Learning, living and working online

CONTENT

Valuable information and applications, creating reasons to be connected

How the three C's fit in the information economy

All three C's are interrelated and necessary to maximise participation in the information economy. With a greater diffusion of *content* and increased *capability* comes higher demand and in turn a powerful aggregated capacity that can make our State more competitive within Australia and globally.

Connectivity is the foundation of an information economy, while building a confident, digitally skilled population, online security and support for our local creative content and ICT industry are the keys to a productive innovative economy and connected communities.

The IE Agenda has therefore renewed its focus on creating an environment where we can encourage our population to engage with the tools, techniques and processes involved in the information economy, setting the stage for ever greater participation and innovation.

Role of Government

The Government of South Australia recognises a strong need to collaborate and communicate with other jurisdictions to ensure our success. Government can best support industry by playing a facilitative role that includes seeking feedback from industry, increasing collaboration, and initiating mechanisms that engender positive change. However, the government cannot do this alone; it needs the support and commitment of local businesses and communities to embrace the information economy.

The IE Agenda is challenged to ensure the State's ICT activities are consistent with national and international policies and trends. The government will provide a platform for creativity, innovation and collaboration based on fast accessible broadband, a digitally literate population, and support for the local creative content and ICT industry. These are the ingredients necessary to succeed in a competitive global economy.

“Australia’s economic prosperity over the last decade and for the foreseeable future is critically dependent on productivity gains underpinned by innovation in information and communication technologies”

National ICT Australia (NICTA): *A 10-year Strategic Vision for the Australian Information and Communications Technology Sector*

Connectivity Affordable broadband – the infrastructure of innovation – any time, any place



From simple telephone calls to supercomputing, modern digital services are delivered using broadband. Broadband telecommunications infrastructure, wireless computing and mobile services are essential to allow South Australians to create, acquire and communicate information in value adding ways.



South Australia's Strategic Plan (SASP) identifies broadband usage as one of the challenges facing the State. We understand that widespread, high speed broadband is essential for South Australians to participate in the modern world. Emerging applications, such as high-definition video and voice over internet protocol (VoIP), require increasing amounts of bandwidth. With convergence and investment in next generation networks, the role of very fast optical fibre networks to the premises becomes increasingly important.

South Australia has increased broadband connectivity but accessibility and affordability continue to be issues impeding uptake and usage by South Australian households and businesses. Broadband connectivity for households and business premises as well as public access via libraries and community centres remains a priority to ensure the State progresses with the rest of the nation and the world in achieving economic growth and productivity. South Australia needs to address regional and metropolitan broadband access issues where commercial market drivers do not exist. The State must maximise national broadband roll-out opportunities and access to Commonwealth Government funding initiatives.

“We have created an information hungry society that expects to get information fast – broadband availability continues to be our single biggest issue”

Peter Vaughan, CEO, Business SA



WHY BROADBAND?

Broadband allows users fast, 'always-on' online access to digital content, applications and a range of services, some or all of which can occur simultaneously. Broadband access is of critical importance to take full advantage of new communication tools and next generation applications.

The State has a history of collaborative relationships with the telecommunications industry and local and Commonwealth governments, and is strategically contributing to national broadband infrastructure initiatives.

Connectivity priorities:

- Increase universal access to affordable, quality broadband infrastructure services
- Develop a State policy to facilitate broadband infrastructure development in greenfield housing and industrial sites
- Maintain collaborative relationships with the Commonwealth Government and respond to regulatory issues and national programs to ensure fit and maximise opportunities with State initiatives
- Proactively contribute to national policy directions to ensure the State maximises funding opportunities and benefits from major telecommunications infrastructure network roll-outs
- Achieve reasonable ratios of upload to download speed that encourage further participation, creativity and engagement



BROADBAND SA PROGRAM

The Broadband SA program was established to bring about a coordinated and strategic approach to dealing with issues relating to broadband telecommunications services across the State. Broadband SA is responsible for a number of initiatives such as:

- **Policy** – achieving the SASP Target 4.8 Broadband Usage
- **Broadband Development Fund** – investing in viable broadband infrastructure
- **Mapping** – mapping the coverage and capacity of broadband infrastructure in South Australia
- **Research and measuring impact** – determining broadband drivers and usage across the State to inform strategies and responses
- **National agenda** – providing input to national broadband policies and initiatives

“The deployment of broadband on the Yorke Peninsula provided regional total economic benefits of \$21.4 million with State-wide total economic benefits of \$25.5 million over five years”

Creating new markets: broadband adoption and economic benefits on the Yorke Peninsula

Report prepared by: Systems Knowledge Concepts Pty Ltd



SABRENet scales up

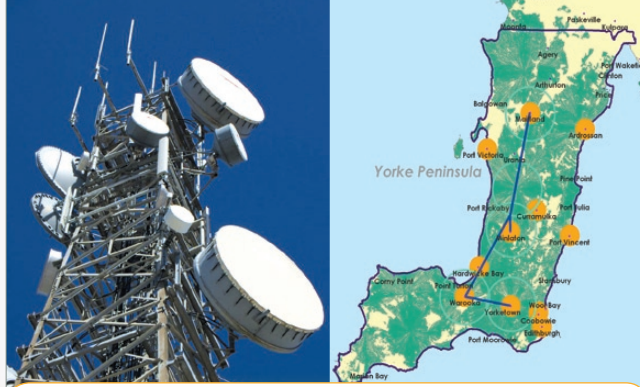
The Government of South Australia has appointed SABRENet Ltd to extend its ultra-fast optical broadband network to Australia's premier naval industry precinct, Techport Australia.

