MuxCo Wales Limited

**An application to Ofcom for the
Mid and West Wales local DAB digital radio multiplex**

Part A – Public Section

February 2008

Executive summary

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

MuxCo Wales Ltd

1. MuxCo Wales Ltd was created to establish local DAB digital radio in an efficient and cost effective manner in Mid and West Wales, and to create opportunities for the commercial operators to broadcast existing and new services through DAB.

2. The shareholders behind MuxCo Wales are:

    - Town & Country Broadcasting Ltd ('T&C')   70%
    - MuxCo Ltd   30%

    Each has digital radio experience, through multiplex ownership and/or digital broadcasting. In addition, the MuxCo management team has considerable experience as a multiplex operator, having established and operated a network of 19 local radio multiplexes for GCap Media, having initiated the creation of the MuxCo network, as well as currently managing UTV's multiplexes.

3. The ethos of the company is that digital radio should be available in a cost and operationally efficient manner to enable as many as possible to broadcast. MuxCo Wales will offer a range of broadcast options, such as variable bit rates and hours of broadcast, to make DAB as economical as possible to potential service providers. More choice will make DAB a more compelling proposition for digital listeners.

4. The new multiplex provides opportunities for smaller and locally focused operators to increase revenue and to grow their businesses by broadcasting to a wider area, through serving new audiences with new services and by sharing in the benefits of multiplex ownership.

5. Existing analogue stations are encouraged to broadcast on DAB from launch, enabling a consistent DAB focused message to be broadcast to all existing radio listeners and creating strong cross-promotional opportunities for DAB.

Our proposals

6. The proposal to launch an efficient and cost effective multiplex is based on a thorough review of the market and the opportunities presented.

7. The biggest issue that the new multiplex faces is providing coverage across the entire PPA in an efficient and commercially viable way. The licence has been advertised to serve the counties of Pembrokeshire, Carmarthenshire, Ceredigion and Powys, using 2 Frequency Blocks - 10C in Ceredigion and Powys, and 12D in Pembrokeshire and Carmarthenshire.

8. MuxCo Wales has developed a financially viable plan that at launch provides coverage to Pembrokeshire and Carmarthenshire, delivering a robust signal to 70.2% of adults in these counties. Additional transmitters will be introduced in Pembrokeshire and Carmarthenshire during 24 months of launch to strengthen reception and increasing adults covered to 83.7% within these counties. This equates to 55.8% of the PPA as advertised by Ofcom.

9. We have not identified an efficient and viable commercial model to launch DAB within Ceredigion and Powys from launch. During the licence term, MuxCo Wales will work with the BBC and Ofcom, local authorities and other organisations to develop a plan that will bring DAB to these remaining counties.

10. We believe local radio has a strong commercial future – there will always be demand for local services that cater for local tastes and interests (geographic, demographic and community of interest focused), from both listeners and advertisers. It is important for the multiplex to provide opportunities for a wide range of local services, both existing and new, and for local radio operators to have the opportunity to provide these in an efficient and economical way. Indeed, we believe a local focus will be the unique selling point that allows these services to compete with those operated by the bigger radio groups.

11. The following existing analogue services are confirmed and will broadcast in stereo from launch. These services are listened to by 54.2% of adults each week, and collectively account for 33% of total radio listening. We will continue to explore opportunities for the remaining local analogue services to join the multiplex during the licence term.

    - Radio Pembrokeshire
    - Radio Carmarthenshire
    - BBC Radio Wales
    - BBC Radio Cymru

12. Spectrum has been allocated to provide a range of new digital services that will broaden listener choice. We confirm the provision of the following service, and will seek to launch further new services during the licence period.

    - 'Wales Live' - a station playing classic hits music and providing a high level of speech focusing on local news and information.

13. In addition, MuxCo Wales will carry a local Podcast Service providing opportunities for niche services to cater for a diversity of passions, interests and communities to reach their audience. Downloadable podcasts will include a local guide from Itchy, specialist music downloads from Channelfly, Asian programming from Sunrise and Sabras.

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

Meeting the Award Criteria

Our proposed coverage

15. We propose to launch using 2 transmitters to provide solid coverage of the major population centres and transport routes across Pembrokeshire and Carmarthenshire. This will provide 'outdoor coverage' (e.g. to in-car and mobile receivers) of 70.2% of adults within these counties, and higher strength 'indoor coverage' (e.g. to kitchen radios) of 47.8%.

16. Additional transmitters will be introduced to extend coverage to Fishguard and Llanethli within 2 years of launch, increasing outdoor and indoor coverage to 83.7% and 62.2% respectively.

17. This level of coverage equates to 55.8% (outdoor) and 40.1% (indoor) of the entire PPA as advertised by Ofcom.

18. The opportunities to launch further transmitters to Ceredigion and Powys in a commercially efficient and viable manner will be reviewed during the licence term.

Our timetable to achieve coverage and launch of services

19. It is our intention is to launch by Q1 2010.

Our ability to establish and maintain the service

20. The shareholders behind MuxCo Wales have considerable analogue and digital radio experience. T&C operates four analogue services across Mid and West Wales, and is an investor and service provider on a number of other MuxCo network multiplexes. MuxCo is an ambitious and developing company with substantial digital radio experience and interests in a number of local multiplexes.

21. Both shareholders 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

22. We have undertaken a comprehensive programme of research to underpin our application. This has included population profiling and analysis of existing radio listening habits, as well as an independent and comprehensive survey of local tastes and interests, helping to ensure that the service we will provide reflects and serves the various tastes, interests and demographics of the population.

23. Our research supports the simulcasting of local analogue services (helping promote digital radio and drive listeners from analogue to digital) and for the proposed new services.

24. Locally relevant content will be included in the simulcast services and digital only services.

25. Altogether, our proposals will provide further incentives for consumers to buy a DAB digital radio and will, we believe, help commercial radio grow further in the county.

Demonstrating local demand and support

26.   RAJAR provides strong evidence of demand and interest in the simulcast services, whilst our specially commissioned consumer research supports our RAJAR analysis and enables us to measure local demand for our proposed digital only services.

Being fair and effective

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

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

Summary

29.   We believe that MuxCo Wales will be the most credible operator for the multiplex.

- We will deliver robust local DAB coverage through a prudent roll-out.

- Our understanding of the market coupled with our comprehensive and specially commissioned research has helped ensure that our plans relate to the needs of local citizens and consumers. This will help ensure that MuxCo Wales will deliver services that truly appeal to Mid and West Wales and help commercial radio improve its market share.

- The shareholders have impressive track records in operating local stations. This management expertise will be invaluable to the multiplex, as well as assisting the development of new programming streams.

- The involvement of Town & Country as a shareholder enables us to guarantee the carriage of Radio Pembrokeshire and Radio Carmarthenshire, as well as the provision of a new local service, Wales Live.

- The multiplex 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 Wales 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 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 Wales Ltd

Registered Number   05937209
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.

30.   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 networks, in particular the M4, A40, A48 and A487. The plan also takes into account the footprints of the existing analogue services. Careful consideration has also been given to the design requirement to maximise received field strength within the licensed area.

31.   In planning the proposed network, NGW has assumed the following service levels:

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

32.   Ofcom has advertised the licence with an identified population coverage of 400,000 across the four counties. NGW calculates a potential adult (aged 15+) population of 249,996 within Pembrokeshire and Carmarthenshire, and of 308,925 for the 3 counties of Pembrokeshire, Carmarthenshire and Ceredigion.

