



MuxCo Suffolk Limited

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

Part A – Public Section

June 2015



Executive summary

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

MuxCo Suffolk

1. MuxCo Suffolk Ltd was created to establish local DAB digital radio in Suffolk, with three shareholders who have significant analogue and digital radio experience, through multiplex ownership and broadcasting - **MuxCo Ltd**, **Lincs FM Group Ltd** and **Town & Country Broadcasting Ltd**.
2. The MuxCo management team has considerable experience as a multiplex operator, having established the Now Digital network and currently managing the MuxCo network and multiplexes owned by UTV Media.
3. MuxCo's ethos is that digital radio should be available in a cost and operationally efficient manner to enable as many organisations as possible to broadcast. MuxCo Suffolk will offer a wide range of broadcast options to make DAB economical to service providers. We believe this is the best way to encourage more stations to join the platform and provide a compelling proposition for digital radio listeners.
4. Our proposal is to launch an efficient multiplex that has the proactive involvement of its shareholders, reasonable carriage costs and bitrate management policy that provides an excellent opportunity for a range of organisations to broadcast.
5. Capacity has been allocated to accommodate existing analogue services in stereo from launch - **BBC Radio Suffolk**, **Heart** and **Smooth**. These services collectively account for 19.6% of total radio listening.
6. Capacity also been allocated to provide a range of new digital services that will broaden choice and expand the number of providers in the market. Individually and collectively, they cater for a wide range of tastes and interests. Two services are confirmed - **Suffolk First** and **Anglia**, and additional services will launch during the licence term.

Meeting the Award Criteria

Our proposed coverage and timetable to launch

7. Our proposal is to replicate heritage commercial FM coverage from launch, planned for Q4 2016, using 3 transmitters to deliver 'outdoor coverage' (e.g. to in-car and mobile receivers) to 87% of roads and indoor coverage (e.g. to kitchen radios) to 328,000 adults (55.7%).



Our ability to establish and maintain the service

8. The shareholders behind MuxCo have considerable analogue and digital radio experience. Between them they have investments in nine local multiplexes and broadcast a range of analogue simulcast and digital only services. All are committed to their digital futures and are well-resourced companies that can support the multiplex throughout the licence term.

Catering for local tastes and interests and broadening choice

9. We have undertaken desk research to support our proposals. This has included population profiling and analysis of existing radio listening habits. Taken as a whole, our proposed services will ensure heritage services have a digital future, with new services helping to broaden choice and cater for a wide range of local tastes and interests. We believe that our proposals will provide further incentives for consumers to buy a DAB digital radio and help commercial radio grow in the county.

Demonstrating local demand and support

10. RAJAR provides strong evidence of demand and interest in the simulcast services.

Being fair and effective

11. We have established fair and transparent policies for negotiations with potential programme and additional service providers, and have engaged with potential service providers in an open and non-exclusive manner.

Summary

- MuxCo Suffolk will deliver robust local DAB coverage across the county.
- MuxCo Suffolk will deliver services that appeal to Suffolk and will help commercial radio improve its market share.
- MuxCo Suffolk is well resourced, in terms of both management and finance, and will be led by a management team with an unparalleled track record in applying for and successfully operating local multiplexes.
- MuxCo Suffolk's shareholders have impressive track records in operating both local and digital-only stations. This expertise will be invaluable to the multiplex, as well as assisting the development of new programming streams.
- MuxCo Suffolk will deliver a cost effective local DAB solution, collectively benefiting all service providers and ensuring a long-term commitment to DAB digital radio.



General information

1. Name of Applicant, Address, Telephone No. and 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 Suffolk Ltd

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): 020 7739 7880
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, stating:

Name: Gregory Watson
Telephone (daytime): 020 7739 7880
Address: 96A Curtain Road, London EC2A 3AA
E-mail address: gregory@muxco.com

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 percentage of UK households, UK major roads and/or the UK adult (aged 15+) population which will be served by this local radio multiplex service for both indoor and outdoor coverage.

12. Our transmission proposal has been designed in conjunction with Arqiva to provide optimum population coverage across the licensed area, taking into account urban areas and the main road network. The plan takes into account the footprints of existing local multiplexes and the footprints of the existing analogue services, in particular commercial FM coverage from Great Barton and Foxhall Heath.
13. At launch, we will use 3 transmitters to replicate heritage local commercial FM coverage from launch, planned for Q4 2016, using 3 transmitters to deliver 'outdoor coverage' (e.g. to in-car and mobile receivers) to 87% of roads and indoor coverage (e.g. to kitchen radios) to 328,000 adults (55.7%).

Mendlesham

A medium power transmitter using the existing National DAB antenna providing:

- Robust indoor coverage to most of central Suffolk
- Outdoor mobile coverage to the roads in central Suffolk including the A14, A140 and A143 trunk routes
- Mobile device coverage in a large proportion of key settlements

Puttocks Hill

A medium power transmitter using the existing national antenna providing:

- Robust indoor coverage to Bury St Edmunds and surrounding area
- Outdoor mobile coverage to the roads in the Bury St Edmunds area including the A143 and A14 trunk routes
- Mobile device coverage in a large proportion of key settlements

Warren Heath

A medium power transmitter sharing the recently installed BBC / Digital One antenna providing:

- Robust indoor coverage to Ipswich and surrounding area
- Outdoor mobile coverage to the roads in the Ipswich area, including completing A14 coverage from Felixstowe to the edge of the Suffolk editorial area near Newmarket
- Mobile device coverage in a large proportion of key settlements

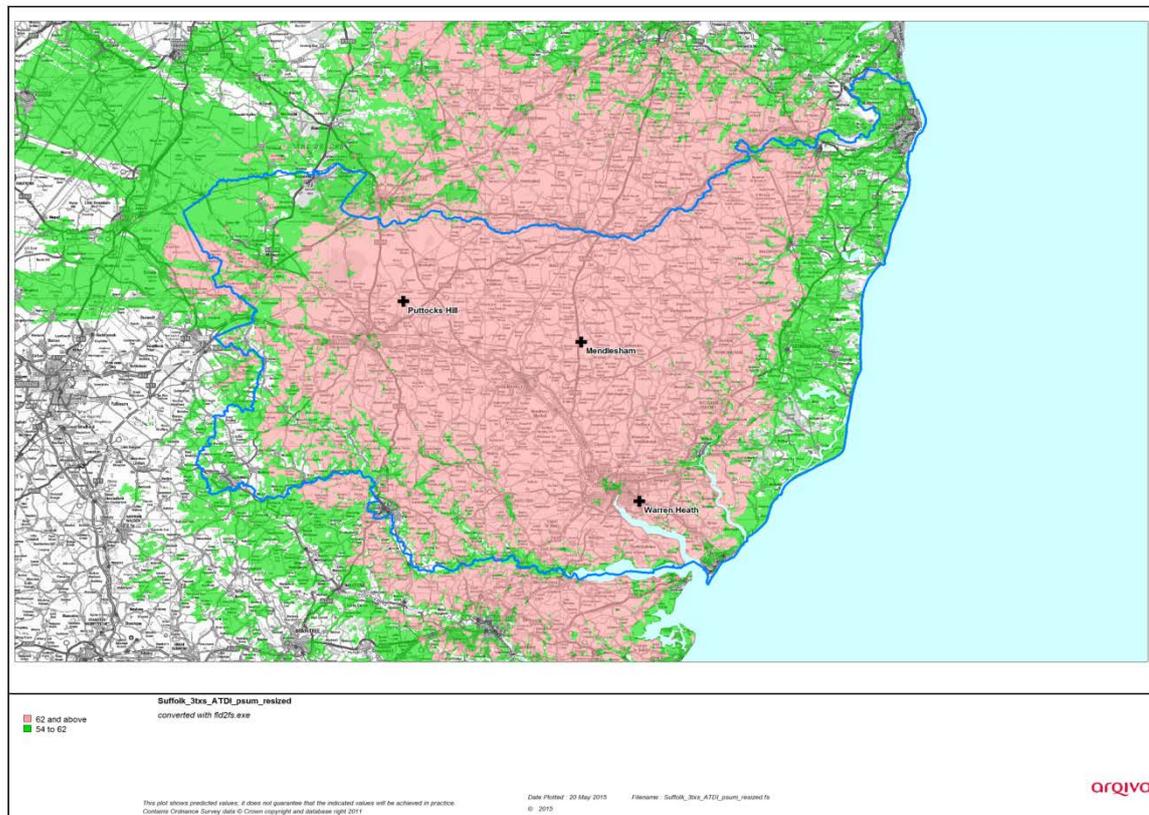
14. In planning the network, Arqiva has assumed the following service levels as defined in the Ofcom advertisement for the Suffolk Licence:

