

DAB GLOBAL STATUS



405,000,000

People now able to receive DAB services



1,966

DAB services now on air around the world



51,000,000

DAB receivers sold to June 2016, including automotive



36

Countries with DAB services on-air



12,000,000

Automotive DAB receivers sold to June 2016, including after-market and factory-fit



96

Members organisations of WorldDAB, covering the full radio and broadcast ecosystem

Industry headlines

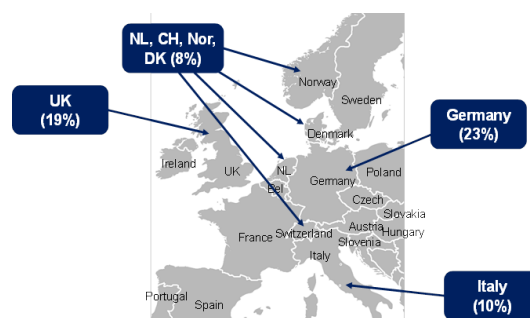
- EU governments are working together to accelerate rollout of DAB in Europe, building cross-border links to develop a European consensus about radio's digital future
- Norway has commenced the DSO process, complete end 2017; and Switzerland will implement DSO between 2020-24
- All major car manufacturers are fitting DAB in their vehicles
- DAB receivers are now available from €12 with prices continuing to drop
- In Asia Pacific, Australia leads the way with 3.6 million DAB+ listeners, and Indonesia launched trial DAB+ services in Jakarta in April 2016

Automotive

- All major car manufacturers are fitting DAB in their vehicles
- In the UK 86%, Norway 78% and Switzerland 65% of new cars come with DAB/DAB+ as standard
- WorldDAB has established an Automotive Working Group (AWG), collaborating with car manufacturers on installation of digital radio as standard across Europe and beyond, and a task force within the AWG is working on optimising the in-car DAB user experience
- Territories with national DAB coverage account for 60% of all new car sales in Europe, and car makers are planning accordingly

European collaboration

- **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
- A **European Digital Radio Alliance** was established in 2016 to make digital radio the standard and the preferred choice of listeners across Europe. It's 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
- The **European Broadcast Union** has called for the adoption of digital broadcast radio across Europe and for the inclusion of digital capability in all new radio receivers
- WorldDAB is engaging with **The European Commission** about the potential inclusion of digital terrestrial radio in the Digital Single Market Strategy, to ensure the allocation of Band III spectrum to digital radio, and to propose EU regulation that all new radio receivers (consumer and automotive) be capable of receiving FM and digital services

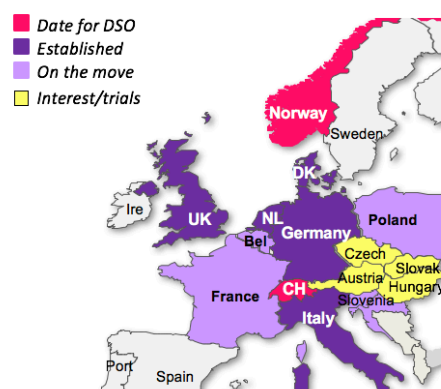


Source: ACEA

Figure 1 % share of European new car sales 2014 – markets with DAB / DAB+

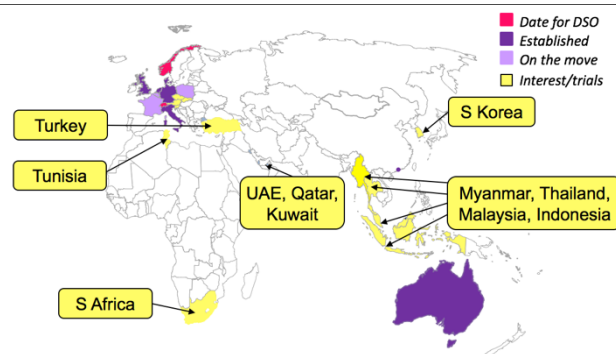
Digital switchover

- Several European markets are considering their long term plans for broadcast radio, including potential digital switchover scenarios
- Norway is the first country to confirm a DSO date (2017); and Switzerland is planning for DSO in 2020-24
- WorldDAB has a Working Group focused on DSO, to coordinate activities and share best practice, attended by Belgium, Czech Republic, Denmark, Germany, The Netherlands, Norway, Poland, Sweden, Switzerland and the United Kingdom



