



Radio – Preparing for the future

Phase 1 developing a new framework

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Foreword

The senior broadcaster – radio - is a vibrant and increasingly popular medium. Audiences are listening both to a wider range of stations and for longer in total than they were five years ago. Radio is also at the cutting edge of convergence. Audiences listen to radio not just over conventional sets but, increasingly, via digital television, mobile phones and the internet; and there is a growing range of data and multi-media services available over digital radio sets.

Since Ofcom inherited regulation of commercial radio from the Radio Authority, we have taken a number of specific steps to help the industry develop and increase choice for audiences. We have confirmed spectrum for at least 30 additional local FM stations, simplified and streamlined the process for applying for a licence to run them, and have so far advertised nine licence areas. We have implemented a new tier of radio - community radio - which will complement local commercial radio and enhance audience choice locally. We have sustained the ongoing programme of temporary / special event licences (RSLs) while developing new processes to deal with recurring peaks of demand for such services, for example during Ramadan; and we have published interim guidance on localness for local commercial radio (which this report develops further). All these were things that needed to be done as soon as possible after Ofcom's formation. The time has now come to take a wider look at the industry's development.

The starting point for this review has been the requirement to meet two specific statutory duties. The first is our statutory requirement to report to the Secretary of State on the take-up and future prospects for digital radio. The second was Parliament's will that we should develop ways of protecting local programming and production on commercial local radio, in the light of the potential consolidation of the sector which the Communications Act makes possible.

We make some initial proposals in these specific areas and also raise some broader questions about the shape and direction of the industry as a whole. The answers to these broader questions will help Ofcom to shape a strategic framework for regulation of the industry to help us meet our twin objectives in radio. Firstly, that it should remain a dynamic sector, with room to grow and to provide new services to audiences, increasing the range and extent of our choice as consumers. This is exemplified in the proposals in this report on additional spectrum for digital radio, more Medium Wave stations, and for a more flexible approach to new data and multi-media services via radio. Secondly, that radio, like television, has a wider role in support of social, cultural and democratic objectives; and that it has public purposes towards audiences in our capacity as citizens. The overall framework needs to allow the radio sector as a whole - BBC national and local radio, commercial national and local radio, community and RSL radio - to deliver those public purposes effectively in the digital age.

As to Ofcom's specific proposals for local commercial radio, we believe that the emphasis of regulation needs to move away from box-ticking measurement of inputs towards what audiences actually get to hear. Having local radio journalists with time to be on the beat, picking up, investigating and reporting local stories, is likely to be more important to local audiences than whether their radio station has met pre-dealt quotas of live as opposed to recorded programming from the studio. So we will place greater emphasis on radio stations' compliance with the formats they have promised

to meet when being awarded their licences and with new localness guidance. In return, it should be possible to move away from detailed input regulation in some areas.

Regulation needs to move beyond a London-based regulator dealing centrally with 250-plus geographically dispersed radio stations. Local radio needs to be a genuinely local voice, locally accountable. Local audiences and citizens therefore should have a real say in the process. To that end, we are proposing a system of public files of output, which local residents can inspect, and which will demonstrate, in terms of programming and news output, that the radio station has met its format obligations, with Ofcom remaining vigilant as the back-stop regulator for those stations that do not.

As regards digital radio, Digital Audio Broadcasting appears, after a long gestation, to be beginning to take off. Sales have exceeded 800,000 sets and are expected to pass the one million mark by Christmas. Ofcom's research shows high levels of listener satisfaction among those who have already adopted Digital Radio. The demand is for more new services and better coverage. We have identified four and possibly five blocks of spectrum that could be available for DAB. These are subject to being able successfully to migrate a range of existing users of those blocks to elsewhere in the spectrum and to international clearance for DAB use.

We propose to release up to three of these blocks of spectrum as multiplexes to complete the nationwide coverage of local DAB radio services; and we consult on the possibility of releasing one or possibly two blocks of spectrum for national coverage, each allowing a range of sound programming, data and multi-media services. We propose to license the local multiplexes under the traditional Broadcasting Act rules, since they will complete a consistent and coherent roll-out pattern that was set in place in 1996. If the eventual decision is to go ahead with the national multiplexes, however, we believe that it could be advantageous to take advantage of the flexibility created by last year's Communications Act, which allows the market to decide the best combination of uses. We would welcome views on how these nationally available blocks of spectrum might best be used.

This Report is, in the jargon, a Phase 1 Report: that is, a mixture of outline proposals and questions. In the light of your views, we will firm up our proposals in the next, Phase 2 Stage.

We will then be able to go firm on the specifics on localness and on digital radio. We also hope, in the light of your views, to be able to move beyond questions to proposals for the public purposes of radio and the market structure best designed to deliver them. Many of these public purposes, we expect, will, as they have for much of the past 80 years, continue to be met by the BBC's radio services. But commercial and community radio will also have a significant part to play in the total framework in giving all of us, as audiences, a wide range of services which meet our needs for imaginative, speech-based services, a wide range of music and other cultural programming, local news and information which allows us to participate effectively in the democratic process and to get the best out of our lives.

We believe that radio matters. So do your views. We look forward to receiving them.

David Currie
Chairman

Stephen A Carter
Chief Executive

Section 1

Introduction

1.1 What is radio?

Radio is everywhere. It wakes us up in the morning and accompanies us around the house – in the bedroom, in the shower, in the kitchen – entertaining and informing us. It helps us get to work, advising us of traffic problems and calming our nerves as we commute, in the car or on public transport. For some of us, it keeps us going through the day, either at work or at home, providing company, entertaining us and making us think. At the end of the working day it helps us get home again. Only then does television, radio's younger sibling, take over in the battle for our attention.

Radio has been around for over 80 years and, despite the arrival of new technologies, from television to computers and the internet, radio still plays a major role in our lives today. Every week, 90% of the population tunes into radio for at least five minutes and listening is on the increase. On average, we each listen to 22.9 hours of radio a week – almost as much time as we spend watching television.

But our relationship with radio is different from that with television. Radio is a secondary medium; we usually listen to it while we are doing other things – getting ready, commuting or working. That doesn't mean, however, that we take it less seriously than television. Radio is a personal medium, which many of us feel very passionately about and we have a strong sense of ownership of the stations we listen to.

Now, the radio we have grown up with is changing. Digital technology means that not only are there more stations than ever to choose from, but we can listen to them in new ways – via our televisions, on the internet, on our mobile phones – as well as on the more traditional portable sets, hi-fis, boom-boxes and car radios. And the services digital radio can offer could change the medium forever – we are only at the start of the revolution, but already digital radio can offer much easier navigation between stations, the ability to pause and rewind live radio, the opportunity to listen at a time of our own choosing to programmes we have missed, the ability to download and store songs on our MP3 players or to see information about the track or programme we are currently listening to. This is only the beginning; future services could include video clips and much enhanced text services. In this way, radio is at the forefront of the media and technology convergence which has been talked about for so long.

As well as the growth of digital radio, we are about to see the explosion of a new tier of radio, community radio, which could offer radio for those groups in society which are not well served by the current offering, by providing innovative services which are less attractive to the commercial sector. It will also offer the opportunity for anyone who wishes to become much more involved in making radio programmes to do so and will offer a training ground for the next generation of talent. There will be room for experimentation and the level of success may vary; but many stations will be successful and, in years to come, will become a vibrant element in a radio system which embraces UK-wide, national, regional, local and community stations, each playing their own part in delivering variety and quality to radio listeners in the UK.

1.2 The radio industry

The radio industry as a whole is in a healthy state – the number of analogue stations in the UK has grown from 218 ten years ago to 326 today. UK radio industry revenues (including BBC funding) are £1.1bn a year, up from £0.6bn ten years ago, and the latest listening figures are over 8% higher than five years ago.

However, the radio industry in the UK is changing rapidly:

- digital radio (including DAB) is growing in importance as new stations launch and listening on the new platforms grows - there are now 210 stations broadcasting on DAB digital radio, 85 on digital satellite television, 30 on digital terrestrial television and thousands available over the internet;
- the Communications Act 2003 paved the way for consolidation both within the industry and across media;
- radio is spearheading the drive towards convergence as it becomes available on new devices and becomes integrated with data services; and
- community radio has been given the go-ahead and could have a significant impact on radio listening and the radio industry.

These changes will undoubtedly bring benefits for consumers, the radio industry and the UK.

But all is not plain sailing:

- increasing competition will put pressure on existing analogue commercial stations, particularly the smaller ones; and
- while digital radio as a whole is starting to make an impact, take-up of the DAB digital radio platform has been slower than the industry would have liked.

1.3 Ofcom's statutory duties and regulatory principles

Our review needs to be based upon Ofcom's statutory duties and principles.

Ofcom's principal statutory duty is *“to further the interests of citizens in relation to communications matters; and to further the interests of consumers in relevant markets, where appropriate by promoting competition”*.

With respect to radio, Ofcom has a specific duty, as required by legislation, to ensure *“the availability throughout the UK of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests.”*

In addition, the Communications Act 2003 introduced a new duty on Ofcom in relation to localness in analogue radio. Ofcom must carry out its functions in the manner it considers is *“best calculated to secure that:*

- *programmes consisting of or including local material are included in such services but, in the case of each such service, only if and to the extent (if any) that Ofcom considers appropriate in that case; and*

- *where such programmes are included in such a service, what appears to Ofcom to be a suitable proportion of them consists of locally-made programmes.”*

Ofcom is also obliged to draw up guidance as to how it considers that these requirements should be satisfied and earlier this year we published an interim set of those guidelines, on which we consulted.

Having regard to its statutory duties, Ofcom has defined its mission as furthering the interests of citizen-consumers as the communications industries enter the digital age.

In order to achieve this mission, Ofcom aims to follow regulatory principles which state that we will:

- regulate with a clearly articulated and publicly reviewed annual plan, with stated policy objectives;
- intervene where there is a specific statutory duty to work towards a public policy goal which markets alone cannot achieve;
- operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required;
- strive to ensure our interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome;
- always seek the least intrusive regulatory mechanisms to achieve our policy objectives;
- research markets constantly and aim to remain at the forefront of technological understanding; and
- consult widely with all relevant stakeholders and assess the impact of regulatory action before imposing regulation upon a market.

To do this, we will:

- balance the promotion of choice and competition with the duty to foster plurality, informed citizenship, protect viewers, listeners and customers and promote cultural diversity;
- serve the interests of the citizen-consumer as the communications industry enters the digital age;
- support the need for innovators, creators and investors to flourish within markets driven by full and fair competition between all providers; and
- encourage the evolution of electronic media and communications networks to the greater benefit of all who live in the United Kingdom.

1.4 The purpose of this review

There are two immediate priorities for this review to address:

One is the requirement for us to review the development of digital radio. Section 67 of the Broadcasting Act 1996 requires the Secretary of State to keep under review the development of digital radio, for the purpose of considering for how long it would be appropriate for sound broadcasting services to continue to be provided in analogue form. The Act requires the review to look at:-

- (i) the provision in the UK of radio multiplex services;
- (ii) the availability in the UK of digital sound programme services and the availability there in digital form of national services (within the meaning of Part III of the Broadcasting Act 1990) and the sound broadcasting services of the BBC; and
- (iii) the ownership or possession in the UK of equipment capable of receiving the services referred to in sub-paragraph (ii) (above) when broadcast or transmitted in digital form.

The Broadcasting Act 1996 also requires the review to look at the likely future extent of such provision, such availability and such ownership or possession.

Ofcom was asked by the Secretary of State to report to her on these matters by 31st October 2004. We duly presented that report, which is incorporated into this review in section 7¹. While the statutory review was framed in terms of DAB digital radio and this remains the primary focus of the report, other platforms such as digital television and the internet now offer digital radio and we consider them within the review.

The other immediate priority is the requirement set out in section 314 of the Communications Act for Ofcom to produce guidance as to how we consider that the requirements for local material and local production in commercial radio should be met. We address these issues in section 6.

Beyond these two immediate priorities, in preparing this review it became clear that these two aspects of the radio market cannot be considered in isolation. The analogue and digital radio sectors are very closely related, being operated largely by the same companies and sharing some of the same content, so it does not make sense to review digital radio without considering the analogue market. In addition, the major role played by the BBC in radio, accounting for over half of total radio listening and almost half of total radio funding, means that any review which considered only commercial radio would be deficient in its understanding of the factors which influence industry and audience behaviour.

These factors, together with the changes taking place in the industry in general, suggested the need for an overarching review of the future direction of the UK radio industry.

This review, therefore, considers the whole radio market, both the commercial sector and the BBC, and both the analogue and digital sectors. It aims not only to address

¹ We have updated some of the information in this report and added further detail on our policy proposals for consultation.

the immediate priorities but also to raise some questions about where radio is headed in the long-term, including:

- whether there are particular public purposes for radio that require intervention in the market (either through the public or commercial sectors) and how these are best delivered;
- whether digital radio is likely to change this picture – recognising that digital radio is still at a very early stage of its development; and
- what the long-term strategic aims of regulation of the radio market should be.

We have structured this review into two main phases:

- Phase 1 addresses our immediate priorities as required by statute - consideration of localness in analogue commercial radio and a review of the development of digital radio.

It goes on to begin the debate about the rationale for intervention in the market and asks whether a clear set of public purposes can be identified for radio. It suggests a strategic framework for regulation in radio and explains how commercial radio, community radio and restricted service licences (RSLs) fit into that overall strategy. It concludes by setting out our plans for further licensing of radio services, including the possibility of new medium wave licences;

- Phase 2, next year, will aim to reach conclusions on the proposals in phase 1, following consultation, and will try to answer some of the questions raised about the longer-term, particularly as regards the public purposes of radio and how they are best delivered.

Overall, the review aims to set out, for consultation, a regulatory framework which balances the needs for healthy competition, range and quality, valued services which meet public purposes and the provision of local services, and facilitates moves towards a digital future for radio.

In drawing up this review, we have already held informal discussions with many industry players, but the initial findings and proposals of this review are now presented for formal consultation.

Our key questions for this consultation are listed at the end of this report. We look forward to a healthy debate.

Section 2

Executive Summary

2.1 The radio industry

Radio in the UK has developed as a mixed economy, with publicly funded services (in the form of BBC radio), commercial services, local, regional, national and UK-wide services. There is a broad range of output and satisfaction with the radio services provided is reasonably high (two-thirds of listeners say they are satisfied with what they receive now). On average, radio reaches 90% of the population for at least five minutes a week, with average listening per head of 22.9 hours a week. Listening is split roughly evenly between the BBC and the commercial sector and between UK-wide and local and nations' services.

Listeners expect radio to provide a wide range of output. Our audience research suggests that, while the type of music played is often top of the list in deciding whether to tune-in to a particular radio station, audiences also tune-in for other things. They want news (world, national and local), local traffic and travel news, weather reports and discussion of issues affecting their community. They want to listen to presenters who can engage and entertain them and they are interested in hearing about serious issues, even on stations which primarily offer music. More generally, listeners demand a wide range of entertainment and information, including sport, comedy, documentaries and drama. This demand comes not just from older listeners, but from younger audiences too.

Although overall listening has been rising, audience expectations of radio are high and there is no room for complacency in the industry. With the growth in take-up of MP3 players, such as the iPod, which allow people to carry vast music collections around with them, the need for radio to offer more than just music has never been greater. Listeners, particularly those under 30, are no longer loyal to one station and easily move between stations to find something they want to listen to. If they don't find it on the radio, they will turn elsewhere. Investment in content will be key to the future success and growth of radio, across all platforms and sectors.

Any review of the radio industry in the UK must consider all aspects of provision, publicly funded and commercial, analogue and digital, from the UK-wide to the local and community services, in order to present a rounded picture of what each delivers and a balanced view of where the industry might be headed.

Before turning to our two immediate priorities for this review – the future regulation of localness and the development of digital radio – we consider the role of intervention in the radio market and suggest a strategic framework for future regulation.

2.2 Why might we intervene in the market?

Most markets routinely provide the products consumers value and want to purchase. But, in a world with only a limited number of radio stations available in each area, an unregulated market is unlikely to provide such an outcome. Regulation in radio was designed to provide a wide range and balance of programmes at UK, national and local levels.

Currently, the level of intervention in the radio market, represented both by the BBC (which accounts for almost half of all radio funding and over half of all listening) and the process of licensing and regulating commercial radio (for example, requirements for local output and a range of formats) is substantial. As digital take-up progresses and a larger number of services becomes available to all listeners, there may be reduced grounds for intervention. But even then, we believe that the market alone would not deliver all that citizens and consumers expect of radio.

The cost of the current intervention is significant and, in phase 2 of this review, we plan to assess the benefits that this delivers. For now, we consider what the economic rationale for intervention might be.

Our initial hypothesis is that there are still grounds for intervening in radio for conventional consumer reasons. Radio plays an important part in people's lives; it has some of the characteristics of a public good and limited spectrum means that the market alone would not deliver a full range of services to listeners.

There may also be citizenship grounds for intervention – there are externality and merit good considerations which mean that there may be a set of public purposes we, as a society, want radio to deliver.

In Ofcom's Review of Public Service Broadcasting on Television, we identified a number of public purposes for public service television. Radio is not television and does not have a statutory public service remit, but that does not imply that it has no public purposes. It may have different purposes than television or other media, or be better placed to deliver certain public purposes. For example, radio is probably better than television at delivering local content and community programming, both in terms of the volume of provision and the ability to serve smaller geographical areas; the nature of radio arguably makes it better at providing all sorts of music, from classical to folk and from jazz to rock, and at providing opportunities for new talent and for live performances. It may also be better as a training ground and showcase for new talent in other fields, such as drama and comedy.

We believe it may be useful to develop a set of public purposes specifically for radio, and we will test whether or not such a set of purposes exists, and what those purposes might be, as part of phase 2 of this review.

The set of public purposes that may emerge for the future is likely to be delivered in different ways by different parts of the radio sector. Many of them are likely to be those currently delivered by BBC Radio, both via the UK-wide networks and via local and nations' stations. It is important to emphasise that we are not looking to impose additional burdens on existing commercial radio stations. The primary contribution of the commercial sector towards public purposes is likely to be in the provision of local material, although there may be others, both now and in the future.

We want to address the question of the importance of competition in the radio market and of plurality in the provision of the public purposes we define – for example, the provision of local and national news, the competition for rights and the provision of similar services in both the commercial and publicly funded sector.

2.3 Towards a strategic framework for the regulation of radio

Ofcom has clear statutory duties and regulatory principles. We have combined these with our analysis of the rationale for intervention and potential public purposes to propose a set of strategic aims for regulation in radio²:

- **To enhance choice, diversity and innovation for consumers at the UK, national, regional, local and community levels.** In the short-term this means we need to:
 - ensure a wide range of services in the commercial sector and, in particular, the provision of local material, by regulating in the most effective way possible;
 - encourage the development of more choice and competition by licensing new analogue and digital services and encouraging the growth of digital radio; and
 - encourage the growth of a strong commercial sector, capable of extending range and choice and investing in the future.

- **To secure citizens' interests through the provision of radio designed to meet public purposes.** The public purposes we plan to define will set the background against which the current and future provision can be assessed.
 - We aim to start the debate about the long-term issues of:
 - the balance and boundaries between the public and commercial sectors;
 - the amount of public funding and intervention required to meet the public purposes; and
 - the importance of plurality of provision of radio designed to deliver those purposes.
 - More immediately, we aim to encourage the development of a thriving community radio sector.

- **To do this with as little intervention in the market as possible, consistent with meeting our objectives:**
 - based, where possible, on the range and quality of services provided to consumers, rather than intervening to determine methods of production;
 - in a way that is as consistent as possible across media and across platforms; and
 - adapting regulation to changes in the market and increasing levels of competition.

² Ofcom's responsibilities for radio are set out in the Communications Act (2003) and the Broadcasting Acts (1990 and 1996). Ofcom is responsible for the licensing and regulation of commercial radio services – local and national, analogue and digital – as well as community radio and radio restricted service licences. BBC radio services are not licensed by Ofcom and operate under the terms of the BBC's Charter and Agreement (see Appendix A).

Based upon this proposed strategic framework, we believe that each sector of the radio industry has a role to play - on both analogue and digital platforms – and adds to the overall benefit to citizens and consumers. As far as non-BBC radio is concerned:

- national commercial radio can provide a range of high quality, diverse programming, catering to a wider variety of tastes than would be economically viable at a local level;
- local commercial radio can offer a wide range of formats, specifically catering for local tastes, including the provision of local news and information. These stations can be more in-touch with local concerns and can help to engender a sense of belonging and connection to a particular area;
- community radio will offer the possibility of a new type of vibrant, highly localised service, clearly distinct from those provided by the commercial sector or the BBC. They will be primarily for the benefit of particular communities, be operated in order to deliver social gain rather than for commercial reasons, and will be accountable to the target community; and
- restricted service licences (RSLs) provide for small, single-site services (such as to hospitals or universities) and for temporary services for festivals and events.

One of the aims of phase 1 of this review is to seek views on the rationale for intervention in the radio market, identify a set of public purposes for radio and confirm or amend our proposed strategic framework, which will inform our regulation of radio in the future.

We now turn to the immediate issues: the regulation of local material on commercial radio and the development of digital radio and then, finally, cover the scope for expanding choice and diversity through further licensing of FM and MW commercial and community radio.

2.4 The regulation of formats and local material on analogue commercial radio

The current regulatory regime applied to radio varies by platform: analogue commercial radio is the most tightly regulated, DAB digital radio is less heavily regulated, while radio via digital television has only to comply with minimum standards and radio via the internet is not regulated at all.

In the long-term, as digital radio is taken-up by the vast majority of the population and the choice of stations expands, it may be possible to relax some of the regulation of analogue radio. For the present, as most people have only analogue radio (at least on portable and mobile receivers, where most listening takes place), there is still a need to intervene to ensure range and quality and the provision of local material.

However, we have considered whether all of the regulation currently in place is required to protect the interests of citizens and consumers and ensure provision of the range and quality of services they expect, including local programming. We have undertaken audience research to find out what matters to listeners and have also considered the financial implications for stations of any proposed changes.

Having considered these matters, we propose to put less emphasis on input regulation of local analogue commercial radio and more emphasis on the output – the services actually delivered to listeners – as well as more of an onus on stations to demonstrate what they have delivered.

Our premise is that, while regulation should aim to ensure the range and quality of radio for listeners, where possible the regulator should avoid determining how the programming is made. Current regulation comprises a combination of formats (generally output regulation), controls over a range of inputs – e.g. the use of news hubs, the amount of automation allowed in programming, the location of studios – and Ofcom’s programme codes.

We propose to continue to use each station’s format, as set out in its licence, as the primary regulatory tool, backed-up by a new set of clear guidelines (set out in section 6) covering local content. Stations will also continue to have to comply with Ofcom’s programme codes.

The guidelines covering local content have already been published in interim form but appear in this report as proposed final guidelines. Among other things, the proposed final guidelines state that local programming (for the hours specified in the station’s format) should be able to demonstrate some of the elements of localness. They also address other ways in which localness should be delivered. As part of this, we are considering changing regulation in the following areas:

Studio location

Ofcom’s objective is to ensure that the requirement for local production is fulfilled, to the extent required by each station’s format. The question is whether the current definition used in the regulation is the right one.

At present, in order to provide locally produced material, the regulation states that a station’s studios must be located within that station’s measured coverage area (MCA). This is a technical definition, which we believe is unnecessarily tight and we propose to relax this to require a station’s studios to be based in its licensed area.

As now, in exceptional circumstances, we will consider allowing a station to locate its studios outside its licensed area.

Networking

Ofcom’s objective is to ensure the provision of locally-made programming and local material on radio stations, to the extent required by each station’s format. Here, the issue is whether controls in relation to networking (the sharing of common programming between two or more stations at certain times of day) are required to deliver this.

The number of hours of locally-made programming which each station is required to broadcast is defined in its licensed format. Formats may also specify that programming at certain times of the day (e.g. peak time) must be locally-made. Beyond this, there are currently no written rules on the networking of content. For the purposes of clarification, we propose that stations be free to network as they wish, outside of the requirements regarding locally-made programming specified in their format. Where local material must be provided during networked programming, this will already be defined in each station’s format.

Automation

Ofcom's objective is to ensure that the content of the service the listener hears is of high quality. The question is whether a restriction of the hours of automation (defined by the Radio Authority as "*computer controlled programming, involving the music, voice tracks, drop-ins, commercials and other programming elements being played in accordance with a pre-defined schedule and which is not under the direct control of an on-air presenter*"), as used at present, is the best means of achieving this.

We want to move to an approach which reduces the level of input regulation and therefore we want to consider removing all specific limits on the use of automation. Automation of programming during a station's local hours, as specified in its licensed format, should be locally produced. If we were to relax regulation on automation as proposed, and this proved to be detrimental to the overall quality of radio services, then we may reconsider whether specific limits on automation should be reintroduced.

Local news delivery

Ofcom's objective is to ensure the provision of a high quality news service, including local and national news, by local radio stations, to the extent required by each station's format. The question is how this objective is best achieved.

For listeners it is the quality, relevance, timeliness and accuracy of the news that matters, not where it is read from. We therefore wish to consider the case for allowing any group of stations to operate news hubs in any way which makes operational sense for them, but which still ensures that Ofcom can meet the objectives set out above.

One possible way of ensuring that the overall objective of providing a comprehensive local news service, in touch with the area it is covering, is met would be to require each station to provide direct and accountable editorial responsibility, based within the licensed area, equivalent at least to full time professional journalist cover for all of the hours during which its licensed format specifies that it will provide local news programmes.

We recognise that this approach is not fully consistent with our aim of moving the emphasis from input to output regulation, and we would welcome views as to whether there is a better way to meet the objective of ensuring the provision of a high quality local radio news service.

Compliance with the regulations

Ofcom proposes to ensure compliance with a station's licensed format and the localness guidelines in three ways:

- we will continue to investigate stations, following complaints by listeners and competitors;
- we will carry out spot-checks on stations to ensure they are complying with the terms of their licence and are following the localness guidelines; and
- we will introduce a system of self-reporting by stations, to ensure that they can demonstrate how they have met their commitments. This will consist of a format and localness file available to the public both on the station's website and as a hard copy upon request at a station's studios. It should set out how

a station has complied with its localness obligations, how much automation has been used and where such programmes were produced and how the station has provided its local news (e.g. how many journalists have been employed locally).

We propose to make the maintenance of a format and localness file a licence condition for all stations.

As part of this review, we seek views on these suggested changes and whether they achieve the desired outcomes.

2.5 Facilitating the growth of digital radio

Digital radio, over all platforms, including digital TV, the internet and platforms designed specifically for digital radio, such as DAB, provides significant benefits to UK citizens and consumers compared to analogue radio. These benefits include a more effective use of spectrum than analogue and the ability to offer more stations, more robust reception with less interference, easier tuning, new interactive data services and new functions (such as the ability to pause and rewind live radio).

Digital radio in the UK is further developed in terms of the number of stations provided and consumer take-up than in any other European market and, arguably, any other market in the world. Between the various platforms, almost any household in the UK now has the ability to access digital radio and benefit from a wide choice of services.

The increase in listening to radio over digital platforms has been one of the major recent trends in radio in the UK. Listening to stations only available on digital in any given area accounted for 4.4% of all radio listening in the third quarter of 2004 and these figures almost certainly underestimate the total impact of digital radio.

This report considers radio via all digital platforms but, recognising the importance of DAB in offering a digital alternative to AM and FM radio (both in terms of offering mobility and portability and in terms of catering for local radio services), places particular emphasis on DAB digital radio. The development of other platforms which currently offer digital radio services in the UK has been addressed within other Ofcom reports (*Driving Digital Switchover* in television and the *Telecoms Strategic Review*), while other digital radio technologies have yet to launch here.

The relative success of digital radio in the UK has been the result of a combination of factors including: the high take-up of digital TV, which offers digital radio; the spectrum allocation for DAB digital radio, balanced between commercial players and the BBC and also between local and national multiplexes; the broad build-out of transmitter networks by Digital One, the BBC and local commercial multiplex operators; a DAB licensing regime which provided incentives for analogue stations to go digital by extending their analogue licences; the commitment of the industry, both the BBC and the commercial sector, to marketing via the Digital Radio Development Bureau (DRDB) and individually; and innovation and risk-taking by a number of smaller UK radio manufacturers which has helped to kick start the receiver market.

In the future, we expect that the market will also be driven by moves towards digital switch-over in television and exciting new multimedia services which will make digital radio more attractive to consumers – for instance adding text, downloads, graphics

and even video clips to complement radio services and allowing users to download free or paid-for content, such as favourite tracks, on to their radio or other devices.

However, there are still a number of potential obstacles to the growth of digital radio in the UK, including the coverage of, and choice of services on, DAB digital radio and on digital terrestrial television; the availability of current (smaller) analogue stations on digital radio platforms; the cost and availability of DAB radio receivers; and the financial prospects for digital radio services themselves. This report seeks to examine each of these potential obstacles and, where appropriate, proposes actions to address them.

Key proposals for digital radio

Our proposals aim to increase choice and diversity for citizens and consumers, in such a way as to encourage innovation in new types of services while ensuring universality of local provision of radio services and more choice of radio services at a national level. Our proposals are made following a preliminary industry consultation (see Appendix C), audience research and financial analysis and have been designed to help overcome what we believe are the current obstacles to further growth. We have made these proposals on the basis of a Regulatory Impact Assessment looking at the net benefits of each of the available options (see section 7.8b and d and Appendix E).

Ofcom remains platform and technology neutral and does not seek to promote one technology or platform over another. We also seek to intervene in the market as little as possible, while protecting the interests of citizens and consumers.

Obstacles to further development	Key proposals
Coverage of the national and local services within DAB licensed areas is not complete	<ul style="list-style-type: none"> • We propose to continue to work to secure international agreement to allow transmitters to be built in border and coastal areas. • The implementation of any power increases and further transmitter roll-out is a commercial matter for the industry itself. We will work with the industry and with our European neighbours to facilitate coordination of coverage plans to help ensure broadcasters can optimise coverage.
Not all areas of the country have a local DAB digital radio multiplex	<ul style="list-style-type: none"> • Subject to: <ul style="list-style-type: none"> - finding a home for existing users of the spectrum at reasonable cost; - securing the agreement of our European neighbours; and - consideration of the responses to this consultation, we propose to allocate a further three blocks of VHF Band III spectrum to fill-in the gaps in local digital radio coverage. • Together with existing unused spectrum, this would allow for all parts of the country to be covered by at least one local digital radio multiplex, to provide local services

	<p>and increased choice.</p> <ul style="list-style-type: none"> • We propose to license these frequency blocks as local radio multiplexes under the Broadcasting Act 1996. • This plan could also allow the BBC to complete the coverage of its local and nations' stations, as it has a statutory right of carriage for its local and nations' services on commercial local radio multiplexes.
<p>It is not economic for all smaller stations to broadcast on DAB digital radio, even with more spectrum</p>	<ul style="list-style-type: none"> • We propose to work with the industry to find ways for those smaller commercial and community stations that wish to broadcast on digital platforms to do so. • This may be on DAB digital radio or may involve other platforms and standards.
<p>The choice of stations on DAB digital radio in a given area is limited compared to other digital platforms</p>	<ul style="list-style-type: none"> • Subject to: <ul style="list-style-type: none"> - finding a home for existing users of the spectrum at reasonable cost; - securing the agreement of our European neighbours; and - consideration of the responses to this consultation, we propose to allocate a further one or two blocks of VHF Band III spectrum covering the majority of Great Britain (frequencies are not currently available in Northern Ireland). These blocks would be packaged in such a way as to be DAB-compatible. • We are minded to license these frequency blocks for national use under the Wireless Telegraphy Act only (i.e. we would not propose to require Broadcasting Act licences to operate services on this spectrum, although any sound services carried would require a Digital Sound Programme licence, under the terms of the Broadcasting Act) and seek views on this proposal. • We are also seeking views on the likely demand for nationally-allocated spectrum, whether for radio or multimedia or non-programme related data services. • We seek views as to whether the limit of 20% of capacity for non-programme related data services on all digital radio multiplexes should be raised. However, any decision on changing this limit is for the Secretary of State. • Further, to provide the potential for an increased number of radio services as coding technology improves, we propose to lift the specific limit on bit-rates for digital radio services and to replace this with a system of co-regulation in this area.

Spectrum for digital radio is limited on digital terrestrial TV	<ul style="list-style-type: none"> • Subject to consultation with broadcasters and other interested parties, we may make a recommendation to the Secretary of State that a relaxation be made in the 90% of digital terrestrial television multiplexes which must be available for the broadcasting of digital programme services, qualifying services, programme related services and relevant technical services, which effectively limits the amount of capacity that a multiplex operator can allocate to the carriage of programme-related data and commercial digital radio services to 10%.
The consumer awareness of digital radio and its benefits is still low	<ul style="list-style-type: none"> • We would encourage the industry to continue to work together to increase its efforts to promote digital radio.
DAB digital radio sets are still expensive relative to analogue sets	<ul style="list-style-type: none"> • We believe that the price differential between DAB digital radio and analogue radio sets will be brought down by: <ul style="list-style-type: none"> - taking the steps outlined above to facilitate the growth of the market in the UK; - increased marketing by the industry; and - working with colleagues in Europe to promote the adoption of a common internationally agreed standard.

In developing our proposals for the use of VHF Band III spectrum, we considered how best to make it available to the market. In doing so, we followed our proposed approach, as per the Spectrum Framework Review (available on Ofcom's website under <http://www.ofcom.org.uk/consultations/current/sfr/?a=87101>) of firstly determining the most probable use so that we can package the spectrum in the manner most likely to meet the market's needs (here, making it DAB-compatible).

Our proposed approach to releasing spectrum for use, as set out in the Spectrum Framework Review, is that spectrum should be free of technology and usage constraints as far as possible. Policy constraints should only be used where they can be justified. In this case, we have concluded that auctioning these frequency blocks in a technology-neutral manner would not produce the plan for local multiplexes needed to deliver our radio policy objectives (informed by our statutory duties) of ensuring that the maximum number of people throughout the UK are served by at least one local digital multiplex. We propose, therefore, to allocate three of the likely available frequency blocks for local radio multiplex licences under the Broadcasting Act, in order to enable local terrestrial digital radio services to be available across the UK.

As set out above, also in line with the proposed approach in our Spectrum Framework Review, we are minded to allocate the remaining frequency block(s), proposed for national use, under the terms of the Wireless Telegraphy Act, without the need for a Broadcasting Act licence. Any sound services carried on this spectrum would still require a Digital Sound Programme licence, under the terms of the Broadcasting Act.

In reaching a decision on the allocation and award of this spectrum, we will take into account public policy objectives, benefits to consumers and the health and growth prospects for the digital radio market as a whole, including any impact on the businesses of existing radio licensees. We seek views on our proposals as part of this review.

We note Digital One's position as the current national radio multiplex licensee, and the investment it and other existing radio licensees have made in digital radio. To the extent relevant, we will take this into account, together with all other relevant factors, in reaching a decision on our proposals regarding the allocation of spectrum.

Is there a case for digital switch-over in radio?

In television, one of the main drivers of digital switch-over is that it allows for the analogue spectrum to be freed-up for other valuable uses. For digital radio, the same is not currently true; there are no significantly profitable uses foreseen for released FM or AM spectrum, other than more broadcasting, so the benefit of switch-off of the analogue signal is relatively low. Costs of digital switch-over, on the other hand, would be significant, given the early stage of development of the market; consumers would need to buy new digital receivers to replace their analogue receivers and multiplex operators would most likely need to build out transmitter coverage more broadly. In addition, there is currently no route for smaller commercial analogue stations or community stations to broadcast in digital. Therefore, we do not believe that there is at present a persuasive case for digital switch-over in radio.

2.6 Future licensing to increase choice

One of our proposed key strategic aims is to enhance choice, diversity and innovation for consumers at the UK, national, regional, local and community levels. The main method of achieving this is by licensing new radio stations.

We set out in this review our proposals regarding the allocation of three further frequency blocks in VHF Band III for local DAB digital radio services, as well as one or two blocks which could be used for national DAB digital radio services. Prior to this review, we have already set out our proposals and timetable for the further licensing of at least 30 FM local commercial stations and for the licensing of a wide range of community radio stations.

We consider that it is important to make spectrum available for the market wherever this is possible, consistent with our statutory duties. Medium wave radio is a long-established technology, but one that still supports a number of valuable services. We have now identified 10 additional medium wave (MW) frequencies (each of which could be re-used in more than one area) which have development potential for new community radio or local / regional commercial services. Alongside the current community radio licensing process, we wish to invite letters of intent from interested parties who wish to make a case for new MW commercial radio licences to be advertised, and from existing licensees broadcasting on MW who wish to make a claim for improvements to their existing coverage.

Once we have assessed the likely level of demand for new MW licences from both community and commercial radio, we propose to make an equitable allocation of frequencies between the two sectors.

Ofcom is seeking views from the radio industry on how the advertisement of new MW licences could be incorporated into the existing commercial radio licensing timetable.

2.7 Questions for consultation

As we set out above, there are two sets of immediate priorities to be addressed. Firstly, how should we regulate local analogue commercial radio and, in particular, the provision of local material and locally-made programmes? We would welcome views on the following:

1. *Do you agree with our proposals to use formats as the primary tool of regulation for analogue commercial local radio?*

2. *How do you think the objective of ensuring the provision on commercial local radio of a high quality news service, including local and national news, is best achieved?*

- *Should stations be allowed to use news hubs to allow them to operate in the most operationally effective way?*

- *Do you agree that we should include a statement in the localness guidelines to the effect that, in order to provide a comprehensive local news service, each station must provide direct and accountable editorial responsibility, based within the licensed area, for the provision of a news service equivalent at least to full time professional journalist cover for all of the hours during which its licensed format specifies that it will provide local news programmes?*

- *Is there a better way to achieve the objective that focuses more on output rather than input regulation?*

3. *Should stations be allowed to decide for themselves how much programming they automate?*

4. *Should the requirement for a station's studios to be based within the measured coverage area be relaxed to require the station to be based within the licensed area?*

5. *Do you agree that a station's local hours, as defined by its format, should include local material, but that, outside of these hours, stations should be free to share material with other stations on a network basis as they see fit?*

6. *Do you agree that each station should be required to maintain a format and localness file, available both at its premises and online, which demonstrates how it is meeting its obligations?*

7. *Do you agree with our revised localness guidance, which sets out the factors stations should take into account in providing local programming?*

Secondly, how can we best facilitate the growth of digital radio? We would welcome views on the following questions:

8. *Do you agree with our proposals to allocate more spectrum in VHF Band III for DAB-compatible use (subject to spectrum clearance and international agreement) in the following way:*

- *Three blocks to provide local multiplexes to those areas which currently do not have their own local multiplex and some areas which already have local multiplexes?*
- *One or two blocks for national coverage (depending upon whether four or five blocks of spectrum are available in total)?*

9. *Do you agree that the proposed local DAB digital radio multiplexes should be awarded as Broadcasting Act licences?*

10. *Do you agree that the frequency blocks proposed to be allocated to national coverage should be awarded under the terms of the Wireless Telegraphy Act only (i.e. without the need for a Broadcasting Act licence)?*

11. *What demand do you envisage there being for nationally-allocated DAB-compatible spectrum?*

12. *Do you think the limit on non-programme related data carried on each commercial DAB digital radio multiplex should be raised from the current limit of 20%? If so, what should the limit be raised to? What do you envisage extra capacity would be used for?*

13. *Do you think the limit on non-programme related data (including radio) carried on each commercial digital terrestrial television multiplex should be raised from the current limit of 10%? If so, what should the limit be raised to?*

14. *Do you agree with the proposal to abolish the minimum bit-rate limit for DAB digital radio and replace it with a co-regulatory system akin to that applied in television for picture quality?*

Thirdly, in terms of future licensing:

15. *How should Ofcom allocate further MW (AM) frequencies between commercial and community radio?*

16. *How might we accommodate the advertisement of new commercial MW licences into our existing FM licensing plans?*

For consideration in phase 2 of this review, we would like to raise questions about the overall strategic framework for radio, both commercial and public sector, and the public purposes of radio. We would welcome views on the following:

17. *Do you agree with the proposed strategic framework for the future regulation of radio, which aims:*

- *To enhance choice, diversity and innovation for consumers at the UK, national, regional, local and community levels.*
- *To secure citizens' interests through the provision of radio designed to meet public purposes.*
- *To do this with as little intervention in the market as possible, consistent with meeting our objectives, in a way that is as consistent as possible across media and across platforms.*

18. *How important do you think it is to develop a set of public purposes for radio and what should those public purposes be?*

- *Is the set of public purposes already developed for television a useful starting point?*
- *What else should be added or what should be taken away?*
- *What is the relative importance of the different elements?*
- *Are there things that are better delivered by radio than other media?*

19. *To the extent that it is possible to comment at this stage, how do you think those public purposes are best delivered?*

- *How important is plurality of provision of the public purposes for radio?*
- *How much of what commercial radio currently does could be classified as meeting public purposes?*
- *How well does the current market structure help fulfil public purposes in radio?*
- *Should the BBC's radio archive be made available more widely to commercial players to provide alternative radio services?*

Details of how to respond to this consultation are given in section 9.

Section 3

An overview of radio in the UK

3.1 A brief history of the development of radio in the UK

The UK radio market today is a product of over 80 years of radio broadcasting in the UK and 30 years of commercial radio broadcasting (Figure 1).

Figure 1: Major events in radio in the UK

Date	Event
1922	BBC radio began broadcasting
1967	BBC Networks re-launched (Radios 1 to 4) and BBC Local Radio began
1972	Sound Broadcasting Act allowed for the start of Independent Local Radio (ILR), commercially funded, regulated by the new Independent Broadcasting Authority (IBA)
1973	Capital and LBC, the first UK commercial radio stations launched – all stations broadcast the same programmes (simulcast) on MW and VHF-FM
1988	Commercial radio stations permitted to offer different services on MW and VHF-FM services
1990	1990 Broadcasting Act allowed significant liberalisation of the market; The Radio Authority replaced the IBA; a points system was introduced to restrict multiple ownership; The Radio Authority no longer provided transmission; Radio Authority no longer pre-vetted programme schedule and allowed stations to choose its amount of advertising per hour; applicants for licences given greater freedom to propose their own format
1992	Classic FM the first national commercial radio station went on air and RAJAR (the pan-industry audience measurement body) and RAB (the Radio Advertising Bureau) launched
1995	BBC launched digital radio services
1996	Broadcasting Act removed the ceiling of 35 licences which could be owned by any one company, introducing an overall limit 15% of total points; allowed newspapers to own local stations in their local areas subject to a public interest test; created the foundations for digital radio development
1999	Digital One, the first national commercial digital radio multiplex launched
2002	Community radio (access radio) pilot scheme began
2003	Communications Act brings Ofcom into being; ownership restrictions further liberalised to allow a minimum of 2 + the BBC owners in any individual local market; new obligation on the regulator to protect localness; provision made for community radio
2004	April New FM licensing procedure announced June First Ofcom FM licences advertised July Community Radio Order establishes rules for setting up community radio Sept First community radio applications invited

Source: Ofcom

The BBC was formed in 1922 as a number of radio manufacturers came together to promote the new medium. The government of the day worried that broadcasting was too important to be left to the market and set up an enquiry. In giving evidence to the 1926 Crawford Committee, John Reith – then Managing Director of the British Broadcasting Company – stated that:

“Broadcasting must be conducted in the future as it has been in the past, as a Public Service with definite standards.”

The government accepted the findings of the committee and, in 1927 the BBC became a public corporation under a new Royal Charter, which set out its remit and governance structure.

BBC Radio started as local radio, partly for technical reasons, as it was not at first possible to retransmit the same programme to different areas. The local programmes were appreciated but, by the early 1930s, as the airwaves became more crowded and interference increased, the BBC abandoned local radio and the first national and regional services were born.

This situation continued until 1967, when the three BBC networks – Home (with regional programmes), Light and Third – were renamed Radio 4, Radio 2 and Radio 3 respectively and were joined by the new national Radio 1, designed to counter the loss of listening to the pirate stations, which were taking many listeners away from the BBC. At the same time, the BBC re-started local radio, beginning with BBC Radio Leicester. A further 19 stations followed over the next six years.

In 1973, some 18 years after the BBC faced its first commercial competition in television, commercial radio launched (then known as Independent Local Radio or ILR). Stations were licensed by the Independent Broadcasting Authority (IBA) and were local, generally covering cities or counties. There was only one station per area, except in London, where there were two with different remits: Capital, broadcasting entertainment, and LBC, broadcasting news and information. The rest of the commercial local stations around the country offered a broad range of programming – from news and chat, through pop music to classical music and religion - and were all locally owned and run. Localness has, therefore, been an important feature of commercial radio since its inception.

By 1988, there were 69 local commercial stations, each broadcasting on both MW (AM) and VHF (FM) (a situation known as simulcasting). In that year, the Government permitted local commercial stations to offer different services on their MW and VHF frequencies. Following this liberalisation, a number of different formats were experimented with on MW by the commercial radio companies, but by far the most commonly adopted was the ‘Gold’ format, majoring on chart hits from the 1960s and 70s. The overall number of stations increased dramatically as a result.

The 1990 Broadcasting Act decreed that all local VHF and MW services should be individually licensed, replacing the single VHF / MW ‘contract’ that had previously existed under the auspices of the Independent Broadcasting Authority. Furthermore, the ‘broadening choice’ criterion contained in Section 105 of the Act meant that any company providing the same programming on both wavebands in the same licence area would be vulnerable to challenges to their licences when they came up for re-advertisement. This meant that, by 1995, there was virtually no simulcasting still occurring in UK commercial radio.

In 1990, the IBA began to award licences for stations in areas already served by an existing commercial station. The aim was to increase the range of programming available to listeners. Early examples included Jazz FM and Kiss in London, designed to appeal to a different audience from Capital or LBC.

In 1991, the Radio Authority replaced the IBA as the commercial radio regulator and followed a policy of licensing stations to fill in the gaps in existing coverage, to offer smaller stations in areas already covered by large commercial stations and to offer regional stations, which could extend the range of programming available to audiences.

National commercial radio began in 1992. Three stations were licensed, and their formats were, to some extent, decreed by Parliament – one had to offer music other than pop music, one had to have at least 50% speech content. These stations were Classic FM, Talk Radio (now talkSPORT) and Virgin Radio.

The general trend in regulation of commercial radio has been gradually to lessen the regulatory burden on radio stations as the competition for revenues and the choice for listeners increases.

Meanwhile BBC Radio has continued to expand since 1967: A fifth national network, BBC Radio 5 (now BBC Radio Five Live) was launched and BBC Local Radio continued to expand, together with new stations for each of Scotland, Wales and Northern Ireland.

The BBC launched DAB digital radio in 1995, and now offers eleven UK-wide digital radio stations (including five only available nationally on digital, and the World Service).

Since then, commercial operators have also made significant investments in digital radio. A national commercial multiplex licence was awarded to Digital One in 1998. Digital One launched its first national commercial services in 1999 and now offers eight services, including five available only on digital. Local DAB commercial services are now available from 46 local DAB digital radio multiplexes around the UK. Digital versions of the relevant BBC Local Radio or nations' services are also carried on the appropriate local commercial multiplex.

3.2 The number of stations and the availability of choice

The past ten years have seen a significant growth in the number of radio stations in the UK, with over a hundred new analogue (MW and FM) stations coming on air (figure 3).