33.   Launch transmitters at Carmel and Preseli will provide outdoor coverage to 175,505 adults (aged 15+), equating to 70.2% of adults within Pembrokeshire and Carmarthenshire, and indoor coverage to 119,411 adults (47.8%):

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

- Robust indoor coverage to Carmarthen, Ammanford and the south eastern part of Carmarthenshire.
- Outdoor mobile coverage to much of the transport corridors including the M4 (north Swansea), A40, A48, A483.
- Mobile devices in a large proportion of key settlements.

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

- Robust indoor coverage to Cardigan, Pembrokeshire and the north western part of Carmarthenshire.
- Outdoor mobile coverage to much of the transport corridors including the A484, A478 and the A487.
- Mobile devices in a large proportion of key settlements.

34. We propose to launch additional transmitters within 24 months of launch, which will increase outdoor coverage to 83.7% (indoor to 62.2%):

Kilvey Hill
A medium power transmitter using the existing National DAB antenna. The use of this GE06 compliant site, although not within the Multiplex area is deemed to be important in order to provide:

- Coverage to the major population settlements of Burry Port and Llanethli that is unable to be provided by the Carmel transmitter.
- Outdoor mobile coverage to the M4 transport corridor leading into the multiplex area.

- Kilvey Hill is in accordance with the GE06 guidelines, being only 3km outside the boundary of the GE06 South West Wales allotment area (at the closest point) and only 5km away from the nearest test point (TP23). A new antenna has been considered to target the transmission into the multiplex area, however this is not possible on the existing towers due to aperture constraints and safety considerations in connection with mast climbing. The use of the National DAB antenna has been checked and we do not believe it infringes any of the advertised restrictions.

Fishguard
A low power transmitter utilising a directional antenna to provide:

- Robust indoor coverage to the population of Fishguard and the ferry port
- Mobile coverage to the major transport corridors of the A40 and A487 leading to and from Fishguard ferry port.

- Early studies show this it is likely that this site, which serves relatively low population, could be implemented more cost effectively by the use of an On Channel Repeater feed off the Preseli transmitter. More detailed work will be undertaken following the award of the licence.

35. Coverage predictions, with percentages based on NGW population estimates within Pembrokeshire and Carmarthenshire, are:

Carmel and Preseli	Outdoor Coverage (58 dB)		Indoor Coverage (65 dB)	
	Adults '000	% Covered	Adults '000	% Covered
Noise Limited	175,505	70.2	119,411	47.8
Interference Limited	175,117	70.0	119,340	47.7

Plus Kilvey Hill and Fishguard	Outdoor Coverage (58 dB)		Indoor Coverage (65 dB)	
	Adults '000	% Covered	Adults '000	% Covered
Noise Limited	209,362	83.7	155,537	62.2
Interference Limited	208,259	83.3	155,045	62.0

- Coverage from all four transmitters equates to 55.8% (outdoor) and 40.1% (indoor) of the entire PPA (i.e. all four counties) as advertised by Ofcom.

36. MuxCo Wales does not have firm plans to implement any further transmitters. However, we will review the opportunities to launch a transmitter to cover Powys in an efficient and commercially prudent manner. We also recognise that over time, we may be able to undertake further development in an economically viable manner. In both cases, we would wish to consult with Ofcom to explore these and other opportunities, including joint development with other multiplex providers e.g. BBC, Digital One and 4DG.

Standalone Coverage

37. The following table shows the coverage (Interference Limited) within Pembrokeshire and Carmarthenshire 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 any one be on reduced power or have failed.

Transmitter Site	Standalone Coverage: Outdoor	Percentage Licence Area	Standalone Coverage: Indoor	Percentage Licence Area
Carmel	92,648	37.1	58,714	23.5
Preseli	98,050	39.2	62,711	25.1
Kilvey Hill	55,650	22.3	33,989	13.6
Fishguard	9,910	4.0	8,167	3.3

Cumulative Coverage

38. The table below shows how coverage (Interference Limited) within Pembrokeshire and Carmarthenshire is achieved up through the use of a network of transmitters.

Transmitter Site	Cumulative Coverage: Outdoor	Percentage Licence Area	Cumulative Coverage: Indoor	Percentage Licence Area
Carmel	92,648	37.1	58,714	23.5
+ Preseli	175,117	70.0	119,340	47.7
+ Kilvey Hill	199,333	79.7	146,877	58.8
+ Fishguard	208,259	83.3	155,045	62.0

Network Resilience

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

Transmitter Site	Cumulative Population Loss: Outdoor	Percentage Lost	Cumulative Population Loss: Indoor	Percentage Loss
Carmel	52,117	20.8	48,985	19.6
Preseli	77,695	31.1	59,582	23.8
Kilvey Hill	23,823	9.5	27,506	11.0
Fishguard	9,315	3.7	8,240	3.3

Proposed Network - Power Enhancement

40. It is proposed that at a future date (subject to financial and editorial considerations) and in agreement with Ofcom and other multiplex owners, to seek a power increase at any or all of the sites, to improve indoor and outdoor coverage from these transmitters. If this was to proceed, then further studies would be undertaken with respect to Adjacent Channel Interference in accordance with the Memorandum of Understanding.

5. Timetable for coverage roll-out

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

41.   Whilst we would hope to launch sooner, our current proposal is to confirm a launch with 2 transmitters no later than Q1 2010. We have made contingent arrangements with NGW to ensure that this launch date can be achieved.

42.   We propose to launch additional transmitters at Kilvey Hill and Fishguard within 2 years of launch.

43.   Whilst we recognise the potential to expand the network to cover Ceredigion and Powys, we wish to review the opportunities and continue our discussions with the BBC and Ofcom, as well as relevant local bodies, during the licence term and to launch any new sites in an efficient and economically viable manner.

Antenna Systems and Combiner
44.   NGW will be the owner of all of the required antenna systems, with the exception of the Arqiva owned system at Preseli. Discussions on all the antenna systems have taken place between NGW and Network Access providers and we are advised that no obstacles are expected to meeting the timetable for launch.

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

Distribution
46.   The distribution between the multiplex centre and the transmitters will be contained on NGW SHF link circuits and a BT E1 circuit. NGW confirms that it is able to install the new SHF link and BT E1 infrastructure within the timescale of the transmission roll-out.

Accommodation and Power Requirements
47.   NGW and Arqiva Network Access have confirmed that it can provide suitable accommodation and power supply at all of the sites.