Asia Pacific and Rest of World

- Australia successfully launched DAB+ in 2009, followed by Hong Kong in 2012
- Indonesia launched DAB+ in Jakarta in April 2016
- A trial is taking place in Myanmar
- Thailand, Malaysia and Vietnam are investigating digital radio options. WorldDAB has organised workshops in each of these countries
- South Africa has an ongoing DAB+ trial covering 21% of the population
- Kuwait launched DAB+ in 2014, Turkey and Tunisia are trialling DAB+ and the UAE is working towards a commercial launch of DAB+ in 2018.



Receivers

- DAB receivers are now available from €12 with prices continuing to drop
- Receivers with colour screens now retail for less than €65
- There is ongoing work to create consistent receiver specifications in different countries, building on work already undertaken in the UK and Germany
- In Germany, senior politicians and broadcasters are promoting the case that radio receivers which can display a station's name should be required to have both FM and digital capability from 2019 onwards.
- The Dutch Government has made a similar submission to the European Commission
- In Italy, regulator AGCOM is also arguing for its introduction.
- 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 by 2017.

Europe: regular services

- **Belgium:** A federal launch of DAB+ planned for 2018, with 99% population DAB+ coverage anticipated by end 2017/early 2018. In Wallonia, government, public and private broadcasters supportive of EU receiver regulation. In Flanders, the government is preparing legislation for the renewal of FM licensing with a timeline for implementation of DAB+ by 2018.
- **Czech Republic:** DAB+ currently covers 58% of the population with 29 DAB+ services. One trial regional multiplex as well as two regular local multiplexes and one trial local multiplex are on air
- **Denmark:** Issued a clear roadmap for digital radio, with a transition to DAB+ by 1st October 2017, a new national multiplex on air in 2017 and a decision on DSO when 50% of listening is digital
- **France:** The CSA published end 2015 a timetable for rollout of digital radio across the whole country. The next metropolitan areas of France to be covered include Lille, Lyon, Strasbourg, Nantes, Rouen, Toulouse with calls for application in 2016 and Bordeaux, Besançon, Orléans and Clermont-Ferrand in 2017. The President and CEO of Radio France has requested DAB+ frequencies in Strasbourg, Lille and Lyon
- **Germany:** The nationwide DAB+ network is to be extended by around 50 transmitters with a completion date of 2016. The allocation of frequencies for the 2nd national DAB+ multiplex has been approved by the Presidents of the German Laender and the tender process completes in April 2017. Germany is now developing a DSO strategy
- **Gibraltar:** Two regular regional multiplexes carrying 4 simulcast DAB+ programmes are on air.
- **Ireland:** National Public Broadcaster RTÉ operates a full-service multiplex across a five transmitter network covering 52% of the population in the main cities

