

DIGITAL RADIO IN 2012

Views from the EBU New Radio Group



INTRODUCTION	1
BELGIUM	3
CZECH REPUBLIC	5
DENMARK	7
GERMANY	9
REPUBLIC OF IRELAND	10
ITALY	12
NORWAY	14
SWEDEN	16
UK	18

INTRODUCTION

Mike Mullane

Head of News, Sport & New Media, EBU Radio

Multimedia is meeting digital radio in 2012

The purpose of the first-ever New Radio Group forecast dossier is to stimulate debate and conviction around radio's digital hybrid future. It provides a series of snapshots of the current situation in nine countries from the perspective of public service radio, as a springboard for predictions about where the medium will be in 2013.

Above all, the forecasts underline the fact that digital terrestrial broadcasting is the only way to deliver radio to mass audiences efficiently and cheaply, both in terms of distribution, and of consumption. At the same time, the internet offers unique opportunities for building communities and for attracting younger listeners.

This is of critical importance at a time when youth stations across Europe have been losing listeners to online music services like *Spotify*, *Deezer* and *Pandora*. In 2012, more broadcasters may respond by following Swedish Radio's example of putting radio content on *Spotify*, "to reach an audience we would not otherwise reach," as the New Radio Group Chairman, Mats Åkerlund (SR), writes, quoting SR's Deputy Director Cilla Benkö.

On the technology front, in 2012 more consumers will acquire smartphones and tablets, as manufacturers launch cheaper devices.

First the bad news: Mark Friend (BBC) observes that for the time being very few connected, mobile devices offer any kind of broadcast radio reception. However, Jørn Jensen (NRK) reports the good news that digital radio chips are now small enough to fit into tablets and smartphones.

The breakthrough means that consumers, struggling under the strain of expensive online plans, will be able to demand zero-cost broadcast services. Meanwhile, on the supply side, manufacturers will install the new chips because the additional costs are negligible, and they will boost sales.

Elsewhere, Michael Reichert (ARD) neatly encapsulates the group's common vision that, "multimedia is meeting radio". Broadcasters will have to produce more visual content for smartphone and tablet users, in the same way that newspaper editors commission pictures to add colour to printed stories.

Expect new and exciting visual content to complement traditional radio output, as 2012 will be a very important year in both news and sport. Events like the US and French presidential elections, or UEFA Euro 2012 and the London Olympics, will get the creative juices flowing.

The hybrid technology RadioDNS, which combines the strengths of broadcast and the internet, will enable broadcasters to fill blank screens with descriptive text, social media feeds, maps, medal tables and slideshows.

Writing from a strategic perspective, JP Coakley (RTÉ) and Laurent Finet (RTBF) emphasise the importance of partnerships between the public and commercial sectors. Some commercial broadcasters have been reluctant to abandon an analogue FM business model that has served them well, and the global financial crisis has only exacerbated the situation.

Over the course of the next 12 months more commercial radio executives may open their eyes to the potential for targeted advertising and new revenue streams that digital radio offers. Hopefully, this will kick-start digital radio in those markets where it has stalled.

Erik Kjeldsen (DR) underlines the importance of offering audiences a greater diversity of content. In 2012 broadcasters will offer listeners more than ever before, including pop-up radio stations tied to events like the London Olympics, or new digital channels for children and teenagers, such as the one that Filip Rozanek (CR) describes.

Luigi Maria Aliberti notes that a sizeable part of the audience listens in-car, with numbers ranging from roughly 30 per cent in the UK to 70 per cent in Italy. Not only are cars vital for radio's future, but digital radio technologies, like TPEG, could further help to save lives with timely, relevant and free traffic information.

2012 will see greater collaboration between broadcasters and the automotive sector. We will see receivers enabled for digital and FM fitted as standard in new cars so that radio can be a constant companion when driving across international borders.

