

**Joan Warner**

*Commercial Radio Australia*

**Australia is just one of several countries now rolling out digital radio services based on DAB+ and other members of the Eureka-147 family of standards. In their case, it is Commercial Radio Australia which is leading the DAB+ challenge, unlike in many other countries where it is the public broadcaster that is to the fore.**

**This article describes the evolution of radio broadcasting in Australia and, in particular, stresses the importance for the radio industry worldwide to establish a foothold in the digital dividend *now* ... and control its own digital destiny. There are many technologies competing for the all-important spectrum required for digital radio and – whether broadcasters are thinking about digital radio now or in the future – they cannot just sit back and watch as other media technologies move over to digital platforms.**

There are always doomsayers as you enter an exciting new era. They used to say that TV would kill radio and then it was the iPod and the internet and, more recently, podcasts. When you think about it – radio has defied generations of critics! It's a fluid, free-to-air medium that often ends up working brilliantly along with the very technology that is supposed to kill it off – including iPods, mobile phones and the internet.

Outlined below is radio's claim to a piece of the digital dividend and I'll use the Australian DAB+ rollout, and what we've learned so far, as a snapshot of the way in which radio broadcasters worldwide can secure not just their digital future but be leaders in the digital world.

So what is the digital dividend?

It is simply the situation that arises when spectrum is vacated, usually by television, in the move from analogue to digital. Bands of frequencies become available for other uses and I'll explain why radio has a right to benefit from this – at no cost to the industry.

## **Radio's evolution**

Commercial radio has existed in Australia for 85 years and we've been assailed by and have integrated new technologies for years. The first AM radio broadcasts began in Australia in 1923. These were commercial radio broadcasts. Since then, we have seen the invention of the transistor radio – the first form of mobile entertainment. Then came our love affair with the motor car and the rise of in-car listening. Neilson Media Research figures from 2008 show that nearly 30% of listening to commercial radio in Australia is done in the car.

Talk radio started in 1967 and with it ... listener interaction, music quizzes and the start of live reporting from the scene of action. FM was embraced in Australia in 1980. More recently the emergence of the internet, iPods and mobile phones has seen radio streamed to PCs and downloaded as podcasts.

With each major development, radio has adjusted its content, format and style to meet the needs of the audience. At the heart of radio's continued success is the industry's ability to adapt to change. The next change – to digital – is just another exciting challenge. But in order to meet this challenge ... we need spectrum.

## Australian Commercial Radio

There are 261 commercial radio stations in Australia: 42 serve the five major metropolitan areas while the remainder broadcast to regional and rural Australia.

Around 97% of Australians listen to the radio in an average week. Commercial radio is dominant – Australians spend 17 hours 2 minutes per week listening to commercial radio, which equates to two hours and 26 minutes per day. Breakfast is the most listened-to session, reaching nearly 80% of all people each week.

In Australia, the radio audience is growing, despite the wide range of technology choices and competition for listeners' time. Commercial radio revenue has been maintained while other traditional media are seeing revenues down by up to 30%.

Radio has been successful because it is free-to-air, accessible, and remains a trusted and important part of everyday life which keeps the listener in touch with what's happening both locally and globally.

## Radio revenues

In 2008, the Australian radio industry proved to be very resilient in tough times, recording similar revenue to 2007 – despite a challenging global economic environment.

During 2008, metropolitan commercial radio stations recorded only a slight decrease of about 0.1% on the revenue generated in 2007. 2009 is obviously turning out to be even tougher for everyone. So this year, Commercial Radio Australia launched an on-air campaign promoting the need to trade through the economic crisis and to continue advertising.

Advertising budgets are often cut when overall budgets are tight, so the radio campaign has been developed to encourage businesses to keep a high profile through advertising. The advertisements highlight that people are still buying things, eating out and going to the movies and that radio is a cost-effective choice in tough economic times.

This campaign is another example of how the radio industry believes in itself and is prepared to invest in its future.

## Digital radio

Digital radio is the next big step for radio. In Australia, and I would assume elsewhere, radio broadcasters will not sit back, with increasingly compromised spectrum, while other media move to digital platforms.

