MuxCo Oxfordshire Limited

**An application to Ofcom for the
Oxfordshire local DAB digital radio multiplex**

Part A – Public Section

August 2007

Executive summary

Please provide a summary of your application, of no more than four pages in length.

Beliefs

1. MuxCo believes that digital radio broadcasting should be available to as many organisations as possible. In addition, a multiplex operator should offer a wide range of broadcast options, such as programme choice, variable bit rates and hours of broadcast, in order that DAB is as economical as possible to potential service providers.

2. MuxCo also believes that with the availability of more national capacity, it is financially prudent to encourage a range of local operators to broadcast. Local (and regional) services have the ability to attract a mixture of local and national revenue, giving them multiple opportunities to support their business.

3. MuxCo also believes that, where possible, existing analogue stations should be encouraged to become available digitally as soon as possible, allowing a consistent DAB focused message to be broadcast to existing radio listeners and to create strong cross-promotional opportunities for the platform.

The Oxfordshire Marketplace

4. 2007 marks the millennium of the County of Oxfordshire. It also marks a turning point for its media. Commercial radio came to Oxfordshire relatively late, with Fox FM, the county's first commercial service, launching in 1989. Whilst over the last 18 years additional locally focused services have launched serving the City of Oxford and Banbury, the current choice of commercial radio in the county still remains poor.

5. As a result, the BBC's dominance has grown in recent years. It currently achieves a 72.4% share locally, compared to a national average of 54.9%, with local commercial radio focusing on the significant youth market to the detriment of older listeners. As a result, a high 45% of commercial radio's audience is aged under 35s, with the BBC's national and local services dominating older listening.

6. The last 12 months has seen some changes to the market. The heritage ILR station has faced renewed competition from a revitalised FM 107.9 and a new station targeting over 30s, JACK fm, will launch in South Oxfordshire later this year. It is, however, the new local DAB multiplex that will create the first real opportunity to significantly broaden choice and cater for a wide range of unserved tastes and interests, something, we believe will improve commercial radio's performance across the county.

MuxCo's proposed services

7. MuxCo provides an excellent opportunity for a range of organisations to broadcast radio services. Our reasonable carriage costs, bitrate management policy and innovative Podcast Service have already attracted new operators to local radio.

8.   We believe local radio has a strong commercial future – there will always be demand for local services that cater for local tastes and interests (geographic, demographically and community of interest focused), from both listeners and advertisers. It is important for multiplexes to provide opportunities for a wide range of local services, both existing and new, and for local radio operators to have the opportunity to provide these in an efficient and economical way.

9.   Capacity has been allocated to accommodate all existing and proposed analogue services in stereo from launch. Together, these services are listened to by 263,000 adults (45.7% of the adult population) each week, but only currently represent 21.8% of total radio listening.

   • Fox FM
   • Oxford's FM 107.9
   • JACK fm
   • Touch FM
   • BBC Radio Oxford

10.   Spectrum has also been allocated to provide 6 new digital services that will further broaden listener choice and expand the number of providers in the market. This is especially relevant because of the low local commercial share, indicating that an opportunity exists to grow share through more aggressive competition with the BBC:

   • An easy listening melodic music service - *Easy Radio*
   • A service playing classic chart hits from the last 4 decades – *Castle Digital*
   • A Christian music and speech service - *UCB UK*
   • A traffic and travel service - *Traffic Radio*
   • A rock music service - *confidential*
   • A station playing adult contemporary music - *confidential*

11.   As well as these new radio services, MuxCo will carry a local Podcast Service providing opportunities for niche services to cater for a diversity of passions, interests and communities to reach their audience. Downloadable podcasts will include a local what's on guide from Itchy, specialist music downloads from Channelfly, Asian programming from Sunrise and Sabras, as well as local produced podcasts for Oxford's residents, students and visitors.

12.   Capacity has also been allocated for the provision of DLS and EPG at launch, as well as for the development of innovative data services, such as music downloads, traffic and travel services, DABverts and slideshow.

MuxCo Oxfordshire Ltd

13.   The applicant company is MuxCo Oxfordshire Ltd, a wholly owned subsidiary of MuxCo Ltd.

14.   The MuxCo management team has extensive experience as a multiplex operator, having established and operated a multiplex network of 19 local radio multiplexes, as well as having broader strategic radio experience. The team has also recently been appointed the multiplex manager for UTV's six multiplexes.

The Winning Criteria

15. We believe that MuxCo Oxfordshire is in a unique position to introduce and support DAB digital radio across Oxfordshire for the following reasons:

Our proposed coverage

16. Our proposed plan will deliver solid coverage of the major population centres and transport routes, in particular the M40 and A34, in the county.

17. We propose to launch in September 2008 using 3 transmitters which will provide 'outdoor coverage' (e.g. to in-car and mobile receivers) of 85.5% of the adult population, and higher strength 'indoor coverage' (e.g. to kitchen radios) of 77.7% (Interference Limited).

18. A further transmitter will be launched by year 2, increasing provide 'outdoor coverage' to 86.4% of the adult population and 'indoor coverage' to 81.0% (Interference Limited).

Our timetable to achieve coverage and launch of services

19. It is our intention is to launch a full complement of radio services in September 2008. The launch of MuxCo Oxfordshire will follow that of 4DG, which in itself will generate a considerable level of public interest in digital radio within this area. MuxCo has discussed with 4 Digital Group how to align itself with the new multiplex's launch marketing.

Our ability to establish and maintain the service

20. The MuxCo management team has more experience of local digital radio than any other operator in the UK.

21. Our chosen transmission provider, National Grid Wireless, has considerable experience in building and operating DAB multiplex networks on time and on budget.

22. MuxCo's shareholders are well-resourced companies that can support the multiplex throughout the licence term.

Catering for local tastes and interests and broadening choice

23. MuxCo has completed an independent and comprehensive survey of local tastes and interests, allowing us to choose services that provide for local listeners and maintain a solid business plan, rather than just relying on responses from enthusiastic 'listener club' members. The independent research included:

   - Analysis of existing radio listening habits.
   - Analysis of the radio marketplace.
   - Assessment of local tastes and interests.

24. Our research supports the simulcasting of local analogue services and for our proposed new services that will complement existing choice and cater for unserved tastes and interests. Our independent research also underpins our audience projections and has provided accurate information to forecast the potential share of digital listening.

25. New digital services will help broaden choice and provide further incentives for consumers to buy a DAB digital radio. Whilst the carriage of existing services helps promote digital radio and drive listeners from analogue to digital.

26. Locally relevant content will be included in the five simulcast services and in at least two digital only services.

27. The breadth of services proposed will cater for a wide range of local tastes and interests, with the complement of services providing something for all age groups, as well as more specialised communities of interest. MuxCo offers something for everyone, with the scope for further development of choice.

Demonstrating local demand and support

28. RAJAR provides strong evidence of demand and interest in the simulcast services, whilst our specially commissioned consumer research supports RAJAR and enables us to measure local demand for our proposed digital only services. Our research demonstrates strong interest in the proposed services, which collectively appeal to 83% of the adult population.

Being fair and effective

29. We have established fair and transparent policies for negotiations with potential programme and additional service providers, and maintain full records of any contacts and discussions which take place, in whatever form, prior to, during and after the application process.

30. We have engaged with potential service providers in an open and non-exclusive manner allowing operators to ensure a digital future, whoever is awarded the licence.

Summary

31. We believe that MuxCo Oxfordshire will be the most credible operator for the Oxfordshire multiplex.

   - Our comprehensive and specially commissioned research has helped ensure that we better understand the needs of local citizens and consumers. This will ensure that MuxCo will deliver the services that will truly appeal to Oxfordshire and help commercial radio improve its market share.

   - MuxCo's capacity allocation will bring both new and existing radio operators to Oxfordshire's radio market. It will also bring niche content from a variety of operators through its innovative podcast channel with capacity available to add new providers throughout the licence term.

   - MuxCo's management team has an unparalleled track record in applying for and successfully operating local multiplexes.

   - The multiplex is well resourced, in terms of both management and finances.

   - MuxCo will deliver the most cost effective local DAB solution, collectively benefiting all service providers and ensuring a long-term commitment to DAB digital radio.

General information

1. Name of Applicant, Address, Telephone and Fax Nos., E-mail address

This must be a single legal entity: either a body corporate or a named individual person. If the former, a copy of the certificate of incorporation must be included with the application.

MuxCo Oxfordshire Ltd

Registered Number	6204592
Address:	96a Curtain Road, London EC2A 3AA
Telephone (daytime):	020 7739 7879
E-mail address:	info@muxco.com

2. Main Contact (For Public Purposes)

Please nominate at least one individual to deal with any press or public enquiries, stating:

Name:	Gregory Watson
Telephone (daytime):	07917 413700
Address:	96a Curtain Road, London EC2A 3AA
E-mail address:	gregory@muxco.com

3. Main Contact (For Ofcom Purposes)

Please nominate one individual to whom questions of clarification and/or amplification should be sent.

As above.

Section 51(2)(a) and (b): Extent of proposed coverage area and timetable for coverage roll-out

4. Summary of coverage proposals

Provide a summary, fully consistent with the more detailed information about transmission sites supplied separately (see Q.6 below), of the coverage areas proposed to be achieved by the applicant's technical plan, and an estimate of the adult (aged 15+) population which will be served by this local radio multiplex service. For the avoidance of doubt, Ofcom's assessment of coverage, and the concomitant roll-out obligations applied in the licence, will be based solely on the transmission data supplied in response to Q.6 of the application.

32.   The transmission proposal is designed in conjunction with National Grid Wireless ('NGW') to provide optimum population coverage across the licensed area, taking into account urban areas and the main road network of the M40 and A34. The plan also takes into account the footprints of existing and planned local multiplexes, the footprints of the existing analogue services and their spheres of influence (maps detailing these are attached as an appendix in Part B). Careful consideration has also been given to the design requirement to maximise received field strength within the licensed area.

33.   MuxCo Oxfordshire proposes to launch with 3 transmitters:

Oxford Beckley
A high power transmitter using the national DAB antenna providing:

* Robust indoor coverage to most of Oxfordshire west of the Chilterns.
* Outdoor mobile coverage to most major transport corridors including the M40, A40, A34, A43, A44 and A423.
* High quality coverage for mobile devices in a large proportion of key locations.

Oxford Boars Hill
A near omni directional medium power transmitter providing:

* High quality coverage for the City of Oxford, Abingdon and Didcot.
* Reinforced reception for indoor and mobile device reception.
* Coverage along the A420 Oxford to Swindon route as far as Farringdon.

Farthinghoe
A medium power transmitter and a nominally omni directional antenna providing:

* High quality coverage for the northern edges of the county, including much of Banbury, Brackley and those parts of South Northamptonshire associated with Oxfordshire.
* Reinforcement of M40 coverage around Deddington and north of Banbury to the county border.
* Helping ensure Fox FM and Touch FM are able to replicate their analogue footprints.

34.   The network has been designed on the basis of the following service levels:

- 58dBuV/m outdoor mobile.
- 65dBuV/m indoor portable.
- 76dBu/Vm indoor handheld.
- Where Interference Limited coverage is stated, this has been calculated using the interfering transmitter data and ERPs as stated in the Ofcom advertisement for the multiplex.

35.   Ofcom's advertisement identifies a potential adult (aged 15+) population of 494,390. NGW calculates adult coverage of 478,805 within the PPA, and percentage coverages are based on the NGW population. Coverage using the 3 transmitters will be as follows:

	Outdoor Coverage (58 dB)		Indoor Coverage (65 dB)	
	Adults '000	% Covered	Adults '000	% Covered
Noise Limited	428,454	89.5%	377,002	78.7%
Interference Limited	409,379	85.5%	371,928	77.7%

36.   Within 12 months of the launch, MuxCo Oxfordshire will enhance and improve coverage of Banbury using the site at Bretch Hill.

Banbury Bretch Hill
A near omni-directional low power transmitter

- It is expected that the new DAB multiplex for Derbyshire will have an impact on the signal level received in Banbury. Until the Derbyshire multiplex is operational and its impact can be assessed, NGW are unable to propose definitive site parameters.
- Bretch Hill is a non RAL site and a full ACI impact assessment will need to be undertaken in accordance with the Memorandum of Understanding.
- NGW have undertaken an initial coverage assessment and the 4 site network coverage is shown in the following table:

	Outdoor Coverage (58 dB)		Indoor Coverage (65 dB)	
	Adults '000	% Covered	Adults '000	% Covered
Noise Limited	430,391	89.9%	392,464	82.0%
Interference Limited	413,808	86.4%	388,010	81.0%

37.   MuxCo Oxfordshire does not currently propose to implement any further transmitters. However, it is recognised that the passage of time may enable further development to take place in an economically viable manner. Candidate areas for transmitters would be:

- Henley on Thames (non contiguous) = additional 2.9% coverage. This is an area already served by the Berkshire multiplex. 2-Ten FM is the main ILR service for Henley, and is already available in that area on DAB.
- Chipping Norton = additional 1.1% coverage.
- Farringdon= additional 1.0% coverage.

Standalone Coverage

38.   The following table shows the coverage (Interference Limited) within the PPA of each individual site, demonstrating the considerable overlap between transmitters which will ensure a reliable signal to a significant proportion of the licensed area, even should one transmitter be on reduced power or have failed.

Transmitter Site	Standalone Coverage: Outdoor	Percentage Licence Area	Standalone Coverage: Indoor	Percentage Licence Area
Oxford Beckley	378,478	79.0%	331,386	69.2%
Oxford Boars Hill	165,453	34.6%	120,357	25.1%
Farthinghoe	22,726	4.7%	10,077	2.1%

Cumulative Coverage

39.   The table below shows how the overall PPA coverage (Interference Limited) is achieved up through the use of a network of transmitters.

Transmitter Site	Cumulative Coverage: Outdoor	Percentage Licence Area	Cumulative Coverage: Indoor	Percentage Licence Area
Oxford Beckley	378,478	79.0%	331,386	69.2%
Plus Oxford Boars Hill	391,166	81.7%	357,784	74.7%
Plus Farthinghoe	409,379	85.5%	371,928	77.7%

Network Resilience

40.   The following table shows the impact (Interference Limited) from the loss of one transmitter at a time, demonstrating its contribution to the overall network.

Transmitter Site	Cumulative Coverage Loss: Outdoor	Percentage Licence Area	Cumulative Coverage Loss: Indoor	Percentage Licence Area
Loss of Oxford Beckley	190,247	45.8%	131,084	50.3%
Loss of Oxford Boars Hill	396,634	2.7%	345,240	5.6%
Loss of Farthinghoe	391,166	3.8%	357,784	3.0%

5. Timetable for coverage roll-out

Outline the timetable in accordance with which the coverage proposed at Q.4 would be achieved, and the technical means by which it would be achieved. This should also be fully consistent with the more detailed information provided confidentially in response to Q.6.

41. We believe that the earliest launch of our multiplex service brings the greatest possible advantage to the development of the digital radio audience in Oxfordshire. We therefore propose to launch in September 2008, with coverage of 85.5% from the proposed initial 3 transmitters.

42. We have made contingent arrangements with NGW to ensure that this launch date can be achieved. In making this assertion we have assumed the multiplex licence would be awarded by 30 November 2007.

43. The best transmission site is Oxford Beckley, which currently transmits the BBC National and D1 multiplexes, and is likely to transmit the 4Digital service.

44. To enhance service to the area south and south west of the City of Oxford, we believe that it is necessary to deploy the site at Oxford Boars Hill. As this is not an RAL site, NGW has undertaken a technical study of the impact of this site on other services. The Oxford Beckley site is currently used by BBC National and D1, and the second national DAB service is also likely to provide a service from this site. NGW has considered the effect on coverage of 2kW Omni from Boars Hill. As the next closest service is three blocks away, NGW has examined the number of households at which the Boars Hill transmitter would be 32dB stronger than the existing services, and has calculated that a total of 270 households would be affected and that there are no major roads close enough to the site to be affected. NGW has concluded that in accordance with the Memorandum of Understanding, there is no requirement to implement any mitigation measures.

45. As indicated in Question 4, we propose to improve coverage around Banbury by introducing Bretch Hill within 12 months of launch.

46. We have identified additional areas for potential network enhancements in the future. At present, transmitters for these areas are not planned and no date is proposed when these enhancements might prove feasible within the business plan. However, we wish to reserve the right to consult with Ofcom during the licence term to examine these and other opportunities to increase population coverage in an economically viable manner.

Antenna Systems and Combiner
47. NGW will be the owner of two of the required antenna systems. NGW has received offers for the major requirements at the remaining site where the antenna system will be controlled by Arqiva. Discussions on the combiner supply for Oxford Beckley have taken place between NGW and NGW Network Access, and we are advised that no obstacles are expected to meeting the timetable for launch.

Transmitter systems
48. NGW propose to use transmitters from Rohde & Schwarz (R&S) with whom they have a Frame Agreement. R&S has confirmed their ability to provide the necessary transmitter systems and installation services within the required timescales.

Distribution

49.   The distribution between the multiplex centre and the transmitters will be contained on an NGW SHF link circuit. NGW can confirm that it is able to install the new SHF link within the timescale of the transmission roll-out.

Accommodation and Power Requirements

50.   NGW Network Access have confirmed that it can provide suitable accommodation and power supply at two of the sites and of the remaining site, NGW Network Access have negotiated new accommodation and power supply agreements with Arqiva.

