

DAB GLOBAL STATUS



470,000,000

People now able to receive DAB services



2,252

DAB services now on air around the world



60,000,000

DAB receivers sold to September 2017, including automotive



41

Countries with DAB services on-air



17,000,000

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



102

Members of WorldDAB, covering the full radio and broadcast ecosystem

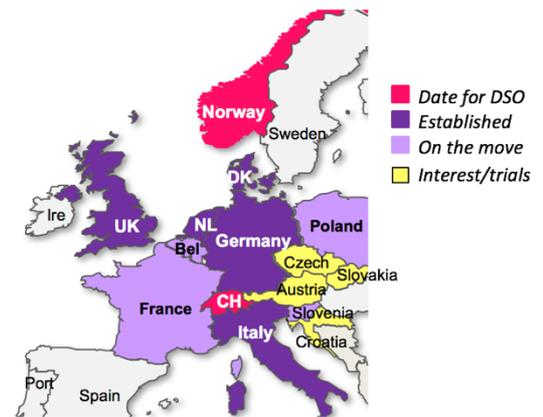
Industry headlines

- EU governments are working together to accelerate rollout of DAB in Europe, building cross-border links to develop a European consensus about radio's digital future.
- 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.
- WorldDAB joined with the EBU and the European Digital Radio Alliance (EDRA) to call 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.
- DAB receivers are now available from €20 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.
- In the UK, The Department for Digital, Culture, Media and Sport has launched a consultation on how best to develop a licensing process to help create a UK-wide network of DAB multiplexes, for use by about 400 local radio stations that still broadcast on analogue technology.

WorldDAB Global Summary

Automotive

- All major car manufacturers are fitting DAB in their vehicles.
- In Norway 98% the UK 87.5%, Germany 39% and Switzerland 66% 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 has established an Automotive Working Group, collaborating with car manufacturers on installation of digital radio and optimising the in-car DAB user experience.



Receivers

- Over 60 million DAB receivers have now been sold, with prices starting at €20 and continuing to drop.
- Receivers with colour screens now retail for less than €65.
- European markets recently 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.

European collaboration

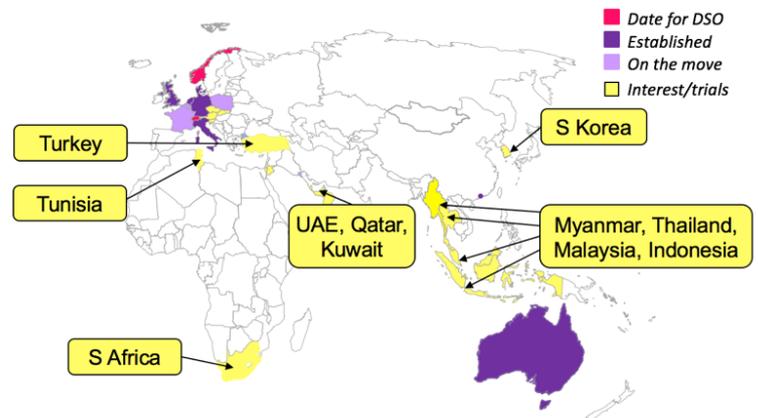
- The European Digital Radio Alliance was established in 2016 to make digital radio the standard and the preferred choice of listeners across Europe. Its strategy is to promote a hybrid DAB/FM solution that will support all broadcasters and consumers in Europe and allow individual countries to go digital at their own speed. 12 founding members represent over 300 public service and commercial radio stations.

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, a discussion with government will be triggered when digital listening hits 50% (currently 48.8%)
- WorldDAB has a Working Group focused on DSO, coordinating activities and sharing best practice with other European countries.

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 each of these countries.
- The Broadcast Regulator the Independent Communications Authority of South Africa (ICASA) extended the DAB+ trial to April 2018.
- Seven countries across the Arab States have trials on air, with permanent services available in Kuwait and Saudi Arabia and a further trial scheduled to start in Sudan in 2018.
- WorldDAB hosted a DAB+ workshop in Jordan in August 2017 in partnership with ASBU and JRTV.



