MuxCo Northamptonshire Ltd

**An application to Ofcom for the
Northamptonshire
Local digital radio multiplex**

July 2007

Executive summary

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

The strategy behind a new local multiplex business

1. MuxCo was formed to address the concerns of many radio operators that, to date, local DAB digital radio has been established under a model which is cost prohibitive. As such, there has been little incentive to contract for long term, high cost digital carriage, despite the bonus of an automatic analogue licence renewal and potentially a larger broadcast area. This is particularly true for smaller radio businesses. Indeed, many have questioned whether there is a digital future for smaller radio services.

2. MuxCo has adopted a co-operative model that involves radio operators and like minded organisations who wish to establish a digital broadcast future. By working together, as shareholders and service providers, MuxCo is able to help them secure a stake in the digital future and to take a direct ownership position in the development of DAB, which to date has been dominated by larger radio groups.

3. The main principle of MuxCo is to maximise the success of local multiplex businesses by ensuring certain key criteria are met:

    - Helping to deliver a strong consortium and complement of service providers.
    - Providing opportunities for analogue operators to simulcast in stereo
    - Delivering a sound and commercially prudent transmission solution.
    - Providing local partners with access to a strong management team with substantial experience and a proven track record in DAB operations.
    - Helping devise and assist with marketing activities to promote DAB and services on the multiplex
    - Preparing well researched and supported licence applications.
    - Delivering a partnership that helps create a working alliance through which partners can help each other build and develop their services.

MuxCo Northamptonshire Ltd

4. The applicant company is MuxCo Northamptonshire Ltd (which for ease of reference in the application is referred to as 'MuxCo Northants'), and the shareholders are Forward Media Ltd (15%) and MuxCo Ltd (85%).

The proposed services

5. We believe that local radio has a strong commercial future – there will always be demand for services that cater for local tastes and interests, be these for communities of interest or of location, from both listeners and advertisers. We therefore believe that it is important for local multiplexes to provide opportunities for a wide range of services, both existing and new, and for local radio operators to have the opportunity to provide these in an efficient and economical way.

6.   Capacity has been allocated to accommodate Northamptonshire's local services in stereo from launch. Together, these services are listened to by 241,000 adults each week, and represent 26% of total radio listening within the county:

- Northants 96
- Classic Gold 1557
- Connect FM
- BBC Radio Northampton.

7.   Spectrum has also been allocated to provide 6 new digital services that will further broaden consumer choice:

- A service playing quality popular pop, rock and classic rock music - *JACK fm*
- An easy listening melodic music service - *Easy Radio*
- A Christian music and speech service - *UCB UK*
- A traffic and travel service - *Traffic Radio*
- A station playing adult contemporary music – *confidential provider*

8.   Our proposed 6th new service will be one aimed at the youth market. Recognising the interest that GCap Media has demonstrated for the expansion of XFM in new multiplex areas, we will offer GCap an opportunity for its Modern Rock service to be carried on standard terms and conditions. If we are unable to secure XFM, we will launch a broader youth targeted service.

9.   Service providers, with the exception of Northants 96 and Classic Gold 1557, have been confirmed for all other radio services.

10.   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 audio downloads (e.g. specialist music shows, music downloads), traffic and travel services, adverts and slideshow services.

The Winning Criteria

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

Our proposed coverage

12.   Our transmission plan will deliver solid coverage of the major population centres and transport routes in the multiplex area. Using 3 transmitters, we will provide 'outdoor coverage' (e.g. to in-car and mobile receivers) of 92.1% of the adult population, and higher strength 'indoor coverage' (e.g. to kitchen radios) of 81.2%. We have also identified additional sites for potential future network enhancements to improve coverage, which would be discussed with Ofcom and introduced in an economically viable manner.

Our timetable to achieve coverage and launch of services

13.   It is our intention is to launch a full complement of radio services using the 3 transmitters by October 2008.

14. The launch of MuxCo Northants will follow that of the second national commercial multiplex, which will itself generate a considerable level of public interest in digital radio within this area. We believe that we will be able to capitalise from some of this promotional activity, and that it will complement our local marketing activities.

Our ability to establish and maintain the service

15. The MuxCo management team has extensive experience as a multiplex operator, having established and operated the UK's largest network of 19 digital radio multiplexes, both wholly owned and on behalf of consortia, as well as having broader strategic radio experience.

16. Our chosen transmission provider, National Grid Wireless, has considerable experience in building and operating local and national DAB multiplex networks.

17. The shareholders behind MuxCo Northants have considerable local radio and broader media experience, and have the financial resource to underpin the establishment of the multiplex and to sustain it across the licence period.

18. Taking these factors, as well as our sound business plan, with confirmed service providers for a high percentage of multiplex capacity, we feel confident about our ability to establish and maintain the proposed service.

19. In addition, the integrated relationship that the shareholders will have with the multiplex, in relation to the provision of audio and data services, as well as the development of commercial opportunities, provides further financial comfort (for both sides), and helps demonstrate our ability to establish and maintain the proposed services throughout the licence period.

Catering for local tastes and interests

20. To ensure that our proposals are robust and viable, as well as catering for local tastes and interests, a comprehensive programme of research, both desk and consumer, has been undertaken:

    - Local consultation with the general public.
    - Analysis of existing radio listening habits.
    - Assessment of local tastes and interests.

21. Our research supports the choice of services, and underpins our audience projections and forecasts for the potential share of digital listening. It also assists in building our predictions of likely uptake of DAB digital radio in the county.

22. Our proposals include simulcasts of three existing local commercial analogue services and one BBC service, together with a further six digital only services. Carriage of existing services helps promote digital radio and drive listeners from analogue to digital. New digital services help broaden choice and provide further incentives for consumers to buy a DAB digital radio. Locally relevant content will be included on the three commercial simulcast services and on at least two digital only services.

23. MuxCo Northants shareholder Forward Media has offered to provide local news bulletins to any of the digital network service providers from its existing studio base, allowing MuxCo stations to locally enhance their offerings.

Broadening choice

24. The only DAB radio services currently audible in the area are those provided by the BBC and Digital One national multiplexes. The Northants multiplex will be the first local multiplex to be audible in the area. Our proposed services will individually and collectively broaden listener choice.

Demonstrating local demand and support

25. RAJAR provides strong evidence of demand and interest in the simulcast services, whilst our specially commissioned consumer research underpins 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 appeals to over 80% of the adult population.

Being fair and effective

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

Summary

27. We believe that MuxCo Northants will be the best operator for the Northamptonshire multiplex.

   - The market has been analysed fully with specially commissioned digital research, alongside more traditional RAJAR analysis, to identify and help deliver the services that we believe will truly appeal to Northamptonshire's tastes and interests.

   - Members have an unparalleled track record in applying for and successfully operating local multiplexes.

   - Members have an impressive track record in operating local stations. This management expertise will be invaluable to the multiplex, as well as assisting the development of new programming streams to encourage the broadening of choice.

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

   - The proposed complement of services offers a good balance of the largest (in geographical coverage terms) and most popular (in audience terms) existing local services, alongside new services which appeal to particular tastes and interest. Together, the complement of services is likely to appeal to a broad range of listeners in terms of age, tastes and interests.

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 Northamptonshire Ltd

Registered Number   06204618
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.

28. 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 M1, A5, A43 and A14. Careful consideration has also been given to the design requirement to maximise received field strength within the licensed area.

29. The total adult (15+) population within the PPA is calculated by NGW to be 510,665. MuxCo Northants proposes to launch with 3 transmitters, which will provide:

   - Outdoor population coverage of 470,564 adults, which equates to coverage of 92.1% of the population within the PPA.
   - Indoor population coverage of 414,543 adults, which equates to coverage of 81.2% of the population within the PPA.

30. The opportunity to implement additional transmitter sites to extend coverage in an economically viable manner will be reviewed during the licence period.

Standalone Coverage

31. The following table shows the coverage 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: Indoor	Percentage Licence Area	Standalone Coverage: Outdoor	Percentage Licence Area
Northampton	321,899	63.0%	417,771	81.8%
Geddington	74,062	14.5%	140,554	27.5%
Daventry	70,842	13.9%	164,176	32.1%

Cumulative Coverage

32. The table below shows how the overall PPA coverage is achieved up through the use of a network of transmitters.

Transmitter Site	Cumulative Coverage: Indoor	Percentage Licence Area	Cumulative Coverage: Outdoor	Percentage Licence Area
Northampton	321,899	63.0%	417,771	81.8%
+ Geddington	386,235	75.6%	451,743	88.5%
+ Daventry	414,543	81.2%	470,564	92.1%

Network Resilience

33.   The following table shows the impact from the loss of one transmitter at a time, demonstrating its contribution to the overall network.

Transmitter Site	Cumulative Coverage Loss: Indoor	Percentage Licence Area	Cumulative Coverage Loss: Outdoor	Percentage Licence Area
Northampton	352,413	69.0%	186,178	36.5%
Geddington	157,659	30.9%	68,181	13.4%
Daventry	124,430	24.4%	58,923	11.5%

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.

34.   We believe that an early launch of our multiplex brings the greatest possible advantage to the development of the digital radio audience in Northamptonshire. We therefore propose to launch service in October 2008, with coverage of 92.1%.

35.   We have made contingent arrangements with NGW to ensure that this launch date can be achieved. In making this assertion we have assumed that we would receive notification of award of the multiplex licence in November 2007.

36.   We have identified additional sites for potential future network enhancements:

- Farthinghoe to improve coverage in the south west of the county.
- Peterborough to improve coverage in the north east of the county.

37.   At present, these transmitters 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 coverage in an economically viable manner.

Antenna Systems and Combiner
38.   NGW will be the owner of all three antenna systems. Discussions on the antenna system supply have taken place between NGW Network Access and site operators, there are not expected to be any issues that will prevent MuxCo meeting the timetable for launch.

Transmitter systems
39.   NGW propose to employ transmitters from Rohde & Schwarz (R&S) with whom NGW have a Frame Agreement. R&S have confirmed their ability to provide the necessary transmitter systems and installation services within the timescales we require.

Distribution

40. 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

41. NGW Network Access has confirmed that it can provide suitable accommodation and power supply at two of the sites and of the remaining site, NGW Network Access has negotiated new or modified accommodation and power supply agreements.

