

**Presentation: Mythbusting the Future of Free to Air Television**  
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**Slide 1: Title**

- Good morning.
- My thanks to the ACMA for again organising this important conference.
- While Free TV is always a willing and active participant at RadComms, I was particularly pleased to receive the invite this year given the theme of the conference is delivering the future.
- This is a topic that has been my focus since stepping into the role of CEO of Free TV in February this year.
- Everyone recognises the role that free-to-air television has played in the past in the lives of all Australians.
- What will our FreeTV services look like in 10 or 20 years and how will they be delivered?
- With the changing media landscape, far greater choice for consumers in terms of content and platforms – quite a few myths have emerged about the future of free to air television.
- This morning I am going to touch on three of the most common myths and talk about what we see as being a strong future for commercial free to air television.

### **Slide 2: Myth Number 1 – Nobody I know watches TV any more**

- Unless you are going to better parties than me, this is a myth that you will have heard bandied about at gatherings or maybe you've even said it yourself.
- But let's take a look at what Australians are really doing when it comes time to make their entertainment choices.

### **Slide 3: TV is going strong**

- You might think that nobody you know watches TV but I'm afraid all that tells you is that you are not mixing with the average Australian.
- Luckily, we have a world class reliable television measurement system run by OzTAM that can tell us that what we are observing in our own little microcosm is probably not a representative sample.
- Over 13 million Australians tune into something on commercial television every day. That's one hell of a touchpoint.
- Across any given month, free-to-air television will have reached 22 million Australians in some shape or form.
- OzTAM data tells us that every day on average Australians are still watching 2 hours and 27 minutes of broadcast television. 90% of that 2 hours and 27 minutes is still watched live.
- Now that is a huge amount of time to devote to a daily habit. But it is also true that this number has declined in the past few years. 8 years ago the average Australian was watching 3 hours and 10 minutes of TV per day.
- But these days we are also consuming a massive 554 minutes of Broadcaster Video on Demand or BVOD content.

#### **Slide 4: In home snapshot**

- What the numbers are telling us here is that announcements about the death of TV are grossly exaggerated.
- The average Australian still spends far more time watching broadcast tv in the home than they do watching online video on desktops, laptops, phones and tablets.
- It is true that young people – kids and teens, and 16-39s, watch less TV than older age groups. I haven't got the demographic breakdowns on this slide but what they show is that even kids, teens and young adults are watching broadcast TV for well over an hour a day. That's about the same or more time than they spend on the internet.
- Probably the most interesting thing on this slide is the blue line in the middle – Other TV Screen Use. I'll come back to that in a minute but for now we can just note that we are using our TV screens for just over an hour a day to do something other than watching TV.

## **Slide 5: Connected TV is where the action is at these days**

- The growth in the number of screens in the Australian home is a key enabler of changing audience behaviour. The majority of screens are internet capable and many are also portable. Proliferation of screens has created new viewing opportunities in the home.
- The average Australian home now has 6.7 screens. That number is up from 6 in 2015 and 6.4 in 2017 so you can see it is growing quite rapidly – which is something you probably all recognise in your own domestic settings.
- Of the 1.8 tv sets per home, about half are internet connected smart TVs. Penetration of Connected TVs has doubled in the past 5 years.
- A few years ago many of us would have put quite a few dollars on a bet that we would all soon be watching most of our favourite dramas and sporting events on our mobile phones and tablets.
- And there is no doubt that our appetite for consuming content on mobile devices is growing, as we can see from this slide.
- But what we can see most clearly of all, is that the TV set in the home is back. It is far and away the device of choice for consuming video content, particularly long form quality video content.
- Around 35% of all BVOD viewing occurs on the TV set – more than any other single device.
- Unsurprisingly people prefer to watch video content on the best screen they can find.
- But if I can come back to that blue line on my previous slide. The challenge for broadcasters is to win the battle for the use of the TV set in the home.
- Once upon a time that screen was almost exclusive real estate for broadcasters.
- With the growth of connected TVs and the “appification” of TV, the battle is now on for the TV set in the home. FreeTV Broadcasters are well placed to compete on high quality, popular Australian content.
- The challenges of tomorrow are not simply having better content than our competitors, but also ensuring that our content is discoverable amongst the clutter of apps on smart TVs. So expect the current UK debate around prominence for FTA broadcast services to play out here in Australia as well.