6. Detailed coverage proposals

Provide, in an electronic text file, details of the technical plan, which should consist of the following components: assignment details, implementation table, and implementation data.
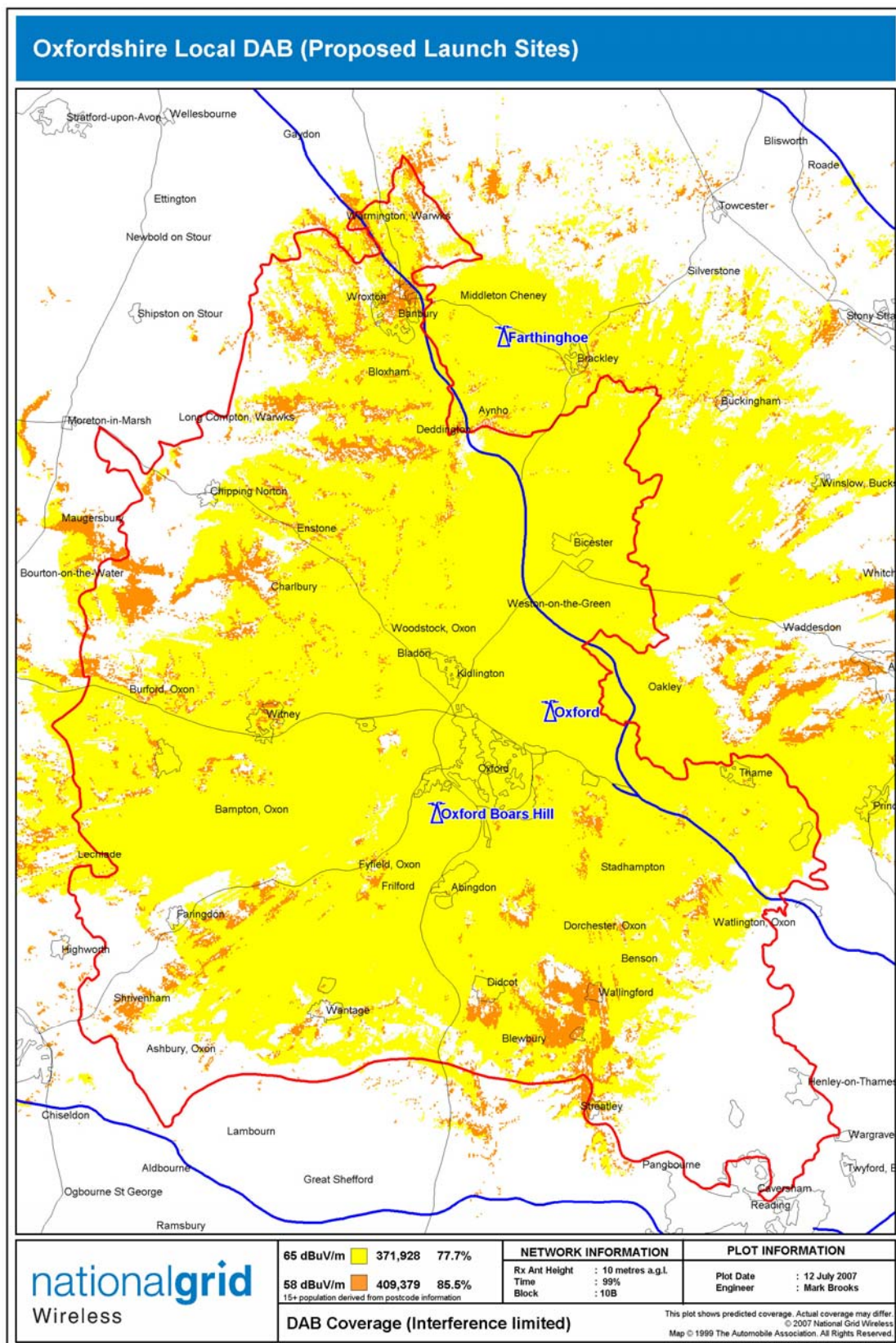
a) The first part of the technical plan is an electronic file of assignment details. This gives the relevant technical detail of each transmitting station which the applicant is undertaking to provide as part of its network. It will be used to enable Ofcom to estimate the coverage which will be achieved by the applicant, on a basis consistent with other applicants. It will also enable confirmation of the plan's compliance with Ofcom's various technical requirements. If more than one Technical Plan is proposed, a separate file should be submitted for each one. Each file of assignment details must be submitted in the data format specified at http://www.ofcom.org.uk/radio/ifi/rbl/dcr/. All files must be supplied in flat text format. This is the data format in which all transmitter co-ordination requests to Ofcom have been supplied to date, and is based upon ASCII97 defined by the European Radiocommunications Office – the Wiesbaden 1995 Plan management body.

51.   The assignment details accompanying this application are provided under separate cover as an electronic text file.

b) A separate table, the implementation table, should also be provided for the technical plan. This should list, for each proposed transmitter, the date of implementation promised with the parameters promised in the transmission plan, the owner/lessor of aperture space on the mast/tower, and any relevant accompanying notes. If it is proposed to introduce a transmitter with different parameters (typically lesser power or height) for an interim period, then on both lists there should be one entry for the initial assignment, and a second entry for the one which replaces it, with a note stating which transmission assignment is replaced.
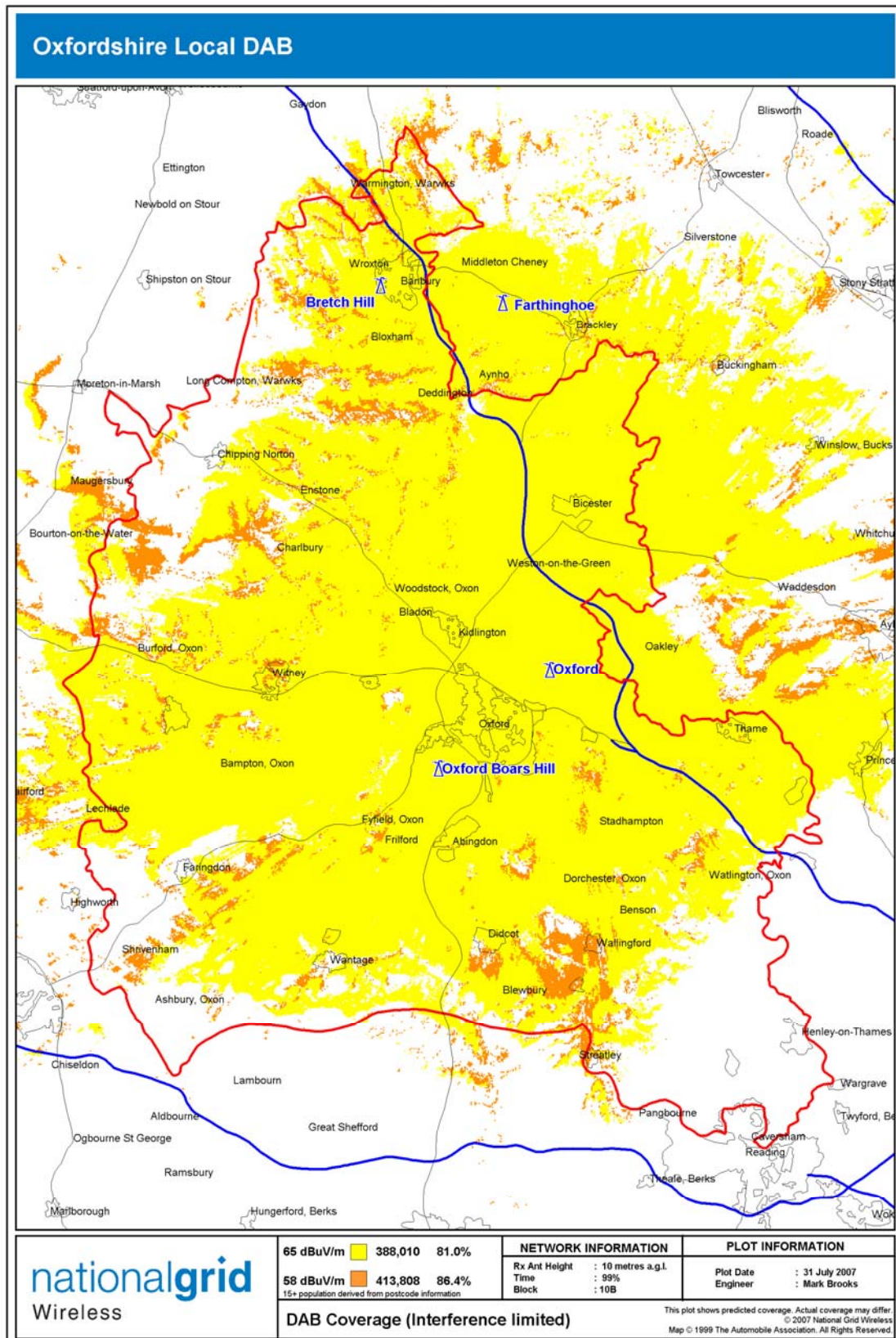
Site Name	NGR	Date of Implementation	Owner/lessor of aperture space on mast/tower	Antenna height (metres)	Notes
Oxford Beckley	SP 567 105	Sept 2008	NGW	131	NGW has an offer from NGW Network Access to share the existing Digital Radio antenna and NGW Network Access will provide a combiner at this site.
Oxford Boars Hill	SP 483 029	Sept 2008	NGW	51	NGW Network Access will provide 2 tiers of new dipole antennas.
Farthinghoe	SP 532 387	Sept 2008	Arqiva	47	NGW has an offer from Arqiva Network Access to install 2 tiers of new dipole antennas at this site.
Bretch Hill	SP 439 400	Sept 2009	Thames Water	45	NGW Network Access has Broadcast Landlord rights and are in for access negotiations with the tower owner.

52. The following map highlights proposed coverage at launch.

Oxfordshire Local DAB (Proposed Launch Sites)

DAB Coverage (Interference limited)

| 65 dBuV/m | | 371,928 | 77.7% |
| 58 dBuV/m | | 409,379 | 85.5% |

15+ population derived from postcode information

NETWORK INFORMATION

Rx Ant Height	: 10 metres a.g.l.
Time	: 99%
Block	: 10B

PLOT INFORMATION

| Plot Date | : 12 July 2007 |
| Engineer | : Mark Brooks |

This plot shows predicted coverage. Actual coverage may differ.
© 2007 National Grid Wireless
Map © 1999 The Automobile Association. All Rights Reserved.

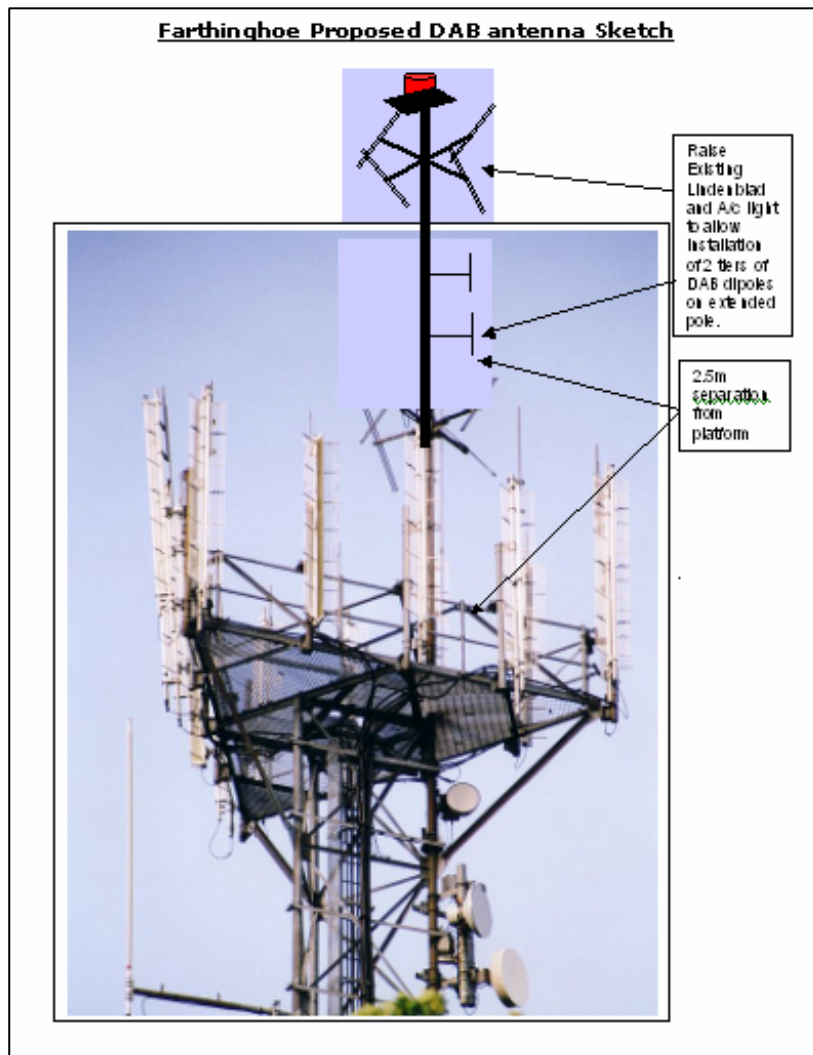53.   The following map highlights proposed coverage from September 2009.

c) Each transmission assignment should also be represented by site implementation data, specific to each transmission site (only one set of data for each site should be submitted). This detail is intended to elicit the practicability of the technical plan. For each site name (corresponding to assignment details and implementation table):

    i) If existing aerials are to be used, this needs to be stated and an explicit reference made. If not, then applicants should provide a sketch diagram (or set of diagrams), approximately to scale, of the portion of the supporting structure on which the radiating aerials are to be mounted. Show the radiating aerials, and the aerials of other services mounted immediately above, below, and at the same level as, the radiating aerials of the applicant's service.

    ii) Provide details of the building at the site in which the transmission equipment is to be housed.

    iii) Provide confirmation from each of the relevant parties that they have seen and agreed the applicant's proposals (to the extent that this includes new works) in respect of:
- aerial mounting on the supporting structure, as proposed in the sketch
- diagram;
- running of feeder cable from transmission system to aerial(s);
- sharing of aerials and insertion/use of combiners, where relevant;
- siting of transmission equipment;
- supply of power;
- building works (if any).

The relevant party in each case, namely whoever controls the infrastructure (mast, cableways, building, power), should be named explicitly.

    iv) State whether and if so how the transmission arrangements are expected to change due to the TV digital switchover programme.

Note: submission of this information does not imply that Ofcom will validate the design of the aerial system. The licensee will be required to adhere as far as is reasonably practicable to the antenna pattern proposed in the assignment details, and in all cases to limit the maximum radiated power in any given direction as may be required by Ofcom.
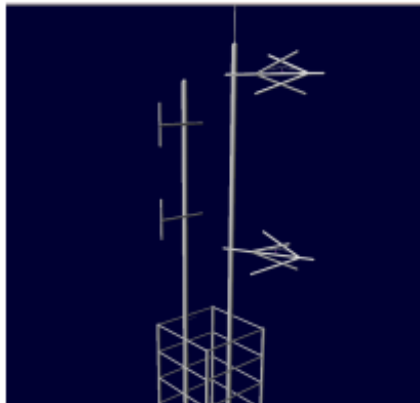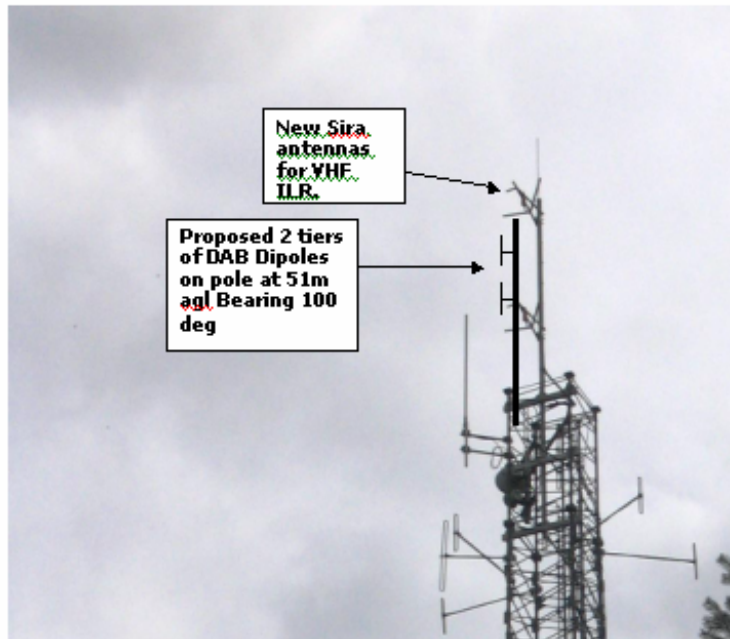
i)   Diagrams

54.   Drawings of each of the new proposed antenna at the transmitter sites are shown below in this document. All existing antennas are not shown as details are already known.

Farthinghoe Proposed DAB antenna Sketch

Oxford Boars Hill Proposed DAB Antenna Sketch

New Sira antennas for VHF ILR

Proposed 2 tiers of DAB Dipoles on pole at 51m agl Bearing 100 deg

ii, iii & iv) Transmitter Accommodation Antenna Systems, Power, and Building Works

55.   NGW has confirmed that the designs of the existing antennas and feeder systems are suitable for use at the powers indicated in the Assignment Details, and that the sites can be made available for the proposed transmitter systems. Electrical power is available. Minor building works are required in a small number of cases and NGW has confirmed that it will undertake these.

Site Name	Antenna System	Antenna Height (m)	Antenna Owner Permission	Accommodation Permission	Power Supply	Impacted By DSO
Oxford Beckley	Existing National DAB Antenna.	131	NGW Network Access	NGW Network Access are providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	See Note 1
Oxford Boars Hill	New 2 tier Dipole Antenna	51	NGW Network Access are to provide the new antenna system.	NGW Network Access are providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	No UHF at this site.
Farthinghoe	New Antenna System	47	Arqiva Network Access	Arqiva Network Access are providing accommodation in the existing Arqiva Area.	To be provided by Arqiva Network Access	No UHF at this site.
Bretch Hill	New Antenna System	45	Thames Water / NGW Network Access	NGW Network Access are providing accommodation in the existing area.	To be provided by NGW Network Access	See Note 2.

Note 1
The DSO (Digital Switch Over) program for Oxford Beckley is still being agreed. However the impact is expected to be:

2008 works
- There is no impact on the new DAB multiplex, as any DAB affecting works are expected to be completed by August 2008, ahead of the launch of this service.

2009 works
- To facilitate the DSO program, a small number of short periods of quarter power working are expected:
  - Feb and Jun 09 – 1 day (daytime only)
  - Mar and May 09 – up to 3 days (daytime only)

Note 2
The DSO (Digital Switch Over) planning programme is ongoing with Antenna Design Proposals being formally agreed by all television broadcasters and Managed Transmission Suppliers. However this site is a low power UHF relay and DSO is not expected to have any major impact on the DAB Multiplex.

d) Provide the following details regarding transmission arrangements:

    i)   Any transmission contracts that have been agreed

56. In the event of winning the licence, NGW will undertake the provisions for transmission and multiplexing.

    ii)   The status of these agreements

57. Initial agreements exist with NGW to put the proposed contracts in place.

7. Other technical proposals

a) Supply a network diagram, with associated tables and labels as necessary, showing in terms of functionality and (in principle) location: the source of each proposed digital sound programme service, digital additional service or television licensable content service, the point(s) of multiplexing, the point(s) of control of the elements of the multiplex (both FIC and MSC) and the distribution circuits to the transmitters. State the nature of the bearer circuit in each case, and its possible provider.

b) For each of the data services proposed in Q.11(d) and Q.12, show: the transport mechanism within the multiplex on which it would be carried; whether stream or packet mode; the average net data rate (including any protection or encryption bits additional to those provided for in the ETS 300 401 specification); the range of data rates which might apply in any one transmission frame in support of the service, both net and (specifically attributable to the service concerned) gross; the protection mechanisms applying to their effective transmission (with reference to the options available in the ETS 300 401 specification, quantified where the specification provides for different numerical values to afford protection); whether it should be regarded as an additional service, a television licensable content service or an ancillary service; whether encrypted or not, and the encryption system envisaged; the use to which the data service would be put, including a justification for the multiplex capacity required. Outline how compliance will be achieved with the requirement that no more than the statutory proportion of the total multiplex capacity will be devoted to non-programme related data services; the figure excludes Synchronisation, MCI and SI). See also Q.20, about audio services.

c) With reference to the response to Q.20, supply a diagram showing the relationship between the following elements of the multiplex: services; service components; transport elements (MSC sub-channels: dedicated, and X-PAD; FIDC).

d) List any of the services in the multiplex which it is proposed be susceptible to interruption by announcements common to more than one service. If announcements are to be made on a geographically-selective basis, describe how this is to be achieved within the provisions of the ETS 300 401 specification.

e) Describe how it is anticipated that the features of the ETS 300 401 will be used, if at all, in consideration of continuity of a programme service, or the offering of an alternative service, to listeners who lose reception of the multiplex signal, particularly in vehicles.

The response to this question should be submitted in confidence.

58.   Our response to this question is submitted in confidence in Part B.

Section 51(2)(b): Timetable for commencement of services

8. Commencement of services

If it is envisaged that any of the digital sound programme services or their related ancillary services will not begin broadcasting from the start of the radio multiplex licence period, provide details of which service(s) will not commence from the launch of the radio multiplex service, the reason(s) for this, and an indication of the expected timescale for the commencement of the service(s).