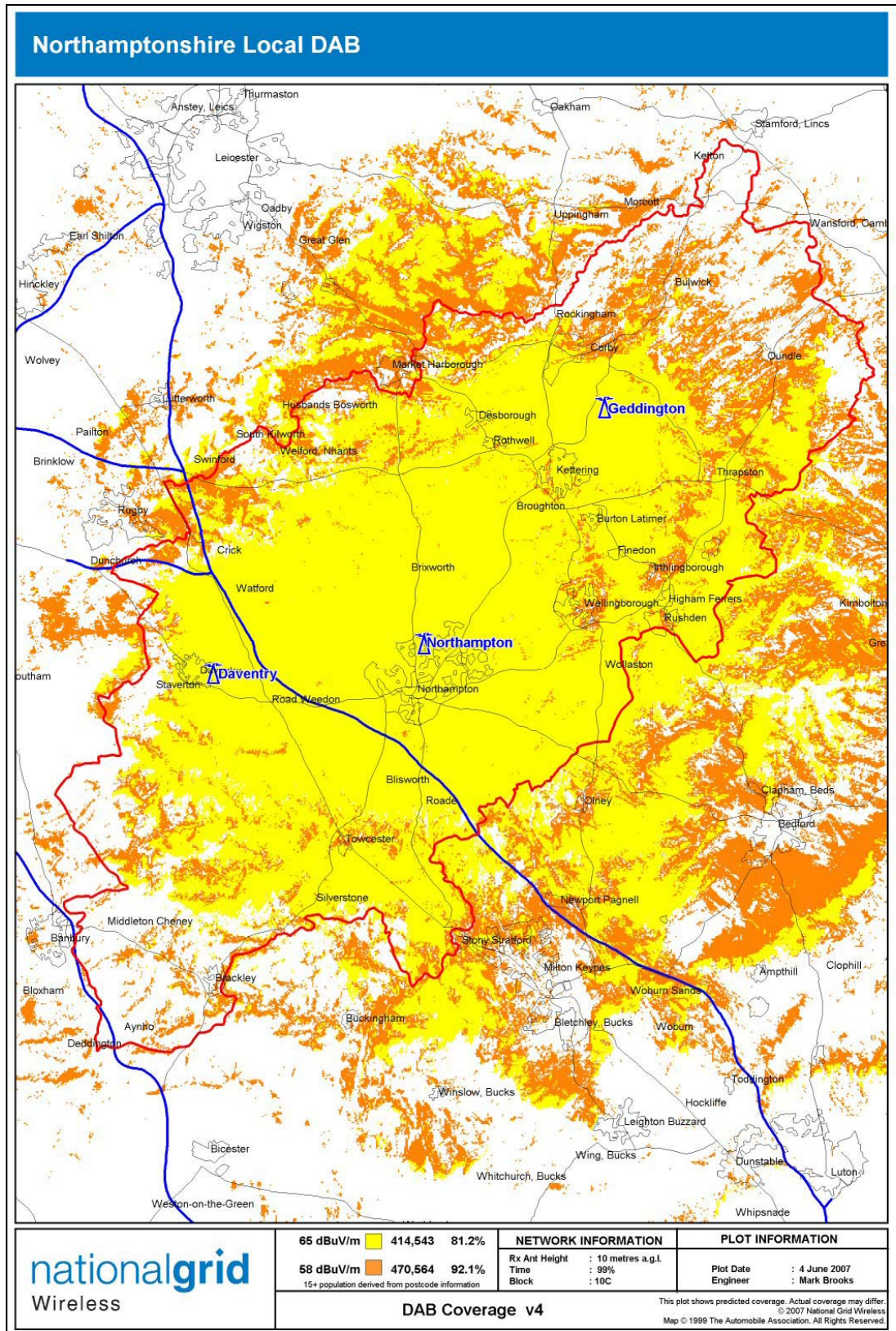## 6. Detailed coverage proposals

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.

42. 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
Northampton	SP 7614 6473	Oct 2008	NGW	42	NGW Network Access will provide New 4 Tiers of 4 around panel antennas.
Geddington	SP 9070 8390	Oct 2008	NGW	48.8	NGW Network Access will provide 4 tiers of new Dipoles on a pole.
Daventry	SP 5870 6210	Oct 2008	NGW	90	NGW Network Access will provide 4 tiers of new cardioid antennas.

43.   The map on the following page highlights proposed coverage at launch.

Northamptonshire Local DAB

			NETWORK INFORMATION	PLOT INFORMATION
65 dBuV/m	414,543	81.2%	Rx Ant Height : 10 metres a.g.l.	Plot Date : 4 June 2007
58 dBuV/m	470,564	92.1%	Time : 99%	Engineer : Mark Brooks
15+ population derived from postcode information			Block : 10C	

nationalgrid Wireless

DAB Coverage v4

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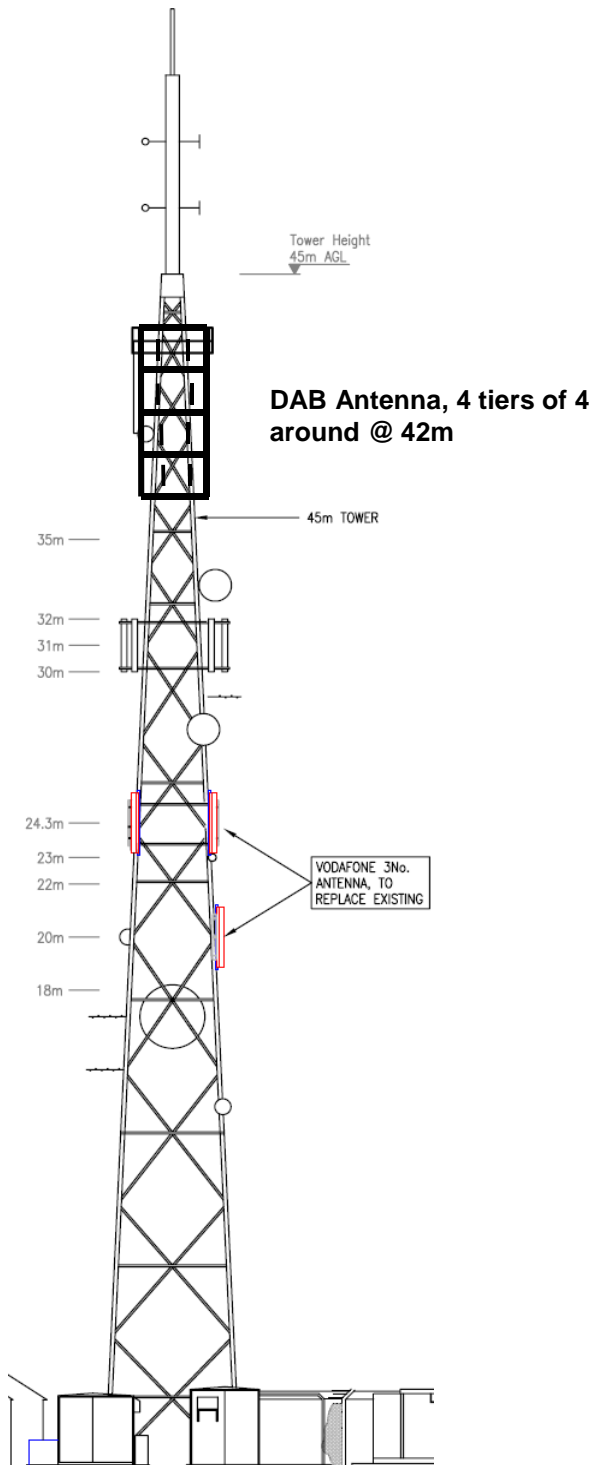Map © 1999 The Automobile Association. All Rights Reserved.

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.
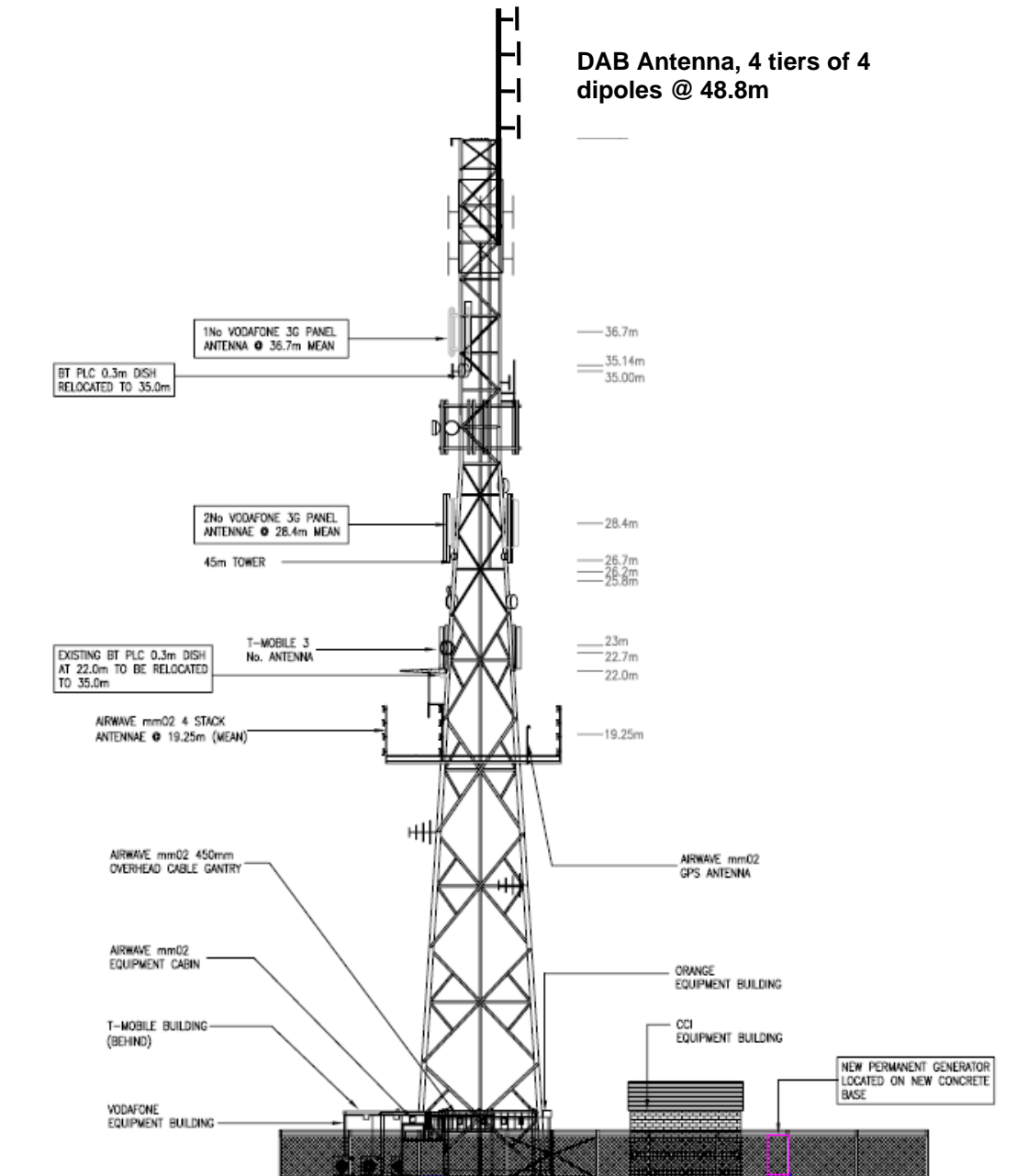
i) Diagrams

44. 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.
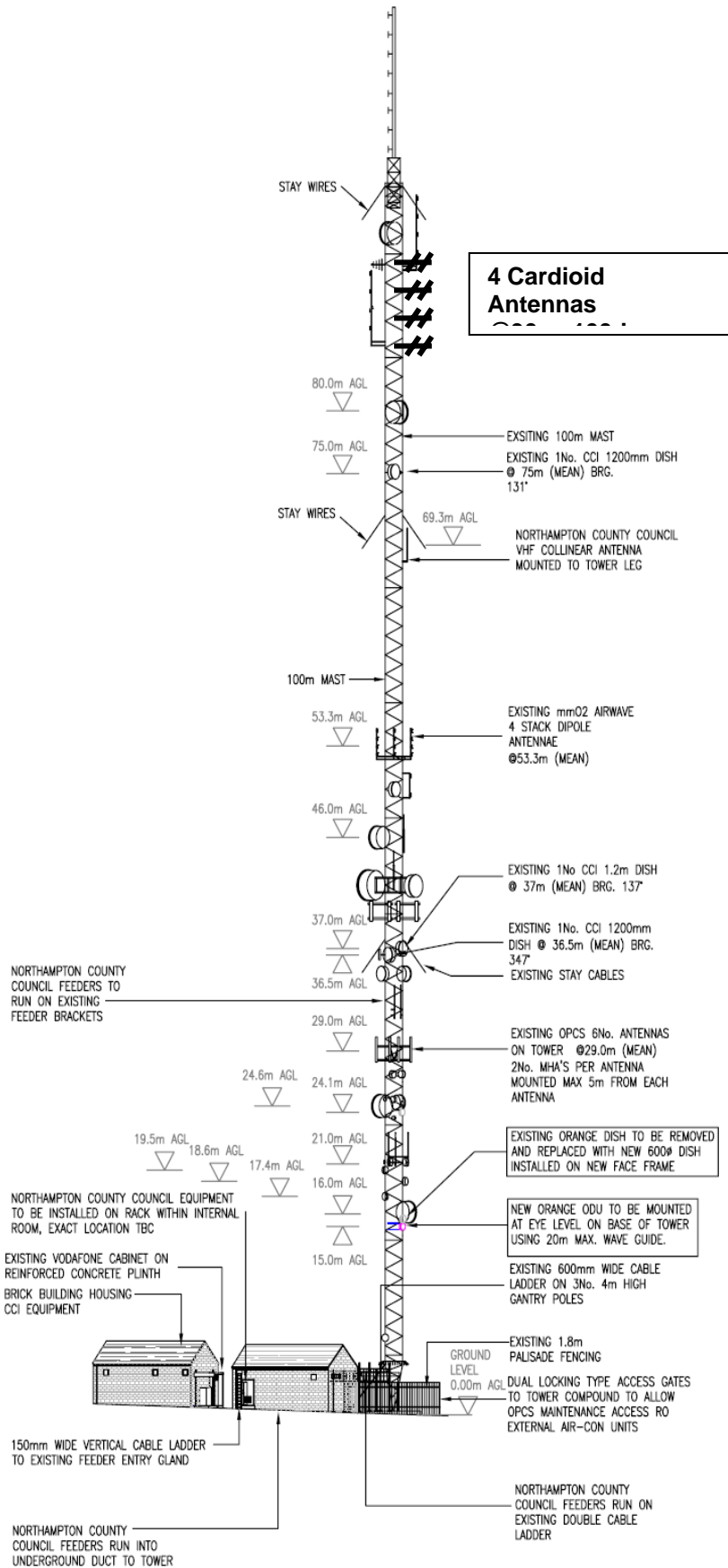
- **Northampton**

