

DAB+ Delivering Radio's Future

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Radio most accessible media worldwide

- Free
- Accessible almost everywhere
- Robust & reliable in an emergency
- Innovative



DAB+ is the global digital radio standard

DAB GLOBAL STATUS



405,000,000

People now able to receive
DAB services



2,070

DAB services now on air
around the world



55,000,000

DAB receivers sold to Dec
2016, including automotive



36

Countries with DAB services
on-air

Why choose DAB+

- AM & FM increasingly compromised
- More efficient – more stations using less spectrum
- Broadcasters need a future & don't need to wait until analogue TV switches off
- Energy and cost efficient
- Share multiplex and transmitter costs
- 100's of DAB+ receivers available worldwide

DAB+ in Other Countries

No one-size-fits-all approach

GERMANY

Vertical integration

- Public broadcasters carry private services
- Three types of licence

NETHERLANDS

- Vertical integration
- Network built by broadcast partners
- Mix of public and private in the regions

SWITZERLAND

- National public network has 4 muxes
- Commercial stations part govt funded
- Local non-commercial mux heavily subsidised by govt

Create New Stations Easily with DAB+

- Digital Only Stations
- New Brands that can find an audience
- Branding & station creation much easier



Radio's Multiplatform Future



Radio must remain inclusive NOT exclusive

- 1 hour streaming 70 MB – phone subscription includes 0.5GB
- Combination of IP & DAB+ is energy & cost efficient

Energy consumed in one hour:

DAB+: 6.8J

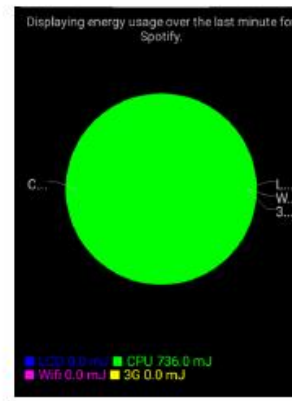
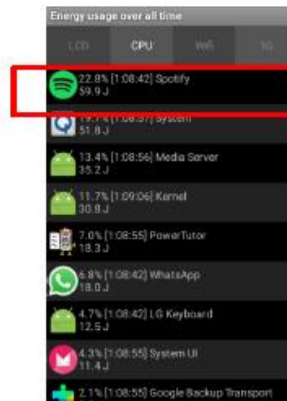
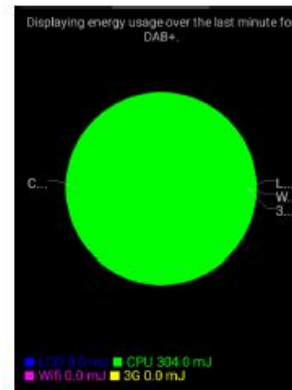
Spotify: 59.9J

Average power consumption

DAB+: 304mW

Spotify: 736 mW

Streaming consumes much more power than DAB.



Measurements taken with Power tutor app, tested on LG Stylus2

LG Stylus DAB+

World's first smartphone
with DAB+ digital radio

Listen to radio with
no streaming or data costs



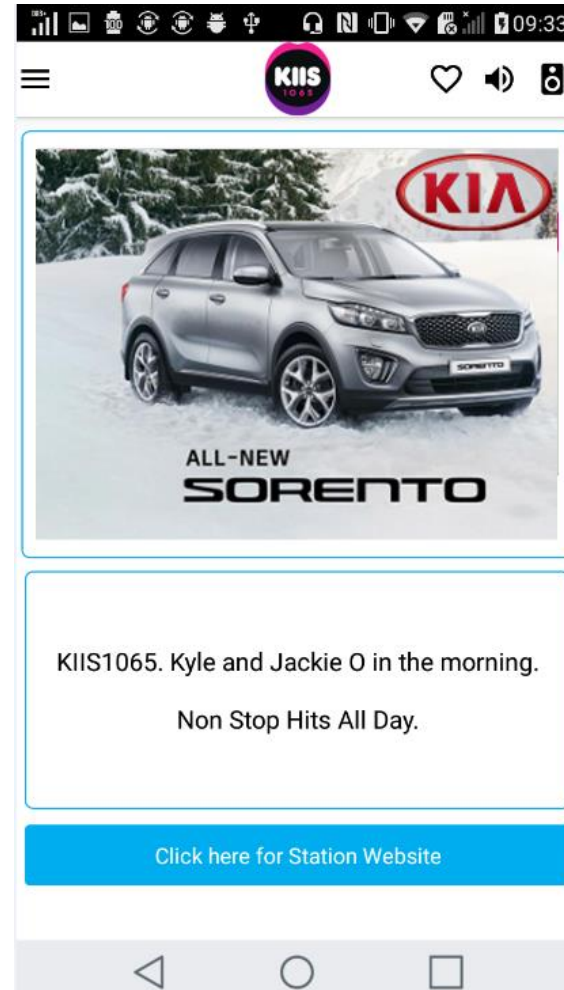
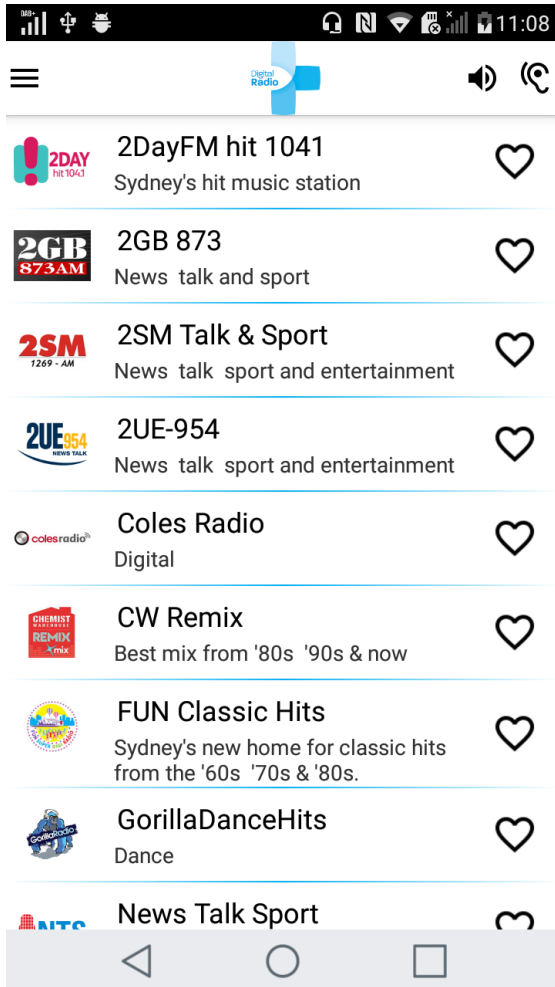
LG Stylus DAB+



