

# Eureka!

ISSUE NO. 1 2006

REACHING OUT TO THE WORLDDAB COMMUNITY

## Introduction

The world of digital broadcasting is not static - it demands flexibility and adaptability to meet the demands of ever more rapid digital development, spectrum efficiency, new applications device features.

WorldDAB is at the forefront of these changes with the introduction of additional standards to extend our core DAB platform, including DMB, which enabled the world's first commercial mobile TV services to launch in Korea and Germany. WorldDAB's standardisation of additional functions such as the Electronic Programme Guide (EPG) and Enhanced Packet Mode (EPM) demonstrate the Forum's ability to respond to the changing nature of broadcasting and the convergence that is occurring in platforms, devices and content.

Convergence of mobile and broadcast technologies is a commercial reality thanks to DAB and DMB technology which at the very heart of successful digital broadcasting

in a number of countries. WorldDAB and its members provide the vision to governments and broadcasters with our Eureka 147 family of DAB and DMB standards providing the means of implementing this exciting new medium today, integrating audio, data, multimedia and video services and applications.

The consumer continues to demand flexibility, reliability and quality, whilst governments and broadcasters require a scalable technology to suit diverse regulation and spectrum. Manufacturers need the security of worldwide markets and reliable, common standards. The Eureka 147 family of standards and technology is able to offer all this today.

The past year has proven crucial for DAB and DMB technology. Not only did the world witness the first ever commercial mobile TV services launch in Asia and Europe via DMB technology, but also received confirmation from the Chinese

government that DAB technology is the preferred standard in China. These developments were further highlighted by the increase in our membership, especially from the Asia-Pacific region. WorldDAB is now represented in and by more than 30 different countries around the world.

With numerous events planned in the coming months, WorldDAB will continue to influence markets around the world in order to ensure the future of multimedia is a digital one using the most flexible and reliable standard.

Quentin Howard  
President of the  
WorldDAB Forum

WorldDAB launches  
new website: log onto  
[www.worlddab.org](http://www.worlddab.org)  
to experience the new  
World of DAB.

article 1 read  
page 2 to find  
out all about it.



article 2 read  
page 5 to find  
out all about it.



article 3 read  
page 9 to find  
out all about it.



# Unique Interactive Chair Industry

## Mobile TV over DAB Trial



Persstel DMR231  
(See page 10 for more details)

Monday 5th June 2006 brought the official launch seminar for a UK technical trial of Mobile TV over DAB. The Seminar and Trial will be chaired by Unique Interactive's MD, Matthew Honey

The trial will promote the two approaches to data broadcasting on the DAB platform – Terrestrial Digital Multimedia Broadcasting (T-DMB) and Internet Protocol over DAB (DAB-IP).

The trial will also be considering how Mobile TV can co-exist with the already popular DAB audio radio services here in the UK and will

highlight DAB data and multimedia capabilities such as DLS Display Text, Electronic Programme Guides, Broadcast Web sites and 'red button' interactive services ahead of the expected release of Band III spectrum later this year and L-Band spectrum in early 2007.

Mobile TV via T-DMB has been a successful commercial proposition since the end of 2005 in South Korea. The trial aims to match lessons learnt in the Korean market with those learnt from DAB-IP in the UK and show how these lessons can be applied to other markets where DAB is already licensed or being considered.

Using an L-Band test and development licence supplied by Ofcom, the trial will see a live broadcast of content over DAB from two transmitter sites in London, one at BT Tower, the other at Arqiva's site in Croydon. The trial will run for six months and will be conducted in two phases – the first testing and showcasing audio and visual capabilities, and the second covering the potential for data and interactive services.

Mobile TV content will be provided by BBC News 24, EMAP, ITV, Cartoon Network and Teachers' TV.

The UK and Korean partners participating in the trial are Unique Interactive, Arqiva, GCap, BBC, BT Movio, iPark London, RadioScape, Factum and Virgin Mobile, the Korean Ministry for Information and Communication, LG Electronics, Samsung, Pixtree and Ontimetek.