The new extension will connect to the Maritime Skills Centre, linking the centre to all of the State's other education and R&D centres.

SABRENet will also support advanced industrial research and training at facilities such as the Air Warfare Destroyer Systems Centre and Raytheon Australia's South Australian Engineering Centre.

SABRENet is a joint initiative of the Government of South Australia, the three public South Australian universities and Defence Science and Technology Organisation (DSTO). It has grown rapidly from being a largely university-focussed project to connecting large schools, TAFE colleges, government laboratories and, now, a major industrial precinct.

SABRENet's reputation as a dependable, scalable and very cost-effective infrastructure platform, underpinning vital research and education initiatives in South Australia for many years to come, will be further enhanced with the connection of Techport Australia.



Yorke Peninsula makes connections

Economic development in regional South Australian communities has been given a boost with the establishment of Australia's first region-wide wireless network to use WiMAX (Worldwide Interoperability for Microwave Access) wireless technology. Yorke Peninsula residents enjoy 98 per cent coverage of broadband in their region and have embraced the technology. Their growing participation has been assisted by a series of information sessions explaining to residents how they can use broadband to engage safely and productively in online activities.

The success of the "Broadbanding of the Yorke Peninsula" project was due largely to the collaborative efforts of the District Council of Yorke Peninsula, the Commonwealth Government, telecommunications carrier Agile Communications/Internode and the Broadband SA team.

The Government of South Australia with financial support from the Australian Communications and Media Authority (ACMA) undertook research to determine the economic benefits arising from the Yorke Peninsula broadband deployment. The report showed that the deployment of broadband provided regional total economic benefits of \$21.4 million with State-wide total economic benefits of \$25.5 million over five years.

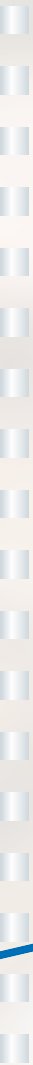
STRATEGIC APPROACH: CONNECTIVITY - Increase broadband access and affordability by

Objectives	Alignment with SASP Targets	State of Play	Current and Future Actions
Increase access to affordable quality broadband	T1.1 Economic Growth T1.2 Competitive Business Climate T1.5 Business Investment T1.21 Strategic Infrastructure T4.7 Business Innovation T4.8 Broadband Usage	SA is behind the nation in the availability and take-up of broadband	<ul style="list-style-type: none"> Continue the operation of the Broadband Development Fund (BDF) Develop projects that increase access and affordability of broadband throughout South Australia Review the effectiveness of BDF investments and the economic benefits of broadband Promote use and extended deployment of SABRENet high-speed fibre network in metro Adelaide Leverage the State Government's wide area network, StateNet
Increase accessibility to broadband in metropolitan areas	T1.1 Economic Growth T1.2 Competitive Business Climate T1.21 Strategic Infrastructure T4.8 Broadband Usage	Some Adelaide households and business premises are located in blackspot areas	<ul style="list-style-type: none"> Implement strategy to increase accessibility of broadband in metropolitan Adelaide Increase awareness of broadband access and choices Determine the impact of the National Broadband Network (NBN)
Expand regional broadband initiatives	T1.1 Economic Growth T1.21 Strategic Infrastructure T4.8 Broadband Usage T5.9 Regional Population Levels	A proportion of regional SA has limited access to high speed broadband	<ul style="list-style-type: none"> Develop a clear picture of long term needs and solutions beyond the reach of the National Broadband Network (NBN) Develop with the Commonwealth Government suitable funding models to fund the roll-out of infrastructure to deliver these long term solutions Seek market proposals to deliver solutions to regional and remote locations outside of the NBN roll-out
Maintain inter-Governmental and industry liaison	T4.8 Broadband Usage	Broadband SA has established collaborative relationships	<ul style="list-style-type: none"> Consult with Commonwealth Government to ensure SA benefits from roll-out of next generation broadband Monitor and respond to national telecommunications policy and programs and ensure SA is well represented in national broadband policy groups and strategically benefits from national programs Monitor broadband telecommunications industry and next generation broadband technologies
Increase broadband infrastructure development in greenfield housing and industrial estates	T1.1 Economic Growth T1.2 Competitive Business Climate T1.21 Strategic Infrastructure T4.8 Broadband Usage	The State does not have a mandated policy for greenfield broadband projects	<ul style="list-style-type: none"> Develop a State policy to facilitate broadband infrastructure development in greenfield housing and industrial estates Influence establishment of cutting edge broadband services in major greenfield developments

Capability A skilled workforce and empowered communities - learning, living and working online



Within an information economy, “capability” relates to the skills and confidence needed to use ICT to increase productivity and innovation, ranging from a basic level of digital literacy for all South Australians through to encouraging people to become highly skilled ICT specialists at the cutting edge of innovation and invention.