DAB Antenna, 4 tiers of 4 around @ 42m

- **Geddington**

DAB Antenna, 4 tiers of 4 dipoles @ 48.8m

1No VODAFONE 3G PANEL ANTENNA @ 36.7m MEAN

BT PLC 0.3m DISH RELOCATED TO 35.0m

2No VODAFONE 3G PANEL ANTENNAE @ 28.4m MEAN

45m TOWER

EXISTING BT PLC 0.3m DISH AT 22.0m TO BE RELOCATED TO 35.0m

T-MOBILE 3 No. ANTENNA

AIRWAVE mm02 4 STACK ANTENNAE @ 19.25m (MEAN)

AIRWAVE mm02 450mm OVERHEAD CABLE GANTRY

AIRWAVE mm02 EQUIPMENT CABIN

T-MOBILE BUILDING (BEHIND)

VODAFONE EQUIPMENT BUILDING

AIRWAVE mm02 GPS ANTENNA

ORANGE EQUIPMENT BUILDING

CCI EQUIPMENT BUILDING

NEW PERMANENT GENERATOR LOCATED ON NEW CONCRETE BASE

36.7m
35.14m
35.00m
28.4m
26.7m
26.2m
25.8m
23m
22.7m
22.0m
19.25m

- **Daventry**

STAY WIRES

4 Cardioid Antennas

80.0m AGL

75.0m AGL

EXSITING 100m MAST

EXISTING 1No. CCI 1200mm DISH @ 75m (MEAN) BRG. 131°

STAY WIRES

69.3m AGL

NORTHAMPTON COUNTY COUNCIL VHF COLLINEAR ANTENNA MOUNTED TO TOWER LEG

100m MAST

53.3m AGL

EXISTING mmO2 AIRWAVE 4 STACK DIPOLE ANTENNAE @53.3m (MEAN)

46.0m AGL

EXISTING 1No CCI 1.2m DISH @ 37m (MEAN) BRG. 137°

37.0m AGL

EXISTING 1No. CCI 1200mm DISH @ 36.5m (MEAN) BRG. 347°

NORTHAMPTON COUNTY COUNCIL FEEDERS TO RUN ON EXISTING FEEDER BRACKETS

36.5m AGL

EXISTING STAY CABLES

29.0m AGL

EXISTING OPCS 6No. ANTENNAS ON TOWER @29.0m (MEAN) 2No. MHA'S PER ANTENNA MOUNTED MAX 5m FROM EACH ANTENNA

24.6m AGL   24.1m AGL

19.5m AGL   18.6m AGL

21.0m AGL

17.4m AGL

16.0m AGL

NORTHAMPTON COUNTY COUNCIL EQUIPMENT TO BE INSTALLED ON RACK WITHIN INTERNAL ROOM, EXACT LOCATION TBC

EXISTING ORANGE DISH TO BE REMOVED AND REPLACED WITH NEW 600ø DISH INSTALLED ON NEW FACE FRAME

NEW ORANGE ODU TO BE MOUNTED AT EYE LEVEL ON BASE OF TOWER USING 20m MAX. WAVE GUIDE.

EXISTING VODAFONE CABINET ON REINFORCED CONCRETE PLINTH

15.0m AGL

BRICK BUILDING HOUSING CCI EQUIPMENT

EXISTING 600mm WIDE CABLE LADDER ON 3No. 4m HIGH GANTRY POLES

EXISTING 1.8m PALISADE FENCING

GROUND LEVEL 0.00m AGL

DUAL LOCKING TYPE ACCESS GATES TO TOWER COMPOUND TO ALLOW OPCS MAINTENANCE ACCESS RO EXTERNAL AIR-CON UNITS

150mm WIDE VERTICAL CABLE LADDER TO EXISTING FEEDER ENTRY GLAND

NORTHAMPTON COUNTY COUNCIL FEEDERS RUN ON EXISTING DOUBLE CABLE LADDER

NORTHAMPTON COUNTY COUNCIL FEEDERS RUN INTO UNDERGROUND DUCT TO TOWER

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

45.   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
Northampton	New Panel Antennas	42	NGW Network Access	NGW Network Access are providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	None (No UHF)
Geddington	New 4 tier of Dipoles on a pole	48.8	Arqiva Network Access	NGW Network Access are providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	None (No UHF)
Daventry	New 4 tier Cardioid Antenna	90	Arqiva Network Access	NGW Network Access are providing accommodation in the other users Area.	To be provided by NGW Network Access	None (No UHF)

d) Provide the following details regarding transmission arrangements:

   i)   Any transmission contracts that have been agreed

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

   ii) The status of these agreements

47.   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.

48. 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).

49. It is envisaged that 3 commercial analogue services and 6 commercial digital services will broadcast from the start of the radio multiplex licence period.

50. 7 of the 9 proposed commercial services are confirmed (helping to provide security of income which helps underpin both the business plan and viability of the multiplex).

51. In addition, capacity is reserved for BBC Radio Northampton.

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.*

52. 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.*

53. There are no plans to appoint any further directors.

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, 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 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.

Dave Myatt

Occupation:
Radio Station Director

Directorships:
Forward Media Ltd

Other Media Interests:
None

Dave has worked in local commercial radio for 19 years, being appointed to his current position as Managing Director of Forward Media in September 2003.

Passionate about radio throughout his formative years, Dave became the youth correspondent at his local station, Beacon Radio, in 1979. After learning the technical aspects of studio operation, he fine tuned his presentation skills until an on-air break came in 1985 when he became the traffic and travel presenter on the breakfast show. Within a year he was presenting various fill-in shows - everything from evening shows to phone-ins, mid-mornings and drive to breakfast (and achieving highly successful listening figures), until being offered the position of Programme Manager for both FM and AM brands in 1990.

After the acquisition of Beacon Radio by GWR, Dave was promoted to Programme Controller of WABC; a role he held for 2 years during which time he oversaw an increase in both reach and average hours. In 1998, Dave was promoted to Programme Controller at Mercia FM in Coventry, where audience improvements resulted from a revitalization of the programme line-up and refocusing of the output. In 1999, Dave was asked to take the role of Acting Managing Director at Wyvern FM in Worcester, during the enforced absence of the MD at the time when its Classic Gold brand was going through a change of ownership.

Dave's interest in developing new licence opportunities was fostered by GWR. Dave worked with Gregory Watson in pulling together their application for the Telford FM service, and assisted with their application for the first Welsh regional licence. In addition, Dave helped pioneer GWR's young male targeted brand, originally 'The Edge', but more recognisable as 'The Storm', managing two successful RSLs in Huddersfield and Coventry.

In February 2000, Dave was approached to become the Managing Director of Silk FM in Macclesfield, a new local radio station finding its feet. Within six months, the station's substantial losses had been turned to profit. Under Dave's guidance the station raised over £26,000 with its "Bring a Pound to Work Day" for MacMillan Cancer Relief. Silk FM was acquired by Radio Investments Ltd (now The Local Radio Company) in September 2000.

Dave brings a wealth of strong general management and people skills and a thorough understanding of how to make small, medium and large scale commercial radio stations operate successfully for the benefit of both listeners and advertisers alike. His knowledge will help guide Forward Media, and in particular Connect FM as it moves to digital, and a significantly large business opportunity.

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

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 Northants 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
Forward Media Ltd 5 Church Street Peterborough PE1 1XB	6,000	15%	15%
MuxCo Ltd 96a Curtain Road London EC2A 3AA	34,000	85%	85%

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

54. 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.

55. See above.

vi) Outline any shareholders agreements or arrangements which exist.

56. A standard shareholders agreement will be established, with standard pre-emption and voting rights to all shareholders. The shareholders have agreed heads of terms which cover key issues of governance relating to the company including shareholdings, board composition, funding, pre-emption, exclusivity and confidentiality. This will be incorporated into a shareholders agreement in the event of a licence award.

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.

57. 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.

58. 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

Forward Media Ltd
Forward owns Lite FM (Peterborough) and Connect FM (Kettering).

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 Northants

59.   The strategy and aims for MuxCo Northants are:

- To establish an efficient, 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 new radio services through DAB.
- To provide a good return on investment to shareholders, helping them grow their businesses.
- To re-emphasise local radio as an important part of radio's digital future.
- To become part of a MuxCo network of local multiplexes, providing further comfort to operators that new services will be able to maximise their audience and therefore revenue potential.

The Shareholders and their Digital Strategies

60.   **Forward Media Ltd** was established in 1998 primarily to acquire and operate Lite FM in Peterborough and Connect FM in Kettering. Forward Media previously owned Dune FM in Southport, selling this station to the Local Radio Company in September 2004. Lite FM and Connect FM serve a contiguous area of 385,000 adults.

61.   In early 2007 to help improve their commercial viability, Forward Media co-located both stations in Peterborough, whilst maintaining localness of output. Forward Media recognise the increasing importance of digital but are only too aware of the financial burden that simulcasting on two platforms brings, especially during the early day of digital's development. Lite FM did not join the Peterborough multiplex when it launched in 2002 because of cost, and Forward Media is conscious of the cost implications of simulcasting Connect FM on DAB. However, the company took comfort from the model proposed by MuxCo, whereby through inclusion as a shareholder and a service provider, the net cost of investment is significantly reduced. To a small company, this is the only approach that makes a digital radio involvement commercially sensible. In addition, Forward Media recognises that Connect FM has limited growth potential given its analogue footprint (205,000 adults) and competition from within the market.

62. Connect FM's inclusion on the local multiplex helps establish new growth opportunities for the station. Whilst the benefits from this will take time to come through, the ability to increase coverage to 0.5m adults will help increase audience numbers and commercial opportunities, as well as enable the development of new media and non traditional revenue streams, whilst protecting against loss of listening through digital migration.

63. **MuxCo Ltd** was established by Deanna Hallett and Gregory Watson 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, having established and operated the Now Digital network for GCap Media, as well as managing 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).

64. MuxCo's strategy is to build a network of local multiplexes, working with local partners in each area, that enables local analogue services to simulcast on DAB and operators to create new services which can operate on a number of multiplexes, in particular contiguous multiplexes, to maximise audiences and therefore the commercial opportunity. Through this network, MuxCo will provide efficient solutions to service providers. 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 a service provider. Under this model, partners receive financial benefits of ownership which helps reduce their net cost of investment in DAB.

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

The Business Plan and its Objectives

66. MuxCo Northants 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 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.