Matthew Honey  
Unique Interactive

# Germany Scores Gold! - Update on the German DMB commercial launch

In Germany, Mobile TV - "Mobiles Fernsehen" - via DMB was first introduced at the Cebit computer fair in March 2006 and had its official market launch on May 31st, in the first five metropolitan areas such as Berlin and Munich. In September several additional regions will be covered so that in 2008 75 percent of Germany's population will be able to receive Mobile TV. The launch was based on a co-operation between MFD, a start-up-company who holds the public licence for the distribution of TV-programs, debitel, Europe's largest service provider for mobile telecommunications and Samsung who provided the first mass market DMB

device for the German market.

The two main challenges the introduction of Mobile TV in Germany had to face were the regulatory framework and the competing technologies. But although the licensing process for Mobile TV was in the hands of no less than 15 independent state media authorities, it was finished within three months. This was due to a broad consensus about putting available DAB-frequencies to use for TV and the expectation that the TV handsets will increase the usage of digital radio as well. In market communications, Mobile TV had to be set apart against disappointing user experiences with UMTS-based video

transmissions and against the already announced but far-to-come DVB-H-launch. As Mobile TV started in time for the FIFA World Cup this event was a perfect opportunity to proof the high picture quality and unlimited user capacity of DMB-TV, both advantages compared to UMTS.

After having started with just one handset, Samsung's SGH-P900, debitel will bring the LG-V900 to the shops in September.

Johannes Ippach  
Debitel

## Good news for mobile TV users!



Up to now, the Digital Multimedia Broadcasting (DMB) standard was restricted to just four TV channels in Germany. Soon, however, avid viewers could in theory be spoiled for choice with as many as 20 different channels. At the IFA trade show, Samsung's SGH-P900D dual-band handset clearly shows that the DMB standard still offers considerable upside potential. The demonstration on show in Berlin adds RTL, SuperRTL, n-tv and the popular "Welt der Wunder" (RTL II) program to the four existing channels (ZDF, N-24, MTV and the ProSieben comedy entertainment channel) – not to mention 14 radio channels (eleven band III and three L-band channels) plus

two visual radio offering for the Berlin-Brandenburg region.

Two months ago, commercial marketing of the first DMB service went off the blocks with four channels in Germany. At this year's IFA in Berlin, Samsung presented the SGH-P900D dual-band mobile as the first handset in the new dual-band generation. Up to now, eight radio programs are broadcast over what is known as the "L-band". Within the same wave band, Mobiles Fernsehen Deutschland (MFD) uses four TV channels and also broadcasts a "visual radio" program under the BigFM2see label. Visual radio is a format whose sound elements are enhanced by pictures broadcast every two seconds. At IFA in Berlin, T Systems has now reserved another block of the L band and is thus adding four extra TV channels (in particular RTL in the context of this demonstration) to the four channels already on offer.

"Theoretically, as many as 20 TV channels would be conceivable – provided that all wave bands are allocated and

the TV channels are assigned accordingly," explains Helmut Egenbauer, spokesman for the Media&Broadcast management team at T Systems. "As with digital radio, it is also conceivable

that reception of public TV broadcasts too could be freely available. Our aim is to enable end customers soon to benefit from this wide choice of programs over the DMB standard. What we are demonstrating at IFA, however, is that this is already possible today."

Right now, the DMB standard allows mobile TV customers to receive four channels in six German cities (Berlin, Cologne, Munich, Stuttgart, Frankfurt and Nuremberg). The plan is to make this service available in six more German cities and conurbations (Hamburg, Saarbrücken, Dortmund, Kaiserslautern, Leipzig and Hanover) in the near future.

**WorldDAB Forum  
(with reference to Samsung  
Press Release)**

## BT Movio goes to market

There has never been such an exciting time to be in the world of mobile entertainment. We are witnessing the true convergence of the communications and media industries. The landscape is about to change again with the launch of the Movio service from BT Wholesale. Consumers in the UK are already enjoying the additional choice and increased quality that DAB Digital Radio offers. Now, for the first time, they will be able to enjoy DAB Digital Radio plus TV, Interactive services and a seven day programme guide all on their mobile phones. The Movio service will be the first wholesale broadcast entertainment service in Europe to provide such a combined digital TV and radio service.

The Movio service will be retailed first by Virgin Mobile. Pricing and availability will be announced shortly.