Digital literacy

Digital technologies have become tools of choice for social engagement, information gathering and participation in the information economy. Being digitally literate has become essential for all citizens, and web access needs to be improved across the board, aligned with creating confidence in the online environment by addressing internet security and safety. Digital literacy should be considered as a core competency along with language and numeric skills.

It is important to identify the value of digital literacy for consumers by making relevant content readily available, by providing pathways for people to become producers and suppliers in the digital economy, and by identifying opportunities for e-commerce.

Opportunities to develop competence and confidence in ICT should be available to all citizens. However, a percentage of our population is not engaged, whether by disability, income, location or inclination. For example, the importance of online participation as a determinant of health and wellbeing is beginning to emerge, particularly for people who are geographically or emotionally isolated.

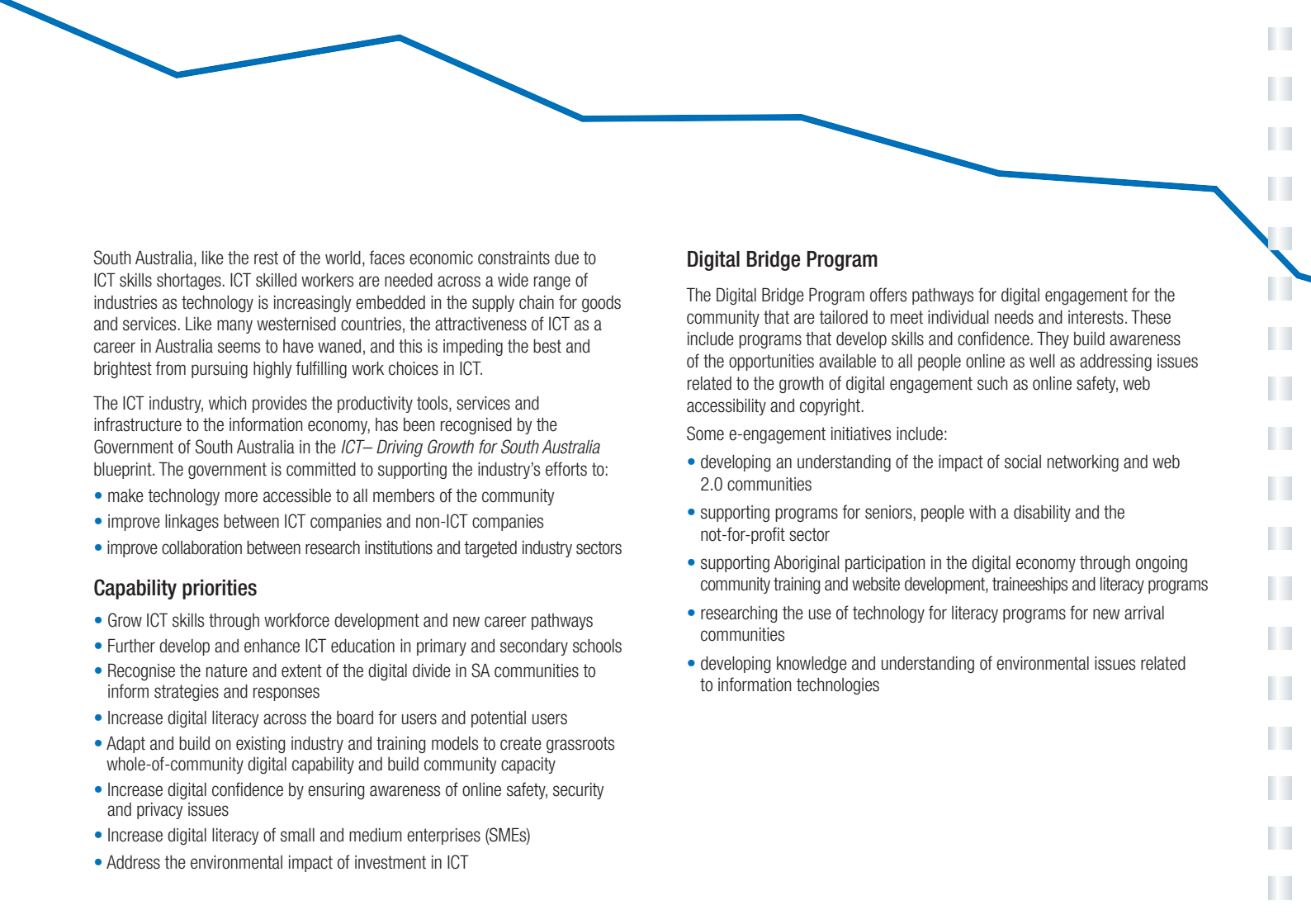
Training, education and e-learning

Improved digital literacy will help people enjoy expanded opportunities for education, employment and social inclusion generally.

