

DAB DIGITAL RADIO | EUROPE AND ASIA PACIFIC

Government policy status

Norway – the digital switchover completed for all national radio Dec 2017 | Switzerland – DSO planned for 2024 at the latest | United Kingdom – in May 2019 the UK Government announced a review of digital radio and audio which is now underway and is expected to conclude at the end of 2020 | Denmark – timing of DSO to be decided when 50% of listening is digital | Germany – digital radio roadmap published by authorities Feb 2017, 2nd national commercial multiplex expected in 2020 | Netherlands – fastest DAB + launch, backed by Government support | Italy – from 2020 it will be mandatory for all radios sold to have DAB + | France – all receivers will have to be DAB + capable in 2020²; Parliament currently reviewing receiver requirements in line with the EECC; national coverage by commercial and public broadcasters will start in 2020 | Belgium – Flemish and French speaking governments committed to a digital radio future with DAB + at its core | Australia – DAB + in 6 metropolitan and 1 regional areas 65% population coverage; planning underway for other markets

1 Commitment of the industry; communication of earlier DSO-Date planned for Q1 2021 | 2 From January 2020 for most domestic receivers and July 2020 for automotive

CUMULATIVE DAB/DAB+ RECEIVER SALES (INCLUDING LINE FIT AUTOMOTIVE) 2008 - H1 2019

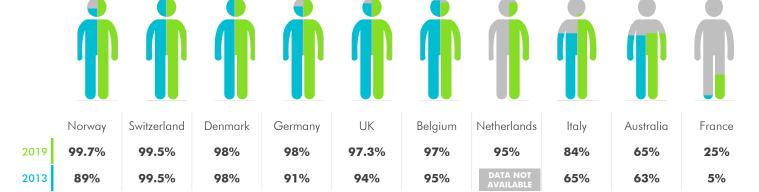


^{*} including pre 2008 sales | 3 As of Q2 2019, including sales starting from 2013 | 4 Q1 2019 | 5 includes sales from 2009 - Q2 2019 | 6 automotive line-fit sales up to Q4 2018 | 7 contains only DAB+ sales starting from 2013 | 8 including sales starting from 2011

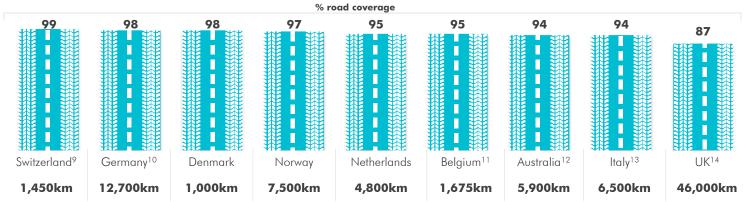
% NEW CARS W/DAB/DAB+



TOTAL DAB/DAB+ NETWORK COVERAGE (% OF POPULATION) 2013 VS 2019



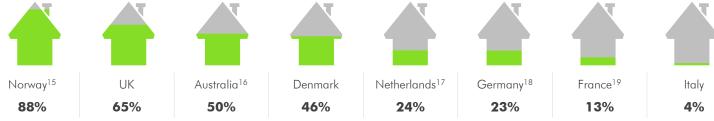
DAB/DAB+ 1st LEVEL ROAD COVERAGE *



*KM 1st level road coverage (motorways, autobahns, autostrade, autostradas, autoroutes). However most countries also have equivalent coverage on 2nd level routes.

| 9 Goal for the end of 2019: All 1st level tunnels longer than 300m with DAB+ | 10 National mux only, regional muxes provide further coverage | 11 Road coverage of DAB+ area covered Flanders and Wallonia | 12 Road coverage of DAB+ area covered in 6 metropolitan and 1 regional areas | 13 National and local muxes, no data on 2nd level routes | 14 BBC National

DAB/DAB+ HOUSEHOLD RECEIVER PENETRATION



NUMBER OF NATIONAL STATIONS ON DAB/DAB+ VS FM

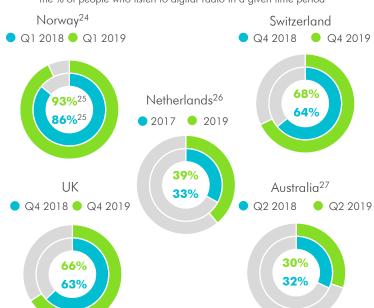


20 FM before 2017 had 5 national stations | 21 No national stations; all stations dedicated to a language region or a region | * exclusive DAB+ stations | ** simulcast DAB+ stations | 22 includes two AM services | 23 up to 250 regional DAB+ programmes available

DIGITAL RADIO REACH ALL PLATFORMS the % of people who listen to digital radio in a given time period