59.   It is envisaged that all services will broadcast from the start of the radio multiplex licence period - September 2008.

Section 51(2)(c): Ability to establish and maintain proposed service

9. Ownership and control of company which will operate the licence
(a) Board of Directors

i)   *Provide the name, occupation, other directorships, other media interests, background and relevant media experience of each director (executive and non executive), including the proposed chairperson.*

60.   Please see the following pages. It is proposed that the chair will rotate between the directors.

ii)   *If there are firm plans to appoint any further directors, provide information (with details of any specific individuals in mind). This information may be submitted in confidence.*

61.   See confidential answer to this question.

Gregory Watson

Occupation:
Managing Director

Other directorships:
Reception Media Ltd, Folder Media Ltd, MuxCo Ltd, MuxCo Home Counties Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo Hereford & Worcester Ltd, MuxCo Northamptonshire Ltd, Radio Academy, Radio Academy Trading Ltd, Children's Radio UK Ltd, Children's Radio UK (London) Ltd, The Digizone Ltd

Other Media Interests:
None

Gregory Watson graduated from the University of Exeter in 1986 with a degree in Accountancy studies, and commenced his career with KPMG Peat Marwick as a trainee accountant, where he qualified as a Chartered Accountant in 1990.

In 1991, he moved to the Radio Authority as Deputy Head of Finance. In this role his responsibilities were split between the management of the day-to-day financial operations of the Authority, the licensing and regulation of commercial radio and analysis of the radio and related media industries.

In 1998, Gregory joined GWR Group plc as Head of Special Projects, with responsibility for looking at all new analogue and digital opportunities. In this capacity, Gregory was involved in the submission by Digital One for the application to run the national digital radio multiplex, and played a significant role in the pre-operational period of that multiplex prior to its launch in November 1999. Gregory also oversaw the development of GWR's local multiplex network, NOWdigital, and of the consortia multiplex businesses of DRG London, South West Digital Radio and NOWdigital East Midlands.

In 2001, Gregory was promoted to Group Corporate Development Director; a role under which he oversaw GWR's strategic development in new media alongside the development of local and regional analogue and digital radio licences. Gregory played a central role in the merger of Capital Radio plc and GWR Group plc which lead to the formation of GCap Media plc in May 2005.

Gregory has always been passionate about commercial radio broadening its horizons and developing new commercial opportunities. In 2005, Gregory orchestrated the establishment of Children's Radio UK Ltd as a joint venture between GWR Group, HIT Entertainment and Susan Stranks. The company launched FUN radio as the UK's first (and still only) radio station dedicated for pre and primary school children and their parents and carers.

In 2007, recognising that a significant proportion of the radio industry was being left behind by digital advancements, not because they were unable to take an active role but often were not encouraged to do so, Gregory left GCap Media to provide digital media advice to a number of independent radio and media companies.

Gregory is a Trustee of the Radio Academy, and is Chairman of Radio Academy Trading Ltd. Gregory takes an active role in the development of the radio sector, and in the past has sat on the RadioCentre's Public Affairs Sub-Committee and ad-hoc committees.

Deanna Hallett

Occupation:
Managing Director, Hallett Arendt

Directorships:
Hallett Arendt Ltd, Folder Media Ltd, MuxCo Ltd, MuxCo Home Counties Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo Hereford & Worcester Ltd, MuxCo Northamptonshire Ltd

Other Media Interests:
Fellow of the Radio Academy, Full member of the Market Research Society, Radio Centre RAJAR Research Committee

Deanna Hallett has more than 35 years experience in marketing and research. Her career began in 1972 at NOP working on audience and programming research with the first wave of radio licence applicants.

She developed her radio research skills at Independent Radio Sales where she ran a mini RAB working with advertisers, agencies and client radio stations to improve the position of radio within the media and specifically with agencies to heighten their knowledge and understanding of planning, buying and researching radio. With IRS client radio stations she advised in all areas of programming research, sales product knowledge training and station marketing. She was appointed to the board as Marketing and Research Director in 1982.

Deanna set up Hallett Arendt in 1986 to work with radio stations in sales training, programming research and all aspects of station marketing having launched Essex FM as the first format driven station in the UK. Deanna was also involved in the first stage of cable franchise applications.

At NOP, she was instrumental in developing the now established radio diary research methodology and has sat on the industry research committee since its inauguration.

Today, Deanna is acknowledged as one of the top licence consultants in the country, with Hallett Arendt holding a record of unparalleled success, both in the UK and Ireland. They have worked as part of the winning teams for Classic FM - the first Independent National radio station - and Digital One - the first national digital radio multiplex operator. They also have successfully worked on a host of local and regional analogue licences as well as the new generation of digital services, again, both local and regional.

In 2003 Deanna set up a training programme, specifically with programmers in mind – 'The Programmers Development Plan', which has already been implemented across the EMAP group.

Moving forward, Deanna aims to bring all her expertise to MuxCo by offering training, research and marketing advice to all its service providers in order to maximise the audiences and revenue to the Oxford multiplex.

(b) Proposed Investors and Shareholding Structure

Full details of the proposed shareholding structure should be provided, including:

iii) Names and addresses (the latter may be submitted in confidence) of all existing or proposed shareholders.

Shareholder	Shares	% Shareholding	% Loan stock
MuxCo Ltd 96a Curtain Road London EC2A 3AA	40,000	100%	100%

iv) Total number, class/classes of shares and issue price of shares (specify voting, non-voting, preference, other etc.).

62.   40,000 £1 ordinary shares issued at par.

v) All voting shareholders and holders of 5% or more of non-voting shares and loan stock should be named. State the number, class/classes and price of shares to be issued to each investor.

63.   See above.

vi) Outline any shareholders agreements or arrangements which exist.

64.   A standard shareholders agreement will be established.

vii) Where a corporate body other than a current Ofcom licensee will be providing 30% or more of the required funding, details should be given of its directors and main shareholders, and of its activities.

65.   MuxCo Ltd is owned by Folder Media Ltd (75%) and National Grid Wireless Ltd (25%). Further information on MuxCo Ltd is provided in Part D.

viii) Ofcom may request additional information (e.g. a banker's letter, statutory / management accounts) regarding the shareholders, or any other providers of finance, listed in the application.

66.   We would be happy to provide any information as requested by Ofcom.

(c) Involvement of the Applicant in Specified Activities

Details are required of the involvement by the applicant and its participants (including shareholders or other subscribers of more than 5% of the applicant's total funding requirements) in any of the activities listed below, and the extent of the interest. For these purposes, the applicant includes associates of the applicant (i.e. directors and their associates and other group companies).

i) Advertising agencies
None

ii) Newspapers
None

iii) Other broadcasting interests
None

iv) Bodies whose objects are wholly or mainly of a religious nature
None

v) Bodies whose objects are wholly or mainly of a political nature
None

vi) Local authorities
None

vii) Other publicly-funded bodies
None

10. Financial and business plan

(a) Overall Financial Strategy

Explain how the applicant considers it is able to establish and maintain, throughout the licence period, its proposed service. This explanation should include an assessment of each of the following, but is not restricted to these factors:

i)	The network construction phase
ii)	The operational start-up phase
iii)	Marketing
iv)	Ongoing operation of the service

The Strategy behind MuxCo Oxfordshire

67.   The strategy for MuxCo Oxfordshire can be summarised as working:
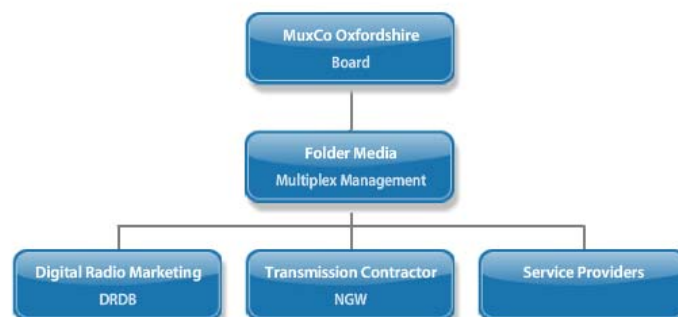
- To establish an efficient and progressive business that reduces the financial burden on operators.
- To provide opportunities for all existing analogue services to broadcast on DAB, as well as create new services that broaden choice and provide new commercial opportunities.
- To create an environment that encourages businesses, both new and existing, local and national, to provide services on local digital radio.
- To re-emphasise local radio as an important part of radio's digital future.
- To become part of a MuxCo network of local multiplexes, sharing best practice and future opportunities.
- To provide a good return on investment to shareholders.

The MuxCo digital strategy

68.   MuxCo Ltd was established to provide viable digital radio solutions to local radio companies and other parties interested in developing on DAB. The MuxCo management team has extensive experience as a multiplex operator at local, regional and national level. The team established and operated the NOWdigital network for GCap Media, as well as managed local multiplexes owned by consortia in which GCap Media was a partner (CE Digital, DRG London, South West Digital Radio and Now Digital East Midlands).

69.   The Folder Media management team have recently been appointed as multiplex managers for UTV's six multiplexes

70.   MuxCo's strategy is to build a network of local multiplexes, working with local partners in each area, to ensure opportunities exist for all analogue operators to broadcast on DAB. Working with local partners helps encourage and make them more confident to take a more active role in digital radio, as part of the multiplex as well as being a service provider. Under this model, partners receive financial benefits of ownership which helps reduce their net cost of investment in DAB.

71.   MuxCo believes that there is a strong business model to be developed for local multiplexes - one that provides a range of interesting services demanded by local residents. An added benefit to both the multiplex and the listener from the participation of such broadcasters is that, partly because of the limited resources they operate with, they are often at the more creative end of the radio spectrum.

72.   Further information on MuxCo is provided in Part D.

The Business Plan and its Objectives

73. MuxCo Oxfordshire has established a business model that will drive the company to provide a premium digital radio service. Four key objectives have been identified that will ensure that this goal is achieved:

- To operate a multiplex that offers a wide choice of live and on-demand programme services which address local tastes and interests (as highlighted through our commissioned research), broaden choice and increase plurality.

- To promote and maximise take-up of digital radio receivers, by working with our analogue and digital service providers and through membership of industry bodies, such as the DRDB.

- To operate in a manner ensuring fair and effective competition.

- To operate a sound financial business, with confirmed service providers helping to demonstrate viability.

74. MuxCo Oxfordshire is committed to ensuring that digital radio is successfully established. We are well resourced technically as well as financially to support the needs of the service providers.

75. The following chart summarises the reporting structure of the company.

76. The Board has responsibility for the company's business strategy; monitoring and reviewing trading performance; appointing and contracting with service providers; developing multiplex bandwidth policies; developing pricing structures; appointment and supervision of the Multiplex Manager and regulatory compliance. The Board will meet at least quarterly.

77. MuxCo Oxfordshire has appointed Folder Media to provide multiplex management services. Folder Media is a company that has unparalleled experience in the day-to-day management of successful local multiplexes, and currently is managing UTV's local multiplex network. Folder Media will ensure that changes and any requirements from the service providers can be enacted in a timely and cost-effective manner. It will also ensure that it is abreast of technical developments to ensure that the multiplex is responsive to the changing radio marketplace.

78. Further information on Folder Media is provided in Part D.

(i) The network construction phase

79. The network construction phase includes three stages – planning, building and testing. MuxCo Oxfordshire will contract with NGW to provide a transmission solution, and on the basis of this commitment, NGW will fund the capital expenditure and installation of the infrastructure.

80. **Planning** – MuxCo Oxfordshire has designed its transmission plan taking into account the requirements of service providers, in particular the BBC, to ensure that key population centres and major roads are well covered, and to take into account any local geographical issues. A number of iterations have been produced before settling on a commercially prudent plan that maximises coverage and meets our planning criteria. NGW has provided strategic support during this stage and will liaise with Ofcom for transmission matters on behalf of MuxCo Oxfordshire.

81. **Building & testing –** Following award, we will work with NGW to finalise our plan and prepare milestones to the launch of the multiplex. This will include international clearance, the build timetable and service provider installation. As an established and respected transmission service provider, NGW has considerable existing resource and the infrastructure to build the proposed transmission network.

(ii) The operational start-up phase

82. The operational start-up phase includes contracting with service providers, monitoring the installation of multiplex equipment at service providers' studios (for both audio and data services) and ensuring that the necessary testing is undertaken prior to launch; liaising with Ofcom over the build process; ensuring regulatory issues are followed, including the issuing of DSPS licences; and liaising with the DRDB and service providers on marketing activity, including ensuring the postcode checker is up to date with the new coverage and service information.

(iii) Ongoing operation of the service

83. As multiplex manager, Folder Media will be responsible to the MuxCo Oxfordshire Board for the launch of the multiplex and its subsequent day to day operation; in particular:

   - Overseeing bit rate variations, enhancements or projects required by service providers, such as EPG tests, temporary services and data developments.
   - Working with service providers and the transmission subcontractor to maximise multiplex functionality and efficiency.
   - Monitoring and fault reporting, ensuring that the output of all service providers is correctly logged and compliant with legislation and codes
   - Helping to develop new revenue streams.

84. NGW has considerable resource and infrastructure to support the multiplex and as such will provide 24 hour monitoring of the network. By using a secure remote control system, NGW will control multiplex re-configurations, something MuxCo Oxfordshire will have remote access to should the need arise to take direct control. Multiplex reconfiguration will be undertaken in line with our policies and contractual agreements with service providers.

85. Folder Media will provide ongoing management cover for the multiplex, including purchase and sales ledgers, IT, secretarial, legal, research, marketing co-ordination and technical support.

86. Through the MuxCo website, we will promote digital radio generically and the services specifically. The main aim of the site, as well as providing a conduit of information between MuxCo Oxfordshire and service providers, will be to help educate and inform listeners, advertisers and equipment retailers.

(iv) Marketing

87. We believe that despite DAB digital radio having been 'live' for 9 years, by the time MuxCo Oxfordshire launches there will still be a considerable lack of understanding by the public of the benefits of the DAB, something that needs to be addressed. We recognise that as a sole body, our voice will be too small and inefficient. We will therefore seek to join the DRDB (or any successor) and will actively support industry-wide generic promotion of digital radio. We also propose to co-ordinate our local marketing activity with 4 Digital Group.

88. The key objectives of our press and communications activity will be to:

- Build interest and knowledge of DAB and specifically the radio services available
- Build audience awareness and raise the profile of DAB and content offerings to the consumer
- Build awareness amongst the trade audiences including advertisers and retailers

89. We will work closely with our service providers to help co-ordinate the locally focused marketing of digital radio generically, as well as of the services on the multiplex, with advice provided where relevant by Folder Media. In addition, service providers are likely to undertake their own brand marketing highlighting their appearance on DAB. We also wish to work with our service providers, particularly those that currently broadcast on analogue, to use airtime to promote DAB digital radio in a consistent manner across all MuxCo partner stations.

90. To fund membership of the DRDB, a contribution proportional to contracted capacity will be levied at cost from the month following the launch of the multiplex.

91. We believe that for listeners, multiplex owner identity is of little or no importance (and is potentially confusing). We will work with the DRDB to use a national through-the-line identity and graphic style that makes both digital radio and station brands the 'heroes'.

(b) Funding

Detail the sources of finance that will be used to fund the licence, under the following headings:

Source of finance	£
Share capital	40,000
Loan stock	40,000
Leasing/HP facilities (capital value)	0
Bank overdraft	0
Grants and donations	0
Other	0
Total	**£80,000**

Applicants should provide evidence that sufficient funds are available to each investing shareholder to cover their proposed investments.

92.   Letters of investment are provided in Part B.

Applicants should also provide a copy of the most recent unabbreviated accounts for each investing shareholder.

93.   MuxCo Ltd is a new company and details of its shareholders and funding commitment is provided in Part D.

Where relevant, provide information on:

   i)   Loan terms (e.g. interest rate, repayment terms, redemption/conversion terms);
   ii)   Assets leased.

All of the funding identified above should be confirmed to the applicant. Explanation should be provided if this is not the case.

94.   Loan stock will be issued interest free, as and when required. Loan stock will be repaid in a timely manner as permitted by the cash position of the company.

(c) Financial Projections

The purpose of this question is to allow the applicant to demonstrate its understanding of the market. The forecasts should be based on reasonable assumptions, which are logically applied and justifiable.

The applicant should confirm in writing to Ofcom that:

a) The projections contained in the financial model have been properly and accurately compiled on the basis of the assumptions listed and explanatory notes accompanying the projections
b) That the policies adopted follow generally accepted UK accounting standards
c) Such accounting policies have been properly and consistently applied.

Ofcom may request independent confirmation of the above, in the form of a letter from a firm of authorised UK accountants, addressed to the board of directors of the applicant.

The applicant should provide financial projections for the pre-operational period and on an annual basis for the subsequent 12 year licence period. The projections must include:

    i)   Profit and loss accounts
    ii)   Balance sheets
    iii)   Cash-flow forecasts
    iv)   Appropriate supporting schedules

The forecasts should be supplied on an Excel spreadsheet or similar and guidance notes should be provided. The applicant must also complete and submit the spreadsheet located at http://www.ofcom.org.uk/radio/ifi/rbl/dcr/ using information from its business model. Guidance notes for completion of the Template can be found in Annex 3 to this Notice. This section must include a full listing of the underlying assumptions on which the financial projections are based.

The application should detail how revenue figures were derived, distinguishing between:

    i)   access fees
    ii)   fees based on audience or revenue shares
    iii)   other fees (please specify)

Revenue forecasts should also distinguish between digital sound programme services, digital additional services and television licensable content services.

The application should clearly set out the fee structure for each service provider, and explain the reasons for any differences in fees paid between providers.

The response to this question may be submitted in confidence.

95.   Our response to this question is submitted in confidence in Part B.

(d) Audience Projections

i)   The projected adult (aged 15+) population of the Total Survey Area (TSA) within which it is intended to measure the audience of the digital sound programme services to be broadcast on this local radio multiplex service

96.   We have selected a TSA akin to that of BBC Radio Oxford (509,000 adults), which corresponds closely to the PPA potential coverage.

97.   As our chosen transmitter network will cover parts of Northamptonshire and Buckinghamshire (to help match the analogue footprints of Fox FM and Touch FM), service providers may elect alternative TSAs for RAJAR research.

ii)   Projections for audience ratings (e.g. weekly reach, average weekly hours of listening) of the digital sound programme services to be broadcast on this local radio multiplex over at least the first four years of the service, with detailed demographic breakdowns as appropriate

98.   The following table summarises our audience projections for the simulcast services and digital only services. In relation to simulcast services, we have forecast their total hours across both analogue and digital platforms, and then apportion digital hours.