Other mobile operators will also be able to retail the service in the future. Virgin Mobile's customers will get nationwide access to 4 TV channels and over 420 digital radio stations.

The results of the BT Movio trial showed that pilot users listened to radio for an average of 95 minutes a week, 50% more than they used the TV. With so many DAB Digital Radio channels available this has real mass-market appeal. The trial also revealed that consumers are looking for the

familiar TV channels they get at home. The TV line up for Movio service will be announced shortly.

The Electronic Programme Guide is intuitive and provides full 7 day programme scheduling for both TV and radio. Users can set reminders so they never need miss a programme. This will be the first time this is offered on a mobile device.

The interactivity 'red button' services offer a new dimension for truly one to one communication with the consumer, with real opportunities for innovative marketing. Radio and TV channels will be able to develop unique relationships with their audiences through this interactive capability.

**Stacey King  
BT Movio**

# The Evolution of DAB/DMB

DAB has already achieved a highly respected reputation as a state-of-the-art multimedia broadcasting system - with the first experiments and trials dating back over ten years to the mid 90s. Specifications for video broadcasting to mobile terminals were developed for DAB, initially within the European Eureka 147 Project. These were based on MPEG-1 and MPEG-2 standards, but nowadays, with the employment of MPEG-4 standards, Mobile TV via DAB has achieved its break-through with commercial launches in Korea and Germany, and is known more widely as DMB. As a second Mobile TV variant, DMB-IP (which uses core DAB standards) has also made its way to the market place in the UK.

For both applications the highly efficient source coding algorithms



require extended error control schemes. Hence a second layer of error protection was introduced for both DAB transport modes - Stream and Packet Data. The well-known key words here are "Enhanced Stream Mode" and "Enhanced Packet Mode".

With this, the door is open towards a much richer multimedia environment that can be realised via DAB. As a logical consequence, it was recently decided that applications defined by the Open Mobile Alliance (OMA) shall

be enabled for DAB transport as well allowing interoperability between mobile and DAB/DMB platforms, as well as DVB.

Changes in the digital worlds result in challenges that the DAB family of standards need to respond to. One is to pave the way towards the adoption of a state-of-the-art audio codec in addition to the well-introduced MPEG Layer II codec. The other is to build a smarter and more efficient basis for the transport of IP-based content. Both these are being addressed by the Technical Committee which will ensure DAB remains the most flexible and market-ready standard for digital audio, video and multimedia broadcasting.

Frank Herrmann  
Panasonic R&D Center  
Chairman of the WorldDAB

WorldDAB is currently undergoing a consultation process regarding changing its name to the WorldDMB Forum. The final decision will be made after a voting process involving all members. WorldDAB would like to emphasise that the name change, if passed, **will have no impact** on the logos used on DAB or DMB receivers. DAB technology, which is based on the Eureka 147 standard, remains the same.

**FACTUM**  <sup>®</sup>  
**ELECTRONICS**

***Factum Electronics AB is a world leading supplier in the area of Digital Multimedia Broadcasting (DAB/DMB). We offer complete system solutions as well as components for radio stations and network operators***

# The GE06 Plan – New opportunities and challenges for WorldDAB



The Regional Radio Conference 2006 (RRC-06) - the international regional planning conference for the VHF and UHF broadcasting bands in Europe, Africa, Middle East and the Islamic Republic of Iran - held its final session in Geneva from May to June 2006. The result of the conference was a plan for reconfiguration of the spectrum in Band III (VHF) and in Bands IV and V (UHF) that will allow the implementation of more T-DAB and DVB-T services than would have been possible with the Stockholm 1961 (ST61) plan.

The treaty agreement – hereafter termed the Geneva 2006 (GE06) plan

- was signed on June 16th 2006. “The digital plan provides not only new possibilities for structured development of digital terrestrial broadcasting, but also sufficient flexibilities for adaptation to the changing telecommunication environment,” stated the Secretary-General of the ITU in a press release.