DAB

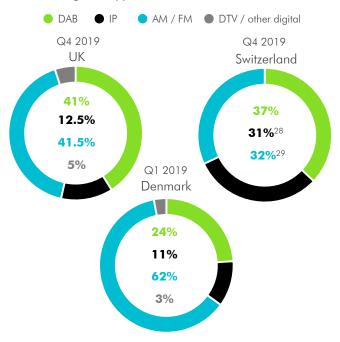
FM



24 Digital reach among daily listeners | 25 Reach among daily listeners of national radio is 100% | 26 Digital listening measured every other year in NL | 27 Simulcast listening via DAB+ and DAB+ only station listening via any platform

DAB/DAB+ SHARE

Total listening hours by platform, % share



28 In Switzerland, 'IP' listening includes streaming, cable and IP-TV $\mid 29$ FM only: 15%

EMERGING MARKETS



% coverage refers to population coverage

30 88% popn coverage by March 2020 | 31 Population coverage of 17 Regular regional DAB+ multiplexes, 82% popn coverage by Oct 2022. 6 Trial local DAB+ multiplexes are also on air and provide additional coverage. | 32 New multiplexes anticipated 2020 | 33 Regulator will develop the draft regulations on Digital Sound Broadcasting in the current financial year (2019/20) | 34 Population coverage of Regular national DAB multiplex for public service. A national DAB+ multiplex for commercial radio is currently on air reaching 43% of the population.

DIGITAL RADIO MARKETING BODIES

 $Norway^{34} - \underline{radio.no} \mid Switzerland - \underline{dabplus.ch}^{35} \mid United \ Kingdom - \underline{getdigitalradio.com} \mid Denmark - \underline{mereradio.dk} \mid Germany - \underline{dabplus.de} \mid Netherlands - \underline{digitalradio.nl} \mid Italy - \underline{digitalradio.it} \mid France - \underline{dabplus.fr} \mid Australia - \underline{digitalradioplus.com.au} \mid Austria - \underline{dabplus.at} \mid Belgium - \underline{dabplus.be} \mid Czech \ Republic - \underline{rozhlas.cz/digital} \ \& \underline{digitalradiodab.cz} \mid Poland - \underline{polskieradio.pl} \mid Slovenia - \underline{rtvslo.si/dab} \mid$

34 The digital switchover is completed, DRN is therefore as planned shut down | 35 Marketing campaign (2017 - 2024) of OFCOM Switzerland

For a full list of sources attributable to each statistic visit the WorldDAB website.



SOURCES - DIGITAL RADIO EUROPE AND ASIA PACIFIC (Status March 2020)

DAB/DAB+ RECEIVER SALES (INCLUDING LINE FIT AUTOMOTIVE) 2008 – H1 2019

Sources: Digital Radio Survey, Q1 2019, Kantar Media (Norway), Ofcom Switzerland, GfK (Switzerland); Weer GmbH as per Q4 2018 (Weer GmbH is only evaluating once a year) (Switzerland automotive), GfK* (UK) (GfK UK numbers do not include Northern Ireland), SMMT/CAP UK (United Kingdom automotive), Digitisation report 2019 carried out by TNS Infratest (Germany), GfK*, 2011 – H1 2019 GfK data for Denmark does not include Tuners and Car Radios and 2011 GfK data for Denmark does not include Clock Radio and Portable Radio (Denmark), JATO Dynamics H1 2019, DAB+ as standard 2015 – H1 2019 (Denmark automotive), GfK* 2013 – H1 2019 (Netherlands), JATO Dynamics 2019, DAB+ as standard 2013 – H1 2019 (Netherlands automotive), GfK Italia CAPI survey (Italy), digitalradio.it (Italy automotive), GfK* (France), JATO Dynamics 2019, DAB+ as standard years 2015 – H1 2019 (Belgium automotive), GfK*, data includes Smart/Mobile Phones but excludes Car Radios (aftermarket) & Tuners (Australia), Q2 2019 and Glass's Automotive Business Intelligence June 2019 and total sales figures supplied by vehicle manufacturers in Australia supporting DAB+ digital radio (Australia automotive)

% NEW CARS W/DAB/DAB+

Sources: Estimate by national broadcasters and Digitalradio Norway, based on general info on DAB+ availability from each car importer. Currently no local official statistic is available to track DAB+ ratio in the Norwegian market for new cars. Cars without line fit DAB-radios are given retrofit solutions locally. The estimate includes private cars only (Norway), SMMT/CAP automotive Q4 2019 (UK), JATO Dynamics H1 2019 (Denmark, Netherlands, France), JATO Dynamics H2 2019 Belgium, Weer GmbH (Switzerland), DAT/VDA report (Germany), JATO Dynamics H1 2019 and digitalradio.it (Italy), Total new DAB+ enabled vehicle sales for 12 months to 30 June 2019, as sourced from VFACTS and Glass's Information Services Report, reported as a percentage of total new vehicles sold, as supplied by FCAI (Australia)

All figures standard fit except Norway, Germany and Italy which also includes cars with DAB+ taken as an option.

