

DAB GLOBAL STATUS



475,000,000

People now able to receive DAB services



2,270

DAB services now on air around the world



68,000,000

DAB receivers sold to December 2017, including automotive



41

Countries with DAB services on-air



20,000,000

Automotive DAB receivers sold to December 2017, including after-market and factory-fit



104

Members of WorldDAB, covering the full radio and broadcast ecosystem

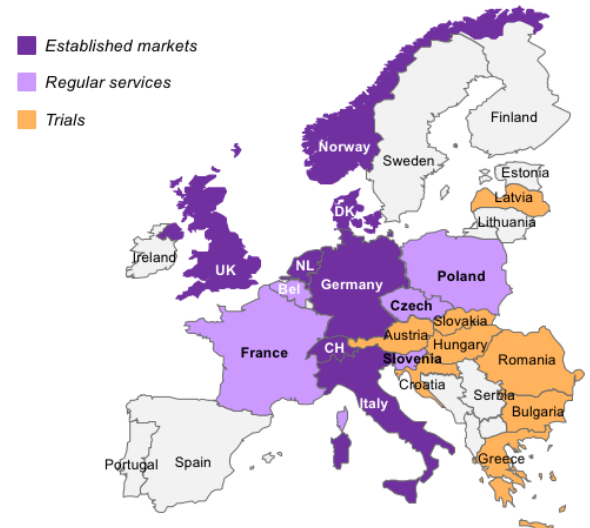
Industry headlines

- DAB+ is established as core future platform for radio in Europe.
- Norway completed the DSO process in December 2017; Switzerland will implement DSO between 2020-24 and in the Italian region of South Tyrol, network operator RAS started switching off FM services in December 2017. The UK has now reached over 50% digital listening and the Government will undertake a review to assess digital radio progress and determine next steps in due course.
- WorldDAB, the EBU and the European Digital Radio Alliance (EDRA) have called upon EU decision makers to introduce measures to encourage the interoperability of radio receivers across the EU. Such an initiative would require new radio receivers (consumer and automotive) to be capable of receiving both analogue and digital transmissions.
- All major car manufacturers are fitting DAB in their vehicles with DAB+ fitted as standard in the majority of vehicles in advanced markets.
- DAB receivers are now available from €16 with prices continuing to drop.
- In Asia Pacific, Australia leads the way with 3.6 million DAB+ listeners, Indonesia launched trial DAB+ services in Jakarta in April 2016 and Thailand plans to launch digital radio in 2018.
- Other countries and regions considering DAB include Ukraine, Russia, Turkey, Arab States and South Africa.

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Automotive

- All major car manufacturers are fitting DAB in their vehicles. Over 20 million cars have been sold with DAB/DAB+.
- In Norway 98% the UK 92%, Germany 39% and Switzerland 85% of new cars come with DAB/DAB+ as standard.
- Territories with national DAB coverage account for 60% of all new car sales in Europe.
- WorldDAB's Automotive Working Group is collaborating with car manufacturers on installation of digital radio and optimising the in-car DAB user experience. The Group has working groups, focusing on the user experience, aftermarket devices, performance of digital radio and TPEG.



Receivers

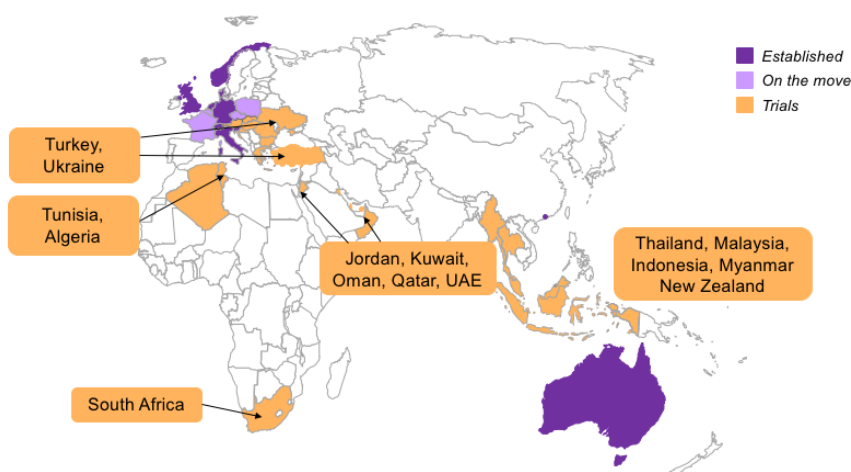
- Over 68 million DAB receivers have now been sold, with prices starting at €16 and continuing to drop.
- Receivers with colour screens now retail for less than €65.
- European markets announced support for a new ETSI Euro standard for DAB digital radio.
- Germany's Federal Ministry of Economics and Energy (BMWi) proposes that certain radio receivers may only be sold if they are suitable for the reception of standards-appropriate digital signals, including DAB+.
- The Dutch Government has made a similar submission to the European Commission and in December 2017, Italy passed a law requiring all radios sold from Jan 1 2020 to have digital capability
- France already has a law which requires receivers to have digital capability once digital radio coverage exceeds 20% of the population – likely to be achieved in the next year.
- WorldDAB's Technical Committee is working on the display of non-Latin text.