- 54dBuV/m at 10m agl for outdoor mobile road coverage.
- 62dBuV/m at 10m agl for useful indoor coverage in a suburban environment.
- Interference Limited coverage is calculated using the interfering transmitter data and ERPs as per the present Ofcom “Step1” DAB expansion plan and also the reference transmitters in the documentation.

15. Ofcom’s advertisement identifies a potential adult 15+ population of 530,738. Arqiva calculates a potential adult 15+ population of 588,407 (2011 census data) and 702km of roads within the Ofcom / JPRG agreed Suffolk boundary. Our percentage coverages are based on the Arqiva population and on roads using the Ofcom defined ATDI software and parameters.

Launch transmitters	Outdoor Coverage (54 dB)		Indoor Coverage (62 dB)	
	Roads	% Covered	Adults	% Covered
Noise Limited	614.7	87.52%	328,154	55.77%
Interference Limited	589.1	83.89%	311,871	53.00%

16. The following map highlights proposed noise limited coverage – indoor (pink) and outdoor (green) at launch.



Standalone Coverage

17. The following table summarises coverage (Noise Limited) within the Licensed Area 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.

Transmitters	Outdoor Coverage (54 dB)		Indoor Coverage (62 dB)	
	Roads	% Covered	Adults	% Covered
Mendlesham	582.3	82.92%	279,897	47.57%
Puttocks Hill	197.0	28.05%	62,611	10.64%
Warren Heath	182.9	26.05%	132,728	22.56%

Cumulative Coverage

18. The table below shows how the Licensed Area coverage (Interference Limited) is achieved up through the use of a network of transmitters.

Transmitters	Outdoor Coverage (54 dB)		Indoor Coverage (62 dB)	
	Roads	% Covered	Adults	% Covered
Mendlesham	582.3	82.92%	279,897	47.57%
Mendlesham & Warren Heath	593.4	84.49%	314,144	53.39%
Mendlesham, Warren Heath & Puttocks Hill	614.7	87.52%	328,154	55.77%

Network Resilience

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

Loss of:	Outdoor Coverage (54 dB)		Indoor Coverage (62 dB)	
	Roads lost	%	Adults lost	% Covered
Puttocks Hill	21.3	3.03%	14,010	2.38%
Warren Heath	11.1	1.57%	327,247	5.82%
Mendlesham	238.3	33.92%	130,162	22.12%



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 in response to Q.6.

20. Our proposal is to formally launch the multiplex in Q4 2016. Assuming an award in September 2015, we will run test transmissions in September 2016, followed by launch in October 2016.

Antenna Systems and Combiner

21. Arqiva will be the owner of all the required antenna systems. Discussions on the systems have taken place with Arqiva and we are advised that no obstacles are expected to meet the timetable for launch.

Transmitter systems

22. Arqiva propose to use transmitters from a major European supplier, Mier Comunicaciones S.A. with whom Arqiva have a Frame Agreement. Mier have confirmed their ability to provide the necessary transmitter systems and services within the required timescales.

Distribution

23. The distribution between the multiplex centre and the transmitters will be distributed on Arqiva network circuits and SHF link circuits between transmitters. Arqiva confirms that it is able to install the new infrastructure within the timescale of the transmission roll-out.

Accommodation and Power Requirements

24. Arqiva have confirmed that it can provide suitable accommodation and power supply.

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 a table 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. All files must be supplied in text format which is in accordance with the ITU format defined for digital sound broadcasting assignments, details of which can be found at: http://www.itu.int/ITU-R/terrestrial/docs/notice-forms/ge06/BS-GE06_Guide.pdf.
25. The assignment details accompanying this application are provided under separate cover as electronic files.

- 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.

26. The following table details all of the information requested in question 6b

Site Name	NGR	Site Owner	Antenna Height m agl	Antenna Proposed	New or Existing Antenna	ERP kW	Implementation Date
Mendlesham (9314)	TM 12200 64100	Arqiva	220	Share into existing National antenna - 2 Tiers x 4 DAB Panels	Existing Antenna	2.1	Q4 2016
Warren Heath (443)	TM 19600 42500	Arqiva	48	Share into the newly installed BBC/D1 antenna 2 Tiers of a single dipole on a pole	Existing Antenna	1.0	Q4 2016
Puttocks Hill (419)	TL 89600 69600	Arqiva	52	Share into existing National antenna - 4 Tiers of a single dipole on a pole	Existing Antenna	2.0	Q4 2016

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

ii) If existing aerials are to be used, this needs to be stated and an explicit reference made. If not, then applicants should provide a photograph or scale diagram (or set of photographs or diagrams), showing 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.

iii) Provide details of the location of the building in which the transmission equipment is to be housed, and confirmation that space is available for all of the equipment required (or describe what modifications to buildings and infrastructure will be required, if relevant).

iv) 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.

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.

27. The table below details all the data requested in question 6c ii, iii and iv. Arqiva 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 and Arqiva has confirmed it will undertake these.

Site Name	Mendlesham (9314)	Warren Heath (443)	Puttocks Hill (419)
NGR	TM 12200 64100	TM 19600 42500	TL 89600 69600
Existing DAB Site	Existing	Existing	Existing
Site Owner	Arqiva	Arqiva	Arqiva
Site Owner Approval of proposals	Yes via Arqiva Transco Reference Offer	Yes via Arqiva Transco Reference Offer	Yes via Arqiva Transco Reference Offer
Antenna Height (agl)	220	48	52
Antenna Proposed	Share into existing National antenna – 2 Tiers x 4 DAB Panels	Share into the newly installed BBC/D1 antenna – 2 Tiers of a single dipole on a pole	Share into existing National antenna – 4 tiers of a single dipole on a pole
New or Existing Antenna	Existing Antenna	Existing Antenna	Existing Antenna
ERP (kW)	2.1	1.0	2.0
Drive Arrangement	Dual	Dual	Dual
ACI Issue	NO Co-sited with other services	NO Co-sited with other services	NO Co-sited with other services
Tx Location Notes	New transmitter to be located within the existing accommodation near to the existing DAB Transmitters. Using existing power and ventilation infrastructure, modified as required	New transmitter to be located within the existing accommodation near to the existing DAB Transmitters. Using existing power and ventilation infrastructure, modified as required	New transmitter to be located within the existing accommodation near to the existing DAB Transmitters. Using existing power and ventilation infrastructure, modified as required
Transmitter Size required	900W Dual Drive	600W Dual Drive	600W Single Drive

d) Provide the following details regarding transmission arrangements:

- i) Any transmission contracts that have been agreed
- ii) The status of these agreements

28. MuxCo Suffolk has an initial offer from Arqiva. Formally contract negotiations will be concluded after award. Both MuxCo and Arqiva have experience in concluding contracts and we do not foresee any issues.