We have learned lessons from other digital radio rollouts throughout the world and we believe there are a number of key factors that will ensure a successful launch:

- the simultaneous rollout of digital radio by all major radio broadcasters in each market – that includes public and commercial;
- new and compelling content – whether it is audio or data;
- a range of affordable receivers in the market;
- major retailers to stock the new receivers;
- a good solid communication and public-relations campaign to actually tell listeners about digital radio the new services;
- a good robust coverage at high power across all of the licence areas or market;
- and, last but certainly not least ... guaranteed access to, and broadcaster control of, the right spectrum – that is, priority in the digital dividend decision-making process.

## Australian launch cities

As radio broadcasters in any country, we must insist on access to spectrum that enables us to broadcast across the whole licence area at appropriate power levels. In the five launch cities – Sydney, Melbourne, Adelaide, Perth and Brisbane – we are using VHF Channel 9a to get access to what was previously regarded as “TV spectrum”.

We had to put our case very strongly to the government. Cynics told us at the start that we would not be given access to Channel 9a as it sits between the transmissions of two of our powerful commercial TV broadcasters – on Channel 9 and Channel 10.



But we were determined to put radio's right to move to digital in the most appropriate spectrum and the government listened because we were certain, united and very very persistent!

Even though the five launch cities collectively cover nearly 60% of Australia's 21.5m population, we still have a lot of geographical territory to cover – and millions more people wanting digital radio services. The launch cities are just five of our 105 radio licence areas.

## DAB+ ... digital future

When we move to digital and are allocated spectrum from the digital dividend, what will we do with it?

Australia has chosen DAB+ as its main digital radio technology. DAB+ is two to three times more spectrum-efficient than DAB and provides the Australian radio industry with a powerful technology which will enable a rich multimedia experience.

With DAB+, each commercial station has enough space to broadcast two digital-quality sound channels with small amounts of data ... or one very high-quality channel with a data channel.

Broadcasters have options allowing them to choose either more audio or data, or existing audio with new display features.

DAB+ is radio that can provide many new features ... not just for existing FM stations but also for AM talkback programmes (which obtain very high audience ratings in Australia):

- pause and rewind;
- extra information on-demand about advertised products;
- images;
- slideshows;
- real-time traffic advice and navigation;
- animation;
- bonus channels;
- digital-quality audio.

Australia is a sports-mad country and when you look what DAB+ can deliver in terms of sporting broadcasts – from a photo finish at a horse race, to a constant score update at a football match or cricket match ... it is impressive!

Listeners are keen to interact with their digital devices and DAB+ gives radio an opportunity to become even more interactive, with the results of live voting on a song, or issue, being shown on text and slides.

Most importantly, digital radio in Australia is free. Australians are reluctant to pay for radio!

The recent launch of a subscription satellite / internet radio service in Australia was hailed by its founder as the greatest revolution since FM radio. Just months later the organization had to down-size its workforce and is looking for additional funding to keep the service functioning.

## Receivers and retailers

As mentioned earlier, one of the keys to the successful rollout of digital radio is a co-ordinated approach – not just from commercial and public broadcasters, but from retailers and receiver manufacturers as well. Consequently, many of Australia's leading retailers and manufacturers of digital radio products have joined forces as part of an advisory group to ensure a united effort in launching digital radio in the Australian market.

In addition, to encourage receiver manufacturers worldwide to test and trial their products using DAB+, Commercial Radio Australia produced a comprehensive Ensemble Transport Interface (ETI) file which contains recorded material from the Australian digital radio trial and includes up to 32 channels, slide show images, Portable Network Graphic (PNG) logos and scrolling text.



This ETI file was made available free-of-charge to receiver manufacturers all over the world to assist with the development of receivers that support the mix of audio and multimedia content and which fully showcases the capabilities of DAB+.

In addition to the ETI file, Commercial Radio Australia has also put together a DVD which illustrates broadcaster commitment and retailer support for the Australian DAB+ launch. Targeting key receiver-manufacturer decision makers, it is available in English, Japanese, Cantonese, Indonesian, Korean, Malay and Mandarin.