Digital switchover

- Norway has been the first country to switch off FM in favour of DAB+ (completed in December 2017).
- Switzerland will start to switch off FM in 2020.
- In the North-Italian region of South Tyrol, broadcaster RAS has started switching off FM services.
- In the UK, as digital listening has reached 50%, it is anticipated that the Government will undertake a review to assess digital radio progress and determine next steps in due course
- The Danish government has proposed the closure of FM broadcasting two years after more than half of radio listening is digital or 2021 at the latest.
- Slovenia's Broadcasting Council has set out a potential path to DSO, adopting a decision for the main Slovenian radio stations to switch to digital on 22.02.2022.

Asia Pacific and Rest of World

- Australia successfully launched DAB+ in 2009
- Indonesia started a DAB+ trial in Jakarta in April 2016.
- A DAB+ trial is on air in Myanmar.
- Malaysia and Vietnam are investigating digital radio and WorldDAB has organised workshops in these countries.
- Broadcast regulator the Independent Communications Authority of South Africa (ICASA) has solicited industry responses to its consultation paper on implementing digital radio, with submissions presented in July 2018.
- Seven countries across the Arab States have trials on air, with permanent services available in Kuwait and and trials scheduled to start in Sudan and Saudi Arabia in 2018.



Europe: regular services

- **Belgium:** A federal launch of DAB+ is planned for 2018, with 99% population DAB+ coverage anticipated by end 2018. In June 2018, the Parliament of Wallonia-Brussels Federation approved a draft decree to amend audiovisual services in French-speaking Belgium, paving the way for the deployment of DAB+ services in the region.
- **Czech Republic:** The multiplex used by the public broadcaster Czech Radio covers Prague as well as an important part of the Central Bohemia region. 62% of the population is covered by DAB+.
- **Denmark:** The Danish government has proposed the closure of FM broadcasting two years after more than half of radio listening is digital or 2021 at the latest. A major DAB+ consumer communications campaign is currently running.
- **France:** The CSA is accelerating the deployment of DAB+ with its strategy titled “nodes and arcs”. In July 2018 the CSA launched a call for applications for the next 15 largest metropolitan areas. A call for the next 15 areas will follow in July 2019. A consultation on the coverage of the main roads is underway.
- **Germany:** Has 97% population coverage for DAB+ and a significant consumer-marketing effort is taking place. Nearly 40% of new cars sold are equipped with digital radio and all broadcasters are supporting a new promotional campaign at dabplus.de.
- **Gibraltar:** DAB+ has been on air since 2012 with four services covering 90% of the population.
- **Holy See (Vatican City State):** One regular regional multiplex is on air with 7 simulcast DAB+ services.
- **Ireland:** National public broadcaster RTÉ operates a full-service multiplex across a five transmitter network covering 52% of the population.