67. MuxCo Northants 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.

MuxCo Northamptonshire Ltd

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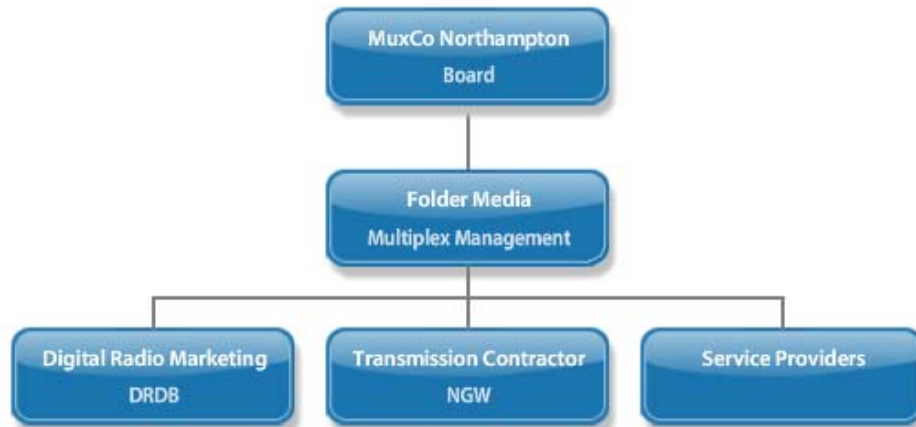
69.   The Board has responsibility for the company's business strategy; monitoring and reviewing trading performance; appointing and contracting with service providers; developing multiplex bandwidth policies; developing pricing structures; appointment and supervision of the Multiplex Manager and regulatory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

70.   MuxCo Northants 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. 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 with the changing radio marketplace. Further information on Folder Media is provided in Part D.

(i)   The network construction phase

71.   The network construction phase includes three stages – planning, building and testing.   MuxCo Northants 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.

72.   **Planning** – MuxCo Northants has designed its transmission plan in association with potential 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 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 Northants.

73. **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

74. 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

75. As multiplex manager, Folder Media will be responsible to the MuxCo Northants 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.
- Providing financial management and corporate compliance, including purchase and sales ledgers, IT, secretarial, legal and technical support.
- Co-ordinating and supporting marketing initiatives.

76. 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 Northants 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.

77. The MuxCo website 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 Northants and service providers, will be to help educate and inform listeners, advertisers and equipment retailers.

(iv)   Marketing

78. We believe that despite DAB digital radio having been 'live' for 9 years, by the time MuxCo Northants launches, it is likely that there will still be a 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.

79.   We will also 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.

80.   In order 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.

81.   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' of any campaign.

(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.

82.   Letters of investment are provided in Part B.

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

83.   Recent accounts for the shareholders have been provided under separate cover. 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.

84.   Shareholder loan stock will be issued interest free, as and when required, and 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.

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

(d) Audience Projections

86.   The applicable TSA is akin to that of Northants 96 (494,000 adults). Whilst
       slightly lower than Ofcom's and NGW's calculation of PPA adults, it corresponds
       closely to the coverage that will be achieved with the 3 proposed transmitters.

87.   The following table summarises our audience projections for the simulcast
       analogue services and digital only services. In relation to the analogue services,
       their total hours have been forecast across both analogue and digital platforms,
       and then apportioned between each platform.

	Year 1	Year 2	Year 3	Year 4
Northants FM				
• Weekly Reach %	25.0%	24.5%	24.0%	23.5%
• Ave Hours	8.5	8.3	8.2	8.1
• Total Hours '000s	1,050	1,005	972	940
• Digital Hours '000s	122	159	174	187
Classic Gold				
• Weekly Reach %	4.6%	5.5%	6.0%	6.5%
• Ave Hours	7.0	7.5	7.8	8.0
• Total Hours '000s	159	204	231	257
• Digital Hours '000s	28	48	62	76
Connect FM				
• Weekly Reach %	8.6%	9.5%	10.0%	11.0%
• Ave Hours	10.3	10.2	10.1	10.0
• Total Hours '000s	438	479	499	543
• Digital Hours '000s	77	114	134	162
JACK FM				
• Weekly Reach %	2.3%	3.0%	3.4%	3.7%
• Ave Hours	5.0	5.5	5.5	5.7
• Total (& Digital) Hours '000s	57	82	92	104
AC				
• Weekly Reach %	3.0%	3.5%	3.8%	4.0%
• Ave Hours	6.0	6.5	7.0	7.5
• Total (& Digital) Hours '000s	87	113	132	149
Easy				
• Weekly Reach %	2.0%	2.5%	2.8%	3.2%
• Ave Hours	4.0	4.5	5.0	5.0
• Total (& Digital) Hours '000s	39	57	69	79
UCB UK				
• Weekly Reach %	1.3%	1.5%	1.7%	2.0%
• Ave Hours	4.0	4.5	5.0	5.5
• Total (& Digital) Hours '000s	26	33	43	54
Traffic Radio				
• Weekly Reach %	1.0%	2.0%	2.8%	3.0%
• Ave Hours	1.5	2.0	2.1	2.2
• Total (& Digital) Hours '000s	7	20	29	33
XFM / Youth				
• Weekly Reach %	2.4%	3.0%	3.2%	3.5%
• Ave Hours	5.0	5.5	5.5	5.6
• Total (& Digital) Hours '000s	58	83	86	97

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	494	494	494	494
All radio hours '000s	10,549	10,549	10,527	10,502
All digital radio hours '000s	2,461	3,341	3,769	4,168
All digital hours as % of all radio hours	23.3%	31.7%	35.8%	39.7%
MuxCo Northants multiplex hours '000s	443	626	735	844
MuxCo Northants multiplex hours as % of all radio hours	4.2%	5.9%	7.0%	8.0%

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

Audience projections for programme services

88. In estimating audiences, we have based our assumptions on RAJAR within the Northants 96 TSA, which has a slightly larger (+9%) analogue footprint compared with BBC Radio Northamptonshire. It also fits more closely to the proposed PPA coverage.

89. Projections for existing services are based on the RAJAR 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

90. 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:

- 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

91. The proposed TSA covers 494,000 adults. We have reviewed RAJAR data within this TSA using rolled 12 month data to Q1 over the past three years. Whilst we believe there will be population growth, we have held the population as a constant for the first four years of the licence period.

Total Radio Listening

92. Over the 12 month period to Q1 2007, 90.5% of the Northants adult population listened to at least one radio service (447,000 adults), on average for 23.6 hours. This delivered total radio listening hours of 10,563,000. Over the last three years, the market has experienced a decline in the total number of people listening to radio, as well as a decline in the average time spent listening. Further information is provided in answer to Q.14.

93. 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	**494**	**494**	**494**	**494**
Reach %	90.4%	90.3%	90.2%	90.1%
Reach '000s	447	447	446	445
Total Hours '000s	10,549	10,549	10,527	10,502
Ave. Hours	23.6	23.6	23.6	23.6

Digital Share of Listening

94. 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.

95. Our penetration growth forecasts are based on the DRDB's 5 year forecast (published September 2005). These have been up-weighted using the known 2006 penetration data, and then carried forward using the '2005 forecast' growth rates from this new base. By 2010, the updated DRDB forecasts shows DAB household penetration increasing to 50%.
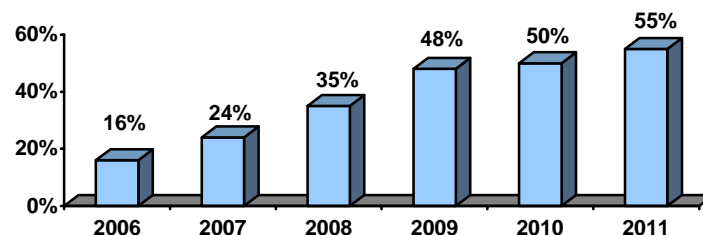
96. We are comfortable with the DRDB forecasts:

- 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%.

97.   These results suggest that the DRDB forecast is on target and possibly likely to be exceeded. Our consumer research highlighted that in Northamptonshire 28% already own a DAB Digital Radio, a finding significantly higher than the UK average, with a further 8% being able to access a DAB radio. For prudent forecasting, we have used the UK figures.

98.   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%.

99.   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 Northamptonshire.

The relative market shares of the radio sectors

100.   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.

101.   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 Northants and the new national multiplex) and 2012. This analysis enabled us to establish a view on the overall radio market within Northants 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	59.3%	53.0%	49.4%
BBC Local	1	0	1	9.8%	10.5%	9.5%
INRs	3	5	18	10.9%	13.3%	16.2%
ILR Northants	3	6	9	13.9%	17.1%	18.2%
Out of area ILR	2+	0	2+	5.4%	5.4%	6.2%
Other	-	-	-	0.8%	0.7%	0.6%
Total				100.0%	100.0%	100.0%

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/.

102. MuxCo Northants will offer carriage to the three Northamptonshire based commercial analogue services. 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 172,000 adults each week, and represent 16% of total radio listening. Their RAJAR audience results demonstrate their popularity.

    - Northants 96
    - Classic Gold 1557
    - Connect FM

103. Capacity has been allocated for six digital only services. Specially commissioned local research demonstrates that these services cater for proven and demanded local tastes and interests.

    - A service playing quality popular pop, rock and classic rock music - *JACK fm*
    - An easy listening melodic music service - *Easy Radio*
    - A Christian music and speech service - *UCB UK*
    - A traffic and travel service - *Traffic Radio*
    - A station playing adult contemporary music
    - A youth focused service – *XFM or alternative*

104. To enhance local opportunities on the multiplex, MuxCo Shareholder Forward Media has offered a local news service from its Connect FM base to any of the simulcast service providers, helping them to enhance their connection with the local area and appeal to local audiences.

105. 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.

Northants 96

Format	Contemporary Hit Radio
Licence Description	A simulcast of Northants 96 (licence AL012); a contemporary chart music station for Northamptonshire, broadcasting predominantly current chart hits, new releases or hits up to 10 years old. Speech will include news and information relevant to its target audience.
Local Content	Northants 96 broadcasts local programming from 6am to 7pm, including local news bulletins.
Music to Speech	Minimum 85% music and 10% speech
Hours of Broadcast	24

Classic Gold 1557

Format	Gold
Licence Description	A simulcast of Classic Gold 1557 (licence AL011); a classic pop hit-led service targeted primarily at over 40s, broadcasting classic pop hits from predominantly 15 to 40 years before broadcast. Speech includes national and local news and information relevant to its target audience.
Local Content	Classic Gold 1557 broadcasts local programming between 3pm and 7pm, and provides local information and news, travel and information throughout the daytime.
Music to Speech	Minimum 85% music and 10% speech
Hours of Broadcast	24

Connect FM

Format	Local Full Service
Licence Description	A simulcast of Connect FM (licence AL052); a local FM service for Kettering, Corby and Wellingborough, playing adult contemporary and gold hits from the last forty years 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. In addition, sport news and local information is provided across the day.
Music to Speech	Minimum 80% music and 10% speech
Hours of Broadcast	24

JACK fm

Format	Variety Pop & Rock
Licence Description	A service similar to Oxfordshire's JACK fm; the first JACK fm service in the UK. 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	A regional version of JACK fm offering a broadening of music choice, with regional news and information relevant to the area.
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. Speech includes news and relevant information for the audience.
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	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 will cover all motorway and key trunk roads and will be localised with live updates on Northamptonshire's road network.
Music to Speech	100% speech
Hours of Broadcast	24

9th commercial service

106.   In addition to the above services, we propose one further audio service from launch. We believe that the market would be best served by a youth focused service. This would complement our proposed services detailed above, as well as ensuring digital radio has youth appeal - our future listeners.

107.   We note the interest that GCap Media has demonstrated for the expansion of XFM in new multiplex areas. In the first instance, after award we will make an offer to GCap to accommodate XFM on standard terms and conditions. If GCap were to accept our proposal, the following information would be pertinent.

XFM

Format	Modern Rock
Licence Description	A service similar to the XFM London service (licence number AL196-1), featuring innovative, modern rock with attitude. News and information will be relevant to the core 15 to 34 audience.
Local Content	A network service broadening music choice.
Music to Speech	Minimum 80% music and 10% speech
Hours of Broadcast	24

108.   If GCap were not to accept our offer for the carriage of XFM, we would provide a broad youth appeal service (further information is provided in Part B). In the this scenario, the following information would be pertinent.

