



DAB+ GLOBAL STATUS AND APAC STATUS

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JOINT WORLDDAB & ABU WEBINAR SERIES – DAB+ DIGITAL RADIO TECHNOLOGY, IMPLEMENTATION & ROLLOUT

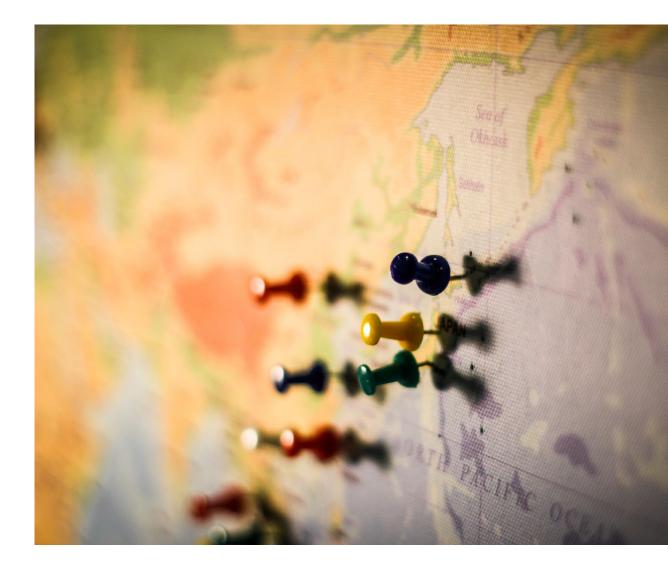
20 October 2020



Welcome

DAB+ AROUND THE WORLD

- Over 93 million DAB/DAB+ receivers (consumer and automotive) sold - up from 82 million one year ago
- Over 531 million people are within reach of a DAB/DAB+ signal
- DAB/DAB+ now available in
 43 countries/territories*



*Includes Gibraltar, Holy See and Monaco in that total as territories



DAB+ AROUND THE WORLD – STATUS UPDATE

- Number of new cars produced with DAB factory settings:
 - Norway: 100%
 - o Switzerland: 96%
 - o UK: 94%
 - o Italy: 90%
 - o Australia: 75%
 - o Belgium: 59%
 - France: 59%
 - Netherlands: 56%
 - o Germany 54%
 - o Denmark: 37%



Cumulative DAB/DAB+ Receiver Sales (2008–Q2 2020):

- o UK: 44,905,000
- o Germany: 16,623,000
- o Norway: 7,000,000
- o Australia: 6,033,000
- o Italy: 5,300,000
- o Switzerland: 5,068,000
- o France: 3,420,000
- o Netherlands: 2,194,000
- o Denmark: 1,291,000
- o Belgium: 1,253,000



DAB+ AROUND THE WORLD – STATUS UPDATE

DAB/DAB+ Network Coverage (of population):

• Denmark: 99.9%

- Norway: 99.7%
- \circ Switzerland: 99.5%
- o Germany: 98%
- UK: 97.3%
- o Belgium: 97%
- o Netherlands: 95%
- Italy: 84%
- o Australia: 64%
- France: 25%



Digital Radio Reach (all platforms):

- Norway: 100%
- o Switzerland: 71%
- 。 UK: 67%
- Netherlands: 39%
- Australia: 30%



DAB/DAB+ Household Receiver Penetration:

- Norway: 73%
- o UK: 67%
- o Australia: 51%
- o Denmark: 34%
- o Germany: 25%
- Netherlands: 24%
- France: 13%
- o Italy: 8%



DAB+ IN EUROPE – KEY DEVELOPMENTS

European Electronic Communications Code (EECC) requires all new car radios in the EU to be capable of receiving digital terrestrial radio from 21 December 2020

• Germany:

- o Just launched second national commercial multiplex
- Launching DAB+ Christmas campaign TV/radio, print, social - 23 November to 6 December
- France:
 - Launch of national multiplex planned for 2021 covering Paris-Marseille route
 - Regional launches ongoing Toulouse / Bordeaux 5-6 Nov 2020

• Italy:

- 3 national multiplexes and 20+ local multiplexes on air
- Public broadcaster RAI has launched 7 specialised digital stations on DAB

• UK:

- Government conducting digital radio and audio review (through to March 2021)
- DAB+ listening is 40% of all listening