There are now (December 2004) 354 commercial and BBC stations broadcasting on analogue and DAB digital radio in the UK (figure 2):

Figure 2: Total number of UK radio stations on analogue and DAB digital radio

Type of station	Analogue MW (AM)	Analogue VHF-FM	Total analogue *	DAB digital radio	Total analogue & DAB *
<i>Frequencies</i>	522 – 1611 kHz	88 – 108 MHz		217.5 – 230.0 MHz	
Local commercial	59	213	272**	159	289
UK-wide commercial	2	1	3	8	8
BBC UK-wide networks	1	4	5	11	11
BBC Local and Nations'	36	46	46	32	46
TOTAL	98	264	326	210	354

* excludes double-counting of stations simulcasting on more than one platform or waveband

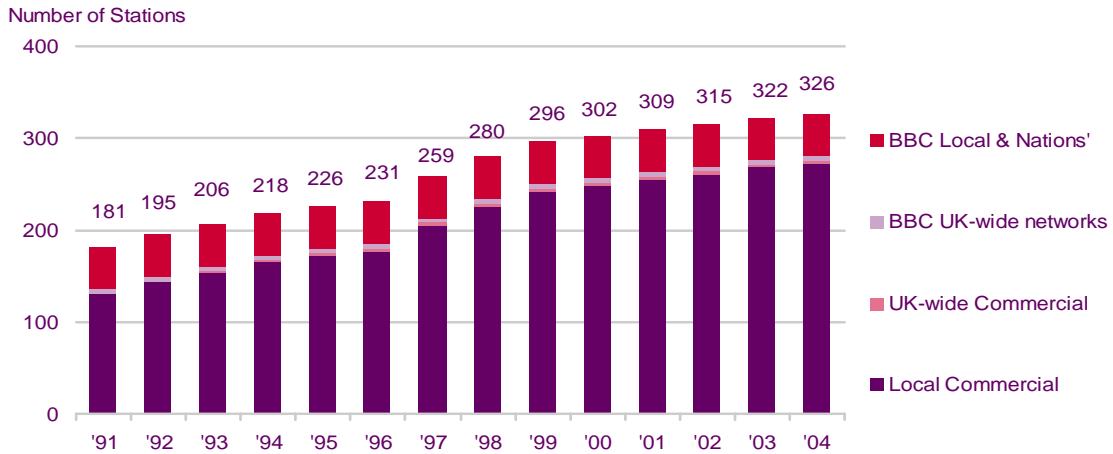
** There are 272 analogue licences, but five of the licences each broadcast two separate services (Trent FM / Ram FM, Chiltern Luton / Chiltern Bedford, Ocean FM / Power FM, Wirral's Buzz 97.1 / MFM 103.4, Radio Carmarthenshire / Scarlet FM)

Of the 159 local digital commercial radio stations on DAB digital radio, 17 are only on digital and 14 broadcast existing local analogue services to new areas.

In addition to DAB, there are 85 digital radio stations on digital satellite television and 30 digital radio stations on digital terrestrial television. There are also 122 long-term RSL analogue radio services and community radio is about to launch on a permanent basis.

Further details of the current structure of the digital radio market are given in section 7. The remainder of this section deals mainly with analogue radio, including the choice available to listeners, the overall structure and funding of the industry and total radio listening.

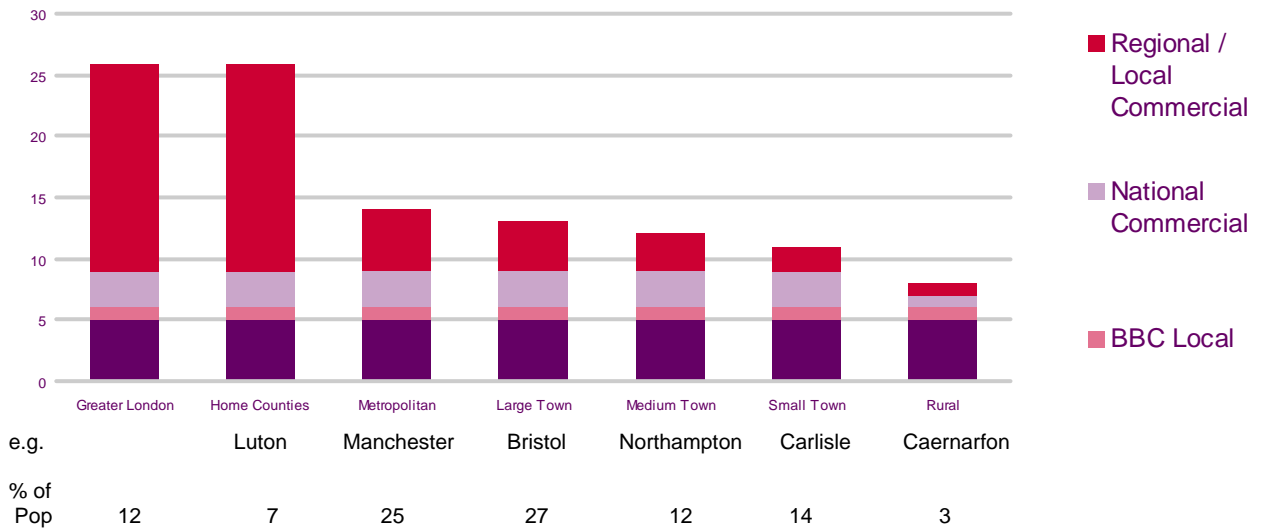
Figure 3: The growth in analogue radio (MW & VHF-FM) stations in the UK



Source: Ofcom / BBC

The increase in the number of stations (figure 3) has allowed for the launch of stations offering more niche formats and for stations which can provide more localised programming to smaller areas than was previously available.

Figure 4: Illustrative availability of choice of analogue stations by area



Source: Rajar / Ofcom

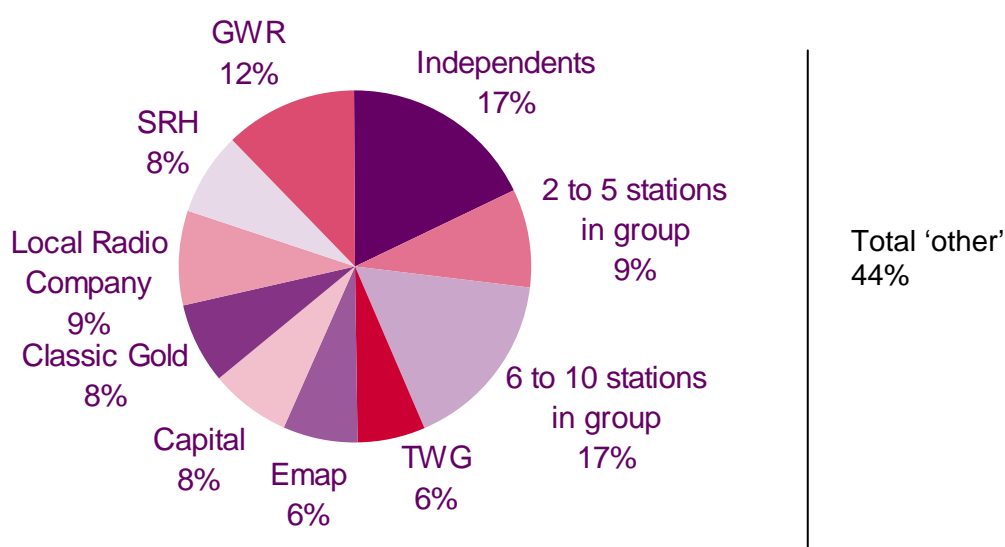
The number of stations from which listeners can choose depends upon where they live in the UK (figure 4). Listeners in Greater London and the Home Counties currently have the greatest choice of analogue stations, at over 25. Rural areas, such as Caernarfon, have the least choice – typically around eight stations, with only one national commercial and one local commercial station available in addition to the BBC. This pattern was determined by licensing policy and commercial reality – there is far higher demand to run services in metropolitan areas than there is in rural areas.

3.3 The ownership of commercial radio in the UK

UK commercial radio is dominated by a number of major groups. Over half of all analogue stations in the UK are in the seven groups which own more than ten stations: Capital Radio, GWR, Emap, Scottish Radio Holdings (SRH), Classic Gold Digital, The Local Radio Company and The Wireless Group (TWG) (figure 5).

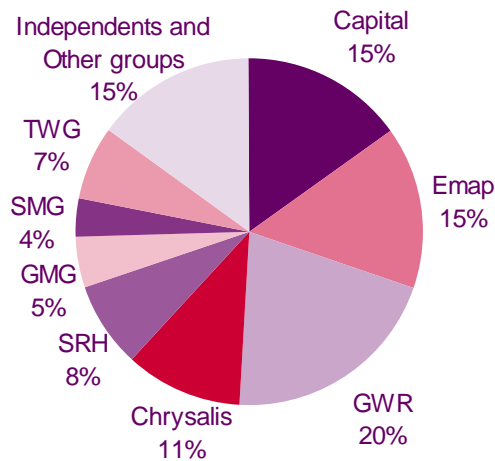
At the time of writing, two of the major groups, Capital Radio and GWR, had announced a proposed merger. This merger is currently subject to regulatory law and competition law clearance.

Figure 5: Number of stations split by number of licences owned



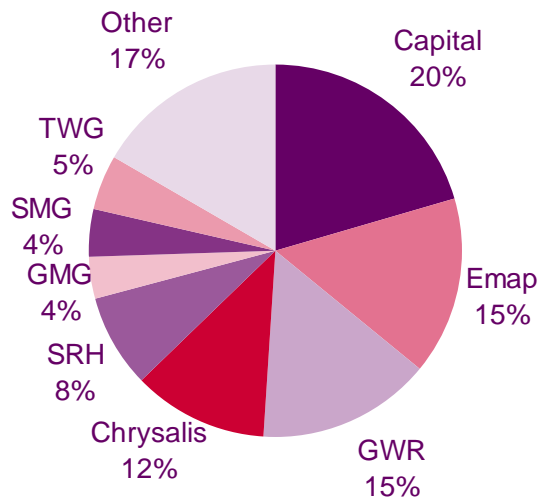
Source: Ofcom

These seven largest groups (by number of licences) account for around two-thirds of all listening to commercial radio (figure 6). In addition to these seven groups, three other groups have a significant impact on the industry: Chrysalis owns eight stations - all London or regional stations such as Heart, LBC and Galaxy - which between them account for 11% of all listening. Guardian Media Group (GMG) takes 5% of listening through its four regional licences which carry the Real Radio, Jazz FM and Smooth brands. Scottish Media Group (SMG), owner of the Scottish and Grampian Television licences, owns Virgin Radio, which accounts for around 3% of listening.

Figure 6: Audience shares (hours of commercial radio listening)

Source: *Rajar Q3 2004*

Revenues split broadly in line with audience share (figure 7).

Figure 7: Shares of revenue by ownership

Source: *Ofcom Q1 2004*

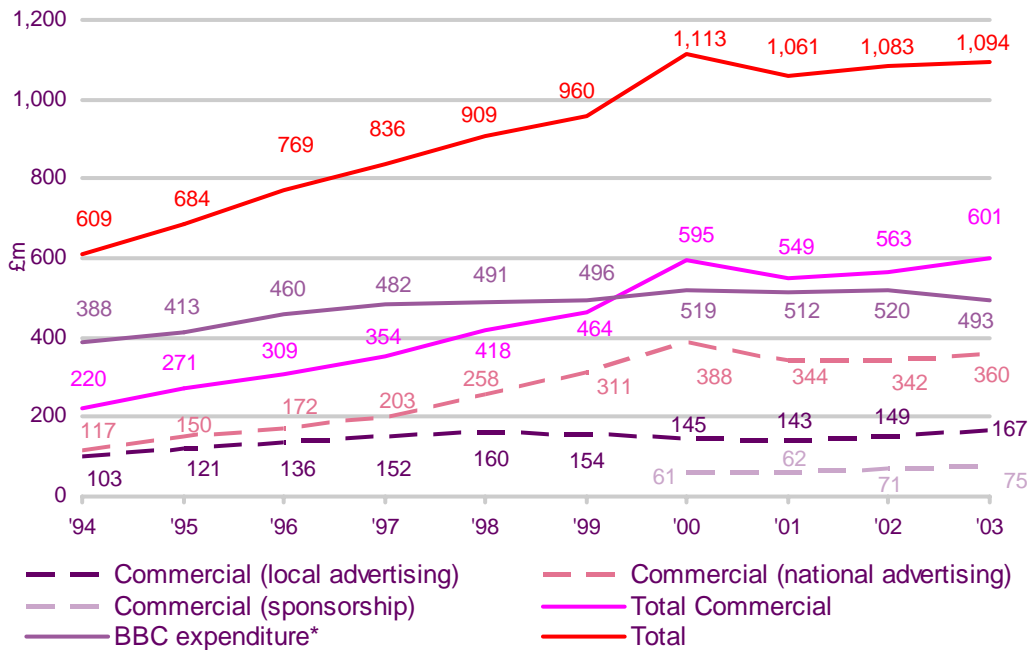
3.4 Radio industry revenues have increased rapidly over the last decade

Commercial radio revenues rose over the period 1994 to 2000, before falling back slightly during the advertising recession of 2000-01 (figure 8). In 2003, total industry funding was £1.1bn, of which commercial radio revenue accounted for £601m. This represented an increase of 6.7% over the previous year. The fastest growing sector was local advertising which grew by 12.0% in 2003 although, at £360m, national advertising was still the most significant source of commercial radio revenues.

The BBC accounts for a significant element of all radio funding and spending in the UK. Indeed, until 5 years ago the BBC spent more money on radio than was received in revenue by all of the commercial stations combined. BBC spending appeared to decline in 2003, although this is partly due to a change in the way the figures are presented in the BBC's accounts.

Commercial radio's share of total display advertising has increased over the last decade and, in 2003, stood at 4.5% (figure 9)³. Indications from the first half of 2004 are that this figure has risen further. This increase in share has been due, at least partly, to a combination of the efforts of the Radio Advertising Bureau and the increase in the number of commercial stations, particularly the regional stations.

Figure 8: UK commercial radio revenue and BBC radio spending (£m)

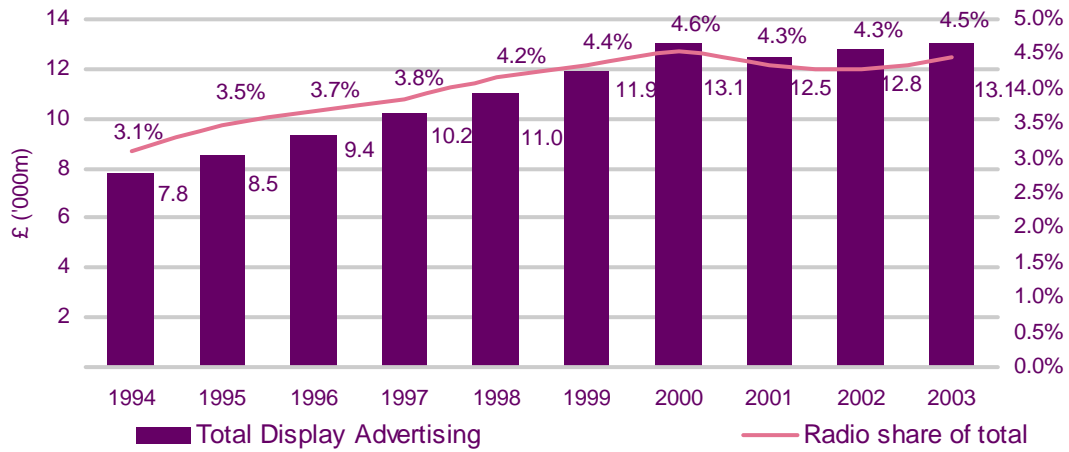


Source: RAB / Ofcom / BBC

* BBC Radio spending is for their financial (not calendar) years and is estimated by adding the direct radio spending by the BBC Public Service Broadcasting Group and allocating the other group costs pro-rated to the level of direct spending.

³ Note: The display advertising market as defined by the Advertising Association includes display press, television spot advertising (not sponsorship), direct mail, outdoor and transport, radio spot advertising (not sponsorship), cinema and internet (it excludes all sponsorship and promotion and press classified advertising). This is a different definition to that adopted by the Radio Advertising Bureau which includes display press, television spot advertising (not sponsorship), outdoor and transport and radio spot advertising and radio sponsorship and promotions.

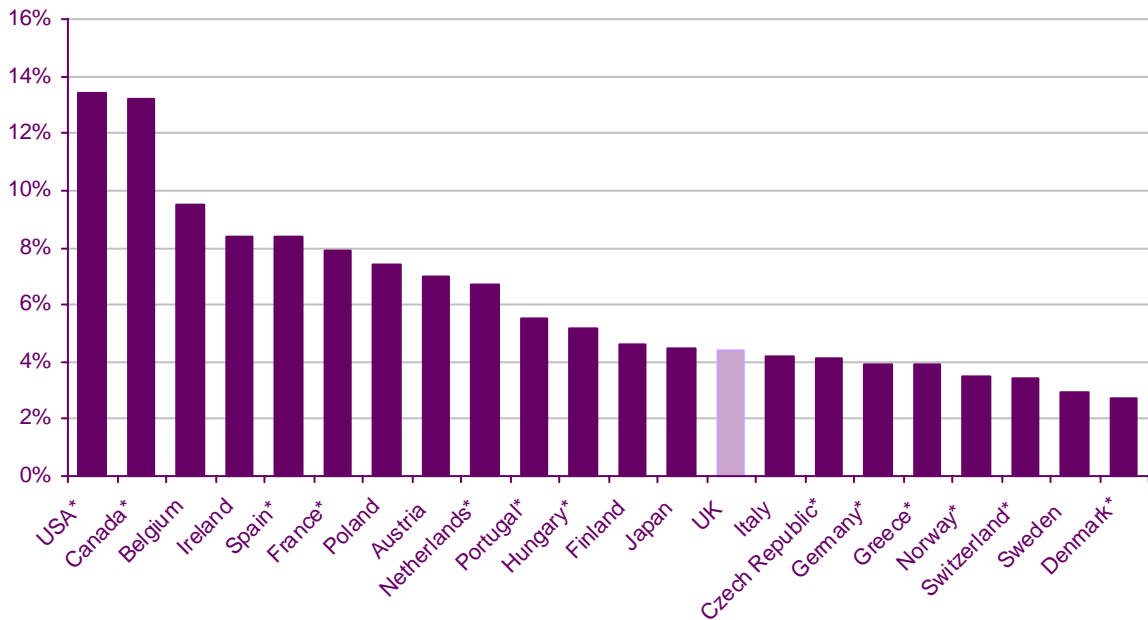
Figure 9: Radio share of display advertising



Source: Advertising Association

However, radio’s share of the advertising market is still lower than in many other countries – notably the United States and Canada, as well as several of our closest European neighbours (figure 10).

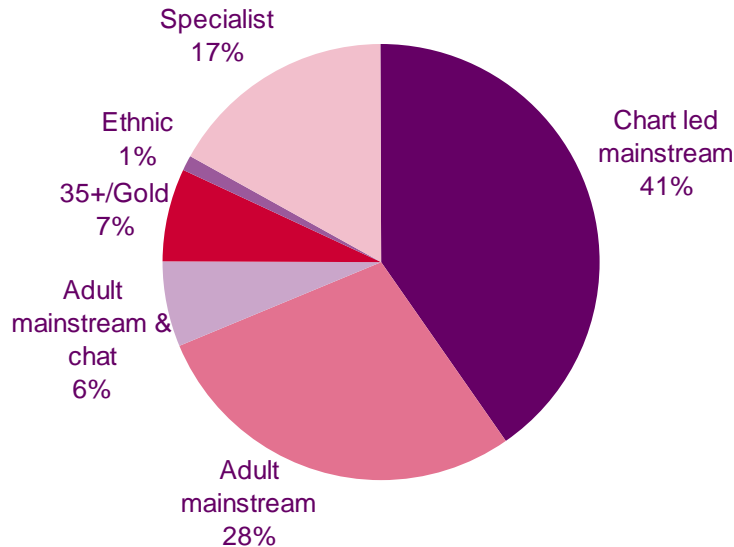
Figure 10: Radio’s share of total advertising spend by country, %, 2003



* Figures for these countries are estimates
Source: Advertising Association

41% of analogue commercial radio revenue is taken by the stations in the Chart Led Mainstream style due to the fact that these stations tend to be the well-established original ILR stations (such as BRMB and Radio City) and are targeted at the age group most attractive to advertisers (figure 11). However, new entrants are increasingly taking a share of the market.

Figure 11: Split of revenues for analogue only stations



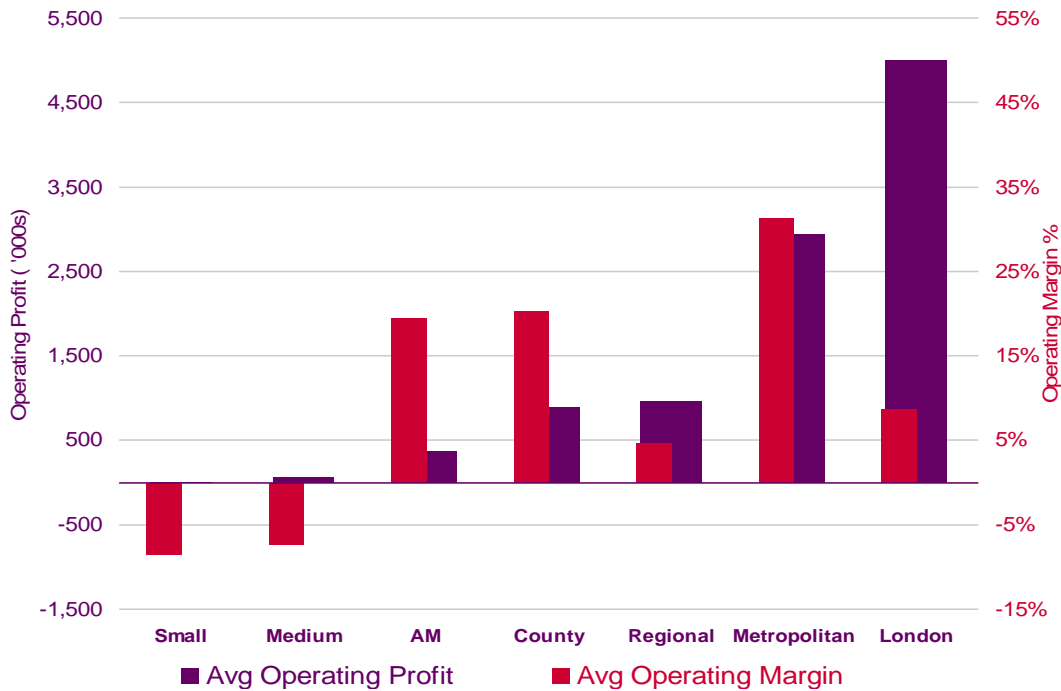
Source: Ofcom Q1 2004

3.5 The finances of analogue commercial local radio

As might be expected, the smallest stations typically have the lowest revenues and profits. Margins are also generally significantly lower for the smaller stations than for larger stations. We have looked at revenues, operating profits and margins for the UK radio industry, segmented by size of station on the following basis:

- small: local licences typically serving a TSA of less than 150,000 adults (aged 15+);
- medium: local licences typically serving a TSA of between 150,000 and 350,000 adults;
- county: licences serving a wider community than local licences, covering either large towns or county wide locations, with a TSA of greater than 350,000 adults;
- metropolitan: licences covering a metropolitan urban location (excluding London)
- regional: licences covering a region of the UK;
- London: licences covering the whole of the London area; and
- AM: local stations broadcasting on medium wave (MW).

Figure 12: Average industry operating profit and operating margins – by station size



Source: Data provided to Ofcom by licensees. Average operating margins are simple averages.

While operating profits are highest in London, which has the highest population coverage and so greatest revenue potential (costs vary less with station size), the level of competition there keeps average margins lower than in metropolitan areas outside London, where competition is not so great.

Small stations are the least profitable, with a negative average operating margin of around -9% of revenue (figure 12). There is considerable variation in the profitability of smaller stations, with around 50% of them making an operating profit and 50% a loss during their most recently reported financial year. Even if stations that have been on air less than three years are excluded (to take account of potential start-up losses), the proportion of small stations making a loss is still around 50%. The same is true of the medium-sized stations.

As competition increases in future, audiences for all stations risk being eroded by listening to other stations.

Section 4

Why do we intervene in the market for radio?

This review has two immediate purposes – to consider the future regulation of localness on analogue commercial radio and review the development of digital radio. However, we believe that these issues cannot be considered in isolation.

The analogue and digital radio sectors are very closely related, being operated largely by the same companies and sharing some of the same content, so it does not make sense to review digital radio without considering the analogue market. In addition, the major role played by the BBC in radio, accounting for over half of total radio listening and almost half of total radio funding, means that any review which considered only commercial radio would be deficient in its understanding of the factors which influence industry and audience behaviour.

These factors, together with the changes taking place in the industry in general, suggested the need for an overarching review of the future direction of the UK radio industry.

This review therefore considers the whole radio market, both the commercial sector and the BBC, and both the analogue and digital sectors. It aims to raise some questions about where radio is headed in the long-term:

- whether there is a market failure in the provision of radio and what form that market failure takes;
- whether there are particular public purposes for radio that require intervention in the market (either through the public or commercial sectors) and how they are best delivered;
- whether digital radio is likely to change that picture – recognising that digital radio is still at a very early stage of its development; and
- what the long-term strategic aims of regulation of the radio market should be.

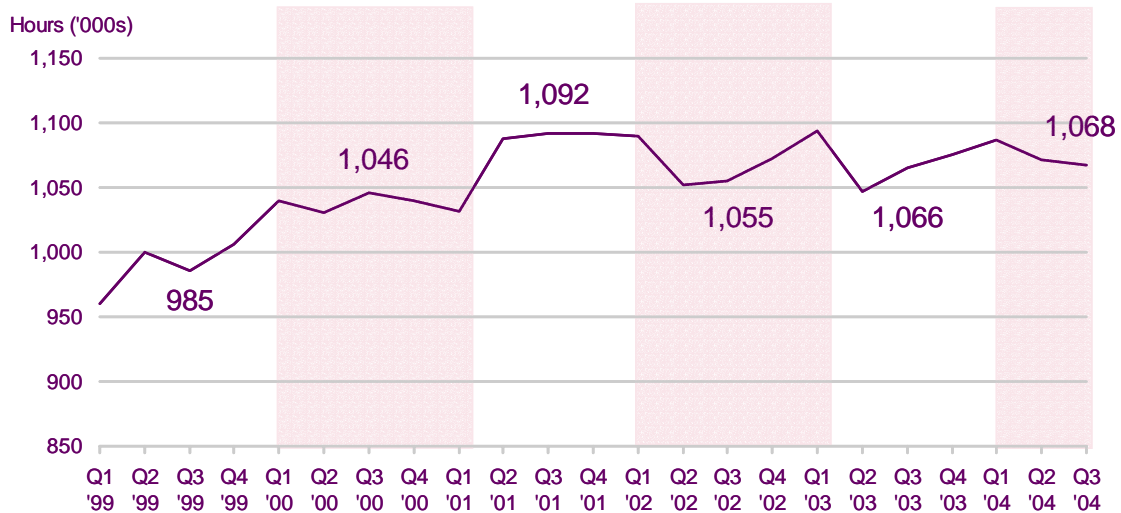
So, before turning to our two immediate priorities – the future regulation of localness and the development of digital radio, we consider the role of intervention in the radio market and what it is trying to achieve on behalf of both citizens and consumers, and we suggest a strategic framework for future regulation.

We begin by looking at how audiences consume radio today, asking what people want from radio and how well they feel this is delivered. We then consider how much of this would be provided by the market without intervention and whether there is an economic rationale for intervention to deliver those things the market would not. This leads us to our proposed strategic framework for the future regulation of radio, which is set out in section 5.

4.1 How audiences consume radio today - listening trends

There has been an overall upward trend in total radio listening in recent years. Listening in Quarter 3 2004 was 8.3% higher than in Quarter 3 1999, although it had fallen back from a peak in Quarter 3 2001 (figure 13).

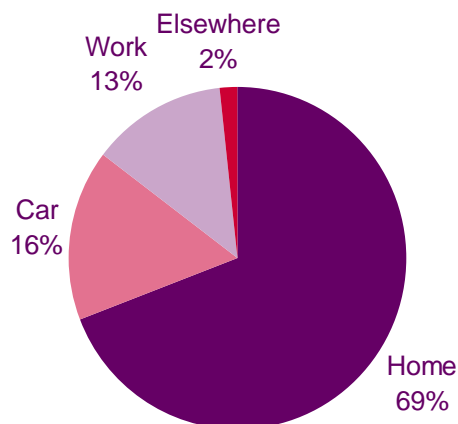
Figure 13: Total listening hours



Source: Rajar

Over two-thirds of all radio listening occurs in the home, with the majority of that listening being at breakfast time (figure 14), highlighting the importance of the breakfast shows to the financial performance of radio stations. These proportions have stayed broadly constant since 1999 when the current Rajar series began.

Figure 14: Listening by location

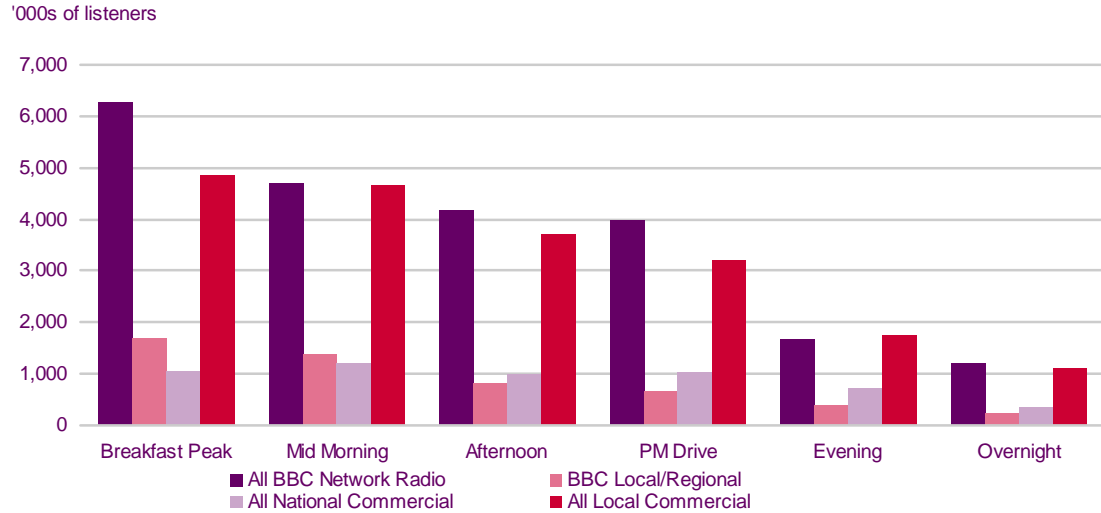


Source: Rajar Q3 2004

The BBC networks take the largest share of breakfast listening but, by mid-morning, local commercial stations match the BBC's networks' audiences (figure 15). While listening generally declines during the day, the relative audience size by time of day does vary by station. Across all stations, the average audience in the evening is 32%

of the size of the breakfast show audience, but for Virgin it is 45%, for talkSPORT it is 47% and for Classic FM it is 66%⁴. By comparison, the proportion of listening to BBC local and nations' stations in the evenings is 23% of its breakfast show audience.

Figure 15: When people listen, weekly average audience

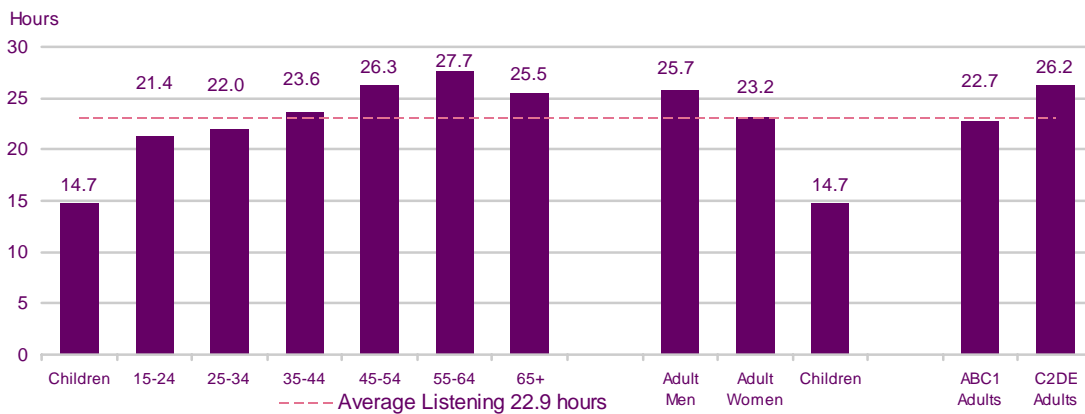


Source: Rajar Q3 2004

On average, radio listeners listen to 22.9 hours of radio per week. Although average listening fluctuates, the general trend has been upwards over recent years, with listening having increased by one hour, from 21.9 hours, since June 2000.

Children listen to the least radio, with an average of 14.7 hours per week. Listening tends to increase as people get older. On average, men's weekly radio listening is higher than women's and socio-economic groups C2DE listen more than ABC1s (figure 16).

Figure 16: Average weekly listening

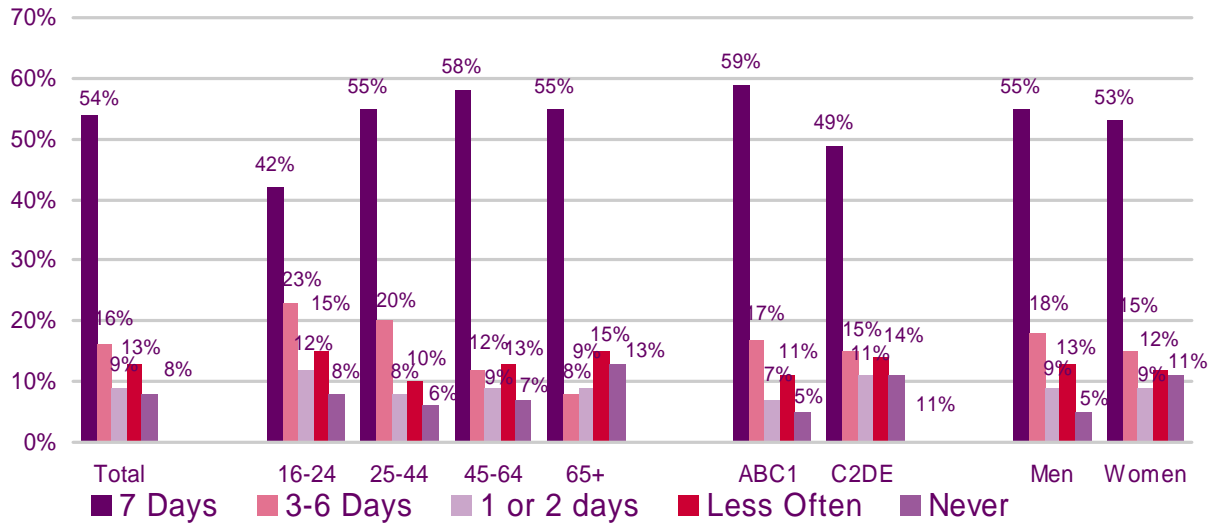


Source: Rajar Q3 2004

⁴ Source: Rajar Q3 2004

The ITC's Public's View annual survey for 2003 aimed to find out how often people listened to the radio. The 54% who said that they listened every day in 2003 was on a par with the 57% who said that they listened every day in 2002. The survey also showed that younger people were likely to listen less regularly than older people (figure 17).

Figure 17: Frequency with which people said that they listened to the radio

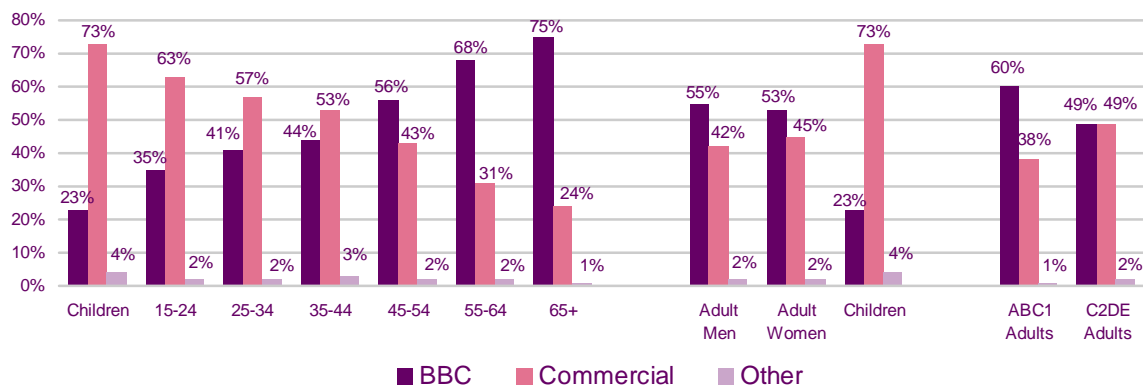


Source: ITC Public's View Survey 2003

4.2 How audiences consume radio today - what people listen to

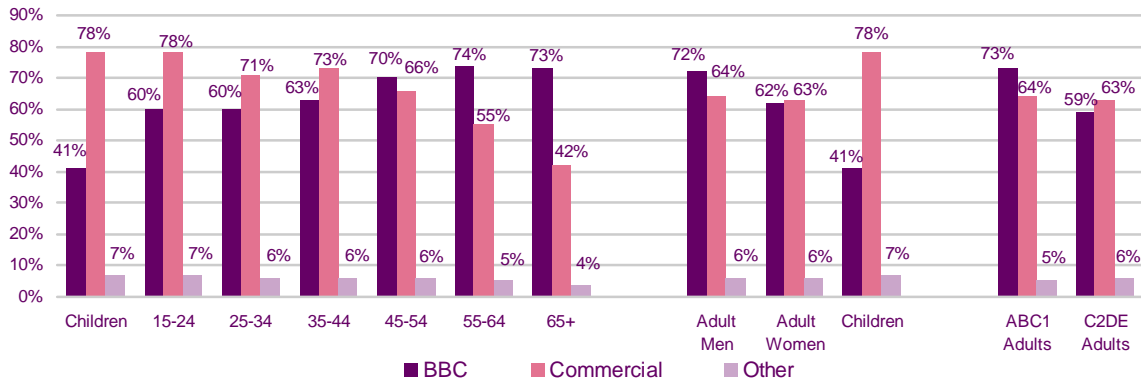
Commercial radio takes a larger proportion of listening hours the younger the audience group is. Meanwhile, the BBC takes a larger proportion of the listening of the ABC1 socio-economic groups (figure 18). The same pattern is true for the reach of each sector (i.e. the proportion of audience in each group listening for at least five minutes a week) (figure 19).

Figure 18: What do people listen to (hours)



Source: Rajar Q3 2004

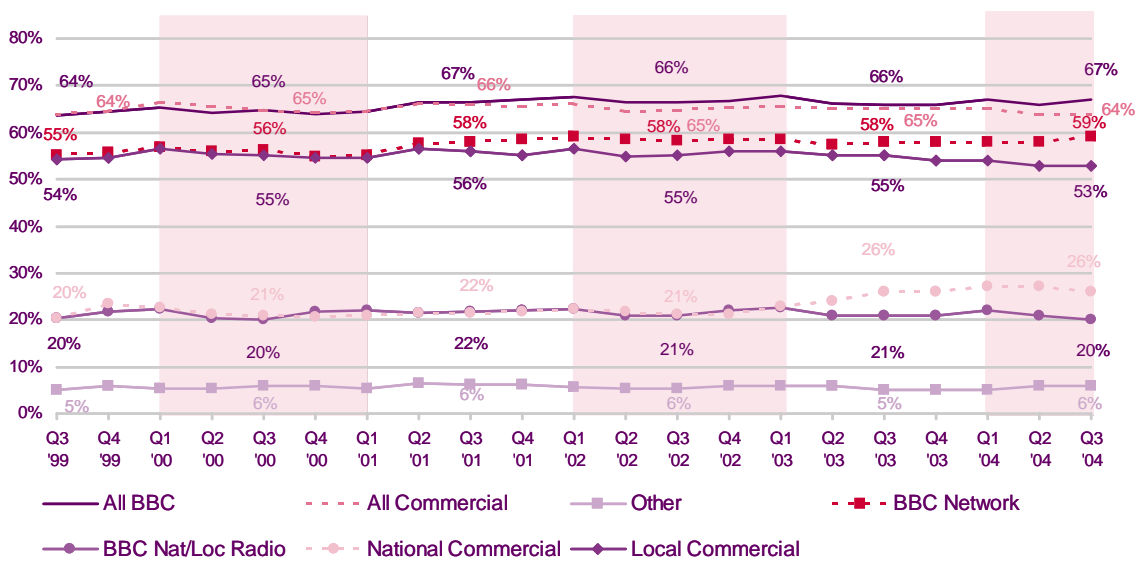
Figure 19: Radio station reach by demographic group



Source: *Rajar Q3 2004*

The listening trend over the past five years is fairly constant and shows the BBC reaching 67% of the potential audience every week, while commercial radio reaches around 64% (figure 20). However, within the overall figures, the past two years have seen national commercial radio reaching increased audiences, rising from 21% in Q4 2002 to 27% in Q1 2004. This is due to the increase in listening to digital national radio stations. Similarly, the BBC's total network reach is up, while local stations' reach is down slightly.

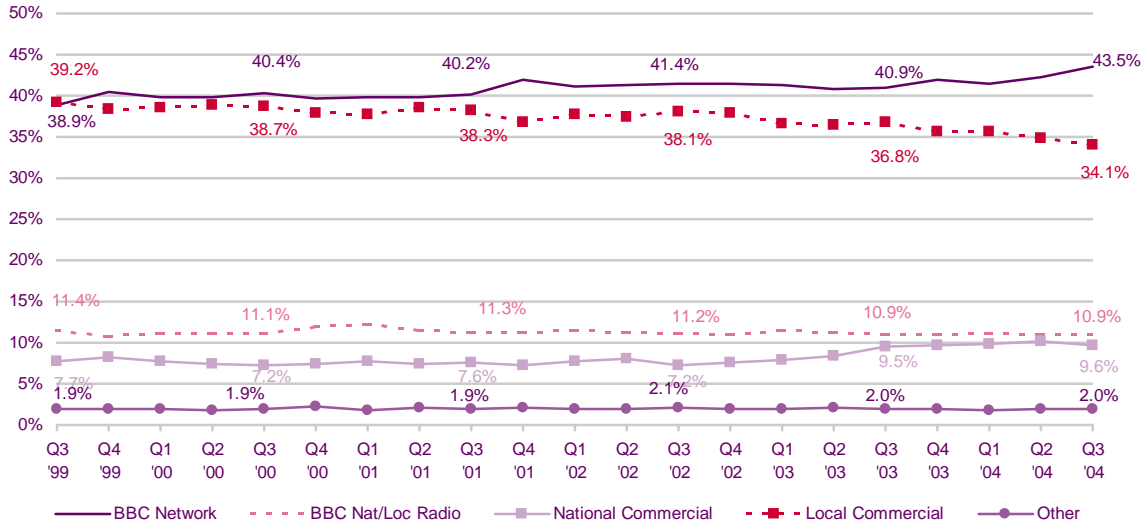
Figure 20: Radio station reach by sector



Source: *Rajar*

The figures for audience share show a similar pattern to reach, with the BBC taking the largest share of all listening hours at 54.4%. In share terms the gap between the BBC and commercial radio has been increasing over recent years (figure 21).

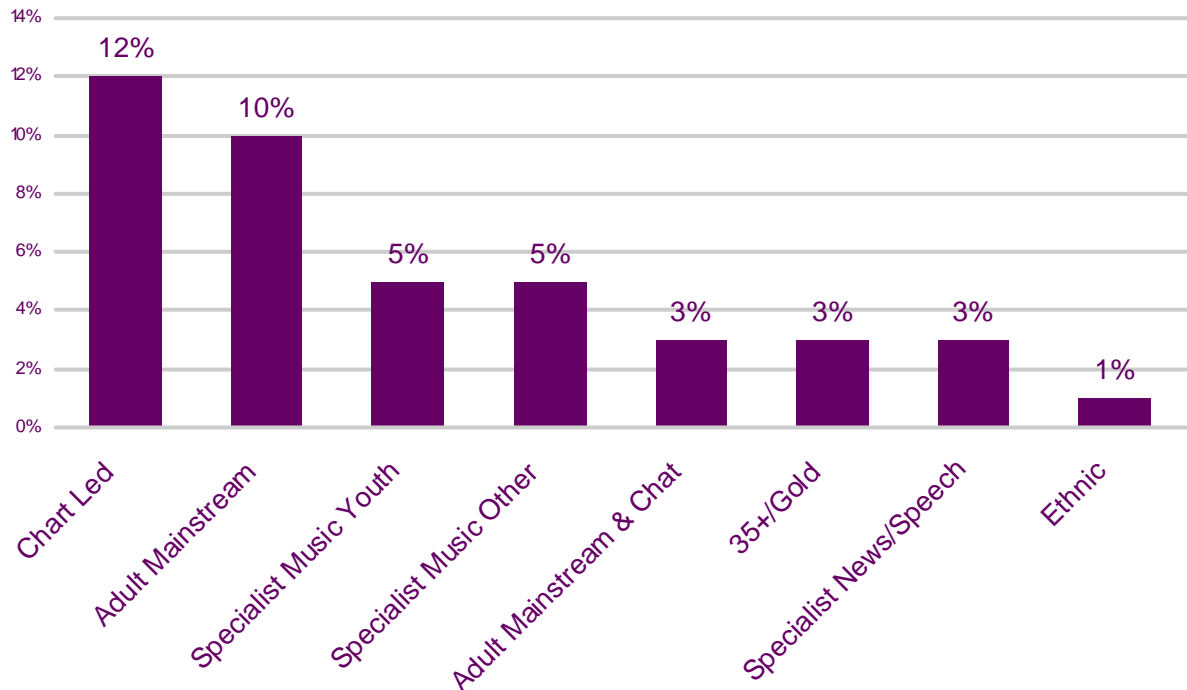
Figure 21: Audience share (hours) – by sector



Source: Rajar

Within commercial radio, the Chart Led Mainstream style accounts for the majority of listening hours, with Adult Mainstream in second place (figure 22). (Note: not all styles are universally available).

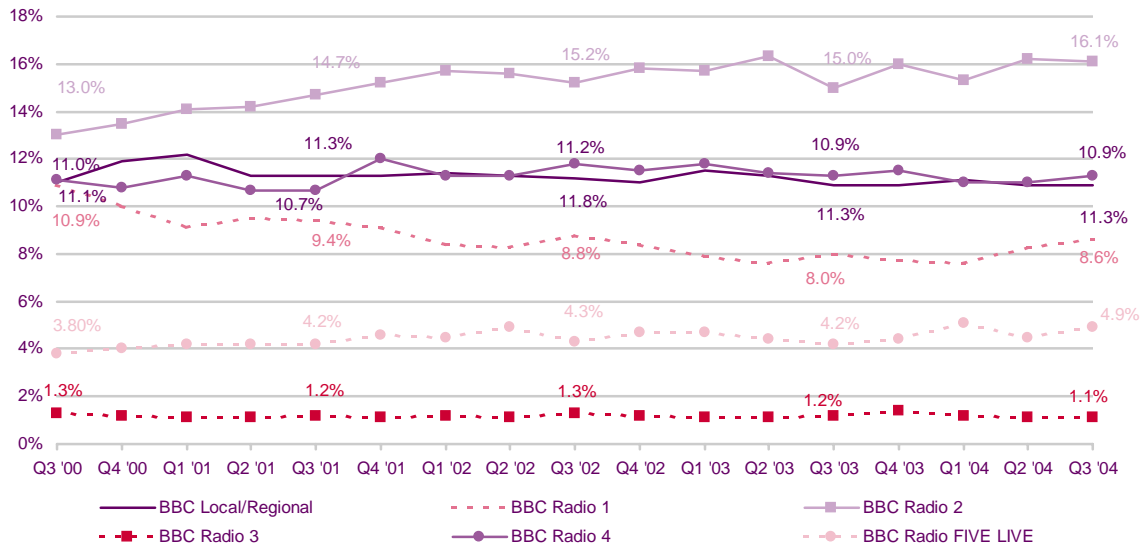
Figure 22: Commercial radio share of hours



Source: Rajar, Q1 2004

BBC Radio 2 has the highest share of listening of the BBC stations, taking 16.1% of all radio listening in the third quarter of 2004, up from 13% in 2000 (figure 23). The 46 BBC local stations and stations in the nations between them account for more than one in ten of all listening hours.

