

# READY, GET SET, GO DIGITAL

A Digital Action Plan for Australia



Australian Government

Department of Communications,  
Information Technology and the Arts



Ready, Get Set, Go Digital—  
A Digital Action Plan for Australia



ISBN 0 642 75370 9

© Commonwealth of Australia 2006

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Department of Communications, Information Technology and the Arts.

Requests and inquiries concerning reproduction and rights should be addressed to:

The Commonwealth Copyright Administration  
Attorney-General's Department  
National Circuit  
BARTON ACT 2600

Or posted at [www.ag.gov.au/cca](http://www.ag.gov.au/cca)

# Minister's foreword



As technology evolves, consumers are demanding always-on, anywhere access to their favourite content – whether it is on the television, their mobile phone or their computer. It is this passion for new services and improved technology that is driving the international switch to digital. Digital television is more efficient, more interactive, offers better picture and sound quality and delivers innovative new services to consumers.

Across the globe, governments are considering how best to help their countries make the digital switch. For its part, the Government wants to work towards a Digital Australia for the many benefits it brings.

Digital switchover is a key element of a package of broader reforms to the Australian media landscape. As part of these reforms, Australian consumers will see the emergence of a range of new digital only services to help make the digital experience more attractive. New digital channels will emerge and current free-to-air broadcasters will be able to boost their range of services with secondary digital channels.

In addition to improved picture and sound quality and new services for Australian consumers, the switch to digital will also deliver a digital dividend to all Australians by bringing to an end the costly simulcast period and freeing up valuable spectrum for better and more efficient use.

Over the next few years Australians will hear more and more about digital—its benefits, new channels that will be on offer and information about Australia's transition to digital switchover which will commence in 2010–12.

During the transition to digital television the Government's priority is consumers. We want to ensure that all Australians can benefit from the switch to digital. The Government will work closely with the broadcasting industry to ensure the transition to digital switchover is as smooth as possible and keep consumers informed every step of the way. This is an exciting moment for Australian television—the journey to a Digital Australia has begun.

A handwritten signature in black ink, appearing to read 'Helen Coonan', followed by a horizontal line.

**Helen Coonan**

Minister for Communications, Information Technology and the Arts  
Deputy Leader of the Government in the Senate



# Contents



Minister's foreword .....	iii
Introduction .....	1
What is digital television? .....	3
What are the benefits of digital television? .....	4
New digital services .....	5
Digital television—where are we now? .....	7
An action plan for digital switchover .....	11
Digital switchover timetable .....	12
Digital Australia .....	13
Industry Advisory Group .....	14
Consumer information and education .....	15
Labelling of equipment .....	17
Digital testing and conformance centre .....	19
The regulator—ACMA .....	21
Self-help retransmission facilities .....	23
Digital blackspots .....	25
Community television .....	27
Assistance to transition to digital .....	29
Nearing digital switchover .....	31
Tasks for switchover .....	32



# Introduction



Conversion to digital television is the most significant change in broadcasting in Australia since colour television was introduced in 1975. Now, more than thirty years later, the television viewing experience for Australian consumers is about to be revolutionised by digital technology. Digital television will provide more platforms for content, greater levels of interactivity as well as improved picture and sound quality. It will also enable more efficient use of broadcasting spectrum which will, in turn, free up more spectrum for new services.

Already the Government has taken steps to ensure consumers can enjoy the early benefits of digital. The two national broadcasters—ABC and SBS—currently broadcast extra digital only multi-channels. And from next year commercial broadcasters will be able to follow suit with high-definition digital multi-channels and can add to this with standard definition multi-channels in 2009.

Two new digital channels will also be allocated in 2007 to provide exciting new digital services for consumers. These could include new services available on your household television, or even television to a mobile device such as a mobile phone. But to truly experience the benefits digital television can offer, Australia must accelerate the move towards a full digital switchover. If Australia does not move to digital technology then it risks becoming an analogue backwater, with under utilised spectrum and a limited number of broadcasting services available to consumers.

In addition, if Australia does not accelerate towards digital switchover, broadcasters and the Government will continue to shoulder the burden of expensive simulcast costs and maintenance of two broadcasting infrastructure systems. Switching off the analogue signal will result in everyone benefiting from a 'digital dividend' of lower costs and more spectrum for innovative new uses.

The rest of the developed world is rapidly converting to digital. The United States, United Kingdom and the European Union are all in the process of converting their television signals. Australia needs to keep pace with the rest of the world and take advantage of digital innovation. Australian consumers will be the ultimate beneficiaries.

Digital television will provide more platforms for content, greater levels of interactivity as well as improved picture and sound quality.

There will be many steps in Australia's journey towards digital switchover. The final step will be turning off the analogue television signal. This Digital Action Plan is the roadmap for the conversion of Australian television to digital. It is an important document that will form the basis for a comprehensive and challenging plan for the future of television in Australia.

Preparation and management of digital switchover will be a substantial task involving careful technical planning and coordination of the efforts of the Government, the Australian Communications and Media Authority (ACMA), broadcasters, retailers, manufacturers and consumers. Ensuring that all Australians have access to the best possible digital television signal, irrespective of where they live, is the highest priority.

