

Eureka!

Reaching out to the WorldDMB Community



Issue 17

- 3** Project Office Update
- 6** Hackers enter EBU Digital Radio Week 2012
- 9** The quiet revolution - France pushes for the start of digital radio
- 14** The automotive industry's digital radio...



Breaking barriers

The next steps for digital radio

The uptake of the DAB standards (DAB, DAB+ and DMB) has seen exponential growth across Europe and much of Asia Pacific with market data and activity from these two regions demonstrating a positive outlook from both established and new markets.

Such strong market dominance of these standards has led to WorldDMB and its members progressing away from previous discussions of what the technology could offer both broadcasters and consumers. Instead the focus today is more about applying best practice to assist countries who are preparing to adopt the standard so that they are able to do so smoothly and cost effectively.

Issues that in the past have been seen as barriers to the roll out of digital radio have on the whole been overcome, such as concerns about the high cost of receivers, how to make the financial case for broadcasters to switch to digital radio and how to encourage the automotive sector to accept the DAB standards as the acknowledged technology of choice. This progression has been achieved via the implementation and establishment of the technology in over forty countries, with new markets benefiting by observing how established markets have addressed their own unique sets of circumstances to bring digital radio to the masses.

Continued page 7



Hybrid, the automotive aftermarket, mobiles and tablets are the next big issues that the international digital radio industry must address



Jørn Jensen – WorldDMB President

“...combining of broadcast and broadband is the way forward...”

My experience of working with digital radio in Norway and my extensive involvement with WorldDMB has given me a good overview of the many different aspects that affect the adoption and roll out of digital radio. It has also given me an understanding of how new issues arise during the course of its implementation.

Past barriers to the adoption of digital radio have been addressed through the collaboration and work of WorldDMB members. Consequently, today we see a high volume and range of receivers available on the high street at affordable prices and there has been huge growth in just the last few years of OEM DAB devices being included in vehicle. Without receivers at low prices digital radio cannot be a success - this much I have learnt.

The other key obstacle to the adoption of digital radio was the perception that there were no proven financial incentives for public and private broadcasters to switch to digital. This has now been addressed through the WorldDMB commissioned Business Case Scenarios Report, which highlights different monetary opportunities implemented by broadcasters across Europe and Asia Pacific.

Having addressed these previous concerns we cannot now sit back. Technology and consumer expectations constantly evolve and the changes we see today of internet, TV and consumer usage of new devices have all had a knock on affect on how different technologies compete in the market place. Consequently new issues have arisen that need to be addressed; otherwise there may be fundamental changes in the market that could affect the future success of radio and its compatibility in the digital age.

To me and many others, the issue of hybrid radio is the next big issue that is being examined by the radio industry. The combining of broadcast and broadband is the way forward and I hope we will see one universal hybrid solution that combines and utilises the different strengths of the two platforms to provide a truly interactive experience for the consumer in the coming years. WorldDMB has identified this as the case and is working on addressing it with industry stakeholders.

Work also continues on including DAB+ in car and DAB+ and DMB in mobile phone and tablet devices and I expect to see the progress made over the last year will continue to gather momentum. These new and ongoing issues - hybrid, mobile and automotive - present exciting and new challenges which I am proud to be able to work on with WorldDMB and its members. By addressing these challenges the radio broadcasting industry will be able to provide the consumer with an enhanced, more engaging digital radio experience and ensure radio continues to remain competitive in a digital future.

Jørn Jensen, WorldDMB President

Project Office Update

WorldDMB has seen a fundamental shift over the past few years in the way it works to ensure the adoption of the DAB family of standards by governments and broadcasters. While the WorldDMB Technical Committee continues to work on overseeing the standardisation of the DAB family (see page 5 for an update on the work of the Technical Committee's Task Force on Service Following), the WorldDMB Project Office and the WorldDMB Marketing Committee are focused more and more on delivering tailored roll out workshops which bring best practice and the lessons learned to our digital radio colleagues in emerging digital radio markets.

In addition to continuing the focus on growing the adoption of the standards in Europe and Asia Pacific, WorldDMB are increasingly focusing on the important subject of spectrum and regulation which remains a major preoccupation for WorldDMB and its members. The WorldDMB Regulatory and Spectrum Committee (RSC) works hard to provide guidance on the advantages of different regulatory approaches needed in countries with varying regulatory needs.

A vital role of the RSC is to produce a regulatory model and to identify possible routes to common regulatory frameworks to facilitate the introduction of DAB+/DMB services internationally. The RSC also works to ensure the availability in the medium-to-long term of sufficient DAB based frequencies beyond those already allocated and safe guard those frequencies currently allocated – read more about this Committee's important work on page 6.

Contact the Project Office for more information about the work of the Regulatory and Spectrum Committee as well as about the work of the Technical Committee and Marketing Committee.

Bernie

Bernie O'Neill, Project Director



The last few months has seen WorldDMB at a number of events in Europe and across the Asia Pacific region



New WorldDMB Members



Eiden Co., Ltd is an electronics engineering group incorporating Elena Electronics Co., Ltd. and Koyo Sokki Seisakusyo Co., Ltd. as affiliated companies, and is the central point for a range of enterprises. They provide transmission equipment for corporate users, and develop AV equipment, test signal equipment, measuring equipment and central signal equipment for factory production.



Glovane Co. Ltd is a leading supplier of highly-integrated radio receiver SoCs and field proven softwares including data service middlewares such as EPG, SLS, TPEG and service following. Glovane is increasing its DAB product range with cost-efficient digital radio receiver solutions for the automotive market as well as for the consumer market and is committed to sustaining growth of its DAB and mobile TV technologies.



Hyundai Motor Europe Technical Center GmbH is the fourth biggest car manufacturer in the world and in Germany is becoming one of the strongest growing brands. Over 20 nationalities of high skilled engineers work in the development and design centre in Rüsselsheim to develop the next successful innovative technologies with focus on Design, Powertrain, Perceived Quality, Infotainment and Advanced Driver Assistant Systems.

New WorldDMB Members *continued*



INRIX is the leading provider of traffic information, directions and driver services, as well as apps and tools all designed to get traffic-powered solutions to market rapidly. INRIX combines the best data from the largest traffic network in the world with game-changing technologies, auto manufacturers, mobile developers, transportation agencies, fleet and internet companies to give consumers the power to go anywhere.