Increased online connectivity presents exciting opportunities in relation to the flexible, customised delivery of education and training. Teaching and learning can occur in the home and the workplace as well as in the classroom, and at times that suit busy lifestyles.

“People make better use of technology when they understand it and feel comfortable using it, conversely they will under-utilise the tools at their fingertips when these tools are not highly intuitive and user friendly”

Alan Noble, Head of Engineering,
Google Australia
Member of the IEAB



South Australia, like the rest of the world, faces economic constraints due to ICT skills shortages. ICT skilled workers are needed across a wide range of industries as technology is increasingly embedded in the supply chain for goods and services. Like many westernised countries, the attractiveness of ICT as a career in Australia seems to have waned, and this is impeding the best and brightest from pursuing highly fulfilling work choices in ICT.

The ICT industry, which provides the productivity tools, services and infrastructure to the information economy, has been recognised by the Government of South Australia in the *ICT – Driving Growth for South Australia* blueprint. The government is committed to supporting the industry's efforts to:

- make technology more accessible to all members of the community
- improve linkages between ICT companies and non-ICT companies
- improve collaboration between research institutions and targeted industry sectors

Capability priorities

- Grow ICT skills through workforce development and new career pathways
- Further develop and enhance ICT education in primary and secondary schools
- Recognise the nature and extent of the digital divide in SA communities to inform strategies and responses
- Increase digital literacy across the board for users and potential users
- Adapt and build on existing industry and training models to create grassroots whole-of-community digital capability and build community capacity
- Increase digital confidence by ensuring awareness of online safety, security and privacy issues
- Increase digital literacy of small and medium enterprises (SMEs)
- Address the environmental impact of investment in ICT

Digital Bridge Program

The Digital Bridge Program offers pathways for digital engagement for the community that are tailored to meet individual needs and interests. These include programs that develop skills and confidence. They build awareness of the opportunities available to all people online as well as addressing issues related to the growth of digital engagement such as online safety, web accessibility and copyright.

Some e-engagement initiatives include:

- developing an understanding of the impact of social networking and web 2.0 communities
- supporting programs for seniors, people with a disability and the not-for-profit sector
- supporting Aboriginal participation in the digital economy through ongoing community training and website development, traineeships and literacy programs
- researching the use of technology for literacy programs for new arrival communities
- developing knowledge and understanding of environmental issues related to information technologies

“Unlocking the potential in people within schools, workplaces and homes is what today’s software is all about. There are so many examples of innovative South Australian organisations delivering real value for the State and growing the information economy”

Mike Duhne

State Director, Microsoft South Australia

Member of the IEAB



SA.NET Cluster

The Australian Information Industry Association (AIIA) and Microsoft, with the support of the Government of South Australia, have established an industry-led initiative to form SA.NET, an ICT industry cluster of companies with a common interest in the Microsoft .NET platform. With other stakeholders, it is planned to unite efforts on local industry development and raise the profile and capability of the SA commercial software industry.

The philosophy is simple: that ICT SMEs can work with other complementary companies to overcome limitations, generate new ideas and ways of doing business and ultimately expand their market reach and penetration.

Members of the SA.NET cluster will be able to:

- establish partnerships with like-minded Australian companies
- identify skills and synergies; pool resources
- share knowledge and forge alliances with multinational corporations
- access new markets



ICT Innovation Partnerships

The SA Government and the SA branch of the AIIA have established a competitive, merit based grant scheme to:

- promote business innovation in the government through ICT
- accelerate the development of ICT companies in SA
- increase the likelihood of commercialising innovative products or services

ICT Innovation Partnerships (IIP) is a product of South Australia’s ICT blueprint: *ICT – Driving Growth For South Australia*. Applicants partner with a government agency and have access to mentoring and coaching to enhance their commercial skills. If successful in government, the scheme may be expanded to facilitate partnering between innovators and industry in South Australia.



Wangka Wilurra

Over four years, the Aboriginal communities of Eyre Peninsula and the West Coast have been supported in developing internet skills and an online presence. The website, www.wangkawilurra.com, showcases each of the communities and their particular interests and languages and provides an incentive for community members to develop computer and internet skills, and community training.

An initiative of the former Regional Council, this project provides access to global markets for local enterprises and tourism activity.



Outback Connect

Outback Connect Extension

Outback Connect develops capability by providing free basic ICT training to people living in regional areas who would otherwise not have access to such services. Established in 2006, Outback Connect uses the “virtual classroom” model.

So far, more than 1400 people have participated in Outback Connect.

The value of the Outback Connect program is in recognising that people need ongoing and regular support to gain the confidence and skill to maximise the benefits of being online.



Mobile Enterprise Growth Alliance

In the fast-growing mobile content and applications arena, the Mobile Enterprise Growth Alliance (MEGA) program aims to leverage the existing talent pool and attract new talent.

A South Australian initiative, MEGA brings together creative, technical and business students and professionals and, with the help of industry, investors, education and government, prepares them to develop services and products for commercialisation and to improve their employability skills.