The process for converting Australia's television signal to digital has begun. The aim is to commence digital switchover in 2010–12 so Australian consumers will have plenty of time to get set for digital television. By working together we can achieve a smooth transition to a Digital Australia.

# What is digital television?



Digital television is transmitted via a digital signal rather than an analogue one. Analogue television is restricted in that it only allows one service to be provided on one television channel. Digital television uses more advanced technology that enables more services to be provided and greatly improves sound and image reception.

The benefits of digital are such that all television services worldwide are going digital and Australia cannot afford to be left behind. Over the coming years, manufacturers will stop making analogue transmission and reception equipment and producers will eventually stop making programs in analogue. Everything is going digital.

The switch to digital television does not mean that your current television set will become redundant. To watch digital television, consumers require either a:

- ▶ digital set-top box that plugs into a standard analogue television (each television unit will require its own set-top box); or
- ▶ pay television set-top box (which provides access to a number of free to air digital services through a pay television subscription); or
- ▶ fully integrated digital television set.

A standard free-to-air digital set-top box can retail for under \$100, and is very simple to install—much like a DVD player. In the majority of cases, existing antennas which are receiving local analogue television services will be in sufficiently good condition to receive digital television transmissions. Some households may need to consult a qualified technician to check that their existing antennae is working properly, and does not require adjustment.

A standard free-to-air digital set-top box can retail for under \$100, and is very simple to install—much like a DVD player.



# What are the benefits of digital television?

The Government will issue two new licences—one to provide in-home digital services and one for more innovative content which could include the broadcast of content over a mobile device, such as a mobile phone.

The benefits of digital television include improved picture and sound quality. It also enables broadcasters to show widescreen images and provide extra channels and new features such as electronic program guides and interactivity.

For example, both the ABC and SBS provide extra digital only channels, known as multi-channels, which deliver different content to that shown on their main channel. Several broadcasters have also been experimenting with interactive digital services which provide viewers with additional information about sporting events, election results or documentary subjects as they go to air.

Pay television providers offer channels where viewers can vote in online polls using their remote control, download pay-per-view movies or choose the news and weather information that is relevant to them.

From 2007, a range of new services could also be made available to Australian consumers. The Government will issue two new licences—one to provide in-home digital services and one for more innovative content which could include the broadcast of content over a mobile device, such as a mobile phone.

# New digital services



The Government's reform of the media industry will enable new, digital-only services to emerge from 2007 that will add to content currently available and help accelerate digital take-up.

As we head towards digital switchover consumers will be able to access:

- ▶ two additional television channels for new digital services including:
  - a free-to-air digital only service which will be able to be received on your ordinary home television. This service would be likely to have the capacity to broadcast up to eight new channels providing datacasting and narrowcasting services to your television set (known as Channel A); and
  - a service which could include the delivery of television content over a hand held mobile television device much like a mobile phone. A service devoted to mobile content could carry as many as 30 new channel streams of mobile television (known as Channel B).
- ▶ The ABC and SBS will be able to show an expanded range of content on their digital multi-channels (ABC2, SBS World News and SBS Essentials).
- ▶ Free-to-air commercial broadcasters will be permitted to provide a new digital multi-channel from 2007 and can increase the number of multi-channels shown from 2009.

With these new services the Government will make the digital experience more attractive for consumers so we can accelerate the take-up of digital television in Australia.

It is proposed that Channel A will be used for new free-to-air broadcasting services that can be received on ordinary standard home television sets, which is why they are often referred to as in-home services.

There will also be significant opportunities for a range of new broadcast services on Channel B. These services may include broadcasts to a handheld mobile television (DVBH) and may include new content made specifically for mobile TV. This type of service could potentially enable up to 30 channels to be available on the broadcast spectrum.

With these new services the Government will make the digital experience more attractive for consumers so we can accelerate the take-up of digital television in Australia.



# Digital television—where are we now?



The transition of Australian television to digital started in 2001. Digital switchover was originally scheduled to occur in Brisbane, Sydney, Melbourne, Adelaide and Perth on 31 December 2008 and in regional areas on either 31 March 2011 or 31 December 2011. However, market forces alone have failed to drive digital take up to a level which would enable that timetable to be met in its entirety.

In recognition of the fact that those dates may not allow enough time for digital infrastructure to be rolled out across the country and for Australian households to have all converted to digital, the Government will reset the timeframe to commence in 2010–12.

Therefore, the Government is putting in place a comprehensive Digital Action Plan in order to accelerate digital take-up and prepare Australia for switchover.

This will basically align Australia's switchover timetable with the rest of the developed world. Across the world other countries have encountered similar challenges and have revised their original switchover dates. The United Kingdom has revised its plans and has now committed to firm dates for switchover in the period 2008-12 by commercial broadcasting region. In the United States, the original date was the end of 2006, but has since been revised to a date of 17 February 2009 nationwide. Italy and the Netherlands are also likely to revise their dates in the near future.