KeyStone Semiconductor Corp. is a technical innovator and a leader in wireless digital audio semiconductors. They provide the consumer electronics industry with system-on-chip and turn-key solutions to manufacture analogue and digital broadcasting products. KeyStone has invested 30M USD in developing a series of low-cost and low-power broadcasting chips.



Radio Télévision Belge Francophone (RTBF) is the public broadcasting organisation of the French Community of Belgium. RTBF operates a number of radio channels such as La Première, RTBF International, VivaCité, Musiq3, Classic 21, and PureFM, as well as TV stations.

Featured WorldDMB Member Benefit

ETI Library

The WorldDMB ETI Library is an online database of ETI Files which is being constantly expanded by WorldDMB members. It contains:

- ETI file country snapshots of DAB, DAB+ and DMB from different markets
- ETI files configured with multiplexing equipment from specific manufacturers
- Files which can be used for demonstration and testing purposes

As broadcasters create ever more complex digital radio services, the ETI Library will reflect these and maintain a single point of reference for manufacturers and broadcasters worldwide.

What benefits does the ETI Library offer Manufacturers?

By identifying and compiling the different multiplex solutions the Library assists receiver manufacturers in testing their products ensuring they include the minimum set of function requirements set out in the WorldDMB Receiver Profiles making them compatible on an international level.

A centralised database is especially important for receiver manufacturers producing products destined for multiple markets and specifically the car industry where receivers must be harmonised for cross border use.

What benefits does the ETI Library offer Broadcasters?

Broadcasters can use the WorldDMB ETI files to check their own transmissions for conformity, further reducing the risk of

inconsistent reception that could arise from complex configuration of the digital broadcasting systems ensuring receivers work to their optimum performance.

The WorldDMB ETI Library is available to members only.

Contact rebecca.keene@worlddab.org for more information.



Featured Members' News

Harris awarded Norwegian operator contract

Harris Corporation has received a multi-million dollar Digital Audio Broadcasting (DAB) digital radio contract from Norwegian broadcast network operator Norkring that will support the country's analogue-to-digital radio broadcast transition.

Norway intends to cease FM radio broadcasts in 2017, becoming the first country to plan a complete switch-off of all analogue FM services. After this date, the country will use DAB digital radio technology for all audio transmissions, including disaster and emergency services.



Frontier Silicon announce new record in volume sales

Frontier Silicon, a supplier of digital radio solutions announced in April that its sales volume of DAB/DAB+ modules and chipsets set a new record for the company in Q1 2012.

Sales of these products have leapt forward by almost 20% compared to the same period in 2011. The market for DAB/DAB+ radios is increasing as various markets around the world move to digitize their radio services.

Especially important was the successful launch of DAB+ services in Germany and Hong Kong during 2011.



VDL to provide Transmission services for MuxCo's first Local DAB Multiplex

MuxCo North East Wales and West Cheshire Ltd. has entered into an agreement with VDL to provide transmission services for the Wrexham, Chester and Liverpool DAB (Digital Audio Broadcasting) multiplex for a period of 12 years from November 2012.

The Wrexham, Chester and Liverpool DAB multiplex will broadcast BBC Radio Wales, BBC Radio Cymru, 107.6 Juice FM, Real Radio and Dee 106.3, allowing these existing services to both broadcast in digital quality and be heard by a wider audience than can currently hear them on FM Radio.



Technical Committee Update

The Technical Committee, chaired by Lindsay Cornell, convenes to oversee the standardisation of the DAB family of standards. It ensures that receiver equipment and broadcast technologies are compatible. The Technical Committee also upgrades and advances the standard in line with other technical developments. Finally, the Technical Committee looks to future-proof all DAB equipment (both receiver and broadcast based).

The latest work of the Technical Committee has been to oversee the approval of the Service Following guidelines which have now been submitted to ETSI. WorldDMB members Arqiva, Audi, BBC, Bosch, Continental, Fraunhofer, Frontier Silicon, Global Radio, IRT, J&K Car Electronics, PURE and SRG SSR have all contributed to setting definitions of what is mandatory and optional for broadcasters and receivers.

A response from ETSI is expected in the middle of 2012 and after this the document will be released.

To join the Technical Committee contact:
admin@worlddab.org



Hackers enter EBU Digital Radio Week 2012



Developers, engineers and students played with prototypes to make radio more attractive and innovative for colour screens

Don't worry, this has nothing to do with criminal activities.

These hackers were developers, engineers and students interested in tweaking, modifying software and playing with prototypes to make radio more attractive and innovative for colour screens. They gathered for an event called RadioHack that kick-started the 2012 EBU radio week and enabled them to test different possibilities on the huge number of new tablets and multimedia devices that are now coming on to the consumer market.



Hybrid radio applications using DAB/DAB+ and RadioDNS were at the centre of this event thanks to the active participation from BBC, R&D, Global Radio labs, IDAG and EBU labs. A real high power DAB+ local transmission using open CRC mmbTools from the roof of EBU also took place to demonstrate that digital radio has become affordable for local and community radio. Representatives from CRC were on hand to explain to participants how to use their tools to make transmissions and tests or for hybrid radio.

On the Digital Radio Summit side, the event gathered more than 107 participants despite a late program announcement. After a long absence of representation in the summit program, we can note the return of France on

the programme with an overview on the multiplatform strategy from Radio France and the local/community radios coming into play with DAB+. Today radio is clearly multiplatform with terrestrial digital radio at its heart as demonstrated also by other country representatives from Germany, Belgium, Netherlands and a number of different manufacturers.

Everything is now ready for the migration of the full radio ecosystem to digital. However, harmonization efforts are still needed to keep the radio experience simple for the listener.

Resources from EBU Digital Radio can be found on <http://tech.ebu.ch/events/digital-radio-summit12>

If you are interested in participating at next year's event or have any comments please contact Mathias Coinchon at coinchon@ebu.ch



Mathias Coinchon
Senior Project Manager,
EBU Technical

Should we expect a reduction in broadcasting due to shortage of frequencies?

The European Union Radio Spectrum Policy Programme (RSPP) published Decision No. 2012/243/EU which took effect from 10 April 2012. It is the strategic planning and harmonization document containing the request to make more spectrum available to broadband services.

