Better connected

Bringing digital radio services and mobile phone technology together internationally presents a challenge, particularly when technical standards differ, as ***Dave Moss*** *reports.*

Two key themes emerged from the Digital Radio summit masterminded by the European Broadcasting Union (EBU) to coincide with the recent Geneva Motor Show. The first was that the digital radio revolution is gathering speed – with a switch away from FM by bigger stations increasingly likely in coming years. The second was that digital radio and mobile phone technologies are steadily moving closer together – all changes which seem certain to benefit drivers and radio listeners.

DAB radio

The digital radio message had clearly reached car makers at the Geneva Show, with DAB+ receivers appearing in many ranges with little or no digital radio offering last year. In 2013, digital radio was mostly found only in higher specification cars from premium makers such as BMW, Audi, Jaguar Land Rover, Volvo and others. For 2014, growing numbers of high-volume makers including Ford, Opel, Toyota, Peugeot, Citroën and Kia offer standard fit and optional DAB+ equipment. Yet as Europe moves steadily towards newer, more adaptable DAB+, Britain is staying with earlier, non- compatible and less advanced DAB. New UK-supplied vehicles are increasingly fitted with dual-system receivers, but digital reception may not be possible in older cars visiting Europe.

In digital radio equipment, there's a growing trend towards greater operational refinement, as broadcasters develop the system's potential and enable further technical features. More helpful facilities are appearing – amongst them reception-dependent automatic DAB-to-FM programme following, text services, and pictorial content on colour screens, particularly Electronic Programme Guides. However some commentators have previously suggested user operation could be easier: James Cridland, managing director of Media UK, says that in-car digital radio controls aren't always easy to find, often hidden in multi-level screen-based menus – and station searching could be easier.

The majority of Audi models are now fitted with digital radio as standard.

Digital switchover

Digital switchover proved an important topic at the EBU summit. Delegates heard that Norway has announced 2017 and Denmark 2019 as target dates for analogue FM switch off – though subject to conditions, principally that 50% of listening must first be digital. Switchover is under increasingly lively discussion across the EU: the UK says it will switch – but with no date yet fixed, while Nancy Wayland Bigler, from Swiss regulator Ofcom, noted that country's major FM licences currently end in 2019.

Radio across Europe

Several summit presentations considered aspects of the future of broadcast radio – built on a likely permanent digital changeover. Behind the scenes, moves to converge radio and internet technology to the great benefit of listeners are already underway, led by the EBU's 'Smart Radio' initiative. This is already supported by 18 major public service broadcasters and several big commercial broadcasters in France, Belgium, Germany, Italy, Sweden and Britain.

This group is now engaged in discussions with carmakers, component suppliers, mobile phone and other device manufacturers, and mobile network operators – as it seeks to secure future-proof, multi-channel, cost free radio listening across Europe. The plan is to have suitable radio receivers installed in all mobile devices – efficiently connected using current technologies via all useable media delivery networks. Wide accessibility to radio is a primary target, but those in the growing number of 'connected cars' could see major benefits, and a major boost to European road safety is anticipated, through easy delivery of precise, newly simplified traffic information covering local to cross-border road conditions.

Hybrid radio

The Smart Radio project is a key to what broadcasters have chosen to call 'Hybrid radio.' Here, not-for-profit organisation RadioDNS has 26 members, active in major radio markets including Europe, the US and Australia – with another 60 supporting organisations worldwide. All are promoting newly developed technical standards, which make hybrid radio a practical reality. A suite of RadioDNS technology can now fully bridge the previous gap between FM, DAB, and HD Radio broadcasts and mobile broadband internet connections – thus placing listeners at the heart of seamless interactivity with broadcasters' programming through sound, pictures and text. Over 1,900 stations already use parts of this technology package, which achieves best versatility using digital broadcasting, allowing listeners to access enhanced, personalised interactive content linked to any chosen station. This can include 'on-demand' news or weather, background to programmes and personalities, specific event information, and 'tagging', allowing listeners to request more information or purchase items related to broadcasts.

RadioDNS technology and the EBU Smart Radio initiatives together underpin another related venture. The worldwide 'Universal Smartphone Radio Project,' is an ambitious move to bring much improved broadcast radio functionality to smartphones – using Hybrid radio principles. Estimates suggest few current smartphones feature radio reception, and the obvious alternative of streamed radio on today's internet-enabled mobile devices is restricted by data allowances, battery consumption and variable mobile broadband reception.

The Universal Smartphone Radio Project seeks to include all global digital radio reception standards inside future smartphones. Discussions with handset makers and mobile network operators are already under way, and towards the end of the EBU summit RadioDNS chair Nick Piggott announced that manufacturer Samsung had just introduced several models featuring Hybrid radio into its Galaxy smartphone range. Though broadcast reception on these is FM, not digital, limiting capability, the move is seen by RadioDNS as a new willingness by handset manufacturers to take a more flexible approach to radio in future.

Nick Piggott said afterwards: "The units are available in Europe on the Vodafone network, and will also be available in Asia. It's a landmark for RadioDNS Hybrid Radio, and an exceptional opportunity for radio broadcasters to connect with listeners on smartphones. I hope many radio stations will seize this chance to show they can make broadcast radio as interesting to use as streaming apps on the smartphone."

Together the 2014 Digital Radio summit and Geneva Motor Show underlined significant progress made by broadcasters and carmakers in just twelve months. Digital radio still has some justified listener concerns, and FM will be around for many years yet, but digitally equipped car numbers are growing fast. Broadcasters are delivering ever more digital programming, and DAB+ continues on course to become a standard for Europe and beyond. Best of all, the innovators are hard at work to make fully connected cars – and smartphones – an easy to use reality at last.