At the end of September 2006, the take-up of digital television in Australia was around 23 per cent, according to Digital Broadcasting Australia (DBA)<sup>1</sup> figures. Figures recently released by ACMA suggest that take-up may have climbed to 29 per cent<sup>2</sup>. Around 85 per cent of the Australian population can access digital services from all of their local free-to-air broadcasters (i.e. all local commercial channels and national broadcasters).

Approximately  
96 per cent of the  
population has  
access to at least  
one free-to-air  
digital service.

---

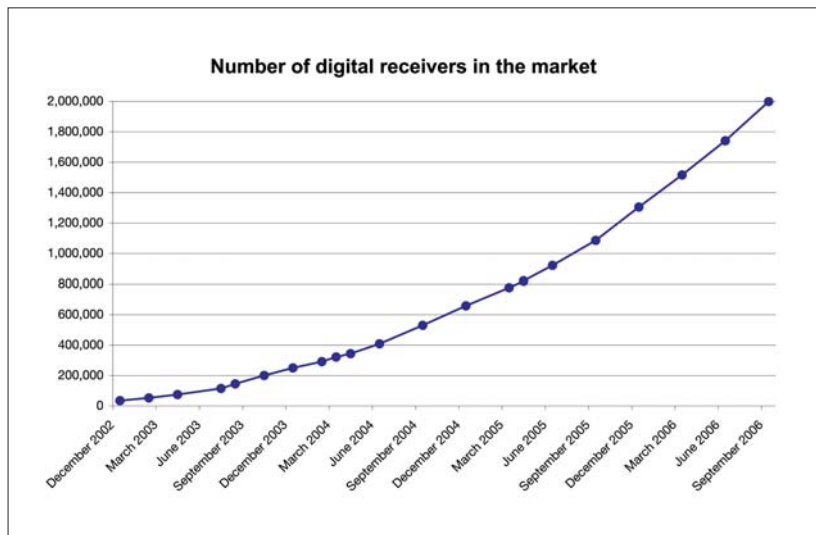
1 Digital Broadcasting Australia is a self-funded industry body whose membership includes broadcasters and broadcasting equipment manufacturers, retailers and technicians. It was set up to assist in making the transition from analogue to digital television as seamless as possible for the consumer. More information can be found at [www.dba.org.au](http://www.dba.org.au)

2 Australian Communications and Media Authority, *Digital Media in Australian Homes 2006*

Approximately 96 per cent of the population has access to at least one free-to-air digital service. Roll-out of transmitters to new areas in country Australia is continuing and the regional roll-out of digital television is due to be completed by 2011. Arrangements for remote areas of Australia are being settled.

At the end of September 2006, DBA estimated the number of free to view digital television receivers (both set top boxes, and television sets) sold to retailers and installers in the Australian market was in excess of 1.99 million. Many Australian households also receive free to air digital services via their digital pay television subscription.

**Figure 1: Digital take-up in Australia to September 2006**



**Source: Digital Broadcasting Australia**

Around 45 per cent of units were supplied in the 12 months to September 2006. Of the 253 000 units sold to retailers and installers during the September 2006 quarter, almost 45 per cent were high definition receivers. From June to September 2006, over 80 000 digital television receivers were sold to retailers and installers every month. Sales of both receivers and integrated digital television sets are increasing steadily.

As technology improves and digital take-up increases internationally, the range of digital receiver equipment is also increasing. More than 180 models of digital television receivers are available (approximately 100 standard definition and 80 high definition models). The price of basic receivers is also continuing to fall. Standard definition set top boxes retail in Australia from around \$90 and high definition set top boxes from around \$290.