Of the total number of the requirements set forward by the participating countries, the GE06 plan satisfies 95% for T-DAB and 93% for DVB-T in Band III and 98% for DVB-T in Bands IV and V. For European countries the result is 100% in all bands except for Spain, having a difficult situation close to African countries on the other side of the Mediterranean. The increased spectrum is partially available now and after a transition period it will become fully available in 2015 (for a few countries not until 2020). “This is a remarkable result comparing with the situation just before the conference started” noted Mr. Percy Petterson, a long-term member of the Regulatory and Spectrum Committee, upon his return after 5 weeks in Geneva.

From a general point of view and in particular from a WorldDAB point of view the conference has been a success. The GE06 plan for T-DAB will provide opportunities and ease a future implementation not only in Europe but also in Africa and the Middle East, especially after 2015.

The next challenge for WorldDAB is the development of a strategy for this implementation. This is important since many parties will compete for the possibility to get access to the plan. “You have to use the allocated frequencies or you will lose them”.

The Regulatory and Spectrum Committee has an important role to play in the establishment of such a strategy and is ready to take up the challenge.

**Finn Søndergaard Pedersen**  
Broadcast Service Denmark  
Chairman of the WorldDAB Regulatory and Spectrum Committee

## A Positive Future for DAB in France

In France, broadcast licences are free. However, there is a powerful regulatory body or radio authority, the Conseil Supérieur de l’Audiovisuel (CSA), which is in charge of the calls for tender. These calls are similar to a “beauty contest” as the CSA use cultural and financial criteria to make its choice.

In January 1997, TDF (TéléDiffusion de France) established the first DAB transmitters in Paris.

DAB networks have also been launched in the cities of Lyon, Marseille, Nantes and Toulouse. In Lyon, the French operator VDL operates a multiplex with 7 programmes. VDL has also started another DAB transmitter in Paris, with 8 programmes. All these DAB

block licences were granted by the CSA as a result of a provisional act,

“loi Fillion”. A legal framework for digital radio was voted in July 2004. This allows the CSA to launch calls for tender, with ten-year licences renewable twice for five years. It will concern local, regional and national multiplex.

The CSA launched a consultation in 2005 to which it received 50 responses from the French media industry. All were positive on the need for France to embrace a digital radio future.

With such a perspective, during the ‘06 CEPT meetings, the French authorities asked for (and obtained) enough

Band-III spectrum to fulfil its will to build the full regional and national DAB networks that the country needs.

There will then be a call for tender and many broadcasters expect this to take place before the end of 2006. Meanwhile, advanced experiments are promoted by the CSA, aimed at new encoding technologies and multimedia capabilities: a DAB/DMB multiplex run by VDL with video and audio services has been on air in Paris since October 2005.

**Yannike Andre-Masse**  
VDL

# Sweden: First report on digital radio from Radio and TV-Authority

DAB in Sweden was put on “pause-mode” in December 2005 when the Minister of Culture rejected the proposal from a Parliamentary Commission, backed by the united radio industry, to continue the DAB-roll out in the country. The Minister wanted a broader evaluation of different existing and emerging techniques for digital radio before a final decision could be made to shut down FM and commit the radio to a specific replacement technique.

The Swedish Radio and TV Authority were given the assignment to evaluate techniques for digital radio in Sweden. The Authority will do its evaluation during three years, in close dialogue with the radio industry and others,

with a yearly report in June each year 2006, 2007 and 2008.

The first report came out on June 30th and is a thorough impartial description of different techniques to deliver digital radio, including DAB/DMB, DRM, DVB-H, Broadband and IBOC/HD Radio. Though mainly descriptive, the report gives a fairly favourable picture of DAB/DMB in comparison to other existing or emerging techniques when it comes to the advantages for radio distribution.

The next phase in the evaluation will start in October and will be a more in depth evaluation of the different techniques.

The public service broadcaster, Swedish Radio, is broadcasting 6 DAB services on 1 multiplex. The DAB network is at present covering 35 per cent of the population in 4 cities, including Stockholm and Gothenburg.

The network was originally built to cover 85 per cent of the population.

Anders Held  
Swedish Radio

# Switzerland Plans Further Extension of DAB Coverage

Last spring, SRG SSR idée suisse, the Swiss public broadcaster, installed four new transmitters in the canton of Ticino and fifteen ten in north-eastern Switzerland. Now it is extending DAB coverage yet again.