WorldDAB Global Summary

- **Italy:** 83% of the population will be covered by a DAB+ signal by end 2018 (up from 75%). Public broadcaster RA, has approved plans to accelerate investment in radio technology and marketing, and a new amendment has been approved by the government that requires all new receivers to be digital.
 - **Malta:** Two regular national multiplexes with 41 simulcast services covering 100% of the population.
 - **Monaco:** Two regular national multiplexes cover 100% of the population with 7 exclusive and 11 simulcast DAB+ stations.
 - **The Netherlands:** The country has seen the fastest growth for DAB+ (launched 2013). Two million people listen to radio via DAB+, three times as many as it was in 2015. Sales of DAB+ has increased 48% year on year and 39% of new cars sold come with DAB+ as standard.
 - **Norway:** The national FM switch off was completed in 2017 and listening has stabilised following the switch.
 - **Poland:** The official rollout of digital radio started in October 2013, as public broadcaster Polskie Radio launched the first DAB+ multiplexes. 56% of the Polish population is within reach of a DAB+ service.
 - **Slovenia:** Currently 12 DAB+ services, two of which are exclusive to DAB+, cover 73% of the population. At its November session, the Broadcasting Council adopted a decision on the switchover of the main channel of Slovenian radio stations to digital broadcasting on the day 22.2.2022.
 - **Spain:** Three regular national DAB multiplexes are on air in Madrid and Barcelona and together cover 20% of the population of Spain.
 - **Sweden:** There is one regular national DAB multiplex and one trial regional DAB+ multiplex on air covering 35% of the population.
 - **Switzerland:** A major consumer communications campaign is ongoing in preparation of DSO which will take place between 2020 and 2024. In June 2018, Switzerland's Digital Migration working group (DigiMig) called for the country to switch off FM services from 2021.
 - **UK:** Digital listening has now passed 50% and it is anticipated that the Government will undertake a review to assess digital radio progress and determine next steps in due course.
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Europe: trials and/or regulation

- **Austria:** On April 4, 2018, the DAB+ trial on air in Vienna and its surrounding area went into fixed-service operation. In 2019 Austria will launch its first nationwide DAB+ multiplex, allowing 11 radio stations to be broadcast.
- **Bulgaria:** The Bulgarian Communications Regulation Commission (CRC) has announced it will work with the country's Council for Electronic Media (CEM) to form an official policy document concerning the adoption of DAB+ digital radio.
- **Croatia:** Test broadcasting of DAB+ digital radio in Croatia started on 20 November 2017. The trial is scheduled to last for 12 months.
- **Estonia:** A trial is being planned in Tallinn, expected to start in 2018.
- **Greece:** DAB+ frequencies have been allocated for a national deployment of DAB+ and the first licensing law for DAB+ stations was passed in January 2018. The first DAB+ trial of private radio stations in Greece, started on 28th Apr 2018 in Thessaloniki.
- **Hungary:** Chose DAB+ for its digital radio standard and there is currently one trial national DAB+ multiplex.
- **Latvia:** Public broadcaster LVRTC operates one trial national DAB+ multiplex. Services started in December 2016 and currently 11 stations covering 60% of the population are on air.
- **Slovakia:** Currently six trial multiplexes are on air and together cover 36.8% of the population. On all multiplexes, 10 services are transmitted, both public (RTVS) and commercial.

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- **Ukraine:** In March 2018, the National Council announced the results of the competition for digital radio broadcasting in Kyiv. 10 radio stations are to broadcast in DAB format, with three of those being dedicated to public broadcasting. In July 2018, the National Council announced the results of another competition for digital radio broadcasting in Kyiv. Four additional radio stations are to broadcast in the DAB+ format.
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Europe: potential markets

- **Armenia:** There are ongoing consultations within the radio industry in Armenia about possible future deployment of DAB+.
 - **Lithuania:** There are ongoing consultations about a potential future deployment of DAB+.
 - **Romania:** Regulator ANCOM has said it will propose legislative amendments ahead of a new DTT tender due to take place in the second half of the year. This follows the results of a public consultation on the spectrum available in the FM band (174-230 MHz) aimed at transforming a VHF digital TV multiplex into four DAB+ national multiplexes.
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Asia Pacific: regular service

- **Australia:** Continues to lead the way in Asia Pacific – with DAB+ household penetration rising to 46%. The number of people listening to radio via a DAB+ device has grown to 3.6 million in the five capital cities and new services started in Canberra, Darwin and Hobart in December 2017. 47% of new cars were sold with DAB+ in Q4 2017.
- **Hong Kong:** The Government of the Hong Kong Special Administrative Region is currently reviewing the future of DAB services.
- **South Korea:** Assessing DAB+ for broadcast radio.