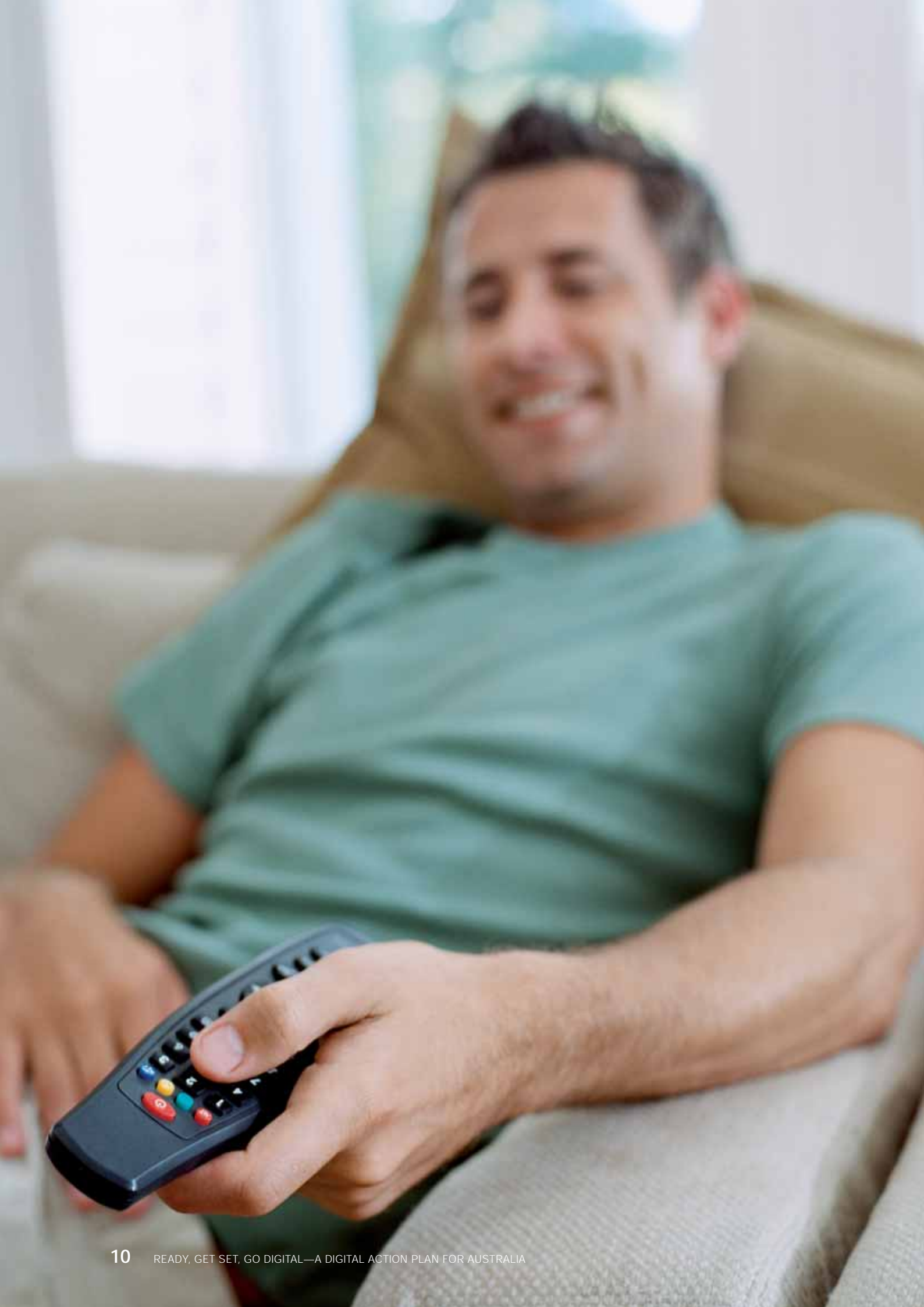
Set top boxes are quite small devices that can sit on top of, or near an analogue television set, much like a DVD player. A wide variety of styles are presently available on the market. The range of set top boxes is only likely to increase in the coming years, as more and more Australians make the switch.

The Government is making a significant investment in digital by supporting the conversion of the ABC, SBS and regional broadcasters to digital transmission. By 2010 it is expected that the Government will have invested more than \$1 billion to ensure the national broadcasters can replicate their analogue coverage in digital. The Government also expects to spend around \$250 million assisting the commercial broadcasters in regional and remote areas in their conversion to digital television.

Maintaining analogue television services and simulcasting television in both digital and analogue is expensive for both broadcasters and Australian taxpayers. It is also an inefficient use of spectrum which could otherwise be used to provide new broadcasting and communications services (e.g. digital radio, wireless broadband, other mobile and new television services).

A slow conversion to digital means that Australian viewers will miss out on the full benefits of digital television and we run the risk that, as other countries complete digital conversion, we may no longer be able to source analogue transmission and reception equipment or even analogue programming.





# An action plan for digital switchover



There are many issues to be addressed as Australia heads towards digital switchover. It is not simply a case of turning off the analogue signal or ensuring every Australian has a digital set-top box. If Australia does not appropriately plan for digital switchover, then many Australians could be left without a television signal when analogue is switched off.

The roll-out of digital transmission needs to be completed so that adequate infrastructure is in place to carry digital signals across the country, consumers need to be informed about the benefits of digital and new available services so that digital take-up increases, and technical and transmission matters need to be resolved. That is why the Government has prepared this action plan to ensure that industry, including broadcasters, manufacturers, retailers and technicians are working together with the Government to make the transition to digital a smooth one for all consumers.

The Government has recognised that both the roll-out of digital transmission and the take-up of digital television in Australia had not progressed to a point where Australia could meet its original timetable for digital switchover in 2008.

Across the world other countries have encountered similar challenges and have revised their original switchover dates. The United Kingdom has revised its plans and has now committed to firm dates for switchover in the period 2008–12 by commercial broadcasting region. In the United States, the original date was the end of 2006, but has since been revised to a date of 17 February 2009 nationwide. Italy and the Netherlands are also likely to revise their dates in the near future.

Digital switchover was originally scheduled to occur in 2008 and 2011 for metropolitan and regional areas respectively. The Government is now of the view that a more co-ordinated effort is required to achieve digital switchover across Australia and will reset the timetable to commence in 2010–12.

Outlined in this action plan are some of the many steps that the Government and industry need to take as we head towards digital switchover.

Outlined in this action plan are some of the many steps that the Government and industry need to take as we head towards digital switchover.