If everything goes according to schedule, DAB digital radio will be received in most areas of German-

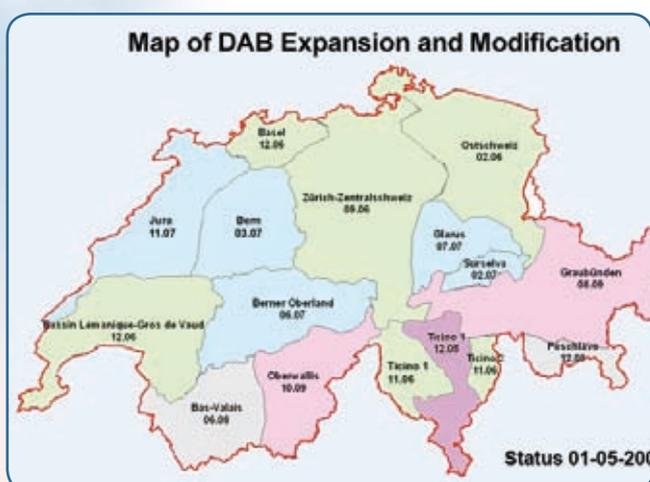
speaking Switzerland by the end of September 2006. Ten new transmitters will broadcast eleven different stations, five of which are not available on FM: Virus (a youth programme), Radio Rumantsch (a minority station) and the ad-free, music-only Radio Swiss Classic, Radio Swiss Jazz and Radio Swiss Pop.

DAB reception in buildings and public transportation.

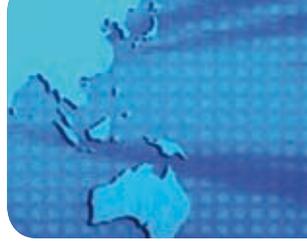
In October 2006, SRG will issue a brochure in German and Italian on DAB and the benefits it offers the German and Italian-speaking parts of Switzerland. The brochure forms part of a major DAB campaign that will also feature ads on SRG radio stations and in movie theatres. The campaign will last from October through December 2006 and should boost sales during the Christmas season.

Larissa Anna Erismann  
Swiss Satellite Radio / SRG SSR  
idée suisse  
Chairman of the WorldDAB  
Marketing Committee

However, SRG's plans involve more than just the extension of DAB coverage. In a few months, indoor reception will be available in areas that until now only offered in-car DAB reception. This includes Zurich, Basle, Berne and Geneva, where new transmitters and modifications to existing ones will significantly improve



# Korea Report



The number of T-DMB users topped the 1.4 million mark last month, eight months after the debut of T-DMB last December. The Special Committee for Korean Terrestrial DMB said the T-DMB enabled cellular phones had sold roughly 520,000 units and sales of other gadgets such as in-car devices or dedicated terminals amounted to about 860,000 units as of July 31.

"We think the brisk sales of T-DMB gadgets are attributable to the World Cup and the introduction of new T-DMB-able handsets and the expansion of T-DMB coverage" said Kim Hyuk, an official at the private institute. According to the three mobile service operators, sales of the T-DMB phone have rocketed to 128,000 units in June. In May, the three firms recorded sales of 85,000 units of the TV-on-the-go handsets. The daily sales of T-DMB gadgets reached almost 10,000 units during the World Cup period and they also predicted that the number of users would be doubled to 2 million by the end of this year.

Various forms of T-DMB-able handsets have helped the sales to grow and been put under the spotlight in the mobile market. Digital Cube, the largest PMP

maker in Korea, released its first T-DMB model last month and other makers such as Cowon and Viliv are also introducing T-DMB equipped products this month. LG Electronics launched an MP3 player that shows T-DMB on its tiny 2.4-inch screen in May. As well as convergence gadgets, there are T-DMB-only receivers in the market. Reigncom, the manufacturer of iRiver music player, has been selling a pocket TV since July 2006 at below 130,000 won.

The expansion of T-DMB coverage was also one of the main factors for a T-DMB boom. Now, T-DMB services are available throughout the hitherto shadow areas such as many subways and will expand coverage of the go-anywhere TV from Seoul and the surrounding region to the whole county. The Korean Broadcasting Commission (KBC) plans to designate new T-DMB firms, which will provide T-DMB service coverage throughout the nation except non Seoul areas.