Consequences are already visible in the work of CEPT group FM50 related to the future of L-band. Application "Multimedia

Downlink" was renamed to "Mobile Supplemental Downlink" as the focus on multimedia was limiting and now it is an integral part of the broadband networks aimed at enhancing downlink capacity. The current broadcasting plan was stated as not being efficient and a new band plan has been requested.

L-band digital radio is already licensed and in use in some countries but there is

an intention within the CEPT groups not to take into account the issue of broadcasting when considering L-band future use.

EU representative welcomed the second digital dividend

News on the limitation of future radio frequencies came from the Radio Spectrum Policy Group (European Commission advisory body). The Chairman of the group Mr Viola welcomed the second digital

Barriers to the success of digital radio have now on the whole been overcome

For broadcasters and government it is vital when undertaking the transition to a digital platform that the chosen standard is both robust and mature enough to enable a smooth and cost effective rollout while providing both consumer and broadcaster incentives to switch to digital.

The DAB family of standards provide just that. It is both robust and mature with all the right market conditions already established in over 40 countries, enabling others to follow, learn from their experiences and to confidently digitise their own radio industries.

It has taken time to get to the advanced stage where we now see the DAB family of standards adopted in so many countries. Issues that have been addressed to get to this point have included:

- getting affordable receivers to market
- financial business cases for digital radio
- getting digital radio in vehicles

Receivers and plenty of them at low prices are vital to the success of digital radio roll out

Radios, radios, radios and lots of them!

Receivers and plenty of them at low prices are vital to the success of digital radio roll out, enabling consumers to affordably buy into the new services that are put on air. In both new and established digital radio markets the success of a country's roll out is often measured on how many consumers are not only buying the receivers from retailers but how many consumers also tune in. If there are not affordable receivers for consumers to purchase there is little point in broadcasters investing in putting services on air.

Today there are thousands of DAB/ DAB+ and DMB compatible devices on the high street and online with prices as low as 20 Euro. Consequently three of the fundamental elements in ensuring the choice and incentive to switch to digital for the consumer and broadcaster have been addressed – availability, choice and affordability!



The new Frontier Silicon Venice 8.1 module will contribute to an increase in the number of DAB+ receivers with colour touch screens available for under €100

What do we get out of it? Overcoming the cost and competition implications for broadcasters

Each country's radio industry has its own unique set of circumstances. In some countries it is the public broadcasters who are proponents of digital radio with commercial broadcasters opposed and vice versa depending on which market we review. However over 40 countries now have the DAB family of standards on air and this has enabled WorldDMB to address the concerns of both public and private broadcasters through learning from what works.

Continued on page 8

dividend saying at a regulatory conference in London that the idea of using the 700 MHz band for mobile broadband is "irresistible". He intends to raise the issue in the next RSPG meeting. The decision to allocate the 700 MHz band for IMT services was adopted on the ITU conference WRC-12 and TV broadcasters that have already lost the 800 MHz spectrum will leave another 12 channels but will ask for use of band III frequencies which will limit the development of digital radio.

EBU warns against further "erosion" of broadcast spectrum

For terrestrial broadcasting to be economically and technically viable there

must be enough spectrum available to allow operators to launch the services their customers expect. Continued erosion of broadcasting spectrum will mean that consumers will start to notice degradation in the services being offered.

The WorldDMB Regulatory and Spectrum Committee will continue to monitor and report back to members about the latest development relating to the international situation on spectrum.

Radim Soukenka
WorldDMB Regulatory and Spectrum Committee Consultant



Continued from page 7

WorldDMB's commissioned Business Case Scenarios Report now provides guidance on good practice, advice on implementation of digital radio and provides examples of financially viable business models. Importantly for broadcasters, the research demonstrates the financial gains and reduced running costs offered by DAB/DAB+ and DMB which makes a compelling argument for switching to the DAB family of standards.



Dr. Chris Weck, Technical Director at Deutschlandradio says it is all about the money. Digital radio transmission costs, about one-fifth of that of analogue radio transmission.

Significant steps have been made in the automotive industry but there is considerable distance to go

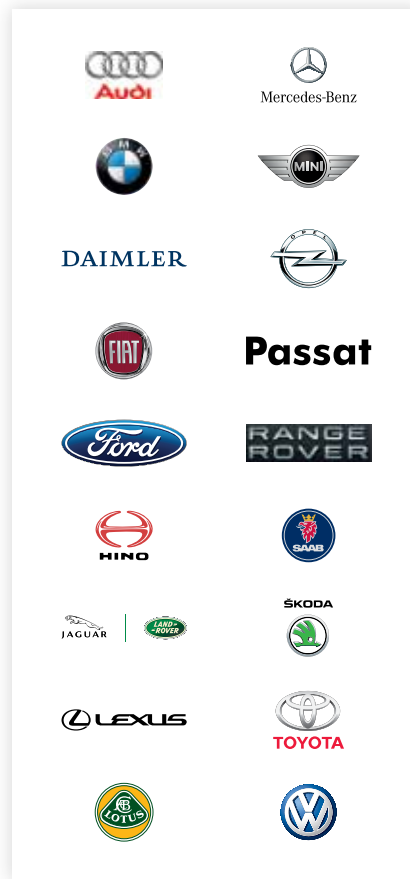
It is vital that receivers are readily available in cars given that a large percentage of radio listening is done while on the road. Progress in the last couple of years has been considerable and today we see virtually all the major car manufacturers line fit DAB/ DAB+ as standard in their newer models in key markets.

However there is still a long way to go and therefore WorldDMB's work with the automotive industry is ongoing through tailored workshops and communications to ensure more automotive manufacturers integrate digital radio as standard across all their ranges. Work is also ongoing to bring consumers more affordable adaptors for older car models that do not have DAB/ DAB+ line fitted.

There is huge potential in the automotive after-sales digital radio receiver market and WorldDMB hopes to see more products on the high street in the very near future to meet the huge consumer demand.

DAB+/ DMB is the digital radio standard of choice for broadcasters

across Europe and Asia Pacific and is now being line fitted or is available as optional by the following manufacturers:



Hybrid radio as the future

As highlighted in a number of recent events such as the EBU digital radio week in February, hybrid radio is very much on the agenda for the international digital radio industry.