Figure 23: BBC radio share of total hours

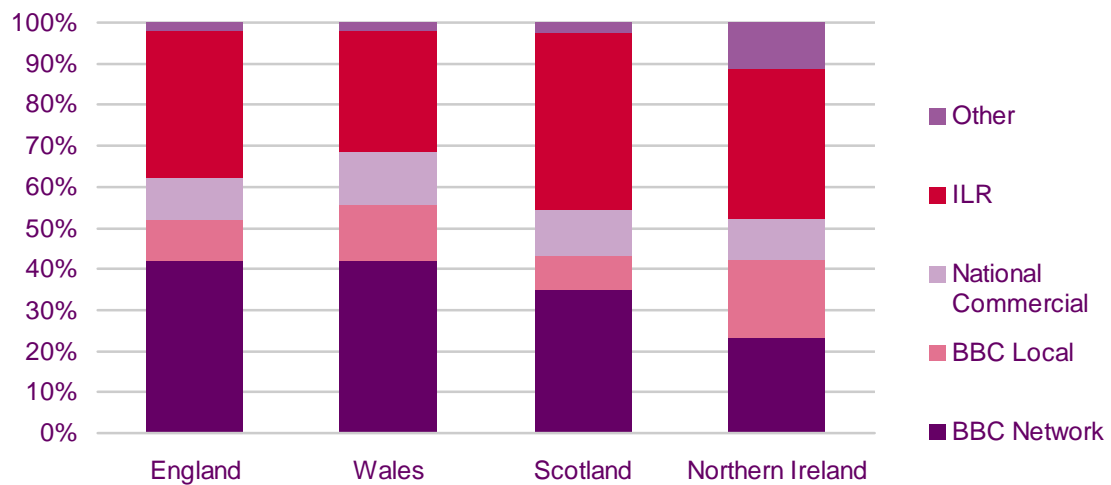


Source: Rajar

4.3 How audiences consume radio today - listening in the nations

There are significant differences in listening patterns across the nations (figure 24). In Scotland and Northern Ireland, listening is predominantly to commercial local stations whereas, in England and Wales, BBC network radio is the most listened to sector.

Figure 24: Market share of listening hours by nation



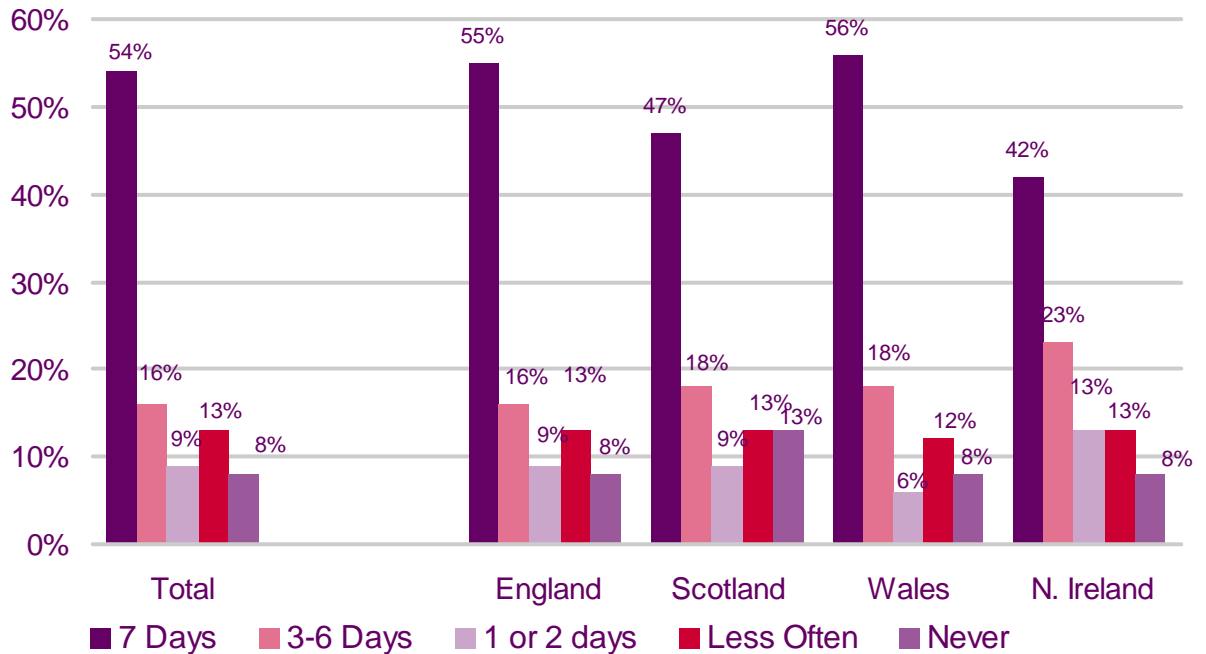
Source: Rajar Q3 2004

However, while the BBC networks perform poorly in Scotland and Northern Ireland, the stations broadcasting specifically to each nation fare better. BBC Radio Ulster is the most listened-to of the BBC's stations in the nations with a share of 26.9%. In Scotland, Radio Scotland and Radio nan Gaidheal between them achieve a share of 7.6%, while Radio Wales and Radio Cymru between them account for 13.6% of listening in Wales.

In England, the most listened-to BBC local radio stations are those in rural areas (BBC Radio Cornwall 20.5% share, BBC Radio Norfolk 18.6%, BBC Radio Cumbria 20.9%), while those in metropolitan areas, where there is much stronger competition, fare less well (BBC GMR in Manchester achieves 6.9% share, BBC Radio Leeds 7.1%). BBC London 94.9 achieves a 2.0% share in the capital (Q3 2004).

The ITC's Public's View survey shows (figure 25) that listeners in England and Wales are more likely to listen to the radio every day than those in Scotland and Northern Ireland.

Figure 25: Frequency of listening by nation



Source: Public's View Survey 2003

4.4 What listeners want from radio

So, we know what people listen to today and how long they listen for, but what do they expect of radio and how satisfied are they with what they get? We have carried out some initial research (detailed in full in Appendix B) to help answer these questions. The research found that radio plays an important role in people's lives, but that it plays different roles for different people, and different roles for an individual according to the time of day and their mood or need for entertainment.

Our research suggests that the main functions that radio performs include:

- providing **company** - particularly for those living alone and older people;
- **involvement** - although a passive medium, people interact with certain programmes by laughing along with, and agreeing or disagreeing with, presenters, programme contributors and other listeners phoning in;
- contributing to and impacting on **mood** and alleviating boredom;
- connecting with the outside world on a **local, national and global** level to keep in touch with unfolding **news and events**, especially as many people do not have access to a television during the day. The news on the radio is sometimes felt to be more up to date than that on the television;
- providing information on **weather, traffic and events**;
- providing **sports** coverage, including commentary on matches, listening to debates with sports fans and presenters discussing sports news;
- keeping up to date with trends in **new music** and bands, particularly for younger adults;
- as an **alternative to other forms of entertainment**, such as the television or respondents' own music collection. Entertainment on the radio is often defined in several different ways and includes the humorous presentation of DJs such as Chris Moyles and Jonathan Ross; items such as competitions, crank calls and wind-ups, listening to other people's problems and opinions on debates and phone-ins and listening to drama such as the Archers; and
- radio is seen as **portable** and **always available** to listen to. People often have difficulty remembering how many radios they have, as they often have one in every room. It is possible to take a radio onto the beach, into the garden, to work and to have one on a mobile phone.

However, there are some negative associations with radio:

- although participants accept **advertising** is necessary on commercial radio, they often believe there is too much advertising which cuts into their enjoyment of a programme;
- there is a belief that there is too much **repetition in terms of the music played** and that, if listening to the radio for long periods, it is possible to hear the same song several times;
- there is not always enough **interactivity with presenters** and little **participation** and **conversation**;
- the news on the radio is not always felt to be relevant and is used to fill time; and

- some feel that there is **too much news** and that news items are repeated too regularly on the radio, both locally and nationally.

Despite these negative associations and the fact that many people listen to the radio while completing other tasks, our research shows that people consider radio to be important and relevant. Many have a detailed knowledge of both the national and local presenters, stations and shows on those stations to which they listen and are extremely positive about the stations and choice available on the radio.

The research identified the importance of the radio as an entertainment platform, with more than eight in ten listeners stating that they tune in for music and that the music / records played are of importance to them in choosing a radio station (figure 26). This service is particularly important to young adults (94% of those aged 16 – 34).

Keeping abreast of news is also important to listeners, at both a national and local level - 94% of heavy local BBC radio listeners and 87% of heavy local commercial listeners stated that local news is important to them in deciding to tune into their station.

Local radio services were also found to be important to listeners, with local traffic and travel information, local weather forecasts and issues affecting the local community joining local news among the seven services mentioned by listeners as important in deciding whether or not to tune into a station.

World / national news and current affairs are of particular importance to some listeners, while others are more likely to tune in to a particular station for competitions, celebrity interviews, phone-ins and the music played.

However, research in our qualitative workshops suggested that listeners expect most, if not all, of these categories of output to be provided by every radio station – even for those categories they deemed less important. In deciding to tune in to a particular station, it is the style in which it is broadcast, in terms of the presenters, and the mix of music and chat that draws an audience.

In summary, the groups told us that radio is important to them and this is supported by the listening figures, which show how much of their time they devote to it.

Figure 26: Importance of radio services in deciding to tune to a station

Base: All radio listeners (1,501)	Very important	Important	Neither	Not important	Not at all important	Net score + / -
	%	%	%	%	%	%
<i>Music / records played</i>	47	38	4	8	3	+74
<i>World / national news</i>	30	49	5	13	3	+63
<i>Local news</i>	22	48	5	19	6	+46
<i>Local traffic and travel news</i>	24	44	6	18	8	+43
<i>World / national current affairs</i>	23	45	7	18	7	+43
<i>Local weather</i>	18	48	5	22	7	+36
<i>Issues affecting the local community</i>	15	42	8	25	9	+22
<i>National weather</i>	9	39	8	35	9	+5
<i>Comedy</i>	11	37	9	32	10	+5
<i>National sport</i>	14	29	7	30	20	-6
<i>Information on local events</i>	7	35	10	35	13	-6
<i>National traffic and travel news</i>	10	32	8	36	13	-7
<i>Documentaries</i>	9	31	9	35	16	-11
<i>Live music guide</i>	7	29	8	40	15	-18
<i>Local sport</i>	8	21	5	39	27	-35
<i>Drama</i>	7	20	8	45	20	-38
<i>Celebrity interviews</i>	2	22	13	40	23	-39
<i>Business information</i>	4	21	9	42	24	-40
<i>Phone-ins</i>	4	16	9	43	28	-52
<i>Competitions</i>	2	11	8	49	30	-66

4.5 How might these attitudes change as radio develops?

In order to help inform this review, Ofcom carried out research among 18 to 30 year olds to find out how the younger generation use radio and how their attitudes might help to shape the future of radio in the UK.

We picked this age group because we wanted to talk to people who were old enough to have developed their own tastes and preferences and to be able to afford to purchase some of the new devices now available, but still young enough to represent the 'younger generation'. The results of this research were presented at the 2004 Radio Festival and are available on the Ofcom website (*the iPod generation*).

We carried out both quantitative and in-depth qualitative research during June 2004, to determine what is driving the behaviour of this generation when it comes to listening to music and the types of devices they listen on. The main finding was how iconic Apple's iPod has become over the past couple of years. Our respondents saw it as a technological marvel, allowing them to carry around their whole music collection in a small box, which was admired for its stylish design, fusing form and function.

We found that this age group, more than previous generations, expects to be able to take their music around with them, wherever they go. It helps to fill the silence for a generation brought up with the buzz of the media all around them.

They also want more control over what they listen to, whether from their own music collection or from the radio. They tend to listen alone and use their music, whether from their own collection or from the radio, as a form of cocooning, shutting themselves off from the world. They tend to have wide and eclectic tastes, and are prepared to hunt around to find what they want to listen to. As the amount of choice they have is so much higher, their loyalty to particular radio stations is lower than that of preceding generations and they are quite happy to flick around the radio dial to find what they want, being more committed to individual presenters they admire for their individual wit or musical tastes, than to stations.

But radio is still important to them and they want the comfort and security of human voices. They want more intelligent radio and are intolerant of what they see as inane chat or poor adverts. They *are* interested in the news and they want to be stimulated by interesting speech programming that is designed for their age group, and new music which broadens their horizons, as well as in information which helps them to live their lives, weather, traffic and travel news or the local gig guide.

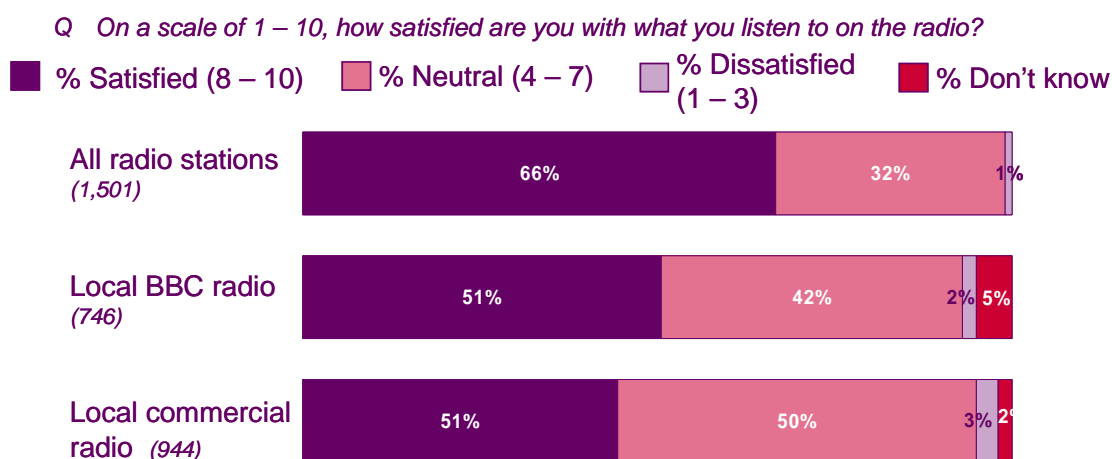
They want the added-value content that radio can offer, over and above their own music collections on their iPods. But in order to survive and remain relevant to their lives, they believe radio must change. It must be available in ways they want to consume it, such as through small, portable devices which integrate mobile phones and MP3 players. They want a wider choice of stations, whether the London stations such as Xfm or Kiss, that they don't currently get where they live, or a local version of those London stations. They want it to be easier to find the good stuff on the radio and they like the new functions that digital radio can offer, such as the ability to pause and rewind live radio and download tracks to their MP3 players (and for this generation downloading is a way of life) – with the proviso that it is easy to use.

It is too early to say whether the habits of this younger generation will be carried through to later life, but their current experience indicates how the needs of radio listeners are changing. Investment in content will be key to the future success and growth of radio, across all platforms and sectors. If radio can fulfil these needs, then it can be as strong in the 21st century as it was in the 20th.

4.6 How well-served do listeners feel by current radio provision?

Having discovered what listeners want from radio, we asked them how satisfied they are with current radio provision. The research, among all age groups, indicated that the majority, 66%, are satisfied with what they listen to on the radio, although satisfaction with local commercial radio is lower than with the national networks (figure 27). There was very little dissatisfaction voiced.

Figure 27: Listener satisfaction with radio services



Base: All who listen to each type of radio (number in brackets)* based on those who listen to both BBC & commercial local radio

Source: MORI research for Ofcom

What is impossible to know is whether people would be as satisfied if the radio stations on offer were driven purely by the market and did not have the obligations that current radio stations have. In other words, is the current level of intervention responsible for the high level of satisfaction? Or, does the high level of neutrality towards the question indicate that radio is not sufficiently important in people's lives to warrant the current level of intervention?

We plan to undertake more research in this area as part of phase 2 of this review. But, before doing so, it is useful to consider some hypotheses as to whether intervention in the radio market is required and what it is trying to achieve.

4.7 Ofcom's statutory duties in respect of radio

Ofcom has a number of duties, laid upon it by Parliament, to intervene in radio on behalf of citizens and consumers. More detail is set out in Appendix A, but here we note the main duties.

Ofcom's principal statutory duty is "to further the interests of citizens in relation to communications matters; and to further the interests of consumers in relevant markets, where appropriate by promoting competition".

With respect to radio, Ofcom has a specific duty, as required by legislation, to ensure "the availability throughout the UK of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests."

In addition, the Communications Act 2003 introduced a new duty on Ofcom in relation to localness in analogue radio. Ofcom must carry out its functions in relation to these services in the manner it considers is “*best calculated to secure that:*

- *programmes consisting of or including local material are included in such services but, in the case of each such service, only if and to the extent (if any) that Ofcom considers appropriate in that case; and*
- *where such programmes are included in such a service, what appears to Ofcom to be a suitable proportion of them consists of locally-made programmes.”*

Ofcom is also obliged to draw up guidance as to how it considers that these requirements should be satisfied and earlier this year we published an interim set of those guidelines, on which we consulted. This is covered in section 6 of this review.

The licensing criteria for analogue and digital radio, under which Ofcom operates, are detailed in Appendix A.

Before setting out our approach in these areas, we want to set out what we believe is the underlying rationale for intervening in the market for radio.

4.8 Why might we intervene in the market? Possible consumer and citizenship rationales

Radio is a highly pervasive medium, in a way that other forms of entertainment and information sources (with the exception of television) are not; its impact on people’s lives is considerable. But does that mean that radio is important enough to justify the level of intervention in the market that takes place at present? And what might any intervention be trying to achieve?

Intervention in the radio market, represented both by the BBC (which, as we have seen, accounts for almost half of all radio funding and over half of all listening) and the licensing of commercial radio (requiring local output and a range of formats) is substantial and the cost of that intervention in the market is significant. In phase 2 of this review, we plan to assess the benefits that this intervention delivers. For now we consider what the economic rationale for intervention might be. These arguments are considered more fully in Appendix D to this report.

A possible consumer rationale

We believe there may be a case for intervention to ensure that the radio market works more effectively to deliver what consumers want.

Our hypothesis is that radio is sufficiently important in people’s lives to warrant intervention to address any market failures. But are there currently market failures?

Radio has many of the characteristics of a public good. These are goods which can be consumed by more than one person at a time without reducing the amount that is available to other consumers (non-rivalrous in consumption) and where, once made available, it is not possible to exclude consumers (non-excludable). In the extreme, pure public goods could lead the good not being provided at all as radio broadcasters would not be able to recover their original investment. This extreme outcome is avoided by the presence of an indirect payment method, in the form of advertising. Even then, however, there could still be an inefficient outcome if the preferences of

listeners and those of advertisers were not perfectly aligned and hence the range of programmes offered would be too limited. In this case, there might be a justification for intervening to ensure that a sufficient range of programmes is supplied.

Advertising is currently the only realistic mechanism for the funding of commercial radio. In this model, broadcasters are motivated by the need to deliver listeners to advertisers in sufficient numbers, rather than by satisfying the preferences of different groups of listeners, whether by their demographic group, range of interests or geographical location (except where a certain group is particularly attractive to advertisers). Where spectrum is scarce, as it has been in radio, this is likely to cause broadcasters to cluster around the most lucrative demographic group for advertisers and to reach the maximum geographical audience, so depriving some listeners of the sorts of services they want.

We have carried out a preliminary analysis of what a radio market without intervention might look like, by considering the experience of France and the United States. While both of those countries *do* regulate their radio stations, they can nevertheless provide pointers as to what might happen without intervention: France because the regulation around the provision of local programming has been significantly relaxed and the United States because there is no publicly funded radio (see Appendix D). The results suggest that, without regulation of local programming, there is a risk that the market would tend to consolidate into a number of national networks and, without the provision of publicly funded radio, the range of programming provided would be significantly diminished.

In the short to medium term, it is likely that intervention in the market will be needed to ensure the full range of services we currently enjoy will continue to be provided – this means both direct intervention, in the form of the BBC, and intervention in the form of regulation by Ofcom of the commercial radio sector to ensure a wide range of services and the provision of local material.

In the longer term, as digital radio grows, new services will extend the range of services the market provides and it may be possible to reduce the amount of intervention designed to address consumer market failure.

A possible citizenship rationale

Even if the radio market is working effectively for consumers, we believe there may be an argument for intervention for citizenship reasons, on the grounds of:

- externalities – where consumers do not take into account the benefits or costs that their actions have on others, and so may not be prepared to pay for the provision of such a service, even though society deems that service important enough to be provided.
- merit goods arguments – where consumers do not recognise the full value they could derive from their consumption.

We believe both of these apply to aspects of UK radio. For example, listening to news on the radio, both national and local, helps to make listeners better informed and therefore better able to participate in a democratic society to the benefit of everyone.

Much of UK radio is about providing listeners with entertainment and company. But, beyond this, taking into account the consumer and citizenship rationales for intervention, we believe there may be a set of wider public purposes which citizens and consumers expect radio to deliver.

In Ofcom's Review of Public Service Broadcasting on Television, we identified a number of public purposes for public service television broadcasting:

- to inform ourselves and others and to increase our understanding of the world through news, information and analysis of current events and ideas;
- to stimulate our interest in and knowledge of arts, science, history and other topics through content that is accessible and can encourage informal learning;
- to reflect and strengthen our cultural identity through original programming at UK, national and regional level, on occasion bringing audiences together for shared experiences; and
- to make us aware of different cultures and alternative viewpoints, through programmes that reflect the lives of other people and other communities, both within the UK and elsewhere.

Radio is not television and may have different purposes or be better placed to deliver some of these purposes. For example, radio is probably better than television at delivering local content and community programming, both in terms of the volume of provision and the ability to serve smaller geographical areas than television has been able to do to date. The nature of radio arguably makes it better at providing all sorts of music, from classical to folk, from jazz to rock, and at providing opportunities for new talent and for live performances. It may also be better as a training ground and showcase for new talent in other fields, such as drama and comedy.

While radio has no statutory public service role, it was the original form of public service broadcasting – the principles set out by Lord Reith were developed for radio, not for television – and we believe it may be useful to develop an up-to-date set of public purposes for radio. We intend to carry out further research to ascertain what those public purposes might be, how important radio is as a means of delivering them compared to television and other media, and how they are best delivered.

In some ways, the purposes that emerge may be similar to those for television, although the emphases and the way in which the purposes are delivered will almost certainly be different.

Any public purposes defined for radio will be delivered in different ways by different sub-sectors of the radio market. Many of them are likely to be those currently delivered by BBC Radio, both via the UK-wide networks and via local and nations' stations. The primary contribution of the commercial sector towards public purposes is likely to be in the provision of local material, although there may be others, both now and in the future. The questions on which we would like to invite views include:

- how important is plurality of provision of public purposes for radio? There is plurality of provision in some areas – BBC Radio 3 and Classic FM; BBC Radio Five Live and talkSPORT; the local news provision of BBC local radio and commercial local radio – and such plurality generally benefits listeners and is to be welcomed. But are there other areas where plurality and competition is desirable?
- how much of what commercial radio does could be classified as meeting public purposes?
- how well does the current market structure help fulfil public purposes in radio?
- should the BBC's radio archive be made more widely available to commercial players to provide alternative radio services?

We seek views on our proposed rationale for intervention in the radio market, what the public purposes for radio might be, and how they should best be delivered. We will report back on our findings in phase 2 of this review.

Section 5

Towards a strategic framework for the regulation of radio

In the light of Ofcom's duties and principles (see section 1.3), research into what the public wants from radio (see section 4.4 and Appendix B) and an analysis of the rationale for intervention (see section 4.8), how should Ofcom intervene in the market to deliver the desired objectives, both in the short-term and as the market develops?

If the arguments of the preceding sections are robust and the development of a set of public purposes for radio is appropriate, we suggest the following as a strategic framework for regulation in radio:

- **To enhance choice, diversity and innovation for consumers at the UK, national, regional, local and community levels.** In the short-term this means we need to:
 - ensure a wide range of services in the commercial sector and, in particular, the provision of local material, by regulating in the most effective way possible;
 - encourage the development of more choice and competition by licensing new analogue and digital services and encouraging the growth of digital radio; and
 - encourage the growth of a strong commercial sector, capable of extending range and choice and investing in the future.

- **To secure citizens' interests through the provision of radio designed to meet public purposes.** The public purposes we plan to define will set the background against which the current and future provision can be assessed.
 - We aim to start the debate about the long-term issues of:
 - the balance and boundaries between the public and commercial sectors;
 - the amount of public funding and intervention required to meet the public purposes; and
 - the importance of plurality of provision of radio designed to deliver those purposes.
 - More immediately, we aim to encourage the development of a thriving community radio sector.

- **To do this with as little intervention in the market as possible, consistent with meeting our objectives:**
 - based, where possible, on the range and quality of services provided to consumers, rather than intervening to determine methods of production;
 - in a way that is as consistent as possible across media and across platforms; and
 - adapting regulation to changes in the market and increasing levels of competition.

5.1 Where is the radio industry heading?

We consider it useful to lay out here how we think the radio market might develop and how we see the roles of each sector, in order to help understand what the future might look like and how the role of regulation might need to adapt.

As set out in this report, radio is changing. So what might the radio landscape look like in a few years time?

NOW – mainly analogue	FUTURE – mainly(?) digital
<ul style="list-style-type: none"> The BBC 	<ul style="list-style-type: none"> The BBC
<ul style="list-style-type: none"> Only 3 commercial national networks 	<ul style="list-style-type: none"> More commercial national stations – providing variety and competition for the BBC
<ul style="list-style-type: none"> Commercial radio mainly local – some format diversity, but most stations mainstream ‘Top 40’ or ‘AC’ 	<ul style="list-style-type: none"> Commercial local radio able to survive and offer local news and info, etc
<ul style="list-style-type: none"> Community radio pilots 	<ul style="list-style-type: none"> Community radio – very small scale, allowing new entrants, innovation, help grow new talent
<ul style="list-style-type: none"> RSL short-term licences for festivals, events and trialling new services; long-term licences for single site services 	<ul style="list-style-type: none"> RSL short-term licences for festivals and events and long-term licences for single site services
<ul style="list-style-type: none"> Fledgling digital radio industry 	<ul style="list-style-type: none"> Significant data / multi-media content on many devices

If this is the future landscape, how do these different elements fit together and what is the purpose of each?

5.2 The role of national commercial radio

National radio, because of its large potential listener and revenue base (compared to local stations), can afford to be more specialist and offer a more diverse range of services, which broaden choice for citizens and consumers.

There are currently three analogue commercial national radio stations in the UK – Classic FM, Virgin Radio and talkSPORT. Because the capacity for national stations was limited, Parliament legislated to ensure that one of the stations played music other than pop music and that another consisted wholly or mainly of speech programming. This has ensured that the character of the three stations is very different.

In the digital world, the capacity for national stations is much less restricted, whether on DAB, or on radio via digital television, or via the internet, or any future platform or technology. As a result, in the digital world, national radio can already offer many more formats than in the analogue world.

Section 7 on digital radio provides more detail on how the importance of national stations is growing on digital radio and proposes ways to facilitate more such stations.

At present, as digital take-up is relatively low (although many stations are available via the internet and television, the lack of portability and mobility means that these platforms are not most listeners' primary means of listening to the radio), many of the new national stations have yet to build significant revenues. Once they do so, it will allow them to invest further in programming, so increasing innovation and choice.

5.3 The role of local commercial radio

Local commercial radio is designed to cater for local tastes and interests by offering a range of different formats as appropriate to different areas, together with local news and information. We see this role continuing in the future.

There are currently 272 analogue commercial local radio licences in operation (with more about to be licensed), making commercial local radio available to almost everyone in the UK. The size of local radio stations, in terms of population coverage, varies from just a few thousand in areas such as Shaftesbury or Oban, to London-wide stations which cover a population of over 10 million adults.

Choice of stations is greater in areas of high population, although each station covers a large number of people. In less populated areas, there is less choice, but local stations serve far fewer people. Local radio allows for the possibility of more interaction with listeners than national radio and helps to engender in listeners a sense of belonging and connection to a particular area.

Section 6 sets out Ofcom's specific duties with regard to the local content and character of commercial local radio, and considers how this might be regulated henceforth.

Digital radio offers the opportunity for an expansion in the number of local stations, although, to date, many of the stations being offered on local multiplexes are quasi-national stations. Some of these quasi-national stations have requirements to introduce local programming when digital radio take-up reaches a certain level.

Section 7 sets out the progress of digital radio in the UK, across all platforms, and makes recommendations intended to increase the availability of local stations on digital radio.

5.4 The role of community radio

The arrival of community radio offers the possibility for a wide range of vibrant new highly localised stations across the UK, allowing listeners to become much more involved in their radio stations than has previously been possible. They can be used for experimentation and to develop innovative new content and will provide an important training ground for talent. They will cater either for a particular geographic area or for a community of interest within a particular area.

Community radio is intended to provide new types of radio service, clearly distinct from those already offered by commercial broadcasters and the BBC. In order to ensure that community radio does this, Government has imposed some specific

'characteristics of service' requirements which such stations must adhere to. In particular, community radio stations must:

- be primarily for the good of members of the public or particular communities and be operated in order to deliver social gain, rather than for commercial reasons;
- serve one or more communities (a neighbourhood or people who have one or more interests or characteristics in common);
- not be provided in order to make a financial profit, and use any profit produced to support the service or for the social gain of the public or the target community;
- offer members of the target community opportunities to participate in the operation and management of the service; and
- be accountable to the target community.

Central to the community radio legislation is the concept of social gain a broad term to encompass the delivery of tangible benefits to communities beyond the simple delivery of broadcast programming. The Community Radio Order contains some specific definitions of social gain including:

- serving individuals who are otherwise underserved by radio;
- facilitating discussion and expression of opinion;
- providing education and training (other than to employees); and
- enhancing understanding of the target community and strengthening links within it.

In addition to the above, the Community Radio Order 2004 includes a further, non-exhaustive, list of further examples of social gain, such as the provision of opportunities for the gaining of work experience, the promotion of cultural and linguistic diversity and the promotion of civic participation and volunteering.

The community radio legislation also sets out specific requirements as to station funding. In particular, stations must be funded from multiple sources. No one source of income can comprise more than 50% of annual operating income. In addition, to ensure that community radio services do not prejudice unduly the economic viability of commercial radio stations, no community radio service can derive more than 50% of its annual income from on-air, paid-for, spot-advertising and programme sponsorship taken together. In areas where very small-scale commercial services exist, there are additional restrictions.

Unlike the process used to advertise new commercial radio licences, Ofcom does not invite applications for community radio services to broadcast to specific, pre-determined, communities or geographical locations. It is up to individual applicants to define the community (or communities) which they wish to serve. However, Ofcom has decided that community radio stations will typically have a service area of up to 5 km surrounding a central transmitter.

Even with such coverage restrictions, there is a technical limit to the number of new community radio services which can be licensed overall and this is defined by the extent to which suitable frequencies are available. Broadcast frequencies are a finite resource and Ofcom has to balance competing demands for access to such spectrum, from commercial and BBC broadcasters as well as community radio services. Community radio services will only be licensed to use analogue frequency resources, on the FM or MW (medium-wave) bands. As yet, there are no proposals for these small-scale services to migrate to digital transmission modes (see section 7).

Ofcom has already consulted on the proposed licensing process for community radio and, in September 2004, invited applications for the first time. It is planned to begin licensing stations early in 2005. Each licence will run for a period of up to five years from the commencement of broadcasting.

Decisions on the licence awards will be made by Ofcom's Radio Licensing Committee having regard to eight criteria which have been laid down by Parliament. These are:

- (a) The ability of each applicant to maintain the service they propose to provide;
- (b) The extent that the proposed service would cater for the tastes and interests of persons comprising the relevant community;
- (c) The extent to which the service would broaden the range of programmes on local services available in the area, and, in particular, the extent to which the service would be of a nature or have a content distinct from that of any other local (i.e. local and community) service the licence for which would overlap with the licence for the proposed;
- (d) The extent of local demand or support for the provision of the proposed service;
- (e) The extent to which the proposed service would result in the delivery of social gain to the public or relevant community;
- (f) Provisions for ensuring accountability to the relevant community;
- (g) Provision for access by members of the relevant community to the station and to appropriate training in broadcasting and other station activity;
- (h) The likely effect of the proposed service on the economic viability of any local commercial radio service.

In 2002, the Radio Authority set up a community radio (then called access radio) pilot project. Fourteen pilot stations have been in operation over the past two years.

Ofcom commissioned primary research⁵ looking at four of these pilot community stations to assess the overall impact of community radio in terms of who is listening and what benefits these listeners feel are being delivered, both on a personal and social level. Audience research is not the only measure of the performance for community radio and the research agency also talked to station participants to see

⁵ Full details of which are published on the Ofcom website

what they have gained out of the pilot and to community leaders to explore the impact they have seen the stations have on the community in general.

The four stations⁶ were selected to represent a mix of community radio projects, serving both communities of interest and communities of place as well as a range of geographical locations and socio-economic settings.

The research data indicated that the community radio experiment has had some positive results:

- significant numbers of the radio-listening population in the four station areas are aware of, and listening to, community radio;
- both those listening to, and participating in, community radio generally said that it enhanced their personal well-being and sense of community; and
- community leaders typically saw community radio as delivering tangible benefits for their local communities.

Overall, the research found that the public typically perceived community radio as well-run, relevant and entertaining - and clearly different to the existing radio product offered by either commercial or public broadcasters.

However, it appeared from the results of the research that the concept of community radio was easier to communicate amongst an audience of interest, rather than an audience of place:

- in the former instance, relevant groups quickly identified that the station was for them and spotted that participation / involvement was being invited;
- communities of interest expressed an emotional investment in their community, as well as clear reference parameters for identifying relevance and meaning in broadcast content; and
- communities of place suffered from variable coherence in terms of their sense of community - some communities were more conceptual than actual, while others suffered from blurred boundaries and the absence of a core philosophy to bind the audience together. Consequently, listeners seemed to take much longer to recognise that the station was for them and that participation / involvement was being sought.

5.5 The role of restricted service licence (RSL) stations

Restricted service licences (RSLs) are issued for a variety of purposes:

- Long-term RSLs – Single-site services at non-commercial establishments (e.g. Hospital Radio, University Radio)
- Short-term RSLs – Low power services intended for reception over a fairly limited area for a maximum of 28 days. They tend to be of two types:

⁶ The four stations were Forest of Dean Radio, ALL FM, Awaz FM and Angel Radio

- groups wishing to apply for a commercial or community radio licence to allow them to test the water and gain experience; and
- stations linked to a particular event, sports coverage or a religious festival (e.g. Ramadan).

Stations are licensed on MW or FM, depending on frequency availability. The FM sub-band 87.5 – 88.0 MHz has been designated as a core resource for RSLs.

In future, as the FM band becomes full and new FM licensing comes to an end, there will be less need for stations to trial new services as RSLs, and it is likely that the main use of the temporary licences will be to provide services linked to particular events or festivals.

We anticipate that long-term RSLs will continue to be issued for radio stations wishing to serve non-commercial establishments occupying a single site.

5.6 Consistent regulation across platforms

At present, the level of regulation of commercial radio stations varies by platform. Regulation is greatest on analogue radio, where spectrum constraints have limited the number of stations in any particular market. Intervention was therefore put in place to ensure that a range of different types of service was provided.

In the digital world, regulation is lighter. The most heavily regulated digital platform is DAB digital radio, where spectrum is still relatively limited – there is currently one national DAB multiplex and many areas have only one local DAB multiplex. Each multiplex licence contains a list of formats the operator has undertaken to broadcast. These normally include a digital simulcast of one or more of the local analogue services. There are also a few digital-only local stations alongside some quasi-national stations. As noted in section 5.3, there are some commitments in certain licences for local output to be provided on digital-only stations when digital take-up reaches a certain level.

Radio via digital television is regulated less tightly than DAB. There are no format requirements and stations are only required to comply with Ofcom's programme codes in relation to matters such as taste and decency. On the internet, where capacity is unlimited, Ofcom does not license or regulate radio stations in any way. The general principle in each of the above cases is that as spectrum constraints lessen, the need for regulation decreases, as the market provides ever wider choice.

It could be argued that, as digital take-up grows, the need for regulation on analogue platforms will decrease, as listeners can experience the wider choice available on all platforms.

However, even in a completely free market with no spectrum constraints, the market may not provide everything that we as citizens and consumers want radio to deliver. Moreover, take-up of digital radio deliverable to portable and mobile devices is still at a very early stage. In section 7, we argue that analogue radio switch-off is not yet in prospect so analogue radio will continue to be the primary radio platform for many years to come. As such, we believe there is no case yet for equalising regulation across analogue and digital platforms.

It is worth noting that Administrative Incentive Pricing (spectrum pricing) does not currently apply to radio broadcasting in relation to its use of the spectrum. Ofcom has noted, in its consultation on spectrum pricing, that it will continue to keep this under review, taking into account similar issues in relation to television spectrum.

In the next section, section 6, we consider whether the current regulatory framework for local analogue commercial radio is appropriate, in the context of our statutory duty to publish guidance on the delivery of localness.

Section 6

The regulation of formats and local material on analogue commercial radio

Having considered the rationale for intervention in the radio market, including whether a clear set of public purposes can be identified for radio, and having suggested a possible future strategic framework for regulation in radio, we now return to the first of our immediate priorities: drawing up of guidance on how localness in commercial radio is best delivered. In doing so, as we promised in our interim guidance, we have considered the role of input regulation in future regulation.

6.1 Regulation of analogue local commercial radio - formats

Under section 106(1) of the Broadcasting Act 1990, Ofcom is required to include conditions in each analogue local commercial radio licence that are appropriate for securing that the character of the service, as proposed in the station's application, is maintained during the licence period.

Ofcom meets this requirement by means of a format, which includes a description of the character of the service (the output and the audience at which it is targeted) and supporting detail regarding how much of the service will be produced and presented locally (i.e. from a studio in the licence area), and the specific type(s) of music and speech output to be provided.

Formats help Ofcom to meet its general statutory duty to secure the availability of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests (section 3(2)(c) of the Communications Act 2003).

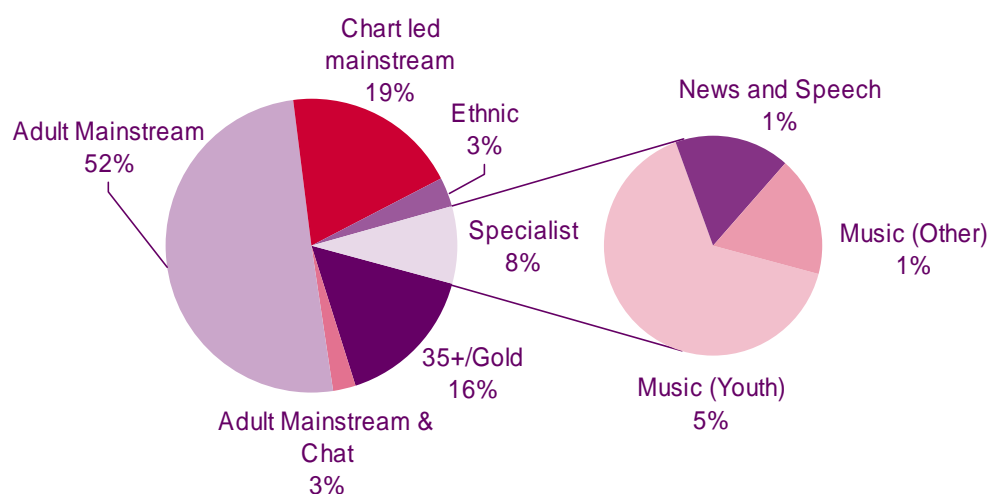
The formats of all of the existing analogue local commercial radio stations can be grouped into a number of broad styles of output (figure 28):

Figure 28: Local commercial station styles

Style	Description
Chart Led Mainstream	Top 40 Radio - includes many of the heritage Independent Local Radio FM stations – e.g. Radio City
Adult Mainstream	Softer music aimed at a slightly older audience than Chart Led Mainstream – e.g. Heart FM
Adult Mainstream and chat	Encompassing Contemporary Hit Radio and Adult Contemporary, usually with higher speech content than these formats. These tend to be small town / rural stations or large regional stations – e.g. Century 106
35+ / Gold	Music predominantly from the 1960s-80s. Many of these stations are on MW – e.g. Capital Gold 1152
Specialist Music – Youth orientated	These stations focus on younger audiences, playing niche and more specialist music genres such as Dance, RnB and Alternative Rock – e.g. Galaxy 102
Specialist Music – Other	These encompass the rest of the music rich stations covering niche and more specialist music genres, such as Jazz and Country, often focused on an older audience. – e.g. Jazz FM
Specialist News and speech	Stations focused on speech programming, playing very little, or no music – e.g. LBC
Ethnic	Ethnic stations target specific ethnic audiences, most are currently targeted at Asian audiences – e.g. Sabras Sound

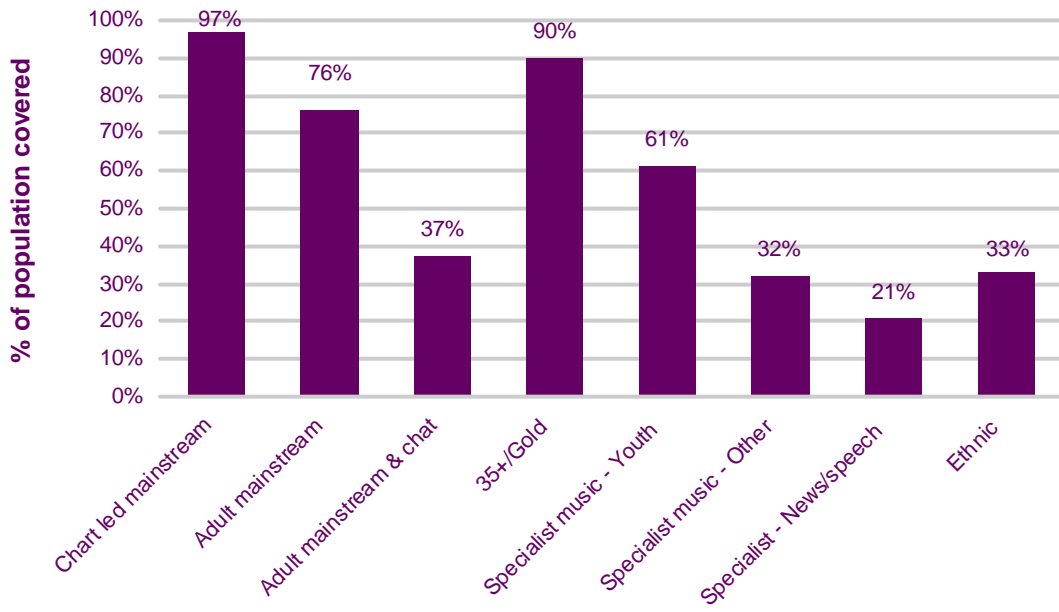
Source: Ofcom

The largest number of local analogue stations (52%) can be classified as Adult Mainstream, with Chart Led and 35+ / Gold stations being the next most numerous.

Figure 29: Analogue stations by style (based on number of licences)

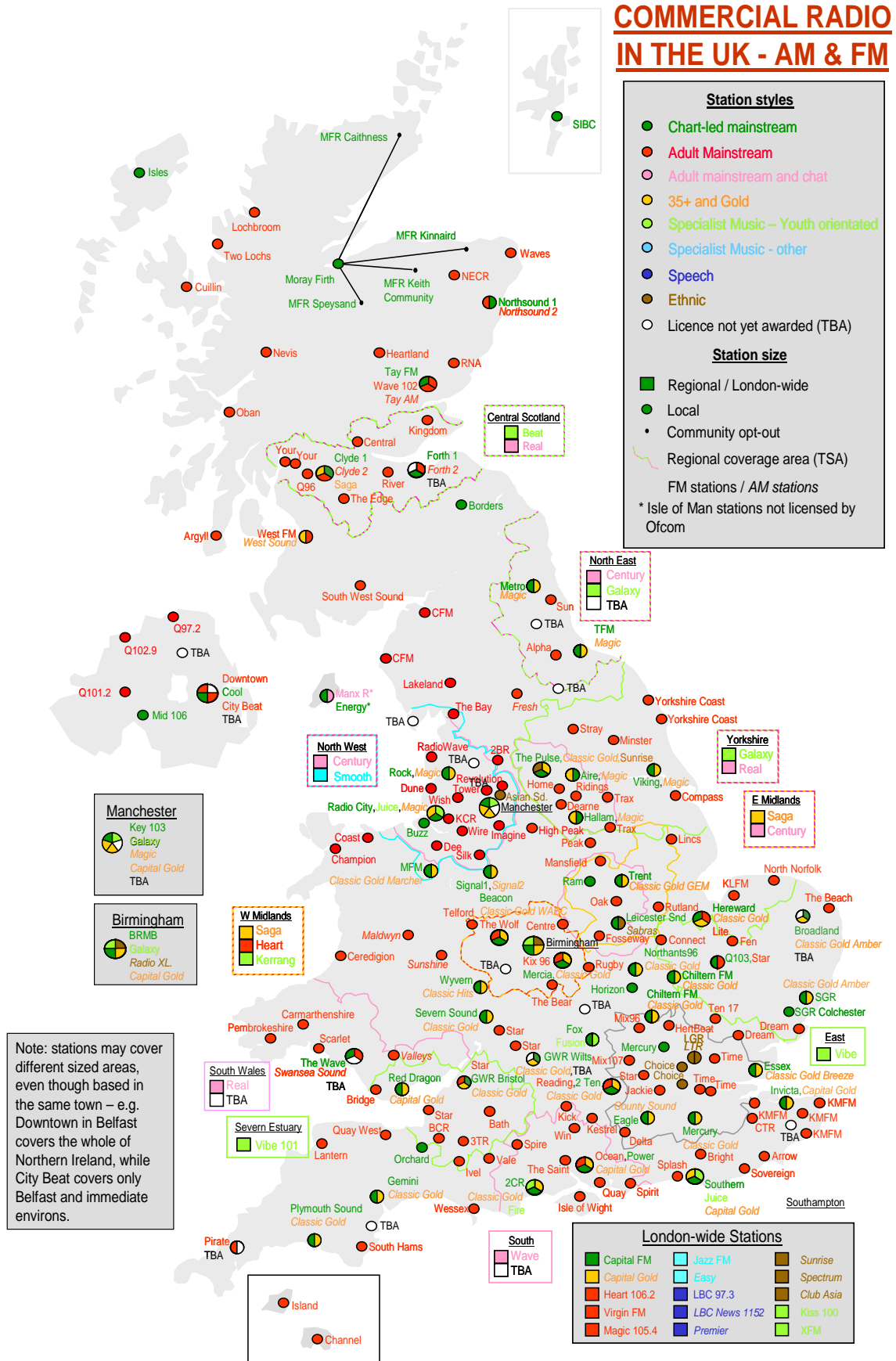
Source: Ofcom

Figure 30: Population coverage of different analogue radio styles



Source: Ofcom

Figure 31: Map of analogue commercial stations by style



There is no direct correlation between the number of stations of a particular style and the availability of such stations (figures 29 and 30). For example, there are more Adult Mainstream stations than any other style, but they only cover around 76% of the population, as they are largely either regional or small town stations, whereas Chart Led Mainstream stations, which represent only 19% by number, have 97% population coverage. The location of analogue commercial stations of different styles is shown on the map above (figure 31).

There is little duplication of formats in individual analogue markets. The lack of duplication is largely due to the statutory requirement for licences to be awarded with regard to whether the proposed service will broaden the choice of local services available in the area. Where there is duplication, it tends to be a local Chart Led Mainstream (on FM) or 35+ / Gold (often on MW), competing with a larger station of the same format from the nearest big city.

Where Chart Led Mainstream and 35+ / Gold stations were already available (a legacy of original ILR stations splitting frequencies in the late 1980s / early 1990s), new entrants to the market – whether serving a smaller area within an existing licence or a regional station - have tended to adopt the Adult Mainstream style.

In addition to the national stations available on analogue radio, Virgin, talkSPORT and Classic FM, Chart Led Mainstream and 35+ / Gold local stations are available in most parts of the country.

Over the past few years, the arrival of regional stations has added to the choice available to analogue audiences. The first regional station, Jazz FM (now Smooth FM) in the North West, launched in 1994 with the latest, Kerrang! in the West Midlands, launching in June 2004. Regional stations tend to offer more specialist formats than local stations, as they were awarded to complement the existing stations. They also have a larger potential listener base, which can support more niche formats. However, limited frequencies mean that not all formats are available in each region.