In addition, KBS and SBS, two of the three major broadcasters in Korea,

are planning to expand T-DMB service to next-generation mobile TV services. During the Korea International Broadcasting, Audio & Lightning Equipment Show (KOBA 2006), KBS demonstrated its on-screen data transmission service using T-DMB handsets, called BWS (Broadcast Website Service), on which users can get the news and other information by clicking on the screen while watching DMB programs, just like surfing the Web on the Internet.

SBS also showed off a more advanced version of the T-DMB service, using the Binary Format for Scenes (BIFS) technology. The BIFS technology supports transmission of video and other digital data simultaneously, enabling, for example, a user to check on the scoreboard and player profiles while watching a baseball game on a T-DMB terminal. Both KBS and SBS have been preparing for the commercialization of the BIFS service and TPEG with the launch slated for after this summer.

Ministry of Information and Communication, Korea

## 2008 Olympic Games viewable on cellular phones, MP4s

BEIJING, Aug. 29 – In addition to TV, people in Beijing will also be able to watch the 2008 Olympic Games in the city on cellular phones, digital cameras, PDAs, MP4s and other sorts of receiving terminals.

Beijing Radio Stations and its affiliated company, Beijing Jolon Media Broadcasting Co.,Ltd, which is the real operator of this project, announced Monday it will officially launch digital multi-media broadcasting services on Sept.6., which will broadcast high definition digital audio and video programs receivable on mobile equipment.

The station has been offering digital audio broadcasting service from April on a trial basis.

"From the beginning of 2007, the station will also begin to transmit information about government affairs, daily life, the city and real-time traffic situation and weather conditions in the service," said Wang Liang, head of the station, at a press conference.

Lenovo, China's leading IT product manufacturer, announced it has developed a cellular phone, ET980, that is capable of receiving these digital

programs, said Lenovo executive Liu Zhijun.

He said ET980, priced at around 5,000yuan (about 625 U.S. dollars) will enter the market in large quantities in mid-December. Lenovo also plans

to develop two or three popular types of PDA that support this service.

The receiving terminals must be equipped with digital video broadcasting chips to gain access to digital multi-media broadcasting service.

Lots of Chinese cellular phone users already began to watch TV programs through the mobile communication networks of China Mobile and China Unicom.

(Sourced from Xinhua News Agency)



# Chinese Government Approves DAB Industrial Standards

The World Cup in Germany has stirred the imagination of China, with the expectations of large amounts of revenues to be generated over the coming years by mobile TV subscriptions and premium content.

T-DMB has gained a head start in China, and recent announcements have stated that it is now SARFT's first choice among rival mobile broadcast standards despite intense competition of DVB-H and Qualcomm's proprietary MediaFlo. While the government has yet to set the Chinese mobile broadcast standard, it has allowed in 2005 three operators in Beijing, Shanghai, and Guangdong to launch T-DMB trial services as they have already the T-DMB spectrum in hand.

To date, there are currently three ongoing DAB/DMB trials in China. In Guangdong, Guangdong Mobile Television Media Co. Ltd is taking the lead in the trials, and launched on May 17, 2006 with Samsung GSM handsets (SGH-P908). The handsets have been distributed to over 100 mobile handset sales outlets to promote the concept of mobile broadcast to the public. Although currently free, the service will charge a flat fee monthly of RMB 30 (USD 3.75) in the future, and will offer 4

encrypted video channels and 2 audio channel, covering news, sport, music, and popular TV services.

The 2nd trial licence was awarded to SMEG, Shanghai Media Entertainment Group. Oriental Pearl Group (OPG), one of their nine subsidiaries, is responsible for the DAB/DMB operation in Shanghai. Due to the mass market interest for mobile TV and after comprehensive research of different technologies, OPG decided the DAB family of standards is the best solution for its new mobile TV ambition. The service will charge around RMB20-30, (USD2.5-3.75) for the subscription. The service will initially offer 4 encrypted video channels, 4 audio channels and a data service.