# Digital switchover timetable

A firm switchover timetable will provide certainty to broadcasters to complete digital roll out and for Australian consumers to make the transition to digital.

A firm switchover timetable will provide certainty to broadcasters to complete digital roll out and for Australian consumers to make the transition to digital.

To ensure that the new timeframe commencing switchover in 2010–12 is based on the best understanding of all possible options, ACMA will be asked to immediately commence a detailed analysis of all technical factors that may affect the timetable for digital switchover. This will include consideration of whether switchover should occur nationally or region by region.

ACMA will report to the Minister for Communications, Information Technology and the Arts as soon as possible. After considering ACMA's advice the Government will announce a firm timetable for digital switchover to occur in Australia, commencing in 2010–12.

As switchover approaches, the Government will consider whether a trial switchover in one or more areas would be useful. Trials have been undertaken in the United Kingdom and other countries to test technical and consumer readiness for digital switchover.

In Australia, some useful experience has already been obtained through the introduction of a third digital-only commercial channel to several communities, including Tasmania and Mildura, which previously had only two commercial television services.

# Digital Australia



The Government will establish Digital Australia—a dedicated digital switchover body within the Department of Communications, Information Technology and the Arts to coordinate and oversee Australia's transition to digital. Digital Australia will be set-up as soon as practicable and be located in Sydney in close proximity to industry and ACMA.

Digital Australia will provide a clear focal point for all Australians wanting to know more about digital switchover, when it is occurring and how it is being managed. Digital Australia's objectives are to:

- ▶ educate Australians on the benefits of digital television in order to accelerate take-up and inform consumers about the need to convert to digital transmission as switchover approaches;
- ▶ identify sections of the community which may have special needs and co-ordinate efforts to meet those needs;
- ▶ harness the expertise and co-ordinate the diverse interests of industry in the switchover process—broadcasters, receiver importers, antenna installers and retailers will all be called upon to participate; and
- ▶ work closely with Government and the regulator (ACMA) to ensure Australia is able to commence switchover in 2010–12.

Digital Australia will be responsible for revising and republishing the Digital Action Plan as stages of the plan are implemented.

The switchover body model has been successful overseas in managing digital switchover. In the United Kingdom a dedicated body, *DigitalUK*, has proven to be a useful focal point for nationwide decisions and information relating to switchover. In August 2006 Italy announced the formation of *Italia Digitale* to assist it to make the transition to digital television.

Digital Australia will be resourced to provide answers to all of Australia's questions about digital switchover. Its staff will be drawn from the broadcasting sector and be experienced in managing large projects.

Digital Australia's hotline and website, once established, will be particularly useful for Australian households and businesses seeking information regarding the switch to digital. The details of that hotline and website will be widely advertised as soon as they are in place in 2007.

Digital Australia will provide a clear focal point for all Australians wanting to know more about digital switchover, when it is occurring and how it is being managed.



# Industry Advisory Group

The success of Australia's transition to digital relies on close cooperation with industry including existing bodies such as DBA, supply-side and broadcaster industry associations and consumer groups.

The Government will also establish an Industry Advisory Group as soon as possible to work with Digital Australia and the Government on the implementation of the Digital Action Plan.

Broadcasters, manufacturers, retailers, antenna technicians, the Government and consumers all have a stake in digital conversion. The success of Australia's transition to digital relies on close cooperation with industry including existing bodies such as DBA, supply-side and broadcaster industry associations and consumer groups. Accordingly, the Government will be giving early consideration to the Industry Advisory Group's membership so that diverse perspectives in the sector are represented.

It is intended that the Industry Advisory Group will meet regularly to consider matters which may be referred to it by Digital Australia, or which its membership may identify as requiring consideration.

# Consumer information and education



There is evidence of a relatively low level of knowledge and understanding of digital television among Australians, including the impending switchover to digital and cessation of analogue services.

The ACMA survey, *Digital Media in Australian Homes*, released in 2005 found low levels of awareness of digital television. For example, over 16 per cent of surveyed households that had not taken up free-to-air digital television had not heard of it, over 28 per cent had heard of it but did not know if it was available in their area, and 38 per cent of all surveyed households did not know that analogue services would eventually be switched off.

When households that had not taken up digital television were asked to identify what they thought they should know about it, they identified the following issues:

- ▶ benefits and features;
- ▶ 'everything';
- ▶ costs;
- ▶ equipment requirements including aerials, compatibility with old televisions;
- ▶ number and types of digital channels; and
- ▶ the quality of the picture and reception and the degree of improvement.

This data, combined with the fact that sales of analogue televisions still exceed the sale of digital units, suggests that lack of consumer knowledge is a significant barrier to digital take-up.

During the transition to digital, consumers will need access to detailed information about the roll-out of digital services, aerial and cabling issues, factors affecting interference and where to go for technical support. An important part of this information will be a labelling system to inform consumers of the capabilities of television equipment at the point of sale, much like the 'energy star rating' system currently in place for electrical goods.

It is appropriate that industry, particularly broadcasters who are well placed to provide the most effective means of communications, should have a role in providing information to their audience. Digital Australia will undertake consumer and information campaigns and work closely with industry and industry representative bodies to complement, rather than duplicate, existing resources and expertise.