For all these reasons, EBU Radio's flagship Multimedia Meets Radio conference will take place in Italy's automotive capital, Turin, on 19-20 September 2012, at the kind invitation of the Prix Italia. The event will look at how broadcasters are exploiting technologies to create exciting content not only for people at home, but also for those on the move.

BELGIUM



Laurent Finet

Head of Digital Radio Strategy, RTBF

2011 saw a fresh start for the digital radio migration strategy within the French-speaking part of Belgium (Brussels and Wallonia). DAB+ broadcasting tests with visuals having been completed, views were exchanged and visions shared among stakeholders including RTBF, commercial stations, government bodies, the regulatory authority, and of course partners abroad, as we worked to develop a concrete concept of how digital radio could be deployed in our small country.

We emerged with a strong 4-tier vision of how to push radio to digital:

1. DAB+ broadcasting
2. Single radio-player
3. Hybrid radio
4. Digital television

During 2012, we will lay the foundations of this strategy for Belgium's digital radio migration, as we prepare for a public launch in 2013.

To this end we have set several objectives:

1. The most important pillar of the strategy is the broadcasting migration from AM/FM/DAB to DAB+.
 - a. The crucial step in 2012 is the funding of the investment needed to upgrade the current single layer DAB transmission park (1998) to a strong two-layer DAB+ network (with local gap fillers) with an indoor coverage of $\approx 99\%$ of the population (4.7 million), representing an audible improvement on current FM coverage. That means an estimated investment of €13 million over the first ten years, which should come from the state or one of its bodies.
 - b. In 2012, the Government and the regulation authority (CSA) will determine the capacity distribution (in bitrates) between the different kinds of existing radio stations (simulcasting in analogue and digital over several years) and new digital only radios, for the years to come.
 - c. We must create a consortium with the private radios in 2012. This is a new partnership to ensure a coordinated calendar and a powerful communication strategy targeting both the retailers

and the listeners, in collaboration with manufacturers and importers, in order to encourage the listeners to renew their receivers.

2. At the internet player level, we are considering importing the *UK Radioplayer* in 2012, in order to boost radio streaming audiences. This clever single radio player, with a powerful search engine created specifically for radio, could be rolled out to all licensed radio stations in Belgium.
3. The hybrid level is where the power of digital broadcasting is combined with the advantages of the internet (notably including direct interactivity). We are working with RadioDNS and EBU Technical in order to offer hybrid radio from the beginning of public DAB+ broadcasting in 2013.
4. We are also working at the digital television level, which is a significant platform for radio listening and viewing in Belgium. We plan on improving and developing our visual radio offer for several programmes, especially morning talk shows.

Finally, we are convinced that digital broadcasting cannot be a success if listeners are not attracted by a wider offer of programmes than exists currently on FM. At RTBF we are analysing ways to prepare our team for the production of an enriched radio offer, comprising new digital-only radio channels (currently our strategic plan includes four new networks) and programmes with new metadata (text, visuals, slideshows and images) and increased interactivity. Inevitably, though, in straitened economic times, an increase in budget or personnel resources is unlikely. Therefore, we have to find new ways of making radio, creating programs, and organizing our staff.

2012, then, will be a very exciting year at RTBF and in French-speaking Belgium as we prepare for our 'giant leap' into the future of radio. Perhaps it's rather a similar feeling that our broadcasting 'ancestors' felt during the 1960's when they launched FM, bidding, as they did so, a fond farewell to AM services.

CZECH REPUBLIC



Filip Rožánek

Online Content & New Media, Czech Radio

After years of tests limited to a few cities, regular digital radio broadcasting began in the Czech Republic in April 2011. For now, the DAB/DAB+ multiplex is available to about one third of the Czech population, covering the most populated cities of the country. A selection of public service channels is available along with small private broadcasters, religious broadcasting and retransmission of Italian stations operated by the RTL Group. The total station count to date is 14.

This year the coverage area will be extended to the northern part of the country with a total population of 1.83 million. However, the timetable for this expansion remains to be determined. Once Northern Bohemia is covered, the signal will be available to about 49 % of the population.