	Year 1	Year 2	Year 3	Year 4
Fox FM				
• Weekly Reach %	30.0%	29.0%	28.0%	27.0%
• Ave Hours	9.0	8.9	8.8	8.7
• Total Hours '000s	1,374	1,314	1,254	1,196
• Digital Hours '000s	128	166	180	190
Oxford's FM 107.9				
• Weekly Reach %	3.5%	4.5%	5.5%	6.0%
• Ave Hours	4.4	5.0	6.0	7.0
• Total Hours '000s	78	115	168	214
• Digital Hours '000s	14	27	45	64
JACK fm				
• Weekly Reach %	10.0%	12.0%	13.0%	13.0%
• Ave Hours	7.4	8.1	8.8	9.2
• Total Hours '000s	377	495	579	609
• Digital Hours '000s	44	78	104	121
Touch FM				
• Weekly Reach %	2.0%	2.5%	3.0%	3.6%
• Ave Hours	12.0	12.0	11.5	11.0
• Total Hours '000s	122	153	176	203
• Digital Hours '000s	21	36	47	60
AC				
• Weekly Reach %	2.6%	3.2%	3.6%	4.0%
• Ave Hours	5.0	6.0	6.3	6.5
• Total Hours '000s	66	98	115	132
Easy				
• Weekly Reach %	2.0%	2.5%	2.8%	3.3%
• Ave Hours	4.0	4.3	4.6	5.0
• Total Hours '000s	40	55	66	84
Castle Digital				
• Weekly Reach %	2.6%	3.2%	3.6%	3.8%
• Ave Hours	5.0	5.5	6.0	6.5
• Total Hours '000s	65	90	110	125
Rock				
• Weekly Reach %	2.4%	3.0%	3.2%	3.5%
• Ave Hours	5.0	5.3	5.4	5.5
• Total Hours '000s	60	82	87	98

	Year 1	Year 2	Year 3	Year 4
UCB UK				
• Weekly Reach %	1.3%	1.5%	1.7%	2.0%
• Ave Hours	4.0	4.5	5.0	5.4
• Total Hours '000s	26	34	44	55
Traffic Radio				
• Weekly Reach %	1.0%	1.5%	1.8%	2.0%
• Ave Hours	1.5	1.8	1.9	2.0
• Total Hours '000s	8	14	17	20

iii)   Projections for the total weekly number of listening hours anticipated for all digital sound programme services (national and local) both in absolute numbers, and as a proportion of all radio listening hours per week as recorded by RAJAR or equivalent audience measurement research, over at least the first four years of the service

	Year 1	Year 2	Year 3	Year 4
Population 15+ '000s	509,000	509,000	509,000	509,000
All radio hours '000s	11,251	11,156	11,086	10,992
All digital radio hours '000s	2,625	3,533	3,969	4,362
All digital hours as % of all radio hours	23.3%	31.7%	35.8%	39.7%
MuxCo Oxfordshire multiplex hours '000s	473	680	814	949
MuxCo Oxfordshire multiplex hours as % of all radio hours	4.2%	6.1%	7.3%	8.6%

iv)   The basis on which the estimates above have been calculated, and any assumptions taken into account.

Audience projections for programme services

99.   In estimating audiences, we have based our assumptions on RAJAR within the BBC Radio Oxford TSA. Whilst slightly smaller (-12%) than the analogue footprint of Fox FM, it more closely mirrors the population figures published by Ofcom for the PPA.

100.   Projections for existing services are based on the performance of each service within this TSA, and for the proposed new services on our consumer research.

Projections for the total weekly number of listening hours

101.   In order to calculate projections for the total weekly listening hours for all digital programme services (national and local) both in absolute numbers, and percentages, we looked at the following factors to create a robust audience model:

- Population
- Total radio listening
- Digital share of listening
- The relative market shares of:
  - o   BBC Network
  - o   BBC Local
  - o   INR
  - o   ILR listening to stations originating in the area
  - o   Out of area ILR
  - o   Other radio listening

Population

102. The selected TSA covers 509,000 adults. We have reviewed RAJAR data within this TSA using rolled 12 month data to Q1 2007 over the past three years. Whilst we believe there will be population growth, we have prudently held the population as a constant for the first four years of the licence period.
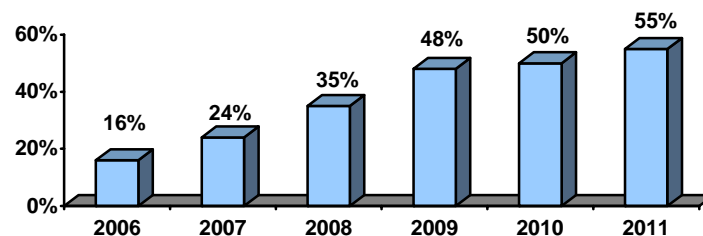
Total Radio Listening

103. Over the 12 month period to Q1 2007, 91.23% of the Oxford adult population listened to at least one radio service (464,000 adults) on average for 24.4 hours. This delivered total radio listening hours in this market of 11,322,000. The market has experienced a small decline in the total number of people listening to radio over the last 3 years, as well as the average time spent listening.

104. Whilst we believe that increased radio choice will help stimulate the total market, a view confirmed by our consumer research, we believe it prudent to forecast some continuing decline both in the penetration of all radio and total hours delivered. Competition from a wide range of new media, ranging from more TV choice, mobile phone services and the internet will impact, especially on younger listeners. The following table summarises our forecasts of all radio reach and hours.

	Year 1	Year 2	Year 3	Year 4
Population '000s	**509**	**509**	**509**	**509**
Reach %	91.0%	90.5%	90.3%	90.0%
Reach '000s	463	461	460	458
Total Hours '000s	11,251	11,156	11,086	10,992
Ave. Hours	24.3	24.2	24.1	24.0

Digital Share of Listening

105. To establish the potential share of listening attributable to digital, we have reviewed the digital radio penetration forecasts published by the DRDB, as well as other pertinent data as to the current and future take up.

106. Our penetration growth forecasts are based on the DRDB's 5 year forecast (published September 2005), which we have up-weighted using the known 2006 penetration data, and then carried forward the forecast growth on the basis of this new base. By 2010, the updated DRDB forecasts shows DAB household penetration increasing to 50%.

107.   We are comfortable with the DRDB forecasts:

- The latest sales data from the DRDB is that 5m DAB sets had been sold by the end of May 2007.
- 72% of the population are reported to be aware of DAB digital radio (source IPSO MORI Tracker Jan 07)
- RAJAR Q1 2007 highlights digital penetration at 19.5%.

108.   These results suggest that the DRDB forecast is on target and possibly likely to be exceeded. Our consumer research highlighted that in Oxfordshire 27% already own a DAB Digital Radio, a finding significantly higher than the UK average, with a further 11% being able to access a DAB radio.

109.   We also note Ofcom's research and forecast in the share of listening between platforms. In the 'Future of Radio' published in April 2007, Ofcom highlights that digital listening is currently 13.6% and is growing at around 8% a year, and forecasts that by 2008 a third of listening will be to digital, and that by 2010 this should be 50%.

110.   We have also had access to the long-term digital listening modelling undertaken by NGW as part of their national multiplex application. We have used their forecasts for digital share of listening as the starting point for calculating digital listening within the Oxfordshire area.

The relative market shares of the radio sectors

111.   We have analysed the radio sectors of BBC Network, BBC Local, INR (i.e. services broadcast on national platforms), ILR listening to stations broadcasting from within the area, out of area ILR and other radio listening.

112.   The following table summarises our views as to how each of these sectors will change in terms of the numbers of services provided under each and their relative markets shares between today, 2009 (the first full year of MuxCo Oxfordshire and the new national multiplex) and 2012. This analysis enabled us to establish a view on the overall radio market within Oxfordshire and the changes that each sector would experience. The detailed workings behind these numbers are provided in Part B.

	Analogue Stations 2007	Digital Stations 2007	Total Stations 2009	Relative share 2007	Relative share 2009	Relative share 2012
BBC Network	5	7	11	65.5%	58.2%	52.0%
BBC Local	1	0	1	7.7%	7.7%	6.7%
INRs	3	5	18	8.8%	12.3%	15.7%
ILR Oxford	5	6	11	12.4%	16.5%	20.1%
Out of area ILR	1+	1+	1+	4.3%	4.1%	4.6%
Other	-	-	-	1.3%	1.2%	0.9%
Total				100.0%	100.0%	100.0%

- We expect the BBC's share of listening to decline over this period as additional commercial services become available on both the national multiplexes and with the launch of the new local multiplex.
- We believes that it is possible for commercial radio to reduce the BBC's share from its current 72.4% to c. 59% by 2012.

Section 51(2)(d): Cater for local tastes and interests

11. Proposed digital sound programme services

Provide, for each digital sound programme service for which capacity is to be allocated, a description of the service. This should include a short-form (no more than four or five words) description of the type of service (i.e. its 'format'), and should also include a summary of the type(s) of music and speech to be provided, together with a quantification of the proportions of these within the programme mix. The number of hours each day that the service will be broadcast, and details of any content unique to this local area (with trigger-points for when such content will be included if not from the commencement of broadcasting, as appropriate), must also be included. These format descriptions will form part of the licence. Therefore, questions of clarification may be asked prior to licence award and the wording amended to reflect this, if necessary. Examples of format descriptions included within existing radio multiplex licences can be viewed at: ttp://www.ofcom.org.uk/radio/ifi/rbl/dcr/.

113.   MuxCo Oxfordshire will offer carriage to the three existing and the new South Oxfordshire FM commercial analogue services alongside the BBC. Each will be offered the opportunity to broadcast in stereo, an important requirement highlighted by our specially commissioned research. Together, these services are listened to by 195,000 adults each week, and represent 14.1% of total radio listening. Their RAJAR audience results demonstrate their popularity.

- Fox FM
- Oxford's FM 107.9
- JACK fm
- Touch FM

114.   Capacity has also been reserved for BBC Radio Oxford.

115.   Capacity has been allocated for six digital only services. Our locally conducted research demonstrates that these services cater for proven and demanded local tastes and interests.

- An easy listening melodic music service - *Easy Radio*
- A Christian music and speech service - *UCB UK*
- A classic hits service – *Castle Digital*
- A traffic and travel service - *Traffic Radio*
- A modern rock service – *Confidential provider*
- A station playing adult contemporary music – *Confidential provider*

116.   Capacity has also been allocated for a Podcast Channel, which will provide an opportunity for niche services to provide downloadable content offering a range of programming which will be targeted at specific interest groups. These are likely to be organisations with a particular message, as well as groups who are looking to enter the radio arena, but who may not yet be in a position to fund a full-time service.

117.   We believe that technical improvements in the area of audio compression and the development of next generation DAB receivers could provide further opportunities to add new services in the longer term to further enhance local listener choice.

Fox FM

Format	Contemporary Hit Radio
Licence Description	A simulcast of Fox FM (licence AL127); a contemporary chart music station for Oxfordshire and West Buckinghamshire, broadcasting predominantly current chart hits, new releases or hits up to 10 years old. Speech will feature news and information relevant to its target audience.
Local Content	Fox FM broadcasts local programming from 6am to 7pm, including local news bulletins.
Music to Speech	Minimum 85% music and 10% speech
Hours of Broadcast	24

Oxford's FM 107.9

Format	New music, chart and dance
Licence Description	A simulcast of Oxford's FM 107.9 (licence AL193); a music intensive station playing chart, dance and rock tracks, and focusing on the tastes and interests of 15 to 29 year olds.
Local Content	Oxford's FM 107.9 broadcasts local content, including news and information relevant to its youth audience, across the day.
Music to Speech	Minimum 85% music and 10% speech
Hours of Broadcast	24

Touch FM

Format	Local Full Service
Licence Description	A simulcast of Touch FM (licence AL299); a local FM service for Banbury, playing contemporary music from the last 5 decades and today current hits. Speech features news and information relevant to its target audience.
Local Content	Locally made programming 24 hours a day. Local news bulletins are broadcast from 7am to 6pm. The format requires the station to be live for at least 16 hours weekday, 10 hours on Saturdays and 6 hours on Sundays.
Music to Speech	Minimum 80% music and 10% speech
Hours of Broadcast	24

JACK fm

Format	Variety Pop & Rock
Licence Description	A simulcast of the new Oxford FM service, JACK fm. A music intensive station of particular appeal to 35 to 54 year old adults, with news and information relevant to the target audience. Music will be broad based and mainstream spanning more than four decades.
Local Content	Locally made programming 24 hours a day. Regular local news and information bulletins across the day.
Music to Speech	Minimum 90% music and 5% speech
Hours of Broadcast	24

Adult Contemporary

Format	Adult Contemporary
Licence Description	A digital only service, featuring melodic adult contemporary hits together with classic tracks from the late 70s, 80s and 90s, appealing to females aged between 25 and 44 years old. Speech will include news and information relevant to the audience, including entertainment features.
Local Content	A network service broadening music and speech choice. There are currently no plans to introduce local content on this service.
Music to Speech	Minimum 85% music and 10% speech
Hours of Broadcast	24

Easy Radio

Format	Easy Listening
Licence Description	A broad range of easy listening music with a significant element of tracks with a country crossover influence, including rock, folk and blues.
Local Content	A network service offering a broadening of local choice. There are currently no plans to introduce local content on this service.
Music to Speech	Minimum 85% music and 10% speech
Hours of Broadcast	18 (6am to 12pm)

Castle Digital

Format	Classic Hits
Licence Description	A local radio station for Oxfordshire's 35 to 64s, playing classic pop hits and familiar album tracks by popular artists of the last 45 years.
Local Content	A local breakfast show from launch with networked programming at other times.
Music to Speech	Minimum 90% music and 5% speech
Hours of Broadcast	24

UCB UK

Format	Religious
Licence Description	A service providing contemporary Christian music and classic favourites, together with spoken features including news, Christian teaching and short features offering a Christian perspective on today's lifestyle.
Local Content	A network service broadening music and speech choice. There are currently no plans to introduce local content on this service.
Music to Speech	Minimum 60% music and 25% speech
Hours of Broadcast	24

Traffic Radio

Format	Traffic and Travel
Licence Description	Continuous traffic and travel information.
Local Content	The service forms part of the Midlands region. As such, it will cover all motorway and key trunk roads within the region, including a focus on Oxfordshire's road network.
Music to Speech	100% speech
Hours of Broadcast	24

Rock

Format	Modern Rock
Licence Description	A music service targeting a broad 15 to 34 male audience, focusing on cutting-edge music, and the greatest rock anthems. Speech content will cover subjects of particular interest to the target audience such as reviews and gig-guides.
Local Content	The station will be networked with other versions of the service but will include what's on guides and events information for Oxfordshire.
Music to Speech	Minimum 80% music and 10% speech
Hours of Broadcast	24

Podcast Service

Format	Varied
Licence Description	A wide selection of podcasts provided by a range of companies.
Further Information	See below.
Local Content	We expect some of the podcasts to include local content and be made by local organisations
Music to Speech	Minimum 5% music and 5% speech
Hours of Broadcast	24

118.   The Podcast Service will provide an opportunity for those who desire to broadcast on the multiplex, but who are not yet in a position to finance a full service or demonstrate a substantial listener base, to take an active role. In addition, there are providers who are established brands in other media but would like to test their content on a new platform, as well as providers of niche content carefully targeted at distinctive communities of interest.

119.   We have had discussions with 4 Digital Group and will align our podcast delivery system to ensure compatibility for listeners. We have also had discussions with set manufacturers to ensure that new receivers are able to decode and store this material.

120.   In our research, 18% of respondents were interested in being able to download new specialist music and or speech programmes. Our research also shows that the public are keen to experience downloadable material on a variety of different subjects (further details of which are in the research section). We have tried to include podcasts that reflect many of these interests and will complement the proposed range of live audio services.

121.   We believe that podcasts are a good way to meet listeners' content requirements where the economic benefit of running a live service cannot be met. A good example of this is news provision. There is obviously a demand for a local 'rolling news and information' service, but the experience of DNN and ITN Radio has shown it is difficult to support financially. Whilst a combination, for example, of the local news resource of GCap, Absolute and a local newspaper might sound sensible to produce a broadcast channel, we believe that it would always be a secondary focus and difficult to maintain quality and freshness of the service that listeners demand and are used to from rolling TV news channels. We think a much better way of delivering this type of material is through an on-demand podcast-style service. The lower cost base for production and transmission makes material easier and cheaper to distribute to local listeners.

122. Our initial podcast providers are:

News and Information
- 'ITN On' will provide a news and information service. The service will initially be audio, but as technology develops ITN wish to review opportunities for video.
- 'Itchy Media'', who produce Itchy Guides for major centres across the UK, will provide a dedicated guide for the City of Oxford, linked to their existing specialist website – itchyoxford.co.uk.

Music
- 'Channelfly' produce one of the UK's biggest music magazines ('The Fly'), manage bands like Franz Ferdinand and the Kaiser Chiefs and operate a large network of music venues ('The Barfly'). Already a podcast producer, Channelfly will bring a unique music service to the area.
- 'Totallyradio' is an internet delivered specialist music service. Covering genres from hip hop to nu jazz, they will provide a range of specialist music created by their producers and local talent.

Charity and Learning
- 'Headliners' (formerly Children's Express) is a charity that encourages learning through journalism. They act as a news agency with young people writing and recording their own stories for broadcast. DAB podcasts are an excellent opportunity for local children to get their stories on the air.
- 'Bardwell Road Centre'. St Clare's College is a Oxford language school where the students produce a weekly podcast for those learning English. By broadcasting on DAB they will give their students a voice in the community as well as helping new Oxford residents with their English.

Specialist
- Passion for the Planet are a DAB operator that are keen to expand but need to do at an appropriate rate. Their podcast will include best of material from their existing services with local features of interest to Oxfordshire residents.
- 'Sabras Radio' broadcast on DAB in Leicester and London, as well as online. They are keen to develop local podcasts for specific areas and are keen to launch one for Oxford's Asian population.
- 'Sunrise' broadcast a number of Asian services, and will broadcast their broad Sunrise Asian service on 4DG. Sunrise are keen to develop their youth Asian focused service, Yarr, through podcasts in markets were the potential audience size is not sufficient to maintain a full service.
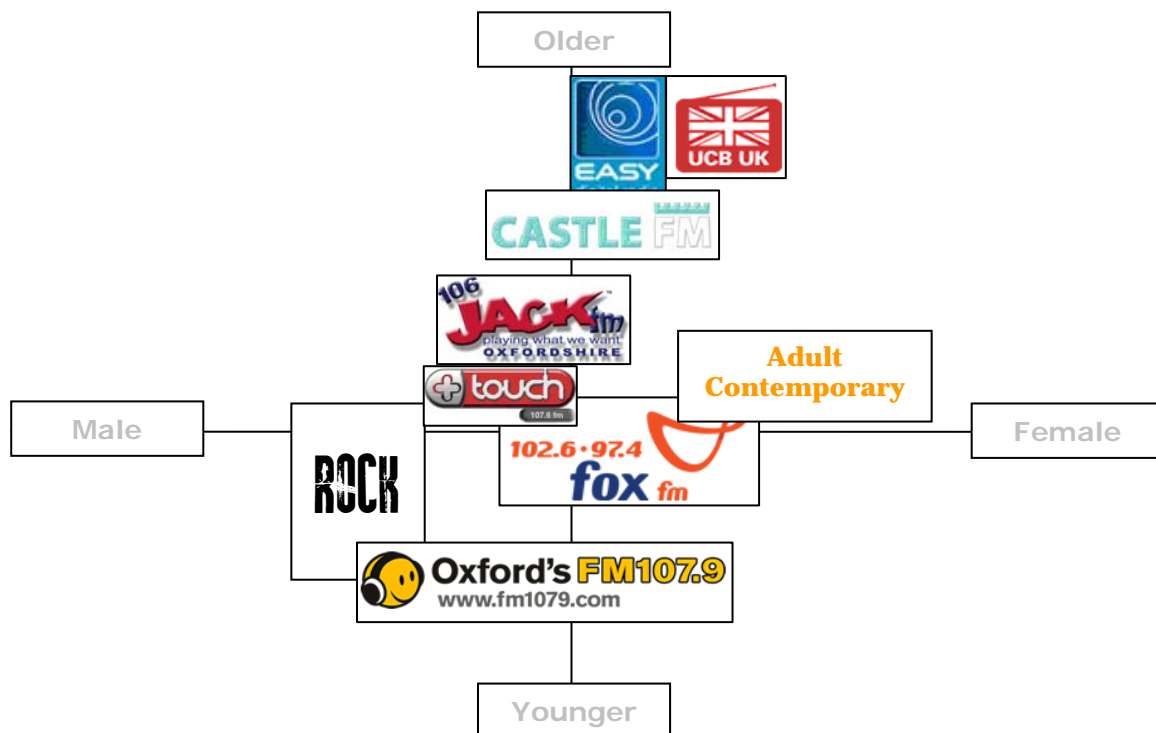
Listener-Generated content
We believe that digital radio should be open to as many broadcasters as possible. There are already many local podcasters in Oxfordshire. DAB offers them a new outlet for their locally specific material:

- 'Banburyshire Brolly' is a local podcast for Banbury that highlights issues for the area and plays music from new local bands. DAB will help them reach a wider audience around Banbury.
- 'Alternative Kitchen Garden' – Emma Cooper produces a weekly podcast on local organic gardening. With subjects ranging from a visit to the nearby Ryton Gardens or a talk about why Lavender is useful in the garden, this will be perfect for gardening fans all over the county.