During the transition to digital, consumers will need access to detailed information about the roll-out of digital services, aerial and cabling issues, factors affecting interference and where to go for technical support.



# Labelling of equipment



It is critical that consumers are able to understand the capabilities of digital equipment which they might be purchasing over the coming years. That is why the Government supports the introduction of a comprehensive labelling scheme for equipment. A simple and easy to understand labelling scheme will reassure Australian consumers at the point of sale.

It is likely that a labelling scheme will involve an easily identifiable symbol—such as a ‘digital tick’ for example, to demonstrate that equipment is digitally ready. It may also demonstrate more specific information about the item’s capabilities. Australia consumers are already familiar with labelling schemes for equipment—the ‘energy star’ rating system works very effectively in relation to electrical equipment.

Without an easy-to-understand system of digital receiver labelling, consumers may be confused about the capabilities of the devices they are purchasing. For instance, many widescreen and high definition television sets still only come with analogue tuners, even though there may be an assumption that such sets are capable of receiving digital signals.

There is a need for clear information to be made available to consumers about the capabilities of television equipment and related devices such as VCRs and DVD recorders. Mandatory labelling may help consumers examine digital television issues more closely when making their next television or home entertainment purchase.

A labelling scheme is most likely to be effective where all equipment is labelled according to its functionality after digital switchover. For example, a scheme which applied to analogue equipment could indicate that, while a VCR will not be able to record after switchover unless connected to a set top box, it would still be able to play videos and so would not be obsolete. In addition to more accurately informing consumers about their options, such an approach may also allow industry to better market remaining stocks of analogue equipment.

Similarly, a basic digital product labelling regime would identify whether a device is capable or not of receiving digital television broadcasts. More sophisticated labelling schemes could include information as to whether the device receives standard definition only, or is capable of receiving high definition signals (or even what standard of high definition signal it can receive).

There is a need for clear information to be made available to consumers about the capabilities of television equipment and related devices such as VCRs and DVD recorders.

There is currently no industry-wide labelling scheme for digital television and related digital devices. While the Australian Electrical and Electronic Manufacturers' Association and the Consumer Electronics Suppliers Association published the *Digital Television Marketing Code* as a joint initiative in August 2002, that code performs a different function. It guides suppliers and retailers as to how best to market their product features and performance. It also assists consumers to distinguish at point of sale between analogue equipment and various types of digital equipment. However, the code is not aimed at providing advice to or raising the awareness of consumers about digital broadcasting, switchover and the limitations of analogue equipment.

The Government's media reform package gives ACMA the power to oversee the development of industry codes of practice. It is intended that a labelling scheme would take the form of an industry code of practice registered with ACMA.

ACMA will work with industry and Digital Australia to develop an industry code that will implement an appropriate and informative labelling scheme.

# Digital testing and conformance centre



The Government has committed to working with industry to establish a digital testing and conformance centre or facility. Appropriate testing of digital signals and receivers will provide the necessary assurance to consumers that their digital equipment will function effectively during its normal lifetime.

In particular, it will ensure that over-the-air software upgrades of receivers, when needed, can be made reliably and effectively. Over-the-air upgrades enable technical upgrades to be broadcast directly to consumer digital equipment, however upgrade technology needs to be thoroughly tested to ensure that it does not interfere with other digital equipment in the home.

A range of physical equipment will be needed for a facility, together with an appropriate operational plan that would ensure the facility is self supporting and sustainable. Given the range of possible options, the Department of Communications, Information Technology and the Arts will undertake further work to inform decisions about its set up and to get industry agreement on the form and function of a testing and conformance centre.

International experience strongly demonstrates the value of such a facility. The United Kingdom company DTG Testing Limited was formed in 2000 as a subsidiary of the Digital Television Group (the industry association for digital television in the United Kingdom) to carry out testing on digital television receivers.

DTG members include the United Kingdom's public and commercial broadcasters, equipment manufacturers, content providers, transmission infrastructure providers, the United Kingdom's communications regulator (Ofcom) and organisations seeking to have new products or services tested.

Appropriate testing of digital signals and receivers will provide the necessary assurance to consumers that their digital equipment will function effectively during its normal lifetime.



# The regulator—ACMA



ACMA will play an important role in the move to a digital Australia.

ACMA's current work regulating industry, administering digital conversion schemes and spectrum planning and dealing with other technical matters will continue. Importantly, ACMA will focus on assessing digital signal coverage and will begin working on the availability and possible use of spectrum following switchover. These uses could include digital radio, wireless broadband or other mobile and new television services.

ACMA will also conduct research which will inform other digital switchover initiatives such as education and communications campaigns and ACMA will play an important role in the ongoing evaluation of the plan.