Youth

Format	Youth
Licence Description	A music station comprising listener-generated content and chart, dance and rock tracks, and focusing on the tastes and interests of under 35s, and especially under 25s.
Local Content	A service broadening music choice, with regional news and information relevant to the audience.
Music to Speech	Minimum 90% music and 5% speech
Hours of Broadcast	24

Temporary Services

109.   We are keen to maximise the opportunities for the general public to be involved in radio. We support the notion of temporary services / downloaded programmes being able to access capacity which may be achievable through bit rate trading. Such services could include programming from / about:

- Sports and Leisure
  - Football
    Northampton Town FC (The Cobblers), Kettering Town FC, Corby Town FC, Desborough Town FC, Wellingborough Town FC, Rothwell Town FC
  - Rugby
    Northampton Saints Rugby Football Club, Corby Town Rugby Club, Brackley Rugby Club
  - Horseracing
    Towcester Racecourse
  - Cricket
    Northamptonshire County Cricket Club
  - Motor Racing
    Silverstone Circuit

- Communities of Interest
  - University of Northampton

110.   Being able to widen events coverage clearly broadens choice, as well as enhancing the attractiveness of digital radio in general. All such proposals are of course subject to obtaining the necessary rights.

111. 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 to meet their audiences' requirements and 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.

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?**

	Northants 96
Target Audience & Demographic Profile	One in four adults (26%) listen to Northants 96 each week, making it the leading commercial service in the county. Northants 96 has a large female audience (56.6%, against a TSA profile of 51.1%). Principal listening is amongst those aged 25 to 44, in particular women in these age groups who account for 28% of all adults. In relation to socio demographics, Northants 96 achieves a slight above average ABC1 profile of 54.9% (against a TSA average of 54.5%).
Local Tastes & Interests	As Northamptonshire's heritage local service, many tune into Northants 96 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 129,000 adults listening to the station each week.
Summary	Northants 96 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 across the day, but particularly during daytime. Existing ILR listeners demonstrate high interest in DAB functionality, in particular being able to pause, rewind and record programmes, download music and have visual enhancements through a colour screen and red button functionality. ILR listeners outstripped BBC listeners' interest in all these features. Given its current strong market position and a predisposition of its listeners to utilise the ancillary advantages of DAB, Northants 96 will play a pivotal role in the promotion of digital radio. • Existing heritage service • 25 to 44 age profile • Female bias • ABC1 • Promoter of DAB and encourages trial

Classic Gold 1557	
Target Audience & Demographic Profile	5% (24,000) of all adults listen to Classic Gold 1557 each week. The station appeals to those aged 45 plus, who account for 67% of the audience. Its appeal by sex matches the population profile, with a slight female bias. A function of its older appeal results in a strong C2DE profile (61.1%).
Local Tastes & Interests	Classic Gold is the sister service to Northants 96. In the main, it is a network service, with one 4 hour local programme provided each weekday, with county news and information provided across the day.
Summary	A popular format, but one that over recent years has suffered from broadcasting on AM. As such, we believe the format has great potential as a digital service.

As before, ILR listeners have a high interest in DAB functionality. MuxCo's commitment to provide functionality to enable slideshow, music downloads and red button functionality will help both DAB and services such as Classic Gold 1557.

• Existing heritage service
• 45 plus age profile
• Female bias
• C2DE
• Promoter of DAB and encourages trial |

Connect FM	
Target Audience & Demographic Profile	Within its analogue TSA, Connect FM is listened to by 1 in 5 (21%) of all adults. With a loyal audience (with average hours currently of 10.2) it has a market share of 9.7% making it the number 1 commercial station within its TSA. It attracts a near equal mix of males and females, and achieves broad appeal across all age groups. It has particularly strong appeal amongst 25 to 54 year olds in total, and to all women under 54. In terms of social class the station delivers a C2DE profile of 62.7%, significantly higher than its TSA profile of 53.2%. Within the larger Northamptonshire TSA, Connect FM's reach equates to 8.8%, establishing it as the county's second most popular local commercial service.
Local Tastes & Interests	Connect FM focuses on the Kettering, Corby and Wellingborough market within Northamptonshire, and broadcasts local news, information and features of particular local relevance, such as whats ons, entertainment, sport and travel information.
Summary	Connect 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
• 25 to 54 age profile
• Equal sex mix
• C2DE
• 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, JACK fm has broad appeal, with 48% of listeners aged 35 to 54 and 33% over 55. The service is likely to a slightly higher proportion of ABC1s. The format had strong appeal amongst those who currently do not own a DAB set (20%). 28% of BBC listeners also expressed an interest in hearing this station.
Local Tastes & Interests	JACK fm's connection with the new Oxford FM licence will enable a regional feel from launch, and for a regional news and information service to be introduced during the licence term.
Summary	JACK fm is a new style of radio combining broad musical genres with an irreverent style. The station will complement existing local commercial choice 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 (linked to neighbouring new Oxford FM service) • 35 to 54 age profile • Male bias • ABC1 • Attracts audience from BBC • Encourages DAB uptake

Adult Contemporary	
Target Audience & Demographic Profile	Our research shows a target audience with a female bias, and where 62% of listeners were likely to be aged 25 to 44. A popular format that will appeal to a broad section of the community and attract new listeners to DAB digital radio, with more than two thirds 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 79% of those interested in this format.
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 audience, who will account for more than three quarters of the audience. Evenly matched by sex, the service will deliver a strong ABC1 profile. This format should also be a strong motivator to stimulate DAB take up, with more than a third of those who currently have access, but do not own a DAB set likely to listen. Easy also recorded above average appeal among listeners to BBC stations, with 41% 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 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 programme.
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 • Older profile • Appeals to both males and females • ABC1

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 (44%), with similarly high interest also recorded by those aged 25 to 54. The service is likely to have a female bias (61%) and deliver a strong ABC1 profile. 44% of those wanting to hear this service do not currently own a DAB set, indicating another of our services could help drive DAB take up in this area. Almost 95% of those interested in hearing a Christian service are currently BBC listeners, and 28% are 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 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 service. 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

112.   And if GCap Media were to accept our offer of capacity for XFM.

	XFM
Target Audience & Demographic Profile	In our research, 11% were interested in this format; the majority of whom were male (62%). The service would have a young profile; more than half (53%) were under 35, and three quarters under 45. The format would also have an upmarket ABC1 appeal.
Local Tastes & Interests	XFM is 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.
Summary	XFM provides a 'Modern Rock' format, and would be the only station on the multiplex that specifically broadcasts this type of music. The inclusion of a station such as XFM would help attract younger listeners back to commercial radio. • New service • Younger profile • Male bias • ABC1 • Encourage DAB

113. And if GCap Media were _not_ to accept our offer of capacity.

	Youth
Target Audience & Demographic Profile	The format has high appeal with under 35s, and will be particularly welcomed by female listeners. 68% of those interested in this service currently do not own a DAB radio; as such, the format has the potential to stimulate DAB up take, particularly in the important under 25 demographic. There was high interest in the format from BBC listeners (68%).
Local Tastes & Interests	A youth format, reflecting on the musical tastes and interests of listeners in the area. It will be the first station in the area specifically targeting the area's younger listeners. It is a music intensive service, playing chart, dance and rock music alongside programmes and features created by the listeners. Speech will include information of relevance to the target audience.
Summary	The station's musical genres (of chart, dance and rock music) are extremely popular with the target audience. In contrast to the broader local services carried broadcasting on analogue radio, this youth format will super-serve its audience with information relevant to the target audience, including music updates and what's on.

• New service
• Younger profile
• Encourage DAB trial |

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
Northants FM	GCap Media plc	No	Yes
Classic Gold 1557	GCap Media plc	No	Yes
Connect FM	Forward Media Ltd	Firm	No
JACK fm	Absolute Radio International Ltd	Firm	No
AC	See confidential Part B	Firm	Yes
Easy Radio	Easy Radio Ltd	Firm	Yes
UCB UK	United Christian Broadcasters Ltd	Firm	Yes
Traffic Radio	Highways Agency	Firm	Yes

114. And in relation to our tenth service.

Service	Service Provider	Confirmed	DSPS Held
XFM	GCap Media plc	No	Yes
Youth	See confidential Part B	Firm	No

c) **Give details of any programme-related 'data' or other services to be provided to enhance the audio elements of the digital sound programme services proposed to be provided. List separately those provided by the relevant digital sound programme licensees themselves (as 'ancillary' services) and those, if any, provided by other parties under a digital additional services licence.**

115. Innovative data services will play a key role in providing value-added services to consumers. Their role in both supplementing the audio stream and navigating towards content is hugely important. Additionally, data services can provide access to valuable local content.

116. We will provide opportunities for our service providers that will encourage them 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:

   • Rolling text functionality
   • Electronic Programme Guide

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

Dynamic Label

118. 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 its value as an additional communications tool.

119. 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

120. 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 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.

121. Our research showed a high level of interest in an EPG. We will make an EPG channel available to all service providers. This channel will confirm 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.

122. 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. 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.

Use of variable-XPAD

123. From launch, we will enable each service provider to be able to run programme-related data services within their short XPAD data capacity. We will work with the service providers, NGW and colleagues across the industry to assess the opportunities to improve the performance of the audio encoders for stereo at rates under 128 kbits. If satisfactory and following any required approval from Ofcom, we may wish to use some of any additional XPAD capacity that was freed up to allow them to use that capacity for enhanced programme related data services.

124. 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 (The DigiZone) through to the development of standards such as the EPG and the launch of highly dynamic text services.

125. 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.

Other services

126. Folder Media, our data service provider, intends to provide 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.

127.   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.

128.   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.

129. The Northants multiplex is the first and likely to be the only local multiplex for the area. Breadth of programming has therefore been measured by the range of local digital services to be provided on the multiplex.

Northants 96	
Service	A contemporary hit radio service broadcasting popular chart songs from a wide range of genres, as well as high quality and entertaining speech. Northants 96 broadcasts unique programming on weekdays from 6am to 7pm, Saturdays 7am to 7pm and Sundays 8am to 4pm. At other times, Northants 96 shares network programming with the One Network, although with local idents and advertising.
Broadening of Choice characteristics	As a broad appeal service for under 40s playing wide range of music, there will undoubtedly be some duplication with the music output on other services. Northants 96 is the market leading service, and is currently the only service providing local news and information on a countywide basis. Its editorial focus will ensure that it continues to provide a key local service for Northamptonshire.

Classic Gold 1557	
Service	A gold music service playing hits from the last four decades. Classic Gold broadcasts unique programming on weekdays between 3pm and 7pm. At other times, its shares network programming with other Classic Gold services, although with local drop-ins, news and advertising. The upgrade to digital and stereo output will help improve the sound of the station and its appeal to potential listeners who have yet to enjoy its mix of music, personalities and local information.
Broadening of Choice characteristics	Whilst there will be some musical overlap with broad formatted services, Classic Gold 1557 is the only service focused on this genre. In addition, specific local programming and local news and information for Northamptonshire, including travel, weather and news, provides a differentiator against other services.

Connect FM	
Service	An FM station providing a locally-focused music and information service for the 25 plus age group in and around Kettering, Corby and Wellingborough, playing a broad mix of adult contemporary and classic hit music.
Broadening of Choice characteristics	As a broad appeal service playing a broad music mix, there will be some music overlap with Northants 96 and Classic Gold, and to a lesser extent services such as the proposed 'AC' and 'Easy Radio'. Connect FM's editorial policy, presentation style and focus on Kettering, Corby and Wellingborough provides significant differentiation.

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. The music policy is broad based and mainstream, with an overall theme of pop / rock and classic rock. The style of the radio station is built around a free sounding theme which, for most of the time, replaces traditional highly formatted radio presentation with listener vox-pops and well produced short voice-links which are distinctive, entertaining and different. The station will also cater for an audience that has left commercial radio for stations like Radio 2 that they feel better caters for their musical tastes.
Broadening of Choice characteristics	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.

Adult Contemporary	
Service	A music led service playing adult contemporary music from the last 30 years.
Broadening of Choice characteristics	Musically, the proposed service sits between the classic hits format of Classic Gold and Northants 96, and there will be some overlap with Connect FM and Easy Radio. However, the overall mix of music, its style of presenters and presentation, and its focus on the music (as a music dominated service) 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 characteristics	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.

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 characteristics	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 characteristics	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.