The first winner of the national MEGA program pitching contest, Chronicle Mobile, is the brainchild of Daydreamgfx. Chronicle is a mobile pain management application.

STRATEGIC APPROACH: CAPABILITY - build a confident, educated and digitally literate population

Objectives	Alignment with SASP Targets	State of Play	Current and Future Actions
Increase the digital literacy of users and potential users	T1.10 Jobs T1.26 Aboriginal Employment T2.7 Psychological Wellbeing T4.8 Broadband Usage T6.2 Early Childhood Literacy	In a highly skilled, ICT reliant society, low levels of digital literacy create and exacerbate social disadvantage	<ul style="list-style-type: none"> • Develop strategically targeted State programs to increase digital literacy skills of users and potential users • Adapt and build on existing training and education delivery mechanisms across the State for the delivery of digitally literacy training and education programs
Increase people's confidence in using digital technologies	T1.10 Jobs T2.12 Work-Life Balance T4.8 Broadband Usage	Online security, safety and privacy issues are affecting people's confidence in participating in the information economy	<ul style="list-style-type: none"> • Ensure awareness of online safety, security and privacy issues • Promote understanding about how to manage digital identities and personal information online
Grow ICT skills through existing workforce development and career pathways	T1.6 Labour Productivity T1.10 Jobs T1.12 Employment Participation T1.13 Employment in Defence Industry T4.1 Creative Industries	South Australia faces economic constraints due to ICT skills shortages for all industries	<ul style="list-style-type: none"> • Develop an ICT skills strategy for SA - conduct an audit of existing ICT skills, ascertain current state of ICT supply and demand • Ensure all students leave school digitally literate, through appropriate early childhood, primary and secondary curricula and teaching • Leverage the activities of all Australian governments and industry associations in the promotion of ICT as a career • Influence SA Government initiatives to develop ICT workforce for all industries • Through the MEGA Project model a successful cross discipline skills and workforce development strategy
Increase innovation through the use of digital technologies	T4.1 Creative Industries T4.7 Business Innovation	Many SMEs need to increase their digital literacy and use of digital technologies including e-commerce	<ul style="list-style-type: none"> • Facilitate the development of new mobile content and applications services and products through the MEGA incubator workshop program • Establish further incubator programs building on the ICT Innovation Partnerships program. • Promote the use of digital technologies to increase productivity and innovation. • Raise awareness and capabilities of SA SMEs in using the internet for business • Increase participation in eBizSA
ICT blueprint strategy implementation for ICT in SA industry	T1.1 Economic Growth T1.14 Total Exports T4.1 Creative Industries T4.7 Business Innovation	ICT Blueprint released	<ul style="list-style-type: none"> • Increase linkages between ICT companies and non-ICT industry sectors • Increase awareness and participation of ICT companies in programs such as MEGA, Growing Global Companies and Venture Capital SA Equity Ready • Improve collaboration between research institutions and relevant industry sectors

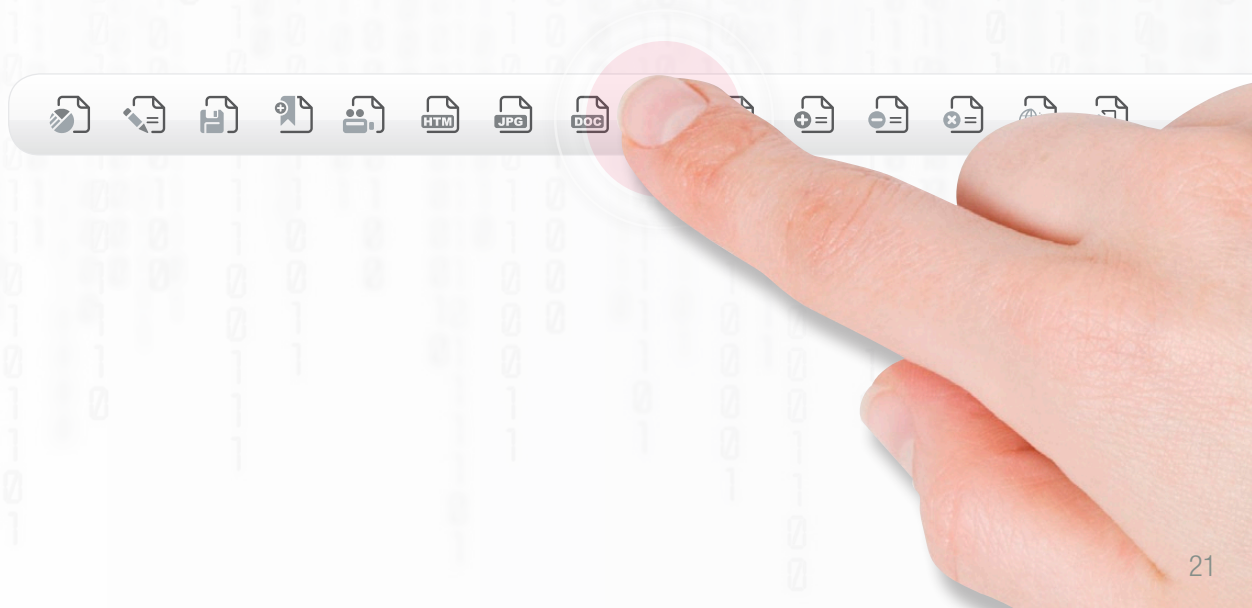
STRATEGIC APPROACH: CAPABILITY - build a confident, educated and digitally literate population