MENA: regular services

- **Kuwait:** Regular DAB+ radio was launched in the state of Kuwait in 2014. 16 DAB+ services are on air and cover 100% of the population with new services added in February 2018.
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Asia Pacific, Africa, MENA: trials and/or regulation

- **Algeria:** Algerian broadcaster - TDA - launched a DAB+ trial to coincide with World Radio Day on 13 February 2018, broadcasting four radio stations in the capital Algiers, and covering 68% of the city's population.
- **Bahrain:** A low-power DAB+ trial started in December 2016 and was scheduled to complete in February 2017. Four simulcast DAB+ services were broadcast with approximately 40% geographic coverage.
- **Brunei Darussalam:** A trial national DAB multiplex is on air with two simulcast DAB services covering the capital Bandar Seri Begawan.
- **China:** Four regular local multiplexes with a total of 17 DAB services are on air in Beijing.
- **Chinese Taipei:** A DAB single frequency network (SFN) trial has been on air since 2012 and is operated by SuperFM (the commercial broadcaster) and covers major cities including Taipei and New Taipei.

WorldDAB Global Summary

- **Indonesia:** Public broadcaster Radio Republik Indonesia (RRI) launched trial DAB+ digital radio services in Jakarta in April 2016 covering two million people.
- **Malaysia:** A trial local DAB+ multiplex is on air in Kuala Lumpur and is shared by both public and commercial broadcasters. 12 simulcast DAB+ services are on air covering 10% of the population of Malaysia.
- **Myanmar:** A DAB+ trial is on air in Yangon, after a public tender took place in 2016.
- **New Zealand:** New Zealand will debate whether its long-standing DAB trial will be extended beyond its current deadline of 30 June 2018. Operator Kordia states that DAB can be implemented across the country for NZD 10m, and the Ministry for Culture and Heritage will now make a recommendation to Broadcasting Minister Clare Curran.
- **Oman:** Following a DAB+ trial that completed in 2018, a commercial service is planned.
- **Qatar:** A DAB+ trial with 10 services is n air.
- **Sri Lanka:** Stakeholders are working with the regulator, equipment and receiver manufacturers in preparation for an imminent DAB+ trial.
- **South Africa:** A new DAB+ trial licence has been applied for and South Africa's regulator ICASA has solicited industry responses to its its consultation paper on implementing digital radio – submissions were presented in July 2018.
- **Thailand:** Thailand's National Broadcasting and Telecommunications Commission (NBTC) plans to launch digital radio in 2018.
- **UAE:** Following a trial, the TRA (Telecoms Regulation Authority) is working towards a commercial launch of DAB+ in 2018 and has initiated industry consultation on DAB+ receiver specifications.
- **Tunisia:** One trial DAB+ multiplex is on air with 12 simulcast DAB+ services.
- **Turkey:** TRT, the Turkish Broadcasting Corporation, launched DAB+ test transmissions in Band III with four transmitters in Istanbul, Ankara, Bursa and Kocaeli in May 2017.

Asia, Asia Pacific, Africa, MENA: interest

- **Jordan:** A DAB+ workshop and trial took place in Amman in August 2017 organised by WorldDAB and Arab States Broadcasting Union, and hosted by Jordan Radio TV (JRTV) and the Telecommunication Regulatory Commission. 5 DAB+ services were on air during the trial.
- **India:** WorldDAB responded to the 2017 Telecom Regulatory Authority consultation. The consultation on issues related to digital radio broadcasting.
- **Saudia Arabia:** Planning two commercial multiplexes for Dammam and Riyadh. DAB+ should be on air by Nov 2018.
- **Sudan:** A DAB+ trial is planned for 2018.
- **Vietnam:** The roadmap for digital broadcasting radio and TV 2020 was granted by the Prime Minister in 2009.

About WorldDAB

WorldDAB is the global industry forum responsible for defining and promoting DAB digital radio. By bringing together radio industry professionals, WorldDAB provides knowledge and expertise that helps countries successfully adopt and implement broadcast digital radio.

WorldDAB Global Summary

WorldDAB's over 100 organisations cover 29 countries across the globe and include public and commercial broadcasters, regulators, network providers and manufacturers of receivers, chips, professional equipment and automobiles.

WorldDAB is shaping the future of radio, delivering advice and tailored solutions on all aspects of the switch from analogue to digital.