130.   And in relation to our 9th commercial service.

XFM	
Service	XFM brings a mix of modern rock, live performances and gig and artiste information which will be totally new to the area under a brand which is increasingly well known throughout the UK. XFM, which is a music focused station, is currently audible on the neighbouring Leicester multiplex and is proposed for Herts, Beds & Bucks. As such, its inclusion on Northants will enable complete coverage along the M1 and other major travel routes, as well as serving the local community.
Broadening of Choice characteristics	The inclusion of XFM on the multiplex will bring additional listening choice to the younger demographic. Whilst elements of its music repertoire will be audible on the broad based Northants 96, XFM would be unique with its dedication to this music.

Youth	
Service	A youth station, playing chart, dance and rock tracks, with broad audience appeal amongst under 35s, and a core audience aged under 25.
Broadening of Choice characteristics	This service will play a broad range of music, and will extend choice through its commitment to listener-generated content. Music overlap with Northants 96 arises from the latter's broad CHR format. However, its positioning as an older targeted service provides greater differentiation in its style and editorial focus. For younger listeners across the multiplex area, the service would be a welcome addition to the radio landscape and providing local commercial competition for BBC Radio 1.

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).

Please 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 track digital penetration. To estimate the impact of the adjacent MXR and CE Digital multiplexes.	Review of DRDB and relevant RAJAR data on digital audiences. Analysis of existing multiplexes.	Not relevant	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	April 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 in-person using Computer Aided Personal Interviewing equipment.	500 adults 15+ from across the PPA. Sampling PPS Quota controls to known demographic profile.	7th to 31st May 2007

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

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

The Northamptonshire market

132.   Northamptonshire has a total population of 629,676 (2001 Census). It borders 9 other counties, including England's shortest county boundary of only 19 metres with Lincolnshire. Most of the county's population is concentrated in a central north-south band which includes the four largest towns of Northampton (with a population of 194,122), Corby (53,500), Kettering (51,063) and Wellingborough (46,959). Other significant centres are Rushden (25,849) and Daventry (22,367).

133.   Northamptonshire has approximately 288,000 people in employment and the county's economy is one of the fastest growing in the country. It is the focal point of one of four growth areas identified in the Government's Sustainable Communities Plan - a commitment to sustain and extend the economic success of London and the South East. Over the next thirty years, over 140,000 additional jobs and 167,000 new homes are planned. Industry across the county was dominated for years by the shoe industry, with famous manufacturers such as Church's and Doc Martins based in Northampton. A result of this association is seen in the nickname of Northampton Town Football Club - 'The Cobblers'. Today, over 350 major PLCs operate or have representation in Northamptonshire, including Avon Cosmetics, Barclaycard, Carlsberg, Coca Cola, Corus, Cosworth, Honda F1, Nationwide and Weetabix.

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

135.   The Northants multiplex TSA has an adult population of 494,000 (Q1 2007). The following table highlights the relative demographic splits of the population, with comparison to the UK as a whole.

	Northants	UK Index
15 to 24	76,000	97
25 to 34	72,000	95
35 to 44	98,000	106
45 to 54	83,000	107
55 to 64	76,000	104
65 plus	91,000	93
ABC1	54.4%	102
C2DE	45.6%	98
Male	49.0%	101
Female	51.0%	99

Radio choice

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

- Northants 96 (owned by GCap Media)
- Classic Gold 1557 (owned by GCap Media)
- Connect FM (owned by Forward Media)
- BBC Radio Northampton

137.   In the west of the county, the Banbury FM licence, Touch FM is audible. There is also limited spill over from the regional services to the north. However, in many respects, local commercial radio choice is currently limited.

138. 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

139. RAJAR audience data has been analysed within the Northants 96 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	**494**	**494**	**494**
Reach %	92.6%	90.7%	90.5%
Reach '000s	448	444	447
Total Hours '000s	11,559	10,456	10,563
Ave. Hours	25.8	23.5	23.6

* rolled 12 month data ending Q1 in each year

140. The table highlights a decline in the total number of people listening to radio, as well as a decline in the average time spent listening. The most recent data would seem to indicate a slow down, if not a reversal of this trend.

141. In addition to reviewing local services, we have compared market shares in Northamptonshire between the BBC and commercial sectors (national and local) for the years ended Q1 2005 and Q1 2007, and 2007 results against the UK as a whole to gauge how radio listening in the county compares with elsewhere. This is summarised in the following table.

Market Share	Northants (2005)	Northants (2007)	UK
All BBC	**65.8%**	**68.6%**	**54.9%**
• BBC Network	53.0%	57.0%	44.7%
• BBC Local	12.8%	11.6%	10.5%
All Commercial	**33.2%**	**30.5%**	**43.1%**
• INR	8.1%	8.9%	10.7%
• ILR	25.1%	21.6%	34.5%
Other	**1.0%**	**0.9%**	**2.0%**

Source RAJAR 12 mths ending Q1 2005 and Q1 2007

142. The BBC dominates radio listening in Northamptonshire:

- 'All BBC' currently accounts for 68.6% of all radio listening, compared to its national average of 54.9%; and up 4% on 2005.
- Both BBC Network services and BBC local services perform significantly above average in this area.
- Listening to BBC Network services in Northants has seen growth over the last 3 years, principally Radio 1 (up 23%) and Radio 2 (up 5%). Over this period, though, Radio 4 suffered a 9% decline.
- Commercial radio's performance is almost 13% percentage points lower than the UK average; a result, we believe, of the low level of local commercial choice currently in this market.

143. The table overleaf details the relative historical market shares between the BBC and commercial radio within Northamptonshire 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	44.5%	39.6%	40.6%	55.9%
All BBC	54.4%	59.7%	58.5%	41.7%
35 to 64				
All Commercial	31.9%	35.2%	28.3%	43.5%
All BBC	67.1%	63.6%	70.8%	54.5%
65 pluses				
All Commercial	18.8%	23.2%	23.4%	25.6%
All BBC	79.9%	75.9%	75.8%	72.9%

Source RAJAR 12 mths ending Q1 2005/6/7

144. The table highlights that compared with the UK, commercial radio within the county under-delivers in all age groups, resulting in a BBC domination in all three age groups:

- Commercial radio is strongest with 15 to 34s, where its market share is 40.6% (some 27% below the UK average). This is a particularly disappointing result as this is the only age group where nationally commercial radio beats the BBC. *We believe that the proposed youth focused service will help improve commercial radio's position.*

- Amongst listeners in the mid age market, commercial radio's performance is almost 35% below the UK average. As a result, commercial radio's performance with this age group is proportionately worse than amongst 15 to 34s, with a share of just 28.3%. *Services such as 'AC', 'Easy Radio' and the improved sound quality of 'Classic Gold', 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 just over three quarters of all listening. Commercial radio's performance of 23.4% is however only marginally below the UK average. *'Easy Radio' and 'UCB UK' will offer considerable appeal to this demographic group.*

145. Looking at the individual local commercial services within Northamptonshire, 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
Northants FM			
Weekly Reach %	32.4%	29.6%	26.0%
Total Hours	1,631	1,471	1,113
Market Share	14.1%	14.1%	10.5%
Classic Gold 1557			
Weekly Reach %	6.0%	5.5%	4.9%
Total Hours	278	282	176
Market Share	2.4%	2.7	1.7%
Connect FM			
Weekly Reach %	9.4%	8.7%	8.8%
Total Hours	447	446	445
Market Share	3.9%	4.3%	4.2%
BBC Radio Northampton			
Weekly Reach %	19.4%	20.3%	20.4%
Total Hours	1,201	1,059	923
Market Share	10.4%	10.1%	8.7%

Source RAJAR rolled years ending Q1

146. The table highlights:

- The decline in reach and average hours experienced by both Northants 96 and Classic Gold 1557, as audiences have moved to the BBC, in particular Radio 2. ***New commercial stations that can attract an audience from the BBC will benefit the commercial sector.***
- Whilst Connect FM has suffered a small loss in reach, it has built listener loyalty.
- Whilst BBC Radio Northampton has increased its reach, it has suffered a drop in loyalty with average hours falling 29% to a current 9.1.

147. Our consumer research supports the RAJAR results:

- 76% listen to at least one BBC service each week. This compares to only 44% who listen to at least one commercial station each week, and only 30% who listen to one or other of the available ILR services.
- 35% are solus BBC listeners.
- The three most listened to services in the area are BBC services: Radio 2 (31%), Radio 1 (28%) and BBC Radio Northampton (25%).
- Just under a quarter listened to Northants 96 (24%).
- Across the county, both Classic Gold 1557 and Connect FM achieved a 5% reach; a similar level to Virgin Radio, but ahead of Radio 3 and talkSPORT.

148. We were interested to note that 'niche' services, i.e. those serving discrete communities of area or of interest, scored higher in terms of the satisfaction they delivered:

- theJazz, BBC 6 Music, BBC7 and talkSPORT all scored strongly, ***indicating a demand for more focused programming.***
- Among the local services, Connect FM recorded slightly higher satisfaction among its listeners than Northants 96.

149. 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.***

- 33% of all adults (and 36% of women) highlighted local news and information.
- 15% identified the mix of music; an aspect more popular with under 35s (23%), in particular those under 25s (27%).
- ILR listeners were also much more inclined to say they liked the music mix on their local stations (28%).
- 40% were not aware of anything that they particularly enjoyed about their local station!
- Among DAB owners, the reaction was similar, with the majority (36%) enjoying local news and information, and an above average 11% found the travel news helpful.
- Non DAB owners also placed hearing local news and information first as something they like about stations in their area (31%).

150. 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.*

- 56% said there was nothing that would make them increase their listening.
- 17% identified fewer commercials and advertisements as a key change; this was the single highest factor.
- 8% mentioned a wider variety or choice of music.
- 6% more local news and information.
- 5% playing specific types of music.
- 4% better presenters.

151. Radio consumption patterns in Northamptonshire are similar to the UK, *indicating that a broad range of services is important for all sections of population*:

- Home is where most radio listening takes place. This is particularly true of women where this accounts for 55% of their total listening (compared to an all adult average of 46%).
- In car listening accounts for around 36% of all radio listening, and is strong with under 45s and men in general.

Uptake of DAB digital radio

152. The uptake of DAB digital radio is strong, and with known new developments over the next 12 to 18 months, the potential DAB audience in Northamptonshire when the multiplex launches is significant.

153. 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 digital radio. This figure is significantly lower than the 28% that our consumer survey highlights as owning a DAB digital radio in the county.

- 37% of Northamptonshire residents either own or have access to DAB radio.
- Ownership is higher among men (31%) than women (26%)
- Ownership is strongest with those aged 45 to 54 (34%) and under 25 (30%).
- ABC1s record above average ownership.

154. The following table details the profiles of DAB owners, comparing Northamptonshire adults (per our research) against the UK profile (per RAJAR).

	Profiles of			
	UK *Adults in DAB Homes	Northants Adults in DAB Homes	UK Population Profile	Northants Index on UK Population
	%	%	%	
Men	52.5	53.2	48.5	110
Women	47.5	46.8	51.5	90
15 to 24	15.8	14.2	15.9	89
25 to 34	14.3	9.9	15.5	64
35 to 44	20.7	17.7	18.7	95
45 to 54	17.8	18.4	15.7	117
55 to 64	16.3	14.9	14.5	103
65 plus	15.2	24.8	19.7	126

Source RAJAR 12 mths ending Q1 2007

155.   The table highlights:

- Adults in DAB homes in Northants are more likely to be aged 45 plus, with all age groups 45 plus performing higher than the UK average.
- Ownership shows a male bias compared with the population as a whole.

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

- The prospect of interference free reception (32%).
- Improved sound quality of existing analogue services (30%).
- A wider range of new stations that would perhaps better meet their tastes and interests (23%); this was particularly the case among under 35s (36%).
- Ease of tuning (21%); which was particularly appealing to women compared with men (26% v 18%).

157.   And having acquired a set, whether DAB had met their expectations:

- 17% did not know whether DAB had met their expectations.
- Improved sound quality of existing analogue services remains a main asset of DAB (27%).
- Interference free reception fell to 18%.
- Ease of tuning fell to 15%.
- A wider range of new services fell to 14%.
- Men were much more likely to place improved sound quality of existing analogue services as DAB's main asset (31% v 22%), followed by a wider choice of new services (20% v 6%).
- Women, on the other hand, were much more impressed by interference free reception (28% v 9%) and ease of tuning (18% v 13%).