123. We believe that there is the opportunity to deliver much more material to local listeners. Indeed the combination of local operators, national brands and listener-generated content will produce a unique service for Oxfordshire's listeners.

a) **Outline the expected target audience of each digital sound programme service to be accommodated on the multiplex, in terms of demographic profile (i.e. age range, gender, socio-economic background), ethnic composition, and/or any other relevant characteristics. To what extent will each of these services cater for local tastes and interests, general or particular?**

124. MuxCo Oxfordshire proposes a range of stations that will cater for a wide cross-section of different demographic groups. In addition, Traffic Radio is a more niche service targeting all age groups.

	Fox FM
Target Audience & Demographic Profile	31.1% listen to Fox FM each week, making it the leading commercial service in the proposed TSA. Fox FM has a strong female audience (53.9%, against a TSA profile of 50.7%). Principal listening is amongst those aged under 44, and with 35 to 44s in particular. Fox FM achieves an above average C2DE profile against the population as a whole.
Local Tastes & Interests	As Oxfordshire's heritage local commercial service, many tune into Fox FM for its local news, travel and information features, as well as its broad music repertoire. Its strength as a local service is evident through RAJAR, with 158,000 adults listening to the station each week in the planned multiplex TSA. Fox FM broadcasts half hourly news bulletins between 6am and 9am and between 4pm and 6pm, with hourly bulletins between 9am and 4pm. A 15 minute bulletin is broadcast at 6pm. Bulletins contain local and national stories, sport, weather and entertainment news. At weekends, local bulletins are broadcast between 7am and noon.
Summary	Fox FM appeals to those with an interest in contemporary hit radio. Despite recent declines in reach and average hours, it remains the most popular local service across the county, providing local news and information. Existing ILR listeners demonstrate higher interest in DAB functionality, in particular being able to pause, rewind and record programmes, visual enhancements through a colour screen, music downloads, red button functionality than BBC radio listeners. Given its current strong market position and a predisposition of its listeners to utilise the ancillary advantages of DAB, Fox FM will play an important role in the promotion of digital radio. In addition, as an existing service, Fox FM is able to enhance its digital proposition with specific DAB only content. • Existing heritage service • 25 to 44 age profile • Female bias • C2DE profile • Promoter of DAB and encourages trial

Oxford's FM 107.9	
Target Audience & Demographic Profile	5% of all adults listen to Oxford's FM 107.9 each week (23% within its analogue TSA, which represents 47% of the planned multiplex area). The station has a male bias, who account for almost 60% of its audience; significantly ahead of the population profile. 107.9's strength is predominantly amongst under 35s. This youth appeal results in a stronger C2DE profile when compared with the population in total.
Local Tastes & Interests	Oxford's FM 107.9 is designed to meet the specific tastes and interests of the under 35 population, especially those aged under 25. Speech therefore includes 'youth culture' information/entertainment features, and the station runs at least 12 social action/awareness campaigns each year. Local news bulletins are broadcast between 6am and 7pm, with extended bulletins at lunchtime and late afternoons. At weekends, local news is provided until lunchtime.
Summary	A popular youth service that complements the heritage ILR station and will encourage DAB uptake amongst the important youth sector. Specifically, and as highlighted in our research, listeners to existing ILR services have high interest in DAB functionality, in particular pause and rewind, visual services, music downloads and red button functionality. Oxford's FM 107.9 will benefit from the transition to DAB; for the first time young adults outside of South Oxfordshire will be able to receive a youth focused service. • Existing local service, but with increased population coverage • Under 35 age profile • Male bias • C2DE • Promoter of DAB and encourages trial

107.6 Touch FM	
Target Audience & Demographic Profile	Within its analogue TSA, Touch FM is listened to by 15% of all adults. It has a loyal audience, with average hours currently of 9.7 helping deliver a market share of 6.9%. It attracts a more female biased audience, with an appeal to those under 45. It delivers more ABC1 listeners than C2DEs, although lower than the population average. Within the larger Oxfordshire TSA, Touch FM's reach equates to 2%.
Local Tastes & Interests	Touch FM's editorial focus is on the Banbury and the surrounding area. Local information and features of particular local relevance, such as what's-on, entertainment, sport and travel information are broadcast across the day. Local news bulletins are broadcast between 6am and 7pm (1pm weekends), with extended weekday bulletins at 1pm and 6pm.
Summary	Touch FM will benefit from the transition to DAB, being able to maintain listenership amongst its audience as they travel across the county. Its business model can be further advanced with the adoption of DAB ancillary and additional features that MuxCo will make available. • Existing local service, but with increased population coverage • Under 45 age profile • Female strength • ABC1 • Promoter of DAB and encourages trial

JACK fm	
Target Audience & Demographic Profile	JACK fm will particularly appeal to 35 to 54 adults, with the target listener being male and aged 40 something. In terms of age it is found to have a very broad appeal with 40% of listeners aged 35 to 54, and 33% over 55. The service is likely to deliver a higher proportion of ABC1s. The format had strong appeal amongst those who currently do not own a DAB set, with almost a quarter choosing this format. 28% of BBC listeners, and almost a quarter of solus BBC listeners, also expressed an interest in hearing this station.
Local Tastes & Interests	As the new FM service for Oxford and South Oxfordshire, JACK fm will provide regular news and information relevant to its audience. Speech will also include local what's on and other short information features. JACK fm will feature a daily current affairs programme looking at topical local interests.
Summary	JACK fm is a new style of radio combining broad musical genres with an irreverent style. The station will complement existing local commercial radio by appealing mainly to older adults; an audience that has left commercial radio for stations like Radio 2 that better cater for their musical tastes. • New service from Absolute Radio, but with increased population coverage • 35 to 54 age profile • Male target • ABC1 • Attracts audience from BBC • Encourages DAB uptake

Adult Contemporary	
Target Audience & Demographic Profile	Our research shows a target audience aged 25 to 44 with a female bias. A popular format that will appeal to a broad section of the community and attract new listeners to DAB, with 61% of those who would like to listen to this service not currently owning a DAB set. It would also appeal to current BBC listeners who represent 77% of those interested in this format (34% currently only listen to BBC stations).
Local Tastes & Interests	The service will provide news and information, in particular entertainment features, of relevance to the audience.
Summary	Adult contemporary music has broad appeal, and such formatted stations have established credible operations over the last two decades. A popular format, with strong female appeal. • New service • 25 to 44 age profile • Female bias • ABC1 • Encourages take up of DAB

Easy Radio	
Target Audience & Demographic Profile	Our research highlights high interest in the Easy Radio concept, and that the service is likely to appeal to an older, 45 plus listener, who will account for 77% of the audience. Our research shows a female bias and a strength with ABC1s, although below the area average. Easy Radio should be a strong motivator to stimulate DAB take up, with 61% of those wanting this service currently not owning or accessing DAB. The format also recorded above average appeal among listeners to BBC stations, with 43% currently listening only to BBC stations.
Local Tastes & Interests	Easy Radio is essentially a music experience, with its broad range of easy listening music from the 60s to today, and some music specialisation, such as country, creating a relaxing environment for the listener. Speech will include news, relevant information for the audience and an element of interactive programming.
Summary	A popular format that would appeal to an older audience, bring new listeners to DAB digital radio and attract an audience from the BBC. • New service • 45 plus profile • Female bias • ABC1 • Attractive to solus BBC listeners

Castle Digital	
Target Audience & Demographic Profile	In our research, 22% included this format in their personal choice; the majority of whom were female (55%). Whilst having broad appeal, the service will be of particular interest to over 55s (47%). The service would also attract a higher ABC1 profile. More than half of those interested do not yet own a DAB set, indicating the format could be a motivator for take up. A high 79% of those who would choose to listen currently listen to BBC stations, with 41% listening only to BBC services.
Local Tastes & Interests	With a local breakfast show from launch, this station will provide a mix of music and relevant content for the county's older audiences and provide competition for the BBC's successful Radio Oxford service. The music will comprise a wide range of melodic popular hit songs ranging from the 60s to the present day, combined with a significant proportion of album tracks by popular artists that integrate seamlessly into the music mix.
Summary	Castle Digital's unique mixture of music across at least five decades will have a wide appeal, skewed to the older demographics. • A popular new service • 55 plus profile • ABC1 • Encourage DAB trail • Attract BBC listeners

Rock	
Target Audience & Demographic Profile	In our research, 15% were interested in this format; the majority of whom were male (57%). The service would have a young profile; almost half, 49% were under 35, and 67% under 45. The format would also have an upmarket ABC1 appeal.
Local Tastes & Interests	A music led service, with speech and features focusing on the tastes and interests of its target audience. In particular, its mix of popular rock music, live sessions and specialist shows will cater for underserved local rock fans. Whilst a network service, a what's on guide and events information for Oxfordshire will be provided. Produced by a well-regarded, national brand, the station will be the first choice for listeners seeking out this type of music.
Summary	The only service on the multiplex that specifically broadcasts this type of music. The inclusion of this service will help attract younger listeners back to commercial radio. • New service • Under 35 profile • Male bias • ABC1 • Encourage DAB

UCB UK	
Target Audience & Demographic Profile	The target audience is all age groups, although research highlights the main interest to be with those aged 65 plus (40%), with high interest also recorded by those aged 45 to 64 who collectively will account for three quarters of the audience. The service is likely to have a female bias (63%) and deliver a strong ABC1 profile (73%). 58% of those wanting to hear this service do not currently own a DAB set, indicating another service helping drive DAB. More than half, 58% of this group claimed to be solus BBC listeners.
Local Tastes & Interests	UCB UK is a Christian radio station for the whole family. It will bring a unique service to the area, offering a rich alternative to existing provision. It will also provide a wide range of programming to inspire and transform the listening experience. The station is non-commercial; carrying no advertising other than for in-house services.
Summary	UCB UK will appeal to listeners who want to hear programmes with religious themes or would like a station with a heavier speech to music ratio. It will also provide good commercial radio competition to the BBC and attract new listeners to DAB digital radio. • New service • Broad audience appeal, but delivering older 65 plus profile • Attract audience from the BBC • Female bias • ABC1 • Encourage DAB

	Traffic Radio
Target Audience & Demographic Profile	The target audience for the service will be broad, appealing not just to business commuters, but also housewives and parents with children.
Local Tastes & Interests	An innovative service from the Highways Agency providing continuous localised traffic and travel information. The service would be a Midlands regional service, focusing on all major road networks. At the moment radio traffic bulletins are provided sporadically, at a time when the station wishes to provide them rather than when an issue arises. Their frequency also varies across the week, with significantly lower non-peak and weekend updates. This is a service which drivers would wish to be able to 'dip-in' to such a service prior to their trip or whilst in a vehicle.
Summary	By making information on the road network more accessible, the proposed service will help reduce congestion by informing motorists about major congestions, thereby enabling them to divert, delay or cancel their journey. The benefit of the service is not just to individuals, but also to business. Reducing road journey times will help deliver environmental benefits through reduced emissions and improved driver safety. With broad appeal, the service should have a significant benefit on the take up of DAB receivers. • New service • Broad interest • Encourage DAB in-car listening

b) **If agreement has been reached (either firmly or provisionally; state which) with particular providers of some or all of the digital sound programme services to be accommodated on the multiplex, identify these programme providers. For each one, state whether it has already been issued by Ofcom with a licence to provide a local digital sound programme service.**

Service	Service Provider	Confirmed	DSPS Held
Fox FM	GCap Media plc	See Part B	Yes
Oxford's FM 107.9	Absolute Radio International Ltd	See Part B	No
Touch FM	CN Group Ltd	See Part B	No
JACK fm	Absolute Radio International Ltd	See Part B	No
AC	See confidential section	Yes	Yes
Easy Radio	Easy Radio Ltd	Yes	Yes
Castle Digital	Laser Broadcasting Ltd	Yes	No
Rock	See confidential section	Yes	No
UCB UK	United Christian Broadcasters Ltd	Yes	Yes
Traffic Radio	Highways Agency	Yes	Yes
Podcast Service	Folder Media Ltd	Yes	No

125. MuxCo will provide opportunities for service providers to create new and innovative content streams. Our chosen multiplex platform will support Dynamic Label Services ('DLS') and MOT carousel using simple, industry standard interfaces allowing service providers to use the "off-the-shelf" and well-supported software packages for generating content. Therefore, from launch, all service providers will have access to:

- Scrolling text functionality
- Electronic Programme Guide

126. As data technologies and standards mature, we will work with service providers to launch other data services (such as Broadcast SlideShow, DABverts etc).

Dynamic Label

127. DLS is a very simple technology, which gives it enormous strengths. It provides an immediate point of difference between a digital radio and a traditional FM receiver. Consumers value the information provided unexpectedly highly – informal feedback from listeners is very positive about features such as displaying information on the currently playing song. The industry has recently begun to develop DLS into a commercial opportunity, with advertisers recognising the value of DLS as an additional communications tool.

128. We are supportive of recent extensions to the DLS spec, such as Pure Digital's IntelliText® technology, which stores the scrolling text to allow the user to navigate, by topic, straight to the news they want. Service providers can generate DLS very simply, using a range of software packages that integrate into their existing systems. DLS is transmitted in the XPAD.

Electronic Programme Guide

129. Electronic Programme Guides ('EPG') are important in a multi-channelled environment – they allow listeners to find stations and programmes quickly, and enable functionality like "time-shifting" of stations. They enable service providers to promote their new services and programmes. The EPG allows the user to take advantage of features such as programme summaries, search by subject or channel, immediate access to the selected programme and also to set reminders for their favourite shows.

130. Our research showed a comparatively strong interest in an EPG. We will make an EPG channel available to all service providers. This channel will conform to the ETSI TS 102 371 DAB EPG standard, currently broadcast by the two existing national multiplexes. We will encourage our service providers to use some of the more advanced features of the EPG, such as "series linking" and incorporating telephone, SMS, website and email addresses into the schedule data.

131. We have had detailed discussions with All In Media Ltd ('AIM') relating to the launch of an EPG channel on the multiplex. AIM's Managing Director, Chris Gould, led the WorldDMB TaskForce that created the DAB EPG standard. In the event of award of the licence, it is our intention to work with AIM to launch the EPG channel on this multiplex. The EPG will be transmitted in a dedicated packet data channel.

132. We also believe an enhanced EPG will allow listeners to navigate the podcasts that are available from the multiplex.

Use of variable-XPAD

133. From launch, we will enable each service provider to be able to run programme-related data services within their short XPAD data capacity.

134. With Folder Media and other associates, we have a strong team who have substantial experience in the field of launching data services, ranging from the work that was undertaken on the world's first commercial data services in 2000 through to the development of standards such as the EPG and the launch of highly dynamic text services.

135. We intend to use our experience to help service providers to launch new programme-related data services. For example:

Tagging (Book marking)
- The ability to log a song on your mobile phone/device in order to download it later.

Broadcast Slideshow
- The ability to add visual content to make programmes and adverts more engaging, for example showing the cover of the record currently playing, or an image of the car being advertised.

"Red button" functionality
- *Competitions and Voting* - a listener could use the red button to vote on the next tune to be played or select the correct answer to win a prize.
- *Enhanced Advertising* - an advert for a new car could be visually demonstrated through a screen, with red button functionality sending information via a URL link to the external car dealer's web site.
- *Rewards* – creating opportunities for listeners to get free content (perhaps music downloads) in return for responding to an advertiser's call to action, or clicking through to the web page could generate redeemable loyalty points.

Podcast Channel

136. The multiplex will broadcast a Podcast Channel, managed by Folder Media Ltd. The channel will be a carrier for a variety of different podcasts (outlined in the answer to question 11) from a range of different service providers.

Other services

137. Folder Media, our data service provider, intends to provide a music download capability such as the new Instant Music Buying Service 'Cliq' from UBC, which will provide a value enhancing service for radio services, providing opportunities for listeners to access and acquire music on the go.

d) If it is intended to use an encryption system, state that this is so, and make clear to which digital sound programme services it will apply, and how listeners will subscribe to the service.

138.   It is not proposed that any services will be encrypted and none of the proposed service providers has indicated an interest in encryption.

12. Digital additional services and television licensable content services

Provide details of any digital additional services and/or television licensable content services planned, other than programme-related data services (see Q.11(d) above), and the proportion of the total multiplex capacity which will be allocated to each of these.

The response to this question may be submitted in confidence.

* Applicants should note that this information is not relevant to section 51(2)(d), which relates only to digital sound programme services, but this question is positioned here for convenience.

139.   Our response to this question is submitted in confidence in Part B.

Section 51(2)(e): Broadening of local commercial DAB choice

13. Broadening of choice

Outline how the programming provided by the local digital sound programme services (other than BBC services) proposed will broaden the range of local digital sound programme services available in the area, and describe the extent to which the proposed local digital sound programme services will cater for tastes and interests different from those already catered for by local digital sound programme services already available in the area. If the licence applied for is the first local radio multiplex licence to be advertised in an area, detail the breadth of programming delivered by the range of local digital sound programme services to be provided on that local radio multiplex alone.

140.   The Oxfordshire multiplex is the first and likely to be the only local multiplex for the area. The county is fringed by local multiplexes on all sides – Coventry to the north, the new Northamptonshire and Herts, Beds & Bucks multiplexes to the east, Reading and Hampshire to the South and Swindon and the forthcoming Gloucestershire multiplex to the west. Many listeners around the border of the county already have access to increased choice. However, for most Oxfordshire residents the only increase in local choice will be from the new multiplex. Breadth of programming has therefore been measured by the range of local digital services to be provided on the multiplex.

Fox FM	
Service	A contemporary and chart hit music and information station for 15 to 44 year olds. Music is predominantly current chart hits, new releases and hits up to one year old. Whilst the station is music led, information features of local relevance are evidenced throughout the programming including a daily news magazine programme.
Broadening of Choice	Fox FM's format is to provide a broad appeal service for under 45s playing contemporary and current chart hit music. As such, some of the new services will overlap in relation to music played. None, however, will cover the range of music played by Fox FM. In addition, Fox FM's heritage position and editorial focus will ensure that it continues as a key local service.