As noted above, in addition to the type of programming it must broadcast, each station's licensed format also stipulates how much locally produced and presented (i.e. locally-made) programming it should provide (as promised in its application).

Generally, the required level of locally produced and presented material is high. Over two-thirds of all local stations must broadcast locally-made programming for at least 16 hours a day on weekdays, 12 hours on Saturdays and eight hours on Sundays; many have even higher requirements (figure 32). In fact, all 272 local licences in issue have a requirement for at least some programming to be locally-made.

The stations with lower required amounts of locally-made programming are either:

- specialist music stations, where localness is not their primary aim;
- very local stations, which cannot afford to sustain as much locally-made programming; or
- MW stations, where the rules have been relaxed (38 of the 59 MW stations must broadcast local output for either four or seven hours a day).

Figure 32: Licence requirements for local output (AM and FM)

Minimum hours of locally produced and presented output	No. of local stations
24 hours (for most stations 7 days a week, although some broadcast only 21 hours a day of local output at weekends)	49
At least 18 – 20 hours a day on weekdays and 12-18 hours a day at weekends	97
At least 16 hours a day on weekdays, 12 hours on Saturdays and 8 hours on Sundays	36
At least 12 hours a day on weekdays and 6 hours a day at weekends	38
At least 7 hours a day, every day	12
At least 4 hours a day, every day	40
TOTAL	272

In addition to these requirements for the number of hours of locally-made programming, each format stipulates what type of local material should be provided (e.g. local news, traffic reports, etc), although the quantity of each type is not generally specified.

As well as the format, included as part of each station's licence, the Radio Authority also imposed a set of rules governing matters such as the use of automation, the location of a station's studios and the way in which local news is delivered.

While formats can generally be described as 'outputs' (i.e. they describe what the listener hears), these other rules can be described as 'inputs' (i.e. they are related to the production of the output).

6.2 Regulation of analogue local commercial radio - localness guidelines

The Communications Act 2003 introduced a new duty on Ofcom in relation to the local content and character of analogue local commercial radio. Under section 314, Ofcom must carry out its functions in relation to local commercial radio services in the manner it considers is best calculated to secure that:

- *“programmes consisting of or including local material are included in such services but, in the case of each such service, only if and to the extent (if any) that Ofcom considers appropriate in that case; and*
- *where such programmes are included in such a service, what appears to Ofcom to be a suitable proportion of them consists of locally-made programmes.”*

Ofcom is required to draw up guidance as to how it considers that these requirements should be satisfied, and have regard to this guidance in carrying out its functions in relation to analogue local commercial radio.

Local material is defined in the legislation as "material which is of particular interest to: (i) persons living or working within the area or locality for which the service is provided; (ii) persons living or working within a part of that area or locality; and (iii) particular communities living or working within that area or locality or a part of it." Material is defined as including "news, information and other spoken material and music". The legislation also stipulates that "programmes" does not include advertisements.

"Locally-made" is defined as programming which is "made wholly or partly at premises in the area or locality for which that service is provided".

Earlier this year, we issued an interim set of guidelines for consultation and subsequently published the results. These set out, in very broad terms, an overview of how localness, as it relates to analogue local commercial radio, might be defined.

The consultation on the interim guidelines focused on a general overview of localness, and did not seek to consider more detailed matters relating to the regulation of radio stations' programming.

This review sets out, for consultation, proposals as to how Ofcom intends to meet its statutory duties in respect of analogue local commercial radio. It sets out our final proposals on localness guidelines which includes some proposals and considerations relating to current 'input' regulation. Our proposals take into account the views of licensees as well as research conducted among listeners.

Our starting point, in considering how we should best regulate analogue local commercial radio to meet our statutory obligations, is to protect the interests of citizens and consumers and ensure that they are offered choice and a range of local services wherever possible. Therefore, we conducted quantitative (1,501 radio listeners) and qualitative (discussion group based) research into listeners' views of local radio, both in terms of what they expect and how satisfied they are with current provision. The findings are set out below.

6.3 What do listeners expect of local radio?

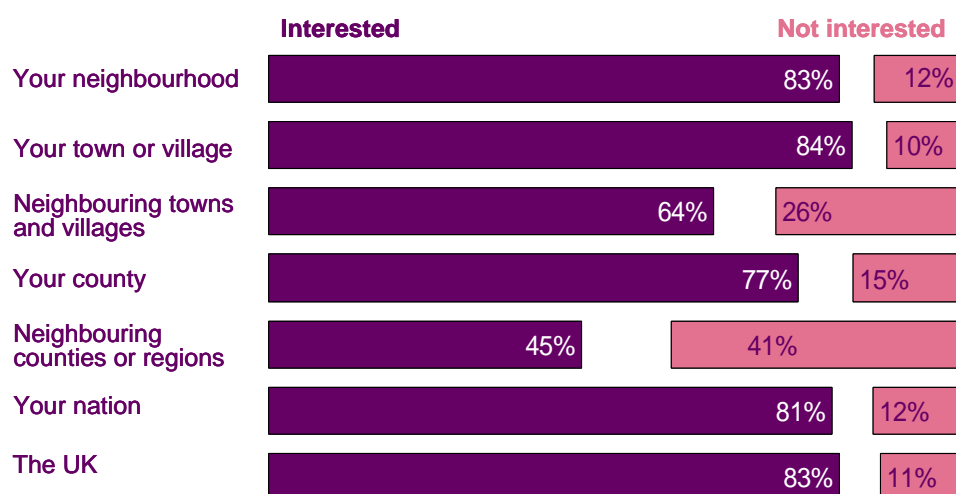
a. Interest in local issues

We began by asking people how they would define their local area. Many found this difficult to articulate. Rather than focusing on a geographically defined area, localness means different things to people, and a number of factors seem to contribute to people's perception of localness, depending on their situation and the context of the discussion. The factors include: a shared sense of humour; common interests; shared geography and focal points; people's own personal history and the length of time they have lived in an area; the accessibility of surrounding areas; the location of family and friends; their place of work; and whether they are in a city, a town, or in the country. People often talked about how they belong to their 'local area' with a sense of pride and happiness.

We then asked people how interested they are in hearing about what is going on in different areas, ranging from highly local to national. The level of interest in local news and issues concerning their town was as high as interest in national news (figure 33). Those not interested in local issues are more likely to be men, aged 16 – 24, and are less likely to listen to local stations than national radio.

Figure 33: Interest in issues about different sized areas

Q How interested are you in hearing about issues and what's going on in....?*



Source: MORI – base: all radio listeners (1,501)

b. Choice of media for coverage of local issues

But while there is a high level of interest in local news and issues, our research suggested that radio is neither the first nor the second choice for providing this information (this is as true for national news as for local) (figure 34).

Figure 34: Sources of information for different localities

Q Where do you turn to find information and news about your ...?*

	Neighbour - hood	Town / village	Neighbouring towns / villages	County/ region	Neighbouring counties / regions	Your nation	The UK
	%	%	%	%	%	%	%
National TV	1	1	2	2	9	46	56
Regional TV	5	5	11	25	25	6	1
National radio	0	0	1	2	5	14	13
Local radio	9	8	12	15	10	2	1
National newspaper	1	1	3	5	11	22	22
Paid-for local newspaper	32	35	30	21	10	2	1
Free local newspaper	28	29	18	9	4	0	0
Word of mouth	14	12	6	2	3	1	1
Ceefax / Teletext	1	1	1	1	1	0	1
Internet	1	1	1	2	3	3	3

Base: All radio listeners (1,501)

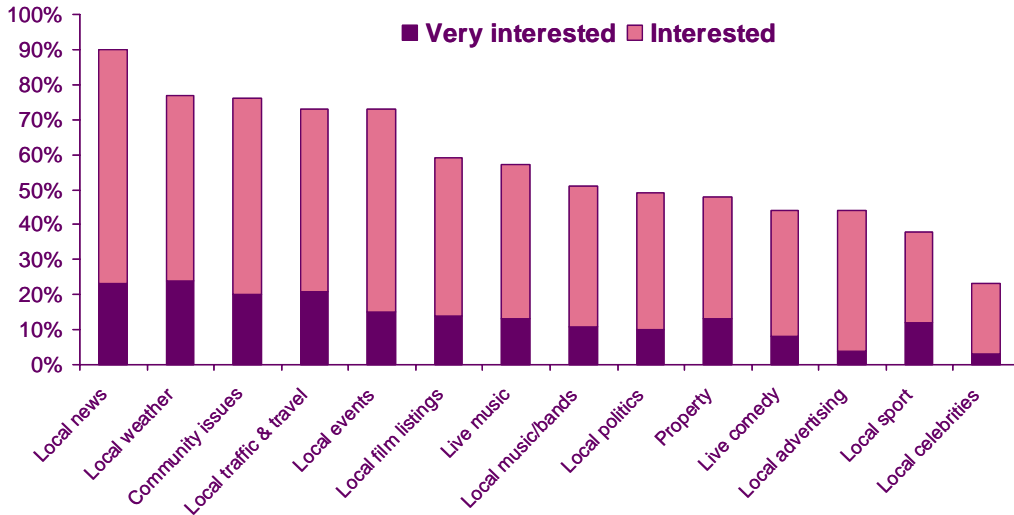
Note: The top two responses in each case are highlighted in red.

Source: MORI

We also asked what sort of local information people were interested in (figure 35).

Figure 35: Interest in hearing / watching / reading about local matters

Q *How interested or not are you in listening to, watching, reading about or knowing about each of the following in your town or local area?*



Source: MORI, Base all radio listeners (1,501)

We found generally high levels of interest in most types of local issues. On the whole, women have more interest in these issues than men, including local news (92% of women interested compared to 87% of men), local weather (81% compared to 73%), community issues (80% compared to 72%), traffic and travel (77% compared to 70%) and local events (79% compared to 67%). While local sport is, overall, one of issues that fewest are interested in, it appeals far more strongly to men (52% interested) than women.

c. What should local radio cover?

Given this high level of interest in local issues, we asked those who listen to local radio how important it is for local radio to cover these issues (figure 36).

Figure 36: Importance of issues being covered on local radio

	Very important	Important	Neither	Not important	Not at all important	Net score + / -
	%	%	%	%	%	%
Local news	40	54	2	2	1	+91
Local traffic and travel	37	50	3	7	2	+78
Local weather	30	51	5	10	3	+68
Community issues	24	57	6	10	3	+68
Local events	18	59	8	10	4	+63
Local music / bands	12	47	10	23	8	+28
Live music	12	45	11	24	7	+26
Local politics	14	42	8	23	12	+21
Local advertising	8	46	11	25	9	+20
Local film listings	9	45	10	28	8	+18
Local sport	17	37	8	25	13	+16
Live comedy	8	35	13	34	9	0
Property	9	30	10	35	15	-11
Local celebrities	3	26	11	39	20	-30

Source: MORI

Base: All who listen to local radio (1,146)

Note: The Net score is the total of the very important and important scores less the not important and not at all important scores.

There were positive scores for almost all of the categories, with news, traffic and travel, weather and community issues coming out top. At the other end of the scale, people were much less concerned about hearing about the property market or local celebrities on local radio. However, while few consider the provision of information on local events important in determining whether or not they personally tune into a station, more believe it important that these should be made available on local stations. This view was reflected in our accompanying qualitative research, where listeners said that, while they often tuned into local radio for the music, presenters, local news and traffic, it is important that local radio stations carry information on local events.

While local radio is not one of the three key sources of information on either neighbourhood, or town / village issues, it is the most frequently used source for those very interested in local traffic and travel updates, with two-thirds tuning in for this - considerably more than use any other source of information. Local radio is used by more than one in five local radio listeners as their main source of local weather reports (28%), local sport (25%), local celebrities (23%) and local news (21%). However, local paid-for newspaper and / or regional television coverage are used by more people for all information categories, with the exception of traffic and travel updates.

Our research shows that the two main factors influencing what people wanted to know about their local area are life stage (young and single, married with kids,

retired, etc), and the accessibility of the area in question. If respondents feel there are good public transport links or easy road access, then they are interested in learning about events to which they could travel to easily, even if they are geographically distant.

We found that people want to hear local traffic reports on their area particularly during the morning and evening rush hours. For some people, local traffic reports are more important than hearing about local news and weather information.

Many participants in the workshops undertaken as part of the qualitative research listen to their local stations not only because of the local information, news and traffic updates, but also because they like the presenters, music played and the features on the shows. For example, some participants like the local radio phone-ins or the ability to request a record to be played. However, there is a strong perception, particularly amongst younger respondents, that many local radio stations essentially play the same sort of music constantly, and that there is little variety. These participants are, perhaps understandably, less likely to be well-disposed to the idea of local radio, as what they are really interested in is the music, which they can get from a whole variety of stations.

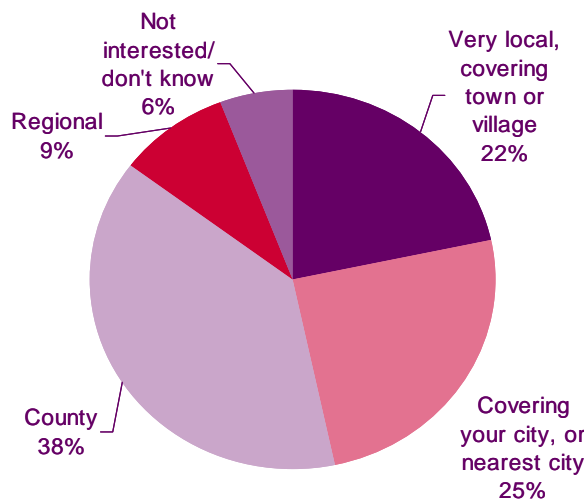
The view on provision of local sport coverage was polarised, both by gender and location. In general, men of all ages tend to be more in favour of having coverage of sport on local radio. However, the degree to which people felt local sports or sports teams should be covered varied, depending upon the profile of local sporting teams.

d. How local should a radio station be?

When people were asked how local they wanted their local radio station to be and, specifically, the area it should cover, responses were largely dependent on individual definitions of local area. However, many thought there would not be enough news and events going on to cover a small area throughout the whole day.

Figure 37: The preferred size of coverage for a local station

Q Which of the following best describes the area you would like your local radio to cover?



Base: All who listen to local radio (1,146)

Source: MORI

As a result, while rural dwellers are more likely to define their local area as a tighter geographical area, over half (54%) want their local radio station to cover a county or regional area, while fewer urban dwellers (45%) want local radio to cover such a broad area (figure 37).

A county is considered to be the right size for local station coverage by 38% of respondents, while 25% wanted a station covering their city (or their nearest city). However, around one in five (22%) would prefer their local radio station to cover a very local area, with English residents (23%) more likely than those in the nations to want this (16% in Scotland and Wales, 13% in Northern Ireland).

This suggests that the policy followed by the Radio Authority, of licensing different sized stations to cater for different tastes and needs, was probably the right one.

e. When should a station provide local content?

People consider mornings and evenings the key times for local news and traffic information. Our quantitative research substantiates this, highlighting that local programming is particularly important to local radio listeners at weekday and weekend breakfast times and during weekday drive-time (figure 38).

Fewer demand local programming at weekends, although a third (36%) still want this at breakfast, and three in ten (30%) want it during the day. Reflecting the fact that fewer people travel to work at the weekend, there is a substantial fall in demand for local programming at weekend drive times and one in five (20%) feel it is unimportant to have local programming at any time during the weekend - more than twice as many as feel local programming isn't necessary during weekdays.

Figure 38: Important times to hear local programming

	Weekdays	Weekends
	%	%
Breakfast time	46	36
Daytime	21	30
Drive time or early evening	39	21
Evening after 7pm	11	10
None of these	8	20

Base: All local radio listeners (1,146)

Source: MORI

6.4 How well are listeners' needs met?

In the qualitative discussions we carried out as part of our research, people expressed contentment with the current provision on the radio: the stations, choice and information available. The amount of choice available varied considerably between the areas where we held our qualitative discussion groups. Despite this, all groups felt that there was a diverse enough range of styles of music and types of programme to suit everyone, perhaps indicating that they don't know what they want unless they hear it.

This was reflected in the quantitative survey which recorded substantial satisfaction in the current provision of radio services. Across all radio stations generally, two-thirds (66%) are satisfied, a third (33%) are neutral and just 1% of listeners are dissatisfied (figure 27).

Satisfaction was found to be lower with local radio than for radio overall, although there is still very little dissatisfaction. It is clear, from both the qualitative and quantitative elements of the research, that users have clear demands of local radio but that these vary immensely between individuals. Each individual wants a particular mix of music, local news, weather and travel for example, depending upon what is relevant and of interest to them.

Overall, however, the research showed widespread satisfaction with the individual elements of local radio (figure 39), and particularly with those elements that are considered most important to be provided by local radio (figure 36) and those local issues which listeners are most interested in hearing about (figure 35).

Figure 39: Satisfaction with local radio services

	Very satisfied	Satisfied	Neither	Dissatisfied	Very dissatisfied	Net score + / -
	%	%	%	%	%	%
Local news	23	64	6	5	*	+82
Local traffic & travel	24	61	6	5	1	+80
Local weather	20	65	8	4	1	+80
Local events	10	63	13	9	1	+63
Community issues	9	59	15	12	1	+55
Local advertising	8	55	19	9	2	+52
Local sport	13	48	22	8	2	+51
Local politics	6	49	23	13	2	+40
Live music	7	45	25	13	2	+37
Local celebrities	4	42	33	8	2	+36
Local film listings	5	45	26	12	2	+35
Local music / bands	5	42	25	16	3	+29
Property	4	37	31	14	2	+24
Live comedy	3	36	33	15	2	+22

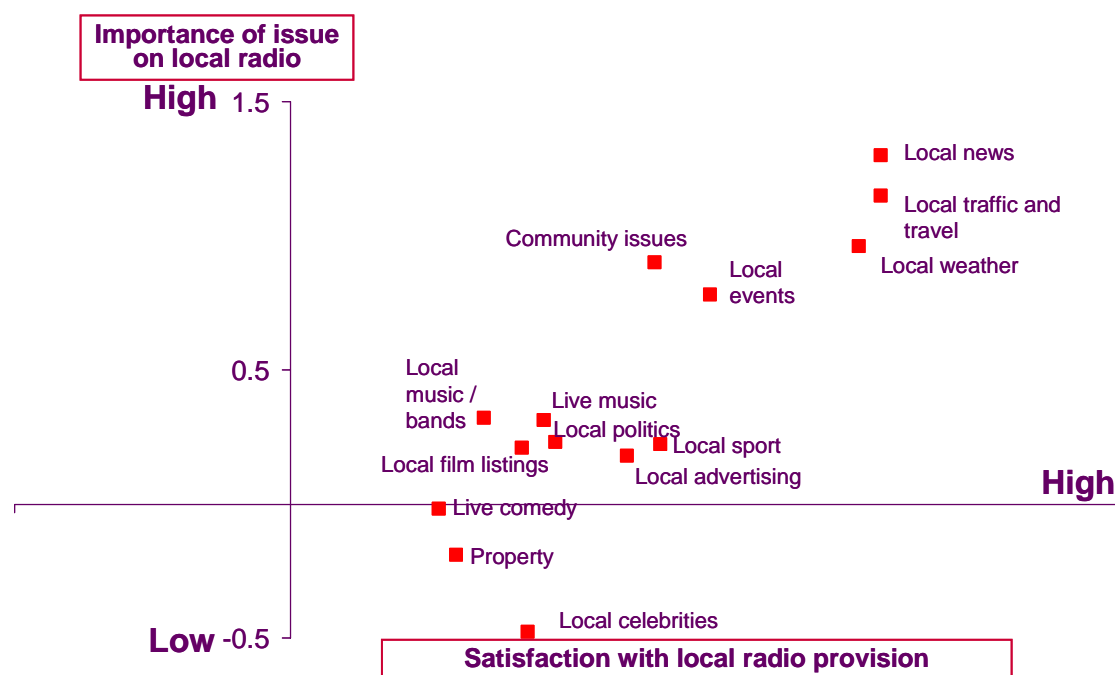
Base: All who listen to local radio (1,146)

Source: MORI

The level of satisfaction with the coverage of local issues drives overall satisfaction with local radio. Figure 40 plots the importance that local radio listeners place on an issue being covered (on the vertical axis), against their level of satisfaction with current local radio provision of the issue (on the horizontal axis).

The general picture is that listeners are satisfied with the current provision of all of the categories they feel it important for local radio to provide. The three issues which are considered most important to be covered by local radio (news; traffic & travel; and weather) are also those with which listeners are most satisfied. Community issues and local events, both considered important by our respondents, are also among those issues with which listeners are most satisfied.

Figure 40: Importance of issues to be covered by local radio and satisfaction with provision



Source: MORI

People in the research workshops were also generally happy with local provision on the radio and found it difficult to think how local radio could be improved. Where there was criticism, it was to do with the types of music played, repetition of records, the length, repetition and frequency of the adverts, and DJs cutting into the record before it has ended.

There was also some criticism of local radio from some of the younger participants, who perceive local radio stations as unprofessional, boring and parochial. These younger respondents claimed not to listen to local radio or to consume local media, because it did not relate to them - for example, it did not play the types of music they wanted. These younger people prefer to consume national media aimed at their taste in music and chat, rather than what they perceive as a local 'catch all' station.

6.5 Regulatory principles

As noted previously in this section, our primary concern in meeting our statutory obligation to draw up localness guidelines is to protect the interests of citizens and consumers and ensure that they are offered choice and a range of local services wherever possible.

In thinking about a future regulatory framework, we have sought to apply our regulatory principles, which state that Ofcom will:

- operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required;
- strive to ensure interventions are evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome; and
- always to seek the least intrusive regulatory mechanisms to achieve its policy objectives.

Therefore, our proposals on localness guidelines, including the proposals we make on input regulation, aim to achieve our statutory objectives in a way which removes unnecessary regulation.

Also, again in line with Ofcom’s regulatory principles, we have assessed the impact of our proposed regulatory action (see Regulatory Impact Assessment in Appendix E) and we are now consulting on these proposals prior to making any changes.

As we described in section 5, there are currently differing levels of format regulation on different radio platforms – analogue (FM & MW), DAB digital radio, radio via TV and radio on the internet - reflecting the differing levels of competition in each. Format regulation is tightest on analogue radio, where in some cases there are still only one or two local radio stations. In the DAB digital radio market, there is a significantly higher level of competition and choice; in most local areas where DAB exists, there are at least seven or eight digital stations carried on the local digital multiplex, and therefore the degree of format regulation can be somewhat lighter. Radio via TV - whether satellite, cable or digital terrestrial - faces no format regulation, while radio via the internet is completely unregulated.

In the long term, as take-up and competition increase, and digital radio becomes the main platform for radio listening, it might be appropriate to reduce the extent to which analogue radio formats are regulated, potentially to match those in DAB digital radio.

As a by-product, the proposals below may help to ease some of the financial pressures on stations, particularly some of the smaller and medium-sized stations which are currently loss-making, and so help to preserve the ecology of local radio, which our research has shown that listeners value.

6.6 Our proposals

We believe that, as a general principle, the best way to achieve the goals set out in the Communications Act is to focus regulation on output objectives, rather than to micro-manage inputs, although some input regulation will still be required to comply with Ofcom’s duties as regards local production.

We propose to continue to use the format description contained in each licence as the primary regulatory tool, backed up by a clear new set of guidelines setting out how we consider the localness requirements of section 314 of the Communications Act should be satisfied.

In publishing the results of its interim consultation on the localness guidelines, Ofcom said it would also undertake further consultation on:

- the location of a station's studios (e.g. the importance or otherwise of a local station having a local presence, accessibility, etc);
- the networking of programmes among multiple stations (e.g. should this practice continue to be restricted; does it deliver localness in practice);
- the use of automation (e.g. whether the present daytime restrictions are reasonable; whether automation should be allowed from within a specific distance, etc.);
- how stations should meet their format obligations to provide local news, if appropriate (e.g. whether 'news hubs' should be allowed generally; whether they should be restricted by distance, etc);
- the scope of what is meant by local material, and to what extent programmes consisting of or including local material should be included in the service; and
- the scope of what is meant by locally-made programmes, and what would be a suitable proportion of such programmes.

In our desire to regulate in a way which is evidenced based, in addition to the consultation on the interim guidelines on localness, we have undertaken audience research, held informal discussions with many in the radio industry and relevant industry bodies and, where relevant, carried out financial analysis of the implications of proposed changes (see Regulatory Impact Assessment in Appendix E). We now welcome the views of all stakeholders on these proposals.

a. Studio location

Under section 314, Ofcom is required to secure that, where programmes consisting of or including local material are included in a station's format, a suitable proportion of them consists of locally-made programmes. "Locally-made" is defined in the legislation as "made wholly or partly at premises in the area or locality for which that service is provided".

As noted under 6.1 above, all 272 local licences in issue have a requirement for at least some programming to be locally-made, and therefore every local radio station has its own studios.

The Radio Authority's policy was that stations providing locally produced and presented output should do so from a studio located within their Measured Coverage Area (MCA). The MCA is a technically-defined area within which radio signals of a certain strength can be received; in practice, a station can usually be heard over a larger area. The MCA is also generally smaller than the licensed area, which is the area that the licence is designed to serve (as set out in the original licence advertisement).

There have been calls from some in the radio industry to allow adjacent stations to co-locate studios somewhere between their two current bases, even where this would mean moving one or both outside of their MCAs. Arguments for station co-location are typically based on financial or operational needs. Co-locating studios can result in significant savings on premises and administrative overheads, amounting to perhaps £30k per annum for smaller stations and £60k for county-sized stations,

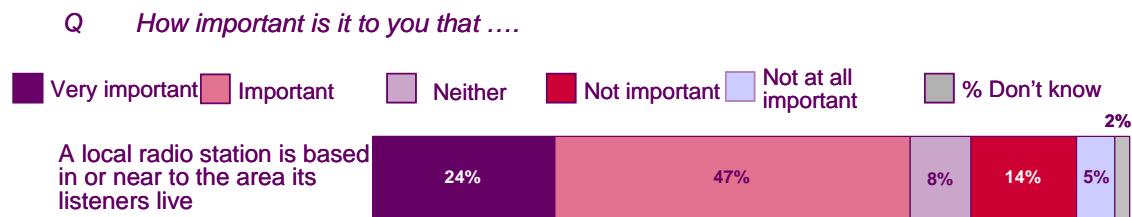
although clearly there will be large variations depending on rental contracts, which part of the UK they are operating in, station size and other factors.

Proponents argue that sharing premises can also mean less duplication, so that the amount of administration and management can be reduced. Many small stations are not large enough to put in place any kind of career development system, and there is limited potential and funding for management positions. Sharing of premises would make it easier to put in place more effective management structures. If the choice of location makes geographic sense, it can also lead to a more focused sales effort.

There is a concern however that, by allowing stations to locate together (if both are not situated within the MCA) the provision of localness will be adversely affected. The counter-argument to this is that stations cannot afford to stop focusing on the local area since it is a significant factor in how well they compete with larger competitive stations, and is a requirement of their formats in most cases.

In our research, we asked people if it mattered where their local radio station was based (figure 42). A substantial majority, 71%, said that it was either important or very important.

Figure 42: The importance of studio location



Source: MORI research for Ofcom

This was backed up by findings from our qualitative research, which showed that listeners notice when a station does not have a base within its area. In one instance, for example, listeners had noticed that the studios of their local station had moved from their town to a nearby town. This was felt to be a loss, and they felt that localness had reduced as a result. One bemoaned the fact that it was no longer the case that “You could walk in and report local events and news.” (MORI audience research for Ofcom).

We believe that it remains important for a station to be based locally, so as to better provide the local programming which audiences want. It will also remain necessary for stations to have a local base in order to comply with the requirements of section 314 as regards locally-made programmes.

However, Ofcom is minded to relax the current rules slightly, so that each local station is required to maintain its studios within its licensed area, rather than the more narrowly-defined MCA. If a station wished to re-locate its studios, it would need to confirm with Ofcom that the proposed new location is within its licensed area.

As now, in exceptional circumstances, we will consider allowing a station to locate its studios outside its licensed area.

b. Networking

Networking involves the transmission of the same programme, at the same time, across a number of different radio stations. Although the use of networking implies a reduction in localness, modern technology allows for networked output to incorporate local material, with such output being inserted into 'windows' during the course of the programme.

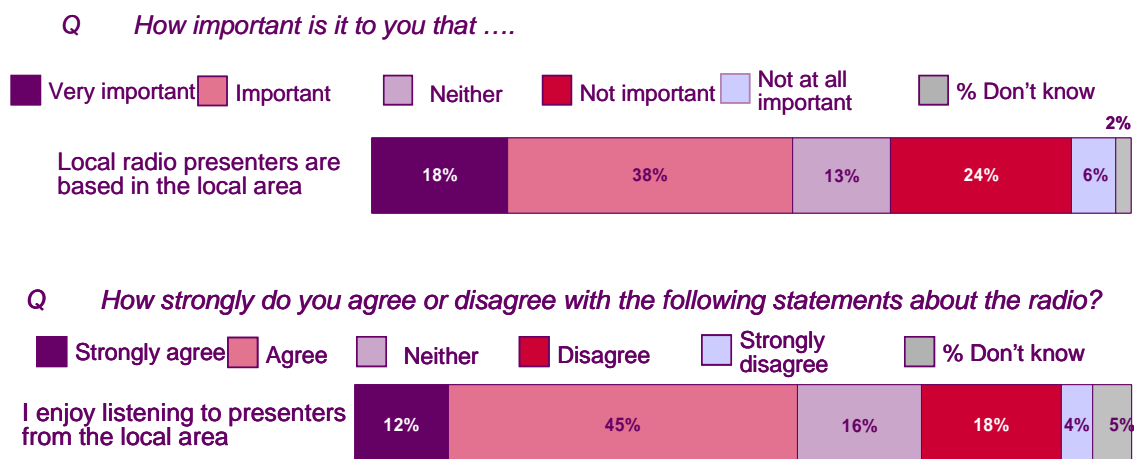
By definition, output which is networked cannot be considered as part of a station's locally produced and presented requirements, with the obvious exception of the station from which the networked programming is originated.

The number of hours of locally-made programming which each station is required to broadcast is defined in its licensed format. Formats may also specify that programming at certain times of the day (e.g. peak time) must be locally-made.

Beyond this, there are currently no written rules on the networking of content. For the purposes of clarification, we propose that stations be free to network as they wish, outside of the requirements regarding locally-made programming specified in their format. Where local material must be provided during networked programming, this will already be defined in each station's format.

We asked listeners about the presenters on local radio. The majority (56%) said that it was important or very important for local radio presenters to be based in the local area. A majority (57%) also said that they enjoy listening to presenters from the local area (figure 43)

Figure 43: The importance of local presenters



Should any station wish to adjust the amount of locally-made programming demanded in its format, such a request would be considered having regard to the matters specified in section 106 of the Broadcasting Act 1990, as amended.

This states that Ofcom may consent to a departure from the character of a licensed service (i.e. the format) if, and only if, it is satisfied that:

- (a) the variation would not substantially alter the character of the service;
- or

- (b) the variation would not narrow the range of programmes available by way of relevant independent radio services to persons living in the area or locality for which the service is licensed to be provided;
or
- (c) the variation would be conducive to the maintenance or promotion of fair and effective competition in the area;
or
- (d) there is evidence that, amongst persons living in that area or locality, there is significant demand for, or significant support for, the change that would result from the departure.

It is likely that Ofcom would consider a significant change to the amount of locally-made programmes as a substantial alteration to the character of a service, and therefore would only consent to such a change if it is satisfied that one of the grounds specified in (b) to (d) above has been satisfied. Under the terms of section 106ZA of the Broadcasting Act 1990, Ofcom is required to conduct a consultation before reaching a decision in these circumstances.

c. Automation

Automation was defined by the Radio Authority as “*computer controlled programming, involving the music, voice tracks, drop-ins, commercials and other programming elements being played in accordance with a pre-defined schedule and which is not under the direct control of an on-air presenter.*”

The current automation rules, drawn up by the Radio Authority, differ by waveband and station size.

- FM stations with an MCA of 50,000 adults (aged 15+) or more are limited to two hours of automated output during daytime hours. (Note: daytime is defined as 6am to 7pm);
- FM stations with an MCA of fewer than 50,000 adults are limited to four automated hours during daytime;
- a handful of FM stations with an MCA of greater than 50,000 adults have been given permission to broadcast more than four hours of automation during the day; and
- MW stations are limited to four hours of automation during daytime. Some MW stations are only required to broadcast four hours of locally-made programming, and they may not automate those four hours.

The Radio Authority considered that automation had the capacity to impact negatively on the quality of a radio station's output, but also felt that restrictions would help to preserve localness, on the assumption that live output would be locally-made whereas automation could be produced from anywhere.

At its best, automation can produce output which is indistinguishable from live output - just like live programming, automation can be done well or badly. The sophistication of automation has improved significantly since the Radio Authority imposed limits on the amount of automation any station could use. As a result, we no longer believe that restrictions on the amount of automation will necessarily guarantee quality.

Ofcom has found, through consultation with the industry, that there is little demand overall for more automation during the day. Stations will usually prefer to be live during the day when audiences are greatest, and when they are best positioned to respond to events and listeners. Many stations, especially smaller ones, automate overnight when audience levels are lowest and the demand for a presenter to deliver speech and information is minimal. There are no regulations at present on overnight automation.

Some stations, mostly small-scale, make use of their automation allowance during the mid-afternoon period. Often, this can allow some time during the day for the station team to meet, which can be beneficial for management and organisational purposes. On the other hand, automation is not always made full use of, even when allowed. Some stations use the overnight period as a nursery for new presenters, which can have greater benefits in the long run than alternatives like automating or networking.

While most stations would prefer to broadcast live throughout the day, it may not be economically viable for them to do so. In some circumstances, it might be better to concentrate the available resources on the key daytime periods of breakfast and drive-time, perhaps automating during the afternoon. The current automation rules, as they stand for most stations, do not lend themselves to this because they allow only two hours of automation during daytime. This period of time is a useful tool for having some flexibility during the day, but will not make a noticeable difference in terms of costs. Some stations were of the opinion that a four-hour maximum level during the daytime would make more of a financial impact, since four hours equates to the length of a typical presenter shift on commercial radio, which could potentially be saved.

But what do the listeners think? The concept of automation is not one most audiences are familiar with. Many audiences may not be able to tell the difference between live and some automated programming and might be surprised to learn that some of their favourite programmes are, at least in part, automated.

On Ofcom's behalf, MORI carried out some research into the public's attitudes to automation. We began by explaining what automation is:

"Sometimes radio presenters or disc jockeys pre-record the talking between the music and records that they play. The radio station then broadcasts the pre-recorded parts of the programme automatically. This process is called automation. Automation does not apply to items such as news bulletins, live sports reports, weather forecasts and traffic reports."

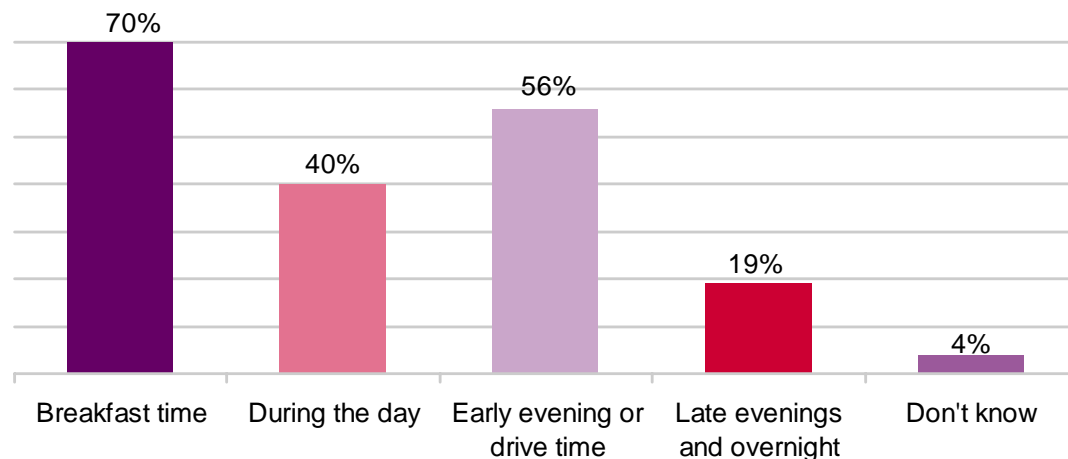
We then asked whether people were aware that some music programmes are currently automated. The results revealed that 57% claimed that they were aware, and 43% claimed they were not. What it is not possible to know from this survey is whether listeners can tell the difference between an automated programme and a live programme and so the results of this research should be treated with caution.

We then asked whether radio stations should be allowed to automate any of their programming. Of those questioned, 10% thought stations should not be allowed to automate at all, while 35% thought they should be allowed to automate as much as they like. Of the remainder, 52% thought that there should be some limit on how much programming stations should be allowed to automate.

We asked the 52% who thought that automation should be limited whether it was important for programmes to be live at particular times of day. The results suggest that 70% (of the 52%) thought that breakfast programmes should be broadcast live, 56% thought drive-time should be broadcast live, while only 19% thought it important to broadcast late evening programmes live (figure 44).

Figure 44: When should programmes be broadcast live?

When do you think programmes should be broadcast live rather than be automated?



Base: All who think automation should be limited

Our aim is to move to an approach which reduces the level of input regulation where that is possible. We therefore wish to consider the case for removing all specific limits on the use of automation. However, were we to do so, stations should obviously bear in mind that listeners expect their local station to be live at key times of the day.

If we were to relax this regulation and it proved to be detrimental to the overall quality of radio services, then we may reconsider whether specific limits on automation should be reintroduced.

Note that the automated programming during a station's hours of locally-made programming, as specified in its licensed format, must be locally-made.

d. Local news delivery

Ofcom's objective is to ensure the provision of a high quality news service, including local and national news, by local radio stations, to the extent required by each station's format. The question is how this objective is best achieved.

At present, with very few exceptions, each station's licence includes a requirement to produce local news, which is implicitly locally presented. This is the only current format requirement regarding news for most stations. There is no requirement for the news to be timely – so, in practice, stations can record news bulletins well in advance of transmission and some smaller stations often do so. Neither are there requirements for a specified number of journalists at a station nor for journalistic cover outside of the hours the station's format requires local news. Ofcom does not currently monitor how stations produce their local news, but we do respond to complaints about particular stations' news provision.

The Radio Authority considered that the provision of local news was covered as part of the 'locally produced and presented' output requirements in each station's format, and, therefore, any station whose format calls for locally produced and presented output is currently required to produce any local news bulletins from a studio within its coverage area. The Radio Authority also stated that all such stations must have a journalistic presence (i.e. an in-house news operation) unless permission for alternative arrangements had been given.

In essence, the Radio Authority considered that the requirement in formats for 'locally produced and presented' output should be interpreted as including a requirement for stations to have a local newsroom. However, an express requirement relating to the staffing of newsrooms is not included in any formats, apart from those of the stations to whom permission has been given for alternative arrangements.

These alternative arrangements are known as 'news hubs', and involve a station being allowed to broadcast local news bulletins presented from another radio station's studios. The Radio Authority agreed to such arrangements in a limited number of cases, and only for stations in common ownership within a geographically-limited area. The formats of such stations specify the exact out-of-area station from which bulletins must be presented and also require the maintenance of a full-time or demonstrable journalistic presence for a specified period (either eight daytime hours – i.e. at least one journalist, or weekday daytime - 6am-7pm – i.e. at least two journalists).

The requirements of news hub arrangements go beyond what is set out in stations' formats, however. The Radio Authority also required that the information about the news hub that had been included in the application for such an arrangement (such as aggregate staffing levels across participating stations, the location of the news hub, weekend arrangements and the pre-recording of bulletins) formed part of the agreement and could not be deviated from without the permission of the Authority.

These requirements were intended to protect the presence of local, on-site journalists and to ensure that stations do not use news hubs simply as a cost-cutting measure. The Radio Authority believed that, in the absence of a local news presence, the news hub would drift further away from the local station's area, leaving significant local stories to be covered remotely.

Some people have concerns that that the timeliness of news bulletins could be negatively affected by any widespread use of news hubs. In a news hub arrangement, it is inevitable that some bulletins will be pre-recorded if bespoke bulletins are to be provided to each participating station. However, there is no requirement in any station format for news bulletins to be broadcast live (although the formats of some of the stations involved in news hubs require that bulletins can only be recorded shortly prior to broadcast). In effect, the Radio Authority assumed that the presence of a local newsroom would protect the provision of live news bulletins.

In practice, presence of a local newsroom does not necessarily ensure the provision of live news bulletins. For example, some smaller stations record their local news bulletins early in the morning, to be played out on the hour for the rest of the morning, and it is common for many stations to record some bulletins in advance. This allows the journalist to leave the studio during the morning to gather news.

Thus the proponents of news hubs argue that such arrangements could allow stations to broadcast more up-to-date news than they do at present, as the local journalist could phone in a story to the news hub, rather than having to go back to the

studio to read the bulletin themselves or play a pre-recorded bulletin. At present, if a major local story breaks, the local news will be updated as soon as possible, sometimes breaking into the non-news programming. There is no reason, it is argued, why this should not continue to happen if a news hub operation is in place.

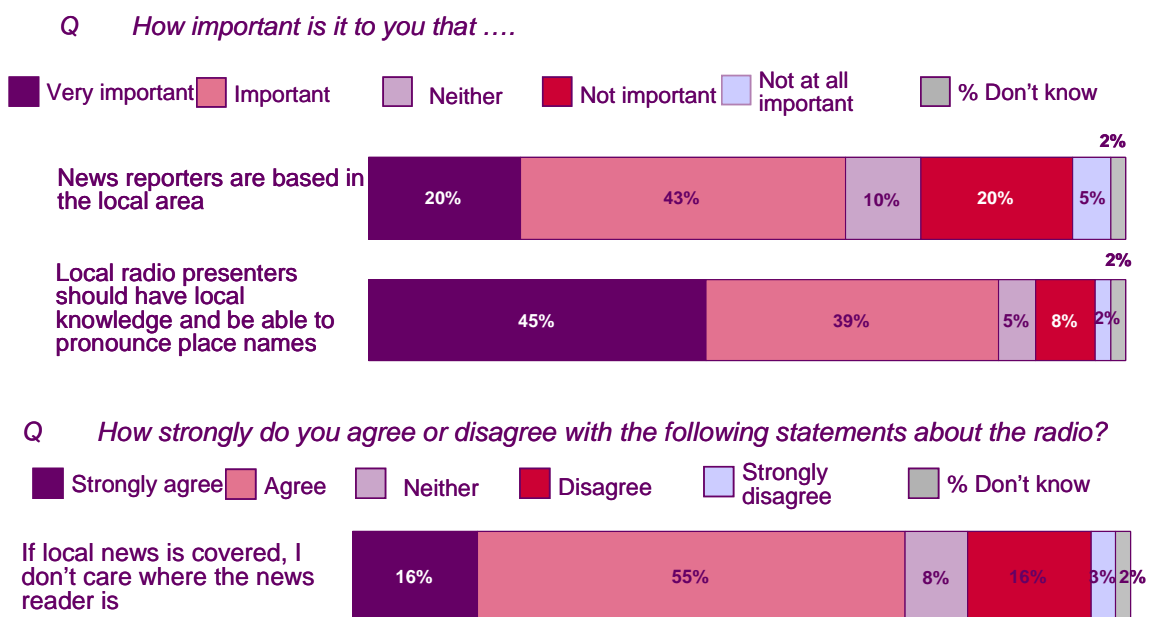
The proponents of news hub-style arrangements also claim that allowing bulletins to be broadcast from a centralised hub can free up reporting staff to generate more quality audio and deliver a greater volume of local stories. Similarly, they allow better use of the best broadcasting voices across several stations, improving the quality of presentation. It is arguably easier to manage the quality of the news broadcasts across several stations if they are being prepared in one location. Often, two neighbouring stations will want to share news because the stories are relevant to both areas and news hubs can facilitate this. In short, the argument proponents put forward is that news hubs can make better use of station and group resources.

Critics argue that, unless there are regulations to ensure journalistic presence, news hubs may simply be used for cost-cutting and that large hubs, serving many stations, would diminish contact with the locality. They also argue that the use of news hubs would normalise the recording of news across stations which employ hubs.

There is considerable demand within the radio industry to expand the use of news hubs or similar arrangements. The few hubs that operate have required investment of up to six figures in hardware, software and technical equipment, often in addition to training and salary uplifts. To date, therefore, the introduction of news hubs does not seem to have resulted in noticeably cheaper operations and the stations involved have argued that it makes their news provision more efficient and improves the quality of output.

In considering the matter of news hubs, and whether the present level of regulation relating to news delivery is appropriate, we asked audiences how important it was that the news reporters were based in the area and whether it mattered where the news was being read from.

Figure 41: Local news gathering and presentation



Source: MORI research for Ofcom

The results were very clear; 63% believe that news reporters should be based in the area they are covering, but 71% said it does not matter where the news is actually read from (figure 41). The important thing is that the local news should be relevant, and that presenters – both for local news and other local programming – should have local knowledge and be able to pronounce local names correctly.

For listeners, it is the quality, relevance, timeliness and accuracy of the news that matters, not where it is read from. We therefore wish to consider allowing any group of stations to operate news hubs in any way which makes operational sense for them. This means that it would no longer be the case that local news provision would be included as part of the 'locally produced and presented' output requirements in formats.

Section 314 of the Communications Act requires Ofcom to draw up guidance as to how we consider that the requirement that programmes consisting of or including local material are included in analogue local commercial radio services should be satisfied.

One possible way of ensuring that the overall objective of providing a comprehensive local news service in touch with the area it is covering is met, would be to require each station to provide direct and accountable editorial responsibility, based within the licensed area, equivalent at least to full time professional journalist cover for all of the hours during which its licensed format specifies that it will provide local news programmes.

We recognise, however, that this approach is not fully consistent with our aim of moving the emphasis from input to output regulation, and we would welcome views as to whether there is a better way to meet the objective of ensuring the provision of a high quality local radio news service.

e. Local material

The type and amount of local material that stations should broadcast is included within their formats, and, as stated previously, we propose that this remains the primary regulatory tool to secure that programmes consisting of or including such material are included in licences where appropriate.

Local material should be able to demonstrate elements of localness, as defined in the guidelines below.

Ofcom doesn't prescribe in advance of a licence award what represents an appropriate amount of local material in any particular case. It is up to the applicant to propose, in its application, the appropriate amount and this will depend on the type of service proposed and the type of area being covered. Ofcom then decides between applicants, according to the criteria laid out in the Broadcasting Act 1990, as amended.

f. Locally-made programming

As with local material, we believe that a suitable proportion of locally-made programming is that which is included within a station's format. Our interpretation of 'locally-made' has been set out under *Studio location* above. Locally-made programming (as required in the station's format) should include local material as defined above. The proposed removal of the restrictions on the use of automation will not affect the format requirements for locally-made programming, and therefore

stations will need to be able to demonstrate that they have met their obligations in this regard. Our proposals as to how this might be achieved are set out in 6.7 below.

Again, as with local material, Ofcom doesn't prescribe in advance of a licence award what a suitable amount of locally-made programmes should be in any particular case. It is up to the applicant to propose, in their application, the suitable amount and this will depend on the type of service proposed and the type of area being covered. Ofcom then decides between applicants according to the criteria laid out in the licensing application guidelines.

The localness guidance, as required by section 314 of the Communications Act 2003, is set out below in its proposed final form. The guidance takes full account of the views expressed by respondents to the consultation on the interim guidelines, and now includes reference to the various issues discussed above.

Ofcom's localness guidance

Localness is not an issue for all stations, but where it is demanded within the format, it *should* be addressed directly as per these guidelines.

Localness can be both characterised and delivered in a number of ways (news, information, comment, outside broadcasts, what's-on, travel news, interviews, charity involvement, weather, local artists, local arts and culture, sport coverage, phone-ins, listener interactivity etc.), therefore precise definitions can be unhelpful.