Currently there is only one DAB/DAB+ multiplex operator, the company TELEKO, which uses the L-band. Another operator, RTI CZ, has announced (without giving further details) that it is considering launching digital radio broadcasting in the south-west part of the country during 2012. If this goes ahead, the total reach could be slightly over half of the population by the end of year.

Czech Radio supports digital broadcasting in its regular programs about media and new technologies. A selection of digital receivers is available in the radio shop at Czech Radio's Prague headquarters. Despite the large coverage area, customers can buy devices in fact only via the internet, including via one e-commerce portal operated by TELEKO. None of the country's major electronics retailers offer digital radios and it is questionable whether they will begin doing so during 2012. Despite all this, thousands of radios have already been sold.

Czech Radio is considering launching a new digital channel for children and teenagers in September 2012. The station would be available via an internet stream and over DAB, broadcasting a reduced schedule until December, with the expectation of extending its programming from January 2013.

Further presence of Czech Radio stations on DVB-T platforms has been questioned after Czech Television announced its plan to add one more channel to the public service multiplex. That would in fact mean an end to

radio channel broadcasting over DVB-T due to bandwidth capacity limitations. No decision has yet been made because of legislative circumstances, and negotiations continue.

All eight nationwide public radio channels are available (besides FM) via satellite, DVB-T, internet streams, DAB, cable TV networks, mobile phones and IPTV. Regional stations can be heard via internet streaming, cable TV, mobile phones and on IPTV.

DENMARK



Erik Kjeldsen

Commissioning Editor dr.dk and digital radio, DR Radio

Radio is facing two major challenges that must be addressed if the medium is to survive.

To meet the demands and needs of today's audiences, a far greater diversity of content is absolutely necessary. The strength of radio and its cultural importance depends on the medium's universality, and on its low key and low cost technology barriers. Only digital broadcast radio can ensure that in the future.

In the long run, however, broadcast radio cannot stand alone. Radio will experience growing pressure on its role as the primary channel for music listening and discovery, potentially threatening radio as such. As internet music services such as *Spotify* proliferate, and music listening on the steeply growing number of smart phones becomes increasingly mobile, radio must evolve. It is vital for radio and its ability to reach especially younger audiences to develop new offerings at the intersection of music and on-demand radio. These efforts require new approaches towards intellectual property rights (allowing for new ways of offering access to content), cross-industry partnerships (allowing content to be made available wherever audiences are) and technology (integrating previously unconnected services, such as playlist systems, digital archives, external databases and third-party products and platforms).

Digital broadcast radio is already doing well in Denmark; every third Dane has a DAB radio, and listenership is steadily growing. As Denmark is flat, and, apart from the surrounding water, consists of an geographical area that is easily covered, two national DAB networks are already rolled out, both offering 100% indoor coverage.

A fourth of all Danes of 12 years and older listen to DAB radio for at least five minutes each week. Internet radio has a loyal listenership too, and live internet radio's reach has stabilised at around 4% of all Danes. Including cable listening of digital-only channels, the weekly digital reach has climbed to 1.5 million, or 33% of the Danish population of 12-years-old and above. Around 20% of all radio listening is digital.

As for many other countries, politicians are reluctant to announce analogue broadcast switch-off dates. Currently a working group under the Ministry of Culture is preparing a report outlining possible digital radio strategies for the

coming years. I expect that report to stir some public debate, at least among radio stations, as it is clear that a consistent political vision for the future of broadcast radio will have to be formulated if both consumers and the radio industry are to support the necessary transition. I am confident that Danish politicians will decide a plan this year, and that it will indicate a timeframe for digital switch-over.

More important than anything else for a small economy such as the Danish, is what surrounding and dominant economies are deciding. From a Danish perspective, the positive developments especially in Germany are very important and encouraging. I believe that the time is right for the European Commission to take steps towards standardizing Eureka-147 as the European standard for digital broadcast radio. There are too many irrelevant technical discussions hindering the establishment of an efficient European market for both receivers and car manufacturers alike.