Europe: regular services

- **Belgium:** A federal launch of DAB+ is planned for 2018, with 99% population DAB+ coverage anticipated by end early 2018. In Flanders, the government is preparing legislation for the renewal of FM licensing with a timeline for implementation of DAB+ by 2018.
- **Czech Republic:** From 1 June 2017 the multiplex used by the public broadcaster Czech Radio has entered permanent service, covering Prague as well as an important part of the Central Bohemia region. 62% of the population is covered by DAB+.
- **Denmark:** Transitioned to DAB+ on 1st October 2017, a new national multiplex was on air in 2017 and a decision on DSO when 50% of listening is digital (currently 36%). A major consumer communications campaign is currently running.
- **France:** The CSA has confirmed it will accelerate the deployment of DAB+ with a new strategy titled “nodes and arcs”. Beyond the existing coverage, the next 15 largest metropolitan area will be subject to independent calls for applications in July 2018 followed by the next 15 in July 2019. A consultation on the coverage of the main roads will happen mid-2018. 70% of the population shall be covered by late 2020.
- **Germany:** Antenne Deutschland has been announced as the new platform provider for the second nationwide DAB+ multiplex in Germany. The multiplex will more than double the range of digital radio channels broadcast nationwide. Nearly 40% of new cars sold are equipped with digital radio.
- **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.
- **Italy:** 83% of the population will be covered by a DAB+ signal by end 2018 (up from 75%). Public broadcaster, RAI, has announced plans to accelerate investment in radio technology, 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 percent year on year and 35 percent of cars sold in the country now have DAB+ as standard.
 - **Norway:** The national FM switch off was completed in 2017.
 - **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:** The official rollout of digital radio started in September 2016, as public broadcaster RTV Slovenia launched the first digital radio network. Currently 12 DAB+ services, two of which are exclusive to DAB+, cover 73% of the population.
 - **Spain:** Three regular national DAB multiplexes are on air in Madrid and Barcelona, including their metropolitan areas, 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, 53% of listening is now digital.
 - **UK:** Digital listening has edged closer to 50% (the threshold for a DSO discussion with Government) and reached a new record share of Digital listening is now 48.8% (RAJAR Q3 2017). The Department for Digital, Culture, Media and Sport has launched a consultation on small scale DAB for local broadcasters.
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Europe: trials and/or regulation

- **Austria:** A DAB+ trial is on air in Vienna and call for tenders for national, local and regional DAB+ launched in January 2017 and closed June 2017. Regulator RTR is providing up to four million euros for the launch of DAB+ services.
 - **Bulgaria:** In May 2017 ET DIP TREIDING was awarded a license to transmit DAB+ in Sofia. The Council for Electronic Media (CEM) together with the Communications Regulation Commission (CRC) held consultations with representatives of the Bulgarian National Radio (BNR), the Association of Bulgarian Broadcasters (ABRO) and FOCUS Radio in March 2017.
 - **Croatia:** Test broadcasting of 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:** In January 2018, public-service broadcaster ERT started test DAB+ transmissions and the tender for DAB+ services was announced in December 2017, with licences due to be issued in May 2018.
 - **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.
 - **Ukraine:** Following a meeting on Dec. 21, 2017, the National Television and Radio Broadcasting Council of Ukraine announced a DAB+ tender in Kiev, with the license being granted for 7 years.
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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:** One trial regional multiplex with six DAB services is on air and covers 10.4% of the population.
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Asia Pacific: regular services

- **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 3.5 million in the five capital cities and new services started in Canberra, Darwin and Hobart in December 2017. 44% of new cars were sold with DAB+ in Q3 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 95% of the population.
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Asia Pacific, Africa, MENA: trials and/or regulation

- **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.
- **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:** A trial local DAB+ multiplex has been on air in Auckland and Wellington since 2006.
- **Oman:** Following a DAB+ trial that completed in 2018, a commercial service is planned.
- **Qatar:** A DAB+ trial with 10 services is on air.
- **Sri Lanka:** Stakeholders are working with the regulator, equipment and receiver manufacturers in preparation for an imminent DAB+ trial.
- **South Africa:** New DAB+ trial licence extended for 6 months from 1 November 2017 with 20 radio channels.

- **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.
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Asia, Asia Pacific, Africa, MENA: interest

- **Algeria:** There are ongoing consultations within the radio industry in Algeria about possible future deployment of DAB+.
 - **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.
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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'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.

About DAB+ digital radio

There is growing momentum towards the rollout of DAB/DAB+ digital radio across Europe, Asia Pacific, Arab States and South Africa. Over 60 million domestic and automotive DAB/DAB+ receivers have now been sold – with annual sales almost doubling in the last four years. Digital radio has reached a tipping point in Europe with well over almost 100% network coverage now available in the UK, Switzerland, Norway, Denmark, the Netherlands and Germany, and 83% in Italy. The first countries have confirmed digital switchover dates and political commitment towards digital radio is building in many other markets. DAB+ digital radio offers significant benefits to broadcasters and listeners. The technology is tried and tested. Now is the time to embrace the opportunity.