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.
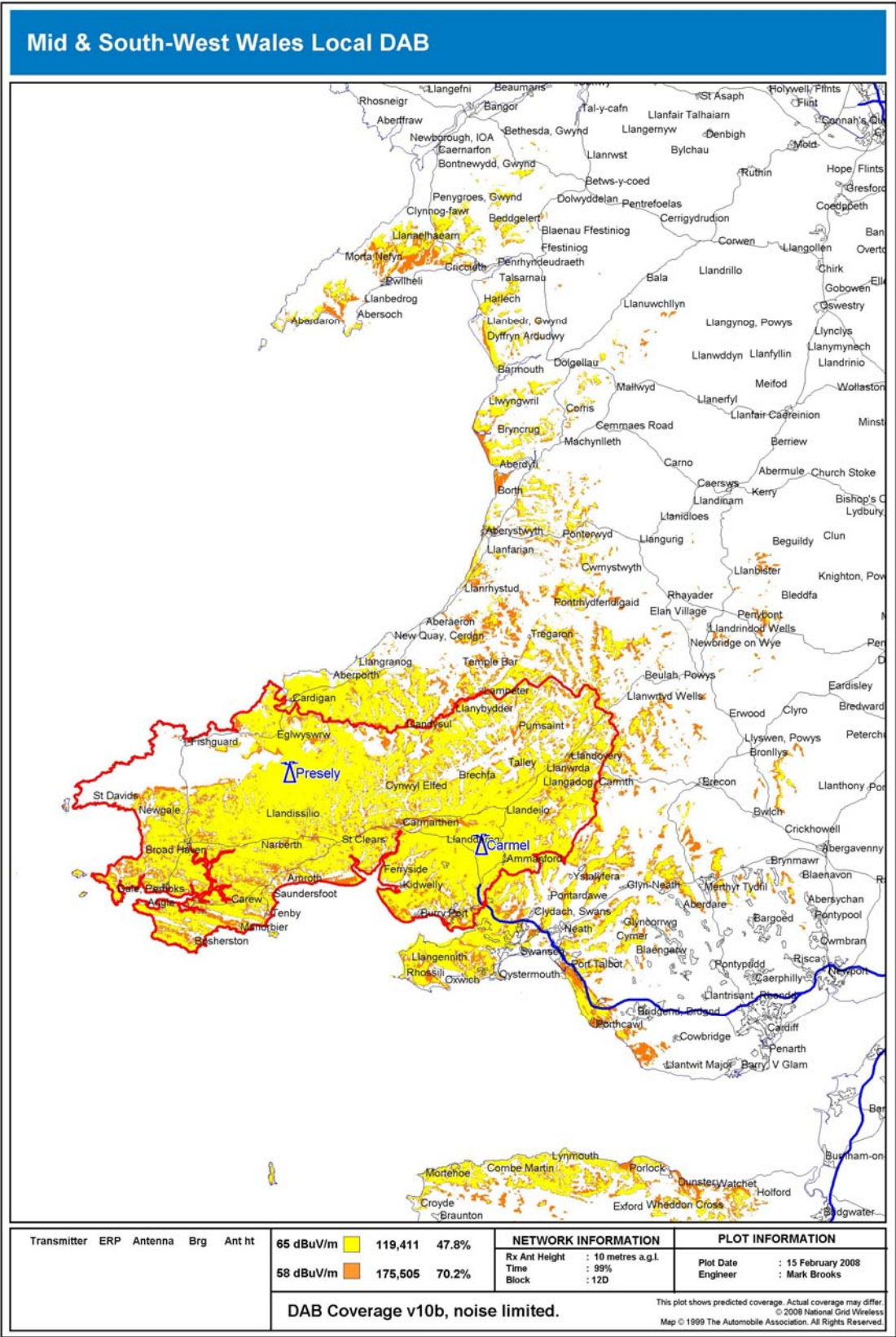
a) The first part of the technical plan is an electronic file of assignment details. This gives the relevant technical detail of each transmitting station which the applicant is undertaking to provide as part of its network. It will be used to enable Ofcom to estimate the coverage which will be achieved 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.

48.   The assignment details accompanying this application are provided under separate cover as an electronic text file.
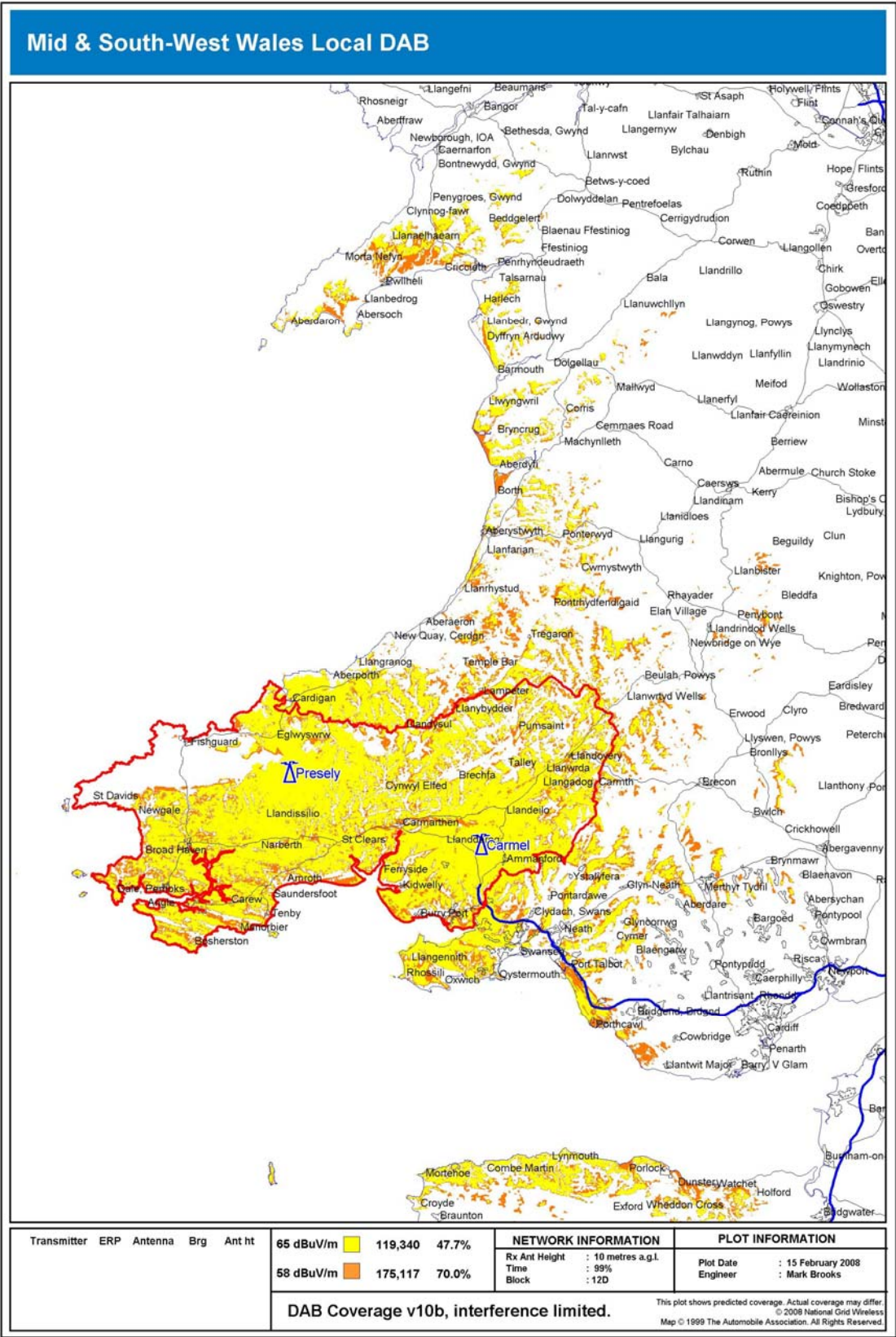
b) A separate table, the implementation table, should also be provided for the technical plan. This should list, for each proposed transmitter, the date of implementation promised with the parameters promised in the transmission plan, the owner/lessor of aperture space on the mast/tower, and any relevant 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.