Objectives	Alignment with SASP Targets	State of Play	Current and Future Actions
Develop e-learning capability of State education and training sector	T1.10 Jobs T1.12 Employment Participation T1.16 Labour Productivity T4.8 Broadband Usage T6.21 VET Participation	The need to increase access to flexibly delivered education and training is key to developing a highly skilled workforce, which benefits from lifelong learning pathways	<ul style="list-style-type: none"> • Promote recognition of the central role ICT has in flexible customer centred learning delivery • Support developing e-learning competencies by VET providers • Enable improved access to e-learning resources and materials for preschool, primary and secondary students • Leverage Commonwealth investment in e-learning by partnering with programs such as Australian Flexible Learning Framework and education.au • Through the MEGA Program model the use of e-learning and e-collaboration using web 2.0 technologies
Understand the nature and extent of digital divide in SA communities	T1.11 Unemployment T1.26 Aboriginal Unemployment T2.7 Psychological Wellbeing T4.8 Broadband Usage T5.9 Regional Population Levels T6.1 Aboriginal Wellbeing T6.5 Economically Disadvantaged T6.22 People with Disabilities	Digital divide issues are of a low profile and not well understood	<ul style="list-style-type: none"> • Map the SA digital divide and develop a Digital Inclusion Strategy and responses to issues • Promote digital divide issues to relevant state and Commonwealth agencies
Environmental sustainability of social investment in ICT	T3.7 Ecological Footprint T3.7 Zero Waste	ICT is a significant new source of hazardous waste and also represents opportunities to reduce environmental pollution through improved efficiencies and service delivery	<ul style="list-style-type: none"> • Promote awareness of environmental issues among ICT users • Develop strategies that enable ICT usage to become a carbon neutral activity for individuals and businesses • Promote the use of digital technology to enable more sustainable use of resources

Content Valuable information and applications, creating reasons to be connected



Online content encompasses all the services and personal experiences that give people reasons to be online, whether in the workplace, at home, in a learning environment, or elsewhere. Online content is broadly defined to include not only digital video and sound, but also ICT applications that provide information, enable transactions or deliver entertainment and services over broadband networks, including the internet and mobile platforms.



The IE Agenda takes into account that the availability of high-quality, sought-after, interactive content drives both connectivity and capability. When content is available, people demand “always on” broadband internet services. They seek to learn more – to become more capable so that they can access content more efficiently and use it more effectively.

Together, the three C’s of content, capability and connectivity are transforming high-growth industries such as scientific publishing, music, online computer games, mobile content, user created content and public sector information.

Accessible, diverse content enables research and spurs the creation of new devices and applications, driving entrepreneurship, growth and employment. Digital consumers are increasingly also creators and participants, contributing to the pool of vibrant new content and driving online innovation in social and business practices. “Public opinion” has taken on new meaning and power in the realm of online activism and democracy. Activism through blogging, social networking and email campaigns now competes with traditional media as a means of sharing opinions and raising the profile of special interests.

Home-grown cultural, scientific and public sector content reflects our knowledge, interests and perspectives as a State and as a country. This is helping to preserve the cultural identity of South Australians by making cultural content more accessible through digitisation and encouraging South Australians to create their own content.

South Australia’s digital media companies are recognised as world class, driving the use of new technologies. Rising Sun Pictures, Imagination Entertainment, the People’s Republic of Animation, Fusion, True Life Creations, Touche and Kojo Interactive are examples of local content creators making an impact on international markets.

Recognising the need to develop the digital media industry, the Government of South Australia has established the Digital Tomorrow Program. The program aims to improve skills pathways, generate and support startups and existing businesses.

All organisations need to consider how to make it easier for others to find and use their information. To answer this increasing need, the Government of South Australia has released an across-government ICT strategy, *Ask Just Once*, aimed at improving access to government services. For instance, citizens will be able to find the information they need from government through a common internet site. The *Ask Just Once* strategy aims to deliver an experience that suits the customer, rather than one that is based around the administrative structure of government.



The Government of South Australia recognises that transformational uses of government-held information needs to be encouraged. Using technologies that enable common use of content creation tools, businesses and citizens can more easily collaborate, innovate and form partnerships. They are developing new ways of doing business that were not possible just a few years ago.

In the same way, there is a growing expectation that governments will become both a consumer and supplier of intellectual property and data. For example, in partnership with industry, the government is determining ways to use mobile commerce, or mCommerce.