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.
29. Figure 7.1 and Figure 7.2 show the proposed MuxCo Suffolk contribution network and multiplex ETI distribution diagram. The specific details of each of the individual content provider's contribution circuits are documented in Table 7.1. The details of the distribution elements of the network are included in Table 7.2.

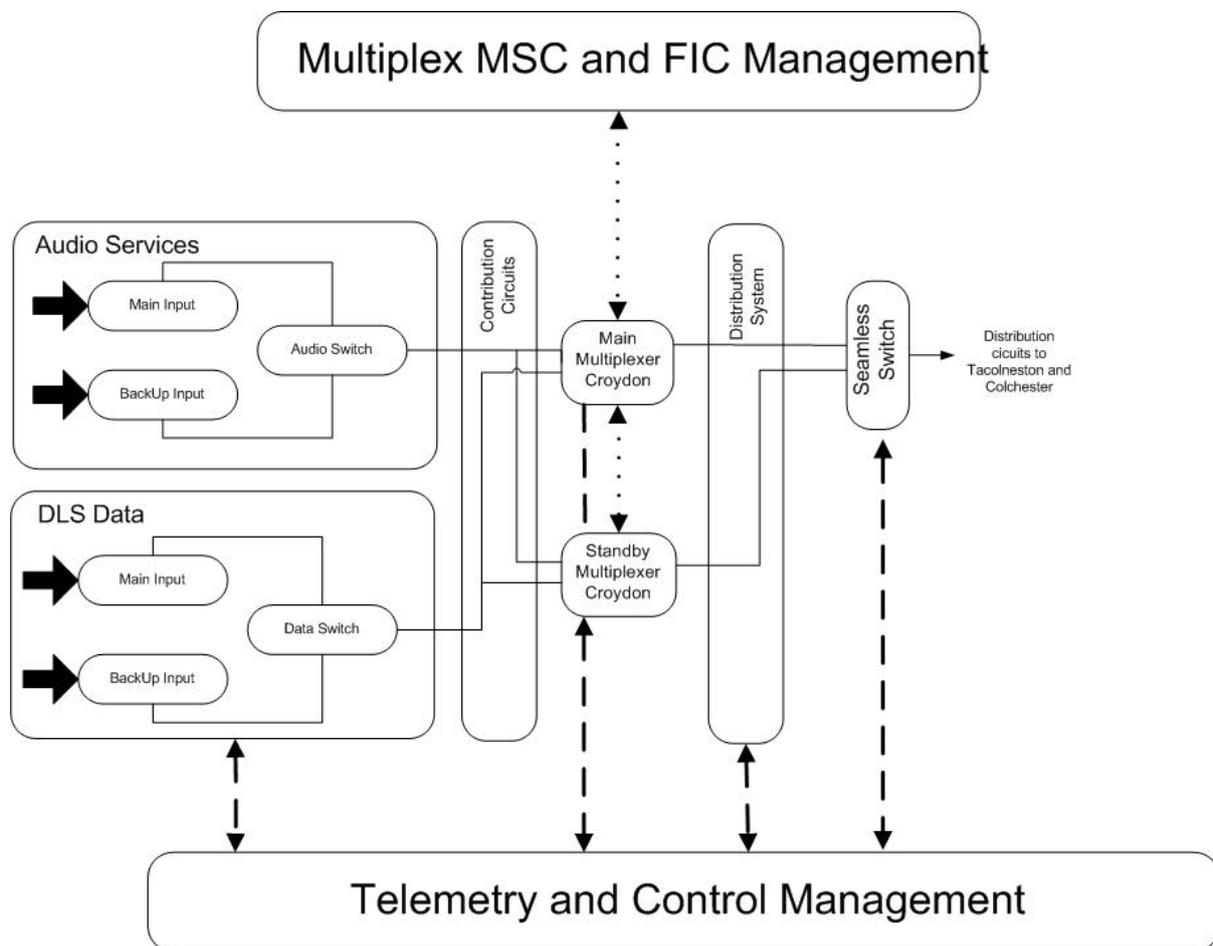


Figure 7.1: Multiplexing and Control

Suffolk

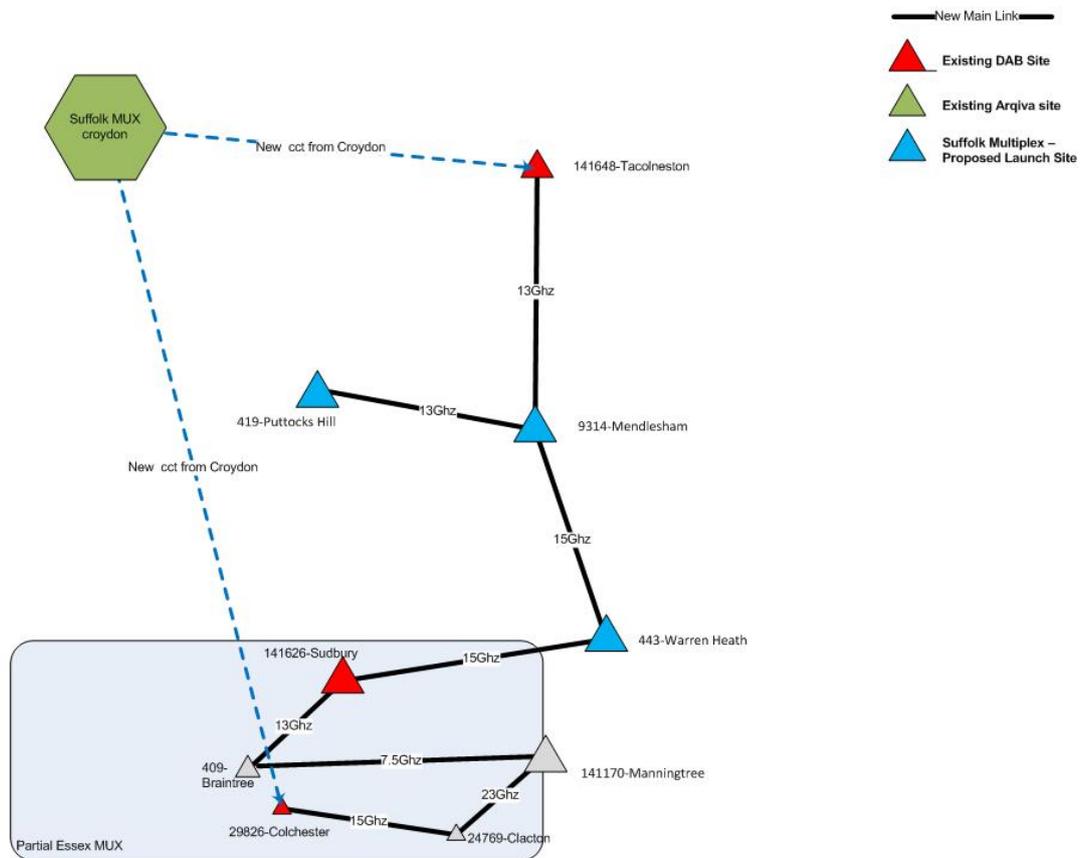


Figure 7.2: Transmission distribution

30. Arqiva’s Emley Moor network operations centre (NOC) will manage the day to day operation of the transmission system. All aspects of the multiplexer’s configuration, including the main service channel (MSC) and the fast information channel (FIC), will be remotely telemetered and controlled through purpose designed systems. The telemetry system will also provide feedback to the NOC for all elements in the contribution and distribution chains.

31. The timing accuracy of the single frequency network will be continuously monitored by Arqiva’s proprietary GPS referenced transmitter timing monitoring hardware and software.