If we succeed in both ensuring the future of broadcast radio, and developing radio as a medium in its meeting with the internet, radio will prevail as the much loved companion in the lives lived by millions.

GERMANY



Michael Reichert

Project Manager, ARD/SWR

2012 may be the year in which visions are realised, and important milestones reached in Germany.

We are proud that in 2011 we launched a national digital radio multiplex. It is hoped that this success will provide not only a new impetus to further developments at home, but also abroad. Prior to the rollout of the bouquet of DAB+ services in August 2011 there was great anticipation and high expectation as to what Germany would achieve, and how we would achieve it.

Having accomplished this highly successful network launch, we are now able to build on this success and realise our vision of the future of radio. Ours is a 'hybrid vision'.

From the very beginning of 2012 the range of offered programmes in Germany will grow. New programmes and services will expand and improve the country's digital radio offer, not only increasing listener choice, but also adding additional information and multimedia services. In Germany, multimedia truly is meeting radio.

Two key themes we hope to develop in 2012 are:

- **The further establishment of digital terrestrial broadcasting as the benchmark platform for radio**, shifting the focus from broadband. Online streaming is a successful way to reach certain parts of the audience, but broadcast digital radio is the 'pillar' radio needs to get to anyone, in any place, at any time.
- **The broadening of the range of our radio brands and the strengthening of the value of radio.** Commercial and public broadcasters alike stand to gain from the benefits of digital radio and are encouraged to embrace our hybrid vision in pursuing their goals.

At every step, we will be guided by the simple fact that radio is for listeners. Broadcasters should always consider whether their developments are useful, welcome, and, ultimately, whether they will be accepted by the audience.

Our aims are ambitious and will not be fulfilled in 2012, but nonetheless these will be the guiding principles of our work over the coming year.

REPUBLIC OF IRELAND

JP Coakley

*Director of Operations, RTÉ
Vice-Chairman, EBU New Radio Group*



The recent and welcome resurgence of digital terrestrial radio (DTR) in Europe is establishing DAB+ as the *de facto* primary replacement for FM.

2012 will see a respectable rise in the number of DTR devices sold throughout Europe, but movement by the EU Commission in addressing a common standard would without question create significantly stronger growth, market scale and eventually, social capital. The New Radio Group is working to this end.

Development of DTR in the Republic of Ireland has stalled in recent years and economic conditions have discouraged commercial risk. RTÉ has led the development of DTR and has launched a number of innovative low-cost stations that have broken new ground in the Irish market, such as children's radio. While sale of DTR devices is at a respectable 250,000, regrettably, RTÉ is the only broadcaster currently transmitting on DAB. Legislation exists to incentivise the entry of the commercial sector, and most commercial FM licenses reach end-of-term over the next two years, but it remains to be seen whether the regulator (the BAI) will engage with this complex issue in 2012.

It is clear that progress has been strongest in jurisdictions where legislators, regulators, public and commercial broadcasters, retailers and manufacturers have partnered to shape a cohesive public proposition. New co-operative models, up to and including joint multiplex operation by broadcasters, have emerged in the past two years and will continue to appear in 2012. RTÉ stands ready to work with others within and outside this jurisdiction in pursuit of that cohesive proposition.

Internet radio in all its forms is an established and welcome part of our future. Yet online technology and rights have proved complex and cost is a function of consumption, for both broadcaster and consumer. In this context DTR is not only capable of doing the 'heavy lifting' of mass market listening (and revenue!), but is also consistent with the key public values of free-to-air and social cohesion. This issue will come to a head as mobile aggregators, that treat radio streams as a free resource, seek to more aggressively distribute and monetise their applications (for example, in cars). The balance between content producers and distributors is shifting. This is potentially radio's 'Sky moment'.