## **Slide 6: Myth Number 2 – All TV will be delivered on the Internet**

- I wish I had a dollar for every time I heard this line.
- Free TV's view is that while viewers want to be able to consume content on a range of different delivery platforms, terrestrial delivery is and will remain fundamental to the FreeTV experience.

## **Slide 7: FreeTV is everywhere**

- First up, I want to say that I am not trying to argue that FreeTV is going to be a terrestrial only service. IP delivery of content is already a big part of our service offering.
- I mentioned earlier that Australians are consuming 554 million minutes of BVOD content every week. That is roughly one third live streaming and two thirds catch up and VOD content.
- BVOD viewing is up 76% on the same time last year. In the first half of 2018, we consumed 13.2 billion minutes of BVOD content.
- That sounds like a lot doesn't it?
- And it is, but that is only 2% of the total TV consumed each week.
- So while broadcasters are moving to embrace the many new ways of delivering content to our viewers it's important to keep things in perspective. Most Australians are still getting their TV fix via digital terrestrial transmission.
- First and foremost, the broadband network required to be able to reliably broadcast live TV on AFL or NRL grand final day, or even a Royal Wedding to all Australians, does not yet exist.
- Conversely, a DTT signal does not discriminate. It doesn't care whether there are 3 million or 3 people watching the World Cup. It will serve them all equally.
- And while 50% of our TVs in the home are smart, connected sets, that means that the other 50% are not.
- So, for broadcasters and viewers alike, DTT will remain important for some time. What will that piece of our future look like?

### **Slide 8: DTT remains important**

- In terms of delivering the future, consumers will continue to demand better quality pictures and immersive sound. We've seen a lot of excitement recently around 4K and even 8K content.
- And it's not just here in Australia that we are seeing a commitment to the evolution of DTT delivery.
- In September 2018, a survey of more than 1,500 consumers ages 18-74 in the USA showed strong consumer interest in next generation broadcast technologies.
- The top-valued feature of next generation technology was improved video and audio quality.
- And as we can see from this slide, even in territories with a far lesser reliance on DTT as the primary means of television delivery, Governments and industry are investing in upgrades to their DTT delivery systems.
- And of course that means there needs to be a strong focus on ensuring that there is adequate spectrum for ongoing delivery of DTT services.

## Slide 9: DVB T2 Trial

- And it is also why we joined with BA, ABC, SBS and TXA to conduct trials of next generation television technology earlier this year.
- The BA/FreeTV DVB-T2 trials were conducted from Gore Hill, North Head and Kings Cross and involved in a number of “firsts”:
  - are the first to be conducted in the VHF broadcasting services band
  - proposed a DVB-T2 coverage assessment methodology for comparison with DVB-T coverage
  - implemented an off-air fed Single Frequency Network for the first time
  - demonstrated interoperability of TV transmission equipment from multiple vendors

So far the Trials have presented us with a number of findings and observations:

- DVB-T2 can co-exist using an adjacent channel in Australia’s DVB-T designed network using the same ERP, without introducing interference to existing services.
- The spectral performance of most combiners in Australia’s DVB-T designed network is adequate for operating DVB-T2 Extended Carrier modes.
- DVB-T2 has now been designed to operate with Off air fed Single Frequency Networks as deployed throughout Australia in DVB-T
- DVB-T2 Mode B provided equivalent coverage as DVB-T for VHF, with same ERP.