Content priorities:

- Develop the emerging local content/digital media industry
- Increase government digital media content so that the internet is the fully realised channel for service delivery
- Increase the number and type of users accessing and reusing government content
- Facilitate the development of digital media content for non-government use as part of the government's industry and social ICT support programs
- Understand how to appropriately protect, share and make accessible cultural content
- Create greater awareness of licensing and intellectual property issues in the digital world

“South Australia is the State of creativity – we have a fantastic opportunity to demonstrate our talent internationally, but we need to... bring together powerful collaborative teams who can create and deliver content. We need to take on some ambitious projects that will put the State on the map”

Chris Dalton, Australian Interactive Media Industry Association (AIMIA)



Social networking and government

Social networking websites are connecting people as never before. Young people in particular are joining existing networks and creating new ones. They are inviting friends to events, making connections and meeting online to lobby and advocate for issues and causes, both local and global.

These same people may never have engaged with government before, yet would if there were clear pathways, relevance and opportunities to do so in “their own language”.

The Information Economy Directorate and the Office for Youth are working together to set up a range of social networking tools that make it easy for young people to engage with the Office for Youth and to enable the office to communicate its range of programs and projects.

The outcomes will be shared with other interested Government of South Australia departments to further communicate to young South Australians the benefits of engaging with government.



Easy access to public services

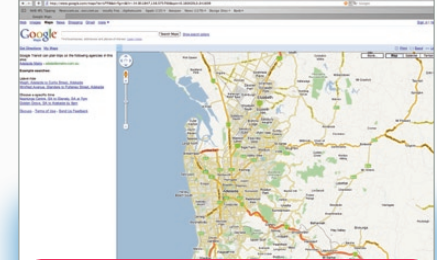
Imagine being able to register your car, respond to a tender and sign up for workshops to improve your business skills all in one place.

The common internet site for government program aims to deliver just that. Driven by the *Ask Just Once* strategy, the site will improve the way businesses and the community interact with government by providing services and information all in one place in a way that's easy to find and simple to use.

The focus of the program is on using technology to provide people with effective self-help ways to access services.

The government is moving services online successfully already. In 2007-8, Bizgate, the whole of government online payment channel, and EzyReg, the online registration and licensing payment system, together recorded more than 20% growth in transactions.

The common internet site will make it easier for more people to do even more online.



Public transport journey planner

The Department for Transport, Energy and Infrastructure (DTEI) has embraced Google Transit, a free online and mobile public transport journey planner.

Timetable information provided by Adelaide Metro allows Google Transit to display a map with departure points and trip times for public transport services.

In addition to offering commuters instructions for the correct and fastest public transport connections, Google Transit also highlights places to eat and shop once people reach their destination.

By encouraging use of public transport, the Google Transit journey planner will help reduce greenhouse gases and the impact of cars on infrastructure.

STRATEGIC APPROACH: CONTENT - support the development of local South Australian content

Objectives	Alignment with SASP Targets	State of Play	Current and Future Actions
Develop the local digital media industry	T4.1 Creative Industries T4.2 Film Industry T4.7 Business Innovation T4.8 Broadband Usage T4.9 Public Expenditure T6.2 Early Childhood Literacy	Implementing the Creative Industries Program by: <ul style="list-style-type: none"> • Generating new startups • Growing startups and existing businesses • Facilitating industry collaboration • Developing skills and a human resources base for the industry 	<ul style="list-style-type: none"> • Support emerging local digital media industry through the Digital Tomorrow Program, including: <ul style="list-style-type: none"> - a range of initiatives to articulate pathways into the industry for students/graduates - entrepreneurship training to address opportunities in the digital media industry - delivery of short courses and programs that enhance creative, technical and entrepreneurship skills - subsidised studio space for digital media startups - small grants to digital media startups to assist with business establishment costs - grants to assist established digital media companies to commercialise intellectual property • increase awareness and participation in Growing Global Companies and Venture Capital SA programs by digital media companies • New Media Awards – a program targeting primary and secondary school students to encourage development of media skills
Implement a single entry point strategy through the creation of a common internet site for Government	T1.10 Jobs T1.26 Aboriginal Unemployment T2.7 Psychological Wellbeing T4.8 Broadband Usage	<i>Ask Just Once</i> strategy is driving programs to transform the delivery and access to government services	<ul style="list-style-type: none"> • The performance of all channels, including online or electronic channels, are improved so that the customer's needs are satisfied at least 80% of the time through the initial query • All appropriate government services are available online using standardised, consolidated and, where appropriate, rationalised technology infrastructure • All government contracting, tendering and transactional services will be able to be processed electronically • All business related licenses and permits will be accessible online or through a one-stop shop
Encourage transformational uses of Government-held information	T1.7 Performance in the Public Sector: customer and client satisfaction with Government services T1.9 Performance in the Public Sector: administrative efficiency T4.7 Business Innovation	Determining suitability of a common approach to managing government intellectual property	<ul style="list-style-type: none"> • Assess the potential for adopting a more open approach to intellectual property and intellectual property rights management • Develop an implementation plan for government to adopt a flexible Information Licensing Framework • Determine ways to use government information to develop mobile commerce services
Increase awareness of licensing and intellectual property issues in the digital world	T4.1 Creative Industries T4.7 Business Innovation T4.8 Broadband Usage	As people engage in the information economy licensing and intellectual property issues will increase	<ul style="list-style-type: none"> • Raise greater general awareness of licensing, copyright and intellectual property issues in the digital world • Raise awareness about the issues for creators and users of intellectual property

An ideal information economy - Using digital technologies to drive productivity and economic growth

Across the information economy ecosystem, these are some examples of activities and challenges that would be embedded in an 'ideal' information economy.