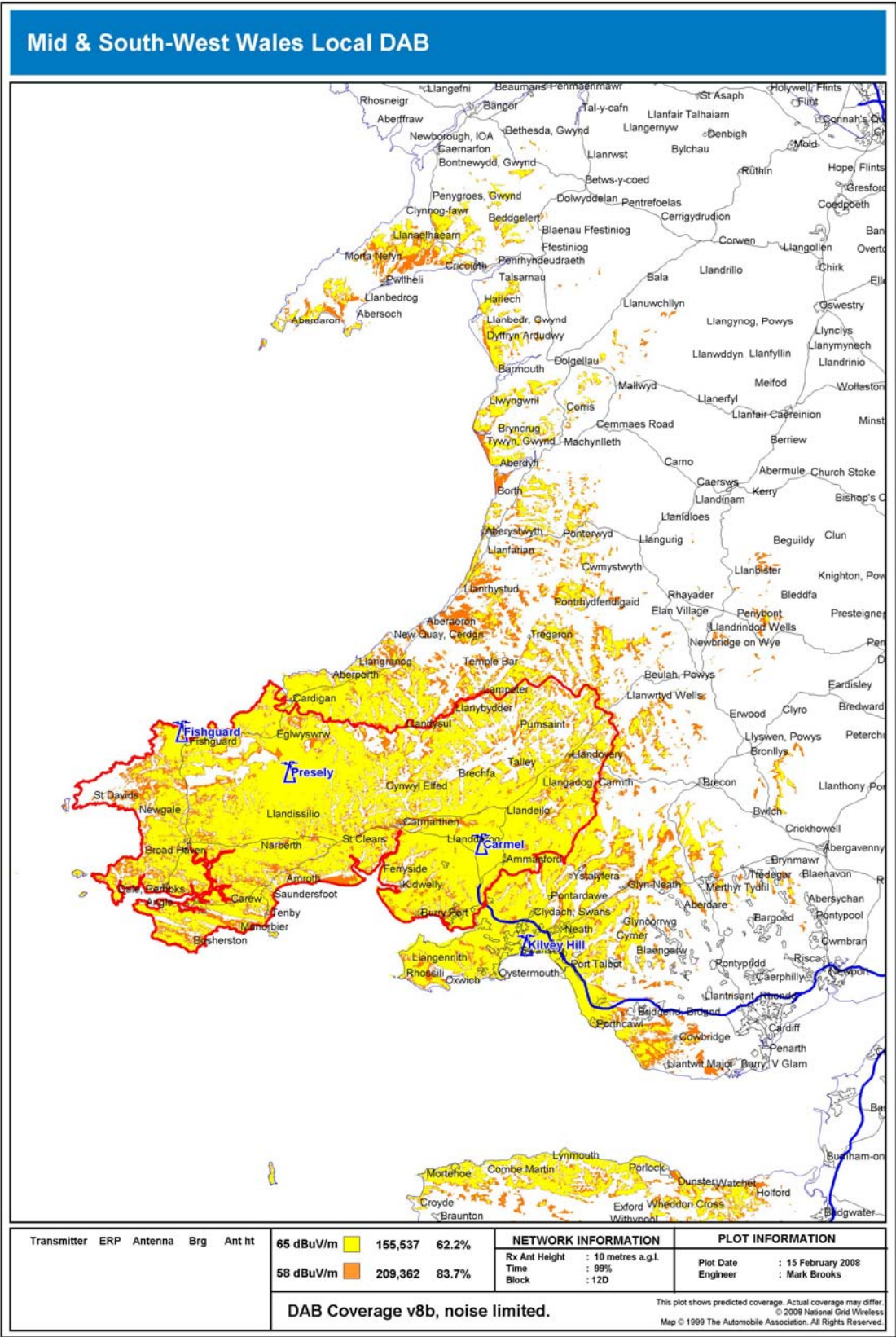| Site Name	NGR	Date of Implementation	Owner/lessor of aperture space on mast/tower	Antenna height (metres)	Notes
Carmel	SN 5768 1536	Q1 2010	NGW	118	NGW Network Access have offered a share of the existing National Digital Radio Antenna.
Preseli	SN 1715 3070	Q1 2010	Arqiva	205	NGW has an offer from Arqiva Network Access to share the existing National Digital Radio Antenna.
Kilvey Hill	SS 6718 9402	Within 24 months of launch	NGW	45	NGW Network Access have offered a share of the existing National Digital Radio Antenna. *Please also refer to the further note below.*
Fishguard	SM 9443 3915	Within 24 months of launch	NGW	26	NGW has an offer from Arqiva Network Access to install 2 tiers of new cardioid antennas at this site.

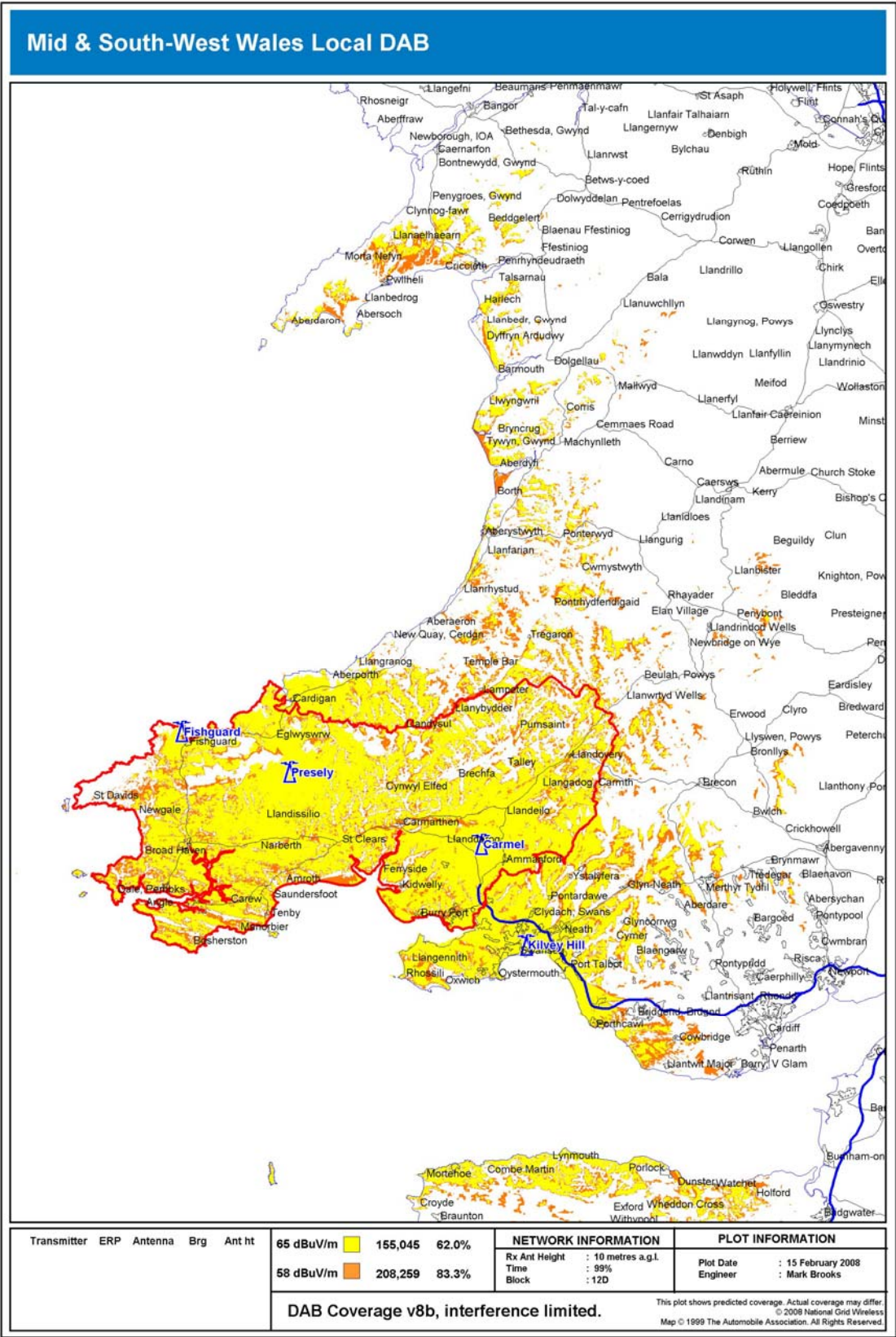49.   The following map details noise limited coverage at launch.