32. The following table summarises proposed service provider contribution details.

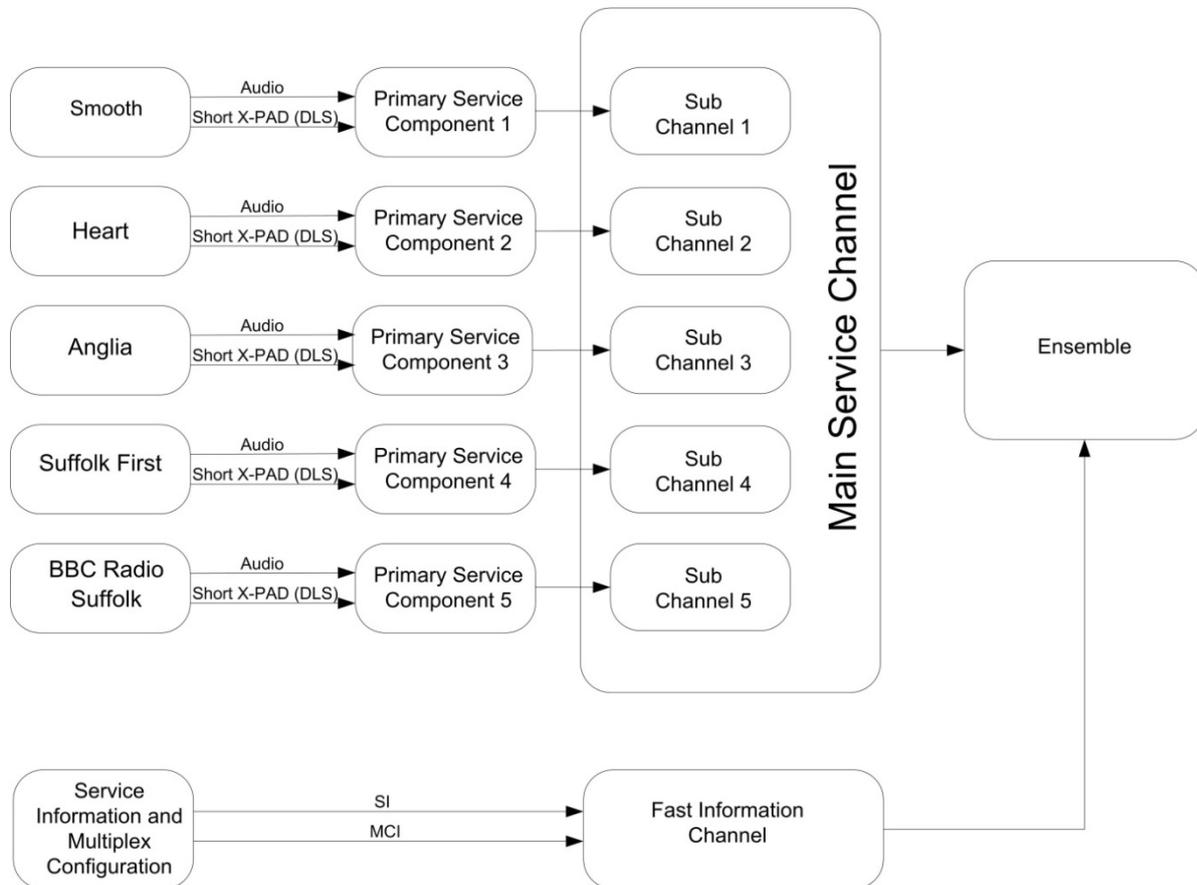
Service	Service Address	Service Type	Main Contribution Circuit	Back Up Contribution Circuit	Provider
Smooth	30 Leicester Square London WC2H 7LA	DSPS	BT Wholesale Ethernet to Arqiva Croydon then Arqiva managed connectivity to multiplexers	BT Wholesale Ethernet to Arqiva Aztec West Bristol then Arqiva managed connectivity to multiplexers	BT and Arqiva
Heart	47-49 St Georges Plain Colegate Norwich NR3 1DB	DSPS	BT Wholesale Ethernet to Arqiva Croydon then Arqiva managed connectivity to multiplexers	BT Wholesale Ethernet to Arqiva Aztec West Bristol then Arqiva managed connectivity to multiplexers	BT and Arqiva
Anglia	St. Hiliary Transmitter Cowbridge CF71 7DP	DSPS	BT Wholesale Ethernet to Arqiva Croydon then Arqiva managed connectivity to multiplexers	BT Wholesale Ethernet to Arqiva Aztec West Bristol then Arqiva managed connectivity to multiplexers	BT and Arqiva
Suffolk First	Witham Park Waterside South Lincoln LN5 7JN	DSPS	BT Wholesale Ethernet to Arqiva Croydon then Arqiva managed connectivity to multiplexers	BT Wholesale Ethernet to Arqiva Aztec West Bristol then Arqiva managed connectivity to multiplexers	BT and Arqiva
BBC Radio Suffolk	Broadcasting House Ipswich IP1 3EP	DSPS	BT Wholesale Ethernet to Arqiva Croydon then Arqiva managed connectivity to multiplexers	BT Wholesale Ethernet to Arqiva Aztec West Bristol then Arqiva managed connectivity to multiplexers	BT and Arqiva

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 EN 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 EN 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 (see paragraphs 3.54-3.55; the figure excludes Synchronisation, MCI and SI). See also Q.19, about audio services.

33. The following table summarises data services.

Service	Transport Mechanism	Stream or Packet Mode	Average net data rate	Protection	Service Type	Encryption	Use
Smooth	Short X-PAD	Stream	1.333kbits/s	UEP3	Ancillary	No	DLS
Heart	Short X-PAD	Stream	1.333kbits/s	UEP3	Ancillary	No	DLS
Anglia	Short X-PAD	Stream	1.333kbits/s	UEP3	Ancillary	No	DLS
Suffolk First	Short X-PAD	Stream	1.333kbits/s	UEP3	Ancillary	No	DLS
BBC Radio Suffolk	Short X-PAD	Stream	1.333kbits/s	UEP3	Ancillary	No	DLS

- c) With reference to the response to Q.19, 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 EN 300 401 specification.

34. There are no current plans to operate announcement service switching.

- e) Describe how it is anticipated that the features of the EN 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 may be submitted in confidence.

35. The multiplex system will be engineered to ensure that all requirements of ETSI EN 300 401 can be implemented, including the use of Linkage Set Numbers. To promote reliability of reception, we propose to implement service linking to existing FM services in our line-up, and will request each service provider to arrange to carry DAB transmission link information for their services within their FM RDS transmissions. Links will be 'soft' or 'hard' depending on editorial content. All such links would be operated in accordance with the Ofcom Technical Code.

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).

36. It is proposed that all services will begin broadcasting from the start of the licence period.

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

9. Ownership and control of company which will hold 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 nonexecutive), including the proposed chairperson.

37. 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.

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



Gregory Watson

Occupation:

Managing Director, MuxCo Ltd

Other directorships:

Reception Media Ltd, Folder Media Ltd, MuxCo Ltd, MuxCo North Yorkshire Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo South Midlands Ltd, Triple MuxCo Somerset Ltd, MuxCo Surrey & North Sussex Ltd, MuxCo Lincolnshire Ltd, Children's Radio UK Ltd, Children's Radio UK (London) Ltd, Upload Radio Ltd, Inspiring Audio Ltd, Hallett Arendt Marketing and Research Ltd

Other Media Interests:

None

39. A Chartered Accountant, Gregory has worked within corporate functions in commercial radio since 1991, initially at the Radio Authority and then at GWR Group / GCap Media with responsibility over new analogue and digital opportunities. In this capacity, Gregory was involved in the Digital One application for the national digital radio multiplex as well as the development of GWR's local multiplex network, NOWdigital.

In 2007, recognising that a significant proportion of the radio industry was being left behind by digital advancements, Gregory created Folder Media and MuxCo with Matt Deegan to develop digital media opportunities.