A number of organisations are working on developing and defining the future of digital radio and hybrid is an integral part of this discussion. One such example is the EBU New Radio Group, chaired by Mats Åkerland, the Head of Digital Strategy of Swedish Radio, who argues that the future of European radio lies in both broadcast and broadband, a view supported by WorldDMB.

While digital terrestrial distribution is a priority, online additional elements can add to the experience. Mats Åkerland argues that it is not a case for either/ or but rather a combination of both. Digital terrestrial radio via DAB, DAB+ and DMB is the way to deliver radio to a mass audience both cost effectively and reliably. The internet combined with terrestrial broadcasting offers broadcasters unique opportunities for retaining and attracting new audiences.

The challenge for hybrid radio – affordability, availability, content and universality

In the past few years smartphone use has rocketed, and the number of new styles of mobile devices and tablets now available has grown significantly, providing users with more choice. However, few of these devices are DAB+ and DMB compatible with exception of South Korea where there are 30 million DMB enabled devices. Recent research by Commercial Radio Australia shows that over half of its 16-24 year olds now listen to radio on their phones. In response to these findings CRA is working on setting up trials with Telco Operators to test DAB+ chips in phones which would bring down the cost of listening to radio on mobile devices for the consumer and will enable interactive elements that will be backed up by phone apps to engage the user.

In addition new DAB+/ DMB chips have in recent years shrunk in size enabling them to be fit more easily into handsets and tablets. This would mean that the phone or tablet battery will not be drained in the same way as when listening to radio over IP. It will also help to drastically reduce the cost of listening to the radio for consumers who are on the move as listening via terrestrial broadcast is free at point of consumption – unlike IP radio where users must pay charges for broadband usage.

It is important to note that with the new elements of hybrid radio that IP brings to broadcast radio, broadcasters themselves are driving the development of hybrid radio through the production of more visual content for smartphone and tablet users just as they have done when utilising the extra features that DAB+ allows such as slideshow, EPG and Traffic and Travel Services.

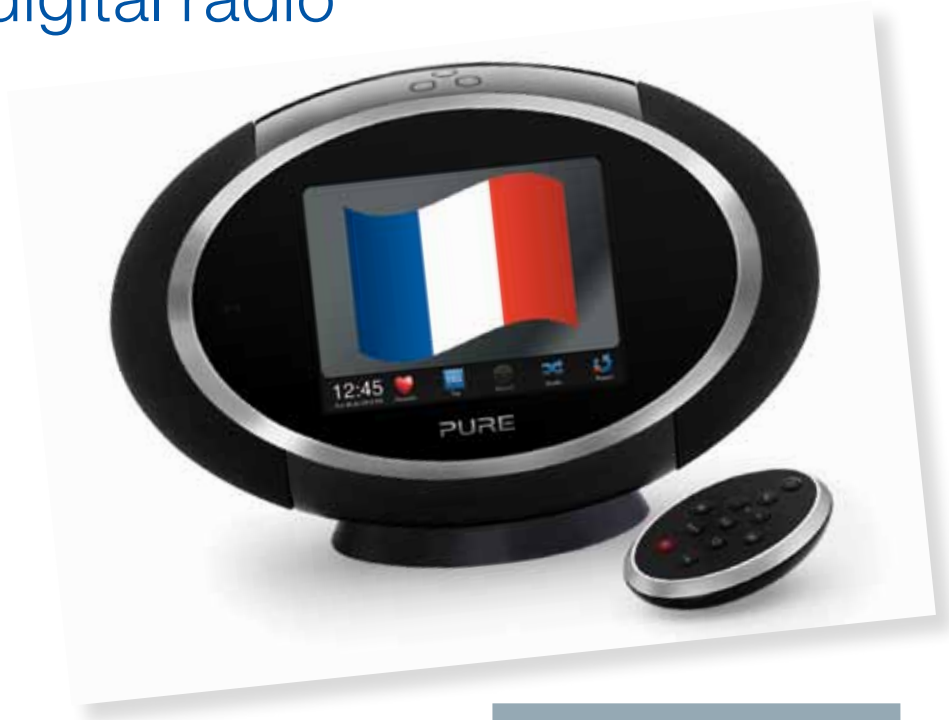
WorldDMB anticipates many positive and exciting changes in the coming months on the evolution of the combining broadcast and broadband which will ultimately provide consumers with radio, plus more choice.

The quiet revolution – France pushes for the start of digital radio

At the time of Eureka! going to print the consultation on whether to include DAB+ as part of the French digital radio standard is closing. Once again the French market is looking at the technology standard and asking for feedback and recommendations on which part of the DAB family of standards the French digital radio industry can use. Currently DMB audio is the only part of the standard allowed in France although as one family all parts can sit happily together on the multiplex.

This new twist in the tale of French digital radio comes after months of public announcements from the French regulator, the CSA pushing for the official launch of digital radio. As early as February, when the trial licenses for RNT Lyon were renewed and further trials were on-air in Paris, Marseille, Nantes and Loire-Atlantique, the CSA announced 2012 would be the year of digital radio services officially on-air. In order to do this the smaller broadcasters association (SIRTI) took the CSA to court to demand that it release the tenders issued three years ago and which to date have been blocked. The CSA was legally instructed to fulfil its obligations to those broadcasters who had won licenses in the 2009 tender allowing digital radio services to finally go on air in Paris, Marseille and Nice. A flurry of headlines ensued in the French press 'CSA to dig up digital radio' referring to the oft said 'DAB is dead', hardly the case given that DAB digital radio is now on-air or regulated in all the major European markets.

It was also announced in May, alongside the close of the consultation on the technical standard, that the CSA plans to open a call for digital radio licences in a further 20 largest cities. A calendar for tenders was released starting this June and ending in April 2013 and it is predicted that the first of these service will be on by the end of the year. This in turn would account for 62% digital radio coverage of the French population, triggering the 2009 French law on inclusion of digital radio in all products. This law was amended in 2010 to commence when 20% coverage of the population was reached.



Throughout this period the major commercial broadcasters in France have continued to be vocal in their condemnation of the DAB standard with the old arguments surfacing – 'it's an old technology', 'receivers are too expensive', 'the cost of dual transmission', 'no revenue opportunities', 'what about in-car receivers?'. All arguments which the German market is steadily silencing critics on and in some quarters in France, where trials are on-going, it has been proved that these objections are no longer valid.