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- Switzerland:
 - \circ FM phase out to take place in 2022/2023.
 - DAB+ now most used listening platform 39% of all listening
 - Norway:
 - National FM services switched off in 2017.
 DAB+ listening levels now similar as before FM switch off
 - 73% of population have DAB at home,
 67% have DAB in the car
- The Netherlands:
 - Regional network growing -10 local muxes and 40+ stations on air
 - Discussions taking place around the launch of a new national DAB+ multiplex

DAB+ IN EUROPE – KEY DEVELOPMENTS

- Belgium:
 - DAB+ campaigns taking place across
 Flanders and Wallonia to promote DAB+

• Sweden:

- Swedish Radio has applied for nationwide DAB+ licences 2020-2025
- Bauer launching 10 DAB+ services in 2020 reaching 40% of the population
- NENT Group expanding DAB+ coverage with 13 DAB+ stations

Czech Republic:

- 4 network operators (CRA, Teleko, RTI, Czech Radio) and 1 national multiplex on air
- September 2020 several DAB+ transmitters launched bringing population coverage to 98%
- Website rebrand

• Poland:

- Over 25 DAB+ services available across the country
- Population coverage to grow to 81.6% by October 2022

• Austria:

- Population coverage now 83.5%
- Croatia:
 - 12 stations broadcasting in DAB+ trial
 - DAB+ network expansion phase started in March 2020, going from five to eight sites in 2020

• Spain:

- 18 regular DAB/DAB+ services on air reaching 20% population coverage
- 17 autonomous regions currently discussing launch of DAB+ services



DAB+ IN EASTERN EUROPE – KEY DEVELOPMENTS

• Slovenia:

Regular DAB+ on air, ongoing consultation re 2nd national mux

- Serbia:
 DAB+ trial ongoing
- Bulgaria: DAB+ trial on air since March 2020
- Slovakia: DAB+ trial on air
- Romania:
 DAB+ trial on air
- Hungary: DAB+ trial on air
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- **Greece:** Regular DAB+ on air in Athens area
- Turkey: DAB+ trial on air

- Ukraine: Regular DAB+ Kyiv
- North Macedonia: DAB+ trial on air
- Belarus:
 DAB+ deployment planning

DAB+ AROUND THE WORLD – KEY DEVELOPMENTS

• Tunisia:

- 75% population coverage since Sept 2020, with 18 stations on air on DAB+
- Aiming for FM switch off by 2025
- Algeria:
 - DAB+ trial launched in 2018 and ongoing
 - 68% of Algiers population covered by DAB+ reception
 - Planning underway to migrate from FM to DAB+

South Africa:

- Johannesburg DAB+ trial on air covering 21.5% of the population
- DAB+ trial licence extended to Cape Town in November 2019
- Policy directive allowing for the licensing of Digital Sound Broadcasting issued in July 2020

Middle East:

- DAB+ receiver specifications published in UAE
- DAB+ trial launched July 2019 in Qatar
- o DAB+ trial launched 2019 in Oman
- \circ 5 DAB+ services on air since 2017 in Jordan
- Radio receivers required to include DAB+ digital radio from Jan 2021 in Saudi Arabia
- Kuwait now has 100% population coverage for DAB+ with 16 DAB+ stations on air



DAB+ IN ASIA-PACIFIC – KEY DEVELOPMENTS

• Thailand:

- Bangkok DAB+ trial continues with championing of a DAB+ rollout by the NBTC. 20-month trial commenced in April 2019 with 11 radio stations. NBTC plan to extend the DAB+ trial in Bangkok for a further 3 years.
- Full national coverage planning has been completed.
 Commercial rollout plans to be determined.
 Opportunity for Thailand to plan for permanent rollout and commercial model for future DAB+ activity.
- Review of Bangkok trial to be provided by NBTC at Joint ABU & WorldDAB webinar on Day 2 – 21 October.

• Vietnam:

- DAB+ trial on-air in Hanoi (full time) and Ho Chi Minh
 City (part time). Trials are made up of 16 channels.
- Trial to be evaluated this year and recommendations to be submitted to government in 2021.
- VoV aims to convert radio from analogue to digital radio by 2025.

- Malaysia:
 - DAB+ still to be adopted as the digital radio standard for Malaysia.
- New Zealand:
 - Radio Broadcasters Association investigating capital and operational costs under a range of rollout options.