Gregory has always been passionate about commercial radio broadening its horizons and developing new commercial opportunities. In 2005, he orchestrated the establishment of Children's Radio UK Ltd, which today broadcast as Fun Kids, the UK's only radio station dedicated for children and their parents, and Folder Media are currently developing a new service, Upload Radio.

Through his GWR Group experiences, Gregory has significant knowledge of the East of England radio marketplace, having established the local multiplexes for Norwich and Southend & Chelmsford. The Suffolk multiplex provides an opportunity to complete the local DAB map in this important region.



Michael Betton

Occupation:

Chief Executive, Lincs FM Group

Other directorships:

Lincs FM Group Limited, Compass FM Limited, Compass Radio Limited, Dearne FM Limited, Jet FM Limited, Jupiter Radio Limited, Lincs FM 102.2 Limited, Planet Broadcasting Company Limited, RadioCentre Limited, Ridings FM Limited, Rother FM Limited, Rutland Radio Limited, Suffolk First Limited, Trax FM Limited, White Rose Radio Limited, MuxCo Lincolnshire Ltd

Other Media Interests:

None

40. Michael is one of the longest serving and most respected Chief Executives in commercial radio. He started his radio career with Radio Orwell in Ipswich, moving to be the launch programme controller of Ocean Sound (Southampton & Portsmouth) in 1986, before becoming its managing director in 1990.

He founded Lincs FM in 1991 to apply for the newly advertised Lincolnshire licence and launched the station in 1992. Since then Lincs FM has gone on to great success, both in audience and commercial terms, while remaining true to its original programming proposals. The Group now has eight radio stations, all sharing a strong commitment to providing high quality, truly local radio. Many of the Group's stations have won or been nominated for major industry awards.

Michael has been a board member of the RadioCentre (and before that the CRCA and AIRC) since 1992. He has never shied away from voicing the concerns of smaller groups and stations.

Michael has lifelong connections with Suffolk. He attended Ipswich School and has been a steadfast supporter of Ipswich Town.



Jason Bryant

Occupation:

Executive Chairman, Town and Country Broadcasting

Other directorships:

Nation Radio Ltd, Haven FM (Pembrokeshire) Ltd, Radio Carmarthenshire Ltd, Town and Country Broadcasting Ltd, Radio Ceredigion Ltd, Bridge FM Radio Ltd, Swansea Bay Radio Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo Wales Ltd, MuxCo North Wales Ltd, Digital Broadcast Technologies Ltd, Town and Country Resources Ltd, Nation Digital Media Ltd, Sports Digital Radio Ltd.

Other Media Interests:

None

41. Jason has been committed to DAB digital radio since launching talkSPORT on the first national multiplex in 1999.

In 2001 he established Town and Country Broadcasting, a media business that has developed a reputation for being innovative and commercially successful. Town and Country Broadcasting operates six local radio licences, two local DAB multiplex licences in Mid & West Wales and North Wales, with a further shareholding in the North East Wales & West Cheshire multiplex.

More recently, Town and Country Broadcasting has taken a lead investment in Digital Broadcast Technologies Ltd, the parent company of Radioscape and Factum Electronics. The companies are leaders and pioneers in digital radio broadcast platforms and the multiplexing of digital audio and data signals for broadcast.

Jason's background in journalism and content management give him useful insight into the kind of services demanded by listeners and advertisers and he is looking forward to returning to East Anglia, a region he knows well and where he successfully led the Norwich local radio licence application in 2005.



(b) Proposed Investors and Shareholding Structure

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

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

Shareholder	Shares	% Shareholding	% Loan stock
MuxCo Ltd 96a Curtain Road London EC2A 3AA	6,000	33.33%	33.33%
Lincs FM Ltd Witham Park Waterside South Lincoln LN5 7JN	6,000	33.33%	33.33%
Town & Country Broadcasting Ltd <i>(through Nation Digital Media Ltd)</i> St Hilary Transmitter Nr St Hilary Cowbridge CF71 7DP	6,000	33.33%	33.33%

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

42. 900 £1 ordinary shares issued at par.

- iii) 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.

43. See above.

- iv) Outline any shareholders agreements or arrangements which exist.

44. A standard shareholders agreement will be entered into after the award of the licence. The shareholders have agreed terms which cover key issues of governance relating to the company including shareholdings, board composition, funding, pre-emption and confidentiality.

- v) 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.

45. Not applicable.



vi) Where the applicant is an existing company or subsidiary of an existing company, the applicant should provide the last three years' statutory accounts and management accounts for the last financial year for the applicant and/or the parent company.

46. MuxCo Suffolk is a new company that has not traded.

vii) 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.

47. 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;

Lincs FM Group Ltd

- Lincs FM
- Compass FM
- Dearne FM
- KCFM
- Ridings FM
- Rother FM
- Rutland Radio
- Trax FM (Bassetlaw)
- Trax FM (Doncaster)
- MuxCo Lincolnshire Ltd (51%)

Town and Country Broadcasting Ltd

- Swansea Bay Radio Ltd (100%)
- Radio Carmarthenshire Ltd (100%)
- Nation Radio Ltd (100%)
- MuxCo Northeast Wales and West Cheshire Ltd (25%)
- MuxCo North Wales Ltd (100%)
- Haven FM (Pembrokeshire) Ltd (100%)
- Bridge FM Radio Ltd (100%)
- Radio Ceredigion Ltd (100%)
- MuxCo Wales Ltd (100%)

MuxCo Ltd

- MuxCo Northeast Wales and West Cheshire Ltd (25%)
- MuxCo Surrey & North Sussex Ltd (50%)
- Triple Muxco Somerset Ltd (33.3%)
- MuxCo South Midlands Ltd (25%)
- MuxCo North Yorkshire Ltd (50%)
- MuxCo Lincolnshire Ltd (49%)



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

* Applicants should note that this information is required for the purposes of checking compliance with the ownership rules, and is not relevant to an applicant's ability to establish and maintain its proposed service. If none of the categories above apply to the application this should be clearly stated.



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

Our Strategy

48. The strategy for MuxCo Suffolk is:

- To establish an efficient business that maximises opportunities to broadcast on DAB for both existing analogue services to simulcast and new services to broaden choice and provide new commercial opportunities
- To re-emphasise local radio as an important part of radio's digital future
- To be part of the MuxCo network of local multiplexes, sharing best practice and future opportunities
- To provide a return on investment to shareholders

The Shareholders and their Digital Strategies

49. **MuxCo** was established to provide digital radio solutions to local radio companies and other parties interested in developing on DAB. The MuxCo management team has extensive experience as a multiplex operator at local, regional and national level. It established and operated the NOWdigital network for GCap Media and local multiplexes owned by consortia in which GCap Media was a partner. MuxCo's strategy is to build a network of local multiplexes, working with local partners in each area, to ensure opportunities exist for analogue operators to broadcast on DAB. Working with local partners helps encourage and make them more confident to take a more active role in digital radio, as part of the multiplex as well as being a service provider. Under this model, partners receive financial benefits of ownership which helps reduce their net cost of investment in DAB.
50. **Lincs FM Group** owns and operates eight analogue radio stations across Lincolnshire, Nottinghamshire, Yorkshire and Rutland, with four services currently available or soon to be available on DAB. Whilst the Group has been involved in DAB for over thirteen years as a service provider, the Suffolk multiplex provides a further opportunity for involvement as an owner in addition to the Lincolnshire multiplex. As such it provides the correct environment for the Group to expand and bring its expertise in launching and developing new local services to another area. Lincs FM Group recognise that low cost digital transmission is a crucial factor in the



success of new services - believing that the times is right and DAB take up sufficient for a locally targeted DAB only service to be successful.