France has had a chequered history with the launch of digital radio with a couple of false starts. This time however the signs look good; trials are already on-air, consumer campaigns have started, receivers are in the larger retail outlets and the support of the CSA and the push from the smaller broadcasters all show there is a commitment to digitalising the French radio industry. And, in yet another twist on the road to digital it was announced that the Deputy-Mayor of Nantes, supporter of the digital radio trial held there, has been announced as France's new Prime Minister... the revolution may just get bigger!

“...the signs look good; trials are already on-air, consumer campaigns have started, receivers are in the larger retail outlets...”



WorldDMB brought together commercial broadcasters and digital radio experts to share their experiences of going digital at a workshop 'The Digital Radio Experience' held during the French radio industry event Le Radio 2012 which took place in Paris, 5-7 February, 2012

German digital radio industry takes next steps

The first half of 2012 has seen the German digital radio industry focus more on educating the retail industry at the same time as increasing coverage and ensuring services go on-air.

Retailer events have been held in major German digital radio markets and at various in-house trade shows since early February and there is a plan to extend these later in the year. The next steps are a campaign with Deutschlandradio in early summer in Berlin as well as a briefing campaign in North Rhine-Westphalia where all MediaSaturn retailers will be addressed. The latter is currently being prepared by a core project team of both public and commercial broadcasters, device manufacturers such as PURE and Terratec and the German Project Office. All activities adhere to the marketing guidelines document "Retailer Initiative" where all experiences and case studies from previous marketing activities are flowing in steadily.

The market is also looking at ensuring in-store signal coverage in the larger retailer outlets with research being carried out on suitable in-store repeaters. The Media Saturn Group have made a commitment to have in-store repeaters in the April edition of Meinungsbarometer Digitaler Rundfunk magazine.

Promotional activity, new services and products

Consumer campaigns are on-going from both the broadcasters on the national digital radio multiplex and also from the ARD broadcasters. SWR ran a promotional

campaign on-air on their SWR3 station and also had information online as well as in print promotional material for listeners. In a survey taken during this campaign the success was measured and the result was 82% of listeners are now aware of digital radio from this station.

In Bavaria, April saw the start of a new series of media days entitled 'Total Digital' which will be held at a number consumer shows throughout the year. More info can be found at <http://www.blm.de>. The aim of these events is to raise awareness of digital radio and to promote digital radio products through prize draws. The regulator also remains active with new stations going on-air in Baden-Württemberg, Bavaria and Rhineland-Palatinate.

Alongside these promotions a new scheme enables those exchanging their old analogue radio to receive a 20% discount when purchasing a new digital radio by PURE, Albrecht and Terratec. To receive the discount consumers are encouraged to make a video while scrapping their analogue radio and to post it on Youtube and send the link to bindabei@terratec.de.

For more information about the scheme visit: www.facebook.com/Digitalradio, binDABei and www.bin-dab-ei.de



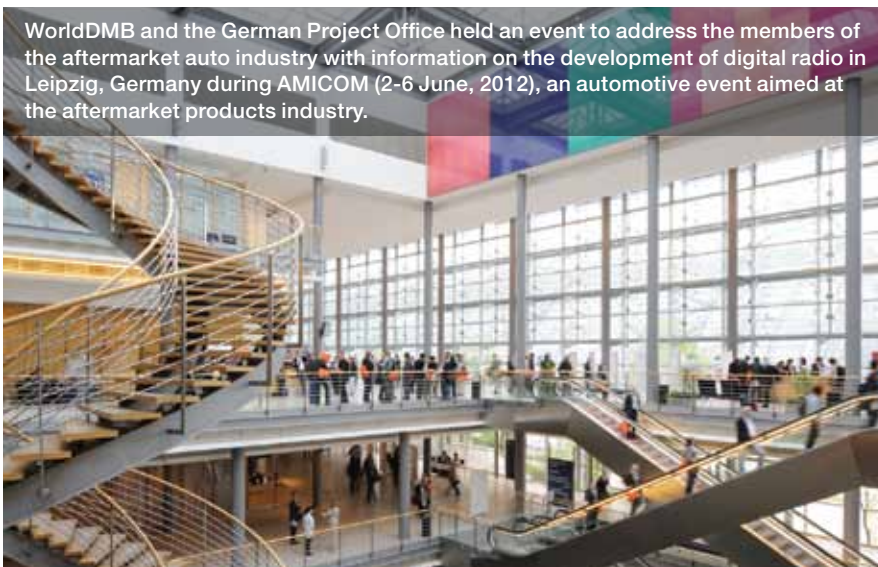
The receiver manufacturer Terratec launched a TV promotion campaign in early April to launch its new ran T Stick+ for DAB/DAB+/DVB-T alongside SAT TV1. You can watch the video for this at <http://www.youtube.com/watch?v=MGBkBbsamKE>. Also new product launches were made by BOSE and for the car industry by Alpine, Dual and JVC in the last couple of months.

In time for the German Project Office and WorldDMB event at AMI/AMICOM the German Project Office has released a new brochure in German 'Digital Radio In-Cars'. The event at AMI/AMICOM on the 4th of June was targeted at the OEM and after sales market and was attended by all major OEMs, Tier 1's as well as providers of after sales market equipment.

Going into Q3 plans are being made for IFA and increasing consumer awareness

of the number of digital radios, in all price brackets, which are now available. WorldDMB is also planning its promotions during IFA for more information on this please contact caroline.seville@worlddab.org

WorldDMB and the German Project Office held an event to address the members of the aftermarket auto industry with information on the development of digital radio in Leipzig, Germany during AMICOM (2-6 June, 2012), an automotive event aimed at the aftermarket products industry.



Other events WorldDMB will hold in Germany in 2012:

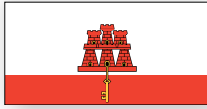
WorldDMB Car Manufacturers Event, Berlin, Germany, 14 November 2012

WorldDMB General Assembly Meeting, Leipzig, Germany, 15-16 November 2012

Europe continues with its progression of digital radio adoption

An overview of the latest market information from European markets

Gibraltar



The Gibraltar Regulatory Authority (GRA) has signed a contract worth around \$1.5M with Arqiva in the United Kingdom to provide a digital broadcasting network in Gibraltar. The network in Gibraltar will comprise multiplexing and transmission for both digital TV and DAB digital radio. On each of two television multiplexes Gibraltar will be able to transmit up to six programme services. Similarly with digital radio, the two multiplexes will each allow for four separate services. This means a greater choice of programmes for residents and visitors, and that additional broadcasters could be licensed by the Gibraltar government.