Mid & South-West Wales Local DAB

DAB Coverage v10b, noise limited.

50.   The following map details interference limited coverage at launch.

Mid & South-West Wales Local DAB

Transmitter	ERP	Antenna	Brg	Ant ht				
					65 dBuV/m	119,340	47.7%	
					58 dBuV/m	175,117	70.0%	

NETWORK INFORMATION

Rx Ant Height : 10 metres a.g.l.
Time : 99%
Block : 12D

PLOT INFORMATION

Plot Date : 15 February 2008
Engineer : Mark Brooks

DAB Coverage v10b, interference limited.

This plot shows predicted coverage. Actual coverage may differ.
© 2008 National Grid Wireless
Map © 1999 The Automobile Association. All Rights Reserved.

51.   The following map details noise limited coverage within 24 months.

Mid & South-West Wales Local DAB

Transmitter	ERP	Antenna	Brg	Ant ht		65 dBuV/m	155,537	62.2%	NETWORK INFORMATION		PLOT INFORMATION	
						58 dBuV/m	209,362	83.7%	Rx Ant Height : 10 metres a.g.l. Time : 99% Block : 12D		Plot Date : 15 February 2008 Engineer : Mark Brooks	

DAB Coverage v8b, noise limited.

This plot shows predicted coverage. Actual coverage may differ.
© 2008 National Grid Wireless
Map © 1999 The Automobile Association. All Rights Reserved.

52. The following map details interference limited coverage within 24 months.

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

53.	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.

Fishguard - proposed DAB antenna sketch.

2 off Cardioid Antennas
26m agl, 150 deg brg

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

54. The Network Access supplier has confirmed that the designs of the existing and new 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 the Network Access supplier has confirmed that it will undertake these.

Site Name	Antenna System	Antenna Height (m)	Antenna Owner Permission	Accommodation Permission	Power Supply	Impacted By DSO
Carmel	Existing Digital Radio Antenna	118	NGW Network Access	NGW Network Access is providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	See Note 1
Preseli	Existing Digital Radio Antenna	205	Arqiva Network Access	Arqiva Network Access are providing accommodation	To be provided by Arqiva Network Access	See Note 1
Kilvey Hill	Existing Digital Radio Antenna	45	NGW Network Access	NGW Network Access is providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	See Note 1
Fishguard	New 2 tier Cardioid Antenna	26	NGW Network Access	NGW Network Access is providing accommodation in the existing NGW Area.	To be provided by NGW Network Access	See Note 1

Note 1
The DSO (Digital Switch Over) program is anticipated to be complete by the launch of this site, therefore no service affecting work is expected due to DSO.

d) Provide the following details regarding transmission arrangements:

i) Any transmission contracts that have been agreed

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

ii) The status of these agreements

56. 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.

57.   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).

58.   It is envisaged that all services will broadcast from the start of the multiplex licence period.

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.*

59.   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.*

60.   See confidential answer to this question.

Jason Bryant

Occupation:
Chief Executive, Town and Country Broadcasting

Other directorships:
Haven FM (Pembrokeshire) Ltd, Dee 106.3 Ltd, Radio Carmarthenshire Ltd, Town and Country Broadcasting Ltd, JB Consolidated Ltd, Bridge FM Radio Ltd, Swansea Bay Radio Ltd, Radio Hampshire Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo Hereford & Worcester Ltd, MuxCo Gloucestershire Ltd

Other Media Interests:
None

Jason is a well-known and highly regarded radio entrepreneur with a rare mix of expertise across analogue and digital radio. He has a successful track record in launching and developing innovative and successful local commercial radio services, and has built Town and Country Broadcasting into the leading Welsh-based media company, which is profitable and with an annual turnover of over £3m.

Jason started his career at BBC Radio Solent where he worked across news and programmes, before moving to London's LBC as a producer and editor on a number of high-profile shows. He moved to television as a producer, working with Sir David Frost and GMTV, before returning to radio as a producer and editor at London's BBC GLR. In 1994, Jason moved to Scotland as the launch Programme Director for Scot FM, before heading back South to join Talk Radio, where he became Programme Director. He left the station in 1997 to work as a consultant with the management team at BBC Radio 5 Live.

Following Kelvin MacKenzie's acquisition of Talk Radio in 1998, Jason returned as Development Director, and subsequently Managing Director to re-launch the service as talkSPORT. He was subsequently appointed Managing Director of Development at talkSPORT's parent company, TWG plc, where he oversaw a rapid growth in the company's activities, including several successful DAB multiplex licence applications in London and Scotland. Jason joined SMG plc in February 2003 to lead its radio development projects and develop its DAB digital radio brands.

In 1999 Jason assembled the successful application team for the Pembrokeshire local radio licence and three years later repeated the success in Carmarthenshire. Notably, Radio Pembrokeshire has the highest audience reach of any station in the UK, and Radio Carmarthenshire has recently been confirmed as the number one station in its area. Radio Pembrokeshire won the prestigious Arqiva/CRCA Station of The Year award in 2005 and 2006, and has also won a Silver Sony Radio Award for 'Station of The Year'. In November 2006, Town and Country launched Swansea Bay Radio and in the same year acquired 106.3 Bridge FM (giving the group continuous coverage from the Pembrokeshire coast to Cardiff). In July 2007 the company expanded again when it acquired the Southampton FM licence which was subsequently re-launched as 107.8 Radio Hampshire (and is Town and Country's first DAB service, broadcasting on the South Hampshire multiplex).

Mike Franklin

Occupation:
Finance Director, Town and Country Broadcasting Ltd

Other directorships:
The UK Radio Business Ltd, Town and Country Broadcasting Ltd, Radio Hampshire Ltd

Other Media Interests:
None

Mike has extensive business and operational knowledge of the UK radio market and joined Town and Country Broadcasting in 2006 as Finance Director to guide it through its re-structuring and subsequent growth. His expertise encompasses national and local analogue stations and also multiplex management, having launched several multiplexes already.

Mike qualified as a chartered accountant in 1984 with Arthur Andersen. A year later he took up an appointment with Gresham House plc, a UK venture capital provider, where he worked as financial controller and company secretary at their main investment, Greenwich Communications plc. The business was focused on developing a cable television network, domestic satellite equipment supply and event promotion.