51. **Town and Country Broadcasting** ('T&C') was established to build a local network of radio stations. It has an excellent track record establishing and maintaining local radio licences and over the last three years has brought this creative and commercial success to digital radio. . It has a strong commitment to local radio and whilst recognising the current difficulties that many local radio services face, has the confidence in the continuing value of localness. T&C's objective is to apply alongside MuxCo and partners for the new local multiplexes, and to develop a new local service that is distinctive and viable. T&C is a shareholder in three MuxCo multiplexes. Through its participation in DAB ownership and its strong existing production resources, T&C is able to be more confident about the investment in digital service provision.

The Business Plan and its Objectives

52. The key objectives underlying the MuxCo Suffolk business plan are:
- To operate a multiplex that offers a wide choice of programme services which address local tastes and interests, broaden choice and increase plurality.
 - To promote and maximise take-up of digital radio receivers by working with our service providers and industry bodies such as Digital Radio UK.
 - To operate in a manner ensuring fair and effective competition.
 - To operate a sound financial business, with confirmed service providers helping to demonstrate viability.
53. The shareholders are satisfied that MuxCo Suffolk is well resourced technically as well as financially to support the needs of the service providers.
54. The Board has the following responsibilities:
- 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
 - Regulatory compliance
55. Folder Media will provide multiplex management services. Folder Media has unparalleled experience in the day-to-day management of successful local multiplexes. Its management team currently manages the UTV multiplex network and MuxCo network. It will ensure that changes and any requirements from the service providers can be enacted in a timely and cost-effective manner, and will ensure that the multiplex is responsive to the changing radio marketplace.

(i) The network construction phase

56. There are three stages to the network construction phase – planning, building and testing.
57. **Planning** – the design of our transmission plan has taken into account the requirements of service providers, including the BBC and commercial services, to ensure that key population centres and major roads are well covered. A number of iterations have been produced before settling on a commercially prudent plan that maximises coverage and meets our planning criteria. Arqiva has provided strategic support during this stage and will liaise with Ofcom for transmission matters on behalf of MuxCo Suffolk.
58. **Building & testing** – Following award, we will work with Arqiva 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 transmission service provider, Arqiva has existing resource and the infrastructure to build the proposed transmission network.

(ii) The operational start-up phase

59. The operational start-up phase includes contracting with service providers, monitoring the installation of multiplex equipment at service providers' studios and ensuring that necessary testing is undertaken prior to launch; liaising with Ofcom over the build process; ensuring regulatory issues are followed, including the issuing of DSP licences; and liaising with Digital Radio UK 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

60. As multiplex manager, Folder Media will be responsible to the MuxCo Suffolk 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 provision, 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.



61. Arqiva has considerable resource and infrastructure to support the multiplex. Its 24 hour operations centre will control multiplex re-configurations. Multiplex reconfiguration will be undertaken in line with our policies and contractual agreements with service providers.
62. Folder Media will provide ongoing management cover for the multiplex, including purchase and sales ledgers, IT, secretarial, legal, research, marketing coordination and technical support.
63. Through the MuxCo website, we will promote digital radio generically and the services specifically. The main aim of the site, as well as providing a conduit of information between MuxCo Suffolk and service providers, will be to help educate and inform listeners, advertisers and equipment retailers.

(iv) Marketing

64. There is still a significant DAB marketing campaign that needs to be undertaken on both a national and local level. We recognise that as a sole body, our voice will be too small and inefficient. We will work with Digital Radio UK and will support industry-wide promotion of digital radio.
65. We will work closely with our service providers to help co-ordinate locally focused marketing of digital radio generically, as well as of the services on the multiplex, with advice provided where relevant by Folder Media.
66. Service providers are likely to undertake their own brand marketing highlighting their appearance on DAB. We will work with service providers, particularly local analogue operators, to use their airtime to promote DAB digital radio.
67. We believe that for listeners, the identity of the multiplex owner is of little or no importance (and is potentially confusing). We will work with the Digital Radio UK to use a national through-the-line identity and graphic style that makes both digital radio and station brands the 'heroes'.



(b) Funding

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

Source of finance	£
Share capital	18,000
Loan stock	0
Leasing/HP facilities (capital value)	0
Bank overdraft	0
Grants and donations	0
Other	0
Total	18,000

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

68. Letters of investment are provided in Part B.

For incorporated investing shareholders, applicants should provide a copy of the most recent statutory accounts.

69. The accounts for the shareholders will be provided to Ofcom under separate cover.

Where relevant, provide information on:

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

70. Not applicable.

All of the funding identified above should be confirmed to the applicant. If any funding has not been confirmed, or if there are any pre-conditions that have not yet been met that need to be met before the funding is released to the applicant, provide an explanation of what needs to be done, the dates by which it needs to be carried out, and any steps the applicant needs to take to ensure the funding is confirmed and/or released.

71. Letters of investment are provided in Part B.

(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 that are logically applied and justifiable.

A letter should be provided from a firm of authorised UK accountants, addressed to the board of directors of the applicant, confirming that, in their opinion:

- 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. 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 spread-sheet or similar and guidance notes should be provided. The applicant must also complete and submit the spreadsheet entitled “Financial Template for DAB Local Radio Multiplex Licence Applications” at:

<http://licensing.ofcom.org.uk/radio-broadcast-licensing/digital-radio/awards0708/> using information from its business model. Guidance notes for completion of the Template can be found in Annex 2 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, digital additional 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. Where the applicant expects to receive fees based on audience or revenue shares of the services carried on the multiplex, forecasts of the audiences and revenues of those services should be provided.

72. Our response is submitted in confidence.

(d) Risks

The financial information submitted by applicants should demonstrate that the business plan has sufficient resilience for the service to be maintained despite adverse movements in revenues and costs arising from more difficult trading conditions than expected. The business plan must therefore:

- i) Incorporate a set of sensitivity tests, and;
- ii) Provide details of the main operational and financial risks to the business plan and explain how the applicant proposes to address these risks.

73. Our response is submitted in confidence.

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

11. Proposed local digital sound programme services

a) Provide, for each local digital sound programme service for which capacity is to be allocated, a description of the service. This description should encapsulate the nature and characteristics of the proposed service (e.g. type(s) of music and speech to be provided, target audience, etc.). The number of hours each day that the service will be broadcast must also be included. These service 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.

74. The multiplex will carry the following services:

- Heart Analogue simulcast
- Smooth Analogue simulcast
- Suffolk First New, digital only
- Anglia New, digital only
- BBC Radio Suffolk Analogue simulcast (reserved capacity)

Heart FM

Format	Contemporary Hit Radio
Licence Description	A simulcast of Heart FM (licence AL071); a contemporary and chart music station for under 44s in Suffolk.
Hours of Broadcast	24 hours

Smooth Radio

Format	Easy Listening
Licence Description	A simulcast of Smooth (licence AL070); an easy listening station featuring easy listening music including music influenced by jazz and soul and lifestyle oriented speech, targeting an audience aged 50-plus.
Hours of Broadcast	24 hours

Anglia

Format	Rock / Pop
Licence Description	A rock oriented music station with a mix of current and classic hits
Hours of Broadcast	24 hours

Suffolk First

Format	Contemporary / Country
Licence Description	Suffolk First will provide a locally focussed service of news, sport, entertainment, weather and traffic and travel information – within a hits and memories music service with a country music bias.
Hours of Broadcast	24 hours

- b) Outline the expected target audience of each local 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?