Netherlands

In November last year at the WorldDMB seminar in the Hague, the Dutch public-service broadcaster Nederlandse Publieke Omroep (NPO) declared it is looking to roll out a DAB+ network for the Netherlands with 95 percent coverage by 2017.

Tom Visser, project manager for digital radio at the Dutch Ministry of Economic Affairs, Agriculture and Innovation, echoed support of DAB digital radio in the Netherlands, stating that the Dutch ministries were "fully committed" to digital radio and that the political climate was right in the Netherlands with both public and commercial broadcasters and other relevant parties working together on the expansion of digital radio.

Progress on the roll-out of DAB+ in the Netherlands continues in 2012 with MTVNL launching 6 TV channels via DMB and one radio channel via DAB+ in July.

The WorldDMB Project Office is also in the process of working with the Dutch Ministry of Economic Affairs, Agriculture



and Innovation to arrange a seminar in Amsterdam during IBC 2012. More information will be available shortly at www.worlddab.org

Italy

On 8 May, 2012 the AGCOM, the Italian regulator published on its website the decision for the frequency assignment for DAB digital radio in the pilot area in the Trentino Alto Adige region.



The following blocks are assigned:

National radio: 12A 12B 12C

Local radio the blocks are: 12D, 10A, 10B, 10C and 10D

The usage rights of these frequencies will be assigned to the different consortiums such as Rai, ClubDAB, EuroDAB and RAS which will have submitted the request and satisfy the requirements within 60 days of the publication of the decision (7 May 2012). An update on the Italian market will be available by the end of July.

Poland

The key message that came out of the Now Radio! conference which took place in May in Wroclaw was that digital radio cannot remain analogue and that DAB+ is the standard of choice for the Polish market.

Over 150 delegates gathered from all sectors of the Polish broadcasting market including national and regional public, commercial and social radio broadcasters to hear from a panel of international speakers. The conference was also attended by high level representatives from the National Broadcasting Council, the Office of Electronic Communications and the major infrastructure operator Emitel.

The event held by Radio Wroclaw, a Polish leading regional public broadcaster which



has been at the forefront of pushing for DAB+ for years feels it was important that a serious discussion on the future of Polish digital radio was held. The next stage for the Polish radio industry is to think seriously about how to get DAB+ on air.

United Kingdom

The latest news coming out of the UK highlights the progress being made with the roll out of digital radio. The latest Q1 2012 RAJAR figures demonstrate growth of digital radio listening with DAB digital radio listening at a record 200 million hours, an increase of 15% on year on year.

The RAJAR results also highlighted that leading stations for digital listening have shown strong year on year performance. The 'Digital Audiences Top 20' list showed for the first time seven digital-only stations in the list: BBC Radio 4 Extra, BBC 6 Music, The Hits, Smash Hits, BBC 1Xtra, Planet Rock and Absolute Radio 80s. This good news for digital radio only stations was also reinforced with digital radio station BBC Radio 6 Music winning the Sony Award for UK Station of the Year. This was a landmark moment for digital radio and is the first time in the 30-year history of the Sony Radio Academy Awards that a digital-only station has won UK Station of the Year – the biggest radio prize of the year.

VW announces 2013 models will have DAB as standard



VW has confirmed that DAB digital radio will be fitted as standard across all models (except one, the VW UP!) from 2013. VW represents almost 10% of the in-vehicle market and this announcement keeps the UK on track to hit its target for the majority of new cars having digital radio as standard by the end of 2013.

New WorldDMB Asia Pacific Office

Simon Heung, Asia Pacific Consultant



WorldDMB would like to welcome Simon Heung who has been appointed WorldDMB Consultant covering the Asia Pacific region.

Simon Heung oversaw the DAB+ trial in Hong Kong from 2004 when he was working for RTHK. After he retired from RTHK he still continued to push the government to have DAB+ and in November 2011 it was officially launched. He is now working on the network build out of the DAB transmission network in Hong Kong and he is a dedicated promoter among DAB receiver manufacturers in China.

Overview of latest news on digital radio coming out of the Asia Pacific region

The WorldDMB Project Office has since the beginning of the year ramped up its activities in the region, a reflection that the Asia Pacific markets are on the move. WorldDMB successfully represented its members at the ABU Digital Broadcasting Symposium earlier this year and in its aftermath has seen a flurry of activities with key markets making substantial moves towards digitalisation of their radio industries.



Australia

Australia continues to lead the pack in the Asia Pacific region setting examples of how digital radio should be rolled out in terms of marketing and providing enhanced services for the consumer.

There are currently more than 60 different stations broadcasting on DAB+ across the five metropolitan markets, comprised of simulcasts of commercial, public and wide area community AM and FM stations, plus up to an additional 31 DAB+ only stations.



The availability of digital radios has also continued to expand with more than 120 different models on sale across 800 retail and online stores. Extensive work has been undertaken in marketing and communicating the benefits which has ensured a high degree of success in the first two and a half years of DAB+ rollout.

Work continues also on ensuring digital radio is available in all areas of Australia. To achieve this, there are several challenges still to be addressed. Australia has the highest powered digital radio transmission system in the world and continues to work on further improvements to its coverage. The industry has identified a number of black spots in each of the five launch cities and has developed a world first solution in an On Channel Repeater (OCR) to boost the DAB+ signal.

Digital radio sales reach 833,320

Sales of digital radios in Australia have risen by more than 60 per cent, new figures show.

Australians bought 88,004 digital radios in the first quarter of calendar 2012, according to a GfK Marketscope report released by Commercial Radio Australia.

This was up 63 per cent from 53,996 digital radios sold in the prior corresponding period.

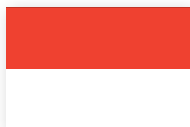
Visit <http://www.worlddab.org/news/australia> where you will find all the latest headlines news headlines about digital radio in Australia.

WorldDMB have ramped up activities in the Asia Pacific, a reflection that the Asia Pacific markets are on the move.

Extensive work is also underway on the planning for, and costing of, DAB+ digital radio rollout to regional Australia. Cost modelling and proposed timelines are being developed for future discussions with the Federal Government.