Environment

IE and the ENVIRONMENT

1. ICT industry leads the way in reducing its own greenhouse gas emissions and developing tools to enable other industries to do the same.
2. Community centres built around public transport nodes deliver broadband services and reduce commuter travel and emissions.
3. Energy usage monitored and controlled around home and office via digital devices.
4. New technologies make public transport a more attractive option: timetables and maps accessed via mobile devices.
5. Global Positioning Systems (GPS) in vehicles provide real time traffic and weather updates and modify location information as it changes.

Challenge: Containing costs in carbon economy; controlling digital waste



Work

IE and the way we WORK

6. Citizens stay in workforce longer, enabled by lifelong learning and teleworking.
7. South Australians compete in globalised ICT skills marketplace by offering quality, reliability and creativity.
8. Citizens derive more income from niche online activities.
9. Success of knowledge workers measured by output not hours.
10. Greater opportunity for people in regional centres to develop diverse careers, independent of location.

Challenge: Increased competition for ICT talent.



Education

IE and EDUCATION & TRAINING

11. Digital content for education and training becomes more engaging, offering more meaningful, personalised learning.
12. Learning/training options expanded by systems that assist creation, adaptation and exchange of digital learning materials and experiences.
13. Children and adults can learn any time, anywhere; boundaries set by school location or home country disappear.
14. Haptic, or "virtual hands-on" training and education delivered routinely to remote students.

Challenge: Without broadband access, students or would-be students are severely disadvantaged.

Many of these activities are already under way and will become commonplace as citizens' participation and engagement in the information economy grows. An ideal information economy requires all our citizens to participate collectively and embrace digital technologies.



Society



IE and SOCIETY

15. Social lives are enhanced by increasing understanding of other cultures.
16. Public safety increases as people and objects are tracked in real time using sensors and location based services.
17. Leisure and entertainment increasingly take place online.
18. Radio Frequency Identification (RFID) tagging is commonplace, creating an "internet of things".

Challenge: Digital divide may deepen between the ICT-rich and the ICT-poor.



Business



IE and BUSINESS

19. Businesses increasingly use online applications and tools.
20. Businesses explore new digital opportunities and business models.
21. Intellectual property (IP) protection and copyright create new global business opportunities for IP and content owners and creators.
22. State's digital content production increases, with success defined by size, growth and productivity.

Challenge: Businesses must embrace digital technologies to drive productivity and economic growth.



Health



IE and HEALTH

23. Healthcare delivered online to regional centres; even in larger centres, diagnosis and treatment of minor ailments and management of chronic illness takes place online.
24. Metropolitan and regional areas converge with online delivery of health and education, government services.
25. The convergence of technologies and devices enabling citizen safety: eg, boating accidents, speeding vehicles tracked in real time, roadside electronic signing.

Challenge: Limited access to high quality broadband continues to challenge uptake of online healthcare delivery in remote regions.

A CALL FOR ACTION – 2014 and beyond



Today, our vision for creating a framework for a sustainable information economy is based on the three C's of connectivity, capability and content. By 2014, based on the rate of technology development and the vision of the State Government and the Information Economy Advisory Board, ICTs will be integrated into our lifestyles. South Australians will witness an upsurge of creativity and productivity, while building sustainable businesses and taking care of our own health and the health of the planet.

Today's digital technologies may evolve to go beyond the three C's to further reflect the dynamics of creating a sustainable digital economy beyond 2014.

The State's future performance in the information economy will be the result of the collective actions of all citizens to enhance creativity, community engagement and economic prosperity.

PEOPLE

Creators and Consumers of Content – services or value propositions that are wanted or needed by others

TECHNOLOGY

Convergence, Confidence and Customisation – devices provide a totally customised and individual experience

INFORMATION

Content, Content, Content – as and when you want it

MORE

This document is the result of extensive collaboration and surveys of researchers, industry participants, the ICT industry itself and government stakeholders. The information economy is dynamic and, likewise, the information economy agenda is continually evolving. Please visit www.informationeconomy.sa.gov.au to access additional detail and regular updates and provide your feedback.



“Part of the appeal of thinking about the future is that it lets us imagine the ways things could and should be, not the ways they are today. Thinking about the future of technology has a similar appeal. If we get it right, we can have technologies that matter and make a difference, technologies that are simple and straightforward, technologies that delight us, empower us, engage us”

Genevieve Bell, PhD, Adelaide Thinker In Residence and Director, User Experience, Digital Home Group, Intel



**Government of
South Australia**