ACMA will undertake a broad range of research as part of the Digital Action Plan to:

- ▶ better understand technical impediments to digital television take up;
- ▶ investigate technical matters related to digital television including improved measurement of digital signal coverage and the performance of digital television receivers; and
- ▶ commence work on issues associated with the return of analogue spectrum at the end of the digital/analogue simulcast period. This return of spectrum is commonly known as the 'digital dividend'. However, in order to ensure that optimum use is made of that spectrum for delivery of new services, there must be a detailed understanding of the impact of different uses and options. Given the technical nature of this work, it is most appropriate that it is undertaken by ACMA.

Monitoring the impact of digital technology on consumers will also be essential at all stages of the move to digital switchover. ACMA will collate this data and feed it back into the content of the Digital Action Plan so that the effectiveness of measures can be assessed. These activities will contribute to a faster and smoother consumer transition from analogue to digital television services.

Signal availability is one potential impediment to digital take-up. While planning of digital television has been based on achieving at least equivalent digital coverage of the current analogue signal, the 'real world' reception environment depends on a number of factors.

ACMA will focus on assessing digital signal coverage and will begin working on the availability and possible use of spectrum following switchover.

The reception experience of viewers needs to be understood, both in terms of the geographical coverage of digital signals, and the adequacy of the antenna and reception equipment at consumers' premises. This would enable the Government to consider whether any remedial action is required to ensure that all Australians are adequately served with digital signals.

ACMA will examine the potential uses of spectrum after digital switchover and how the 'digital dividend' can be managed to ensure the maximum public benefit.

ACMA's work will complement the work of Digital Australia. This research will assist in the ongoing refinement of the Digital Action Plan to ensure that it is well informed and responsive to developments in technology and consumers' likely response to different kinds of digital technology. This research will enable Digital Australia to make decisions and update the Digital Action Plan having regard to the best technical solutions and consumer interests. The Industry Advisory Group would also provide an industry perspective to inform ACMA's regulatory work.

# Self-help retransmission facilities



'Self-help' retransmission services have been installed as a means of obtaining better television reception in remote and regional areas of Australia. More than 600 communities have benefited from self-help retransmission.

Some 300 of these services were established wholly or partially with assistance from the Government's former Television Blackspots or ongoing SBS Self-help Retransmission programs. These programs provided funding assistance for the purchase and installation of equipment necessary to receive and locally retransmit a service from a nearby terrestrial transmitter or satellite. Communities are then responsible for meeting any ongoing licensing, operational and maintenance costs for the equipment.

However, as these communities are receiving analogue free-to-air television services it is likely that these communities will need special assistance to make the transition to digital. The Department of Communications, Information Technology and the Arts is investigating the cost and technical options for converting these sites. This matter will be considered further by the Government and Digital Australia in 2007.

'Self-help' retransmission services have been installed as a means of obtaining better television reception in remote and regional areas of Australia.



# Digital blackspots



Experience with analogue broadcasting suggests that there will likely be communities and areas which receive inadequate digital reception. Such 'blackspots' may or may not replicate analogue blackspots and their number, size and location cannot be determined until digital broadcasting is fully extended.

The Government is determined to ensure that reception challenges are overcome and will task Digital Australia and ACMA with identifying those challenges, and options to resolve difficulties when they are identified. It is essential that all Australians, irrespective of where they live, will be able to enjoy the benefits of digital television.

The Government is determined to ensure that reception challenges are overcome and will task Digital Australia and ACMA with identifying those challenges, and options to resolve difficulties when they are identified.



# Community television



The Government has committed to working with the community television sector as it makes the transition to digital as part of the Digital Action Plan. The sector is being encouraged to explore options for a simulcast arrangement with a digital platform operator.

There are presently community television services operating in Brisbane, Sydney, Melbourne and Perth in addition to trial services which operate in Adelaide, Mount Gambier and Lismore. They all operate on Channel 31. The sector produces around 164 hours of locally produced programming for ethnic, religious, Indigenous, youth, arts and sporting communities weekly. Hours of broadcast vary from station to station—while Sydney broadcasts 24 hours a day, Melbourne is on air for 22 hours and Perth and Brisbane for around 17 hours each day.

However, should no opportunity for a simulcast arrangement materialise, prior to digital switchover, the Government will consider the allocation of the Channel 31 analogue channel, for digital services. Any such allocation would be made with a 'must carry' requirement including as a condition of the allocation, digital community television services must be carried on that spectrum. Analogue community television services would then cease and community television broadcasters would operate in digital mode.

In the meantime, to prepare the sector for digital broadcasting the Government will also introduce into the Parliament any necessary legislative amendments to ensure that community television licensees are authorised to operate in digital mode.

The Government has committed to working with the community television sector as it makes the transition to digital as part of the Digital Action Plan.



# Assistance to transition to digital



One of Digital Australia's most important tasks is to ensure that wherever possible no Australian community or household is left without access to the benefits of digital television.

The Government recognises that some Australians may find it difficult to make the switch to digital—due to either personal circumstances or geographic location. However, digital take-up in Australia has not yet reached a level where the number and demographic of households who require extra help is apparent.

Digital Australia will be prepared to provide information and technical support to communities and individuals who may find the switch a little more challenging. The Government will also keep a close eye on the barriers to digital take-up and will consult with Digital Australia nearer to switchover as to how best to assist those who may be facing difficulties in converting to digital.