The inclusion of DAB+ digital radio in vehicles is key to continued successful take up. While some models now include the feature as standard, more developments are expected in this area once the timeline for switch on of digital radio to regional areas is finalised.

Indonesia



The Indonesian market is preparing to get a DAB+ trail on air later this year. WorldDMB with the ABU are together working to provide the Indonesian industry with all the necessary market and technical support to successfully get DAB+ on air.

Indonesia has a population of 238 million and has officially adopted DAB+. At the recent RadioAsia conference (7-9 May, 2012) in Jakarta, Indonesia, Freddy Tulung, Director General of Information and Public Communication

at the Ministry of Communication and Information Technology (MCIT) said that Indonesia has a roadmap for migration for digital radio and is learning from case studies of other successful digital radio roll outs. DAB+ in Indonesia will enable it to meet consumer demands that have been unmet by FM.

Further information on the trial to be launched in Indonesia will be made available on the WorldDMB website in due course. A WorldDMB technical and roll out workshop is also being scheduled for later this year.

Vietnam



VTV Broadcom, a subsidiary of State-run Viet Nam Television (VTV), has requested to commercialise its DMB services after a successful two year trial that was launched in 2010 in Ha Noi and HCM City on 10 VHF channels.

If permission is granted, VTV Broadcom said it would invest an initial VND50 billion (US\$2.4 million) providing a DMB service in Ha Noi and HCM City. It said it expected to make a profit from the service within two years. DMB is part of

the Eureka 147 family of standards and includes DAB and DAB+ and allows the sending of multimedia such as TV, radio and datacasting to mobile devices such as tablets and mobile phones.

United Arab Emirates



WorldDMB has met recently with representatives of the UAE regulatory body who have taken steps towards digitalizing its radio industry. Trials of DAB+ and DMB are scheduled to be on air in the near future and in February this year, Revo a receiver manufacturer of DAB/DAB+ audio products appointed the distributor, Eros Group to distribute its products through key retail channel partners in UAE and other Gulf countries to service the needs of consumers throughout the area. This news heralds exciting things are to come out of the region and WorldDMB will be on hand to support the UAE with any technical and market support it may require in the coming months.

Asia Pacific Events

WorldDMB have attended a number of events in the Asia Pacific region since the beginning of the year. The most recent have been RadioAsia 2012, BroadcastAsia 2012 and the WorldDMB workshops in Tokyo.



**RadioAsia, Jakarta, Indonesia
7-9 May, 2012**

WorldDMB were sponsors of the RadioAsia 2012 conference and throughout the event held meetings with country representatives from the region who were seeking guidance and further information on digitalizing their own radio industries using the platform of DAB+. In one of the conference sessions titled

'With online around, why does radio technology exist any more?' Joan Warner, of Commercial Radio Australia argued that there were plenty of reasons that radio continues to be successful and cited the case study in Australia, where radio is outperforming most other media in terms of audience and revenue.



**Broadcast Asia 2012, Singapore
19-22 June, 2012**

WorldDMB and some of its members such as DIGIDIA, Factum, Harris, Radioscape, VDL and CRA were in attendance at BroadcastAsia 2012, exhibiting and presenting during the digital radio conference session. WorldDMB also hosted a DAB+ Workshop which was used as a platform to provide assistance to countries looking to move forward with deployment of the DAB standards. Issues such as how to access equipment and

start coverage planning as well as content development were addressed.

WorldDMB Japan Workshops, Tokyo, Japan, 19 June, 2012

With the support of Commercial Radio Australia (CRA), WorldDMB hosted two half day workshops at the British Embassy in Tokyo. The workshops were attended by Japanese and European car manufacturers, OEMs and Tier 1 and 2 representatives. The morning session was dedicated to digital radio in the automotive sector with delegates being provided information on coverage maps, drive test guidelines and a review of the latest international and local market developments. The morning session was followed by an afternoon workshop for receiver manufacturers. During this session, delegates were provided with an overview of the digital radio market for receiver manufacturers: chips, ETI Streams and implementing digital radio cost effectively in receivers.

The automotive industry's digital radio...

WorldDMB attended the Telematics Update event 'Content and Apps' for the car industry where digital radio was represented on the panel by Laurence Harrison, DRUK, John Du, General Motors, Derek Williams, Toyota, Ono Hitoshi, Vodafone and Mikael Gustavsson, Volvo.

During the event the DAB standards received a positive response with a number of presentations given that covered issues such as Renault R Link (<http://www.renault.com/en/innovation/plaisir-et-confort/pages/r-link.aspx>) and Chrysler UConnect (find out more at www.driveuconnect.com). The topics covered in the presentations addressed how to provide drivers with more information in vehicle and also privacy legislation allowing for more information to be sent to drivers via embedded or mobile devices. However, WorldDMB and its members were interested in the fact that many of the representatives of the automotive industry who spoke on the subject of content and apps were uncertain of the many different features offered by the technology and also how to implement these.

Questions posed during the event included what types of new functionality were now available, what to do with these and how to make money from them. For the automotive industry, very much like broadcasters, the potential for new opportunities via content and apps has been realised even though the automotive sector were initially hesitant to invest in Apps due to a perceived lack of interest by consumers.

TPEG -the killer App for DAB in car

INRIX announced that their TPEG via DAB information service has been released in the UK for Toyota and that it will be made available in the Landcruiser and Prius models. This is great news for proponents of TPEG via the DAB family of standards as Toyota has seen the potential of using the DAB channel for traffic and travel information. OEM's are coming to understand that the



This year WorldDMB have hosted car manufacturer's digital radio workshops in Germany and Japan.

DAB family is part of the answer to the 'connected car'. INRIX have been working on TPEG for some time and are therefore first to bring solutions to the market.

Other TPEG services are being planned, most notably in Germany. However at this time due to many systems being in development offering competitive advantages in the commercial world, OEMs and broadcasters are remaining tight lipped about where, when and which services will go on air.

WorldDMB automotive digital radio workshops

WorldDMB and the Digitalradio-Radio der Zukunft organised a workshop during AMICOM. The German Automotive Workshop (Leipzig, Germany, 4 June 2012) was well attended with over 95 delegates representing the automotive after sales market and OEMs. The response to the event in the press was very favourable with some of the major automotive publications in Germany picking up stories from the event. As an opening introduction to the after market there couldn't have been a better start with the major message of the day being that there are now aftermarket products for all consumers, all car models, with all technical specifications, and in all price brackets. For more information on this event and for copies of the

presentations given at this event please contact caroline.seville@worlddab.org.