There are an estimated 50 million analogue radio receivers in Australia that we hope will be replaced over time by a new digital radio device. The receiver manufacturers are increasingly interested in

supporting DAB+, as this is the standard already adopted in Australia, Switzerland, Malta and Hungary ... it is to be launched in Germany and Italy in 2009 ... and is likely to be the standard chosen in the Czech Republic, Malaysia, Indonesia, much of Scandinavia, possibly parts of China and other European and Asian markets.

## Awareness campaign

The success of any new product is reliant on an effective awareness campaign. The timing of the campaign is critical. There is no use exciting the consumers about a new product until the new product is available and they can “buy” or sample it.

In Australia we used a carefully-targeted public relations campaign during the long lead-up to our DAB+ digital switch-on. We revealed our Digital Radio Plus logo and website last year to establish the brand and created [www.digitalradioplus.com.au](http://www.digitalradioplus.com.au) as the information gateway for all digital radio information. It's at this website that Australians could enter their postcode to see if they could receive digital radio in their area and where they could buy a digital radio. The site also includes training modules, for retailers and the advertising industry, about what digital radio can deliver.



In April 2009, we rolled out the \$10 million industry-wide Digital Radio Plus on-air awareness campaign during the switch-on of digital radio in the markets of Sydney, Melbourne, Brisbane, Perth and Adelaide.

The screenshot shows the Digital Radio Plus website in a Windows Internet Explorer browser. The page layout includes a navigation bar with links like 'HOME', 'About Digital Radio', 'Coverage', 'Stations', 'Listen Live', 'Radios', 'Where to Buy', 'FAQ's', 'Tutorials', 'Technology', 'News', 'eNewsletters', 'Links', 'Contact Us', and 'Industry'. The main content area features the Digital Radio Plus logo and the slogan 'It's radio as you know it, plus...'. There is a section for '4BH882 The best songs of all time' with a 'Listen Now' button. Below that, there is a 'What is Digital Radio?' section with a list of features and a 'Featured Radio' section for 'Clive Peeters your digital experts'. The page also includes a search bar and a 'Find Retailers' button. The browser's address bar shows 'http://www.digitalradioplus.com.au/'.

We will also soon be promoting a national listener event planned for 6 August 2009, which will be one of the largest radio outside broadcasts ever staged. All key stakeholders will be involved in this event, bringing commercial and public broadcasters together to highlight digital radio to the all-important listeners.

Awareness, interest and knowledge are key to getting the consumer to buy a receiver and try digital radio.

## Retailers and manufacturers

Following the switch-on, the co-ordination, promotion and communication with listeners, retailers and manufacturers continues. Manufacturers have effectively incorporated our Digital Radio Plus industry logo into their promotional displays and onto product packaging.



Retailers are running in-store digital radio display competitions and including digital radio features in their product sales catalogues. The industry continues to help them with ongoing training for their retail staff about the benefits of digital radio.



Commercial Radio Australia conducts regular Retailer and Manufacturer Advisory Group meetings to ensure that two-way communication continues in the lead-up to the key Fathers' Day and Christmas retail cycles.

## New DAB+ programming

Major broadcasters in Australia have already announced two new DAB+ services: *Radar* – a new music station which plays undiscovered artists with a heavy focus on Australian acts – and *Pink Radio* – a station broadcasting for three months playing Pink music, interviews and her favourite songs in the lead-up to her sell-out concerts in Australia.

*Pink Radio* illustrates the flexibility of digital radio and the unique sales and promotional opportunities the technology can support.

Another commercial broadcaster launched a national 24-hour, 7-day-a-week dance music station – *NovaNation* – and a mood and lifestyle-driven, chill-out music station called *Koffee*.

The public broadcaster, the ABC, will simulcast all its current services on digital, plus new DAB+ stations *dig jazz*, *dig country* and an eclectic mix of music on *dig*. We expect further digital programming announcements in the coming months from other commercial broadcasters and the other public broadcaster, SBS.

## Spectrum

The industry worldwide must exhibit a strategy and plan for digital radio before a government will take spectrum claims seriously. We all are aware that the sale of spectrum is a great revenue-raiser for many governments but, as an existing medium, the radio industry must stake its claim to the appropriate spectrum to ensure a digital future.