In 1989 Mike was appointed Finance Director and Company Secretary of Southern Radio plc a group operating independent radio stations in Hampshire and Sussex. Mike was a member of a four-man management team that successfully restructured and expanded the group; this included the reverse take-over of Invicta Radio, the neighbouring station for Kent.

In 1993 Mike was appointed Finance Director and subsequently Managing Director of London's LBC Radio. At the time the station had been acquired by The Chelverton Group. LBC was then purchased by Reuters in July 1994, with Mike remaining with the Chelverton Group and becoming involved in its property development business, including a new office development in Poland.

In 2000 Mike was appointed Operations Director and subsequently Managing Director of talkSPORT, the national commercial sports commercial radio station. He was also involved in launching and running a number of DAB digital radio multiplexes in London, Wales and Scotland.

When talkSPORT was acquired in June 2005 by UTV plc Mike became a business consultant, working with clients including Highbury House plc, Radioworks Ltd and also the high-profile community radio licensee Resonance Radio.

Gregory Watson

Occupation:
Managing Director, MuxCo Ltd

Other directorships:
Reception Media Ltd, Folder Media Ltd, MuxCo Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo Hereford & Worcester Ltd, MuxCo North Yorkshire Ltd, MuxCo Gloucestershire Ltd, MuxCo Lincolnshire Ltd, Radio Academy, Radio Academy Trading Ltd, Children's Radio UK Ltd, Children's Radio UK (London) 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, and to create MuxCo.

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. In 2007 Gregory was appointed a Public Member of Network Rail.

Deanna Hallett

Occupation:
Managing Director, Hallett Arendt

Directorships:
Hallett Arendt Ltd, Folder Media Ltd, MuxCo Ltd, MuxCo Northeast Wales & West Cheshire Ltd, MuxCo Hereford & Worcester Ltd, MuxCo North Yorkshire Ltd, MuxCo Gloucestershire Ltd, MuxCo Lincolnshire Ltd

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

Deanna 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.

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. This interest in training has been consolidated through the launch of a joint venture with Francis Currie to form Currie Hallett Radio Skills Development Ltd.

Moving forward, Deanna aims to bring all her expertise to the MuxCo network by offering training, research and marketing advice to service providers to help them maximise audiences and revenue.

(b) Proposed Investors and Shareholding Structure

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

iii) Names and addresses of all existing or proposed shareholders.

Shareholder	Shares	% Shareholding	% Loan stock
Town & Country Broadcasting Ltd Ashby House 64 High Street Walton On Thames KT12 1BW	28,000	70%	70%
MuxCo Ltd 96a Curtain Road London EC2A 3AA	12,000	30%	30%

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

61.   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.

62.   See above.

vi) Outline any shareholders agreements or arrangements which exist.

63.   A 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.

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.

64.   Not applicable.

viii) Ofcom may request additional information regarding the shareholders, or any other providers of finance, listed in the application.

65.   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

Town and Country Broadcasting Ltd
T&C has interests in the following companies:

- Swansea Bay Radio Ltd (100%)
- Haven FM (Pembrokeshire) Ltd (100%)
- Radio Carmarthenshire Ltd (100%)
- Bridge FM Radio Ltd (100%)
- Dee 106.3 Ltd (27.17%)
- Radio Hampshire Ltd (75.5%)
- MuxCo Northeast Wales and West Cheshire Ltd (25%)
- MuxCo Hereford & Worcester Ltd (33.3%)
- MuxCo Gloucestershire Ltd (25%)

MuxCo Ltd
MuxCo has interests in the following multiplex companies:

- MuxCo Hereford & Worcester Ltd (33.3%)
- MuxCo North Yorkshire Ltd (40%)
- MuxCo Northeast Wales and West Cheshire Ltd (25%)
- MuxCo Gloucestershire Ltd (25%)

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 Wales

66.   The strategy for MuxCo Wales is:

- To establish an efficient and progressive business that minimises the financial burden on operators to broadcast on DAB
- To provide opportunities for existing analogue services to simulcast on DAB
- To create an environment that encourages businesses to provide services on local DAB that broaden choice and provide new commercial opportunities
- To re-emphasise local radio as an important part of radio's digital future
- To become part of a MuxCo network of local multiplexes, sharing best practice and future opportunities
- To provide a good return on investment to shareholders

The Shareholders and their Digital Strategies

67.   **Town and Country Broadcasting Ltd ('T&C')** was established to build a local network of radio stations across Wales. It has an excellent track record establishing and maintaining local radio licences and is committed to bringing its creative, critical and commercial successes to digital radio. T&C aims to become the leading media group based in Wales. 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.

68.   Jason Bryant also has a strong track record in digital radio, having helped create the local digital radio businesses for The Wireless Group and developing SMG's digital brands. Jason recognises the importance of DAB for all stations, and the opportunities it can provide for companies such as T&C. In relation to digital, T&C's objective is to apply alongside MuxCo and partners for the new local multiplexes being advertised in and contiguous to Wales, and to develop a new local speech rich service that is distinctive and viable. T&C is a shareholder in three new MuxCo multiplexes, including Wrexham & Cheshire on which it will also broadcast Wales Live. The other multiplexes will carry a similar speech rich service. T&C is developing sales opportunities for new digital-only stations to be sold as a package to local and regional advertisers. Outside radio, T&C's strategy is to develop local media businesses that complement their traditional broadcast operations, including online local information sites and magazines. 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.

69. **MuxCo Ltd** was established to provide viable digital radio solutions to local radio companies and other parties interested in developing on DAB. The MuxCo management team has extensive experience as a multiplex operator at local, regional and national level. The team established and operated the NOWdigital network for GCap Media, and has managed local multiplexes owned by consortia in which GCap Media was a partner (CE Digital, DRG London, South West Digital Radio and Now Digital East Midlands). The Folder Media management team are currently managing UTV's multiplex network and building the new MuxCo network. MuxCo's strategy is to build a network of local multiplexes, working with local partners in each area, to ensure opportunities exist for all analogue operators to broadcast on DAB. Working with local partners helps encourage and make them more confident to take a more active role in digital radio, as part of the multiplex as well as being a service provider. Under this model, partners receive financial benefits of ownership which helps reduce their net cost of investment in DAB. 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.

The Business Plan and its Objectives

70. Our key objectives are:

- To operate a multiplex that offers a wide choice of live and on-demand 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 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
- To ensure that digital radio is successfully established.

71. The shareholders believe that MuxCo Wales is well resourced technically as well as financially to support the needs of the service providers.

72. The chart summarises the reporting structure of the company.

73.   The Board, which meets quarterly, 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

74.   Folder Media, who has unparalleled experience in the day-to-day management of successful local multiplexes, has been appointed to provide multiplex management services. As well as managing UTV's local multiplex network, Folder Media is currently overseeing the launch of MuxCo multiplexes in Wrexham & Cheshire, Hereford & Worcestershire, North Yorkshire and Gloucestershire. Folder Media will ensure that changes and any requirements from the service providers can be enacted in a timely and cost-effective manner, and will also keep abreast of technical developments to ensure that the multiplex is responsive to the changing radio marketplace.

(i)   The network construction phase

75.   The network construction phase includes three stages – planning, building and testing.   MuxCo Wales 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.