### **So what next?**

- Further analysis and investigation is required to quantify the performance of DVB-T2 relative to DVB-T transmission in UHF frequencies i.e. at or above channel 28
- Further investigation is required to assess the performance of multiple Physical Layer Pipes in DVB-T2.
- Further development may be required in DVB-T2 specifications to improve interoperability of DVB-T2 transmission equipment.
- A standard for DVB-T2 receivers needs to be developed to meet the requirements of Australian television broadcasters.

Further trials are planned for later this year and early next year to enhance our understanding of the characteristic of these technologies in the Australian environment, particularly the performance of SFNs.

### **Slide 10: Myth #3 - 5G will solve all the problems**

- Whoever is doing the marketing for 5G needs to come and work for commercial television.
- 5G is clearly a very exciting next generation for mobile broadband, but rarely has the hype surrounding a technology so outpaced its actual development.
- I don't say that to be disparaging about what is clearly a major game changer in telecommunications delivery.
- It seems highly likely that 5G will revolutionise many aspects of content production and contribution.
- But what is less clear is the role of 5G in future broadcast transmission arrangements.

### **Slide 11: Global data traffic over cellular networks**

- So what do we know?
- We know that over the next few years, demand for mobile video delivery over cellular networks will dramatically increase.
- So we will see cellular networks forced to become video networks, a future they were not designed for.

## Slide 12: Unicast v Broadcast

- And we also know that in a unicast model, even modest simultaneous demand for HD content will very quickly lead to cell overload, which is what we can see in this very interesting slide from Professor Ulrich Reimers, one of the world's leading experts in broadcast and 5G technologies.
- Consequently, we are currently seeing a large number of trials for LTE-B multicast and broadcast solutions in Europe, particularly high tower high power trials.
- 5G will initially be deployed as an add-on to 4G/LTE, providing additional functionality as required. Standalone 5G networks will be deployed later. The likely rollout for 5G is firstly to provide coverage in large cities and along major transport routes. But the timescale for full nationwide coverage is uncertain. As with 4G networks, 5G will be progressively rolled out but may not be available everywhere for many years.
- However, broadcasters need 5G networks with large, ideally nationwide coverage, sufficient capacity and high reliability. The cost of delivery will also be critical for broadcasters but the information currently available is insufficient for an in-depth assessment.

- **So where does this leave us?**
  - **Content production and contribution would benefit** from super-fast, low latency and highly reliable wireless connections. Using either public network infrastructure or private 5G networks, new workflows could be enabled in newsgathering, remote production, live event coverage and user engagement, but also in dedicated production facilities.
  - **distribution the impact will take longer to be felt.** 5G is designed to allow distribution, in particular to portable and mobile devices, of a whole range of audiovisual content and services. However, content distribution at scale would only be viable when network coverage and capacity and user device penetration reach certain minimum thresholds, when suitable regulatory conditions are defined and when commercial models are established.
  - In light of all this, it is my current view that **5G is likely to coexist with existing broadcast technologies and infrastructure for a substantial period** rather than operating as a replacement transmission technology.
  - **I have one final thought as I close this morning. I've touched on a lot of issues about future transmission arrangements and viewing patterns in my presentation. We don't have time to look at some of the many other fascinating technologies such as voice and AI that will undoubtedly have a major impact on all of us over time.**
  - Some of you may already be familiar with this clip of Barack Obama constructed using AI.

**[click to the next slide](#)**

### **Slide 13: Some final thoughts**

- One thing that stands out when you watch that clip is that no matter whether it is delivered by DTT or IP, a free and locally relevant source of news and entertainment that all Australians can trust and rely on is going to be more important than ever in the future. And that's where FreeTV comes in.
- So while we are talking about delivering the future, it is crucial that the right policy settings are found that enable commercial free-to-air broadcasters to continue to deliver the services that are not just watched and loved by millions of Australians, that are increasingly important to our democracy.

**THANK YOU**