158.   In relation to their listening habits, 26% of those with access to a DAB radio indicated that their radio listening had increased. There was an above average rise in listening among listeners to commercial radio (39%), and in particular among listeners to national commercial services (47%) *illustrating the benefit of increased choice*.

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

- Improved sound quality of existing analogue services remains a catalyst (25%). *Providing opportunities for all existing services to broadcast in stereo is an important consideration.*
- Interference free reception (16%).
- A wider range of new services (14%).
- Ease of tuning (12%).
- By age, under 35s were much more concerned with improved sound quality (37%), but also almost twice as likely as all adults to express enthusiasm for hearing a wider range of new services that would better meet their tastes and interests (25% v 14%). *Stations for younger adults is an important consideration in the overall complement of services.*

160. 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.
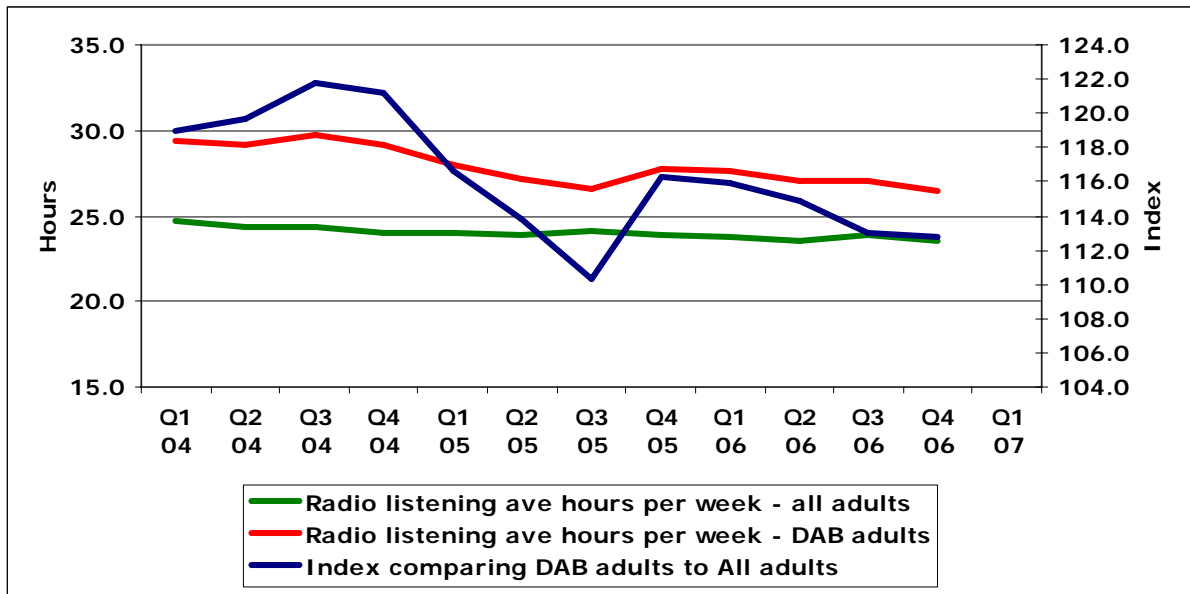

161. Over the last 3 years, adults in homes with DAB sets listen to the radio for an average 16% longer across a week. During 2004, that average was 21% higher. As the sales of DAB sets started to take off in 2005, the average has dropped back slightly as more recent DAB purchases appear to be more general set replacements than purchases to gain access to DAB and its unique service offerings. *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.

162. 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.

163. It is interesting to note that listening to digital services - quasi-national, regional and local, is demonstrating a preference to listen via DAB when 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, therefore, analogue remains dominant with a 77.4% share.

164. 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 Northamptonshire will help reverse the current BBC dominance in this market.

## What people would like from digital radio in the future

165.   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.

166.   The following chart summarises the results for existing local services.
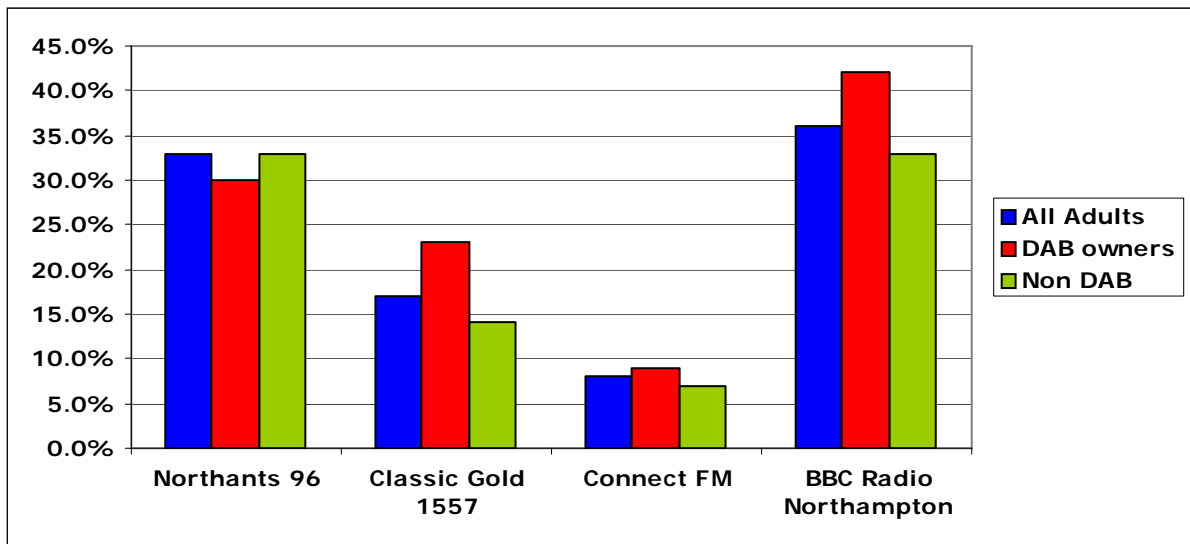
- There is strong interest in being able to hear both Northants 96 (33%) and BBC Radio Northampton (36%), with women most likely to say this.
- In relation to age, Northants 96 scored higher amongst under 45s (53%), while BBC Radio Northampton clearly appeals to the 55+ audience (50%).
- Classic Gold was mentioned by 17% overall, and by a higher 23% amongst those with a DAB set, *highlighting that this group already recognise the benefits that DAB will deliver this service, currently limited on AM*.
- Whilst Connect FM was mentioned by only 8%, this reflects its current geographical constraints of Wellingborough, Corby and Kettering, which represents just 41% of the wider multiplex TSA. We would estimate that in this smaller area, Connect FM would achieve a score of around 25%, *underlining its importance as part of the multiplex*.

167. Our local consumer research also sought to gauge interest in a range of music genres.
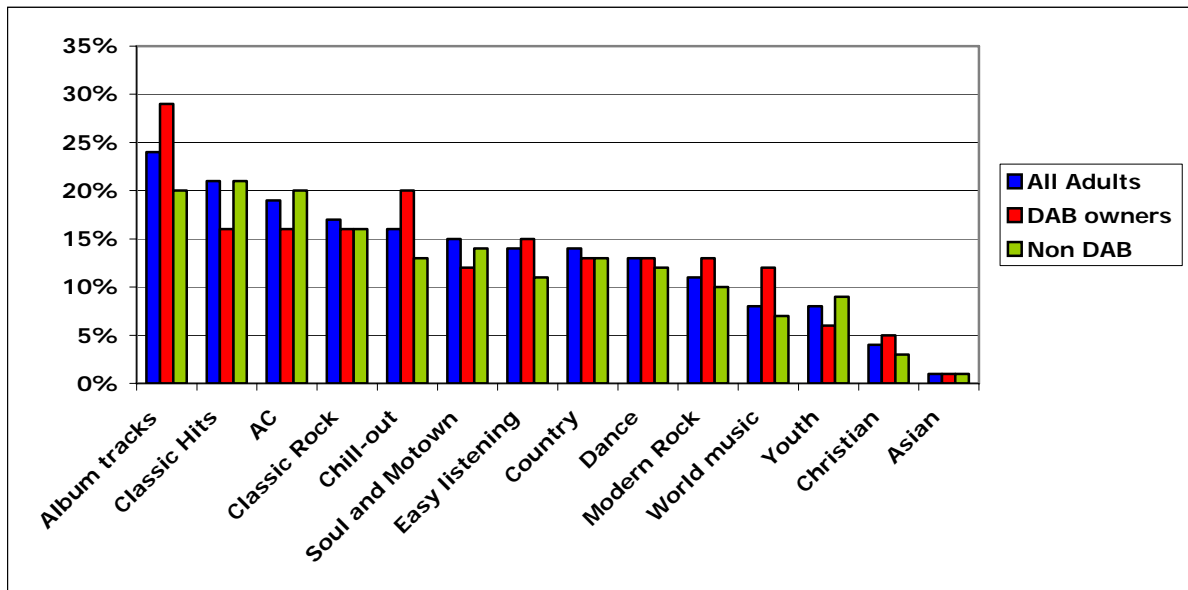
168. The following tables ranks the demographic strengths of each genre, with the colours highlighting the format's position within each age group.

	16 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 plus
Album tracks	orange	teal	yellow	green	blue	red
Classic Hits	red	orange	light blue	yellow	blue	green
AC	orange	yellow	green	blue	light blue	red
Classic Rock	light blue	blue	yellow	green	orange	red
Chill-out	green	light blue	yellow	blue	orange	red
Soul and Motown	red	blue	yellow	green	light blue	orange
Easy listening	red	orange	light blue	blue	yellow	green
Country	red	light blue	orange	blue	green	yellow
Dance	green	yellow	blue	light blue	orange	red
Modern Rock	green	yellow	blue	light blue	orange	red
World music	yellow	blue	green	light blue	red	orange
Youth	green	yellow	blue	light blue	orange	red
Christian	orange	yellow	yellow	white	red	green
Asian	green	yellow	yellow	white	light blue	white
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.
- Whilst 35 to 54s demonstrate more loyalty to formats, overall 25 to 54s are more accepting of a wider range of formats.
- 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.

169. The following table summarises the anticipated audience profiles for the new services.

|	JACK fm %	AC %	Easy Radio %	UCB UK %	XFM %	Youth %
Male	42	47	51	39	63	22
Female	58	53	49	61	37	78
15-24	8	6	3	6	29	41
25-34	12	24	6	17	23	26
35-44	23	38	13	17	21	17
45-54	24	17	14	11	14	12
55-64	18	8	23	6	9	2
65+	14	7	41	44	4	2
ABC1	58	52	61	56	63	49
C2DE	42	48	39	44	37	51

170. 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 Northants 96, Classic Gold 1557 and Connect FM whist all other services have been derived from our consumer research.