Localness - What it is

- Station programming of specific relevance which also offers a distinctive alternative to UK-wide or nations' service;
- Content drawn from, and / or relevant to, the area is often the major point of difference between stations, and therefore licensees should be able to identify a range of local aspects of their stations and how they are providing output specific to their area;
- The feel for an area a listener should get by tuning in to a particular station, coupled with confidence that matters of importance, relevance or interest to the target audience in the area will be accessible on air; and
- Programming likely to give listeners a feeling of ownership and / or kinship, particularly at times of crisis (snow, floods etc).

Localness - What it isn't

- Localising news (e.g. conducting vox pop interviews in one area and playing them out as if from another or inserting local place names into national stories) without local news / information generation would not be regarded as a contribution towards localness;
- Pure promotional off-air activity such as station promotion in the area (vehicles carrying station logos, roadshows, etc.) are not in themselves substitutes for localness without on-air activity involving something other than self-promotion;

- Competitions / promotions that invite and involve listener participation from outside a station area would not be regarded as a contribution to localness; and
- The Communications Act 2003 [Section 314] stipulates that advertisements are not regarded as local programming within the context of localness and Ofcom's localness guidance.

These statements are guidelines which recognise localness can be delivered in many ways, which are neither mutually exclusive nor individually obligatory. For instance, regular featuring of local music or artists is not a pre-requisite ingredient for the delivery of localness, but would certainly be regarded as a contribution towards such delivery. Similarly, the organisation of roadshows and the presence locally of promotional vehicles are regarded by Ofcom as important aspects of radio station activity, but could only be regarded as a contribution towards the delivery of localness if such activity manifested itself constructively on-air, as Section 314 requires Ofcom to consider only what is included in programmes.

Localness – How it should be delivered

In addition to this general guidance (previously published as interim guidance), we want to consider including the following localness provisions, regarding how local programming should be delivered:

- For listeners, it is the quality, relevance, timeliness and accuracy of the news that matters, not where it is read from. Any group of stations may therefore operate news hubs in any way which makes operational sense for them. However, in order to provide a comprehensive local news service in touch with the area it is covering, each station should provide direct and accountable editorial responsibility, based within the licensed area, for the provision of a news service equivalent at least to full time professional journalist cover for all of the hours during which its licensed format specifies that it will provide local news programmes;
- All of the hours of locally-made programming (as required by the station's format) should be able to demonstrate elements of local material, such as those listed above;
- It is up to each station to decide how best to produce its locally-made programming and so there are no restrictions on the amount of automation (e.g. using voice tracking) that a station may use. However, to the extent that such programming forms a part of local hours (as defined in the station's format), any such automated programmes should be able to demonstrate elements of local content and be locally-made;
- While stations are free to network programmes outside the requirements regarding locally-made programming in their formats, and are free to use automation as they see fit, they should be able to respond to local events in a timely manner, providing live local programming in the way and at times that audiences expect; and
- Where a station is required to provide locally-made programming, its studios should be located within its licensed area.

6.7 Ensuring compliance with the regulation of localness

The present restrictions on the level of daytime automation, the method of local news delivery, the amount of networking and studio location requirements, were all introduced by the Radio Authority as 'proxies' for localness and / or quality, both of which are legislative concerns for Ofcom. If these proxy regulations are to be relaxed, Ofcom will require a way to ensure that licensees' output complies with the obligations set out in their formats.

The Radio Authority did not conduct routine monitoring and largely relied upon complaints from listeners and / or competitors to indicate cases of non-compliance. In practice, there was a large degree of trust between stations and the Radio Authority to ensure commitments were being met.

In order to ensure compliance with a new regulatory regime based more on 'outputs' rather than 'inputs', Ofcom could conduct widespread monitoring of stations' output. However, this would be extremely labour intensive and expensive, and would not be in line with Ofcom's principles to operate with a bias against intervention and always to seek the least intrusive regulatory mechanisms to achieve its policy objectives.

Similarly, to devise any system of box-ticking against various localness criteria would be fundamentally to misunderstand the nature of local content and its context. Such a system would be likely to create a non-stop conveyor-belt of check-sheets, where any queries about content would probably be impossible to clarify. Moreover, it would be inconsistent with Ofcom's regulation of television output, which is moving away from a box ticking system.

Complaints by listeners and competitors will of course continue to be investigated, and we propose to carry out spot-checks on stations to ensure that they are complying with their format obligations.

However, as the industry itself has requested regulation which is more output-based, it must take some responsibility for ensuring that the formats and guidelines are complied with. The industry has welcomed co-regulatory structures to aid the demonstration of its delivery of training and equal opportunities issues. In both cases, the industry has created a reporting regime that can be scrutinised at any time.

We have therefore considered whether systems used by other countries to ensure compliance with regulatory requirements might be relevant for the UK. In the United States, the FCC requires each radio station which it licenses to retain a public file. This is a hard-copy file kept in the registered premises of the station, which must be located within the licensed area. The public file contains all of the formal documentation relating to that station's obligations. In the USA, this is focused upon transmitter heights and powers and the community undertakings which each station must give. These comprise a list of half a dozen major issues in each community each year, and the way in which the station intends to tackle - on-air - coverage and support for these issues. The files also contain various compliance documents which include, for example, details about which station personnel are designated to be present within the licensed area at all times (another FCC requirement) and details of licence breaches, sanctions, etc.

These documents must be available for inspection by anyone who visits a radio station during business hours. They are particularly used by community groups who feel that they are not getting proper service, by rival applicants for a licence, and by the FCC random inspection team used by the regulator to ensure compliance.

Failure to maintain and / or to make available the public file in line with the FCC's requirements is a serious offence.

The attraction in a more deregulated system is obvious. Such rules as the FCC chooses from time to time to impose are effectively self-policed by the community. In addition, the public file enables the FCC inspection team to deal with a large number of stations through spot checking with high efficiency.

We propose to require the commercial radio industry in the UK to develop a universal system which encompasses the best elements of the public file (as utilised in the US) in a demonstration of format compliance, to allow Ofcom, listeners and competitors to see how each station is satisfying its compliance obligations. We propose that this would probably best be achieved by varying each station's licence to include a specific condition requiring them to maintain a format and localness file. The proposed variation would be the subject of a later consultation with each licensee, in order to allow licensees to make representations to Ofcom before any variation is made.

The proposed contents of the format and localness file could include:

- details of how and when a station's localness is being transmitted and what the station has done to comply with its format requirements, with examples;
- how much of the station's output has been automated (e.g. voice-tracked), when this was broadcast and where it was produced – including details of how automated programmes broadcast as part of the locally-made output were locally produced; and
- how the station has met its local news obligations – e.g. journalists employed locally, amount of local news, number of stories covered.

It is envisaged that each station would make this file available both on their website and in hard-copy form, available for inspection on request at their studios to demonstrate to Ofcom and the public how it has met its commitments. Stations could also use this to showcase local content and there could be cross-over with news content on the websites.

We propose that each station's format and localness file should be kept up to date (being updated at least quarterly, to ensure the contents are relevant to current output) and that records should be kept for a minimum of two years (to allow comparison of current and past performance).

Such a system would clearly reflect the transparency and openness encouraged and promoted by Ofcom. It would not, and should not, negate the need for Ofcom monitoring where it is felt necessary, but could mean that only occasional spot-checks and reaction to complaints would be required.

Failure to deliver localness as required by the formats constitutes a licence breach and Ofcom will take the appropriate action against any station in breach of its licence. In making its judgement of compliance, Ofcom will always consider the following:

- an appropriate interpretation of the published guidelines;
- the type of station involved;

- the specific demands of the format;
- the likely expectation of the audience;
- the different ways in which the listed criteria could be delivered;
- output unique to particular stations that could be seen to deliver localness in a way not specifically listed;
- the time segments concerned;
- as many varied aspects of the programming as is reasonable; and
- representations of the station.

Ofcom is aware that scrutiny of output as described, although requested by many in the industry as the preferred option when set against 'input' regulation, is a new approach.

To aid a smooth transition to the new system, Ofcom proposes to utilise the 'Yellow Card' system in the event of any apparent localness breach. This is a system with which existing licensees are familiar, and which provides stations with a warning that if they breach the regulations again, they will face more serious sanctions.

The Yellow Card system is designed to iron out any regulatory problems before the need for consideration of sanctions. If Ofcom has reason to conclude that a station is failing to deliver its localness obligations, a Yellow Card may be shown to the licensee. This allows a period of time (perhaps up to a month) for Ofcom to spell out its concerns, for the licensee to make appropriate representations, and for any changes to be made in order to bring the station back within its format. Only after further monitoring, and if this monitoring led Ofcom to conclude that format obligations were still not being delivered, would consideration be given to sanctions.

We would welcome the views of interested parties on these proposals.

Section 7

Facilitating the growth of digital radio

The second of our immediate priorities is to consider the future of digital radio and what more might be done to facilitate its growth.

7.1 What is digital radio?

Digital radio is the generic term for sound broadcasting services carried in digital form, with or without associated data. Digital radio can be carried on a number of platforms, including digital TV (satellite, cable, digital terrestrial), the internet and platforms designed specifically for digital radio, such as DAB.

In the UK, digital radio is available on all digital TV platforms, over the internet and via DAB digital radio sets. Although there are other digital radio standards which are either in development or have been launched in other parts of the world, these are not currently commercially available in the UK. This section describes each of the technologies and standards available for digital radio in the UK and some of the standards which may be used in future.

DAB digital radio

Of the platforms over which digital radio is available in the UK, DAB is currently the most similar to traditional analogue (AM and FM) radio, particularly in terms of the ability to receive its signals on portable and mobile devices. Unlike TV and internet platforms, DAB was designed primarily for radio and, in the UK, has been allocated spectrum specifically for radio services. It is transmitted over a network of terrestrial transmitters. DAB digital radio also allows for local radio broadcasting. While local radio can be carried via nationwide broadcast television services, this is neither a particularly efficient nor a cost effective way for local stations to reach audiences (although cable TV can also offer services locally).

DAB digital radio was developed by a consortium of public service broadcasters and manufacturers under the ongoing pan-European EUREKA programme of industrial research and development (DAB was project No. 147). In 1994, Eureka-147 was adopted as a world standard by the International Telecommunications Union. It has become the digital radio standard in most of the world, except for the United States and Japan, although pace of implementation to date has varied from country to country.

In 1994, the UK government allocated seven frequency blocks to DAB, using 12.5 MHz of radio spectrum in VHF Band III, from 217.5 to 230 MHz. Subject to finding a home for existing users of the spectrum at reasonable cost and securing the agreement of our European neighbours, further frequencies are now potentially available for use by DAB (although they could have alternative uses), in both VHF Band III (209 to 230 MHz) and in the L-Band (from 1452 MHz to 1480 MHz).

Each frequency block can be used to transmit a multiplex to a designated area – either a whole country or a local area (figure 45). If used for a local area, the same frequency block can be used to provide different multiplex services in a number of distinct local areas, provided that these areas are sufficiently far apart, so as not to interfere with each other's signals.

Figure 45: Current allocation of VHF Band III frequency blocks in the UK

Frequency Block	Allocation		
	England & Wales	Scotland	Northern Ireland
11B	Local radio	Local radio	n / a
11C	Local radio	Local radio	n / a
11D	National commercial radio	Local radio	n / a
12A	Local radio	National commercial radio	n / a
12B	BBC network radio	BBC network radio	BBC network radio
12C	Local radio	Local radio	n / a
12D	Local radio	Local radio	Local radio

Source: Ofcom

Each multiplex is able to carry a number of stereo and / or mono radio channels, as well as multimedia services such as text and data. The total number of services available in an area varies depending upon how many multiplexes are available in that area and how many services each multiplex carries (see section 7.3).

Digital Multimedia Broadcasting (DMB)

DMB is a variant of the DAB standard, which can transmit video, audio, and other data, and is able to handle the latest, most efficient multimedia encoding technologies, such as Windows Media 9, MPEG-4 or Real Video 9. A DMB multiplex can transmit DAB standard audio services as well as DMB data services. A DMB set can receive DAB audio services alongside DMB data services, which can include video. A standard DAB set can receive any DAB services broadcast as part of the DMB multiplex.

Korea is likely to be the first country to launch DMB, with services planned for this autumn. Multimedia services over the DAB spectrum of the national commercial multiplex are currently also planned for launch in the UK towards the end of 2005, using DMB-like technology.

Radio via digital television

Listeners can receive digital radio services via all digital TV platforms in the UK. BSkyB's digital satellite TV service offers 85 digital radio stations. Digital cable television services (e.g. NTL and Telewest) also carry a number of radio services, as does Freeview, the UK's digital terrestrial TV platform (figure 46). In comparison to the digital satellite and digital cable TV platforms, there are fewer radio stations on Freeview as overall bandwidth is more restricted and capacity which can be used for commercial radio is limited by the digital terrestrial TV multiplex licences, to 10%.

BSkyB and cable providers also offer the subscription radio service Music Choice, which provides up to 40 channels of music compilations, without speech or adverts, for a monthly subscription. This service is also available over broadband internet.

The services transmitted over digital TV platforms are only available via a digital television receiver and thus are not generally portable in the same way as are services provided over analogue radio or DAB radio sets.

Figure 46: Number of radio stations on television platforms

Digital TV operator	Number of Radio stations available across the UK
BSkyB	85 (excluding Music Choice)
NTL	42
Telewest	29 (plus 45 local stations, only carried in the relevant area)
Freeview	24 (plus the BBC nations' stations where relevant)

Source: Platform operators. October 2004

Radio via the internet

The internet allows listeners to access thousands of radio stations from around the world, compared to the tens of stations available on other UK platforms. Internet users can already access around half of all UK analogue stations live online, in addition to certain previously broadcast programmes using services such as the BBC Radio Player.

As well as audio listening, the internet allows a greater degree of interaction with stations through their websites, including the possibility to pay for and download songs to MP3 players or similar devices. However, excluding a few emerging specialised receivers (e.g. Reciva), radio stations have to be accessed using an audio enabled computer and, ideally, a broadband connection, and so internet radio is not currently as accessible or as convenient as listening on other platforms.

In June 2002, the BBC launched its Radio Player on the BBC website. This has created a limited, but expanding, form of Radio on Demand as it allows a number of programmes from the BBC's radio stations to be streamed to a computer, up to seven days after their original broadcast. In addition, the BBC plans to open its archives to allow the download of radio programmes via its website. The first stage of this is planned to go live shortly, with three minute clips of factual programmes available for download.

Some commercial companies also offer interactive and download services. For instance, Jazz FM's e-jazz.fm service offers online access to a wider selection of archive jazz and expanded versions, while other stations, such as GWR's stations, offer the ability to download songs from the station's playlist to your computer.

Other standards

There are a number of other technologies capable of providing digital radio, which are either in development or have been launched in other parts of the world. None of these is yet available commercially in the UK.

Digital Radio Mondiale (DRM)

- Whereas DAB has been developed as a digital successor to the analogue technologies of FM (VHF) and AM (medium wave), used for local and national broadcasting, DRM has been developed as a means of providing a digital platform for use on all frequency bands used by AM technology, notably

short-wave broadcasting (which is mainly used for international broadcasting), as well as the medium wave and long-wave bands. DRM broadcasts over terrestrial transmitters. It can replace AM signals on a one-for-one basis or be introduced within a more ambitious replacement scheme. The audio quality and signal reliability of DRM is significantly better than AM, reaching similar quality levels to FM mono.

- Given its qualities (e.g. poorer sound quality and fewer services per transmission than DAB but good at covering difficult terrain), DRM is likely to be a complement to DAB rather than a competitor.
- DRM has begun to be implemented in a limited way in Europe, America and Australia. Conventional receiving equipment is not widely available.

Digital Satellite Radio (DSR)

- DSR is transmitted via satellite to a broad area and is picked up by specialised receivers. Reception in urban areas and in buildings requires terrestrial filler transmitters.
- A commercial DSR service covering Africa and Asia was launched by Worldspace in 1999 and further services are planned for South America and Europe. In the United States, two operators - XM Satellite Radio and Sirius Satellite Radio - have launched subscription satellite radio services. DSR has also recently launched in Japan (October 2004).
- In the US, subscription numbers are growing - XM has over 2.5m subscribers and Sirius over 0.6m (Sept 04). Each service offers over 100 channels of music, talk, news, traffic and weather and both have partnered with several of the large US motor vehicle manufacturers, to target in-car listening. Neither company is yet profitable.
- Worldspace plans to launch in France during 2006, with services in Germany, Italy, Spain and the UK following. The set up costs for the satellite and terrestrial repeaters are significant and, in Europe, the number of languages makes providing enough services to suit everyone more expensive than elsewhere.

Digital Video Broadcasting to handhelds – (DVB-H)

- DVB-T is the standard used for digital terrestrial television in Europe. A variant of DVB-T, DVB-H, is in an advanced state of development, optimised for digital broadcast transmission to handheld receivers. DVB-H can broadcast services (including video, audio and data) to handheld devices at rates up to around 10Mbps and offers the portability and mobility that many radio listeners value. The transmitter networks will need to be dense (and hence expensive). DVB-H has recently been approved by the ETSI (the European Telecommunications Standards Institute).
- Although DVB-H is still very much in the test phase, it has secured some strong backing among the mobile and broadcast industries. A recent trial in Berlin was designed to evaluate the convergence of DVB-T / DVB-H and mobile telephone technologies. Partners in the trial included Nokia, Philips, Universal Studios Networks Deutschland and Vodafone. Preliminary trials are due to take place in the UK in early 2005.

- DVB-H is potentially a competitor to DAB (particularly for data services). However, it is not in service anywhere yet and DVB-H receivers are not likely to be commercially available to the public for at least two years.
- The spectrum most suited to DVB-H broadcasting is currently used by analogue UHF television in the UK and will not be available for other uses until after digital switch-over in television. Widespread deployment elsewhere in Europe will have a similar dependency on analogue television switch-off.

In-Band, On-Channel (IBOC)

- IBOC (also known as High Definition Radio – HD Radio) is the standard selected by the US Federal Communications Commission (FCC) to convert AM and FM radio stations to digital. It does not require much additional spectrum as broadcasters are able to use their existing allowance of spectrum to broadcast new digital signals alongside existing analogue signals. If all FM broadcasters were to use this system, they would interfere with each other, particularly in highly competitive markets with lots of radio stations, until such time as the analogue signal is switched-off. IBOC therefore has the drawback that not even all existing services can be transferred to digital, let alone new ones be introduced, until analogue switch-off.
- Of the 11,000 radio stations currently broadcasting in the US, only 100 stations are currently broadcasting IBOC services, although this is predicted to grow to around 600 stations by the end of 2004. Receivers went on sale this year for the first time but the number sold to date is believed to be low. No date has been set for the end of analogue radio broadcasting.
- The standard chosen means that the current levels of availability and choice in the US market will essentially be maintained. No additional spectrum is likely to be released, so there is very limited scope for new digital-only services to be launched, which may limit growth and extent of digital take-up in the US, as there will be no strong driver towards take-up in the absence of new content offerings.

Terrestrial Integrated Services Digital Broadcasting (ISDB-T)

- ISDB-T, the Japanese standard for digital terrestrial broadcasting was developed to cover television, sound broadcasting and data services. ISDB-T operations were begun in Japan in late 2003. Japan plans to switch off all analogue television signals by July 2011. Digital radio services in Japan are still in the trial phase, with some data and video being broadcast alongside radio channels. The digital sound broadcasting test service started in October 2003 in Tokyo and Osaka. Due to the lack of nationwide availability of suitable frequencies, digital radio's status is expected to remain as a test broadcasting service for several years.

Radio via 3G mobile telephones

- While many mobile phones include radio receivers, these are currently FM receivers within the phone, using traditional analogue broadcasts rather than the mobile phone system itself. It is technically possible to deliver digital audio over mobile phone systems, using '3G'; this may or may not include access to the internet. However, these systems based on 'one-to-one' rather than 'one-to-many' communication, so are an expensive way to deliver traditional linear broadcasting. As a result, their role is likely to be complementary in widening

consumer choice, for example in offering clips of material for particular interest groups.

Ofcom remains platform neutral and does not seek to promote one technology or platform over another. However, while the standards described above exist or are in development, none is yet ready for commercial launch in the UK. As a result, in this report on the current state and likely development of the digital radio industry in the UK, we have focused on the platforms over which digital radio is currently or soon likely to be commercially available – TV, broadband internet and DAB digital radio.

7.2 The benefits of digital radio

In line with Ofcom's statutory duties and regulatory principles, we aim to help facilitate the growth of technologies and standards which help to further these overall aims and duties. We believe that digital radio, on whatever platform and using whichever standard, has an important role to play in this, and that it will deliver significant benefits to UK citizens and consumers.

Digital radio technology has a number of potential advantages over current analogue technology:

- **More effective use of spectrum:** By the use of digital encoding, multiplexing and single frequency networks, digital radio allows more stations to be broadcast over a given amount of spectrum than analogue radio. For example, each DAB multiplex of 1.8MHz carries up to around ten radio services plus data. In comparison, each BBC national FM network / station uses 2.2 MHz to cover the UK. For local stations, the relative spectrum efficiency gain is lower but still significant.
- **More choice for consumers:** As the technology allows for more stations to be squeezed into a given amount of spectrum, the existing barriers to entry for new stations will be reduced and the degree of competition between stations increased. This is likely to provide benefits to both listeners, who will enjoy a wider choice of radio services, and advertisers, who will benefit from a wider choice of outlets and lower prices.
- **Better reception:** Digital radio offers more robust reception and better quality signals with reduced interference.
- **New functionality:** For example, digital radio offers the ability to pause and rewind live radio broadcasts and greater ease in finding and tuning into stations as well as eliminating the need to retune when driving between areas.
- **New multimedia and interactive services.** Digital radio allows for the launch of a range of potential multimedia and interactive services, such as the ability to download music, access travel information, news and sport headlines and receive scrolling text facilities showing the artist and title of the song playing and, in the longer term, possibly video clips.
- **Opportunities for broadcasters.** Digital radio will also provide radio stations or other providers with the opportunity to launch new services and to build and extend their brand portfolios.

- **Potential for less regulation.** The wider choice of existing radio services available to consumers could allow for the future reduction of regulatory intervention, as competition and choice allow the market to expand.

7.3 The digital radio market in the UK

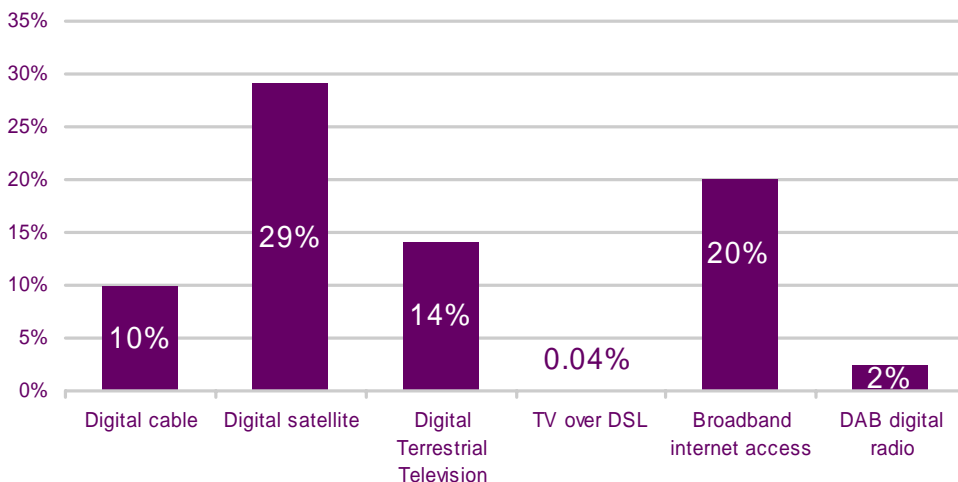
As already described, digital radio is available on a number of platforms in the UK. Our assessment of the current position of digital radio for this report takes into account all of these platforms. However, as we believe the take-up of portable and mobile digital radio, which most closely mirrors AM and FM radio, will be most important in the migration of listening to digital, we have looked particularly at the development of DAB, which is the only digital platform currently available in the UK to allow such portable reception.

Overview of the digital radio market in the UK

The ability to receive digital radio services over digital TV and the internet has been a key driver of digital radio listening over the past few years. Digital TV, which offers a range of digital radio stations on each platform, enjoys high take-up in the UK market, with overall household take-up of 55%. This percentage is expected to continue to grow rapidly towards 100% as the UK moves toward digital switch-over in TV, a process which is currently expected to take place by the end of 2012. Household penetration of the internet, meanwhile, has reached 56% (June 2004). Broadband internet access, which is necessary for practical purposes to listen to radio for sustained periods (being always on and offering high quality streaming), is growing rapidly and is now in over 5 million homes (figure 47).

However, take-up of digital TV and internet connections is generally driven by factors other than the radio services they offer. In addition, these platforms' ability to compete with analogue radio for listeners is limited to some extent by their lack of portable and mobile reception. Household penetration of DAB digital radio, currently the only medium to be driven almost wholly by consumers' desire for digital radio, is currently only around 2%.

Figure 47: Household take-up of equipment capable of receiving digital radio services



Source: Ofcom / GfK

Coverage of platforms which deliver digital radio

Between the various platforms, almost any household in the UK can now have access to digital radio. Digital TV is widely available: satellite is available to the vast majority of households, subject to the ability to install a satellite dish and establish a line of sight to the satellite position; DTT coverage is over 75% and is expected to be more than 98% by the time of switch-over in 2012; digital cable TV is available to 37% of homes. Internet access is available to any home with a telephone line (practically 100%) and, although broadband internet access is only available to around 89% of households currently, BT expects 99% of local exchanges to be broadband enabled by the end of 2005, allowing operators to provide broadband services to people across the vast majority of the UK.

DAB digital radio coverage of households has been improving rapidly over recent years, with the majority of the population (over 86%) now being covered by at least one multiplex and most by three or more (national commercial, national BBC, local commercial multiplexes, as set out in more detail below).

Structure of DAB multiplex market

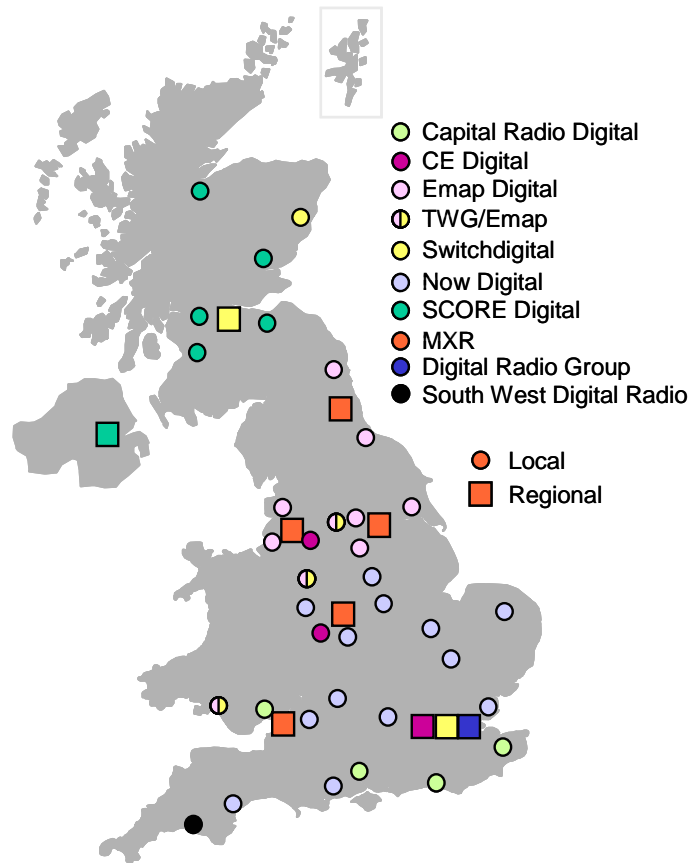
There are currently 48 digital multiplexes transmitted by DAB in the UK: two national multiplexes and 46 local multiplexes. The local multiplexes generally cover similar areas to the larger heritage local commercial stations or the regional analogue radio stations, although the areas do not correspond exactly. (Note: statute defines two types of radio multiplex licence: national and local. However, some of the local multiplex licences have been allocated to cover areas encompassing several counties, which are sometimes referred to as regional multiplexes)

The Government has allocated one of the national multiplexes to the BBC. All of the other 47 multiplexes are licensed by Ofcom to commercial operators (figures 48, 49 and 50). Often, the owner of the heritage independent local radio (ILR) station is owner or part of a group which owns the local digital multiplex. Many multiplex licences are held by joint ventures between the major groups.

Figure 48: Ownership of multiplex licensees

Operator	Ownership	Number of licences
Digital One	GWR Group (63%), NTL (37%)	1 (national)
Now Digital	GWR Group	11
Now Digital (East Midlands)	GWR Group (52.5%), Capital Radio (20%), Sabras Sound (20%), Chrysalis Radio (7.5%)	2
South West Digital Radio	GWR Group (67%), UKRD (33%)	1
Capital Radio Digital	Capital Radio	4
Emap Digital	Emap Performance	7
CE Digital	Capital Radio (50%), Emap Performance (50%)	3
SCORE Digital	Scottish Radio Holdings	6
Digital Radio Group	GWR Group (39%), The Wireless Group (30%), SMG plc (14%), Carphone Warehouse (9%), Hopstar (8%)	1
Switch Digital	The Wireless Group (80.5%), SMG plc (10%), Carphone Warehouse (9.5%)	1
Switch Digital (Scotland)	The Wireless Group (92%), Carphone Warehouse (8%)	2
MXR	Chrysalis Radio (39%), Capital Radio (24%), Guardian Media Group (24%), UBC Digital (7.5%), Ford Motor Company (5%)	5
TWG-Emap Digital (B&H)	The Wireless Group (80%), Emap Performance (20%)	1
TWG-Emap Digital	The Wireless Group (70%), Emap Performance (30%)	2

As at November 2004

Figure 49: Map of location of DAB local multiplex licensees

Source: Ofcom

The BBC launched the first DAB digital radio broadcasts on its national multiplex in September 1995, with simulcasts of its existing national analogue stations. These were followed, in 2002, by five new BBC national digital-only stations.

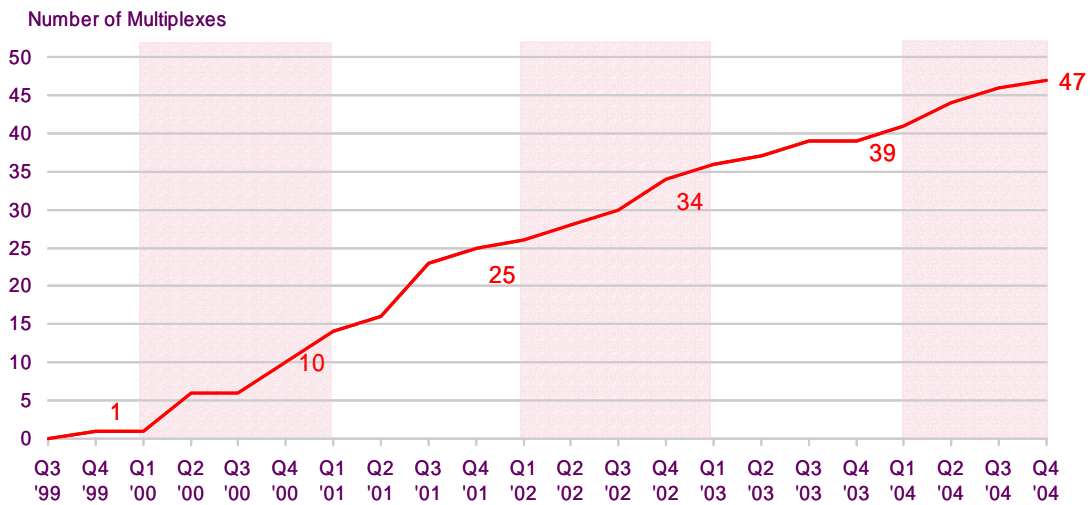
The national commercial digital multiplex licence was awarded to the sole applicant, Digital One, in October 1998 and went on air in November 1999. The advertisement of local digital multiplex licences got under way in November 1998 and, since then, local and regional commercial multiplexes have been steadily licensed and have come on air. Eight new local multiplexes have come on air in 2004, so that all 47 commercial licences are now operating (figure 51).

In addition to the linear audio (radio) services that it provides, up to 20% of the capacity on each of the commercial multiplexes may be used for non-programme related data services. Only limited data services have been launched so far, offering scrolling text (e.g. name of the song playing, details of phone-in numbers) and generally these have been programme related, and so not subject to the 20% data limit. However, a recent deal between Digital One and BT (working title Livetime) promises much more sophisticated data services, including text, downloads and possibly video clips, by the end of 2005.

Figure 50: Licensees of commercial multiplexes by area

Area	Licensee	Date awarded	On air date
Great Britain	Digital One	October 1998	November 1999
Aberdeen	Switchdigital	April 2001	December 2001
Ayr	SCORE Digital	July 2001	April 2002
Birmingham	CE Digital	May 1999	May 2000
Bournemouth	Now Digital	July 2001	August 2002
Bradford & Huddersfield	TWG-Emap Digital (B&H)	October 2001	November 2002
Bristol / Bath	Now Digital	June 2000	January 2001
Cambridge	Now Digital	October 2003	October 2004
Cardiff & Newport	Capital Radio Digital	November 1999	October 2000
Central Lancashire	Emap Digital	September 2000	September 2001
Central Scotland	Switchdigital	October 2000	July 2001
Coventry	Now Digital	July 2000	January 2001
Dundee & Perth	SCORE Digital	September 2001	September 2002
Edinburgh	SCORE Digital	March 2000	October 2000
Exeter & Torbay	Now Digital	October 2001	October 2002
Glasgow	SCORE Digital	September 1999	May 2000
Greater London I	CE Digital	September 1999	May 2000
Greater London II	Switchdigital	April 2000	June 2000
Greater London III	The Digital Radio Group	June 2001	February 2002
Humberside	Emap Digital	December 2000	November 2001
Inverness	SCORE Digital	December 2001	August 2003
Kent	Capital Radio Digital	April 2003	April 2004
Leeds	Emap Digital	April 2000	May 2001
Leicester	Now Digital (E. Midlands)	February 2002	November 2002
Liverpool	Emap Digital	February 2000	February 2001
Manchester	CE Digital	June 1999	May 2000
North East England	MXR	December 2000	July 2001
North West England	MXR	March 2001	September 2001
Northern Ireland	SCORE Digital	October 2000	September 2001
Norwich	Now Digital	September 2002	March 2003
Nottingham	Now Digital (E. Midlands)	May 2003	April 2004
Peterborough	Now Digital	November 2001	November 2002
Plymouth / Cornwall	South West Digital Radio	November 2003	November 2004
Reading & Basingstoke	Now Digital	June 2003	June 2004
Southend & Chelmsford	Now Digital	May 2001	May 2002
South Hampshire	Capital Radio Digital	May 2002	February 2003
South Wales / Severn Estuary	MXR	January 2001	July 2001
South Yorkshire	Emap Digital	September 1999	October 2000
Stoke-on-Trent	TWG-Emap Digital	February 2003	April 2004
Sussex Coast	Capital Radio Digital	January 2003	January 2004
Swansea	TWG-Emap Digital	December 2002	January 2004
Swindon / West Wiltshire	Now Digital	March 2002	February 2003
Teesside	Emap Digital	May 2000	June 2001
Tyne & Wear	Emap Digital	October 1999	November 2000
West Midlands	MXR	February 2001	August 2001
Wolverhampton, Shrewsbury & Telford	Now Digital	December 1999	January 2001
Yorkshire	MXR	November 2002	June 2003

Source: Ofcom

Figure 51: Number of commercial DAB multiplexes on air

Source: Ofcom, November 2004

Coverage of the DAB digital radio multiplexes

The national commercial multiplex licence, awarded to Digital One, was offered for a service potentially covering the whole of Great Britain. Local licences have been awarded to cover 86% of the UK population. However, the build out of transmitters is currently such that a lower proportion of the population than this can receive DAB digital radio (figure 52).

Figure 52: DAB coverage

	Number of transmitters (June 2004)	Population coverage				
		UK	England	Wales	Scotland	Northern Ireland
BBC	71	85%	n / a	n / a	n / a	n / a
Digital One	83	86% ⁷	89%	76%	53%	n / a
Local commercial ⁸	190	86%	88%	92%	74%	100%

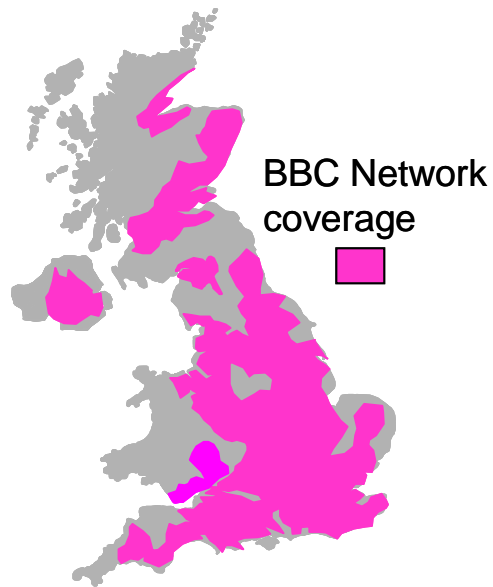
Source: BBC, Digital One, Ofcom

The BBC has continued to increase its digital coverage, although it still lags slightly behind the coverage of Digital One. The BBC's coverage is now 85% (figure 53).

⁷ Percentage coverage of Great Britain (Digital One's licence does not include N. Ireland)

⁸ Population coverage for local commercial digital multiplexes shows the percentage of the population living within licensed areas. Not everyone living within these areas will be able to receive the services at present as transmitter networks are not complete. Actual coverage varies by multiplex and ranges between around 70% and 95% of the licensed area.

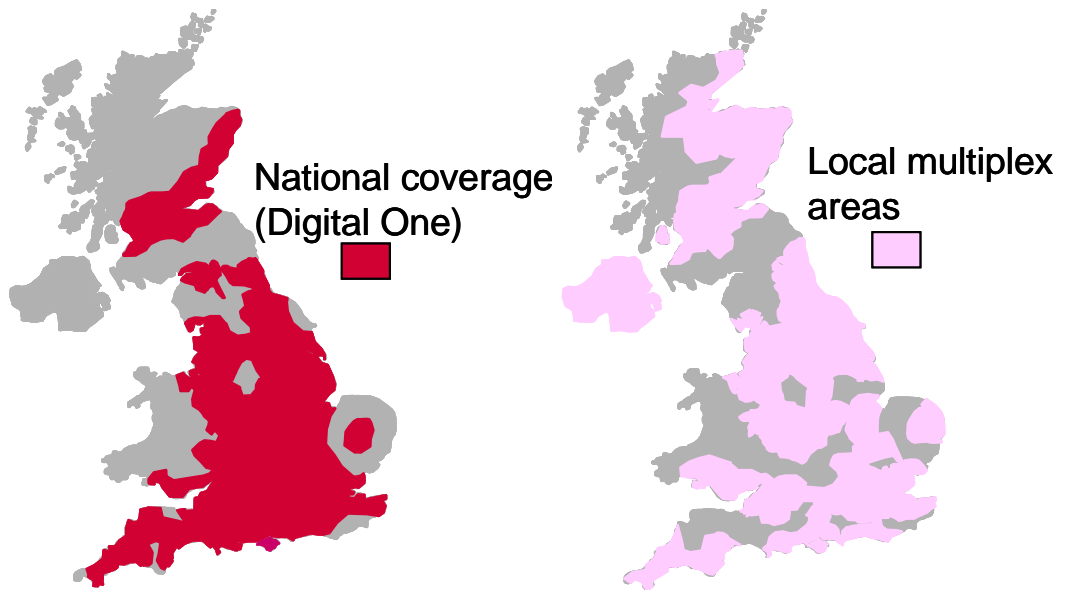
Figure 53: BBC UK networks' DAB coverage



Source: BBC October 2004

Digital One has reached around 86% coverage of the population of Great Britain (October 2004). It has switched on a further six transmitters so far in 2004 (figure 54).

Figure 54: Commercial DAB coverage



Note: BBC Local and nations' services are carried on local commercial multiplexes
Source: Ofcom October 2004

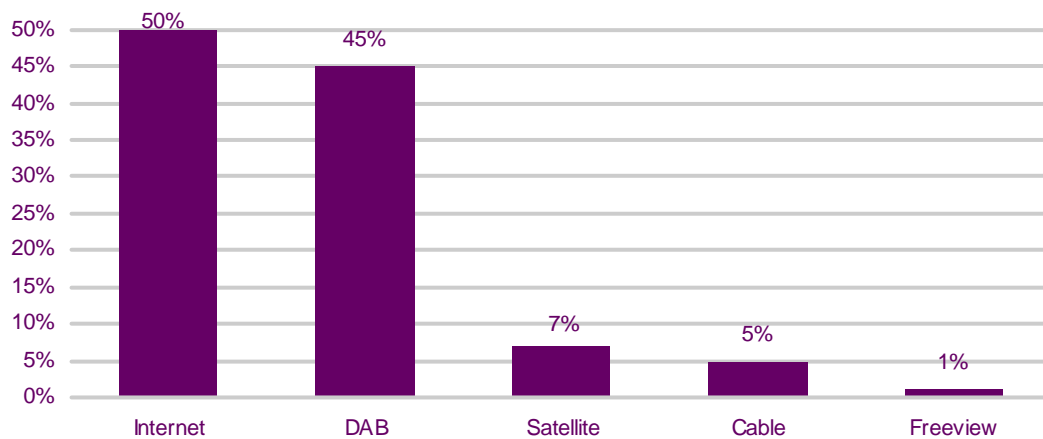
Choice of digital radio services

There is a wide choice of services on digital radio across all platforms in the UK.

Thousands of stations from around the world are available over the internet. This includes all BBC radio stations and around half of all of the commercial analogue stations in the UK, slightly more than broadcast on DAB (figure 55).

The UK's digital television platforms also provide broad radio offerings, including the BBC networks and national stations for Scotland, Wales and Northern Ireland, as well as a variety of commercial stations. Of these, Sky currently provides the widest choice of radio stations for the individual listener, with 85 stations (figure 56), the majority of which are not available on analogue radio across the whole country.

Figure 55: Commercial analogue stations available on alternative platforms



Source: Ofcom

Note: In analogue, there are 272 local commercial licences, 3 national commercial licences, 5 BBC national networks, 40 BBC local stations and 6 BBC services for the nations.

Stations available on digital TV and over the internet are generally nationally available, although there are some exceptions on cable and Freeview. By comparison, DAB currently offers 210 different stations in total (including 8 national commercial, 159 local commercial, 11 BBC UK networks and 32 BBC local services) but not all of these are available in all areas.

The BBC's national DAB multiplex carries simulcasts of its five analogue network stations (Radio 1, 2, 3, 4 and Five Live) as well as its five digital-only national services, Five Live Sports Extra, BBC 6 Music, BBC7, 1Xtra and BBC Asian Network and the BBC World Service. The BBC has reserved capacity on local commercial multiplexes and has taken up this capacity on all 46 local multiplexes, to offer 32 of its local or nations' stations. (The BBC broadcasts 40 local radio stations in England and national stations for each of Scotland, Wales and Northern Ireland on analogue. Each area of the country is served by one, or in some cases two, local or nations' BBC radio services. On DAB, some local or nations' stations are carried on more than one multiplex – e.g. Radio WM on the Birmingham and Wolverhampton & Shropshire multiplexes, while some multiplexes carry more than one BBC local or nations' station).

The Digital One national multiplex offers eight stations; simulcasts of the three national analogue commercial stations (Classic FM, Virgin and talkSPORT) and five digital-only services (Oneword, Primetime, Core, Life and Planet Rock).

Figure 56: Radio stations available via digital television platforms

Radio station	NTL	Telewest	Sky	Freeview	Also on DAB
BBC 1Xtra					
BBC 6 Music					
BBC 7					
BBC Asian Network					
BBC Radio 1					
BBC Radio 2					
BBC Radio 3					
BBC Radio 4					
BBC Radio 4 LW					
BBC Radio Cymru*					
BBC Radio Five Live					
BBC Radio Five Live Sports Extra					
BBC Radio nan Gaidheal*					
BBC Radio Scotland*					
BBC Radio Ulster*					
BBC Radio Wales*					
BBC World Service					
BBC World Service Extra					
BBC Radio Foyle*					
Akash Radio					
Amrit Bani					
Apple FM					
Asian Gold Radio					
Big Blue					
Calvary Chapel					
Capital Disney					
Capital FM					
Capital Gold 1548					
Century FM					
Choice FM 96.9					
Classic FM					
Classic Gold Digital					
Club Asia					
Core					
Cross Rhythms					
Desi Radio					
Easy Radio 1035					
EWTN Global Catholic Radio					
Family Radio					
FCUK FM					
Galaxy 105					
Gaydar Radio					
Heart 106.2 FM					
Heat Radio					
Jazz FM					
Kerrang!					
Kiss 100					
LBC 97.3					
Lyric FM					
Magic Radio					
Mojo Radio					
Oneword					
Panjab Radio					
Planet Rock					
Premier Christian Radio					
Primetime Radio					
Pure Dance					
Q Radio					
Raidió na Gaeltachta					
Real Radio					
RTÉ Europe					
RTÉ Radio 1					
RTÉ Radio 2					
SBN					
Smash Hits!					
Solar Radio					
Spectrum 1					
Sukh Sagar Radio					
Sunrise Radio					
TalkSport					
The Arrow					
The Hits Radio					
The Mix					
The Saint					
The Storm					
The Villan					
3C					
TWR - Trans World Radio					
UCB Bible					
UCB Europe					
UCB Inspirational					
UCB Talk					
Virgin Radio					
WRN Euromax English					
XFM 104.9					
Yarr Radio					
relevant Local Radio station(s)					

Source: Ofcom

Note: Not all DAB digital radio stations are shown

Of the 159 local commercial radio stations broadcasting on DAB digital radio, 118 are simulcasts of existing analogue stations broadcasting only within their local licence areas (e.g. BRMB), 14 offer existing analogue stations to new areas of the country (e.g. Kiss) and 27 are digital-only stations (e.g. Gaydar).

As outlined above, services over the internet and digital TV tend to be broadcast nationally, giving similar choice across the country. However, the combination of incomplete coverage and the locations / coverage areas of regional and local DAB multiplexes results in different levels of choice on DAB digital radio in different regions of the UK. Around 14% of the UK population has no access to DAB services

at all – mainly in rural areas. Urban areas typically have around 30 stations available through DAB digital radio (11 BBC, 8 Digital One, and around 7-10 on each relevant local multiplex). Some urban areas also receive a further 7-10 services via a regional DAB multiplex (figure 57). Londoners have the widest choice of commercial stations, with three local digital multiplexes and around 53 programme services in total, including the BBC. Rural areas tend to have fewer stations as the initial allocation of spectrum for DAB concentrated on maximising the number of digital services which could be provided in most of the major population centres of the UK.