Since 1994, the US Federal Communications Commission (FCC) has conducted competitive auctions of licences for electromagnetic spectrum. One of the US government's most significant sales of wireless spectrum last year raised nearly \$19.6 billion.

The UK regulator, Ofcom looks set to change the way it auctions spectrum which is freed up by the shift to digital TV. It plans to make a wider band of spectrum available for services, such as mobile broadband. Mobile broadband will become ever more spectrum-hungry as more people use it.

In Australia over the past few years, the federal government has auctioned off the last FM commercial licences with amounts of nearly \$200 million being paid for one FM frequency in a major city. The radio industry welcomed our government's announcement of the progressive switch-off of all analogue television by 31 December 2013. This will free up valuable analogue spectrum and the radio industry is lobbying the government to allocate some of the vacated VHF Band III spectrum for digital rollout across all of Australia.



Although the International Telecommunications Union (ITU) has reserved L-Band for DAB+ and Australia is keen to keep this reserved until all markets have an allocation on VHF Band III, we do not see L-Band as a suitable spectrum for Australian DAB+ and would recommend other countries to reserve VHF Band III in preference to L-Band for DAB+.

Despite our efforts to encourage manufacturers to support Band III and L-Band, there are very few receivers that support L-Band as it increases the cost of receivers and requires dual antennas.

Furthermore, L-Band is in a higher frequency range and the coverage area is much smaller ... requiring many repeater sites for a country the size of Australia. DAB+ in VHF Band III will cover a much greater area and therefore will be a more cost-effective solution.

I believe that, in any government's consideration of the digital dividend, the radio sector must not be

ignored or the industry allowed to be passed over. Governments must be made aware of radio’s desire to move to digital broadcasting, in clear unencumbered spectrum that will allow the full suite of free-to-air digital audio and data services to be offered.

Governments need to provide guaranteed spectrum allocations for current radio broadcasters to migrate to digital broadcasting, as a priority, in any consideration of the digital dividend.

Easy-to-access and free-to-air media such as radio is valued by the greater population and should be given precedence over new subscriber services which will only be available to those who can afford the receivers and the ongoing monthly fee.

Radio broadcasters in countries looking at future needs for digital services need to make their case **now** to secure spectrum for their digital future.