Profile of Local Services in the Northant 96 TSA

Data Services

171. The opportunities for DAB radio devices to provide a range of data services that will either 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.
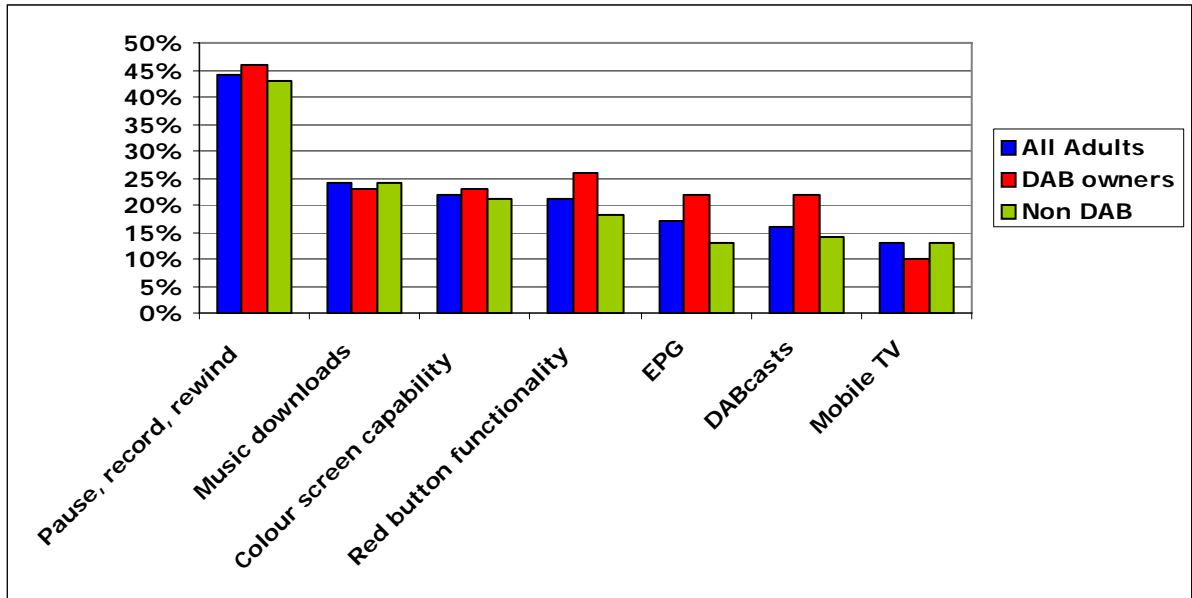

- The ability to pause, record, rewind was the most interesting new functionality that listeners in Northampton would like, with above average interest among women (47%) and everyone under 55. This feature also had a more upmarket ABC1 appeal (51%).
- Being able to download music was mentioned by 24% of all adults, but by a high 41% of under 35s – an age group that demonstrated above average interest in each feature.
- Commercial radio listeners also demonstrated above average interest in all types of functionality, and interest higher than shown by listeners to BBC services generally, ***demonstrating a real opportunity to develop commercial applications***.

172.   The following chart summarises reaction to a range of possible services that could be accessed through a screen on the radio.
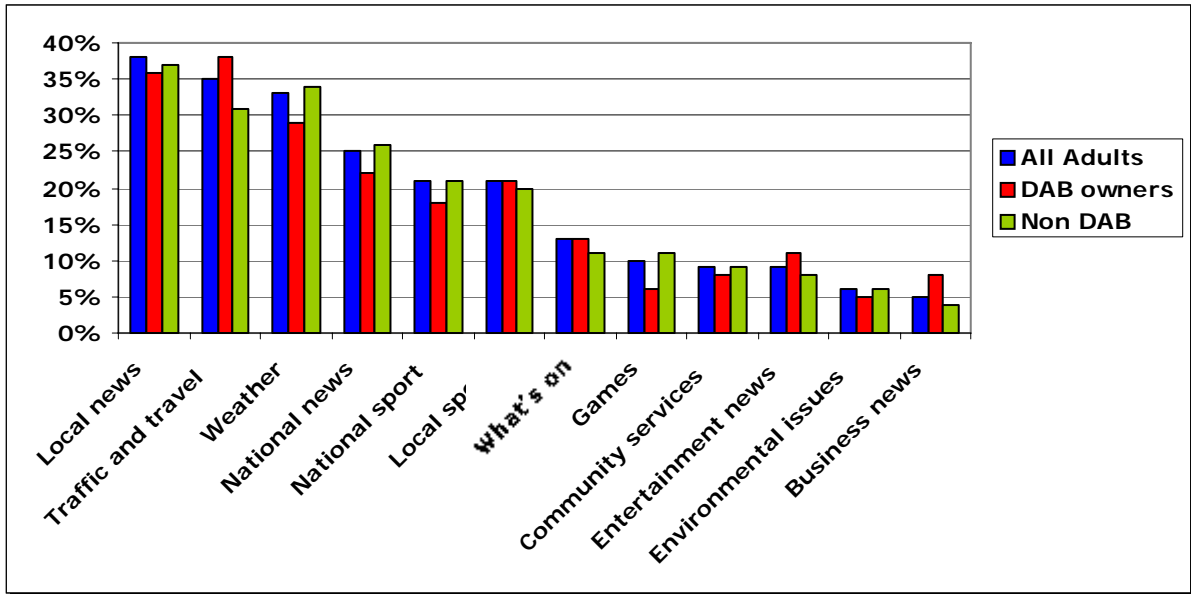
173.   And as audio downloads.
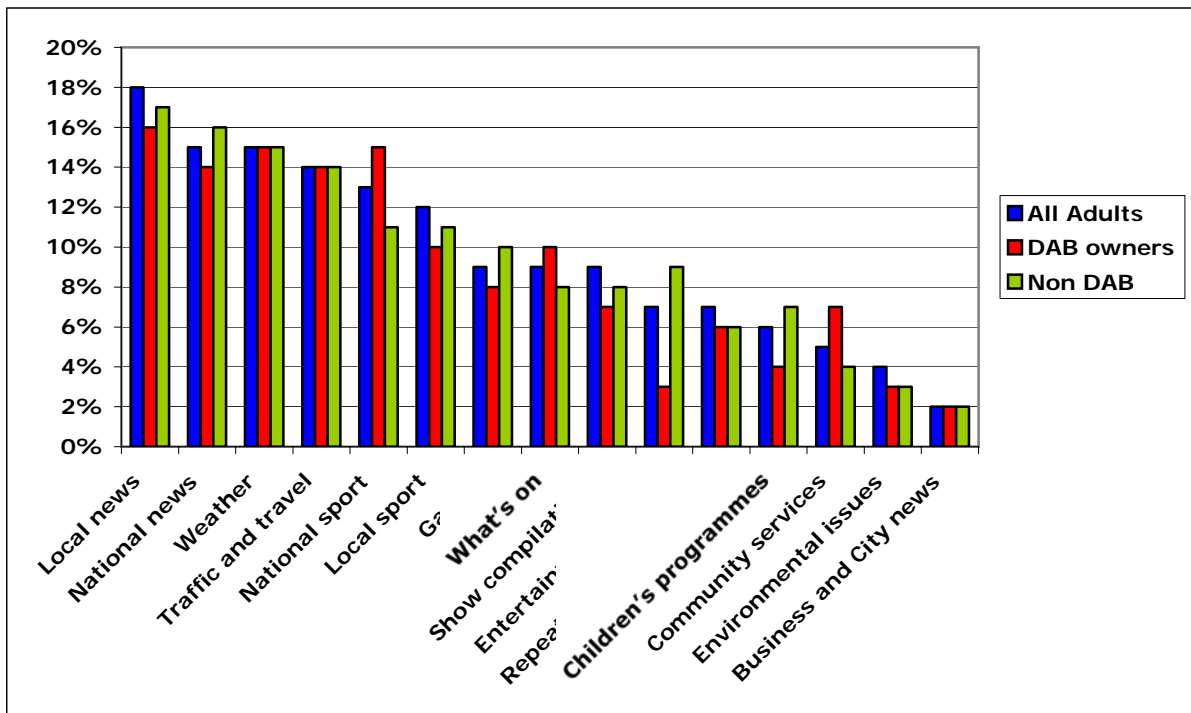
What does the future hold for digital radio?

174. The new multiplex, with its proposed complement of existing and new services will help increase the amount of time people would spend listening to the radio.

   - 41% of respondents identified that they would spend more time listening to the radio as a whole to include some / all of the new services into their repertoire.
   - 19% would listen less often to stations they currently listen to. Amongst existing DAB owners, a larger percentage (25%) would listen less often; this could be explained by them already being able to access a greater number of services and therefore a degree of substitution of time spent listening may be necessary to expand it further.
   - Only 6% would cease listening to some existing services to be able to free up time to listen to new stations.

175. 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 that commercial radio (64% v 33% of those would listen less often), reflecting the BBC's dominance of current listening.
   - Only 20% would listen less often to an ILR station.
   - Radio 2 would be the main station to be affected, followed by Radio 1, Northants 96 and then BBC Radio Northampton.

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

   - 51% would stop listening to a BBC service, compared with 39% to a commercial station
   - 28% who would stop listening to an ILR service.
   - Northants 96 fared badly, being mentioned by 25% of this sub group as the station they would stop listening to. This was higher than those mentioning Radio 1 (18%), Radio 4 (12%) or Radio 2 (11%).

177. If the new stations were available today, listeners would spend just over a third (34%) of their listening time tuned to the new services. Existing DAB owners anticipate spending even more time listening to the new services, on average 41% of their total listening time. Even those people who do not yet own a DAB radio could foresee using around 31% of their radio listening tuned in to their preferred digital services.

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

   - 44% would be at least quite interested in purchasing a set. Expressed as a proportion of the total population, this equates to almost a third, which if they were all to convert to owning a DAB digital radio would raise ownership from 28% to around 60% based on our research findings.
   - A more prudent analysis would be to look at those definitely / extremely interested or those definitely / extremely / very interested were to convert, when ownership levels would increase to 44%.

179. 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.

- 10% expressed some inclination towards buying a digital radio in order to experience first hand some of the services described throughout the course of the survey.
- 43% did not know.
- ***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 the benefits of DAB.***

Overall conclusions from our research

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

181. 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

Provide any evidence which has been gathered of local support for the provision of the proposed local radio multiplex service.

182.   We believe that the best way to demonstrate support for the proposed services is through impartial local consumer research. Our research, which is detailed in answer to Q.14, evaluated demand for each format, both individually and collectively on the basis of the chosen complement of services. Our research studies have also evaluated interest in digital radio and the key drivers for the new technology, over and above pure choice of formats. Overall, our research demonstrates strong interest in the proposed services, with collective appeal between 80% and 81% of the adult population.

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

Research

184.   During the licence period, we will undertake ad-hoc 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

185.   MuxCo Northants has a marketing role to generate awareness of digital radio both as a concept and, alongside the service providers, of the complement of services carried on the multiplex.

Internet

186.   MuxCo Northants 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.

187.   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.

188.   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".

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

190. 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.

191. 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.

192. 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.

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

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

Fair and Effective Competition during the Licence Period

195. 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 fees.

196. 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.

197.   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.

198.   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.

Kbits Allocation	Service Type	UEP	6am to 7pm	7pm to 12pm	12pm to 6am
BBC Radio Northampton	MPEG1L2	UEP3	128	128	128
Northants 96	MPEG1L2	UEP3	128	128	128
Classic Gold 1557	MPEG1L2	UEP3	128	128	128
Connect FM	MPEG1L2	UEP3	128	128	128
JACK fm	MPEG1L2	UEP3	96	96	96
Adult Contemporary	MPEG1L2	UEP3	128	128	128
Easy Radio	MPEG1L2	UEP3	96	96	96
UCB UK	MPEG1L2	UEP3	64	64	64
Traffic Radio	MPEG1L2	UEP3	48	48	48
XFM / Youth	MPEG1L2	UEP3	128	128	128
Folder Data	DATA	EEP3A	72	72	72
EPG	EPG	EEP3A	8	8	8
Total			**1,152**	**1,152**	**1,152**
Allocated as % Total			*100%*	*100%*	*100%*
Data as % Total			*7%*	*7%*	*7%*

CUs Allocation	Service Type	UEP	6am to 7pm	7pm to 12pm	12pm to 6am
BBC Radio Northampton	MPEG1L2	UEP3	96	96	96
Northants 96	MPEG1L2	UEP3	96	96	96
Classic Gold 1557	MPEG1L2	UEP3	96	96	96
Connect FM	MPEG1L2	UEP3	96	96	96
JACK fm	MPEG1L2	UEP3	70	70	70
Adult Contemporary	MPEG1L2	UEP3	96	96	96
Easy Radio	MPEG1L2	UEP3	70	70	70
UCB UK	MPEG1L2	UEP3	48	48	48
Traffic Radio	MPEG1L2	UEP3	35	35	35
XFM / Youth	MPEG1L2	UEP3	96	96	96
Folder Data	DATA	EEP3A	54	54	54
EPG	EPG	EEP3A	6	6	6
Total			**859**	**859**	**859**

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?

199. 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

200. 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.

201. 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.

202. 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 Northants 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.

203. 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.

204. 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 Northants multiplex.

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 Radio Northampton	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Northants 96	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Classic Gold 1557	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Connect FM	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
JACK fm	MPEG1L2	Mono	Full Rate	UEP3	48kHz UEP3 Mono
Adult Contemporary	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Easy Radio	MPEG1L2	Mono	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
XFM / Youth	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo

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.

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