Figure 57: Indicative availability of DAB digital radio stations by area



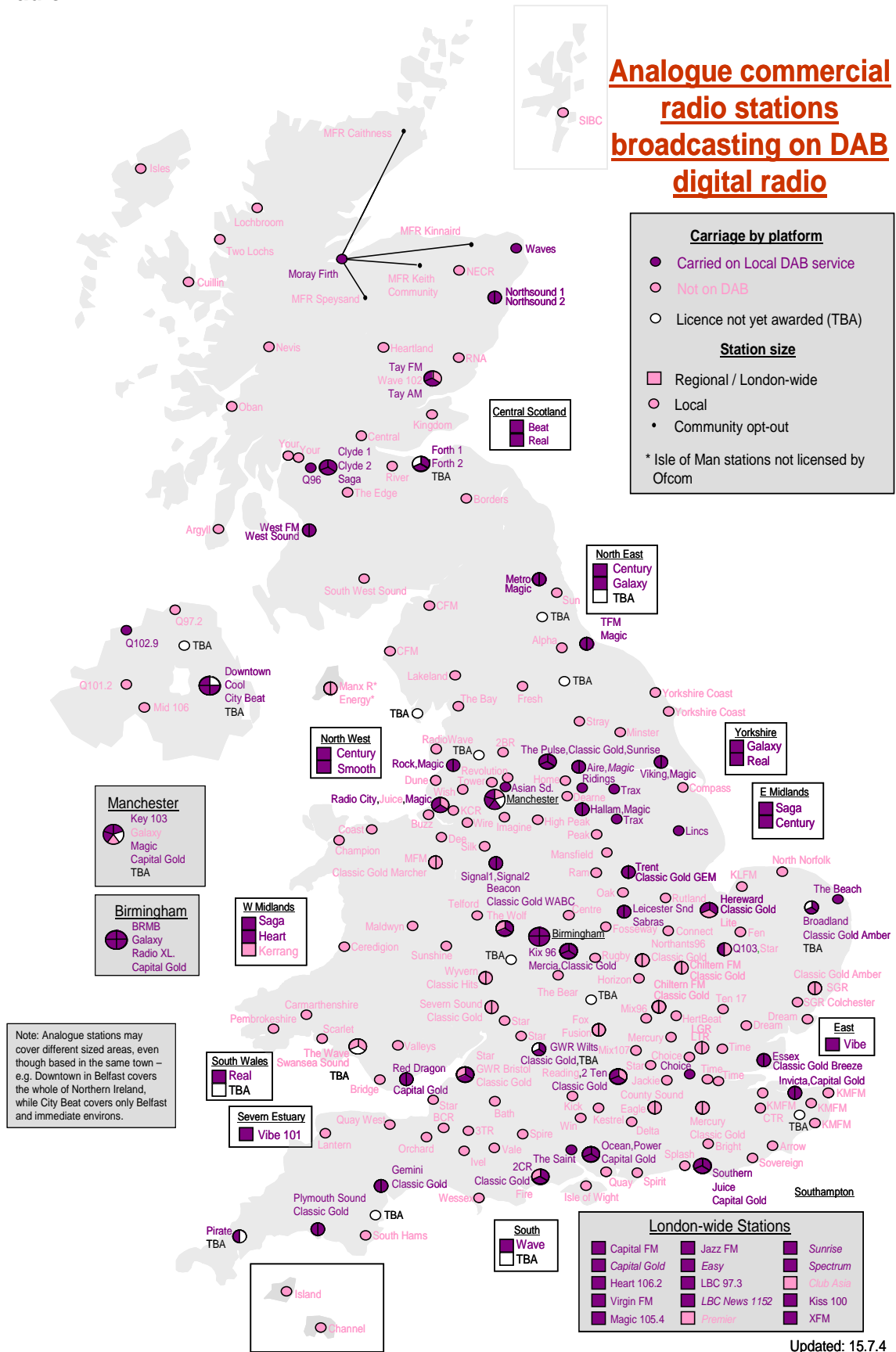
Source: Ofcom

Several services, which are only available in certain parts of the country on analogue, have extended their reach to other regions on DAB (e.g. Kiss, Xfm). In this way, DAB has not only allowed the introduction of new national stations but also allowed a number of quasi-national stations to be created through simulcasting across a number of local multiplexes around the country.

Not all local commercial DAB multiplexes have yet filled their capacity and so currently offer fewer stations than if they were full. While there are differences around the UK, DAB digital radio generally significantly increases the listening choice for all those living in a DAB coverage area. However, while choice of radio services is generally much improved over digital radio on all platforms, listeners currently cannot receive all of their current analogue stations over DAB (figures 58 & 59).

Those local stations which stream online are available across the UK and the world. A smaller number of local stations, primarily London-based, broadcast on satellite, digital terrestrial television and / or digital cable television and are, for the most part, available across the UK. However, for the majority of local analogue stations their localness obligations (e.g. amount of locally-made programming and local material which must be broadcast), as defined in their licensed format, mean that their content is of most interest to the listeners in their analogue broadcast area so the extra benefits of national coverage compared to the additional cost to the licensee of paying for such coverage is limited.

Figure 59: Availability of analogue local commercial stations on DAB digital radio

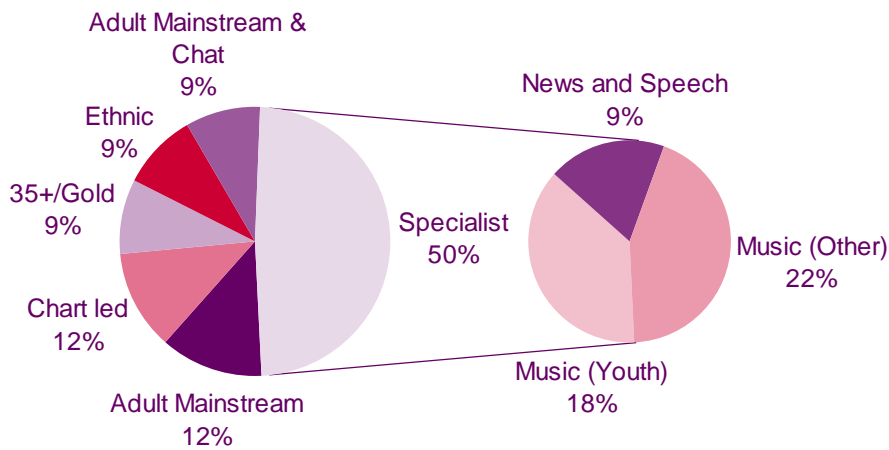


Source: CRCA, Ofcom

Breadth of choice of stations on digital radio

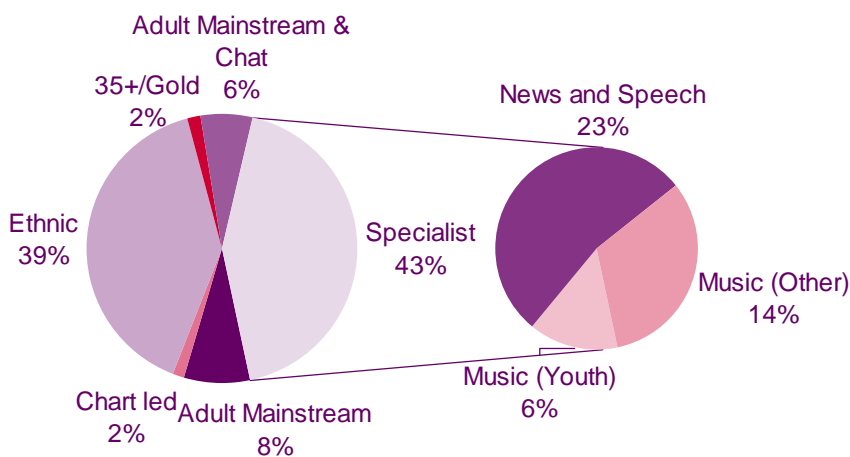
On analogue frequencies (AM and FM), the majority (52%) of stations can be characterised as Adult Mainstream in terms of their music programming (see figure 29). However, as listening to radio over competing platforms increases, the number of stations targeting more niche audiences is growing. Although there is no regulation of the breadth of sound services which are provided over digital TV platforms, some real diversity is emerging; of the 67 commercial stations on Sky digital TV, ethnic stations account for 39% and specialist speech and music stations for a further 43% (figure 61). On DAB, the combination of licence award criteria which encourage breadth and diversity of services (similar to analogue award criteria) and the fact that there is capacity for more stations in an area than on analogue has helped ensure a broader choice of services for listeners on DAB digital radio compared to analogue (figure 60).

Figure 60: DAB digital radio only stations by style



Source: Ofcom

Figure 61: Satellite only stations by style



Source: Ofcom

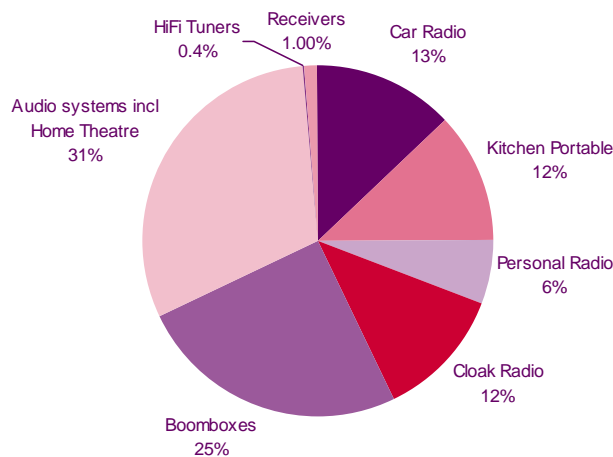
The availability of digital radio receivers

Digital TV set-top boxes and integrated digital TVs offering digital radio services are widely available and are expected to be in almost all homes by the time of TV digital switch-over in 2012. Internet-connected PCs are also widely available and are now in 56% of households.

In contrast, during the early years of DAB digital radio in the UK, the lack of availability of receivers, and the high prices of those which were available (particularly compared to analogue receivers), was seen as a major hindrance to the growth of the market. However, this has started to change, particularly in the last year.

The first DAB radios were in the hi-fi, kitchen–portable and personal portable product segments, which addressed less than one quarter of the total radio receiver market⁹ (figure 62). This narrow offering, combined with the relatively small range of models available within each category and the large price premium for DAB radio receivers over analogue radio receivers, constrained take-up.

Figure 62: Radio receiver sales by product segment



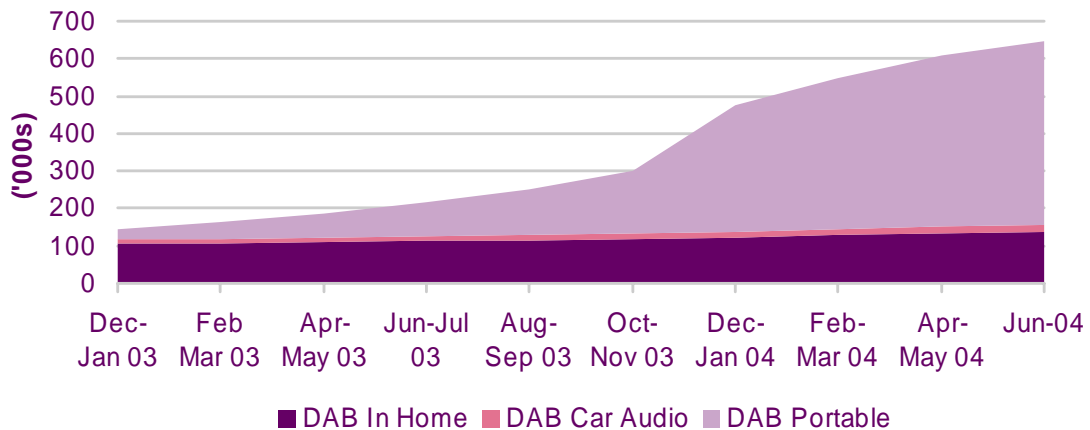
Source: GfK January 2004

Since 2002, when the first portable kitchen radio was launched at a price of £99, there has been rapid take up of DAB digital radio sets in that segment of the market (figure 63). Christmas 2003 was the most successful sales period for DAB digital radios so far, with sales of 176,000¹⁰. Portable sets were the most purchased style of product making up just below 90% of all DAB radio sales. As at the end of September 2004, 800,000 DAB digital radio sets had been sold in the UK¹¹ and the DRDB predicts are that there will be over 1.2m sets in the hands of consumers by the end of 2004.

⁹ GfK January 2004

¹⁰ Source GfK (December 2003 and January 2004)

¹¹ Source: DRDB/GfK

Figure 63: Number of DAB digital radio sets sold¹²

Source: DRDB / GfK

While DAB digital radios now account for 61% of all sales of portable kitchen radios, lack of availability (until recently) of other types of sets has meant that DAB digital radio in total only accounts for just under 4% of all radios sold (including in cars – in the after-fit market - and hi-fi sets)

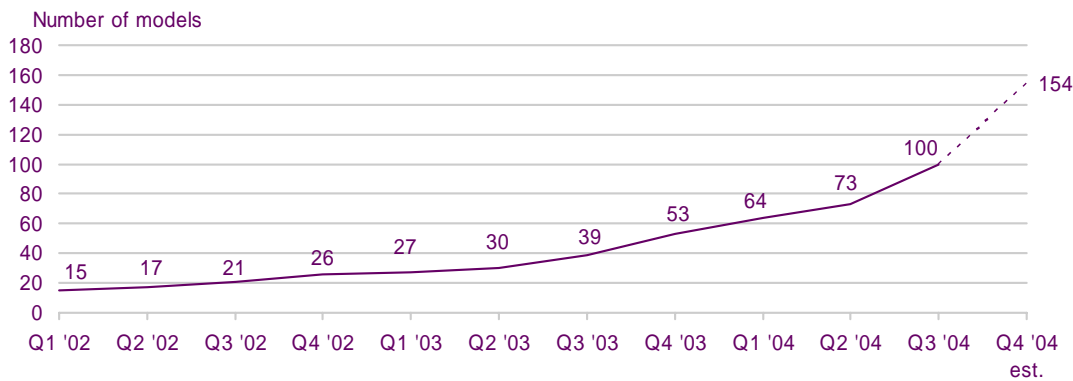
However, sales of DAB receivers over the last 18 months have encouraged manufacturers to launch clock radio, boom-box and audio systems with a DAB tuner, covering the remaining radio product segments.

At the end of September 2004, the DRDB reported that 100 models of receivers were available for consumers to purchase (although some were in lines that have limited availability), compared to 19 at the start of 2002. In the last year, global electronics manufacturers such as Sony, Phillips and Panasonic have either entered or reiterated their commitment to the UK DAB digital radio market with a large number of new products. The DRDB predicts that the number of DAB products will almost treble during 2004 from 61 to 154 (figure 64), and so consumers are increasingly able to find digital receivers which fit their budget and needs.

This autumn, the car manufacturer Vauxhall announced that it would be including DAB digital radio as standard in all 2005 model year Elite, Design and GSi versions of its Vectra car. It will also be offered as a factory-fitted option on other Vectra models and the Corsa supermini and Meriva MPV, Corsa Van and Combo ranges.

¹² Car audio (e.g. integrated tuner, tuner component), in-home (e.g. tuners, audio system, satellite receiver (set top box)), portable (e.g. portable CD, transistor radio, radio cassette, personal stereo, MP3, clock radio) (source: GfK)

Figure 64: Number of DAB digital radio models available in the UK market

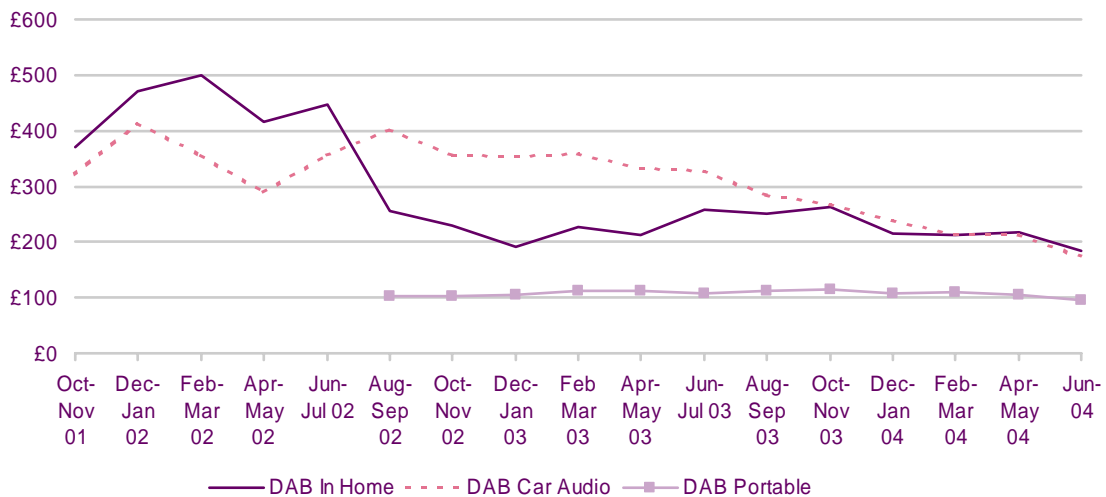


Source: DRDB

Most of the models currently on the market support analogue (Band II) VHF-FM reception as well as DAB digital radio on Band III, although the most popular model (accounting for around 250,000 units of sales) is the Pure Evoke 1, whose designers decided not to include the FM tuner in the first incarnation of their model. A later version, the Pure Evoke 2, does include an FM chip.

Whilst DAB devices now span all of the key radio receiver segments, the digital price premium tends to position them at the upper end of these segments (figure 65). However, while the broader range of sets and price-points available has meant that the average price has not fallen particularly steeply, entry level sets can now be bought for around £50.

Figure 65: Change in average price of DAB digital radio receivers



Source: GfK

As sales volumes have grown in the UK, manufacturers have been able to invest in further integration to reduce the size, cost and power consumption of the DAB receiver module – which is the core of a digital radio and is estimated to account for around 70% of its cost. These improvements have led to reduced prices and have given manufacturers more freedom to broaden the range of devices in which DAB can be included. As prices have fallen, sales volumes have grown further, so creating a virtuous circle.

Listening to digital radio

The increase in listening to radio over digital platforms has been one of the major recent trends in radio in the UK. Listening via digital is not separately recorded by RAJAR's diary measuring system. However, various measures give some data on digital listening including figures on listening to stations only available in digital in a given area (which is picked up by RAJAR) and surveys which show the proportion of adults who say they have listened to radio over different digital platforms.

According to RAJAR, listening to stations only available on digital in a given area accounted for 46.8 million hours in the third quarter of 2004, representing 4.4% of all radio listening. For stations available on both analogue and digital in a particular area, there is currently no reliable data as to how much listening is on each platform e.g. analogue, DAB, digital TV, internet. In addition, at present not all digital radio stations subscribe to RAJAR, so the figure of 4.4% almost certainly underestimates the total impact of digital radio.

To date, the station which has gained most listening from digital is Kiss. In analogue, Kiss is available only in London. However, it is broadcast in a number of new areas on digital, via local multiplex slots. Digital listening in these new areas has added just under one million listeners across the UK to its London analogue listening (the amount of listening within the analogue area which actually comes from listening on digital radio is not recorded).

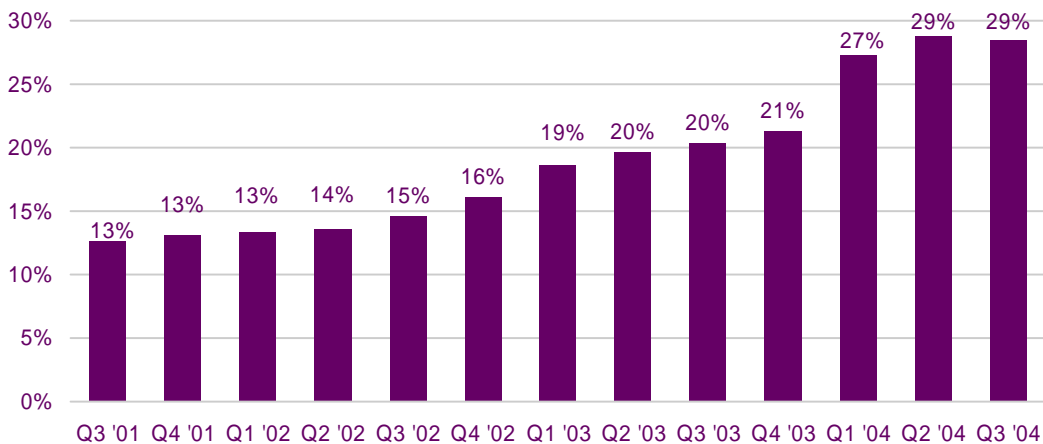
Other stations recording high digital only audiences include The Hits (880,000 listeners a week), Smash Hits (724,000) and Kerrang! (761,000).

Of the BBC's digital only services, Five Live Sports Extra attracted the most listeners (424,000 a week), followed by BBC 7 (404,000), 1 Xtra (312,000) and 6 Music (228,000)¹³.

A quarter of adults have listened to radio via their TV

The number of adults who have ever listened to radio via their television has steadily increased over recent years and currently stands at 29% (figure 66).

Figure 66: Proportion of adults who have ever listened to radio via television



Source: Rajar

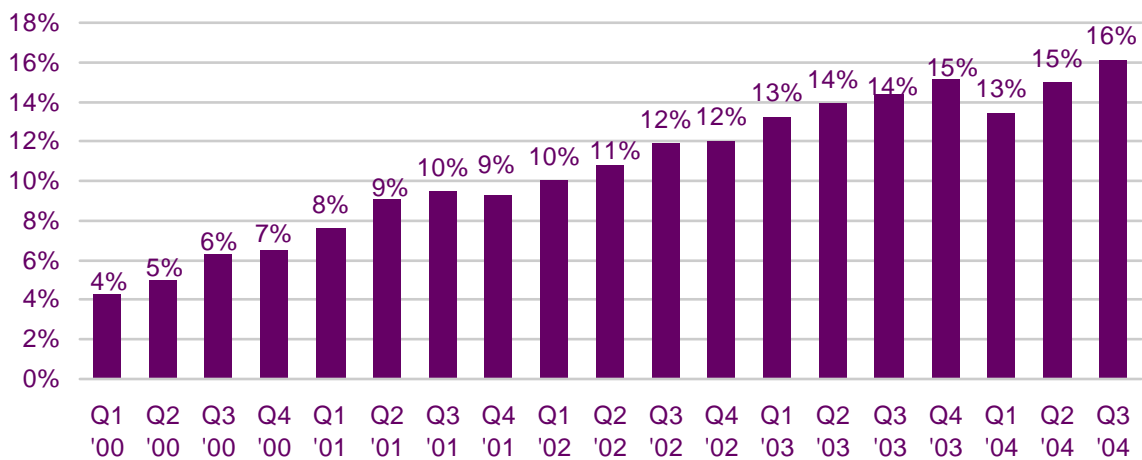
¹³ Source: RAJAR Q3 2004, based on adults who listen to a station at least 15 minutes each week

Radio listening via the internet has increased

RAJAR has found that radio listening over the internet has also been increasing, with 16% of all adults having ever listened to radio via internet by Q3 2004 (figure 67). This is below the 56% take-up internet access but it is comparable to the 16% broadband take-up¹⁴.

In Ofcom's annual survey *The Public's View*, 24% of respondents in multi-channel homes claimed to have listened to radio via the internet. As with ownership of digital radio, this figure was higher amongst younger respondents (25% of 16-24s), broadsheet readers (23%) and men (17%). Those in ABC1 social groups (15%) were almost twice as likely to have listened to a live radio broadcast over the internet, as C2DEs (8%).

Figure 67: Proportion of adults who have ever listened to radio via the internet



Source: RAJAR

7.4 The DAB digital radio market overseas

The international progress of DAB digital radio

As outlined in section 7.1 above, there are a number of different digital radio standards currently being trialled or in use around the world. The US, for instance, has chosen to adopt the IBOC standard of digital terrestrial radio, while subscription-based digital satellite radio (DSR) services from XM and Sirius have already made some impact upon the market there. The first Japanese digital satellite radio services have recently been launched, but digital terrestrial radio services in Japan are still in the trial phase, with some data and video being broadcast alongside radio channels.

This section, however, looks at the progress of selected markets around the world which, like the UK, are already broadcasting terrestrial digital radio services using the DAB (Eureka 147) standard. These markets are particularly important to the future of DAB in the UK because the availability of, and demand for, DAB radio services in these territories will have significant impacts upon the volume of receivers sold and so the prices of receivers here.

¹⁴ As at June 2004

The UK is by far the most advanced country in terms of DAB receiver take-up and listenership. Although there are around 600 DAB stations available worldwide, with over 300 million potential listeners, the number of receivers sold - and therefore the amount of listening to DAB - is very low outside of the UK. The UK's closest rival in terms of number of receivers sold is Germany, where between 50,000 and 80,000 DAB receivers have been sold. But the number of receivers in Germany has not increased substantially for several years, having been relatively stable since the country's initial roll-out of DAB seven years ago. Receiver sales in other countries have yet to make a significant impact – Ofcom is not aware of any country in which receiver sales to date have exceeded 10,000 units.

Belgium – The country's two main public broadcasters, RTBF (Wallonia) and the VRT (Flanders) both own regional DAB multiplexes, between them achieving 98% population coverage. VRT is broadcasting 10 stations digitally (including four unique to DAB); RTBF is airing five. Commercial radio broadcasting on DAB has yet to commence.

Canada – Over 60 commercial and public stations are currently being simulcast on DAB in Canada via regional multiplexes covering 11 million people in Vancouver, Toronto, Windsor, Montreal and Ottawa. The first licences for DAB-only stations have recently been granted by Canadian broadcasting regulator the CRTC, which is currently conducting a major review of radio. In addition to developing a more permanent policy for DAB, the review is also considering proposals from radio station CHUM for the introduction of a subscription-based DAB service on L-band, and applications for digital satellite subscription services via the XM and Sirius systems as used in the US. DAB covers 35% of the population.

Denmark – Public broadcaster Danmarks Radio (DR) currently broadcasts 11 DAB-only stations on Denmark's national multiplex, which was completed earlier this year to provide 99% population coverage. From December 1, they will be joined by a further six stations, including simulcasts of three of DR's existing analogue services (P1, P3 and P4). By mid-2005, it is intended that 25% of multiplex capacity will be occupied by commercial broadcasters, including Denmark's two new national FM commercial stations, Sky Radio and Radio100 FM. A decision has yet to be made on how to accommodate the country's large number of commercial and public local and regional stations on DAB, although the Ministry of Culture is considering L-band as a possibility.

France – Earlier this year an amendment was made incorporating DAB digital radio into the Loi Leotard, the 1986 legislation which governs French broadcasting. French broadcast regulator the CSA is to invite tenders to operate individual DAB services or multiplexes in specified geographical areas. This should kick-start France's DAB coverage – at the moment, only 25% of the population is covered by DAB through trial services from public broadcaster Radio France and some commercial stations covering Paris, Lyon, Marseille, Toulouse and Nantes.

Germany – All but two of Germany's federal states (Länder) have DAB multiplexes on the air. It is planned that DAB's total population coverage will be around 85% by the end of this year - up from 70% in 2002. There is no national digital multiplex, but this follows the pattern of analogue radio broadcasting in Germany, where all domestic stations are regional or local, and are licensed and regulated by the relevant Länder. Some 40 public and 52 commercial services are currently

transmitting on DAB, with 51 exclusive to digital (though many of these broadcast the same programming content augmented by different regional opt-outs). German broadcasters are making big strides in the provision of data services via DAB, with a focus on news and traffic information using text and pictures. Analogue switch-off for radio has been officially targeted for between 2010 and 2015.

Italy – Progress in Italy has been hindered by the fact that many of the Band III frequencies needed for DAB digital radio are being used for analogue TV, and by the fact that a permanent regulatory framework for DAB was only put in place this year as part of Italy's Media Bill. The legislation gives priority to existing analogue licence holders in DAB licensing. Public broadcaster RAI, which has a licence to construct its own national multiplex, currently simulcasts its five analogue stations on DAB, covering 20% of the population. The commercial sector currently enjoys greater coverage (45%) through a national multiplex operated by EuroDAB, a consortium featuring national and local analogue broadcasters. EuroDAB offers five simulcasts and three new digital-only services. Activity from other commercial broadcasters is now expected following the passing of the new legislation, including a re-launch for the nine-station Club DAB Italia consortium.

Norway – DAB launched in Norway in 1995, and there is one national (50% population coverage) and one regional multiplex (serving the Oslo area) currently on air. Nationally, public broadcaster NRK broadcasts six services on DAB, and the country's two national commercial stations – P4 and Kanal 24 - are also on the multiplex. On the Oslo multiplex, NRK provides five stations, but there are no commercial stations present.

Portugal – As in many European markets, only the public broadcaster (RDP) enjoys a DAB presence so far, with one national multiplex delivering five stations, which are all simulcasts of its existing analogue services. Population coverage is 75%, with 90% coverage targeted by 2006. There seems to be little interest from the commercial sector at present, so the government does not currently have any plans to prepare a regulatory framework.

Singapore – The SmartRadio national DAB multiplex was launched by commercial broadcaster MediaCorp Radio Singapore in 1999, and carries 13 services, six of which are exclusive to digital. Coverage is 100%.

Spain – Spain's DAB coverage currently extends to 50% of the population, expected to rise to 80% by 2006. A total of 20 services are broadcasting digitally on one national and two regional multiplexes, with a mix of public (RNE) and commercial stations. Some of the commercial offerings are unique to digital. While national DAB stations are licensed by central government, local / regional services are the responsibility of the regional governments. The Catalan government awarded a total of 48 licences for future DAB services in November 2003.

Sweden – At the moment, only public broadcaster Sveriges Radio (SR) is broadcasting on DAB, via a national multiplex which covered 85% of the country's population until budget cutbacks in 2002 forced a temporary reduction of this coverage to 35%. All seven of SR's stations on the national multiplex are unique to digital. Earlier this year, a government advisory body outlined a framework for the further development of DAB in Sweden, proposing the launch of a second national multiplex allowing national commercial stations for the first time, and reducing analogue licence fees for commercial stations who go digital.

Korea – The Korean government recently approved the introduction of terrestrial DMB, which uses DAB technology to deliver video, audio and data to mobile devices. Broadcaster KBS is set to launch 48 DMB channels by the end of the year, while DMB receivers are expected to become commercially available from some major manufacturers. As it is based on the DAB standard, strong sales of DMB receivers in Korea may help to bring down the prices of DAB receivers in the UK, due to economies of scale in chip manufacturing.

Other countries – DAB digital radio is also being broadcast in the following countries:

	<u>Population coverage</u>
Austria	19%
China	2%
Croatia	30%
Czech Republic	12%
Estonia	28%
Finland	40%
Hungary	30%
India	1%
Ireland	30%
Israel	85%
Lithuania	20%
Netherlands	70%
Poland	8%
South Africa	18%
Switzerland	58%
Taiwan	90%
Turkey	12%

Note: information in this section was mainly sourced from:

European Digital Radio – *On a roll, or another false dawn?* published by Gareth Owen, Eureka Research (April 2004).

DAB Digital Radio – Building for Success published by the World DAB Forum (Summer 2004).

7.5 The financial prospects for digital radio

Ultimately, the success of digital radio will depend on there being a sound financial business case for different parts of the value chain.

At present, the outlook is somewhat uncertain. The business models of larger platforms which carry digital radio stations (e.g. digital TV platforms, broadband internet access providers) do not rely on digital radio. Many DAB multiplex owners, whose business models do rely solely on the success of digital radio, are starting to move towards profits on running these multiplexes, via the carriage fees they charge to the broadcasters. However, the individual digital radio stations which broadcast on these platforms are currently sustaining considerable losses.

The source of our information in this section is input and data from the holders of radio multiplex licences and / or digital sound programme licences. This information is far from being comprehensive and therefore the conclusions should be treated with some caution.

DAB multiplex operators

DAB multiplex operators generate revenue by charging stations a carriage fee. Most of these charges are fixed, although a few also charge a variable component, which is revenue or market size related.

A multiplex operator's costs include technical costs (charged by the transmission company) and DRDB marketing costs (for DRDB members), as well as administration and management costs and licence fees.

Whether multiplex operators are profitable or not depends on demand for capacity in that area – i.e. whether or not the multiplex is full and how much the operator can charge for capacity. We understand that several multiplexes are making profit or moving towards break-even over the coming couple of years.

Digital radio stations

Digital radio stations, however, are not currently profitable. The reasons for the losses they are sustaining are essentially twofold:

1. Low current demand for advertising on digital radio

Like their analogue counterparts, digital radio stations' revenue model is based on advertising. However, at present there is little demand for digital radio advertising.

The low take-up of DAB sets to date means that audiences for services broadcast exclusively on DAB are not making significant impact in official RAJAR audience figures, on the basis of which radio advertising is sold. The digital stations that have appeared in RAJAR figures to date are services that broadcast on other digital platforms (primarily the digital TV platforms) alone or in addition to DAB.

While some of these services available over several platforms are achieving not insignificant audience reach and are starting to establish advertising sales, the majority have yet to reach sufficient audiences to attract significant advertising revenues. This is partly because the lack of portability of the TV-based services means that the proportion of a household's listening over these platforms is low relative to (portable) analogue listening.

“Emap Performance brought in its first ever advertising revenues from digital radio – around £1 million – a development which is likely to become more significant as listening, and ultimately advertising revenues, transfer from analogue to digital.”
Emap annual report and accounts 2004

“Listener numbers were sufficiently large to be included for the first time in RAJAR results . . . We are now generating advertising revenue from our digital channels for the first time.”

Statement by Ralph Bernard, Executive Chairman of GWR Group, GWR annual report 2004

Analogue stations which are simulcast on some or all digital platforms have been able to sell their digital audiences alongside their analogue audiences (where broadcasts are in-area it is not currently possible to distinguish between analogue and digital listeners in any case). However, even for simulcast stations, it is thought that most stations do not currently achieve the level of additional revenues which

would allow them to cover the additional costs of broadcasting digitally (see costs of carriage below).

2. High costs of carriage

Radio stations incur costs and charges related to carriage / transmission on each of the digital platforms on which they broadcast. Carriage charges on DAB currently significantly exceed the transmission costs on analogue radio. Where stations broadcast on digital TV or stream over the internet, they must also bear the costs of carriage or transmission on these platforms.

Transmission charges represent the vast majority of the costs of simulcasting an analogue station on digital. Digital-only stations, meanwhile, must also pay for the costs of production and staffing and running the station.

The combination of these factors – relatively low advertising revenue and high costs of carriage – means that digital stations are currently sustaining significant losses. Even where the digital station is a simulcast or out-of-area rebroadcast of an existing analogue AM or FM station and the station owners have been able to sell their additional audiences to advertisers along with their analogue audiences, the costs of transmission and carriage still currently far outweigh any additional revenue arising from the station's presence on digital platforms.

Many larger radio operators own both multiplex licences and digital stations, allowing them to offset the losses related to running their channels, to the extent that running the multiplexes is profitable. However, this is not generally the case for the smaller operators. In addition, operators which do not have existing analogue radio services which can cross-subsidise, and provide cost-saving synergies with digital stations have tended to be put off by the initial period of unprofitability for radio stations in the digital market. Consequently, of a total of 167 different commercial radio stations currently broadcasting on DAB, only 12 of these are owned by companies which do not have any commercial analogue radio interests. And of those 12 brands, many are hospital, community or student services which were already broadcasting prior to the advent of DAB. The financial challenges of operating DAB services have already seen a number of independently-owned DAB stations go out of business altogether or withdraw from the DAB platform, including Purple Radio (a station targeting gay listeners) and Ministry Of Sound Radio (dance music).

Longer term economic prospects

Most digital stations (excluding multiplex owners) do not expect to break-even until take-up is significantly higher than at present, accurate measurement of digital audiences becomes available and an advertising market has been able to develop more fully. Stations' long-term business plans vary greatly, with predicted break-even points varying from 2006 to 2012.

Thus, the financial prospects for digital radio are still uncertain. If listening does not substantially increase and as a consequence advertising demand does not emerge, in the long-run stations' losses – particularly for digital only stations – will become unsustainable.

However, building longer term value is possible. That demand for capacity has been and continues to be strong, that stations have been willing to sign up to contracts paying fees to broadcast, despite the initial low revenues and have been willing to reduce their profits to make investments in digital radio assets signals their belief that

the industry can sustain its growth and that they will achieve profitability. The key drivers for this investment / demand appear to be a combination of operators positioning themselves in digital radio as it grows and takes an increased share of commercial listening, extending existing brands and building future potential revenue sources, from new stations and eventually from innovative new services which can be offered over digital platforms. There is an expectation that the improvement in choice and innovation will increase radio advertising revenues – particularly if the commercial sector can take share from the BBC.

“Emap’s eight national radio stations, broadcast on Freeview, satellite and cable, DAB and via the internet, now account for over 20% of the Group’s total hours. This has helped to take Emap’s share of total commercial hours across the industry from 14.1% to 14.6% year-on-year, a significant increase.”

Emap’s annual report and accounts 2004

“In the early stages, we believe that advertisers will view DAB Digital as merely offering a step up in reach for the existing radio stations. By early 2006, however, digital reach should exceed 10%, with over 4m potential listeners. At this level, the stand alone digital stations should start to generate material advertising revenues, attracting advertisers on the back of considerably higher audience growth than conventional stations, along with the growing potential for interactivity.”

ABN Amro research, February 2004

“The Advertising Association believes that radio advertising’s share of the UK ad market should reach 8.5% by 2013. GWR estimates that this number will be 10% by 2013, due to the digital effect.”

HSBC research, January 2004

The following sections look at the success factors which have driven the growth of digital radio to date, identifies the main obstacles to growth and proposes how Ofcom might help to address these obstacles in order to accommodate the development of the digital radio industry.

7.6 Factors in the success of digital radio in the UK to date

As outlined above, digital radio in the UK is further developed in terms of the number of stations provided and consumer take-up than in any other European market and, arguably, any other market in the world.

A combination of factors has contributed to this relative success, by helping to establish better availability of signals or sets, contributing to provide a wider choice of stations or improving consumer awareness of the benefits of digital radio, all important drivers in the growth of the medium. These factors include:

a. High take-up of digital TV which offers digital radio stations

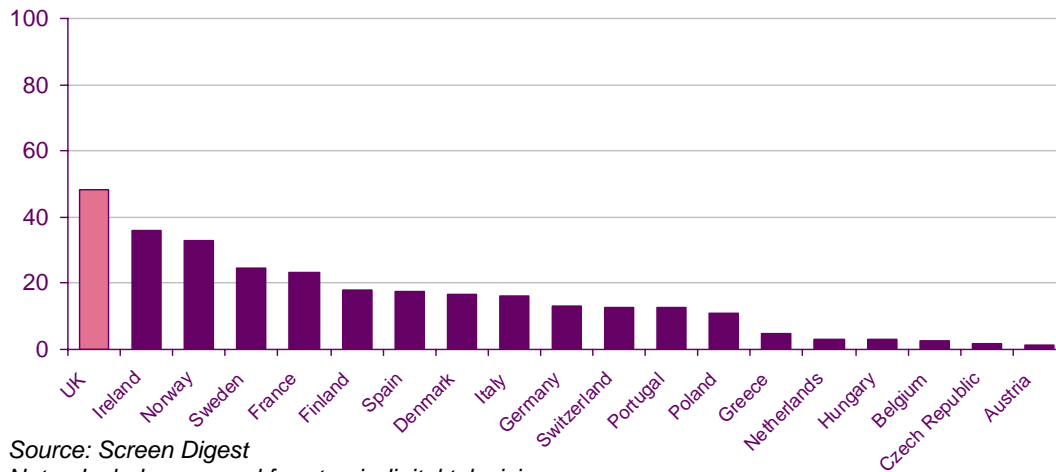
The availability of digital radio signals is crucial to building a successful digital radio market, as it determines the potential number of people who can access it and therefore the size of the market.

The UK benefits, in particular, from a high and growing level of digital television take-up compared to other markets (figure 68) and from the wide availability of digital radio stations on these platforms.

High digital TV take-up is helpful to the success of digital radio in two ways:

- much of the listening to digital radio in the UK is currently over TV platforms – the availability of digital radio over TV has grown the digital radio market;
- our audience research suggests that many people first experience digital radio over a television platform (sometimes just by ‘flicking through’ channels). So, digital TV increases the awareness of digital radio and its content, which may lead them to purchase portable digital sets to continue listening to these stations when they are away from their TV sets.

Figure 68: Digital Television Take-up 2003 (%)



Source: Screen Digest

Note: Includes pay and free-to-air digital television

b. Spectrum allocation for DAB

The availability of spectrum for DAB has been critical in establishing this portable digital radio platform in the UK. The amount of spectrum allocated, the way in which it has been divided between national and local multiplexes, and between public service and commercial operators, has allowed for the establishment of a diverse offering to most parts of the country.

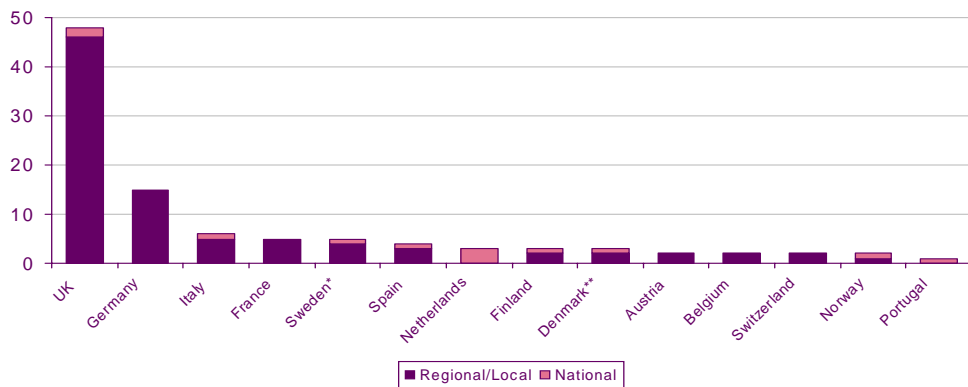
The allocation of seven frequency blocks to DAB (two for national multiplexes and five for local services, allowing them to be used in a patchwork across the UK to deliver 46 local multiplexes) is more than that of many of the UK's neighbours. The UK has a significantly greater number of multiplexes than other countries, particularly regional and local multiplexes (figure 69). While some countries have a greater proportion of their population and area covered, this is generally achieved with few or just one multiplex; others may have several multiplexes, but concentrated just on one or two city areas.

This allocation of Band III spectrum to DAB digital radio was enabled by the fact that the UK no longer uses Band III for television, unlike many other countries, and that private and public mobile services have not required all of the Band III frequencies available in the UK.

Other countries use a combination of Band III and L-Band (e.g. Germany) or wholly L-Band (e.g. France) for DAB. More L-Band transmitters are required to cover an area compared to Band III, so building and operating an L-Band network over a large area is more costly.

The way that the Government’s initial allocation of spectrum to DAB was balanced between commercial players and the BBC and also between local and national multiplexes, recognised the importance of each type of service in the ecology of analogue UK radio and therefore in the development of an attractive offering on digital radio.

Figure 69: Number of digital multiplexes by country



Source: Eureka Research, April 2004

Note: * The 4 regional / local multiplexes in Sweden are built but not currently operational

** The 2 regional / local multiplexes in Denmark are planned

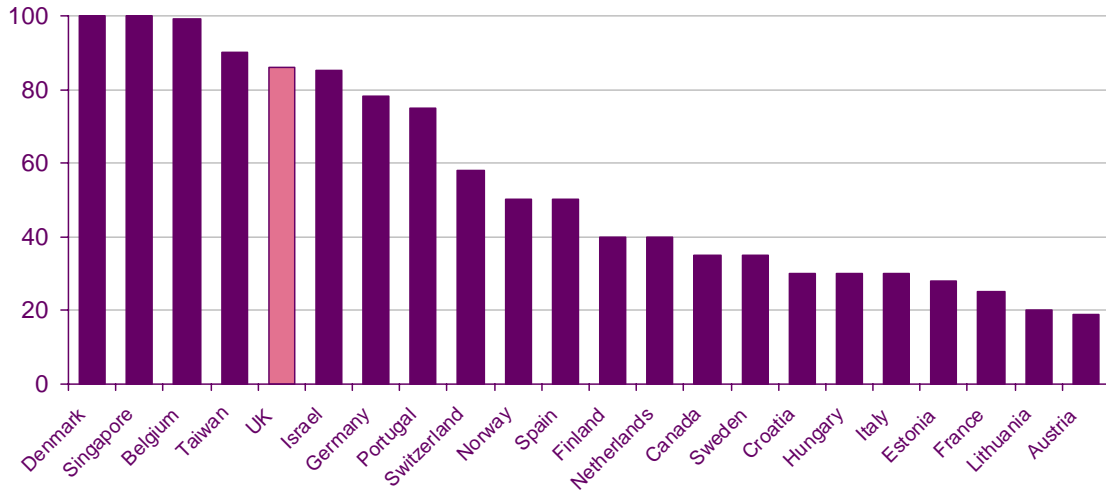
c. The broad build-out of DAB transmitter networks

Both the commercial sector and the BBC have invested in transmitter networks to take advantage of their DAB spectrum allocations. In the case of commercial radio multiplexes, a minimum level of coverage, as proposed by the successful applicant, has been inserted into the licence. The BBC has stated a desire to offer all of its services to all licence fee payers, while being mindful of the need to provide value for money.

As a result, the UK has achieved a relatively high level of DAB coverage compared with other European countries, with current population coverage at 86%. (figure 70)

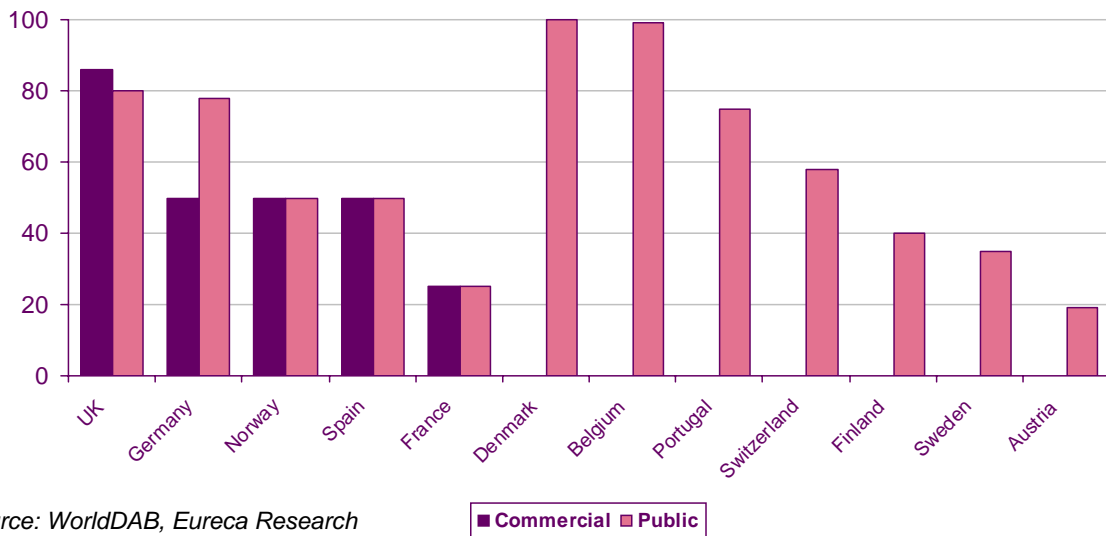
Compared to other countries, the UK has a particularly high coverage level for commercial services in particular. (figure 71)

Figure 70: DAB population coverage (%)



Source: WorldDAB, Eureka Research

Figure 71: Commercial and Public DAB population coverage (%)



Source: WorldDAB, Eureka Research

d. A licensing regime which encouraged analogue stations to broadcast on DAB

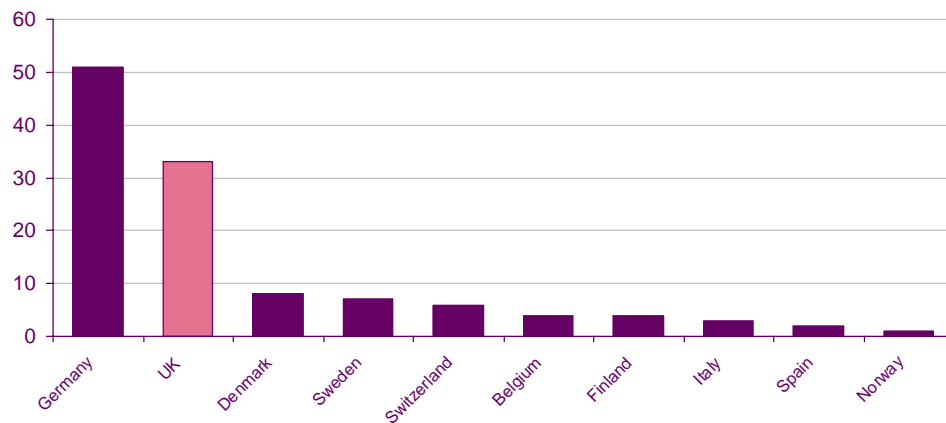
The Broadcasting Act 1996 allowed for analogue licensees to gain a renewal of their 12 year licences (formerly eight year licences) if they commit to broadcasting a digital sound programme service on an in-area local radio multiplex. This right has been taken up by a large number of licensees and has helped to foster investment in DAB by encouraging licensees to broadcast stations on digital radio, contributing to the number of stations (simulcast or new) available over not only DAB but also other digital radio platforms, as broadcasters try to ensure the maximum audience for their digital stations.

e. A wide choice of content, including new digital-only content

Ofcom's audience research and market research carried out by the DRDB suggests that the greater choice of stations offered by digital radio compared to analogue has been a very important factor in driving receiver sales and listening.