Related to this is the strategic significance of hybrid radio. The rise of smartphones is pressuring data capacity over mobile networks. Media is hungry in this respect. A win-win for telco and broadcaster is the delivery of audio via terrestrial free-to-air transmission with a richer, 'back channel' app through the telco networks. This is important for youth audiences whose pockets are tight. In addition to producing our own apps RTÉ is working with telcos and manufacturers to this end.

An interesting structural question for broadcasters will be whether new media production should sit inside or alongside 'traditional' broadcasting. Most favour some combination of both. All should be wary of an expensive 'bolt-on' of resources, arising from a reluctance to remodel existing production. Our learning is that digital innovation, especially in content, should not be the sole preserve of new media sections that are at a distance from core production.

ITALY



Luigi Maria Aliberti

*Planning & Business Development, Rai Way
Vice-Chairman, EBU New Radio Group*

As owner and operator Italian public-service broadcaster Rai's broadcast network, Rai Way played a key role in the country's digital television rollout. The launch of digital radio (DAB+/DMB) is now a priority, and indeed Rai Way's efforts in this area have aimed to create a reference system based on economic sustainability and the principle of pluralism.

Italy's uniquely complex radio industry consists of approximately 1,100 national and local broadcasters with a growing turnover estimated at around €600 million (in 2010, from advertising only).

Digital radio (DAB) trials started in 1995 and in 2007 new trials (DAB+/DMB) have been deployed in co-operation with commercial radios. March 2008 saw the incorporation of the national *Associazione per la Radio Digitale* (ARD), uniting Rai Way and local and national radio associations (*Aeranti-Corallo* and *RNA*) in pursuit of a quick launch of the digital radio service.

The transition will happen step-by-step, and depends on the switch-off of analogue television and concomitant availability of frequency resources.

Currently 40% of Italy's population receives the national public multiplex, which contains RAI programs as well as visual services.

Regulation

In 2012 the responsible ministry will assign frequency licences to local and national consortia. As part of ARD, Rai Way will lend its support to AGCOM (Authority for Telecommunications) in its radio frequency planning activities.

Receivers

Thanks to Rai Way's work with the ARD, a 'self-certification system' is now available in Italy. Provided by Rai Way, the system aims to help match supply to demand. Manufacturers are able to access appropriate technical specifications for the Italian market, while consumers benefit additionally from the 'call to action'. In fact, certified receivers from PURE have been available on the Italian market since November 2010. Other receiver manufacturers have shown an interest in the programme and could look certify their products in 2012.

Car receivers

In 2011 Rai Way expanded its collaboration with car manufacturers in order to encourage the development of integrated car receivers compliant with the ARD certification system described above. A certification system is now available also for automotive receivers and in 2012 new in-car devices will be certified.

Services

Working with national public service broadcaster Rai's Radio Production Department and Research Centre, Rai Way conducted research into additional broadcast services available based on the DAB/DAB+/DMB standards (BIFS, TPEG, DLS, Visual Radio and slide-show), with particular emphasis on TPEG services.

The main topics are:

1. An automated control system for national and regional ensembles have been implemented, automating the Slide-Show and Dynamic Label carousels. It also feeds Radio DNS and internet radio prototypes. In 2012 this system will be rendered compliant with Rai's radio production CMS.
2. The following services have already been trialled on the nationwide RAI multiplex: artist/title slides, DLS, photoblog (e.g. citizen journalism), webcam (images from radio studios) and QR Code (to connect to the programme web site). In 2012 DL+ will be integrated.
3. The OpenTPEG analysis tool has been developed to debug TPEG RTM content and network configuration, using TMC information provided by Rai Way. TPEG TEC tests and integration will be carried out in 2012.

In 2012 Rai Way will support companies interested in developing authoring tools to facilitate innovative program scheduling with the possibility to add off-line content, creating the possibility of thematic schedules and programming.

Technological infrastructure

Rai Way positions itself as a multiplex operator offering a commercial service assisting broadcasters with the transition to digital radio transmission. As such Rai Way will work during 2012 to make the commercial proposition more attractive, with a focus on sharing technological infrastructure, and on virtualizing the hardware chain. A further short-term goal is to cover the Turin-Milan highway in the L-band, since it is known that in-car listening accounts for around 70% of total listenership in Italy.