In Beijing, Beijing's Jolon Digital Media Broadcasting (Jolon) has launched T-DMB trial services. This service has the possibility of reaching the 12 million inhabitants that live in the area. They intend to finance the services through advertising, as well as through handset sales and a flat monthly fee of RMB 5 (USD 0.675) from 1 encrypted data service. The trial is in Band III and currently broadcasts 2 DAB services and 1 DMB service.

Other areas in China are also seeing increasing numbers of interested T-DMB service operators who have been investigating the possibility of holding trials in the near future. They have applied for T-DMB trial licenses. Local broadcasters/operators in Chengdu, Nanchang, and Kunming are taking the lead, and have secured end-to-end T-DMB equipment for lab trials over the summer.

SARFT's regulatory aspect is especially contentious in China. The industry became once again confused, when local media mistakenly announced on May 18, 2006 the release of Chinese T-DMB standards, instead of Chinese DAB standards. This is good news for DAB technology though, as it is identical to the Eureka 147 standard. This is definitely a step in the right direction and also boasts well for the future of multimedia applications based on DMB technology in China.

**Murphy Wu**  
Asia Pacific officer for  
WorldDAB Forum

## Australia looks to cars to drive digital uptake

The Australian Government has announced that DAB digital radio services are to be established in the six state capital cities (Adelaide, Brisbane, Hobart, Melbourne, Perth and Sydney) by the start of 2009. All national public, commercial and wide-area community broadcasters in those cities will be able to broadcast their existing analogue services in digital or broadcast new services if they wish.

Digital Radio Australia, a consortium of commercial and public broadcasters, has begun discussions with the local automotive industry, including GM, Toyota and Ford, to ensure digital radios are available in new cars from 2009/10. Intelligent Transport Systems Australia, a non-profit organisation focusing on the improvement of transport safety and efficiency through technology and whose members include all

major vehicle makers, has also hosted briefings on digital radio for car and receiver manufacturers and government officials.

The Australian radio industry is hoping the next generation of cars will drive the uptake of digital radio. With the Australian Government announcing a 2009 start date for digital radio, commercial radio broadcasters have begun

talks with the car industry to ensure a smooth rollout of the new technology. Digital radio delivers a number of features that will appeal to car owners, including enhanced, interference-free sound and automatic tuning, a particular advantage on driving holidays.

“There is also potential for digital radio to provide more frequent traffic reports, maps and other driver information to assist in traffic management,” said Joan Warner, chief executive officer of Commercial Radio Australia, the national body representing commercial radio stations.

The commercial radio industry will invest an estimated \$400 million in launching digital radio in Australia over the next few years to enable it to compete more effectively against new and emerging technologies. The Federal Government has given the industry a launch date of 1 January 2009 for metropolitan capital cities, with a rollout in major regional areas expected to follow soon after.



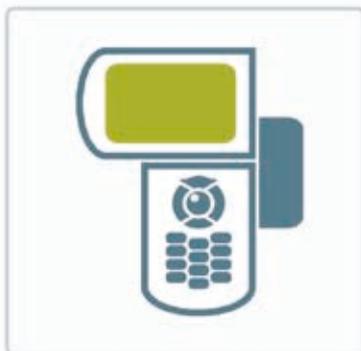
Digital radio is already available as a factory option or standard fit in a range of vehicles in Europe. Audi is extending the electronics platform currently in the A6, which includes digital radio, to the A4 and A5 models starting in 2008. Mercedes-Benz passenger cars is well advanced in its plans, with the first model range to include digital radio audio head units to be released in Europe in the first half of 2007. Increases in car ownership

and longer travel times over the past decade have made in-car an increasingly important place of radio listening. In 2005, 26 percent of all commercial radio listening in Australia during an average week took place in-car, up from 20 percent in 1996. Radio reaches 95 percent of Australians.

Kath Brown  
Commercial Radio Australia

**irdeto**

The future of mobile  
TV in Germany. Today.



- Irdeto congratulates debitel AG on the launch of its T-DMB mobile TV service in Germany.
- We thank them for the trust they have placed in Irdeto to protect their valuable content.