The Government recognises that some Australians may find it difficult to make the switch to digital—due to either personal circumstances or geographic location.



# Nearing digital switchover



Digital switchover provides a natural point at which the Government will revisit a range of policy settings. As part of the broader media reform package, a number of statutory reviews have been scheduled over the remainder of the simulcast period.

In particular, the reviews will examine:

- ▶ the ongoing rationale for and operation of the anti-siphoning scheme;
- ▶ the regulation of content on commercial broadcaster multi-channels; and
- ▶ whether or not additional commercial television licences should be allocated.

The Government has also signalled that the remaining restrictions on full multi-channelling will be removed at switchover or earlier should technical advances or any unanticipated delays in achieving switchover support the earlier removal of those restrictions.

The Digital Action Plan will be updated and revised as the digital transition continues. The broad ranging issues to be addressed and the tasks to be undertaken are critical to ensure that Australia maintains the momentum for digital switchover. Digital Australia will continue to develop the Digital Action Plan and guide Australia on the pathway to a digital future.

Digital Australia will continue to develop the Digital Action Plan and guide Australia on the pathway to a digital future.



# Tasks for switchover

<b>Digital Australia</b>	<b>Indicative timing</b>
Government to establish Digital Australia Government to appoint Industry Advisory Group to provide advice to Digital Australia	Currently being implemented
<b>New media services and reviews</b>	<b>Indicative timing</b>
Genre restrictions on national broadcaster multi-channels removed	Late 2006
Simulcast requirement on high definition television channels removed One high definition multi-channel per broadcaster permitted	1 January 2007
Allocation of two new channels for digital services New services commence	2007 To be announced
Commercial broadcasters permitted to provide one standard definition multi-channel each	1 January 2009
Review of content regulations for commercial multi-channels	Must begin at least one year before commencement of switchover
Review of anti-siphoning scheme (the 'use it or lose it' scheme will be introduced on 1 January 2007)	Must begin before 31 December 2009
Review of allocation of additional commercial television licences	Must begin before the commencement of switchover
Full multi-channelling	At the conclusion of the simulcast period (subject to review should technical advances or unforeseen delays support the earlier removal)
<b>Switchover timetable</b>	<b>Indicative timing</b>
ACMA to identify technical considerations for preparation of switchover timetable ACMA to report to Minister as soon as possible Government decision on new switchover timetable Regulations will be made containing details of timetable	2006–07  Early 2007
<b>Survey and research</b>	<b>Indicative timing</b>
ACMA will conduct further research and build on its existing surveys in relation to: <ul style="list-style-type: none"> <li>▶ consumer attitudes to digital technology and trends in its adoption; and</li> <li>▶ technical barriers to take up of receivers, home set ups, interconnection, aerial reception, affordability and support.</li> </ul>	Periodically
ACMA will monitor digital signal coverage and specifically the roll-out of digital infrastructure in rural and regional areas to ensure it is sufficient to deliver a digital signal.	2007–11
ACMA will identify how multi-unit dwellings (including apartment buildings, retirement homes, schools and hospitals), will convert as many of them have master antenna systems.	From 2007

The following table includes a list of tasks which Digital Australia and the Government may have to complete as Australia heads towards digital switchover. This task list is indicative only and will be updated as initiatives progress and the Digital Action Plan is implemented.



Education/information/advice	Indicative timing
<p>Digital Australia will work with industry, both through the Industry Advisory Group and DBA to manage ongoing consumer information and education including:</p> <ul style="list-style-type: none"> <li>▶ general information on the benefits of digital services and digital television;</li> <li>▶ the switchover timetable;</li> <li>▶ digital equipment and reception; and</li> <li>▶ helpdesk and hotline.</li> </ul>	2007 – switchover
Digital Australia will provide information to local government, landlords on how to convert multi-unit dwellings, including apartment blocks, hotels, schools and hospitals.	Periodically 2007 – switchover
Digital Australia will also provide advice for retailers/installers. It will work together with its advisory body and DBA to achieve this.	2007 – switchover
Specific switchover issues and drivers	Indicative timing
Government will work through Digital Australia to set up a testing and conformance centre.	As soon as possible
ACMA will ask industry to develop an appropriate code of practice in relation to a labelling scheme.	Development of code of practice as soon as practicable.
Community television	Indicative timing
Government will introduce any necessary legislative amendments to ensure that community television licensees are authorised to operate in digital mode.	As soon as practicable
Government will work with the community television sector to explore opportunities for simulcast and later conversion of Channel 31 to digital.	Near end of simulcast period
Assistance schemes	Indicative timing
<p><b>Self-help re-transmission</b></p> <p>Government will work through Digital Australia to determine the best method of conversion for self-help retransmission sites.</p>	2007–10
<p><b>Digital blackspots</b></p> <p>Government will work through Digital Australia to consider need for a digital blackspots program.</p>	Closer to switchover
<p><b>Help scheme</b></p> <p>Government will work through Digital Australia to ensure that wherever possible disadvantaged persons are supported in the switch to digital television.</p>	Closer to switchover