NORWAY



Jørn Jensen

Chief Advisor, NRK

In noting down these thoughts on radio's digital future as we enter 2012, I write both as Chief Advisor at Norwegian public-service broadcaster NRK, and as President of the WorldDMB Forum. From both perspectives I see 2012 as a pivotal year for the digital radio project in Norway, as well as in wider Europe. I foresee key developments on three frontiers, which I'll take as my headings. They are: cars, chips and my country, Norway

Cars

2012 is likely to be the year of in-car digital radio. Certainly last year's rollout of Germany's nationwide DAB+ multiplex has influenced car-makers there, but the effects will be wider, with many major European automotive manufacturers incorporating digital receivers in their cars. A DAB+ receiver will, for example, come as standard in any Volkswagen Golf sold in Norway this year. Additionally, thanks to products such as PURE's *Highway* receiver, drivers of older FM-equipped cars are now able to tune in digitally using these devices, which retransmit the audio signal to the inbuilt radio.

Chips

2011 saw a major step forward in the field of research and development, with the new generation of digital radio chipsets arriving on the market from manufacturers like *Imagination Technologies*, *Intel*, *Silicon Labs* and more. As well as being multi-standard (combining, for example, DMB standards like DAB+ with those of the DRM family on the same chip) and vastly more power efficient, their real breakthrough is their size. Crucially, digital radio chips are now small enough to fit into tablets and mobile phones, and it's expected that a major manufacturer of these devices will announce digital radio integration early in the year. The implementation of broadcast digital radio in these mass-market multimedia devices will place considerable emphasis on hybrid content, and so this is likely to be a breakthrough that fundamentally changes the way listeners and broadcast conceive the experience of listening to the radio.

Norway

The phase of political lobbying and conceptual planning is over in Norway. In 2012 the emphasis will shift as we undertake the core practical work of planning the network of digital transmitters, to be ready to offer 90% nationwide coverage of the commercial multiplex by 1 January 2015, a key deadline set by the government's Culture Ministry. Furthermore it is expected that by this time the NRK multiplex will offer 98.5% coverage, a figure similar to today's FM reach. Alongside this work we will begin a rollout of promotional materials and public awareness campaigns, so we can expect 2012 to be digital radio's most visible year yet in Norway.

SWEDEN



Mats Åkerlund

*Head of Digital Strategy, Swedish Radio
Chairman, EBU New Radio Group*

Spotify and the embedded player

European radio's future is about both broadcasting and broadband. While a modern digital terrestrial distribution is a clear priority, we need additionally to develop online. This is not a question of 'either/or'; we need both. This may seem obvious but it is an important point to emphasise. This conclusion is also the starting point for Swedish Radio's digital radio plan over the coming years.

Swedish Radio currently broadcasts primarily via FM. As we wait for a clear decision in Sweden on digital radio (DAB+), SR has chosen to move forward on the web.

Mobile phones are becoming increasingly important. Over 70% of the population is expected to have access to a smartphone in 2013. Already last year the figure was 40% and in 2012 it will increase to 60%. This means that the development of a radio offering via mobile phones will be one of the main priorities for 2012. Use of mobile sites and apps is increasing very rapidly.

During 2011 Swedish Radio, launched a year-long trial to provide content on web platforms *Spotify* and *Wimp* (a subscription service operated by a Norwegian company). Featured content came primarily from comedy shows for young audiences, but also included interviews from the news department. According to SR's Deputy Director Cilla Benkö, this was conceived as a way to reach an audience that the broadcaster would not otherwise reach. *Spotify* is used by half of Sweden's population, and by 86% of young people from 16-25 years. The success of these trials should be evaluated at the end of 2012.

During 2012, SR will continue to offer an 'embeddable' player, which has so far reached more than 2,000 different sites and blogs. The embedded player allows listeners to hear audio available on Swedish Radio's website. Anyone can use the player on their site to offer live or on-demand radio, with the content streamed from its home on SR's servers, for copyright reasons.