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

77.   **Building and 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

78.   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

79.   As multiplex manager, Folder Media will be responsible to the MuxCo Wales 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.

80.   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 Wales 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.

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

82.   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 Wales and service providers, will be to help educate and inform listeners, advertisers and equipment retailers.

(iv)   Marketing

83.   There is still a significant DAB marketing campaign that needs to be undertaken at both a national and local level. We recognise that as a sole body, our voice will be too small and inefficient. We will therefore seek to join the DRDB (or any successor) and will actively support industry-wide generic promotion of digital radio. We also propose to co-ordinate our local marketing activity with 4 Digital Group.

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

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

85.   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.

86.	Service providers are likely to undertake their own brand marketing highlighting their appearance on DAB. We will work with these 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.

87.	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.

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

(b) Funding

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

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

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

89.	Letters of investment are provided in Part B.

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

90.	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.

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

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

(c) Financial Projections

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

The applicant should confirm in writing to Ofcom that:

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

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

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

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

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

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

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

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

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

The response to this question may be submitted in confidence.

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

(d) Audience Projections

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

93. The projected adult population of the multiplex TSA for the purpose of the application has been assumed at 216,000. We are aware that service providers may still elect alternative TSAs for RAJAR research purposes.

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

94. The following table summarises our audience projections for the commercial simulcast services and digital only services.

	Year 1	Year 2	Year 3	Year 4
Radio Pembrokeshire				
• Weekly Reach %	22.0%	21.5%	21.4%	21.2%
• Ave Hours	11.0	10.5	10.0	10.0
• Total Hours '000s	523	488	462	458
• Digital Hours '000s	82	108	127	147
Radio Carmarthenshire				
• Weekly Reach %	15.0%	14.4%	14.4%	14.4%
• Ave Hours	8.0	7.8	7.8	7.8
• Total Hours '000s	259	243	243	243
• Digital Hours '000s	41	69	78	87
Wales Live				
• Weekly Reach %	2.5%	2.8%	3.0%	3.2%
• Ave Hours	5.0	5.4	6.0	6.0
• Total (& Digital) Hours '000s	27	33	39	41

95. In relation to simulcast services, we have forecast their total hours across both analogue and digital platforms, and then apportioned digital hours.

96.   The following table summarises our forecasts of all radio reach and hours for the
         identified commercial services. Whilst increased radio choice will stimulate the
         market, either by attracting lapsed radio listeners or increasing time spent
         listening, we believe it prudent to forecast some decline in both reach and hours
         listened. Competition from a wide range of new media, such as TV choice, mobile
         services and the internet will impact, especially on younger listeners.

	Year 1	Year 2	Year 3	Year 4
Population 15+	216,000	216,000	216,000	216,000
Reach %	87.7	87.6	87.5	87.4
Reach	189,432	189,216	189,000	188,784
All radio hours '000s	4,471	4,446	4,443	4,399
All digital radio hours '000s	939	1,267	1,432	1,571
All digital hours as % of all radio hours	21.0%	28.5%	32.2%	35.7%
MuxCo Wales multiplex hours '000s	150	209	243	275
MuxCo Wales multiplex hours as % of all radio hours	3.4%	4.7%	5.5%	6.3%

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

Audience projections for programme services

97.   In estimating audiences, we have based our assumptions on RAJAR within the
         combined Radio Pembrokeshire and Radio Carmarthenshire TSA - an area of
         216,000 adults.

Projections for the total weekly number of listening hours

98.   Projections for existing services are based on RAJAR for each service within the
         TSA, and for the proposed new services on our consumer research.

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

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

Population

100.   RAJAR data has been reviewed within the combined Radio Pembrokeshire and Radio Carmarthenshire TSAs, using rolled 12 month data over the three years to Q3 2007. This equates to the proposed coverage of the multiplex at launch.

101.   Over the past 2 year period, the adult population within the TSA has grown by 0.5%. The area faces an increasingly older population profile. We have prudently held the population as a constant for the first four years of the licence period.

Total Radio Listening

102.   In the 12 month period to Q3 2007, 87.7% of adults in the TSA listened to at least one radio service, on average for 23.6 hours, delivering total radio listening hours of 4,480,000.

103.   Whilst the number of radio listeners has grown in real terms, as a percentage of the population this reflects a small percentage decline because of total population growth. Looking at total hours of listening we have seen a downward trend which was revived in Qtr 3 2007 to generate hours of 4,490 (000s). Whilst we believe that all radio reach and time spent listening could well be stimulated by the additional choice that DAB digital radio will bring, we also anticipate a small continuing declining as a result of multi platform competition.

Digital Share of Listening

104.   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.

105.   Our penetration growth forecasts are based on the DRDB's 5 year forecast, which we have up-weighted using the known 2007 penetration data, and then carried forward the forecast growth on the basis of this new base.

106.   We are comfortable with the DRDB forecasts:

- The latest sales data from the DRDB is that 6.5m DAB sets had been sold by the end of December 2007.
- 22% of the adult population live in a DAB household (source RAJAR Q3 2007)
- RAJAR Q3 2007 highlights that 28.4% of adults have listened to a digital service on any of the available platforms.

107.   Our local research shows around 10% of the population of Mid and West Wales own a DAB digital radio set. This figure rises to 16% when including those who have access to DAB radio without owning a set of their own. These figures are significantly below the national average and perhaps go some way to explaining the low interest in and poor understanding of the questions about functionality and alternative data services in our consumer research.

108.   We have created a long-term digital listening model using industry data and work undertaken by NGW. We have used their forecasts for digital share of listening as the starting point for calculating digital listening within the Mid and West Wales area.

The relative market shares of the radio sectors

109.   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.

110.   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, 2010 (the first full year of MuxCo Wales) and 2013. This analysis enabled us to establish a view on the overall radio market within Mid and West Wales 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 2010	Relative share 2007	Relative share 2010	Relative share 2013
BBC Network	5	6	11	43.5%	42.3%	40.5%
BBC Local	2	0	2	13.6%	14.8%	13.7%
INR	3	1	16	6.1%	7.5%	10.6%
ILR (in area)	4	0	1	16.2%	18.5%	18.6%
ILR (out of area)	4	5	9	19.0%	15.3%	15.5%
Other	0	0	0	1.6%	1.5%	1.2%
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/.

111.   MuxCo Wales will carry the existing local commercial services of Radio Pembrokeshire and Radio Carmarthenshire. Each will be offered the opportunity to broadcast in stereo, an important requirement highlighted by our research. Together, according to our consumer research the stations are listened to by just over 38% of all adults (82,000), and represent 18.3% of total radio listening.

112.   Capacity has also been reserved for BBC Radio Wales and BBC Radio Cymru.

113.   Capacity has also been allocated for a number of digital only services.

- 'Wales Live' - a station playing classic hits music and providing a high level of speech focusing on local news and information.
- A Podcast Channel - providing opportunities for niche services to provide downloadable content offering a range of programming targeting specific interest groups.