Heart FM

Target Audience & Demographic Profile	<ul style="list-style-type: none"> • 123,000 adults listen each week • Principal listening amongst those aged under 44 • Strong female profile (55.1%, against a TSA profile of 51.0%) • Slightly more C2DE compared to TSA (48.7% v. 46.6%)
Local Tastes & Interests	<p>Suffolk's heritage local commercial service. Many tune in for its local news, travel and information features, as well as its broad music mix. Its strength as a local service is evident through RAJAR.</p> <p>Local news bulletins, containing a mix of local, national and world stories, along with appropriate local and national sport, weather and entertainment news, are broadcast between 0600 and 1900 weekdays, and 0600 and 1200 at weekends. In addition to these, news containing nationally produced content is broadcast hourly at all other times with the exception of during the Big Top 40 Show.</p>
Summary	<p>Appeals to those with an interest in contemporary hit radio. Given its current strong market position and a predisposition of its listeners to utilise the ancillary advantages of DAB, Heart will play an important role in the promotion of digital radio.</p>

Smooth Radio

Target Audience & Demographic Profile	<ul style="list-style-type: none"> • 26,000 adults listen each week • Principal listening amongst those aged 45 to 64 • Strong male profile (56.9%, against a TSA profile of 49.0%) • ABC1 profile
Local Tastes & Interests	<p>Smooth Radio is a 'relaxing music mix', playing the best songs from the past five decades. It's a station with an upbeat character, generous spirit and a warm personality.</p> <p>News bulletins along with appropriate sport, weather and entertainment news are broadcast between 0600 and 1900 weekdays, and 0600 and 1200 at weekends. National bulletins are broadcast at other times of the day. Smooth Radio provides local travel bulletins at morning and evening peak times and during weekends when the need arises.</p>
Summary	<p>A popular service providing a unique mix of music. As an AM service, Smooth will benefit from the transition to DAB and its better audio quality.</p>

Anglia

Target Audience & Demographic Profile	We anticipate that Anglia will have the following audience profile: <ul style="list-style-type: none"> Principal listening amongst those aged 15 to 54 Slight male bias Slight ABC1 profile (51%)
Local Tastes & Interests	Anglia is a music based service and at least initially will provide no local news or other services.
Summary	A new service that will broaden audience appeal and attract an audience from the BBC. It will also encourage trial of DAB.

Suffolk First

Target Audience & Demographic Profile	We anticipate that Suffolk First will have the following audience profile: <ul style="list-style-type: none"> Principal listening amongst those aged 35 to 64 Slight female bias Strong C2DE profile (65%)
Local Tastes & Interests	Suffolk First will provide locally focussed news, sport, entertainment, weather and traffic and travel information. At least initially, local news and information will be provided on weekday mornings only
Summary	A new service that will broaden audience appeal and attract an audience from the BBC. It will also encourage trial of DAB.

- c) If agreement has been reached (either firmly or provisionally; state which) with particular providers of some or all of the local 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. Details of any arrangements with particular providers which the applicant considers to be commercially sensitive may be submitted in confidence.

Service	Service Provider	Confirmed	DSPS Held
Heart	Global Radio	Provisionally	Yes
Smooth Radio	Global Radio	Provisionally	Yes
Anglia	Town & Country	Firm	Yes
Suffolk First	Lincs FM Group	Firm	Yes

- d) Give details of any programme-related 'data' or other services to be provided to enhance the audio elements of the local digital sound programme services proposed to be provided. List separately those provided by the relevant local digital sound programme licensees themselves (as 'ancillary' services) and those, if any, provided by other parties under a digital additional services licence. e) If it is intended to use an encryption system, state that this is so, and make clear to which local digital sound programme services it will apply, and how listeners will subscribe to the service.
75. The multiplex will support Dynamic Label Services ('DLS') and MOT carousel using simple, industry standard interfaces allowing service providers to use the "off-theshelf" and well-supported software packages for generating content. From launch, all service providers will have access to Scrolling text functionality. As data technologies and standards mature, we will work with service providers to launch other data services (such as EPG and Broadcast SlideShow etc).
76. Scrolling text functionality (Dynamic Labelling – 'DLS') provides an immediate point of difference between a digital radio and a traditional FM receiver. Consumers value the information provided unexpectedly highly and the industry has recently begun to develop DLS into a commercial opportunity, with advertisers recognising the value of DLS as an additional communications tool. DLS is transmitted in the XPAD.

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.

** 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.*

77. None are currently proposed.

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 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 which will be delivered by the range of local digital sound programme services to be provided on that local radio multiplex alone.

78. The Suffolk licence area is overlapped to the north by Now Digital's Norwich and Great Yarmouth multiplex (with 12% indoor coverage overlap) and to the south by Now Digital's Southend and Chelmsford multiplex (7%). There is marginal overlap to the west by Now Digital's Cambridge multiplex.

79. The following table summarises how each service helps broaden choice.

Heart	A contemporary and chart hit music and information station for 15 to 44 year olds across the county. Music is predominantly contemporary and chart hits, with new releases and hits up to one year old. Heart is a music led station, providing information of local relevance throughout its programming. By the nature of its format, some of the new services will overlap in relation to music played. None, however, will cover the range of music played by Heart. Heart's heritage position and editorial focus will ensure differentiation.
Smooth Radio	An easy listening station featuring easy listening music including music influenced by jazz and soul and lifestyle oriented speech, targeting an audience aged 50-plus. Smooth is a music based service; its presenter style and speech focus gives it a unique feel in the market.
Anglia	As a rock oriented music station, with a mix of current and classic hits, Anglia will be unique in the market place, and significantly increase choice.
Suffolk First	Suffolk First will help broaden choice as much through plurality as through its new mix of music and speech. In particular, its mix of hits and memorable music, with a country music bias, will provide a significant differentiator to existing services.

80. As a whole, our proposed complement of services caters for:

- People interested in hearing local news and information, with at least 3 services providing such content.
- A wide age range.
- A significant proportion of the population, as well as for a broad range of listeners' tastes and interests.

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

14. Audience requirements

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

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

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

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 review population growth and change. To track digital penetration.	Analysis of Census data. Review of DRUK and relevant RAJAR data on digital audiences.	Not relevant	April to May 2015
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 to May 2015

The Suffolk market

81. The Suffolk multiplex covers most of the county of Suffolk – an area of 588,000 adults.
82. We have analysed current radio listening within the BBC Radio Suffolk TSA, which has an adult population of 541,200. The following table analyses the adult population within the TSA (Q1 2015 data), highlighting the relative demographic splits of the population, and comparing that with the socio-demographic breakdown of actual radio listeners within the market.

	Population	Listeners
15 to 24	13.0%	13.1%
25 to 34	13.7%	13.4%
35 to 44	14.3%	14.7%
45 to 54	17.1%	17.5%
55 to 64	15.2%	15.2%
65 plus	26.8%	26.0%
ABC1	52.3%	53.4%
C2DE	47.7%	46.6%
Male	48.9%	49.0%
Female	51.1%	51.0%

- Generally, radio listening follows the market demographics.
- Only significant variations being a higher than average ABC1 profile listen to the radio

Radio choice

83. Three local commercial and one local BBC services currently serve the area – Heart, Smooth Radio and Town 102, as well as BBC Radio Suffolk. The commercial services are listened to by 197,500 (36.5%) of adults each week, and account for 13.5% of all radio listening.
84. With regard to national radio, the national services of the BBC and commercial services carried by Digital One are audible within the county, as well as some overspill

Current radio listening habits

85. RAJAR data has been analysed within the combined BBC Radio Suffolk TSA. The following table details total audience and hours over this period.

	2011	2012	2013	2014	2015
Population '000s	533.6	534.8	538.6	540.6	541.2
Reach %	91.1%	92.9%	94.9%	92.4%	92.4%
Reach '000s	486.1	496.9	511.3	499.4	500.3
Total Hours '000s	11,530.8	12,242.3	12,114.3	11,366.6	10,975.3
Ave. Hours	23.7	24.6	23.7	22.8	21.9

- Radio listening remains strong, with consistent weekly reach over the past five years, and ahead of the 2015 UK average 2015 – 89%
 - Average hours are in line with the UK average (2015 – 21.3)
86. We have reviewed radio listening in Suffolk against data for the UK as a whole to gauge how listening in the county compares. The following table summarises RAJAR performance in Q1 2015 within Suffolk and compares this with the UK as a whole.