What future, then, for DAB in Sweden in the year ahead? The radio industry has agreed on DAB+ as a standard. Swedish Radio currently broadcasts over DAB across parts of the country, and private radio stations will be offered the opportunity to broadcast over DAB+, but a launch must be coordinated with public-service radio. The future of digital radio is one of many issues currently being addressed by a state committee on the future of public service broadcasting, with a report due in September. A political decision on DAB+ is not expected until 2013, meaning that uncertainties remain as Sweden moves towards a decision.



Mark Friend

Controller, Multiplatform & Interactive, BBC Audio & Music

(writing at the invitation of New Radio Group member Brett Spencer)

UK commercial radio and the BBC are each developing new digital content and enhanced services and are working together to drive the take-up of digital radio with unified industry marketing campaigns and shared technology development. Digital listening now represents over a quarter of all listening in the UK and well over 40% of people listen via a digital device each month.

As I write this, UK broadcasters are locked in negotiations with government, regulators and infrastructure companies over the details of build-out of local DAB transmitter networks in the UK. 2012 will see agreement over these commitments and provide certainty for our listeners and manufacturers.

Vital as these commitments are, they are the continuation of a well-established strategy and direction that the UK has been pursuing for more than a decade. At the same time there are wider changes in consumer technology which are transforming how we make and experience radio. So my headlines for radio in 2012 are:

1. **London 2012** is probably the biggest event that we'll see in the UK in my lifetime and naturally we aim to make the most of it with wall-to-wall coverage of the Olympic Games and Paralympics. We're adding an extra station (*Olympics Extra*) on DAB and online for the duration of the Games in addition to *5 Live* and *5 Live Sports Extra*. Throughout 2012, we'll deliver extensive coverage of Euro 2012, Wimbledon, US Open golf, cricket, Formula 1 etc., and multimedia coverage of cultural events such as Hackney 2012.
2. **Smartphones** will hit 50% penetration in the UK before the end of 2012. The key issue for radio is that virtually none of these contains any form of broadcast radio and that IP radio services can get lost amongst the thousands of other choices. 2012 will see broadcast radio begin to re-appear in smartphones in the UK as broadcasters develop and promote hybrid radio services, mobile operators see the benefit of reducing congestion on their data networks and listeners seek low power, zero cost broadcast radio combined with 3G/IP providing enhanced services and back-channel connectivity. Windows 8 will

provide welcome competition to Apple and Android and open up new opportunities for smartphones and tablets.

3. **Hybrid radio.** The BBC will begin to link its broadcast and IP services together in three ways. Firstly, we aim to link our internet services and apps to broadcast radio so that listeners have the option to listen via FM or DAB but have slick user-interfaces and features controlled by 3G/wifi. Secondly, we will support our national radio stations with a RadioVIS service during the next 12 months and we look forward to a growing range of hybrid receivers coming to market. Thirdly, we are exploring the benefits of RadioTAG with a view to launching a trial service.
4. **Radioplayer.** 2012 will see all remaining UK broadcasters join the Radioplayer consortium and see it shift to become a more consumer-facing brand with applications being launched on major mobile and IPTV devices. The BBC and commercial radio will promote Radioplayer with marketing campaigns and deep linking from our services.
5. **All BBC Radio in one place.** We will re-launch the BBC's interactive radio offer on all platforms, including IPTV services such as *Youview*, to create a simpler, more personalised radio experience focusing on:
 - a. Making live radio more visual, looking as good online as it sounds on-air, integrating real time social media and connecting radio listening to people's media experiences.
 - b. Easy access to the world's greatest audio archive by expanding the range of content, curating it dynamically with live radio output and making it easy to find, schedule and download.
 - c. Strengthening radio's position as the number one place for discovering music in the UK by connecting it with online music services and showcasing the amazing music, events and music talent the BBC will deliver in 2012.