Oxford's FM 107.9	
Service	The voice for the youth of Oxford providing a mix of primarily new, cutting edge and credible chart music with news and youth culture features targeting the 15 to 29 age group in the city.
Broadening of Choice	Oxford's FM 107.9 focuses on this a narrowly targeted demographic of 15 to 29 year olds, and the new and emerging music and lifestyle that interest them. The service is currently only available in the City of Oxford; it will automatically extend choice in other areas of the county.

Touch FM	
Service	A broadly targeted local service providing music and information for Banbury and surrounding areas. Speech forms a significant 25% of the output, whilst the music mix spans the 60s through today.
Broadening of Choice	As a broad appeal service playing a broad music mix, there is some music overlap with Fox FM, and to a lesser extent 'AC' and 'Easy Radio'. Touch FM's editorial policy, presentation style and focus on Banbury provides significant differentiation. The service is currently only available in North Oxfordshire; it will automatically extend choice in other areas of the county.

JACK fm	
Service	A music intensive service designed to complement existing local commercial radio by appealing mainly to 35 to 54 year olds through a distinctive 'no format' blend of quality music. Whilst broad, the music policy is themed around pop, rock and classic rock. Presentation style will focus on listener vox-pops and short voice-links which are distinctive, entertaining and different.
Broadening of Choice	JACK fm will cater for an audience that has left commercial radio for stations like Radio 2 that they feel better caters for their musical tastes. Given the scope of the format, some music cross-over will arise with other services audible in the area. However, JACK fm's broader music repertoire, its focus on the 35 to 54 year old audience and its overall presentation style will be significant differentiators. The service will be available on analogue in Oxford and South Oxfordshire; it will automatically extend choice in other areas of the county.

Adult Contemporary	
Service	A music led service playing adult contemporary music from the last 30 years.
Broadening of Choice	Musically, the proposed service sits between the hits based formats of 'Fox FM' and 'Touch FM', and there will be some overlap with 'Castle Digital'. However, the overall mix of music, and its style of presenters and presentation provides differentiation and a broadening of choice.

Easy Radio	
Service	A music based service playing a range of easy listening genres featuring familiar music from 60s to today and drawn from a broad library.
Broadening of Choice	The broader music mix of Easy Radio, in particular music from artists with a country crossover influence including rock, folk and blues, provides a point of difference and a broadening of choice over other proposed services. Easy's speech, with news and relevant information for the audience and an element of interactive programme, will also act as a point of differentiation. In addition, plurality of ownership provides additional broadening of choice.

Castle Digital	
Service	Castle Digital will play classic pop hits from across five decades. Speech will include local news and information at breakfast.
Broadening of Choice	A new service that will be a valuable addition for older listeners in Oxfordshire and will be the only new digital-only service with a local breakfast show from launch. The service will also have a female bias.

Rock	
Service	A mix of modern rock and rock anthems, live performances and gig and artist information which will be totally new to the area under a brand which is well known throughout the UK.
Broadening of Choice	The service will bring additional listening choice to the younger demographics. Whilst elements of its music repertoire will be audible on Fox FM and FM 107.9, this will be a unique service given its dedication to this genre.

UCB UK	
Service	A unique service targeting the Christian community with contemporary Christian music and classic favourites and news, current affairs, teaching and a positive perspective on today's lifestyle.
Broadening of Choice	UCB UK will cater for the many listeners who would like a Christian perspective on the radio and enjoy a more speech-led radio experience. There will be minimal overlap between the music played by UCB UK and that available on other services carried on the multiplex.

Traffic Radio	
Service	A unique service providing regular and up to date traffic & travel information.
Broadening of Choice	Traffic Radio is a new and unique service, with no comparable service currently provided in this region (or across the UK). Whilst existing analogue services, BBC and commercial, provide traffic & travel bulletins, these are often limited in scope and only broadcast during peak programming. Traffic Radio provides an opportunity for 24/7 reporting of traffic issues.

Podcast Service	
Service	A mixture of music and speech content, serving a broad range of tastes and interests that will complement the full time services carried by the multiplex.
Broadening of Choice	The inclusion of a Podcast Service will bring additional listening choice to the younger demographic.

141. As a whole, the proposed complement of services caters for:

- People interested in hearing local news and information, with 6 services providing such content and with the Podcast service providing further localness.
- A wide age range, with additional choice for younger listeners, but overall greater choice for older listeners who have indicated a willingness to switch from the BBC with the right choice available.
- A broader range of tastes and interests.

Section 51(2)(f): Local demand or support

14. Audience requirements

Summarise the main findings of any original market research undertaken, or any analysis of existing audience research information, or any other form of evidence which demonstrates demand for the types of programme service and/or programme-related data or other data services proposed, or has otherwise influenced the applicant's proposals.

If original market research has been undertaken, please provide the following information for each piece of research:

a) A statement of the key objectives of the research;
b) The specific questions that the research sought to answer;
c) How the research was conducted;
d) The size and composition of the sample(s);
e) When and where the research was conducted;
f) A summary of the main findings from the research, showing how these demonstrate evidence of demand for the service proposed – this summary should represent a fair and accurate summary of the full results;
g) A copy of any detailed audience research report or analysis, from which the summary provided in the main application document has been derived, full data tables for any quantitative research undertaken, and any questionnaire used (these may be submitted in confidence).

P lease provide your responses to (a) – (e) in tabular format.

	Key Objectives	Specific Questions	How Conducted	Size and Composition	When
Desk Research	To analyse the local market To get an up to date picture of the digital landscape.	To review population growth and change. To track digital penetration.	Analysis of Census 2001 data. Review of DRDB and relevant RAJAR data on digital audiences. Analysis of existing multiplexes.	Not relevant	April / May 2007
RAJAR	To understand the local radio market.	To track the performance, strengths and weaknesses of existing services.	Using the Octagon analysis system and RAJAR data.	Not relevant	May and repeated in June post Q1 publication
Consumer Study	To further understand the local radio market. To gauge consumer awareness, understanding and usage of DAB digital radio. To quantify interest in potential formats and data usage applications. To estimate audience levels, individually and collectively, for the proposed complement of services.	To investigate the performance, strengths and weaknesses of existing services. To identify the likely audience profiles for each planned service and to see how these services work collectively to enhance the total audience potential for DAB digital radio. To look at the propensity to listen and the impact that the new services collectively would have on the existing market.	Consumer survey conducted by TNS. All interviews conducted face to face using Computer Aided Personal Interviewing equipment.	500 adults 16+ from across the PPA. Sampling PPS Quota controls to known demographic profile.	21st May to 13th June 2007

142. We have provided an analysis of our research under the following headings:

- The Oxfordshire market
- Radio choice
- Current radio listening habits
- Uptake of DAB digital radio
- What people would like from digital radio in the future

The Oxfordshire market

The People

143.   Oxfordshire is currently home to c. 627,000 people (source: Oxfordshire Data Observatory). The City of Oxford is the largest population centre, with other significant towns including Bicester, Banbury, Kidlington, Witney, Abingdon and Didcot.

144.   The county is the most rural in the South East region, with over half its population living in villages of less than 10,000 people. Over three quarters of the land is devoted to agricultural management and almost 40 per cent of the county is designated either as 'Areas of Outstanding Natural Beauty' or 'Areas of High Landscape Value'.

145.   The City of Oxford is home to 22 per cent of the county's population. With over 30,000 full time students, 26% of the city's working age population is classified as students - the highest proportion in England and Wales.

146.   It is anticipated that in the decade to 2011 the county's population will have grown by 4.5% to 635,100, with growth greatest in Cherwell and West Oxfordshire. Related to this, the Oxfordshire Structure Plan proposes that 37,300 new houses will be built by 2016; at least 50% of which will be aimed at first home buyers.

147.   In 2001, 4.9% of the county's population were from ethnic groups (against a UK average of 9.1%). The largest ethnic group is Asian (1.7%). Within the City of Oxford, this rises to 12.9%, and where Asians represent 4.8%. Ethnic diversity is especially high among young people (at 19.8% of under 16s). Whilst the size of this population does not support a stand alone service, the proposed Podcast Service provides an opportunity to serve these discrete ethnic communities.

148.   In relation to the population covered by the multiplex, we have assumed a TSA of 509,000 adults 15+ (Q1 2007). The following table highlights the relative demographic splits of the population, with comparison to the UK as a whole. It shows a bias in the population with those aged 15 to 44 and a commensurate under-representation of 45 pluses.

	Oxfordshire	UK	Index on UK
15 to 24	17.6%	15.9%	111
25 to 34	16.1%	15.5%	104
35 to 44	19.5%	18.7%	104
45 to 54	15.3%	15.7%	97
55 to 64	13.7%	14.6%	94
65 plus	17.8%	19.7%	90
ABC1	64.0%	53.4%	120
C2DE	36.0%	46.6%	77
Male	49.3%	48.5%	102
Female	50.7%	51.5%	98

The Economy

149.   Oxfordshire has a relatively rural economy, with large scale businesses concentrated in the key urban areas. The county is a popular tourist destination, not only for its rural beauty but also its numerous market towns, as well as the City of Oxford. Oxford is the sixth most visited city in the UK by international visitors, with more than 7.8 million visitors spending over £400m annually.

150.   The main business centre is Oxford, which provides around 110,000 jobs. Oxford has a global reputation for its academia. It is host to both Oxford University, the oldest university in the English-speaking world and Oxford Brookes University, one of the newer universities, which are not only major employers (one in five Oxford workers are employed in the education sector) but are the focal point of the city's tourism and related publishing industries. Indeed the city has the largest concentration of printing and publishing companies in the UK outside London.

151.   Other key industries include high tech businesses and biotechnology, the city has recently developed the Oxford Business Park and the Oxford Science Park, as well as car manufacture and motor sport. BMW has invested more than £700m in modernising its Cowley plant for production of the Mini. It is the county's largest employer (despite now employing only a fifth of the number it did when the car industry was at its peak). Harley Davidson also now has its European headquarters in Oxford.

152.   With a vibrant and sound local economy, the future for radio is strong. An increasing population will also expect increased local choice. The opportunity for DAB, and the new services that it will bring, is therefore encouraging.

Radio choice

153.   Three local commercial analogue radio services and one local BBC service are currently audible in the county.

- Fox FM (owned by GCap Media)
- Oxford's FM 107.9 (owned by ARI)
- Touch FM (owned by CN Group)
- BBC Radio Oxford

154.   A fourth local commercial service is set to launch in autumn 2007.

- JACK fm (owned by ARI)

155.   There is also some limited spill over from neighbouring heritage and regional services. However, in many respects, local commercial radio choice is currently limited.

156.   In regard to national radio, the national services of the BBC and commercial services carried by Digital One are audible across the county.

Current radio listening habits

157.   RAJAR audience data has been analysed within the BBC Radio Oxford TSA over the last three years, using rolled 12 month periods to Q1 in each year. The following table details total audience and hours to radio over the last three years.

	2005	2006	2007
Population '000s	**507**	**507**	**507**
Reach %	92.1%	91.3%	91.3%
Reach '000s	456	461	464
Total Hours '000s	11,461	11,334	11,322
Ave. Hours	25.1	24.6	24.4

* rolled 12 month data ending Q1 in each year

158.   The table highlights a small decline in the total number of people listening to radio over this period, as well as a decline in the average time spent listening.

159.   In addition to the local services, we have also reviewed data for the UK as a whole to gauge how radio listening in Oxfordshire compares with elsewhere. The following table summarises RAJAR performance for the year ended Q1 2007 within the Oxfordshire TSA and compares this with the UK as a whole.

Market Share	Oxfordshire	UK
All BBC	**72.4%**	**54.9%**
• BBC Network	63.4%	44.7%
• BBC Local	9.1%	10.5%
All Commercial	**26.1%**	**43.1%**
• INR	7.9%	8.6%
• ILR	18.2%	34.5%
Other	**1.5%**	**2.0%**

Source RAJAR 12 mths ending Q1 2007

- The BBC dominates radio listening in Oxfordshire:
- 'All BBC' currently accounts for 72.4% of all radio listening, compared to its national average of 54.9%.
- BBC Network services perform significantly above average in this area.
- BBC Local radio does not currently fare as well as its national cousins, delivering under average market share.
- Commercial radio's performance is almost 17 percentage points lower than the UK average; a result of the low level of local commercial choice currently in this market and its focus on the younger market.

160.   The following table details the relative historical market shares between the BBC and commercial radio within Oxfordshire for three key age groupings, and compares the 2007 data with results for the UK as a whole.

Market Share by Age	2005	2006	2007	12 mths ended Q1 2007 - UK
15 to 34				
All Commercial	40.1%	36.7%	31.8%	55.9%
All BBC	58.9%	62.5%	65.8%	41.7%
35 to 64				
All Commercial	27.9%	24.2%	26.6%	43.5%
All BBC	71.6%	74.4%	72.1%	54.5%
65 pluses				
All Commercial	17.4%	15.2%	16.8%	25.6%
All BBC	82.5%	84.5%	83.0%	72.9%

Source RAJAR 12 mths ending Q1 2005/6/7

- Compared with the UK as a whole, commercial radio within the county under-delivers in all age groups, resulting in a BBC domination.

- Commercial radio is strongest with 15 to 34s, where its market share is 31.8%. However, this share has declined rapidly over the past 3 years. This result is also disappointing given that this age group represents commercial radio's strength and that both Fox FM and Oxford's FM 107.9 see this age group as a key constituent of their target audience. Looking at the 15 to 24 sub-group, whilst the results are still disappointing, ILR performs proportionately better, generating a 36.1% share, a function of the youth targeted Oxford's FM 107.9. *We believe that additional youth focused content such as 'Rock' and through the Podcast service will help improve commercial radio's position.*

- Amongst listeners in the mid age market, whilst commercial radio's performance has remained remarkably stable, with a small improvement over the last year, its share is still significantly below the national average. *Services such as 'AC' and 'Easy Radio', alongside 'JACK fm' will find great support in this age band.*

- We were not surprised that among those aged 65 plus the BBC performs best overall. Commanding 83% of all listening in this age group, commercial radio's share is significantly below the UK average. *'Easy Radio', 'Castle Digital' and 'UCB UK' will offer considerable appeal to this demographic group.*

161. Looking at the individual local commercial services within Oxfordshire, the following table summarises the historical performance of each ILR service over the last three years. It also compares commercial radio to local BBC.

	2005	2006	2007
Fox FM			
Weekly Reach %	35.4%	31.0%	31.1%
Total Hours	1,791	1,497	1,459
Market Share	15.6%	13.2%	12.9%
Oxford's FM 107.9			
Weekly Reach %	5.3%	4.2%	4.5%
Total Hours	185	119	97
Market Share	1.6%	1.0%	0.9%
Touch FM **			
Weekly Reach %	N/a	N/a	1.6%
Total Hours	N/a	N/a	98
Market Share	N/a	N/a	0.9%
BBC Radio Oxford			
Weekly Reach %	18.9%	15.0%	18.7%
Total Hours	1,002	729	983
Market Share	8.7%	6.4%	8.7%

Source RAJAR rolled years ending Q1
** This service participates in RAJAR as part of a large combined service "Touch South Midlands"

- Fox FM has declined in reach quite significantly over the past three years (12%), although this now looks to have stabilised. Average hours, though, continue to fall, resulting in a decreasing market share.
- Oxford's 107.9, by comparison, has held up rather better than the heritage station, which may well reflect its tighter youth focus. Reach has remained constant. Average hours though have declined, reflecting the re-launch of the station after its acquisition by Absolute.

- Touch FM, the local Banbury service which launched in early 2006, has the smallest footprint of the three ILRs. Despite this, it currently achieves a similar market share to Oxford's 107.9, albeit with fewer listeners and therefore significantly greater audience loyalty.
- BBC Radio Oxford suffered from a decline in both reach and average hours in 2006, with its current performance in line with that of 2005.

162. Our consumer research supports the RAJAR results:

- 92% claimed to have listened to a radio station in the past 7 days.
- 75% tuned in to a least one BBC service, compared with only 55% to any commercial service, of which 31% listened to any ILR and 17% to any INR. The balance comprises digital only and out of area services.
- The most popular services were:
  o Radio 2 - 32%
  o Fox FM - 27%
  o Radio 4 - 25%
  o Radio 1 - 24%
- 42% only listen to BBC services, i.e. are solus listeners.

- It is interesting to note that DAB owners tend to be stronger BBC listeners than those without DAB digital radio, particularly to Radio 2 and Radio 4, and also new digital only services such as BBC 7 and 5 Live Sports Extra. Fox FM scored lower, whilst BBC Radio Oxford moved up the ranking. This finding may well reflect the significantly higher level of cross promotion (radio to radio, and TV to radio) that the BBC is providing to boost its digital only services.

- 10% claimed to listen to digital only service. Amongst DAB owners this figure was 21%, suggesting that this group are experimenting with new services, albeit at a lower level than might be hoped for.

163. Radio consumption patterns in Oxfordshire are similar to the UK:

- 83% listen to the radio on a typical weekday. 65% listen at home, while 54% listen in the car. As expected, women are a little more likely to listen at home, whilst men are more likely to listen in the car.
- Under 25s are more likely to listen to the radio over the internet (24%) or via their mobile phones (9%) than the sample average.
- Radio listening in the home generally increased with age, from 53% of under 25s, rising to 80% among those over 65
- In car listening was more prevalent among those aged 25 to 54 (65%).

164. Respondents were also asked what aspects about the local stations they listen to they particularly enjoyed, *these being features and attributes that perhaps the new services should reflect.*

- Local news and information was most frequently mentioned. This was followed by the mix of music played and travel news. Listeners with access to DAB generally valued all aspects of news and information output more highly than the sample average. This was especially the case with travel news.
- Listeners to commercial radio, and in particular to ILR, were even more inclined to say they enjoyed hearing the local news on their local station than were those who only listened to BBC services (43% v 36%).
- More important still to ILR listeners was their enjoyment of the mix of music.
- *Local news is expected on locally focused services, but not necessarily on all commercial services*

165. Respondents were given the opportunity to say what their local station could do to make them spend more time listening to them. *With digital radio increasing choice and offering opportunities for listeners to switch elsewhere, understanding how to react is an important consideration for existing (as well as new) services.*

- Only 42% offered a comment to this question, suggesting that for many existing local output is satisfactory.
- Highest scoring was a negative view on commercials, either too many or too repetitious causing listeners' dissatisfaction.
- They also wanted greater variety of music, as well as more of a specific type of music.
- Only 4% wanted more local news and information.

Uptake of DAB digital radio

166. The uptake of DAB is strong, and with new developments over the next 12 to 18 months, such as the iPod adapter and in-car receivers, the potential DAB audience in Oxfordshire by the time the multiplex launches is significant.

167. The latest sales data from the DRDB is that 5m DAB sets had been sold by the end of May 2007, whilst RAJAR Q1 2007 highlights that 19.5% of UK adults live in homes with access to DAB.

168. This figure is significantly lower than the level of DAB ownership that our consumer survey highlights for the county.

- 27% of the population claimed to own a DAB radio
- A further 11% claimed to have access to a DAB radio.
- Whilst there was no marked difference in penetration between men and women, ownership levels increased with age from 24% amongst under 35s to 25% amongst 35 to 54s and 30% of 55 pluses. Ownership peaked at 41% of those aged 55 to 64.
- There was higher than average ownership among ABC1s (33%) compared with C2DEs.