[www.irdeto.com](http://www.irdeto.com)

**debitel**

# Latest in the receiver market



## Intempo Digital PP-01

The latest offering from Intempo Digital is the PP-01, an Ultra-slim Radio with 2 X 2W Flat Panel NXT Stereo Speakers. This DAB and FM (RDS) digital radio (DAB band III) is truly portable with integrated Rechargeable battery pack giving 20 hours from full charge (DAB)-ideal for bathrooms or portable use. The PP-01 has stylish stereo speakers to output your iPod or mp3 player. This product comes with a range of designer speaker covers that can be personalized with your own photos. Additional features include 12 station presets (6 DAB / 6 FM).

## Blaupunkt launches first DMB car radio world-wide (Nashville DMB 35)

In connection with the European DMB project known as "Mi Friends", Blaupunkt has developed the world's first DMB car radio: the Nashville DMB 35 receiver. Now it is possible to receive a number of different television programs even while you're on the road. The unit is based on the digital Nashville DAB 35 car radio. But it has been additionally equipped with a DMB decoder and a TV output. The television pictures are reproduced on separate colour monitors.

courtesy of Blaupunkt



## Perstel DMR231

Perstel has launched a new hand-held type T-DMB receiver in a selection of colours to suit your choice (white, black, red, pink and blue). This receiver has a 3.2" TFT LCD and also has an MP3 player (SD card required). Some of its features include: service auto search, time shift (rewind) and service recording / playback (SD card required).

## JVC in-car DAB receiver KD-DB711

The built-in DAB tuner lets you enjoy digital quality sound and extensive information from DAB Radio without an external tuner. The unit's 24-bit resolution 1-bit DAC and 50W x 4 power together ensure superior sound. The unit also features MP3/WMA playback and multi-colour display.

## Upcoming DAB/DMB Trials

### New Zealand:

BCL has been transmitting New Zealand's first DAB service since early August. Engineering work is currently being undertaken to gather real world results from the field, which will be used to design and plan for a national network. A launch party involving the radio industry and other aligned businesses is planned for late October and representatives from WorldDAB will be in attendance.

### Indonesia:

Indonesia is another country in Southeast Asia showing interest in DAB/DMB. Currently there is a DAB/DMB trial going in Jakarta. Indonesia is planning the migration from analogue to digital technology starting 2007.

### India:

T-DMB technologies will be launched in India where the market potential is said to be huge and Tata Group and India's largest GSM mobile-phone service operator Bharati-Airtel will expedite the T-DMB commercial services. Currently there is a DAB/DMB trial in Mumbai.

## New WorldDAB Members

### SM CNS Corporation

SM CNS is a leading T-DMB test solution developer as well as the solution integrator for T-DMB/DAB based in Korea. SM CNS' reference list covers most of T-DMB broadcasters, receiver manufacturers and government's R&D institutes in Korea. SM CNS major products are T-DMB/DAB on-Air analyzer, stream generator along with comprehensive and market-proven applications programs. SM CNS is now rapidly increasing overseas business with focus on Asia Pacific region with end-to-end solutions for both receiver makers and broadcasters. It is strategic partnered with VDL France and Somerdata UK as well as several major system integrators of Korea.

### onTimetek (OTT)

is a leading company of DMB solutions which developed the world's first DMB hardware encoder and provided its encoder in the commercial services. onTiemtek also offers DMB consulting with monitoring and video interactive data service solutions.

### Sunplus

manages IC designing & system application Technology using a "Custom design," which provides top products and services to meet customers' needs. Sunplus uses "core technology" such as multi-media audio/video, single-chip controller, digital signal processor technologies to develop hundreds of products.

## Upcoming events

13-16 Oct Hong Kong  
Show Electronic

17-21 Oct Korea Electronics Show,  
Seoul

25-27 Oct International DAB/DMB  
Conference and  
Exhibition, Beijing  
**Members 20% discount**

26-27 Oct China TV / Video Forum,  
Shanghai

30-31 Oct WorldDAB General  
Assembly, Seoul  
Members Free

03-04 Nov 3rd International Forum  
on Digital TV an Wireless  
Multi media  
Communication,  
Shanghai

02-09 Nov ABU General Assembly,  
Beijing

11-14 Nov NAB, Rome

15 Nov European Radio  
Symposium, Rome

15-18 Nov IBEX 2006,  
Bali Member Discount

22-23 Nov International Mobile TV,  
Beijing  
**Members 20% discount**

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