Benefits for Listeners

- Entertainment on the go in digital quality sound
- Access broadcast DAB+ radio - no need for internet connection, no streaming costs
- A richer radio experience with new stations, broadcast images and live scrolling text
- Easy access to related online content
- Increased opportunity for listener interaction, with station websites and social media channels just one click away

Listen, See and Click



RadioAPP Launch

- Aust radio industry launched RadioApp access to all DAB+, AM & FM stations via the app on smartphones, tablets etc more than 250 live and local Australian radio stations from around the country – public & commercial
- Offering listeners another way of accessing radio

RADIOAPP

RadioApp Launch

The Best of Broadcast and IP

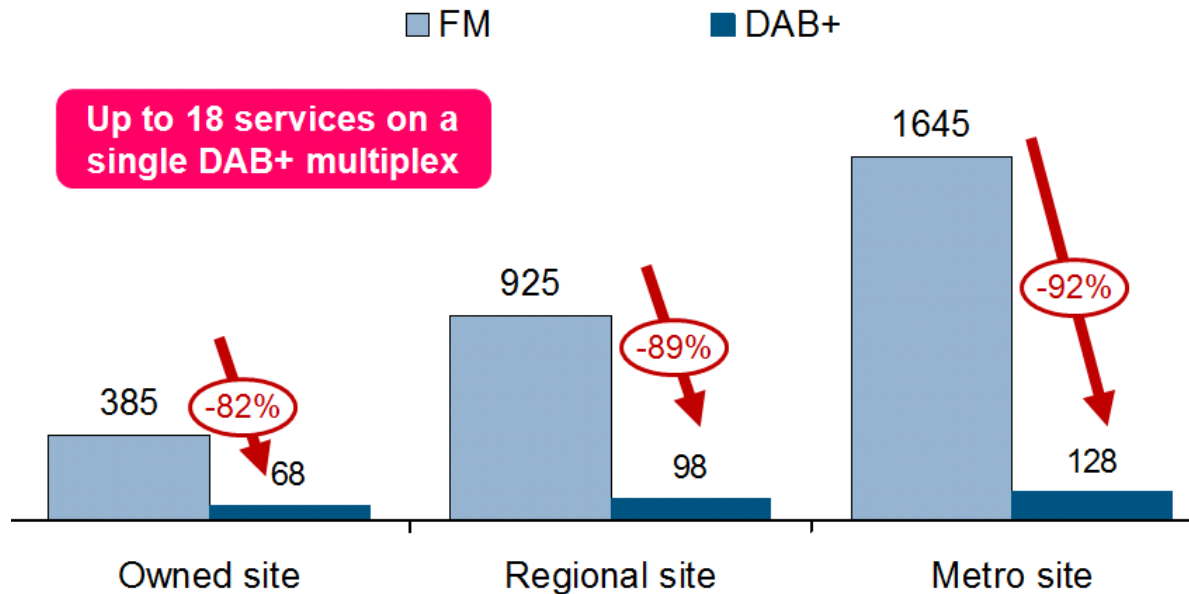
- DAB+ and streaming are complementary
- Combines reliability of broadcast radio with interactivity of internet
- Delivers advantages in battery life and data costs
- Overcomes blackspots – broadcast content still available when out of mobile network coverage

“Streaming (for an hour a day)...blows the average mobile data plan out of the water. DAB+ makes sense if you can receive it and if it has the stations and content you want. It is also more energy efficient.”

IT Wire, May 2016

DAB+ reduces costs

Annual cost to broadcasters of transmission per service¹, \$k



Source: GatesAir. Note: (1) Opex costs; on DAB+, assumes 18 services on multiplex; for further information, see: http://www.worlddab.org/public_document/file/441/2014-02-19_Harris_comparison_DAB_to_FM_and_DRM_final.pdf?1392974163

10 Steps to DAB+ Success

1. Select spectrum efficient technology – DAB+
2. Start now
3. Incentives - keep analogue spectrum & get new digital spectrum licences
4. Govt pay less for public broadcasters transmission
5. Plan a national staged project
6. Save operation costs by careful coverage planning
7. New content
8. affordable receivers
9. Work to get vehicles & smartphones with DAB+
10. Marketing strategy to inform listeners - use analogue & online to cross promote digital radio