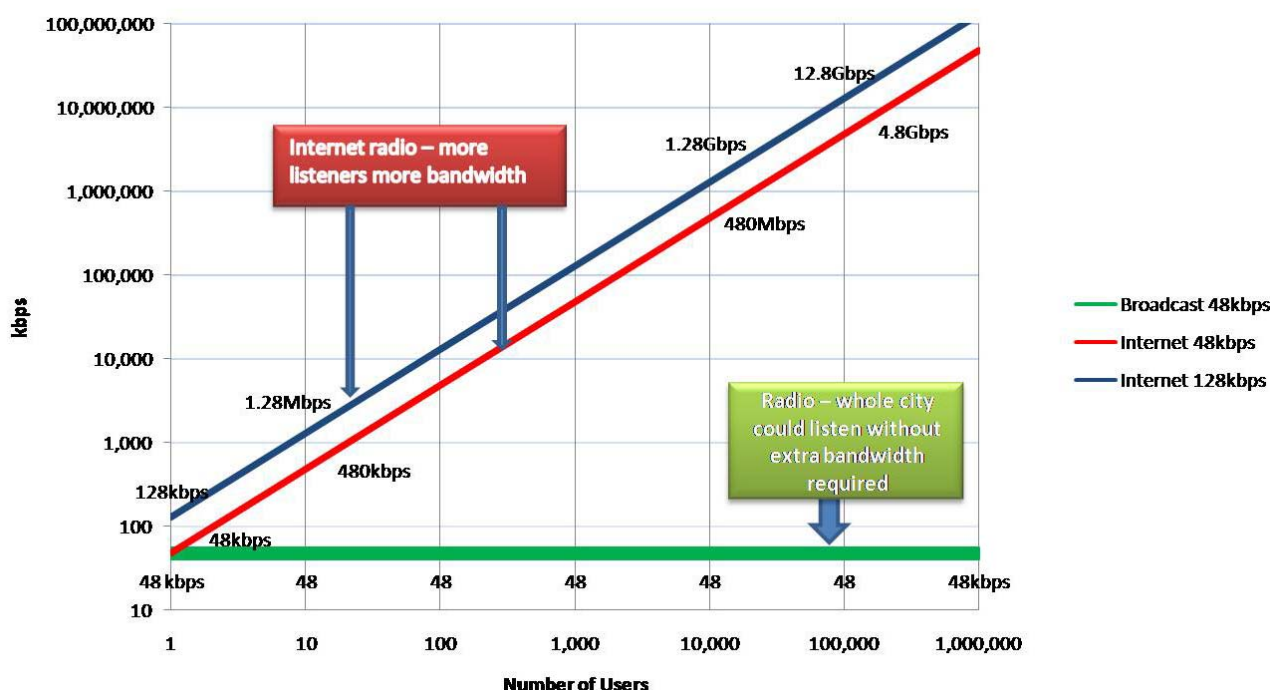
## Internet radio

Spectrum is in demand from all areas and we keep being told that internet radio will overtake broadcast radio. In Australia, only 24% of the population (Dec-08 OECD figures) have broadband access and, while broadband take-up rates in homes are increasing, around 30% of radio listening happens in the car and a viable wireless internet car radio is not widely available.

The commercial radio industry acknowledges that radio and the internet are both instant, conversational media. Australian radio stations have long made use of the internet to engage and interact with their listeners and to offer additional information and interactivity.

The majority of Australian radio stations stream their free-to-air broadcast stations on the internet, as this presents another way of connecting with listeners. There are clear benefits in using radio and online together as a promotional and advertising combination but, in spite of the vociferous support from some quarters for internet radio as a *replacement* for broadcast radio, it is a fact that the internet – as a *one to millions* radio broadcast medium – requires far too much bandwidth.

The bandwidth requirements increase as the number of listeners increase, making it very spectrum inefficient. For example, 100 000 listeners @ 48 kbit/s requires 4.8 Gbit/s, while 100 000 listeners @ 128 kbit/s (i.e. Realplayer and other streaming audio players) requires 12.8 Gbit/s.







**Joan Warner** is the Chief Executive Officer of Commercial Radio Australia which represents 99% of all commercial radio broadcasters. She is responsible for planning for the rollout and implementation of digital radio for commercial radio broadcasters across Australia.

In her role as CEO, Ms Warner also oversees the whole of the industry marketing campaign, Radio Codes of Practice, audience survey contracts and industry copyright agreements. She is responsible for the annual National Commercial Radio Conference, Siren Creative Awards and Australian Commercial Radio Awards.

Joan Warner has worked at senior executive levels in the private and Government sectors and holds four degrees including a Master of Business Administration and a

Master of Education.

Also, the internet radio infrastructure is built on a per-listener basis ... so more listeners = more servers = more cost! For example, you could support around 1000 listeners per server, in which case 100 000 listeners would require 100 servers! 300,000 listeners, a typical per-hour metropolitan breakfast radio audience in Sydney, would require 300 servers and a huge amount of bandwidth.

Digital radio, when broadcast to a city such as Sydney, requires only 48 kbit/s audio or 64 kbit/s for audio plus multimedia programme-associated data.

There are some views that digital radio is too late and we will be overrun by internet radio stations. Commercial radio in Australia disagrees ... not only for the reasons set out above but also because of its convenience, no cost and localism. We are yet to be convinced that internet radio is a threat: rather, it is supplementary to free-to-air broadcasts.

## Radio as you know it ... Plus

I've outlined where radio is heading, why we must be in the digital space, how we can capitalise on digital radio and why radio broadcasters cannot afford to be overlooked by governments who are considering what to do with vacated TV spectrum.

Our job as radio broadcasters – who offer a robust, anywhere-anytime, free-to-air information and entertainment service – is to make sure radio does not miss the digital boat.

We must position radio to compete with other digital technologies and maintain radio's relevance in our listeners' lives. It's time to plan for the future and make governments aware of our right to a digital future.

That can only be achieved by the right policy settings, plus access to the right spectrum. Radio broadcasters must make sure they are beneficiaries of the digital dividend.