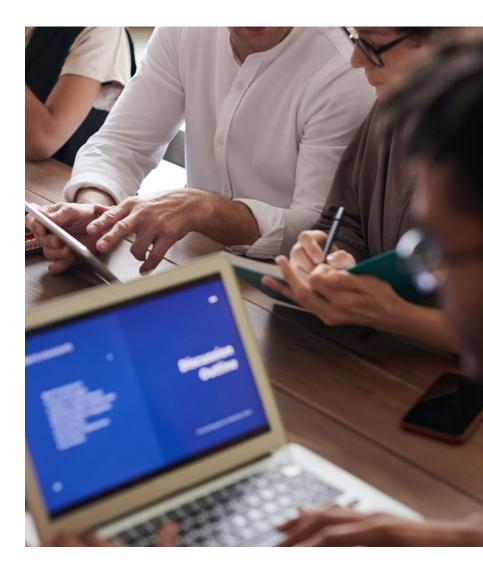
No new updates/progress:

- o Myanmar
- o Sri Lanka
- o Indonesia
- o Laos



NEW WORLDDAB APAC TECHNICAL SUPPORT GROUP

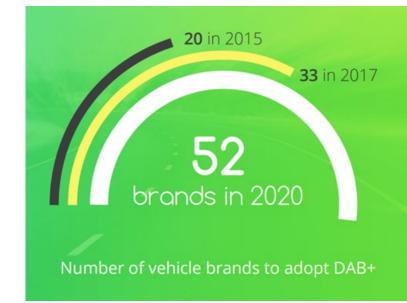
- Dedicated to assisting the broadcast industry in the APAC region implement DAB+ and help keep activities aligned with DAB standards
- Offering participants opportunity to discuss, learn and collaborate on all technical aspects of DAB+, with information tailored to the region
- Members may be from Broadcasters (public and commercial), Governments, regulatory bodies, network providers, equipment and receiver manufacturers, and solution providers
- Active topics for the group will include:
 - RF coverage planning
 - o RF interference analysis
 - Field testing
 - Rollout strategies
 - DAB network design and operation
 - Technical business case and cost analysis
- Meet 2-4 times per year, including at least one physical meeting each year. WorldDAB Project Office to set dates and agenda





DAB+ IN AUSTRALIA – KEY DEVELOPMENTS

- 75% of new cars are now sold with DAB+, up from 60% in 2018.
- DAB+ network coverage is now 64% of the population.
- Over 6 million DAB+ enabled devices have been sold as of Q2 2020.
- 52 vehicle brands support DAB+. More than 3 million vehicles sold with DAB+.
- Latest ratings survey shows that 30.9% of all people 10+ (metro audience) listen to DAB+ digital radio.

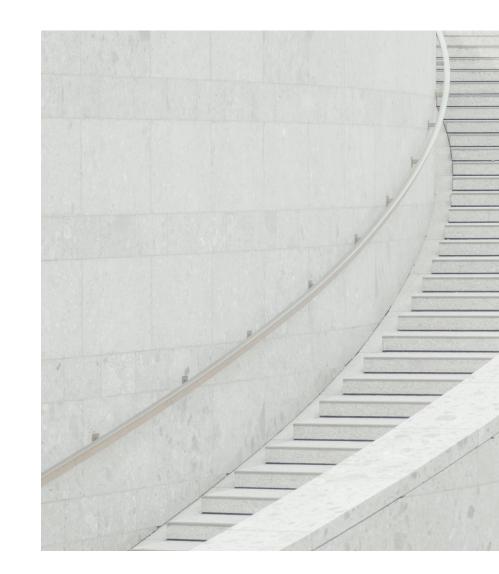


- Permanent DAB+ services on air in 9 markets. A 10th market, the Gold Coast (Queensland), will be the next regional market to roll out with a target start of Dec 2020. 15 other priority markets have been identified by broadcasters.
- More than 350 Australian AM, FM and DAB+ digital radio stations are now easily available via voice command on Google Nest speakers and displays thanks to a partnership between Commercial Radio Australia and Google.
- Australia's first major highway tunnel to support DAB+, the M4 in Sydney, NSW, opened in August 2019. NSW legislation requires all new tunnels to have DAB+.



LOOKING AHEAD

- Ongoing collaboration through sharing of resources and information at a global level within the WorldDAB community in order to promote DAB+ and evolve capabilities
- Develop multi-platform audio landscape
- Celebrate DAB+ reach, quality and reliability attributes
- Education and advocacy community, organisations/ agencies and government
- Policy and regulation
- Invest in trials, research and infrastructure.







Thank you

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