TOTAL DAB/DAB+ NETWORK COVERAGE (% OF POPULATION) 2013 VS 2019

Sources: Norkring AS (Norway), BBC (UK), OFCOM (Switzerland), Media Broadcast (Germany), Cibicom (Denmark), Digital Radio NL (Netherlands), digitalradio.it (Italy), WorldDAB, CSA (France), RTBF and Norkring Belgium (Belgium), Commercial Radio Australia (Australia)

DAB/DAB+ 1st LEVEL ROAD COVERAGE*

Sources: Norkring AS (Norway), BBC (UK), SRG SSR, OFCOM, Federal Roads Office FEDRO (Switzerland), Media Broadcast (Germany), Cibicom (Denmark), Digital Radio NL (Netherlands), digitalradio.it (Italy), Estimation RTBF and Norkring Belgium (Belgium), Commercial Radio Australia (Australia)

DAB/DAB+ HOUSEHOLD RECEIVER PENETRATION

Sources: Digital Radio Survey, Q1 2019, Kantar Media (Norway), Q4 2019 RAJAR/Ipsos MORI/RSMB (% of adult population claim to have access to a DAB set in their home) (United Kingdom), NLO Audiomonitor September 2019 (Netherlands), Digitisation report 2019 carried out by TNS Infratest (Germany), DR 2014 (Denmark), "Observatoire de l'équipement audiovisuel des foyers de France métropolitaine. Résultats de l'année 2018 pour la radio » - Médiamétrie / CSA (France), May 2019 (France), digitalradio.it (Italy), GfK Radio Ratings, Q2 2019 (S2-4 2019), SMBAP, Cumulative audience, Mon-Sun, 12mn to 12mn, All People 10+ (Australia)

NUMBER OF NATIONAL STATIONS ON DAB/DAB+ VS FM

Sources: WorldDAB

DIGITAL RADIO REACH - ALL PLATFORMS

Sources: Digital Radio Survey, Q1 2018, Kantar Media, Digital Radio Survey, Q1 2019, Kantar Media (Norway), Q4 2018 / Q4 2019. RAJAR/Ipsos MORI/RSMB (United Kingdom), NLO Audiomonitor September 2019 (Netherlands), DigiMig Trendanalyse 02.2019 / 02.2020 (Switzerland), GfK Radio Ratings, Q2 2018 (S2-4 2018), Q2 2019 (S2-4 2019), SMBAP, Mon-Sun 530am-12mn, All People 10+ (Australia)

DAB/DAB+ SHARE

Sources: DigiMig Trendanalyse 02.2020 (Switzerland), Q4 2019. RAJAR/Ipsos MORI/RSMB (United Kingdom), Gallup/DR, only available for public service channels (Denmark)

EMERGING MARKETS

Sources: TDA (Algeria), Verein Digitalradio Österreich (Austria), Teleradio PU (Azerbaijan), OiV (Croatia), Ceske Radiokomunikace a.s., Czech Radio, RTI cz s.r.o., TELEKO s.r.o. (Czech Republic), ERT (Greece), National Media and Infocommunications Authority Hungary (Hungary), RRI (Indonesia), CBC (Luxembourg), Ministry of Information Kuwait (Kuwait), Macedonia radio Television (North Macedonia), Polish Radio (Poland), Radio Romania (Romania), Radio Television of Serbia (Serbia), VÚS (Research Institute of Posts and Telecommunications, Slovakia (Slovakia), RTV Slovenija (Slovenia), ICASA (South Africa), Swedish Radio (Sweden), WorldDAB (Tunisia), TRT (Turkey), Telecom Regulatory Authority & Emirates Standardization and Metrology Authority (United Arab Emirates), National Council of Television and Radio Broadcasting of Ukraine (Ukraine), Broadcast Information Development Corporation-JSC (EMICO., JSC). (Vietnam)

^{*} GfK Point of Sales DAB+ Fusion report, inclusive of market coverage estimation extrapolation, to represent 100% sales coverage. The DAB+ Fusion report includes the product categories: Audio Home Systems, Tuners, Receivers, Clock Radios, Portable Radios, Radio Recorders and Car Radios (aftermarket). Exception in single countries apply.