169. Amongst DAB owners, the following table details their profiles, comparing Oxfordshire (per our research) against the UK profile (per RAJAR).

	UK *Adults in DAB Homes %	Profiles of Oxford Adults in DAB Homes %	UK Population DAB Profile %	Oxford Index on UK DAB Population
Men	52.5	49.0	48.5	101
Women	47.5	51.0	51.5	99
16 to 24	15.8	11.0	15.9	69
25 to 34	14.3	13.0	15.5	84
35 to 44	20.7	19.0	18.7	102
45 to 54	17.8	13.0	15.7	83
55 to 64	16.3	26.0	14.5	189
65 plus	15.2	18.0	19.7	91

Source RAJAR 12 mths ending Q1 2007

- Adults in DAB homes in Oxfordshire are more likely to be aged 35 to 44 or 55 to 64 than the UK average.
- Ownership showed no bias by sex.
- Services and DAB designs that have youth appeal will be of benefit.

170. In our survey, DAB owners were asked what led them to purchase a set in the first place. The key motivators were:

- Improved sound quality of existing analogue radio stations was the main attraction, registered by 36%.
- 28% registered interference free reception.
  - o Women and those aged 55 plus were more influenced by the prospect of interference free reception
- A similar number of DAB owners bought their set because they wanted to hear a wider range of new stations that better met their tastes and interests.
  - o Men were more interested in the range of new stations than were women (30% v 26%).
  - o The attraction of a wider range of stations was highest among those aged 35 to 44 (37%), and above average with both under 25s and those aged 45 to 54.
- Ease of tuning was another feature of greater appeal to women than men (34% v 19%), and had significant appeal with under 35s (36%) and under 25s in particular (51%), *an important consideration for the technology savvy youth market*.

171. Having acquired a set, DAB owners were asked whether DAB had met their expectations:

- Improved sound quality of existing stations continues to be perceived as the main asset of digital radio (25%).
  - o This was slightly more the case among men (26%) and those people aged 35 to 54 (33%), peaking at 35% among those aged 45 to 54.
- Wider range of new stations (registered by 21%)
  - o This view was most strongly held by men (25%) and those aged under 35 (28%).
- Interference free reception (17%)
- Ease of tuning (16%).
  - o Women considered interference free reception and ease of tuning to be of higher value than men did.

172. In relation to their listening habits, more than a quarter of those who already own or have access to digital radio indicated that their radio listening had increased. The effect of this on the overall population would be an increase of 9.4% in radio listening. Men were more likely to have increased their radio listening (32%), as were those aged 25 to 34 (39%) and 35 to 44 (41%).

173. Non DAB owners were asked what would tempt them to acquire a DAB set:

- The prospect of improved sound quality for existing services would be the main motivating force for almost a third of non owners.
- Interference free reception (26%).
- Ease of tuning (22%).
- Wider range of new services (21%).
- Men were more likely than women to be persuaded by each of the features described.

174. RAJAR publishes data on the overall time spent listening to the radio by 'All Adults' and 'All Adults in DAB Homes'. The following chart summarises these.
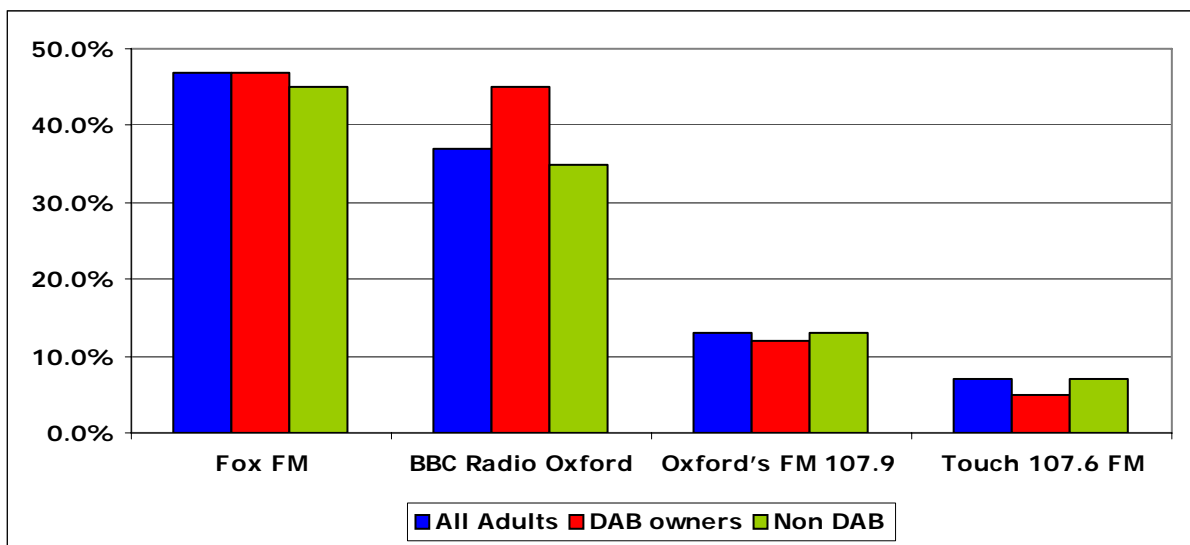

- Over the last 3 years, adults in homes with DAB sets listen to the radio for an average 16% longer. During 2004, that average was 21% higher.
- As the sales of DAB sets started to take off in 2005, the average has dropped back slightly as more recent purchases appear to be more general set replacements than purchases to gain initial access to DAB.
- ***These findings are very encouraging since they strongly indicate that access to DAB is having a positive impact on time spent listening to radio in total***, and support our consumer research findings which suggests that listeners would increase the amount of time spent listening to radio in order to incorporate new services into their repertoires.

175. Furthermore, when looking at respondents with access to DAB in home, we found that average time spent listening to digital only services was higher than amongst all adults to these services. Interestingly, when looking at simulcast stations, we found that this was not the case. Ease of access, which DAB offers, is encouraging listeners to broaden their consumption away from their traditional analogue stations.

176. It is interesting to note that listeners to digital services – whether quasi national, regional or local, demonstrate a preference to listen via DAB when it is available. RAJAR's platform survey undertaken with respondents with digital access, suggests that all digital listening represents 22.7% of all radio listening, split DAB 12.3%, DTV 6.1% and the Internet at 3.6%. Overall, analogue currently remains dominant with a 77.4% share.

177. Finally, the split of digital radio listening between the BBC and commercial radio highlights that the commercial sector commands the majority share, in part a result of increased commercial choice. We believe that the development of local digital radio in Oxfordshire will help reverse the current BBC dominance in this market.
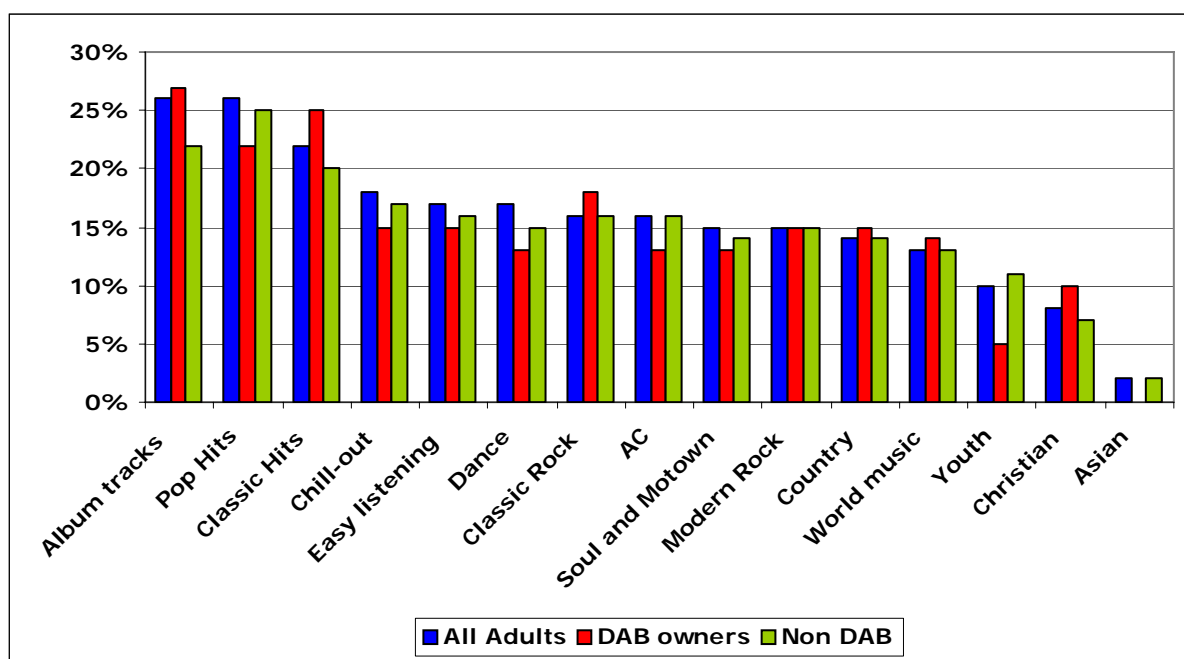
What people would like from digital radio

178. Having reviewed existing radio listening habits through RAJAR and our local consumer research, as well as exploring in greater depth the potential take up of DAB as a platform locally, the next stage of our research was to evaluate interest in accessing existing radio services and new formats, as well as data services.

179. The following chart summarises the results for existing local services.

- There is strong interest in being able to hear both Fox FM (47%) and BBC Radio Oxford (37%).
- Oxford's 107.9 and Touch FM scored lower, but their results reflect their smaller analogue coverage areas.
  - o Oxford's 107.9's analogue footprint covers only 42% of the multiplex TSA. We estimate conservatively that within its analogue TSA, this figure would rise to 31% reflecting its more focused appeal to the under 25 age group.
  - o Whilst only 7% overall registered interest in hearing Touch FM, its score within its analogue area would be significantly higher.

180. Our local consumer research also sought to gauge interest in a range of music genres, as follows.

181. The following table ranks the demographic strengths of the proposed new services, with the colours highlighting the format's position within each age group.
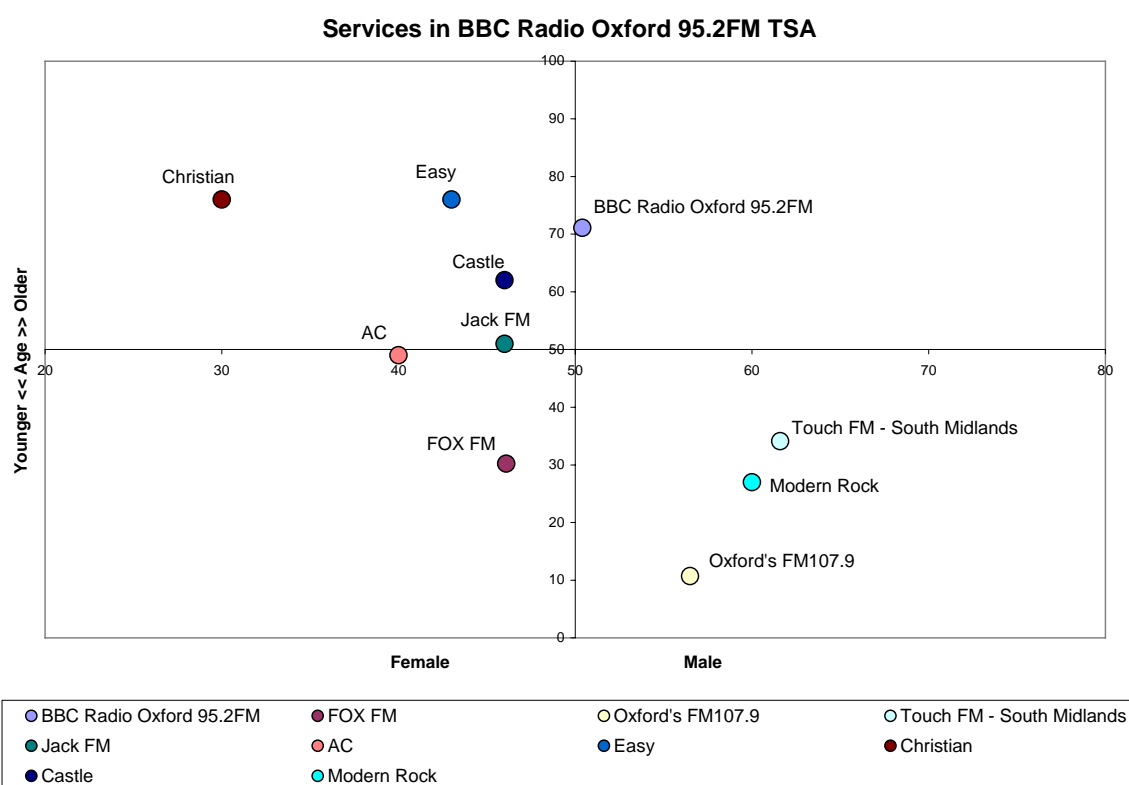
	16 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 plus
Album tracks – JACK fm						
Classic Hits – Castle Digital						
Easy listening – Easy Radio						
AC						
Rock						
Christian – UCB UK						
Ranking guide	1	2	3	4	5	6

- As expected, 16 to 24s and 65 pluses are generally more fixed in their views, either loving or hating a format, with under 25s generally more satisfied with the choices than 65 pluses.
- The multiplex must provide a broad range of music services. Whilst some may appear limited in broad appeal, their specific targeting makes them an important component of the overall complement of services.

182. The following table summarises the anticipated audience profiles for the new services.
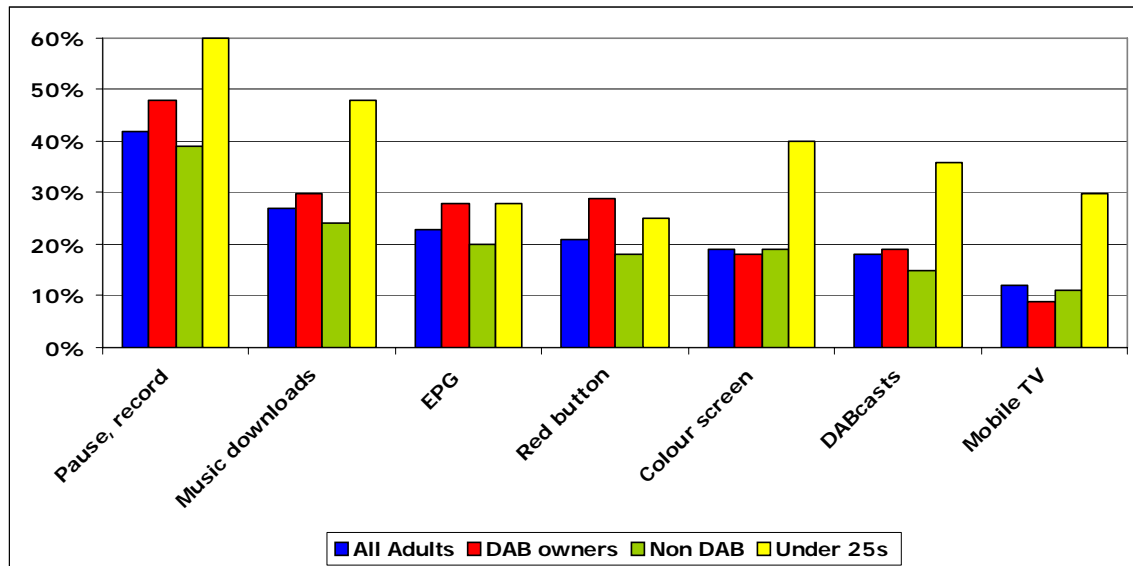
	JACK fm %	AC %	Easy Radio %	Rock %	Castle %	UCB UK %
Male	46	45	43	57	45	38
Female	54	55	57	43	55	62
15-24	12	15	7	31	10	8
25-34	15	22	8	18	6	5
35-44	21	31	9	18	22	10
45-54	19	16	25	20	15	21
55-64	17	7	20	12	23	15
65+	16	10	31	1	24	41
ABC1	61	51	53	61	56	73
C2DE	39	49	47	39	44	27

183. The following diagram demonstrates the strengths of the existing local commercial services, and the new digital services proposed. Rolled 12 month data ending Q1 2007 has been used for Fox FM, Oxford's FM 107.9 and Touch FM whist all other services have been derived from our consumer research.

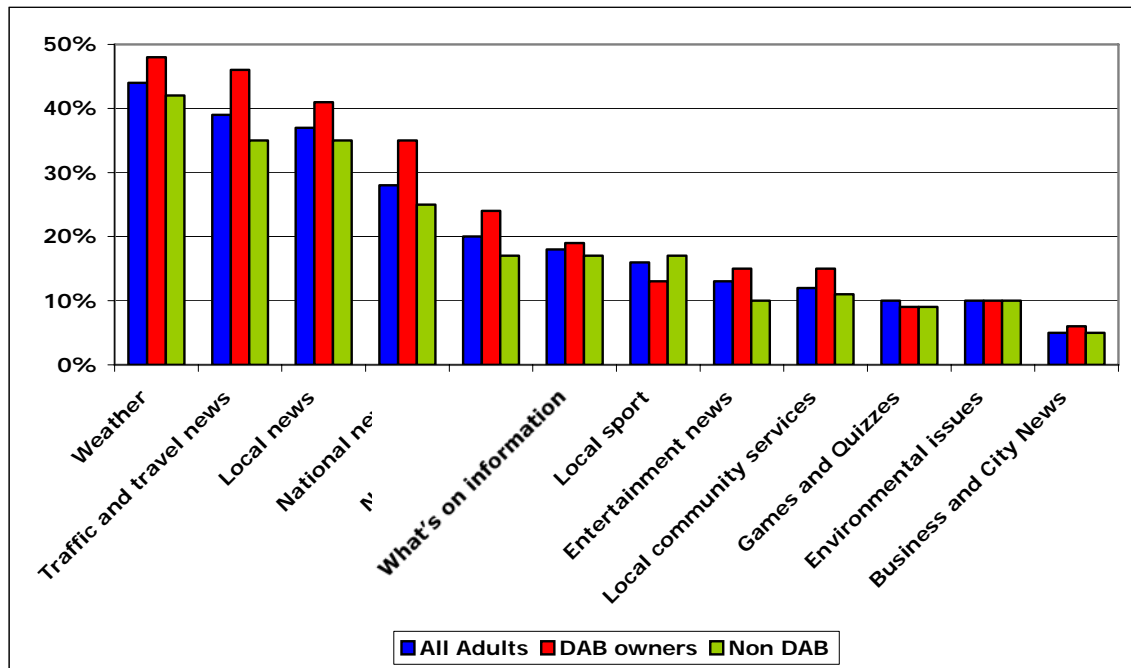**Services in BBC Radio Oxford 95.2FM TSA**

Data Services

184.   The opportunities for DAB radio to provide a range of data services that will complement radio services, or provide additional services, is an important aspect of DAB. The following chart summarises views on a range of functionality that DAB sets could provide.
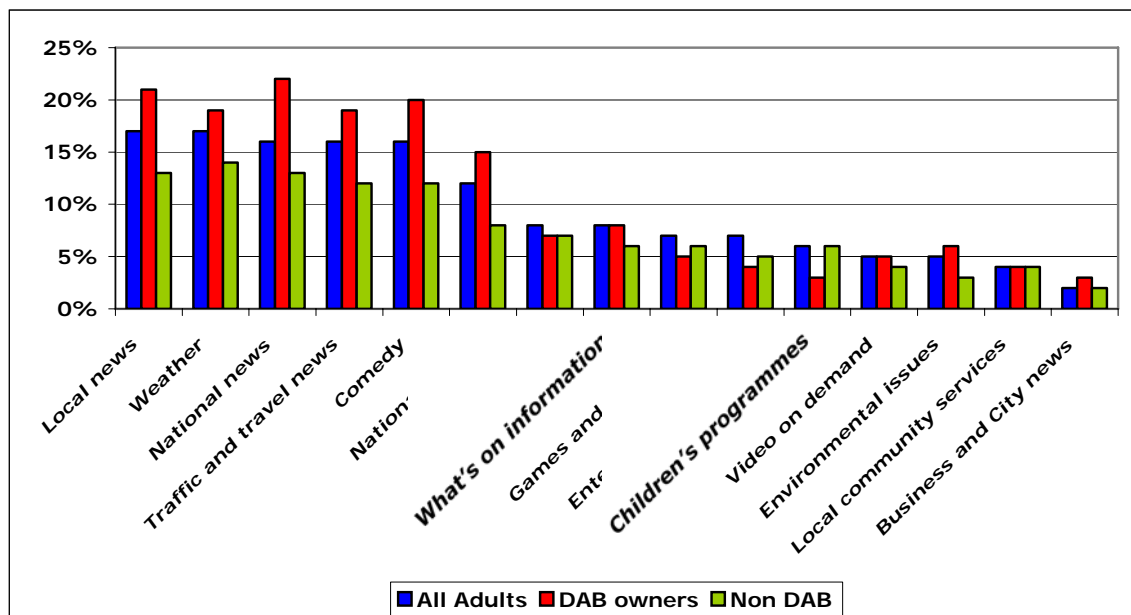

- The ability to pause, record and rewind is the most popular functionality, appealing equally to men and women. Whilst this feature registered high interest with all under 55, it has particular appeal with under 25s (60%).
- Interest in three functions was highlighted by more than 20%:
  - Being able to download music - 27%
  - EPG - 23%
  - Red button functionality - 21%
- Under 25s generally showed more interest in all types of functionality; in particular music and programme downloads and a colour screen showing images of the artist, album cover or other photos.
- Existing ILR listeners showed a marked difference to BBC listeners, with higher than average interest in being able to download music, a colour screen and being able to access television through a mobile phone type device. ***This demonstrates a real opportunity to develop commercial applications***.