Automotive Events 2012:

Japan Digital Radio Workshops 19 June, Tokyo, Japan

This event will be held in Japan for the Japanese automotive and receiver manufacturers. Special thanks goes to Commercial Radio Australia for their help and support at the event.

IAA Hannover 24 September, Hannover, Germany

This is a joint event with the VDA where the commercial vehicle market will be addressed. If you would like to be part of this event please contact the Project Office.

Telematics Munich 29-30 October, Munich, Germany

'Radio the forgotten connection' For further information, or to participate at this event please contact the Project Office.

WorldDMB Automotive Event Europe 14 November 2012, Germany

Please note this is one day before the WorldDMB General Assembly meeting, so become a WorldDMB member to be eligible to attend both.

Contact rebecca.keene@worlddab.org for more information about joining WorldDMB.

DAB in cars



Volkswagen Tiguan

Tiguan is VW's fourth best-selling model after the Golf, Polo and Passat and is unique in being available not only with a choice of two- or four-wheel drive but also with the option of two front ends. With four trim levels and six different

engines, Tiguan owners are spoiled for choice. And they are also well catered for, with high levels of standard equipment that include 16-inch alloys, climatic air conditioning, DAB radio and alarm, even on entry-level models.



Volkswagen CC

The new Volkswagen CC is available with a choice of three engines, including a 1.8 petrol, 2.0 liter petrol and 2.0 liter diesel. Standard equipment you get with all models include RNS 315 touchscreen satellite navigation system, DAB digital radio, iPod and Bluetooth connectivity, 2Zone climate control, 17-inch alloy wheels, bi-xenon headlights and brake energy recuperation. Safety features include a driver alert system, ESP electronic stabilisation programme and four-way adjustable front head restraints, to reduce the risk of whiplash.



Skoda Yeti Urban

Skoda has revealed a UK-only limited-edition model of its Yeti crossover. The Yeti Urban is targeted at younger customers, and doesn't cost any more than the SE model it's based on.

The Yeti has been a runaway success in the UK, with more than 8,800 registered since it launched in 2009 – and waiting lists are still at three to six months. The Urban adds a DAB radio, sat-nav, Bluetooth and a multifunction steering wheel.



Mini Cooper Roadster

The MINI Roadster is the BMW-owned brand's first two-seater open-topped offering and comes loaded with a myriad of specs and features, including a roof that can be retracted – even when the car isn't stationary (up to 20mph) – DAB digital radios and a spacious boot.

It also comes loaded with MINI Connected, a new in-car entertainment system which

gives passengers (as drivers cannot Tweet behind the wheel, of course) the ability to view both their Facebook and Twitter posts on the on-board monitor.



Ford Fiesta ECOnetic

This is the revised Ford Fiesta 1.6 TDCi Econetic, which averages 85.6mpg and emits just 87g/km of CO₂.

Inside, the ECOnetic feels as solidly built and well equipped as any other Fiesta. The dashboard is finished in a pleasing soft-touch plastic and our Zetec model had electric windows, a Quickclear windscreen and air-conditioning. Titanium versions of the ECOnetic are also offered, and come with DAB radio, tinted glass and automatic air-con.



Toyota Camry Atara SL

The new Camry, comes with significant improvements to interior quality, driving dynamics and spaciousness. Equipment included comprises of power-adjustable front seats, dual-zone climate control, cruise control, trip-computer, rain-sensing wipers, dusk-sensing headlamps, a reversing camera, satellite navigation and DAB+ digital radio are all standard on the SL, as are 17-inch alloys and front foglamps.

DAB Receivers



Pure Siesta Mi Series 2

Pure has announced an upgrade to its best-selling DAB radio alarm clock, adding a new set of features and its new rebranded logo design.

There are now two dedicated keys for separate programmable alarms, with a choice of wake-up settings. Users can be woken by DAB or FM radio, or a simple tone. And there are adjustable day settings. The in-built speaker features a full-range 2.5-inch drive unit, while the mini radio alarm clock offers 1-Watt RMS of audio power. It can store eight digital and eight FM radio stations as pre-sets, and has a low-power standby mode.



Roth KRadio iPhone dock

The Roth KRadio iPhone dock, DAB, FM and internet radio is now available in blue, orange, pink, red, yellow and white finishes to match all manner of decor.

The KRadio offers several ways to listen to music and an in-built alarm clock. It features analogue FM and DAB digital radio tuners inside, plus the device can link to your home network either wirelessly or through Ethernet.



Revo K2

Revo's new K2 iOS dock, radio and audio streamer has a square-shaped base with sides of just 10.6cm and two alarm settings make it ideal for your bedside table.

The device includes a dock for iPad/iPhone/iPods and DAB/DAB+ and FM with RDS radio formats covered, as is internet radio.



Wave® music system III

The new Wave® Music System from Bose® has an integrated DAB/FM/AM tuner with improved radio reception, seek and RDS functionality. It boasts a high-performance CD player, touch-top on/off/snooze controls and dual independent alarms.

Radio Industry Key Events 2012

AMICOM

Leipzig, Germany
2 - 6 June 2012

German Automotive Event at

AMICOM

Leipzig, Germany
4 June 2012

Telematics Detroit 2012

Conference

Detroit , United States
7 - 8 June 2012

WorldDMB Automotive Digital

Radio Workshop

Tokyo, Japan
19 June 2012

17th Broadcast Asia 2012

Singapore
19 - 22 June 2012

IFA 2012

Berlin, Germany
31 August – 5 September

IBC 2012

Amsterdam,

The Netherlands
6 – 11 September

ABU Technical Committee

meeting

Seoul, South Korea
11 -17 October

Medientage Munich

Munich, Germany
24 – 26 October

Telematics Munich 2012

Munich, Germany
29 – 30 October

WorldDMB Car Manufacturers

Workshop

Berlin, Germany
14 November

WorldDMB General Assembly

Leipzig, Germany
15-16 November



WorldDMB General Assembly

15–16 November, 2012

Leipzig, Germany



For more information visit www.worlddab.org
Or email caroline.seville@worlddab.org