- **Italy:** 90% of the population will be covered by a DAB+ signal by 2017 with 75% covered by January
- **Monaco:** Two national multiplexes with 7 exclusive DAB+ stations
- **The Netherlands:** The country has seen the fastest growth for DAB+ (launched 2013) Digital Radio NL has six advertising flights in total over the year 2016 focused on the automotive market
- **Norway:** will switch off national FM by end 2017, the first FM transmitters were switched off on 11 January 2017
- **Poland:** Polskie Radio has extended coverage of its DAB+ services to 56%
- **Slovenia:** The official roll-out of digital radio started in September 2016, as public broadcaster RTV Slovenija launched the first digital radio network featuring 13 services covering 73% of the population
- **Spain:** DAB services are on air in Madrid and Barcelona including their metropolitan areas, covering 20% of the Spanish population
- **Sweden:** There is one regular national DAB multiplex and one trial regional multiplex on air covering 35% of the population. All major Swedish radio broadcasters are united behind the desire for digitisation and officials are awaiting developments in other territories. Swedish commercial radio stations were been licensed to send 21 national channels on DAB but the private radio sector asked for permission to delay the launch.
- **Switzerland:** plans to implement DSO between 2020 and 2024 and 53% of listening is now digital
- **UK:** DAB listening and ownership grew in Q1 2016 boosting all digital listening to 45.5%. It is on track to hit the criteria for a digital switchover decision in second half of 2017

Europe: trials and/or regulation

- **Austria:** DAB+ trial on-air in Vienna and a nationwide tender for DAB+ will be launched in 2017
- **Gibraltar:** DAB+ has been on-air since 2012 with four services covering 90% of the population
- **Hungary:** Chose DAB+ for its digital radio standard and there is currently a test multiplex on air, broadcasting seven radio programs to the Budapest area
- **Latvia:** a national DAB+ trial started in December 2016 with eight stations covering 60% of the population
- **Slovakia:** a DAB+ trial started in December in Bratislava. In June the licence for the trial was extended and others have been awarded for additional DAB+ trials in the cities of Košice, Banská Bystrica, Levice and Nitra. Trial DAB+ services currently cover 22% of the population
- **Ukraine:** The National Council for Radio and Television Broadcasting in Ukraine put forward a proposal on 22 December 2016 to allocate spectrum for deployment of DAB+

Europe: potential markets

- **Bulgaria:** There are ongoing consultations within the radio industry in Bulgaria about possible future deployment of DAB+
- **Estonia:** Ongoing DAB trials since 2000
- **Romania:** January 2016 saw the National Authority for Management and Regulation in Communications launched a public consultation on the allocation of digital terrestrial broadcasting multiplexes T-DAB

Asia Pacific: regular services

- **Australia:** Continues to lead the way in Asia Pacific – with DAB+ household penetration rising to 23.6%. The latest quarterly GfK Report shows the number of people listening to radio via a DAB+ device has grown to 3.5 million in the five capital cities with new services in Canberra, Darwin and Hobart due in 2017
- **Hong Kong:** Radio Television Hong Kong formally launched its five DAB channels in 2012. The Government of the Hong Kong Special Administrative Region is 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. 15 DAB+ services are on air and cover 90% of the population. Two more DAB+ stations will join the existing SFN network in October 2017 to extend coverage to 100%.

Asia Pacific, Africa, MENA: trials and/or regulation

- **Bahrain:** A low-power DAB+ trial started on the 15th December 2016 for 6 weeks. Four stations are currently being broadcast
- **Brunei Darussalam:** a trial local DAB multiplex is on air with 2 simulcast services
- **China:** DAB is 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 2016
- **Malaysia:** a trial local DAB+ multiplex is on air in Kuala Lumpur and is shared by both public and commercial broadcasters
- **Myanmar:** a DAB+ will be launched imminently 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
- **Sri Lanka:** stakeholders are working with the regulator, equipment and receiver manufacturers in preparation for an imminent DAB+ trial
- **South Africa:** Awaiting outcome of DAB+ trial licence renewal by regulator
- **Thailand:** The National Broadcasting and Telecoms Commission (NBTC) plans to start digital radio by 2017
- **The 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
- **Turkey:** a trial local DAB multiplex is on air in Istanbul and Ankara and broadcasts five simulcast stations covering 18% of the population

Asia Pacific: DAB interest

- **Vietnam:** Voice of Vietnam trialled DAB+ in Jul 2013. 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's 90-plus member organisations cover 27 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 30 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 90% network coverage now available in the UK, Switzerland, Norway, Denmark, the Netherlands and Germany, and 75% 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.