185. The following chart summarises reaction to a range of possible services that could be accessed through a screen on the radio.

- Those already exposed to DAB were more demanding in the range of information that they wanted to see; in particular weather information, travel and traffic news, as well as local and national news.

186. And as audio downloads.

- Predictably, DAB owners (and accessors) rated all of these areas more highly than the sample average. We also noticed however, that listeners to ILR stations showed more interest in receiving these types of information.

What does the future hold for digital radio?

187. The new multiplex, with its proposed complement of existing and new services, will help increase the amount of time spent listening to the radio.

- 66% of those who would listen to one or more services on the multiplex would spend more time listening to radio in general to do so.
- 31% would spend less time listening to their current choice of stations.
- Only 4% would stop listening to a station in order to find the time to listen.

188. In relation to which stations people would listen to less (in order to accommodate new ones):

- The BBC would be affected to a greater extent than commercial radio, with 71% indicating they would listen less often to one or more BBC services. In part, this reflects the BBC's dominance of current listening.
- Only 28% would listen less to an ILR station.
- Radio 1 would be the main station to be affected (32%), followed by Fox FM (23%) and Radio 2 (22%). 16% mentioned both BBC Radio 4 and BBC Radio Oxford.
- 46% claimed to be solus BBC listeners, underlining that the overall impact on the BBC is likely to be greater than the commercial sector.

189. In relation to those who would cease to listen to one or more station:

- 70% would stop listening to one or more BBC services, compared with 48% to a commercial station (and 27% to an ILR service)
- Radio 1 would be most negatively impacted (54%).
- Fox FM achieved half this score, 27%
- Radio 2 was mentioned by 19%.
- Given the very low levels claiming to cease listening to one or more station, the overall impact on existing services is likely to be minimal.

190. If the new stations were available today, the services carried by the multiplex are likely to command just over a third of time spent listening (36%). Amongst existing DAB owners / accessors, this was higher at 46.6% of time spent listening.

191. Respondents who are current radio listeners but who do not own a DAB set were then asked about their propensity to buy a DAB set.

- 48% said that they would be at least quite interested in buying a digital radio. 25% were at least very interested and 9% were definitely interested.
- Such results are likely to raise digital penetration from around 27% to 62% (at least quite interested) at its broadest and from 27% to 35% among the highest propensity group.
- Interest in buying a digital radio was highest among those aged under 25, but there was also above average interest generally among all those under 45.
- Of those who currently only have access to DAB, 63% are likely to buy their own set.
- Existing ILR listeners also showed above average interest, with almost two thirds saying they were interested in buying a digital radio. This was higher than the proportion of BBC listeners saying this (53%) or solus BBC listeners (43%).

192. Finally, those who had claimed not to listen to any radio at the start of the questionnaire (8% of respondents) were asked whether having heard about digital radio and its possibilities, their radio listening habits might now change.

- 26% said that the proposed increase in choice of listening would potentially stimulate them to get a digital radio.
- A further 6% said they would definitely be interested buying a DAB radio.
- ***Whilst 5m DAB sets have been sold and with 72% of the population reported to be aware of DAB, there still appears to be a significant marketing effort required to sell / promote the benefits of DAB.***

Overall conclusions from our research

193. We believe that our research findings have given the citizens of Oxfordshire an opportunity to shape their radio choice for the future. The area already commands an above average level of DAB ownership and the proposed new radio choices will help erode the BBC dominance in this market.

194. Information on likely levels of listening to each service has helped underpin our audience projections, helping to demonstrate the viability of each service and therefore the multiplexes ability to establish and maintain the service.

195. Overall, we have been able to demonstrate that our services are demanded, increase choice and would stimulate the purchase of digital radios.

15. Local support

196.   We believe that interest in the complement of services is best measured by the level of support for the services to be broadcast on the multiplex. The breadth of our research has been detailed in Q.14. Through this research, demand for each format has been evaluated, both individually and collectively on the basis of the chosen complement of services. The research studies have also evaluated interest in digital radio and the key drivers for the new technology, over and above pure choice of formats. The research also evaluated stations and formats which listeners wished to hear on digital radio.

197.   We have discussed the DAB opportunity and our proposals with a number of local organisations and individuals, not to generate letters of support but to make sure that the opportunity is recognised and to build local relationships.

Research

198.   We will undertake on-going consumer research. This, in the main, will be undertaken in association with service providers through bodies like RAJAR. Such 'RAJAR' style research will assist service providers to measure audiences and the level of up-take, with obvious benefits to the subscribers. However, there may be times when there is a need to undertake original research, such as to evaluate demand for further potential services or to assess the style and level of content in programmes for contractual reasons. This research may be undertaken through quantitative, focus groups or desk research.

Marketing

199.   We will also have a marketing role in generating awareness of digital radio both as a concept and, alongside the service providers, of the complement of services carried on the multiplex.

Internet

200.   MuxCo Oxfordshire will be served by a multiplex network website at www.muxco.com. Through the site, MuxCo outlines its proposals and plans to apply for local multiplexes and seeks interest from prospective service providers. A copy of this application and further information about MuxCo and the licence opportunity are provided on the site.

201.   In addition, the site will promote DAB digital radio, the services offered on each local multiplex, as well as links to other multiplex operators elsewhere in the country. The website will also provide a means of communication between the multiplex and service provider, in particular providing information on transmission issues and fault notices.

202.   Whilst a local multiplex is a virtual company, what is not eliminated is the need to develop a relationship with the listeners about the services it carries. We will want to ensure that we understand the local population, their likes and dislikes, the market gaps and what other services it can provide. Therefore, although there is no wish to have a dialogue with the audience, there is a need to provide a means of access and communication.

Section 51(2)(g): Fair and effective competition

16. Measures taken to ensure fair and effective competition

Detail the measures that have already been taken, and will be taken before and during the licence period, to demonstrate that "in contracting or offering to contract with persons providing digital sound programme services or digital additional services or television licensable content services, the applicant has acted in a manner calculated to ensure fair and effective competition in the provision of those services".

203. Our intention to apply for the licence has been documented on our website (www.muxco.com), which has provided an opportunity for prospective applicants to register their interests.

204. We have not advertised our proposals in local newspapers or the trade press, as our experience has identified that during the licence application process, such activity generates little response. Once operational, however, and with greater awareness of the multiplex in the locality, any new opportunities will be advertised in the trade press and local newspapers, as well as through the MuxCo website.

205. Following the advertisement of the licence opportunity, we contacted the identified analogue licensees (who would qualify for an analogue licence renewal in return for providing a digital programme service on the multiplex) to discuss their digital aspirations and invite expressions of interest in providing programme services, as well as local community groups and organisations. We also contacted other radio groups who have known digital aspirations or operate digital service elsewhere.

206. All companies who registered expressions of interest were sent a Service Provider Questionnaire. They were advised that information received would be used alongside research to decide which formats would be included and therefore which service providers would be accommodated in the multiplex application. A summary of all contacts is included in Part B.

207. Headline terms including approximate carriage costs have been supplied to the proposed service providers.

208. During the licence period a similar process will be adopted, with a standard questionnaire being used to assess applicants.

209. We have engaged with all potential service providers in an open and non-exclusive manner.

Fair and Effective Competition during the Licence Period

210. Each service provider will enter a Service Provider Agreement; the key terms of which will be identical for all service providers. All fees charged will be based solely on a 'cost plus' basis, pro-rata to capacity contracted by each service provider. No fees will be related to revenue.

211. We will establish a Service Level Agreement with service providers. This will set out our communications and work policies, especially those relating to planned work and emergency outage notification.

17. Contacts with prospective service providers

Provide a comprehensive list of all prospective providers of digital sound programme services and/or digital additional services and/or television licensable content services with whom the applicant has had contact prior to and during the preparation of this application, at the initiative of either party, and in whatever form. Summarise the nature of the proposals discussed and, for each proposal which is not among those planned for inclusion on the multiplex (as per Q.11 and Q.12 above), state the reason(s) why the prospective provider and/or the service(s) proposed by that provider has not been included.

The response to this question may be submitted in confidence.

212.   Our response to this question is submitted in confidence in Part B.

18. Contractual and other arrangements with service providers

For each digital sound programme service provider and/or digital additional service provider and/or television licensable content service provider named in this application:

   a) Supply details of the terms of access, including financial agreements;

   b) To what extent are any or all of these terms of access conditional? Clarify and conditions that exist.

   c) In respect of each named service provider for which details of terms of access are provided, supply a letter from the service provider confirming its agreement with the account of the terms of access provided above, and in particular with the fees it expects to pay.

The response to this question may be submitted in confidence.

213.   Our response to this question is submitted in confidence in Part B.

Technical quality

19. Division of multiplex capacity

Show, by means of a pair of clearly-labelled tables, the proposed division of the available multiplex capacity into digital sound programme services and other services during all time periods. The tables should depict the proportion of the total available capacity (in kbits/sec) which it is proposed to allocate individually to each of the digital sound programme services listed in response to Q.11, plus any capacity reserved for expansion, inclusive of any which it is proposed to allocate to digital additional services and television licensable content services. Please also indicate what proportion of these services will be programme-related (see paragraph 4.35). One of the tables should refer to the capacity units taken by each service (i.e. inclusive of capacity used for error protection), and the other table should refer to the bitrate net of error protection capacity, together with the associated protection level (1 to 5) which it is proposed to use, in accordance with ETS 300 401.

214.   Increased choice of popular quasi-national and more local brands is a strong driver for the purchase of DAB receivers. When allocating capacity, we have sought to achieve the optimum balance between existing and new services, quasi-national and local, ensuring that there is sufficient capacity to develop ancillary and additional data applications which will help place radio at the centre of a multi-media, multi-platform UK.

215.   We are aware of a number of recent listening tests undertaken to evaluate the latest 'state of the art' MPEG 1 Layer II audio codec. These tests demonstrated that there was only slight degradation (1.7 points on the ITU scale). Reflecting the high demand for capacity for this multiplex and on the back of these recent tests, we have decided to broadcast all commercial music services in stereo at a bit rate of 112 kbits using the 'state of the art' encoder.

216.   The following table details the division of multiplex capacity by kbits between the proposed audio channels, data capacity and EPG, during 2 time periods.

Kbits Allocation	Service Type	UEP	6am to 12am	12am to 6am
BBC Oxford	MPEG1L2	UEP3	128	128
Fox FM	MPEG1L2	UEP3	112	112
Oxford's 107.9	MPEG1L2	UEP3	112	112
JACK fm	MPEG1L2	UEP3	112	112
Touch FM	MPEG1L2	UEP3	112	112
AC	MPEG1L2	UEP3	112	112
Easy Radio	MPEG1L2	UEP3	96	0
Castle Digital	MPEG1L2	UEP3	96	96
Rock	MPEG1L2	UEP3	112	112
UCB UK	MPEG1L2	UEP3	64	64
Traffic Radio	MPEG1L2	UEP3	48	48
Podcast Service	AAC	UEP3	16	80
Data	DATA	EEP3A	24	56
EPG	EPG	EEP3A	8	8
Total			**1,152**	**1,152**
Allocated as % Total			*100%*	*100%*
Data as % Total			*7%*	*7%*

217. The following table details the division of multiplex capacity by Capacity Units (CUs) between the proposed audio channels, data capacity and EPG, during 2 time periods.

CUs Allocation	Service Type	UEP	6am to 12pm	12pm to 6am
BBC Oxford	MPEG1L2	UEP3	96	96
Fox FM	MPEG1L2	UEP3	84	84
Oxford's 107.9	MPEG1L2	UEP3	84	84
JACK fm	MPEG1L2	UEP3	84	84
Touch FM	MPEG1L2	UEP3	84	84
AC	MPEG1L2	UEP3	84	84
Easy Radio	MPEG1L2	UEP3	70	0
Castle Digital	MPEG1L2	UEP3	70	70
Rock	MPEG1L2	UEP3	84	84
UCB UK	MPEG1L2	UEP3	48	48
Traffic Radio	MPEG1L2	UEP3	35	35
Podcast Service	AAC	UEP3	12	60
Data	DATA	EEP3A	18	42
EPG	EPG	EEP3A	6	6
Total			**859**	**861**

20. Basis of allocation of multiplex capacity

On what basis have technical decisions on the allocation of multiplex capacity to each of the proposed digital sound programme services been made?
How has the balance been determined between the number of services to be accommodated and the audio quality and robustness of reception which each will enjoy?

218. In allocating capacity between services, the following factors have been taken into account:

    - A desire to increase listener choice and to provide a range of value enhancing data services
    - A need to provide a reasonable level of sound quality
    - To ensure robustness of reception
    - The wishes of individual service providers
    - The reserved capacity of the BBC

219. Our aim is to provide each service provider with the ability to broadcast in stereo. However, for smaller stations and new digital only services, a further decision that service providers need to make is the benefit of broadcasting in stereo, especially during the initial years of digital, versus the financial saving of broadcasting in quality mono. We confirm that the decisions on bit rate are those of each service provider.

220. Over the course of the licence period, we will work with Ofcom and the service providers in evaluating opportunities for services to broadcast in stereo using lower bit rates.

221. NGW have evaluated two different audio codecs at various different bitrates. They have found subjective differences that may lead to preferences for use of one codec over another, but dependent on the content and bitrate chosen. MuxCo Oxfordshire therefore intends to offer a choice of codecs to our service providers. At low bit rates of 64 kbits or below, we will consider the use of half rate coding at the request of our service providers.

222. We have chosen an error protection level of UEP 3 as it has been shown through widespread experience to give a good balance between CU allocation on the multiplex and robust reception.

223. We note that the WorldDMB Forum has now released the DAB$^+$ specification. This specification brings with it a significant improvement in spectrum efficiency over the existing standard, but raises a number of migration challenges. We believe that this technology offers an opportunity in the longer term to increase the choice of audio services and enhanced data services on our multiplex. We would like to work with Ofcom to manage the introduction of DAB$^+$ services on the Oxford multiplex.

224. In reaching agreement with service providers, we will seek to contract flexible capacity allocations that will reflect the expected listening patterns of their individual audiences. As audiences vary in size and their daily activity changes, we will seek to provide service providers with the opportunity to vary their capacity up and down to meet their particular audiences requirements, by varying bandwidth to suit listening patterns. As the requirements of service providers develop, and enhanced data services are implemented, there may be increasing demand for regular multiplex re-configurations.

21. Audio characteristics

For each local digital sound programme service proposed to be provided, state whether it will be broadcast in 'stereo' or 'mono', and whether it will operate at 'full-rate coding' or 'halfrate coding'. The response to this question should be consistent with the proposed division of multiplex capacity set out in response to Q.20.

	Service Type	Stereo / Mono	Coding	Protection Level	Audio Sampling
BBC Oxford	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Fox FM	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Oxford's 107.9	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
JACK fm	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Touch FM	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
AC	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Easy Radio	MPEG1L2	Mono	Full Rate	UEP3	48kHz UEP3 Mono
Castle Digital	MPEG1L2	Mono	Full Rate	UEP3	48kHz UEP3 Mono
Rock	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Mono
UCB UK	MPEG1L2	Mono	Full Rate	UEP3	48kHz UEP3 Mono
Traffic Radio	MPEG1L2	Mono	Half Rate	UEP3	24kHz UEP3 Mono
Podcast Service	AAC	Mono or Stereo	Full Rate	UEP3	

225. The Podcast Service will be licensed under a DSPS licence. The nature of the downloaded content will define the format of the coded audio; files with a majority of music content will be in stereo but those with predominately speech content may be encoded as mono to conserve data capacity. The use of AAC audio encoders will, however, allow us to maximise the audio quality at lower bit rates by employing the Parametric Stereo and Spectral Band Replication options.

226. The inclusion of an AAC-based podcast service will also ensure that the new receivers that support it will be able to decode this codec, something that will likely make them capable of decoding DAB+ services when they come to the UK.

Declaration

Applicants are required to conclude their submission by responding to the following question:

Do you confirm that, to the best of your knowledge and belief:

a) the applicant is not a disqualified person in relation to the licence by virtue of the provisions of section 143(5) of the Broadcasting Act 1996 (relating to political objects);

b) no director or person concerned directly or indirectly in the management of the company or the applicant group is the subject of a disqualification order as defined by section 145(1) of the Broadcasting Act 1996;

c) no person involved in the application has been convicted within the past five years of an unlicensed broadcasting offence and that the applicant will do all it can to ensure that no person so convicted will be concerned in the provision of the service, the making of programmes included in it, or the operation of a radio station if the applicant is granted a licence; and

d) any matters which might influence Ofcom's judgement as to whether the directors and substantial shareholders involved in the application are fit and proper persons to participate in a radio licence have been made known to Ofcom?

Applicants should note that Ofcom reserves the right to revoke a licence if at any time any material statement made is found to be false and to have been made by the applicant or any member or officer thereof knowing it to be false, and that in the circumstances of section 144 of the Broadcasting Act 1996, the provision of false information or the withholding of relevant information with the intention of misleading Ofcom could incur a criminal conviction and a disqualification from the holding of a licence.

227. MuxCo Oxfordshire Ltd is not aware of any issues which would prevent the award of a licence to the company.