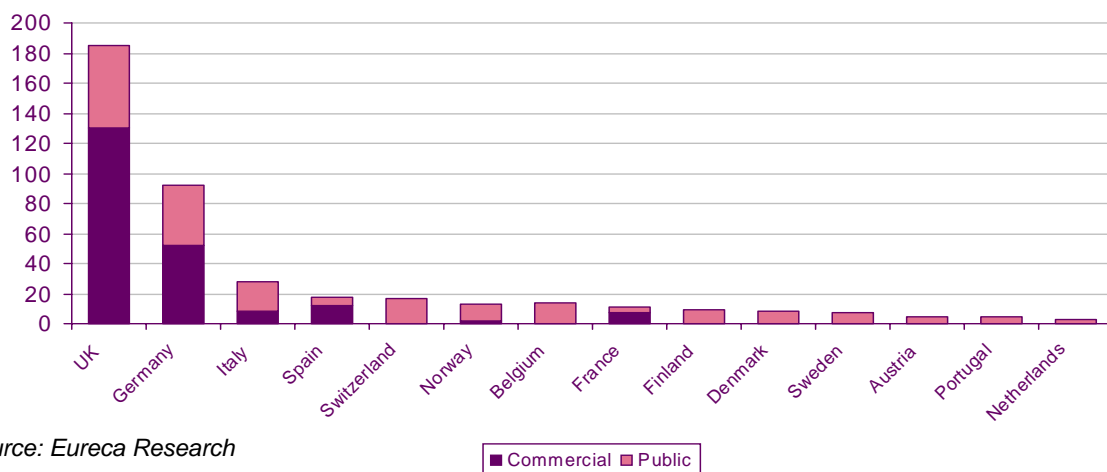
As well as the broad choice of stations available over the internet and digital TV platforms, the UK boasts one of the largest overall numbers of DAB stations (both digital only and simulcast) of any DAB country (figures 72 & 73). The range of choice available is considerably greater than in many other DAB countries. The only country in Europe where more digital-only DAB stations are offered than in the UK is Germany, where there are 51. The German figure is high because most of these stations are regional variations of the same national content (with local news, traffic and information added in).

Figure 72: Number of digital-only radio stations by country



Source: Eureka Research

Figure 73: Total number of DAB stations on air



Source: Eureka Research

On DAB, the combination of licence award criteria which encourage breadth and diversity of services (similar to analogue regulation) and the fact that there is capacity for more stations in an area than on analogue has helped ensure a broader choice of services for listeners on DAB digital radio compared to analogue.

f. The commitment of the commercial radio sector and the BBC, including establishment of the Digital Radio Development Bureau (DRDB)

The commitment of the radio industry – commercial players as well as the BBC – to digital radio, and the consequent large levels of investment, have been an important element in the success of the market development to date.

This commitment has been demonstrated in a number of ways, including investing heavily in DAB transmitter networks, launching new radio services and supporting the marketing of digital radio via the DRDB and individually.

The DRDB is a trade body funded and supported by the BBC and commercial radio multiplex operators. It has become the central industry coordinator on DAB digital radio and states its aim as ensuring digital radio's wide accessibility and swift adoption in the UK with consistent and effective marketing. It has been instrumental in organising marketing, encouraging manufacturers and retailers to build and stock DAB radios, and working to encourage the rest of Europe to take-up DAB.

As Tim Gardam's recent report (Independent Review of the BBC's Digital Radio Services, October 2004) highlights, the BBC has had a positive impact in establishing digital radio through funding original content in excess of what commercial companies could justify in the early stages of the market, employing material from its archive and cross-promotion of digital radio across its other platforms. The report also asserts that the BBC's commitment to invest in new radio services was critical in persuading manufacturers that there was a potential market in digital radio.

Additional support was also afforded to the digital radio market in its initial stages by Digital One, which was instrumental in kick-starting the portable receiver market, including an investment in a new generation of digital radio silicon chips which enabled the production of the first sub-£100 DAB radios.

g. Innovation and risk taking of UK radio manufacturers to develop the DAB receiver market

For the first years after the launch of DAB, the lack of availability of receivers – and the high prices of those which were available – was seen as a major hindrance to the growth of the digital radio market.

The development of DAB radios was hindered by the small market estimates, in the UK and elsewhere, compared to the expense of developing DAB receiver technology. As this technology can cost several million pounds to develop, manufacturers initially did not generally see the market potential to justify the investment needed to bring DAB radios to market.

A number of smaller UK manufacturers saw an opportunity to fill a gap in the market and have developed some extremely successful products. Pure Digital has sold over 250,000 of its Pure Evoke 1 receivers, for example, and Roberts Radio has also had considerable success.

The increasing digital radio sales in the UK market – especially in comparison to analogue in certain segments – have now attracted the attention of the major consumer electronics manufacturers and encouraged them to enter the market. This year has seen the arrival of DAB products from well known brands such as Panasonic, Philips, Sharp and Sony.

Increased choice of sets could stimulate further consumer demand for digital radio sets, which should contribute to the growth and development of the market.

h. Positive signs for the future

In addition to the points above, which have helped drive the market to date and, in many cases, will continue to do so, there are a number of developments, whether current or on the horizon, which are expected to have an additional positive impact going forward. These include:

1. Interactive services and technological advances may increase desirability of sets

Radio manufacturers are gradually developing digital radios with additional features which are not available on analogue radios or on early digital radios. Multimedia services via DAB digital radio have the capability to add text, downloads, graphics and even video clips to complement radio services. They can also allow users to download free or paid-for content, such as favourite tracks, for use either on the radio set, or to be exported to other devices, such as MP3 players (e.g. the iPod). Such features are not limited to DAB digital radio, but may be made available on any platform offering digital radio services. At present on DAB, there is a limit of 20% of total capacity which can be used for non-programme related data services. The capacity for such services is also effectively limited by the need for broadcasters to meet the commitments they made in their licence applications to offer a certain number and range of radio services, so limiting the amount left over for data.

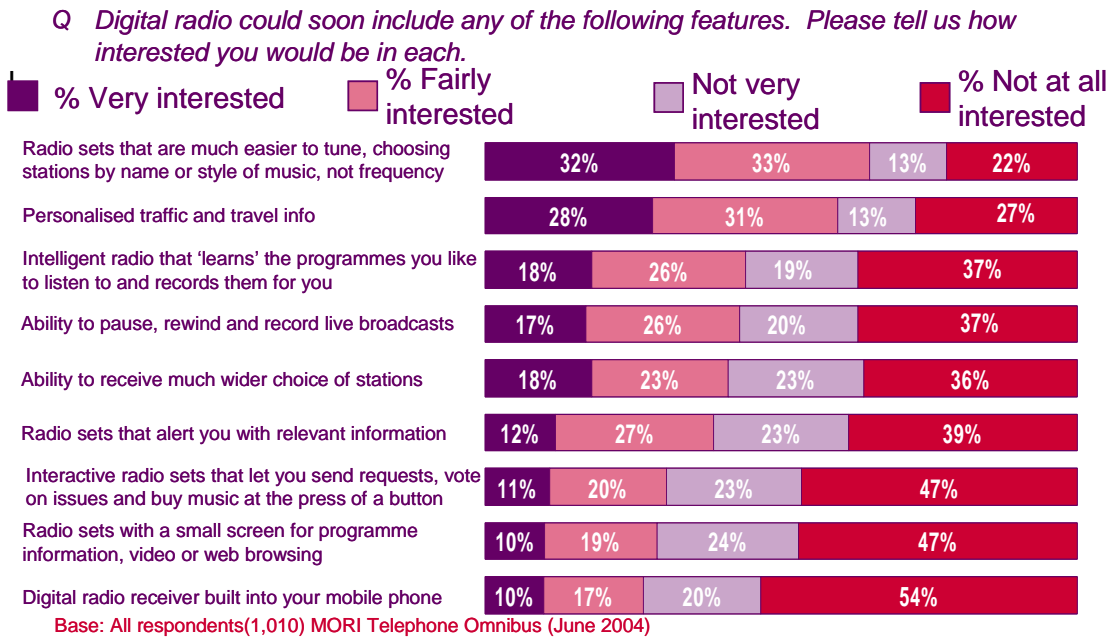
Ofcom's recent audience research has demonstrated that there is significant interest in such features. Ofcom commissioned both quantitative (1,501 radio listeners) and qualitative audience research from MORI for this report (June 2004), which found that future technological changes on DAB sets generally met with positive reactions from both DAB users and non-users.

Our qualitative research found that respondents liked the idea of interactive radio sets that let users send requests, vote on issues, and buy music at the push of a button. The idea of music downloads was particularly popular and people said they would be happy to pay for this service, especially if they could press a button while the song was being played on the radio to download it, to save them having to remember the name of the track.

Other ideas of interest were: the ability to rewind or pause a radio programme; DAB sets incorporated into mobile phones; intelligent radio that learns the sort of programmes individuals prefer and records them for later playback (especially popular with those who already had a Personal Video Recorder system for television); and radio sets with a small screen for programme information, video or web browsing on the move.

Our quantitative research explored interest among the British adult population in newly launched and potential services that could be made available through digital radio (figure 74). Among all adults in this survey, there was greatest interest in the ease of finding stations, already an advantage offered by digital radio, personalised traffic and travel information and radio which 'learnt' a listener's favourite types of programmes and recorded them automatically. Interest in all of the new radio features was higher among those who listen to more than one hour of radio per day, on average.

Figure 74: Interest in new radio features



Interest in new features which may soon be offered by digital radio is also apparent in Ofcom’s research for the Radio Festival, carried out in July 2004 (the iPod generation, available on Ofcom’s website).

While such services are generally in their early stages or have yet to launch, we believe that they will be important in helping to develop and differentiate digital radio in the future.

On DAB, Digital One has announced a deal with BT, provisionally called Livetime, to provide data services over 20% of Digital One’s capacity. As part of the Livetime deal the transmitter network will be expanded (beginning in London), to improve the robustness of Digital One’s signals, benefiting all radio stations on the multiplex, as well as its own services.

2. Digital switch-over in TV will drive digital TV take-up further

Ofcom is working together with the UK government and television broadcasters to agree a switch-over timetable and plan for digital TV. The current expectation is that analogue television signals will be switched off by the end of 2012. This would happen on a region by region basis over the course of four to five years, starting in 2007 / 2008. An increase in digital TV take-up from its current level of around 55% of households to close to 100% by the end of 2012 would result in the same growth in the number of households having access to digital radio over television. As described previously, this is likely to have a knock-on effect on digital radio listening and uptake of DAB sets, as consumers seek to make their favourite digital content available on other household and car radios.

7.7 Obstacles to further growth in digital radio

Despite the factors described above, which have helped digital radio to develop to where it is today, and, despite the positive signs for the future, there are still a number of obstacles which could impede the growth of digital radio.

Both digital television and broadband internet offer digital radio services, but the growth of these platforms is not driven by digital radio and the fact that they cannot duplicate the portability and mobility of analogue radio means that they are unlikely fully to replace analogue radio. The take-up of these other platforms for receiving digital radio is growing rapidly and how these platforms might continue to develop and has been addressed (or is soon to be addressed) within other Ofcom reports (*Driving Digital Switchover* in television and the *Telecoms Strategic Review*), while other digital radio technologies have yet to launch in the UK. As a result of this and recognising the importance of DAB in offering an alternative to AM and FM radio, we have focused here primarily on the obstacles to the growth of DAB digital radio and, in section 7.8, on possible ways in which these obstacles could be overcome.

Choice of stations is seen by consumers as one of the biggest benefits of digital radio and therefore can be seen as a major driver of digital radio take-up. In the audience research carried out for Ofcom by MORI (see Appendix B), 36% of potential DAB digital radio purchasers thought that the choice of extra stations would be a particular benefit. This is backed up by research carried out by the DRDB amongst people who have recently bought DAB digital radio (published September 2004), where 71% of purchasers did so at least partly in order to receive new digital stations.

However, while choice is significantly improved across most platforms which offer digital radio, there are a number of factors which currently limit the choice of digital stations on DAB, in some geographic areas in particular. Freeview also offers less choice of radio stations than satellite or cable digital TV platforms.

There are a number of obstacles which may affect the growth of digital radio:

a. Coverage of the national and local services to portable receivers is not complete

Reception of digital radio over a digital TV platform is already available almost universally in the UK, either via satellite, cable or digital terrestrial television. Similarly the internet is available across the UK and people can receive digital radio online. However, reception of digital radio by portable digital devices (currently DAB) is not universal.

Overall, less than full coverage of radio signals which can be received by portable devices may slow the growth of digital radio in the UK as it (i) reduces the size of the potential market and (ii) could create some uncertainty among potential buyers as to whether they would be able to receive signals were they to purchase a set. Where areas are covered by less than a full set of multiplexes (national commercial, local commercial, national BBC), choice is lower than it would otherwise be.

It is always difficult to define fully, in terrestrial broadcasting, whether an area is 'covered'. However there are two main elements in determining the service provided to a particular area:

1. Nominal coverage

Although nominal DAB coverage of the national multiplex services is good relative to other countries (for example, Digital One's transmitters cover 86% of the population of Great Britain), it is not complete. Neither national nor local multiplexes have rolled out coverage to 100% of their licence areas.

Each licence includes promises made by the licence holder to build transmitters to cover a certain minimum amount of their area, normally between 70% and 90%. Undertakings have also been made by licence holders to roll-out further coverage as take-up of DAB equipment by the public grows (subject to international agreements to avoid interference in border and coastal areas) and some, like Digital One, have already rolled out over and above their commitments. However, for commercial multiplex licensees, rolling out additional transmitters over and above the initial core may not be economic – i.e. the cost of building an extra transmitter may outweigh the commercial value of the additional audience. As with all terrestrial broadcasting, increasing numbers of transmitters, covering ever smaller numbers of people, are required to reach those who live in the more remote areas of the country, or in areas where hills or other features block reception. As take-up progresses and demand increases, it is likely to become economic to provide services to more of these areas. However, some sparsely-populated fringes of a multiplex area might always remain uneconomic.

The BBC is currently building its national network to match the coverage levels of Digital One. In its Charter review submission, *Building Public Value*, the BBC commits to rolling out its UK-wide services on DAB digital radio further, to 90% of the population.

2. Robustness of reception

Although an area may be technically served by a particular transmitter, the ease and robustness of reception are influenced by a number of factors, including the local environment (trees, building height and density and wall materials), receiver design and aerial design. ‘Marginal’ reception, towards the edges of the generally-defined transmitter coverage areas, tends to give disappointing results for many receivers used indoors, especially on the ground floor. This has been a problem to date with DAB digital radio in certain areas.

Robustness of reception for any given area depends on two factors:

- Density of transmitters. DAB, unlike analogue radio uses a single frequency network. This means that, whereas for analogue transmitters using the same frequency to cover adjacent areas would interfere with each other, even if carrying the same programme service, on DAB, adjacent transmitters on the same frequency, carrying the same programme, actually reinforce each other, to deliver a stronger signal to the receiver. At present, it is not always economic to provide sufficient transmitters to be able to take advantage of this benefit. Care (and some regulatory intervention or oversight) would also be needed to control localised interference effects immediately adjacent to the new transmitters.
- Transmitter power. The scope to increase transmitter power is limited by the problems of interference with other multiplex operators, or with neighbouring countries using the same spectrum (not necessarily for DAB).

The fact that the signal is not always robust may hinder take-up because people who live within a coverage area may buy a DAB set and find it doesn’t work well when they get home, so damaging perceptions of digital radio. However, most of the reception problems are with handheld DAB digital radios.

b. Not all areas of the country have a local DAB digital radio multiplex

Although 86% of the population is within a DAB local multiplex licensed area, this still leaves significant gaps in local coverage. Some major towns and cities, such as Oxford, Northampton, Wrexham and Derby, are not currently within a DAB local licence area. The gaps in coverage exist for two reasons:

- in some areas, there is currently a lack of available spectrum; and
- in other areas, spectrum is available, but the population within the area was deemed (by the Radio Authority and prospective multiplex licence applicants) too small in the early stages of DAB roll-out to be commercially viable. This problem will diminish over time, as take-up of sets increases.

For those people living in areas without a local DAB licence, choice of stations available over the DAB platform is obviously limited, reducing the attractiveness of the offering.

c. It is not economic for all smaller stations to broadcast on DAB, even if additional spectrum were made available

For smaller analogue commercial local radio stations, particularly those within the coverage area of an existing larger station, there is a further problem. The coverage areas of the local multiplexes generally match the areas over which the heritage analogue stations market themselves and measure their listenership (known as Total Survey Areas or TSAs). This was done in recognition of the fact that DAB would have a better opportunity to meet public expectations if the new digital services could provide people with their heritage radio stations (which made up the bulk of local stations at the time).

For a small local station to take capacity on one of these multiplexes may not make financial sense. A station for, say, Harrow, would currently have to take capacity on the only available local multiplex, which covers the whole of Greater London (and beyond). However, the station's analogue licence would require content local for Harrow, which would not normally be relevant for a wider area. The station would, therefore, have to pay to cover a far larger area than it potentially needs or wants.

Financially, many smaller stations are on the edge of profitability. For them to have to pay for digital broadcasting, as well as analogue, at the relatively high current cost charged for carriage on DAB, would not make commercial sense. This would be exacerbated by having to pay to broadcast to a larger area than required.

In addition to the issue outlined above, there is also a capacity constraint in some areas. The Greater Manchester local multiplex, for example, could carry up to around ten stations. Even were there to be no new stations, this would not be sufficient capacity to carry all of the existing analogue local commercial and BBC stations in the Greater Manchester and surrounding areas.

Even if spectrum were available to provide multiplexes for small geographical areas, there is unlikely to be enough demand to fill these multiplexes locally, as most such areas will have only one or two small local stations and will, in any case, be covered by larger local multiplexes offering more services.

This problem applies not only to the smaller local commercial stations, but also to the community stations which are about to be licensed.

While many DAB radios also offer FM reception, the lack of access for smaller stations may hinder DAB digital take-up as some listeners might not wish to purchase a DAB set if their most local station is not carried.

d. Choice of stations available on DAB in a given area is limited compared to stations available on other digital platforms

The number of stations available via DAB digital radio varies by area, but can be broadly classified as follows (figure 75):

Figure 75: Number of stations available by area

	No. of multiplexes (incl national)	Average number of stations on DAB		New stations (i.e. not also available on analogue in that area)	
London	5	Commercial	41	Commercial	26
		BBC	<u>12</u>	BBC	<u>6</u>
		Total	53	Total	32
Regional multiplex and local multiplex – e.g. Manchester, Leeds	4	Commercial	25	Commercial	17
		BBC	<u>12</u>	BBC	<u>6</u>
		Total	37	Total	23
Local multiplex but no regional multiplex – e.g. Southampton, Leicester	3	Commercial	15	Commercial	9
		BBC	<u>12</u>	BBC	<u>5</u>
		Total	27	Total	14
National multiplexes only – e.g. Oxford, Derby	2	Commercial	8	Commercial	5
		BBC	<u>11</u>	BBC	<u>5</u>
		Total	19	Total	10

Source: Ofcom

Choice of stations, both simulcast (i.e. already available on FM or AM in that area) and new digital-only stations is greatest in London. In many areas, which already have a local DAB multiplex, there are only nine new commercial digital offerings, alongside the BBC's digital offerings, to tempt listeners.

For national services, Digital One offers five new, digital-only stations in addition to simulcasting the existing three analogue national stations.

In comparison, the digital satellite television platform offers 85 digital radio stations, of which 18 are BBC stations (including the stations for Scotland, Wales and Northern Ireland available across the UK) and 67 are commercial. Of these 67 commercial stations, 47 are only broadcast on digital (i.e. they have no analogue service in the UK), while 17 are local or regional services, such as Kiss, Galaxy or Xfm, being broadcast across the UK.

Moreover, the highest amount of listening to new commercial digital stations, as measured by Rajar, is to stations some of which are not available on DAB digital radio but on digital TV. For listeners to these stations, there is less incentive to get a DAB set, as not all the stations they want are available.

Discussions with the industry and representations made to Ofcom suggest that there would be demand from stations to launch on DAB digital radio, some of which are currently only available via digital television.

e. Spectrum for digital radio is limited on digital terrestrial TV

Compared to other digital TV platforms in the UK, there are fewer stations on Freeview, which offers 24 UK-wide stations, of which only 13 are commercial stations (compared to Sky's 67 non-BBC stations). This is partly because spectrum on Freeview which can be used for radio is limited – overall bandwidth is more restricted and capacity which can be used for commercial radio is limited by the digital terrestrial TV multiplex licences, to 10%. This is because the Broadcasting Act 1996 requires that at least 90% of digital capacity of a digital terrestrial television (DTT) multiplex is available for the broadcasting of digital programme services, qualifying services, programme related services and relevant technical services, effectively limiting the amount of capacity that a multiplex operator can allocate to the carriage of non-programme related data and commercial digital radio services to 10%.

Most operators or potential operators of digital radio stations cannot therefore currently broadcast their stations on this fast growing digital TV platform, which accounts for 28.4% of the current household take-up of digital TV, limiting choice over this platform. A greater offering on digital TV platforms could have a knock-on effect on digital radio take-up overall as people experiencing content over digital TV may seek to listen to similar content when away from their TV sets.

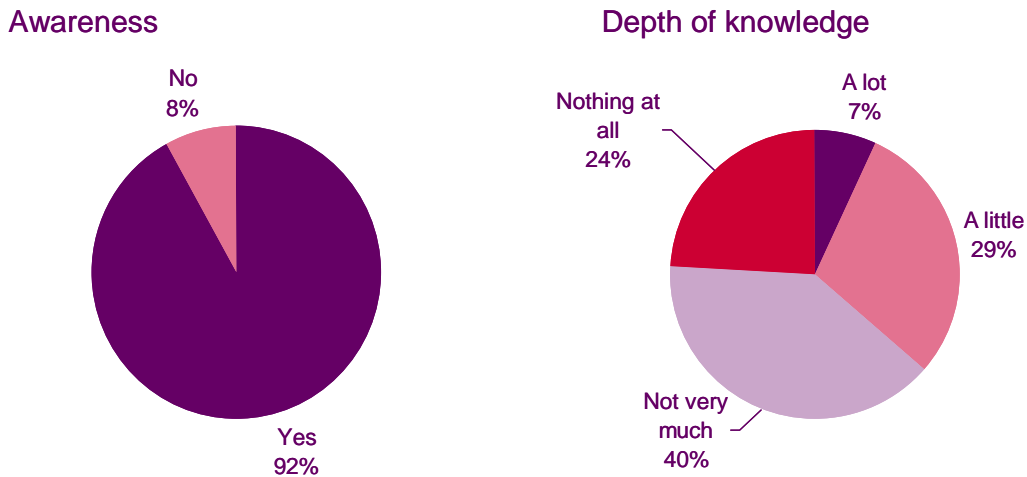
f. Consumer awareness of digital radio and its benefits is still low

Ofcom commissioned research (qualitative and quantitative) from MORI into consumer awareness of digital radio and DAB digital radio in particular (Appendix B).

Our quantitative research found that there is substantial awareness of the term 'digital radio', with more than nine in ten (92%) stating that they had heard of it prior to participating in the survey.

But, despite high awareness of the term, few listeners claim to know much about digital radio (figure 76), with only 7% saying they know more than a little about what digital radio offers.

Figure 76: Awareness of and knowledge about digital radio



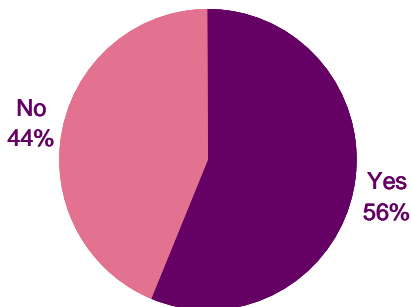
Source: MORI research for Ofcom

Fewer people – only 56% – had heard the term DAB digital radio, with awareness slightly higher amongst men, ABC1s and younger listeners (figure 77). Our audience research suggests that awareness is also higher in England (58%) than in Scotland (43%) or Northern Ireland (33%).

Figure 77: Awareness of DAB digital radio

Q Have you ever heard of the term ‘DAB digital radio’?

DAB Digital Radio



Men	67%
Women	43%
ABC1	61%
C2DE	50%
16 – 35 year olds	65%
36 – 54 year olds	56%
55+	45%

Source: MORI research for Ofcom

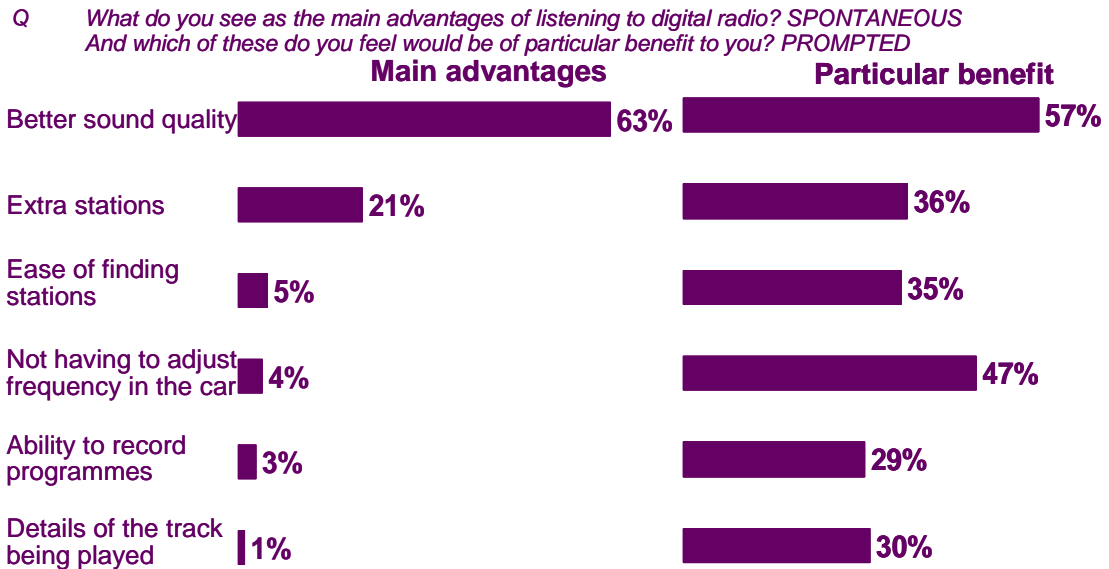
These quantitative results reinforce findings from the qualitative work, where there was also high awareness of the term ‘digital radio’ but a limited understanding of the specific features and benefits that digital radio technology offered over traditional radio services. The benefits of digital radio seem to be generally *presumed*, rather than known, to be of better quality than analogue radio. This may be based upon a more widespread understanding that digital television provided a better picture and sound quality than analogue television.

Among analogue radio listeners who claim to know at least a little about digital radio, almost two-thirds (63%) cited better sound quality, three times more than mentioned

extra stations (21%). Beyond these two advantages, there is very little understanding at present of other benefits of a digital radio set, with only around 5% mentioning the ease of tuning, not having to change radio frequencies while driving (4%) and the ability to record radio programmes (3%).

However, the list of potential benefits offered by digital radio generated a great deal of interest with many analogue listeners feeling these would offer benefit to them (Figure 78).

Figure 78: Awareness of the benefits of digital radio



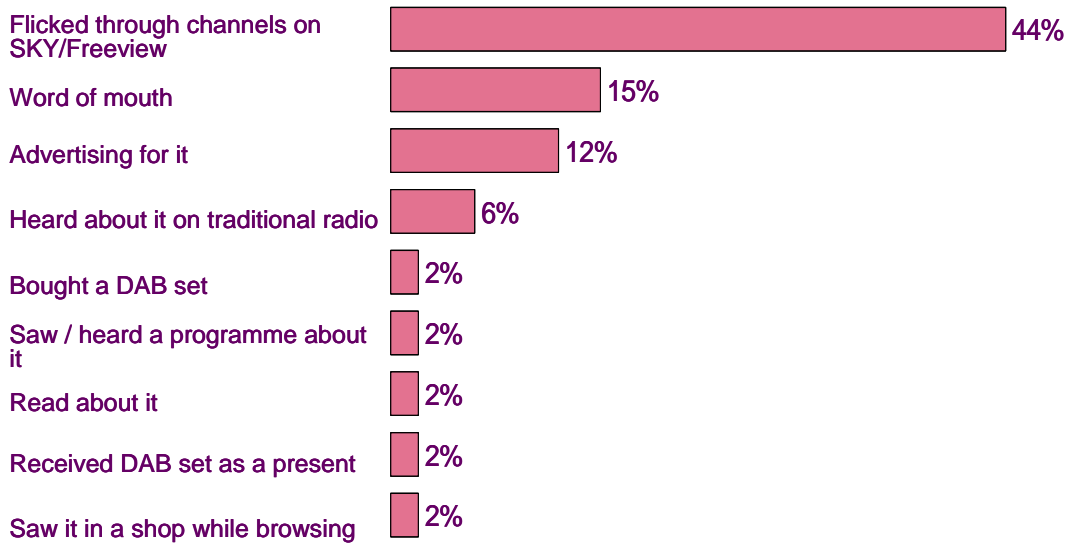
Base: All analogue radio listeners who claimed to know a lot or a little about digital radio
Source: MORI research for Ofcom

This is supported by the audience research findings by MORI (Appendix B) from people who already listen to digital radio. In this study, four in ten DAB users listen to the radio more after first accessing digital radio, with more than half (61%) listening to new stations and more stations (57%). The listening experience is considered as more pleasurable due to the increase in sound quality, the increase in choice and variety of channels and the ease of use of the sets.

A further illustration that the benefits of digital radio are not necessarily well known among potential buyers is the finding from our research that most people who have listened to digital radio came across it by accident (figure 79).

Figure 79: Where people first encountered digital radio

Q How did you first come across digital radio?



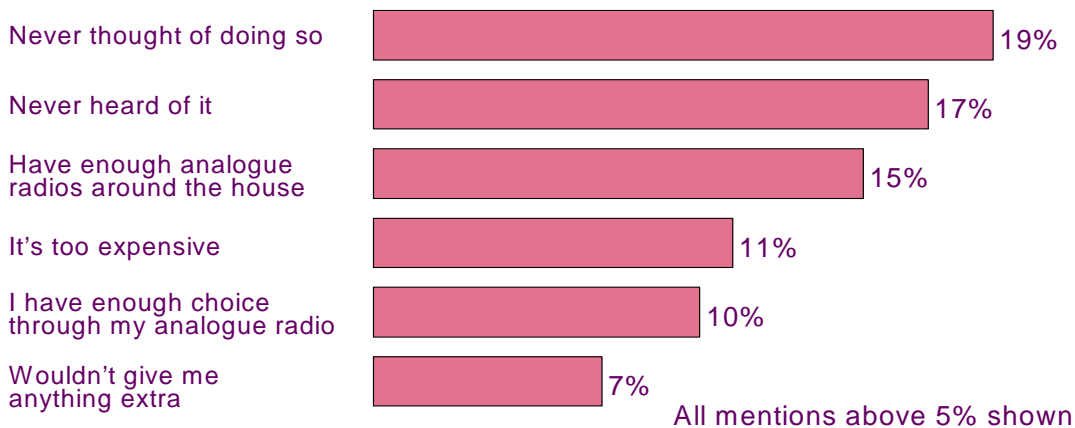
Source: MORI research for Ofcom
Base: All digital radio listeners (822)

At the moment non-users see digital radio as not yet established and as quite a niche product, bought by early adopters and people who want it as a status symbol. There is felt to be a distinct lack of advertising / marketing of the features or benefits of digital radio.

Among those currently restricted to an analogue radio service, lack of awareness, lack of need and high cost summarise the key barriers to uptake of a DAB radio (figure 80).

Figure 80: Barriers to take-up of DAB digital radio

Q Why do you not have a DAB radio?



Base: All analogue radio listeners (679)

Source: MORI research for Ofcom

The current lack of awareness about or familiarity with the benefits of digital radio among non-users can be seen as an obstacle to the more rapid growth of the digital radio market.

g. DAB digital radio sets are still expensive relative to analogue sets

Our audience research, carried out by MORI, suggests that one of the main factors preventing more rapid take-up of DAB radio sets is price.

At the moment, there is a high price differential between an analogue radio and an equivalent style of DAB digital radio – generally around £50 to £100. It is possible to buy analogue radios for under £10. Although prices are falling, the cheapest DAB radio sets on the market retail at around £50 and many are much more expensive.

Our research also revealed that consumers are generally expecting prices to fall, as has been seen with other types of digital technology, such as DVD players, digital cameras and Freeview boxes. This has tended to make people more reluctant to pay current prices for DAB radio sets.

Prices are high partly because of a lack of investment in DAB by many of the major radio manufacturers, who were initially unwilling to invest until they could see a large, ideally pan-European, market. The relatively slow pace of DAB development in other countries has meant that this pan-European market in receivers has also been slow to develop.

7.8 Overcoming the obstacles to further development

The previous section identified a number of obstacles to the further growth of digital radio and, in particular, DAB digital radio.

This section considers how some of those obstacles might be overcome, including what actions Ofcom could take to help accommodate the growth of the market and what actions the industry could take to help the development of the market.

We have developed a number of policy proposals in relation to digital radio. In coming up with these policy proposals, we have taken particular account of Ofcom's duties to ensure:

- the availability throughout the UK of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests; and
- the optimal use for wireless telegraphy of the electro-magnetic spectrum.

Our proposals are based upon our preliminary industry consultation, audience research and economic analysis. Ofcom remains platform and technology neutral, seeking neither to favour nor to impede the progress of any particular technology or platform over any other. However, we recognise the importance of DAB in offering a digital alternative to AM and FM radio and the importance of addressing the obstacles to its development at this time.

a. Improving the coverage of the national and local DAB services

Nominal coverage:

The roll-out of further transmitters is a commercial decision, subject to international agreement to avoid interference in border and coastal areas. Ofcom proposes to

continue to work to secure international agreement to allow transmitters to be built to cover these areas.

The BBC has committed to bringing coverage of its national multiplex to over 90% of the UK population.

Robustness of reception:

There is a general view in the industry that signals should be made stronger, especially where population density is high. This will tend to require a twin-pronged approach of increasing the density of transmitters and making some of the existing ones more powerful.

Ofcom's principal role in both of these cases is to attempt to facilitate commercially-driven initiatives, as appropriate. Any change in one area could have implications for adjoining areas and so planning for any changes needs to be carefully co-ordinated. Any solution will therefore require industry consensus and, in some areas, co-ordination with neighbouring countries.

Ofcom is therefore working with the industry to facilitate coordination of coverage plans. The key UK stakeholders and Ofcom work together through the Radio Technical Policy Group to help ensure that all radio broadcasters can optimise their coverage of the country with digital radio.

Ofcom also leads the UK delegation to, and coordinates the UK's proposals for, the International Telecommunications Union's Regional Radio Conference, which is currently negotiating a new spectrum plan for all broadcasting in Europe, taking particular account of the needs of broadcasters to roll out digital services. The conference is due to report in May 2006, setting out frequency allocations and cross-border co-ordination rules which could help the UK to extend further our digital radio services. Ofcom is also leading bilateral negotiations to ensure coordination on spectrum with our neighbouring countries.

b. Completing the local coverage map

Enabling the completion of coverage of the UK by local DAB digital radio stations will require the allocation of additional spectrum which can be used for DAB.

There is currently spectrum in both VHF Band III and L-Band which could be used for DAB digital radio or for other purposes. The Band III spectrum could be used for DAB digital radio or for purposes including non-programme related data services carried using the DAB standard or for Private Mobile Radio (PMR) or other technologies, such as DVB-H. Any such allocation would be subject to finding a home for existing users of the spectrum (Programme Making and Special Events or PMSE users) at reasonable cost and securing agreement with our neighbours in Europe over the use of the spectrum.

It is Ofcom's proposed approach when allocating spectrum, as set out in the Spectrum Framework Review (available on the Ofcom website under <http://www.ofcom.org.uk/consultations/current/sfr/?a=87101>), to determine the most probable use so that we can package the spectrum in the manner most likely to meet the market's needs.

Two of Ofcom's legacy regulators, the Radiocommunications Agency and the Radio Authority, issued a joint consultation exercise on 17 October 2003, seeking views on

opportunities for future use of spectrum within VHF Band III and the 1.5 GHz band. The public consultation responses identified a number of possible uses of the spectrum (the consultation and responses are available on the Ofcom website at http://www.ofcom.org.uk/consultations/past/vhf_band3/?a=87101). The consultation was followed by an economic analysis of the options for using VHF Band III. External consultants, Analysys, DotEcon and Mason assessed the economic benefits of various allocation options, taking into account technical limitations on services sharing the same spectrum blocks. Their findings (also available on the Ofcom website) are that the economic value of the spectrum will be maximised by:

- allocating sub-band 3 of VHF Band III to five digital audio broadcasting (DAB) compatible frequency-blocks, permitting both radio and data / multimedia services. (By DAB-compatible, we mean with technical characteristics that would permit DAB use).

These findings are subject to:

- finding a solution for existing users of the VHF Band III sub-band 3 spectrum (PMSE users) and the costs of relocating them being less than the benefits of DAB use. (Note: PMSE spectrum is used, in sub-band 3, for purposes such as radio microphones by broadcasters, theatres etc); and
- securing international agreement on the use of this band, which will be reviewed at the Regional Radio Conference (RRC) in 2006, so that UK services can be protected from interference.

We have therefore started working to resolve these matters, with the intention of securing the conditions that would permit the spectrum in sub-band 3 of VHF Band III to be allocated in the form of DAB-compatible frequency blocks. It is our expectation, from the preliminary work which we have carried out on spectrum clearance, that either four or five DAB-compatible frequency blocks could be made available, although this would still require international agreement.

Allocation of this spectrum for DAB-compatible use does not preclude its use for other purposes (providing those other purposes can exist within the DAB specifications) although the VHF Band III spectrum considered here would not be ideally suited to alternative digital radio or multimedia platform standards; these other standards are more likely to be better suited to other spectrum (e.g. either in L-band and / or the UHF band to be released from digital TV switch-over). There was no proposal for the use of the VHF Band III spectrum for these other standards in response to the consultation on the future use of spectrum within VHF Band III.

Our proposed approach to releasing spectrum for use, as set out in the Spectrum Framework Review, is that spectrum should be free of technology and usage constraints as far as possible. Policy constraints should only be used where they can be justified. It follows that, having packaged the spectrum in the manner most likely to meet the market's needs, our normal approach would then be to auction the spectrum in a technology-neutral manner. However, as we understand that this spectrum is most likely to be used for sound broadcasting, we also need to weigh our statutory duties which relate to broadcasting (see Regulatory Impact Assessment in Appendix E). These include a duty to secure the availability, throughout the United Kingdom, of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests.

We believe that DAB will become an increasingly important element of the radio market in the coming years. However, at present a significant proportion of UK households – 14% - are not currently covered by a local radio multiplex, so cannot obtain local digital radio services by this means. In addition, our pre-consultation discussions with stakeholders have indicated that there is demand for more national carriage capacity, for radio but also potentially for other digital services, and increasing this capacity would increase competition and choice for radio service providers, listeners and advertisers. Hence, we believe there is a strong case, from a broadcasting standpoint, for dividing this spectrum, which has been packaged for DAB-compatible use, between national and local use in a manner that will best benefit the listener.

In balancing our spectrum policy of technology and usage neutrality with our broadcasting policy of enabling local terrestrial digital radio broadcasting across the UK, we have in this case concluded that applying our proposed standard approach of auctioning all of these frequency blocks in a technology-neutral manner would not produce the locally-planned multiplexes needed to deliver our radio policy objectives. This is because there is a risk that a market allocation of all of the blocks would not produce the locally-planned multiplex areas that would complete coverage of local multiplexes across the UK. We therefore consider that, for reasons of radio policy, a market allocation is not appropriate for all of the blocks in this case, and, as detailed further below, we propose to award a number of local radio multiplex licences in order to enable local terrestrial digital radio services to be available across the UK. This is laid out in further detail in our Regulatory Impact Assessment in Appendix E.

If five DAB-compatible frequency blocks are made available, public policy reasons support an allocation of three of these for local radio multiplexes (with the other two blocks being allocated nationally). We have carried out technical analysis which shows that an additional three VHF Band III frequency blocks allocated to local multiplexes would be required to fill-in the gaps, in such a way as to allow almost every part of the country to have access to at least one local digital multiplex, offering local services. The new local multiplex areas would cover similar-sized areas as the existing local multiplex areas, and would broadly replicate the analogue coverage areas of many heritage analogue local commercial stations (although not the smallest stations).

The economic analysis by Analysys supports this as it also suggests that the greatest economic value is likely to be derived from this spectrum if three of the five frequency blocks are used to provide additional local coverage and capacity and two are used to provide additional national capacity.

If four DAB-compatible frequency blocks are made available, we believe that public policy reasons still support an allocation of three of these for local radio multiplexes, with the fourth block being allocated nationally. In the case that four blocks are available, the economic analysis – not taking into account public policy reasons - implies that allocating three to local and one to national would be slightly less beneficial than allocating two to local and two to national coverage. However, as laid out in our regulatory impact assessment on the matter (Appendix E), the estimated difference is small and potentially within the margin of error of the analysis. We believe the public policy benefits of allocating three to local and one to national outweigh the marginal economic benefit of a different allocation. As part of the consultation on this proposal, we are inviting indications of demand for national digital capacity (see 7.8d).

In light of our analysis above, subject to successful resolution of the issues around spectrum clearance and international agreement discussed, Ofcom would propose to allocate three of the possible four or five DAB-compatible frequency blocks for use for local radio multiplexes. (Note: While our aspiration is to license four or five blocks of spectrum, if, after investigation, it is not possible to clear all of this spectrum and so only possible to license fewer blocks, we would look again at the options as regards the split between local and national services).

In reaching a decision on the allocation and award of this spectrum, we will take into account public policy objectives, benefits to consumers and the health and growth prospects for the digital radio market as a whole, including any impact on the businesses of existing radio licensees.

This consultation seeks comments on the options and the assessment set out in the RIA. We will consult subsequently on the timing and conditions of any award following a decision on allocation.

We have drawn up a list of the areas for which we would propose to license multiplexes using these three blocks (figure 82). We invite responses to this proposal as part of this consultation.

In addition to the new frequencies which would become available through the licensing of frequency blocks to local multiplexes, there are still some remaining frequencies within the existing allocation which have not yet been licensed (figure 81).

In effect, these recommendations can be seen as completing the roll-out of local DAB digital radio services begun by the Radio Authority.

Licensing local multiplexes

Under current legislation, Ofcom can decide whether a new multiplex service should be awarded and licensed under the Broadcasting Act 1996. If Ofcom decides that a Broadcasting Act licence is not required, then the service will only be licensed under the Wireless Telegraphy Act 1949 (to the extent that provision of the service involves the use of wireless telegraphy stations or apparatus).

There are a number of differences between the regulation of a multiplex service licensed under the Broadcasting Act 1996, and a service licensed only under the Wireless Telegraphy Act 1949.

Broadcasting Act licences are subject to specific statutory provisions covering a wide range of issues, from who may or may not own a licence to a requirement that each new licence should increase the range and diversity of digital radio services in the area. In addition, Ofcom has powers to impose additional conditions in licences as a matter of broadcasting or competition policy.

Wireless Telegraphy (WT) Act licences are not subject to these statutory provisions. There would be differences in the conditions that can be imposed on a WT Act licence and a Broadcasting Act multiplex licence. These stem in part from the fact that WT Act licences authorise the use of wireless telegraphy stations and / or apparatus, whereas Broadcasting Act licences authorise the provision of broadcasting services. The differences between the two types of licence that we consider to be particularly important are laid out in detail in Appendix E, and include:

- the award process;
- the flexibility of the operator over which services to provide;
- provisions regarding ownership and plurality; and
- the inclusion of *ex ante* competition conditions.

A Broadcasting Act DAB digital radio multiplex licence would be advertised in the same way as the existing multiplex licences and would be offered to the applicant that Ofcom believed offered the best proposal against the selection criteria, which includes the provision of a broad range of radio services. A multiplex without a Broadcasting Act licence could be used for a variety of things, including data broadcast, and would not necessarily have a requirement to broadcast any radio services. It could be awarded by auction.

Allowing the provision of a multiplex service without a Broadcasting Act licence could allow the market to decide upon the best use of the spectrum. However, as set out in our Regulatory Impact Assessment (Appendix E), we believe there are public policy arguments for allocating the proposed local multiplexes as DAB digital radio specific multiplexes under the terms of the Broadcasting Act. These include ensuring that these local multiplexes are used primarily to provide digital radio services and securing a consistent approach with the areas for which local radio multiplexes have already been allocated. This approach would have the additional benefit of ensuring that capacity can be reserved for carriage of the BBC's local radio services in those areas.

We seek views as to the likely level of demand for local radio and other services, including multimedia applications, on local DAB multiplexes.

Proposed local multiplex plan

The existing frequency allocations would allow multiplexes to be licensed for the following areas and enable carriage of the identified BBC local station(s) (figure 81).