Market Share	Suffolk	UK	Index
All BBC	62.11%	54.43%	114
BBC Network	51.16%	46.86%	109
BBC Local	10.95%	7.57%	145
All Commercial	36.55%	42.80%	85
INR	11.98%	14.21%	84
ILR	24.57%	28.54%	86

- Overall the BBC is the dominant service provider in this market, performing 14 points higher than its UK average, a result of strong performance of BBC Radio Suffolk, as well as its network services.
 - It would appear that there are significant opportunities for commercial radio – both local and national - to improve reach and hours, which we hope to help deliver through better sound quality especially for AM services and enhancing listener choice.
87. The following table analysis radio listening habits across the standard age breaks.

	15-24	25-34	35-44	45-54	55-64	65+
Within population	13.0%	13.7%	14.3%	17.1%	15.2%	26.8%
Within reach	13.1%	13.4%	14.7%	17.5%	15.2%	26.0%
Share of hours	5.5%	11.5%	16.4%	22.1%	17.0%	27.4%

Whilst in the main listening to the radio amongst each age group is comparable to their respective breakdown within the TSA (i.e. 13.0% of adults within the TSA are aged 15-24, and 15-24s account for 13.1% of all radio reach), we have identified:

- Radio listening amongst younger audiences is weak, especially amongst 15-24s who account for only 5.5% of all radio listening
- The most dominant age group listening to radio in Suffolk are 35 to 44s

88. The following table summarises the historical performance of each local service, comparing Q1 2015 with Q1 2012.

	2012	2015
Heart		
Weekly Reach %	23.5%	22.7%
Total Hours '000	948.5	829.3
Market Share	7.7%	7.6%
Smooth		
Weekly Reach %	4.7%	4.8%
Total Hours '000	299.0	214.9
Market Share	2.4%	2.0%
Town 102		
Weekly Reach %	10.7	9.0%
Total Hours '000	561.2	424.4
Market Share	4.6%	3.9%
BBC Suffolk		
Weekly Reach %	26.6	23.8%
Total Hours '000	1,551.4	1,109.2
Market Share	12.7%	10.1%

Uptake of DAB digital radio

89. RAJAR Q1 2015 indicates that DAB currently accounts for 21% of all radio listening within the Suffolk TSA, slightly lower than the 25.2% UK average, which we believe reflects the lack of a local DAB layer. Listening via DTV is also slightly lower (4.6% Suffolk against 5% UK average), whilst listening via the Internet is higher (6.8% Suffolk against 6% UK average).



15. Local support

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

90. We have not sought any local support for our proposal. We believe that support for analogue services to simulcast is best demonstrated through their RAJAR audience numbers, and that support for new services will be demonstrated as we build up to their launch and in their initial operational period.
91. To support both analogue simulcast and new digital services, we have a marketing role in generating awareness of digital radio both as a concept and, alongside the service providers, of the complement of services carried on the multiplex.
92. MuxCo Suffolk will be served by the MuxCo website at www.muxco.com. Through this site, MuxCo outlines its multiplex opportunities and seeks interest from prospective service providers. A copy of this application and further information about MuxCo Suffolk and the licence opportunity are provided on the site.
93. In addition, the site promotes DAB digital radio and 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.
94. Whilst a local multiplex is a virtual company, there is still a 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".

95. Our intention to apply for the licence has been documented on our website (www.muxco.com) since 12th March, with our interest discussed in numerous radio social media sites. This will have provided an opportunity for prospective applicants to be aware of our intention and to register any interests.
96. We have not advertised our proposals in local newspapers 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.
97. Following Ofcom's advertisement of the licence, we contacted local analogue operators to discuss their digital aspirations and invite expressions of interest in providing programme services. We also contacted other radio groups who have known digital aspirations or operate digital service elsewhere.
98. We have discussed our transmission plans, headline terms and potential fees (which will be dependent upon the transmission engineering contract that we will enter). A summary of contacts is included in Part B.
99. During the licence period a similar open process will be adopted.
100. We have engaged with all potential service providers in an open and non-exclusive manner, and will continue to do so.

Fair and Effective Competition during the Licence Period

101. 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 audience or revenue.
102. 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.

103. The response to this question has been submitted in confidence.

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 any 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.

104. The response to this question has been submitted in confidence.

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 ancillary services. It should also show the total proportion of the available multiplex capacity 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 3.35). 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 EN 300 401.

105. The following table details the division of multiplex capacity during all time periods. A number of the service providers have indicated that they intend to use a proportion of the DLS capacity for commercial messages and, therefore, the table includes the maximum percentage allocation of the multiplex for these Digital Additional Services assuming all of the DLS capacity is used for this purpose.

Service	Operating times	Capacity units occupied (Inclusive of error protection)	Percentage of total multiplex capacity	Maximum proportion of multiplex capacity that is allocated to Digital Additional Services
Smooth	00:00-23:59	84	9.7%	0.1%
Heart	00:00-23:59	84	9.7%	0.1%
Anglia	00:00-23:59	58	6.7%	0.1%
Suffolk First	00:00-23:59	58	6.7%	0.1%
BBC Radio Suffolk	00:00-23:59	96	11.1%	0.1%

106. The following table details the division of multiplex capacity by bitrate net of error protection.

Service	Service Capacity net of Error Protection (kbits/sec)	Percentage of total multiplex capacity	ETSI 300 401 Error Protection Level
Smooth	112	9.7%	UEP3
Heart	112	9.7%	UEP3
Anglia	80	7.4%	UEP3
Suffolk First	80	7.4%	UEP3
BBC Radio Suffolk	128	11.1%	UEP3

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?

107. In allocating capacity between services, the following factors have been taken into account:
- 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
108. 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.
109. 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.

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 'half-rate coding'. The response to this question should be consistent with the proposed division of multiplex capacity set out in response to Q.19.

Service	Stereo / Mono	Coding
Heart	Stereo	Full Rate
Smooth Radio	Stereo	Full Rate
Suffolk First	Mono	Full Rate
Anglia	Mono	Full Rate
BBC Radio Suffolk	Stereo	Full Rate



Declaration

Applicants are required to conclude their submission by making the following declaration:

I hereby apply for and on behalf of MuxCo Suffolk Ltd (the "Company") to the Office of Communications ("Ofcom") for the Local Radio Multiplex Licence for Suffolk (as specified in Ofcom's Notice dated 12 March 2015) in order to provide the local radio multiplex service proposed in this application. I confirm that the appropriate payment has been submitted for this application.

I further confirm that the Company consents to Ofcom publishing this application on its website or otherwise disclosing this application to any person, together with the Company's responses to any request by Ofcom for the Company to furnish additional information about its proposal. This consent does not extend to any part of this application or such responses that the Company has requested that Ofcom should keep confidential by including such information in a separate annex (or other agreed form) that is clearly marked 'confidential'.

I declare that the information given by the Company in this application form is accurate and up-to-date to the best of my and the Company's knowledge and that 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.

I further declare and warrant that the Company is not a disqualified person within the meaning of that expression as defined in Part II of Schedule 2 to the Broadcasting Act 1990 or as a result of a disqualification order under section 145 of the Broadcasting Act 1996, and that having made all reasonable enquiries neither the Company nor any person by which the Company is controlled will, as a result of this application, be in breach of any other requirement of Schedule 2 to the 1990 Act as amended.

Applicant Signature:

A handwritten signature in blue ink, appearing to read "G. Watson".

Name:

Gregory Watson

Position:

Director

Date:

10 June 2015