Figure 81: Additional licence areas using existing VHF Band III frequencies

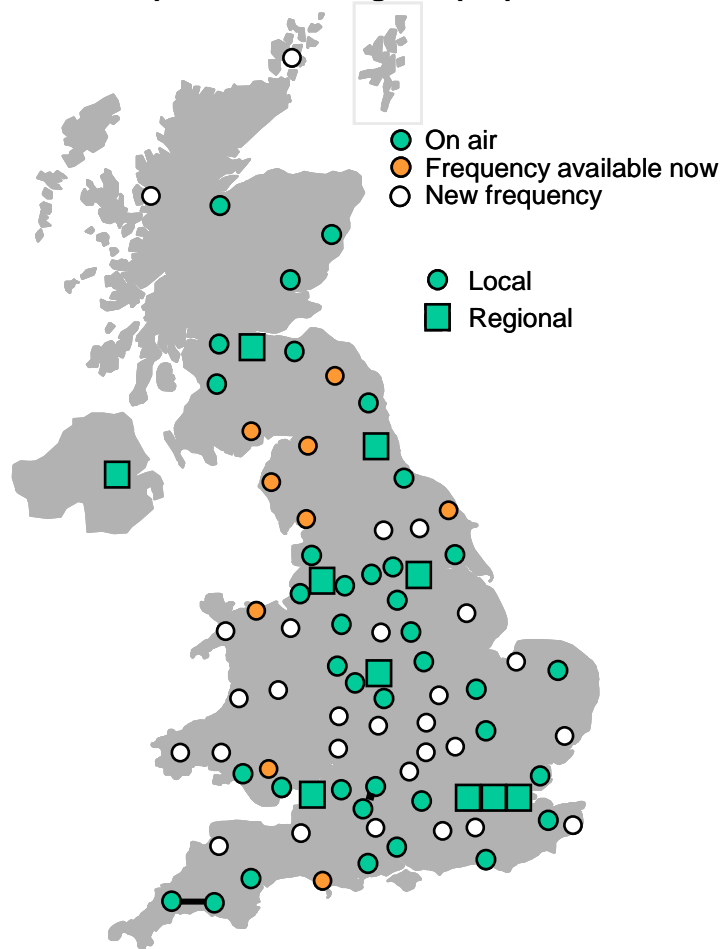
	Local multiplex licence area	BBC station(s) with reserved capacity
1	Carlisle	BBC Radio Cumbria
2	North Wales Coast	BBC Radio Wales & BBC Radio Cymru
3	Dumfries and SW Scotland	BBC Radio Scotland & BBC Radio nan Gaidheal
4	Heads of the South Wales Valleys	BBC Radio Wales & BBC Radio Cymru
5	Morecambe Bay	BBC Radio Lancashire & BBC Radio Cumbria
6	Scarborough	BBC Radio York
7	Scottish Borders	BBC Radio Scotland & BBC Radio nan Gaidheal
8	West Cumbria	BBC Radio Cumbria
9	Weymouth & Dorchester	BBC Solent 103.8 or a new BBC Radio Dorset

The three new frequency blocks could provide services to the following areas (and enable carriage of the identified BBC local stations) (figure 82):

Figure 82: Additional licence areas using new VHF Band III frequencies

	Local multiplex licence area	BBC station(s) with reserved capacity
10	Aylesbury	BBC Radio Oxford
11	Caernarfon	BBC Radio Wales & BBC Radio Cymru
12	Carmarthenshire	BBC Radio Wales & BBC Radio Cymru
13	Ceredigion	BBC Radio Wales & BBC Radio Cymru
14	Chester / Wrexham	BBC Radio Wales & BBC Radio Cymru (note: Chester is already covered by the Liverpool multiplex which carries BBC Radio Merseyside – but there may be a possible new BBC Radio Cheshire service)
15	Derby	BBC Radio Derby
16	Gloucester & Cheltenham	BBC Radio Gloucestershire
17	Guildford	BBC Southern Counties Radio
18	Harrogate	BBC Radio York
19	Hereford & Worcester	BBC Hereford and Worcester
20	Ipswich & Bury St Edmunds	BBC Radio Suffolk
21	Kent Coast (note: this completes the existing Kent multiplex coverage)	BBC Radio Kent
22	Kings Lynn	BBC Radio Norfolk
23	Lincoln	BBC Radio Lincolnshire
24	Luton / Bedford	BBC Three Counties Radio
25	Milton Keynes	BBC Three Counties Radio
26	North Devon	BBC Radio Devon
27	Northampton	BBC Radio Northampton
28	Oxfordshire (Oxford & Banbury)	BBC Radio Oxford
29	Pembrokeshire	BBC Radio Wales & BBC Radio Cymru
30	Reigate & Crawley	BBC Southern Counties Radio
31	Salisbury	BBC Wiltshire Sound
32	Somerset (Taunton & Yeovil)	BBC Radio Bristol (Somerset Sound opt-out) or a new BBC Radio Somerset service
33	Stratford-upon-Avon	BBC Coventry & Warwickshire
34	York	BBC Radio York
35	Mid-Wales	BBC Radio Wales & BBC Radio Cymru
36	Western Scotland	BBC Radio Scotland & BBC Radio nan Gaidheal
37	Orkney and Shetland	BBC Radio Scotland & BBC Radio nan Gaidheal

Figure 83: Map of local multiplexes – existing and proposed



Note: All of the areas shown on the map (figure 83) and both of the above tables (figures 81 & 82) are provisional and subject to further technical planning. In addition, some of the areas may be combined into single areas for the purposes of licensing, where this would make commercial sense.

This plan should allow the BBC to achieve its aim of providing all of its local and nations' services on DAB.

The BBC cannot itself hold a Broadcasting Act multiplex licence, but a BBC company is free to apply for any of these proposed multiplex licences, just as a BBC company applied for the digital terrestrial television multiplex licences.

It may also be possible to license second or third local or regional multiplexes in some areas which already have an existing local or regional multiplex (not shown in the above lists). We have not yet identified all of the areas where it may be possible to licence additional local multiplexes and will publish proposals in due course.

We propose to publish an initial timetable (for consultation) in the spring of 2005, for the licensing of additional multiplexes, subject to the outcome of this consultation, spectrum clearance and international agreement.

c. Seeking solutions to allow access of smaller commercial stations and community stations to digital capacity

As outlined above, there is, as yet, no obvious route for smaller analogue stations to provide their services digitally in a way which is economic for them.

The solution for these stations is unlikely to be found in VHF Band III. L-Band is a possible solution, as it is more suited to small-area local coverage than Band III. But if used for DAB, it would be broadcast as multiplexes, and so would have the same inherent problems as Band III; there is unlikely to be sufficient local demand to fill such small multiplexes. In addition, there is likely to be significant demand for L-band spectrum for other uses, which points towards a market-based approach and allocation.

While a number of other suggestions have been made to us during the course of this review as to potential solutions – e.g. using DRM technology, windowing on DAB – there is no one obvious solution. Ofcom will actively seek a solution for smaller stations to broadcast in digital and will work closely with the industry to examine all possible technical options, including use of other spectrum and other standards.

d. Increasing choice by licensing more DAB-compatible spectrum with national coverage and changing the regulation relating to technical standards in digital sound broadcasting

Licensing further national frequency blocks

As described in 7.8b above, sub-band 3 of VHF Band III could potentially yield four or five blocks of spectrum for further DAB-compatible licensing, subject to finding a home for existing users of the spectrum at reasonable cost and securing agreement with our neighbours in Europe, and we propose to license three of these to complete the map of local coverage. If available, we propose to license the remaining one or two blocks for national coverage (although there are some technical restrictions which mean that coverage would not extend to the whole of the UK), using our proposed standard approach (as per the Spectrum Framework Review) of auctioning these frequency blocks in a technology-neutral manner. This could potentially allow for several additional radio stations plus multimedia data services, depending on how the frequencies are licensed and what the licensees decide to do with the spectrum (within the bounds of their licence).

We have undertaken a Regulatory Impact Assessment (Appendix E) to assess the net benefit of each of the options for the allocation of these blocks. The RIA takes account of public policy objectives, benefits to consumers, impact on the businesses of existing radio licensees and the health and growth prospects for the digital radio market as a whole. We also note Digital One's position as the current national radio multiplex licensee and the investment it has made in digital radio. To the extent relevant, we will take this into account, together with all other relevant factors, in reaching a decision on our proposals regarding the allocation of spectrum.

This consultation seeks comments on the options and the assessment set out in the RIA. We will consult subsequently on the timing and conditions of any award following a decision on allocation.

As with the local multiplexes, any nationally allocated blocks could either be licensed as DAB digital radio multiplex licences under the terms of the Broadcasting Act 1996, or they could be provided without the need for a Broadcasting Act licence (in which

case they would be regulated solely by a licence under the Wireless Telegraphy Act 1949). In the latter case, the operation of the spectrum would not need a Broadcasting Act licence, although the operation of any sound services broadcast on that spectrum would require a Digital Sound Programme Service licence under the Broadcasting Act.

Given Ofcom's preference for allowing the market to decide upon the best use of the spectrum, we are minded to allocate the frequency blocks for national coverage under the Wireless Telegraphy Act, without the need for a Broadcasting Act licence. However, as outlined above, Broadcasting Act licences are subject to a range of specific regulations for public policy reasons and we wish to consult on the implications of not applying these to the proposed new national DAB-compatible frequency blocks. Further details of the significant differences between a Broadcasting Act multiplex and a Wireless Telegraphy Act licence are given in the Regulatory Impact Assessment (Appendix E).

At the same time, we wish to consult on whether there is demand for the non-programme related data limit on Broadcasting Act radio multiplex licences to be raised from its current 20% level. This change is at the discretion of the Secretary of State and Ofcom has no powers to raise the permitted maximum data limit. However, should consultation support an increase in the non-programme related data limit, we may make recommendations to the Secretary of State accordingly. We seek the views of stakeholders as to the importance of additional capacity for data on both existing and potential national or local multiplexes and what such capacity might be used for.

The BBC has stated that it would like additional capacity to provide its existing services at a higher bit-rate, giving higher quality sound. As is the case for the local licences, in section 7.8 above, the BBC is free (via one of its subsidiaries) to apply for a new national multiplex licence, just as it did for the digital terrestrial television multiplex licences. Ofcom would assess any application by a BBC company using the same criteria against which it would assess any other applicant.

Under these proposals, should a BBC company not want or not be awarded a whole national multiplex, the BBC could consider purchasing additional capacity, on the open market, from the holder(s) of any of the local or national multiplex licences, just as it has purchased additional capacity from SDN on digital terrestrial television, to provide some of its digital radio services there.

The allocation of L-Band will be discussed as part of the implementation plan that Ofcom will be publishing shortly, following the Spectrum Framework review.

We plan to publish an initial timetable (for consultation) in the spring of 2005, for the licensing of additional national frequency blocks, subject to the outcome of this consultation, spectrum clearance and international agreement.

Changing the regulation relating to technical standards in digital sound broadcasting

Ofcom is able to set and enforce technical standards in relation to digital sound broadcasting services under the Broadcasting Act (1996).

Ofcom also has duties to:

- secure the availability of a wide range of television and radio services which (taken as a whole) are of high quality (Communications Act 2003); and
- to include appropriate conditions for securing that signals carrying radio multiplexes (including their ‘payload’ of sound channels) should attain high standards of technical quality (Broadcasting Act 1996).

Currently, Ofcom requires that a minimum capacity within a digital radio multiplex is attributed to each sound channel (e.g. a stereo music service must use at least 128kbit/s). However, since this regulation was put in place, technological progress has enabled new coders to deliver better quality with the same bit-rate, or to achieve the same quality with a reduced bit-rate, which in turn would enable more services to be carried on a digital multiplex.

As a result, we are proposing to make a change in how these technical standards are regulated. Our proposal is to replace the current regulatory approach (based on minimum bit-rates) with a system of co-regulation, based on outputs, in which licensees are required to establish and apply appropriate criteria and practices for securing quality. Specifically, we propose that:

- a hard minimum bit-rate limit within licences should be abolished;
- the general licence condition that signals carrying multiplexes should attain high standards of technical quality should remain, as should the reference to the Digital Technical Code; and
- the Digital Technical Code would replace the section on minimum bit-rates with a co-regulatory requirement akin to part of that applied in television on picture quality (the ‘Technical Performance Code’).

Indicative Code Provision on Digital Multiplex Audio Quality

1. Licensees must provide Ofcom with a description of their procedures and criteria for ensuring high standards of technical quality.
2. Licensees are required to make their own periodic assessment of the technical quality of their service. The objective of this monitoring should be to confirm the effectiveness of their procedures and criteria.
3. Technical quality should generally be of a standard consistent with reasonable expectations for the majority of listeners, taking into account the nature of the content concerned.
4. Without prejudice to the generality of the above provision, the technical quality of received audio should not be degraded by the process of coding and transmission by more than two ‘diffgrade’ points on the scale defined within ITU-R recommendation BS. 1116, and generally by less than this. The provision of capacity to achieve this objective should take due account of the coding equipment used, the range of material generally transmitted on the sound programme service concerned, and the processes by which it has been created, stored, and retrieved and sent for final coding.

As detailed in our Regulatory Impact Assessment (Appendix E), we believe these proposals would allow licensees to take advantage of the technological progress in

coding and allow listeners potentially to benefit from an increase in the number of services on DAB digital radio.

We believe that the digital radio industry is committed to maintaining levels of service quality in order to protect and build the brand of DAB digital radio – especially as quality has been shown to be important to listeners. Therefore, we expect that licensees will make appropriate choices about the use of lower bit-rates, if service quality might be adversely affected. However, in order to discharge our statutory obligations to secure high quality standards, the code provides the means for Ofcom to intervene if the outcomes, by general consensus, are not serving the public interest well.

We consider that this proposal would further Ofcom's duty to secure the optimal use of the electromagnetic spectrum and the availability of a wide range of radio services which, taken as a whole, are of high quality (Communications Act). We welcome input on this proposal as part of this consultation.

e. Addressing the limitations on capacity for commercial digital radio on television multiplex services

On digital terrestrial television multiplexes, 90% of the capacity must be available for the broadcasting of digital programme services, qualifying services, programme related services and relevant technical services. This leaves only 10% for other services such as radio. It has been suggested to us by companies within the industry that a relaxation in this limit would be of benefit to the development of the digital terrestrial market and would also provide for greater opportunities for the carriage of commercial digital radio services on DTT. We welcome views from broadcasters and other interested parties as to whether Ofcom should make a recommendation to the Secretary of State that such a relaxation be made.

f. Improving consumer awareness

Responsibility for marketing digital radio rests with the industry and industry bodies. We recognise the enormous amount of work that has already gone into promoting digital radio (and DAB digital radio in particular) by the industry, led by the Digital Radio Development Bureau, with relatively limited resources. In order to further improve consumer awareness of the benefits of digital radio, the radio industry will need to continue their work to promote digital radio, as well as working with manufacturers and retailers to get the messages across.

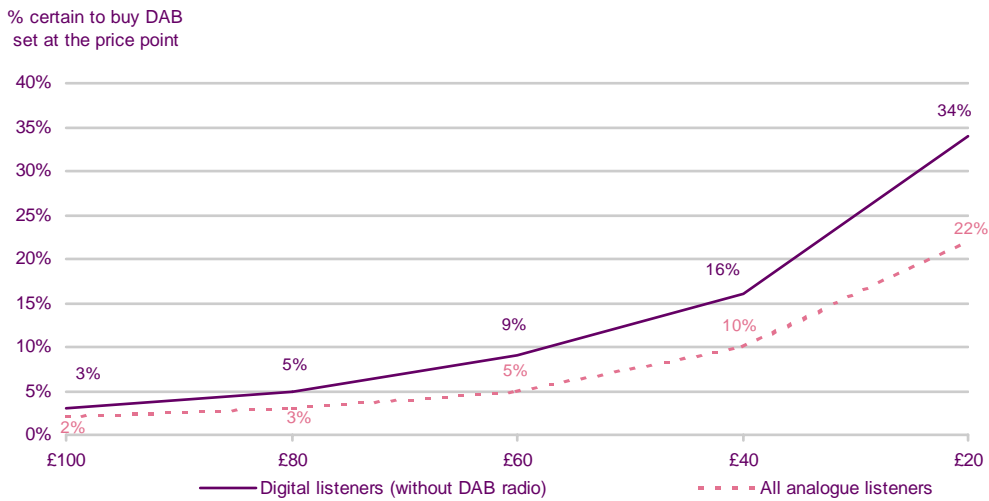
It is not Ofcom's role to act in this area – it remains up to the industry to address the issues around consumer awareness.

g. Reducing the premium price for DAB receivers relative to analogue receivers

Our audience research shows that demand for digital radio receivers is likely to be sensitive to price changes (figure 84). This was true both of people who already listen to digital radio via television and of those who listen solely to analogue radio.

If the price fell to £40, 16% of digital radio listeners and 10% of analogue-only listeners say they would buy a DAB set in the next year, compared to 9% and 5% respectively at £60. If we compare these percentages to the current market for all radios where, on average, around 10 million units are sold per year (equivalent to 44% of all households acquiring a new radio each year), the percentage of new radio purchases represented by digital radio could become significant as prices fall.

Figure 84: Interest in purchasing a DAB set within the next year at different price points



Source : MORI research for Ofcom

While it was initially believed by many that a pan-European market would need to develop in order to increase volumes sufficiently to bring set prices down to levels where a critical mass of consumers started to buy them, positive signs are now emerging that the UK market for DAB receivers may be self-sustaining. The price of entry-level receivers has already dropped to £50 and major manufacturers are starting to enter the market, particularly as those who do not provide DAB have seen their market share of total radio sales in the UK dropping.

Nonetheless, volumes of sales of (Band III compatible) DAB sets in other parts of Europe are still likely to have a positive impact on bringing down the prices of sets in the UK market. As described in section 7.4, the development of a market for DAB digital radio has been relatively slow in many parts of Europe.

Ofcom believes that there are benefits to common standards both within the UK and internationally. We intend to continue to work with and encourage regulators in other parts of Europe to promote the adoption and licensing of digital radio under the internationally-approved common standards (notably DAB for digital radio). We encourage broadcasters and manufacturers to continue to work with their counterparts in Europe to the same end.

A by-product of this work and coordination may be to help stimulate interest and investment in DAB, which may, in turn, grow the market and bring down set prices.

7.9 Scenarios for the future take-up of digital radio

Growth of the digital radio market will depend on a number of factors, as detailed throughout this report. There are a number of ways of looking at these future trends, including take-up of sets capable of receiving digital radio signals, amount of digital listening and / or development of advertising revenues.

Digital radio is still at an early stage of development. Given the difficulties in forecasting advertising revenues, when there is currently limited revenue data for digital radio advertising, or in estimating listenership, when current listening to digital

is not specifically recorded, this report considers only existing forecasts of future take-up of digital radio receivers.

We have assumed that digital radio will continue to be received over digital TV, internet (broadband) and DAB radio. It is possible that digital radio may be broadcast using other technologies by the end of the forecast period shown (2008). However, we are not aware of planned commercial launch of any other digital radio technologies.

Digital TV receivers

Digital switch-over in the UK television market is being planned for 2012. By this time, nearly all households in the UK should have at least one digital TV set, growing from 55% penetration currently.

Broadband internet

PCs with broadband internet access can also deliver digital radio services to the home. Industry projections for UK broadband penetration range between 40% and 50% of households by 2008¹⁵.

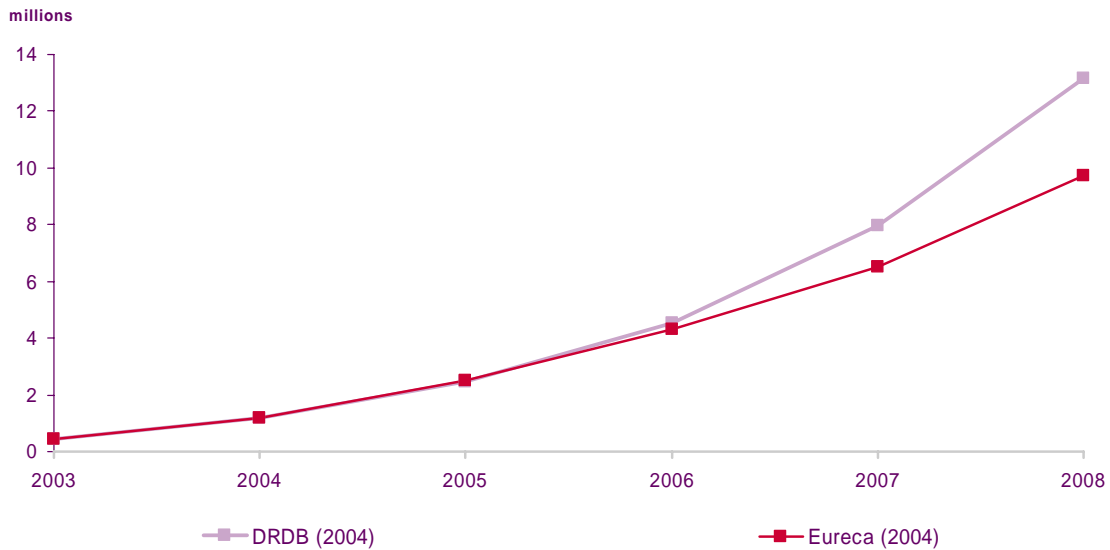
DAB receivers

While the mass take-up of digital TV and broadband Internet mean that digital radio will be available in the vast majority of households by 2008, we believe, as stated previously, that people will continue to do the bulk of their radio listening on portable and mobile devices. Therefore, forecasts of DAB receivers are important to understand the prospects for the growth of digital radio.

Here, we report existing forecasts and apply some analysis we have undertaken to assess whether these could be realistic. However, due to the very early stage of market development, it is still difficult to estimate accurately the future take-up of DAB receivers. Therefore, these forecasts have to be taken with a certain degree of caution.

Industry forecasts by the DRDB and Eureka published during 2004 predict cumulative DAB set sales by 2008 to be between 10m and 13.1m sets (figure 85), compared to 800,000 at the end of September 2004. These forecasts suggest that growth is forecast to have accelerated significantly by 2008.

¹⁵ Ofcom Strategic Review of Telecommunications Phase 1 consultation document

Figure 85: DAB receiver scenarios

Source: Ofcom, third party forecasts

We have assessed the two most recent forecasts by looking at what sort of take-up, as a percentage of radios sold each year, each implies.

In 2003, 10.9 million¹⁶ radios were sold, of which 13% were after-fit car radios (i.e. not including those built-in to new cars) and 87% were non-car radios¹⁷. Less than 1% of car radios and approximately 3% of non-car radios and sold in 2003 were DAB enabled.

The DRDB forecasts imply that, by 2008, 32% of all after-fit car radio and 50% of all non-car radio sales will be DAB enabled (DRDB figures). Eureka's forecasts imply that 30% of radio sales will be DAB enabled by 2008 (if we assume no growth in the overall radio set market between 2003 and 2008).

It is difficult to say how many radios are currently in use in the UK, but estimates range between 110m and 150m sets – on average between four and seven per household (including portables, mobiles, car radios, hi-fis, etc). If we assume that the number of total radio sets will remain broadly constant over the forecast period and that DAB radios will not need replacing within the forecast period, the forecasts would suggest DAB digital radios accounting for between 6.5% and 12.0% of all radios by 2008. If it is assumed that, by 2008, DAB households have on average 1.8 DAB sets (DRDB forecasts) (compared to an average of 1.2 DAB sets currently), then household take-up of DAB would be 28.7% in the DRDB forecasts and 21.9% in the Eureka scenario.

Looking at the trends in the number of new launches of digital radio sets, availability of DAB digital radios across all major radio categories, downward price momentum of sets, prospect of launch of new and innovative interactive services and forecast growth of digital TV and broadband internet, which will introduce people to digital

¹⁶Does not include radios sold in-built into new cars

¹⁷Source: GFK / DRDB

radio, if DAB can sustain its current growth momentum, the industry forecasts above do not seem unrealistic. As outlined in sections 7.7 and 7.8, however, there remain a number of potential obstacles and risks to growth of the industry. Whether these hurdles can be overcome or not could affect the growth of the market going forward and the ability of the industry to realise these forecasts.

7.10 The case for analogue switch-off in radio

We believe that digital radio, as with digital television, brings several benefits over analogue and that, as such, consumers will increasingly listen to digital radio. Some respondents to our preliminary industry consultation have suggested that announcing a date, or setting out some criteria for, digital switch-over could help drive investment into and take-up of digital radio in the UK.

However, the question of analogue switch-off in radio depends on the benefits of doing so, relative to the costs.

At present, there would be significant costs associated with getting to analogue switch-off in radio, including the costs to consumers of replacing all their analogue receivers with digital ones (which would currently be high, given the low take-up of digital radio receivers compared to analogue) and costs to multiplex operators of rolling out digital coverage to a greater proportion of the country (assuming digital coverage may need to be similar to analogue coverage to achieve switch-off). However, no real benefit can be foreseen; although switching off the analogue signal would free up the spectrum for other uses or for more radio broadcasting, no other valuable uses for the spectrum have yet been identified, so the potential value of switching off analogue is relatively low. In addition, there is currently no route identified to allow smaller local stations to broadcast on digital in a way which is economic.

We therefore see no case for digital switch-over at the moment. In the medium-term, at least, we see analogue broadcasting continuing alongside digital radio broadcasting.

The situation in radio is unlike that in television, where switch-over *is* already planned.

- in television, one of the main drivers of digital switch-over is that it allows for the analogue spectrum to be freed-up for other valuable uses (e.g. digital TV broadcasting, DVB-H, mobile telephony, wireless LAN). The amount of spectrum at stake in relation to radio is smaller, and the range of alternative uses may be more restricted;
- also, in TV, analogue switch-off is required to achieve full coverage of digital terrestrial TV as it uses the same spectrum as analogue TV currently uses – this is not the case in radio, where digital broadcasting uses a different part of the spectrum from analogue; and
- furthermore, in the TV market, the cost for consumers to upgrade their equipment to be able to receive digital signals does not require replacement of their TV sets (just the addition of a set-top box) while, in radio, upgrading existing sets is not currently possible and analogue sets would have to be replaced for consumers to continue to receive radio after switch-over.

Over time, we expect that many of the costs associated with switch-over will diminish as take-up increases, transmitters are built and new local multiplex services are licensed. In the future, it is possible that the value of the spectrum currently used for analogue radio broadcasting could increase if it could be exploited for other uses.

However, there will still be the issue of smaller commercial stations and community stations for which the DAB multiplex model may not be the right one (although we will actively seek alternatives for these stations). Alternative commercially attractive uses for the freed analogue spectrum may not emerge and most people will still have analogue-capable sets for many years to come. All of this means that a complete switch-over to digital is many years away.

In the longer-term, once all stations are broadcasting digitally, total coverage matches analogue coverage and the vast majority of listeners are equipped to receive digital radio (via whatever platform or standard that provides a service which at least matches the portability of analogue radio) it may make sense for those stations for which digital is a superior transmission mode to stop simulcasting. To the extent that this is not the case for all stations, some stations may continue to broadcast on analogue.

We believe that digital radio offers many benefits to citizens and consumers and, while there is not at present a persuasive case for digital switchover in radio, we propose to keep the situation under review.

Section 8

Future licensing

Digital radio will grow enormously in importance in the future and section 7 of this review discusses the allocation of further spectrum for DAB digital radio. However, the fully digital future is still some way off and, over the next few years, there is still scope for limited expansion of analogue services, both on FM and MW, for local commercial and community radio services.

8.1 Future licensing of DAB digital radio

As set out in section 7, Ofcom plans, subject to spectrum clearance considerations, international agreement and the results of consultation, to allocate:

- three further blocks of VHF Band III spectrum to local DAB digital radio coverage, to ensure that each area of the country is served by at least one commercial local DAB multiplex; and
- a further one or two blocks of VHF Band III spectrum with “national” coverage, packaged in a way which is DAB-compatible.

A provisional list of the areas to be covered by the local DAB multiplexes is set out in section 7, although this is subject to change. The list includes those areas for which frequencies are already available but which have not yet been licensed. Where these areas are adjoining, it might make sense to combine them into a single licence. We welcome views as to which, if any, of the licence areas listed should be combined. The list does not include areas where it may be possible to offer an additional local or regional DAB digital radio multiplex in addition to those already on-air.

We propose to publish an initial timetable (for consultation) in the spring of 2005, for the licensing of these additional frequency blocks, subject to the outcome of this consultation, spectrum clearance and international agreement.

8.2 Future licensing of commercial FM radio stations

In many parts of the country, the FM spectrum is fully used. However, a number of frequencies and areas for new stations have been identified and Ofcom plans to license these where possible. A total of at least 30 new FM licences will be issued over the next few years.

A timetable has been announced for advertising new FM licences (figure 86). These licences range in size from small local areas, such as Ballymena, to regions, such as the Solent region.

Figure 86: Planned timetable for advertisement of new analogue local commercial radio licences

Month	Larger licence	Smaller licence
June 2004	Edinburgh	Blackburn
July 2004		Ashford, Kent
August 2004		Kidderminster
September 2004	Belfast	Cornwall
October 2004		Durham
November 2004	Manchester	Banbury
December 2004		Norwich
January 2005		Ballymena
February 2005	Solent Region	Torbay
March 2005		Swindon
April 2005		Barrow-in-Furness
May 2005	Swansea	Northallerton

Source: Ofcom

8.3 Licensing of community radio

The Communications Act made provision for the launch of permanent community radio stations and The Community Radio Order was laid before Parliament on 15 June 2004 and became law on 20 July 2004. It set out a definition and some rules for community radio, as well as the framework for the advertisement and award of licences.

A pilot scheme for Access Radio, now known as community radio, was launched by the Radio Authority in 2002. 14 of the 16 original stations are currently operating and the licences are due to expire at the end of 2004 (see section 5.4 for further details and research into their effectiveness).

Community radio stations will generally cover very limited geographical areas (typically with a radius of 5km). They will be run for social gain and to allow community access, and will not be run for profit.

Ofcom invited applications for the first batch of community radio licences in September 2004.

8.4 Future licensing of Medium Wave (MW) AM radio

Other than by passing reference, the current and future use of MW frequencies in the UK has not yet been addressed in this report. This reflects the limited strategic significance of MW moving forward, particularly in comparison with the development of digital radio. However, Ofcom's statutory duties include ensuring optimal use of the electro-magnetic spectrum and the availability of a wide range of radio services, and this duty applies equally to medium wave as well as to FM and digital radio.

The UK's first local commercial radio stations, launched from 1973 onwards, simulcast their output on both MW and FM wavebands. MW was the dominant listening medium up to and including the 1970s, which was reflected in the decision of most of the early commercial broadcasters to market themselves heavily on their MW frequencies.

During the past 15 years, listening on MW has declined substantially as listeners have migrated to the superior audio quality and stereo transmission of the FM band, despite a significant increase in station choice on MW through the Radio Authority's licensing of two national commercial stations (Virgin Radio and Talk Radio, now talkSPORT) and the launch of BBC Radio 5 Live. In light of these trends, and following significant consolidation of the UK radio industry in the 90s, the Radio Authority decided in 1997 to permit the part-networking of local MW stations, which has led to the creation of three quasi-national MW networks (Capital Gold, Classic Gold and Magic).

During its 12-year existence between 1991 and 2003, the Radio Authority awarded 17 new MW-only local licences, the last of which was awarded in 1995. These licences were in urban areas such as London, Birmingham and Manchester where there was a high demand for new radio services but no suitable FM frequencies available at the time, or in rural areas of the UK where difficult terrain meant that FM would be unable to provide adequate coverage. In addition to licensing two national stations on MW, the Radio Authority also authorised some low-power MW frequencies for use by establishment-based services such as hospital and student radio.

In October 2002, the Radio Authority published the results of a consultation on the future use of the MW band in a paper entitled 'AM Strategy for Independent Radio'. The document made a number of suggestions to Ofcom about the future direction of MW licensing, which have been important in formulating the policies outlined in this document.

There are 120 MW frequencies to which domestic radio receivers in the UK will tune. Some 97 of these frequencies are either used for existing national services, or are subject to unacceptably high levels of continental interference during darkness hours.

Of the remaining 23 frequencies, 13 are so intensively used already that little or no development potential remains. These will, in the short-term, be available only for coverage improvements for existing services. The provisional longer term strategy for their use, subject to interim review, could be for the existing analogue services eventually to be switched off, so that the frequencies they use could be replaced with an alternative pattern of use and technology, such as the nascent MW-compatible digital radio technology DRM (Digital Radio Mondiale). DRM, which has been endorsed by the International Telecommunication Union for use on all broadcasting bands below 30 MHz, could potentially form a useful complement to DAB digital radio, as there is no need for a 'multiplex' structure, and MW frequencies can cover hilly terrain more evenly than FM or DAB (see also section 7.1).

This leaves 10 MW frequencies (each of which could be re-used in more than one area) which have development potential for new community radio or local / regional commercial services. The availability of some of these frequencies is, however, dependent on the BBC ceasing their use for certain of its local radio services, whose programmes are, almost entirely, simulcast on FM, in favour of alternative use by the independent sector. This process is subject to negotiation. The 10 frequencies (and the pattern of their existing use) are as follows (figure 87):

Figure 87: Medium Wave (AM) frequencies with development potential

Frequency	Current users (area served by frequency)
1116 kHz	BBC Radio Derby (Derbyshire) Valleys Radio (South Wales valleys)
1368 kHz	BBC Radio Swindon (Swindon) BBC Southern Counties Radio (Reigate) BBC Radio Lincolnshire (Lincolnshire) Manx Radio (Isle of Man)
1377 kHz	Asian Sound (Manchester) Used in North West France
1431 kHz	Classic Gold 1431 (Reading) Classic Gold Breeze (Southend) Fresh Radio (Ilkley & Settle) Long-term restricted services located south of the M4 motorway.
1485 kHz	BBC Southern Counties Radio (Brighton) BBC Radio Merseyside (Merseyside) BBC Radio Humberside (Humberside) Classic Gold 1485 (Newbury)
1521 kHz	Classic Gold 1521 (Reigate & Crawley) Forest of Dean Radio*
1530 kHz	BBC Essex (Southend) Classic Hits (Worcester) Pulse Classic Gold (Huddersfield & Halifax)
1566 kHz	BBC Somerset Sound (Taunton) County Sound Radio (Guildford)
1584 kHz	BBC Hereford & Worcester (Tenbury Wells) BBC Radio Nottingham (Nottinghamshire) London Turkish Radio (North London) Tay AM (Perth)
1602 kHz	BBC Radio Kent (Tunbridge Wells) Desi Radio* (Southall, London) URN** (Nottingham)

Notes: * Community radio pilot station

**Long-term Restricted Service Licence.

Community radio licensing on MW

In the licensing process currently underway for community radio, Ofcom has not specified geographical areas where community stations should be established; instead it is up to applicants to identify the communities they wish to serve, and to provide appropriate transmission proposals on the waveband of their choice which satisfy Ofcom's regulatory requirements. There are, however, certain types of community stations which will generally only be offered MW (rather than FM) frequencies. These are:

- urban 'community of interest' services where the target community occupies an area of more than 5km radius; and
- in rural areas where the availability of suitable FM frequencies is poor and a coverage of more than 5km is proposed.

Full details of the licensing process for community radio services can be found in the Ofcom statement 'Licensing Community Radio', published on 2 August 2004.

Commercial radio licensing on MW

Ofcom now formally invites letters of intent from interested parties who wish to make a case for new MW commercial radio licences to be advertised, and from licensees broadcasting on MW who wish to make a claim for improvements to their existing coverage. In all cases, the geographical area(s) of interest should be clearly stated. Anyone requesting the advertisement of new licences should also provide a brief outline of the type of programme service proposed.

Requests for improvements to existing coverage, which would mean extending a radio station's current licence area, will have to be considered under Section 106 of the 1990 Broadcasting Act, and – depending on the extent of the enlargement – may require a new licence to be advertised for the proposed additional coverage area.

In situations where there are mutually exclusive requests for new commercial MW licences to be advertised, priority will be given to areas which are currently 'choice-poor' in the number of MW and FM commercial radio services which can be received, provided that there are enough people living in that area to give the new service a realistic chance of being financially viable.

Once a list of potential new commercial MW licence areas has been identified, their advertisement can then be planned, subject to an equitable allocation of spectrum resources with community radio. However, given that Ofcom's existing staff resources are finite and that we are already committed to a heavy schedule of new FM licence awards, it will be difficult to incorporate the advertisement of new MW licences into the existing commercial radio licensing timetable. Therefore we propose three alternatives:

- integrating a full programme of new local / regional MW licence advertisements into the existing proposed schedule for new FM licences. This would have the consequence of delaying the planned advertisement of some of the new FM licences;
- not advertising any new commercial MW licences until the existing round of FM licensing has been fully completed. This would mean that no new commercial MW licences would be advertised for at least the next two years; or

- giving clear priority to advertisement of the new FM licences at all times, but slotting a few new MW licence advertisements into the schedule as and when practicable. It would not be possible, however, to specify a target date by which the MW licensing process would be completed.

The process for the licensing of local / regional commercial services on MW will be the same as that already adopted by Ofcom for commercial FM licences, including tailored advertisements and application forms for every licence advertised.

With new MW licence awards, we are likely to place particular emphasis on the statutory criterion of 'ability to maintain the service' contained in Section 105 (a) of the Broadcasting Act 1990, given the difficulties of attracting audiences to new MW services that nearly all operators have experienced in recent years. Ofcom will continue, however, to consider applications for new MW licences under all four of the criteria in Section 105, and cannot restrict in advance the way in which it will exercise its discretion in any particular case.

Resource allocation for MW

Once we have assessed the likely level of demand for new MW licences from both community and commercial radio, we propose an equitable allocation of frequencies between the two sectors, using the 10 MW frequencies with development potential. As noted previously, the availability of some of these frequencies is subject to agreement being reached with the BBC.

Next steps

Ofcom is seeking views from the radio industry on the policies outlined in this section, and in particular:

- Letters of intent proposing new MW commercial radio licences, or improvements to the coverage of existing MW commercial radio licences.
- Whether, after the initial round of frequency attribution, we should:
 - continue in future with an equitable distribution of new MW frequencies between commercial and community radio;
 - always give priority on MW to either commercial or community services; or
 - move towards a parallel licensing process for the MW band where the relative benefits of all claims are compared using a standardised methodology.

If the last of these options is preferred, we would like to hear ideas concerning the criteria that should be used to choose between the different types of applicant.

- Views on how we might accommodate the advertisement of new commercial MW licences into our existing FM licensing plans.

Feedback will be used to shape an official Ofcom policy statement on MW that will set out our approach to regulating and managing the medium-wave band in the years to come.

Section 9

Questions for consultation

Our key proposals for this consultation are outlined in the executive summary and described in more detail throughout the document. Below we lay out questions for consultation.

9.1 Questions for consultation

As set out in this report, there are two sets of immediate priorities to be addressed:

Firstly, how should we regulate local analogue commercial radio and, in particular, the provision of local material and locally-made programmes? We would welcome views on the following:

1. *Do you agree with our proposals to use formats as the primary tool of regulation for analogue commercial local radio?*

2. *How do you think the objective of ensuring the provision on commercial local radio of a high quality news service, including local and national news, is best achieved?*

- *Should stations be allowed to use news hubs to allow them to operate in the most operationally effective way?*

- *Do you agree that we should include a statement in the localness guidelines to the effect that, in order to provide a comprehensive local news service, each station must provide direct and accountable editorial responsibility, based within the licensed area, for the provision of a news service equivalent at least to full time professional journalist cover for all of the hours during which its licensed format specifies that it will provide local news programmes?*

- *Is there a better way to achieve the objective that focuses more on output rather than input regulation?*

3. *Should stations be allowed to decide for themselves how much programming they automate?*

4. *Should the requirement for a station's studios to be based within the measured coverage area be relaxed to require the station to be based within the licensed area?*

5. *Do you agree that a station's local hours, as defined by its format, should include local material, but that, outside of these hours, stations should be free to share material with other stations on a network basis as they see fit?*

6. *Do you agree that each station should be required to maintain a format and localness file, available both at its premises and online, which demonstrates how it is meeting its obligations?*

7. *Do you agree with our revised localness guidance, which sets out the factors stations should take into account in providing local programming?*

Secondly, how can we best facilitate the growth of digital radio? We would welcome views on the following questions:

8. *Do you agree with our proposals to allocate more spectrum in VHF Band III for DAB-compatible use (subject to spectrum clearance and international agreement) in the following way:*

- *Three blocks to provide local multiplexes to those areas which currently do not have their own local multiplex and some areas which already have local multiplexes?*
- *One or two blocks for national coverage (depending upon whether four or five blocks of spectrum are available in total)?*

9. *Do you agree that the proposed local DAB digital radio multiplexes should be awarded as Broadcasting Act licences?*

10. *Do you agree that the frequency blocks proposed to be allocated to national coverage should be awarded under the terms of the Wireless Telegraphy Act only (i.e. without the need for a Broadcasting Act licence)?*

11. *What demand do you envisage there being for nationally-allocated DAB-compatible spectrum?*

12. *Do you think the limit on non-programme related data carried on each commercial DAB digital radio multiplex should be raised from the current limit of 20%? If so, what should the limit be raised to? What do you envisage extra capacity would be used for?*

13. *Do you think the limit on non-programme related data (including radio) carried on each commercial digital terrestrial television multiplex should be raised from the current limit of 10%? If so, what should the limit be raised to?*

14. *Do you agree with the proposal to abolish the minimum bit-rate limit for DAB digital radio and replace it with a co-regulatory system akin to that applied in television for picture quality?*

Thirdly, in terms of future licensing:

15. *How should Ofcom allocate further MW (AM) frequencies between commercial and community radio?*

16. *How might we accommodate the advertisement of new commercial MW licences into our existing FM licensing plans?*

For consideration in phase 2 of this review, we would like to raise questions about the overall strategic framework for radio, both commercial and public sector, and the public purposes of radio. We would welcome views on the following:

17. *Do you agree with the proposed strategic framework for the future regulation of radio, which aims:*

- *To enhance choice, diversity and innovation for consumers at the UK, national, regional, local and community levels.*

- *To secure citizens' interests through the provision of radio designed to meet public purposes.*
- *To do this with as little intervention in the market as possible, consistent with meeting our objectives, in a way that is as consistent as possible across media and across platforms.*

18. *How important do you think it is to develop a set of public purposes for radio and what should those public purposes be?*

- *Is the set of public purposes already developed for television a useful starting point?*
- *What else should be added or what should be taken away?*
- *What is the relative importance of the different elements?*
- *Are there things that are better delivered by radio than other media?*

19. *To the extent that it is possible to comment at this stage, how do you think those public purposes are best delivered?*

- *How important is plurality of provision of the public purposes for radio?*
- *How much of what commercial radio currently does could be classified as meeting public purposes?*
- *How well does the current market structure help fulfil public purposes in radio?*
- *Should the BBC's radio archive be made available more widely to commercial players to provide alternative radio services?*

9.2 Responding to this consultation

Ofcom invites written views and comments on the issues raised in this document, to be made by **5pm on 7 March 2005**.

Ofcom strongly prefers to receive responses as e-mail attachments, in Microsoft Word format, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Appendix F), among other things to indicate whether or not there are confidentiality issues. The cover sheet can be downloaded from the 'Consultations' section of our website.

Please send your response to: **peter.davies@ofcom.org.uk**

Responses may alternatively be posted or faxed to the address below. In all cases, please mark your response with the title of the consultation: Radio – Preparing for the future.

Peter Davies
Head of Market Intelligence
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Fax: 020 7981 3476

Note that we do not need a hard copy in addition to an electronic version. Also note that Ofcom will not routinely acknowledge receipt of responses.

It would be helpful if your response could include direct answers to the questions asked in this document, which are listed above in section 9.1. It would also help if you can explain why you hold your views, and how Ofcom's proposals would impact on you.

9.3 Further information

If you have any want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Peter Davies on 020 7981 3476, Claire Davenport on 020 7981 3301 or Anirban Roy on 020 7783 4677.

Confidentiality

Ofcom thinks it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt (when respondents confirm on their response cover sheet that this is acceptable).

All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed. Please place any confidential parts of a response in a separate annex, so that non-confidential parts may be published along with the respondent's identity.

Ofcom reserves its power to disclose certain confidential information where this is necessary to fulfil its functions, although in practice it would do so only in limited circumstances.

Please also note that copyright and all other intellectual property in responses will be assumed to be assigned to Ofcom unless specifically retained.

9.4 Next steps

Following the end of the consultation period, and following further market research, Ofcom intends to publish phase 2 of the Radio Review in the spring of 2005.

Please note that you can register to get automatic notifications of when Ofcom documents are published at www.ofcom.org.uk/static/subscribe/select_list.htm

9.5 Ofcom's consultation processes

Ofcom is keen to make responding to consultations easy, and has published some consultation principles (see Appendix F) which it seeks to follow, including on the length of consultations.

This 12-week consultation is in line with Ofcom's standard consultation period.

If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk. We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, whose views are less likely to be obtained in a formal consultation.

If you would like to discuss these issues, or Ofcom's consultation processes more generally, you can alternatively contact Philip Rutnam, Partner, Competition and Strategic Resources, who is Ofcom's consultation champion:

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Section 10

Glossary of terms and definitions

3G Third-generation mobile systems. 3G provides high-speed data transmission and supporting multimedia applications such as full-motion video, video-conferencing and internet access.

AM Amplitude Modulation, Type of modulation produced by varying the strength of a radio signal. This type of modulation is used by broadcasters in three frequency bands: medium frequency (MF, also known as medium wave: MW); low frequency (LF, also known as long wave: LW), and high frequency (HF, also known as short wave: SW). The term AM is often used to refer to the medium frequency band (see MF below).

Audience Reach The number of adults 15+ who listen to at least five minutes of radio in a 15 minute period during a week.

Audience Share Amount of listening hours to a particular radio station as a percentage of all radio listening within that station's Total Survey Area.

Bit-rates The rate at which digital information is carried within a specified communication channel.

Broadband A service or connection generally defined as being "always on" and providing a bandwidth greater than 128kbit/s.

Coders The devices which convert a signal in one form into another, digital form. The input may be an analogue signal or it may be a digital signal coded in a form other than that desired for the particular purpose of communication required. In digital radio, the term generally refers to the devices which produce a digital sound programme service in a form suitable for acceptance by a multiplexer, which combines it with the other services for transmission as a single, combined complex signal (see also Multiplex). A particular feature of these digital radio coders is that they seek to avoid sending information that is calculated not to be needed to recreate the sound in the receiver, thereby to require less capacity (bit-rate) in the multiplex transmission. However, the more that information is taken away from the signal, the greater the probability of imperfect reproduction of sound by the receiver.

Communications Act The Communications Act 2003. The majority of the radio-related provisions came into force on 29 December 2003.

Co-regulation The sharing of regulation between a statutory body (e.g. Ofcom) and its licensees.

CRCA Commercial Radio Companies Association

DAB Digital Audio Broadcasting (the brand name for the technology by which terrestrial Digital Radio multiplex services are broadcast in the UK).

DCMS Department for Culture, Media and Sport

DRDB Digital Radio Development Bureau

DTT Digital Terrestrial Television

EBITDA Earnings Before Interest, Tax, Depreciation and Amortisation.

Ex ante Before an event takes place.

FCC Federal Communications Commission (US regulatory body)

FM Frequency Modulation - type of modulation produced by varying the frequency of a radio signal. This is the type of modulation used by broadcasters in part of the VHF (Very High Frequency) band, known as VHF Band 2.

Format The type of programme service broadcast by radio stations. Also, the part of a radio station's licence which describes the programme service.

IBA Independent Broadcasting Authority

ILR Independent Local Radio – the former name for local commercial radio in the UK.

Internet A global network of networks, using a common set of standards (e.g. the Internet Protocol), accessed by users with a computer via a service provider.

ITC Independent Television Commission, one of the regulators replaced by Ofcom in 2003.

ITU – R International Telecommunications Union – Radiocommunications Sector. The ITU is an organ of the United Nations established by treaty. The Radiocommunications Sector manages spectrum use and associated standards worldwide, including by setting the frameworks within which individual countries control interferences across national boundaries.

L-Band A range of frequencies within which an allocation has been made in much of the world for broadcasting (1452 to 1492 MHz), generally by satellite, but in Europe for terrestrial digital sound broadcasting in the range 1452 to 1480 MHz. Some DAB digital radio receivers can tune to this range.

MCA Measured Coverage Area. The area in which signal levels meet or exceed Ofcom's stated criteria for defining coverage.

MF Medium Frequency. The part of the spectrum between 300 kHz and 3000 kHz. The broadcast part of this band (531 kHz to 1602 kHz) is often known as the medium wave (MW) or AM band (see AM above).

Multiplex A number of signals or streams of information transmitted at the same time in the form of a single, complex signal. The separate signals are then recovered by the receiver.

MW See MF and AM above.

Ofcom Office of Communications. The regulator for the communications industries, created by the Communications Act.

Peaktime The period during which a radio station broadcasts its breakfast show and, on weekdays only, also its afternoon drive-time show.

RAB Radio Advertising Bureau

Radio Authority The statutory body responsible for the licensing of regulation of non-BBC radio between 1990 and 2003. It was one of the bodies replaced by Ofcom.

RAJAR Radio Joint Audience Research. The pan-industry body which measures radio listening.

RSL Restricted Service Licence. A radio licence serving a single site (e.g. a hospital or university campus) or serving a wider area on a temporary basis (e.g. for festivals and events).

Scrolling text facilities The feature of digital radios which enables broadcaster-compiled text to be displayed. Limitations on physical space on the display leads to the messages being scrolled across the display so that they can be read.

Simulcasting The broadcasting of a programme service on more than one transmission technology (e.g. FM and MW, DAB and FM)

TSA Total Survey Area. The coverage area within which a radio station's audience is measured by RAJAR.

Transmitter A device which amplifies an electrical signal at a frequency to be converted, by means of an aerial, into an electromagnetic wave (or radio wave). The term is commonly used to include other, attached devices, notably a modulator, which imposes a more simple signal carrying information onto the frequency which is to be sent as a radio wave. The term is sometimes also used to include the cable and aerial system referred to above, and indeed the whole electrical, electronic and physical system at the site of the transmitter.

VHF Very High Frequency. The part of the spectrum between 30 MHz and 300 MHz. FM radio is broadcast on part of this band (87.6 MHz to 107.9 MHz) and DAB digital radio is broadcast on another (Band III: 217.5 MHz to 230 MHz in the UK, and over a wider range, but shared with TV services, elsewhere in Europe).

Wireless LAN Short-range wireless technologies using any type of 802.11 standard such as 802.11b or 802.11a. These technologies allow an over-the-air connection between a wireless client and a base station, or between two wireless clients.