Radio Pembrokeshire

Format	Full Service
Licence Description	A simulcast of Radio Pembrokeshire (Ofcom Licence AL272); a classic hits and adult contemporary music service playing music from the 1960s to the present day.
Local Content	Radio Pembrokeshire is locally produced 24 hours a day, with local news and information provided 24/7.
Music to Speech	Minimum 75% music and 15% speech
Hours of Broadcast	24

Radio Carmarthenshire

Format	Full Service
Licence Description	A simulcast of Radio Carmarthenshire (Ofcom Licence AL289); a classic hits and adult contemporary music service playing music from the 1960s to the present day.
Local Content	Radio Carmarthenshire is locally produced 24 hours a day, with local news and information provided 24/7.
Music to Speech	Minimum 75% music and 15% speech
Hours of Broadcast	24

Wales Live

Format	Full Service
Licence Description	A full service providing mainly current and classic hit music and talk. Speech will include news, traffic & travel, entertainment news, sport and listener interaction.
Fuller Description	This speech rich service will provide a unique service to the area, providing international, national and Welsh news, information pertinent to everyday lives, including traffic & travel and weather, and opportunities for local listeners and organisations to air their points of views. Other speech will include content addressing the needs for all communities, sport and general entertainment and what's on.
Unique Area Content	A network service offering a broadening of speech choice.
Music to Speech	Minimum 50% music and 30% speech
Hours of Broadcast	24

Podcast Service

Format	Varied
Licence Description	A wide selection of speech and music podcasts provided by a range of companies.
Local Content	Podcasts will include material of a local nature.
Music to Speech	Minimum 5% music and 5% speech
Hours of Broadcast	24

Further information on the Podcast Service

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

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

116.   In our research, 4% of respondents and 12% of under 35s were interested in being able to download new specialist music and or speech programmes. Our research also highlights that the public are keen to experience downloadable material on a variety of different subjects. The Podcast Service will therefore carry content that reflects many of these interests and will complement the proposed range of live audio services.

117.   We believe that podcasts are a good way to meet listeners' content requirements where the economic benefit of running a live service cannot be met. We believe that certain material, in particular speech content, is best delivered in an on-demand style, where the lower cost base for production and transmission makes material easier and cheaper to distribute to local listeners.

118. Initial podcast providers will include:

News and Information
- 'ITN On' will provide a news and information service. The service will initially be audio, but as technology develops ITN wish to review opportunities for video.
- 'Itchy Media'', who produce Itchy Guides for major centres across the UK, will provide a guide for Wales.

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

Specialist
- Passion for the Planet is keen to expand their world music and environmental issues service but need to do at so an appropriate and economical rate. Their podcast will include best of material from their existing service with local features of interest to Mid and West Wales residents.
- 'Sabras Radio' are also interested in developing a localised podcast for Mid and West Wales' Asian population.
- 'Sunrise' with its Asian youth focused service, Yarr, wishes to explore the value of podcasting in markets where the potential audience size is not sufficient to maintain a full service.

Local content
We believe that digital radio should be open to as many broadcasters as possible. There are already many local podcasters in Mid and West Wales and DAB offers them a new outlet for their locally specific material. We have spoken with a number of local groups and organisations.

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?

Radio Pembrokeshire	
Target Audience & Demographic Profile	• 48,000 adults (22.3% of all adults) listen to Radio Pembrokeshire each week. • The station has a broad appeal; 46% of its audience is aged under 45 and 54% over. • It has almost equal appeal among men and women. • It delivers a strong C2DE profile in keeping with the population profile. • Its strength as a local service is evident through RAJAR.
Local Tastes & Interests	As the principal local commercial service, many tune to Radio Pembrokeshire for its local news, travel and information features, as well as its broad music repertoire. Radio Pembrokeshire provides hourly news bulletins 24 / 7. Bulletins contain local and national stories, sport, weather and entertainment news.
Summary	Radio Pembrokeshire appeals to those with an interest in contemporary and classic hit radio. It is the most popular local service across the area, providing entertainment as well as local news and information. Radio Pembrokeshire will benefit from the transition to DAB, being able to maintain listenership amongst its audience as they travel across the wider area. Our research highlights that existing ILR listeners have high interest in some aspects of DAB functionality, in particular being able to pause, rewind and record programmes, visual enhancements through a colour screen, music downloads and red button functionality. Given its current strong market position and a predisposition of its listeners to utilise the ancillary advantages of DAB, Radio Pembrokeshire will play an important role in the promotion of digital radio. In addition, as an existing service, Radio Pembrokeshire is able to enhance its digital proposition with specific DAB only content. • Existing heritage service • Broad appeal • Promoter of DAB and encourages trial

Radio Carmarthenshire	
Target Audience & Demographic Profile	• 34,000 adults (15.6% of all adults) listen to Radio Carmarthenshire (inc Scarlet FM) each week. • The station has a broad appeal and is particularly popular with 35 to 54 year olds who account for just over 43% of the audience. • It has an almost equal appeal among men and women. • Its strength as a local service is evident through RAJAR.
Local Tastes & Interests	Many tune into Radio Carmarthenshire for its local news (hourly news bulletins are broadcast 24 / 7, containing local and national stories, sport, weather and entertainment news), travel and information features, as well as its broad music repertoire.
Summary	Radio Carmarthenshire will benefit from the transition to DAB, being able to maintain listenership amongst its audience as they travel across the area, as well as attracting new listeners from outside its analogue footprint. Its business model can be further advanced with the adoption of DAB ancillary and additional features that MuxCo will make available As previously stated, 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 DAB expansion • Existing heritage service • 35 to 54 strength • Small Male bias • Even delivery by class • Promoter of DAB and encourages trial

Wales Live	
Target Audience & Demographic Profile	• The target audience for Wales Live is adults aged 30 plus. • Research highlights that it would have broad age, but with a strength amongst 45 pluses. • It would have equal male and female appeal.
Local Tastes & Interests	The only mixed music and speech service broadcasting in the area, and the first commercial station with an objective to offer an all Wales speech rich commercial service. The 'Wales Live' brand is set to broadcast on the Wrexham & Cheshire multiplex, with sister service, Local Live, operating on a number of neighbouring multiplexes. Programming and resources will be shared between Wales Live and Local Live.
Summary	A popular format with broad audience appeal. It would bring new listeners to DAB digital radio and attract an audience from the BBC. • New service • Distinctive service • Broad appeal, particularly 45 pluses • Equal male and female appeal • Excellent motivator for digital take up • Attractive to current BBC listeners

Podcast Service	
Target Audience & Demographic Profile	• The Podcast Service will include content of interest to all age groups, males and females. • Interest in the service is particularly strong amongst younger audiences; in particular those aged 25 to 34. • Young men were the most receptive to this functionality feature, comprising as they do almost two thirds of those expressing interest. • The service will help promote DAB uptake, and therefore a move to DAB+, with 82% of those interested in the service not owning a DAB radio.
Local Tastes & Interests	The service will carry a wide range of material, ranging from music to speech, and from content that will have national interest to content with a particular focus on Mid and West Wales.
Summary	The Podcast Service will enable the multiplex to cater for niche tastes and interests and small communities of interest, which would not otherwise be sustainable on a 24/7 basis. • An innovative new service • Strong youth appeal • Encourage DAB uptake

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	DSP Held
Radio Pembrokeshire	Town & Country Broadcasting Ltd	Yes	Yes
Radio Carmarthenshire	Town & Country Broadcasting Ltd	Yes	Yes
Wales Live	Town & Country Broadcasting Ltd	Yes	Yes
Podcast Service	Folder Media Ltd	Yes	No

119. Folder Media will provide opportunities for service providers to create new and innovative content streams. The 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. From launch, all service providers will have access to:

   - Scrolling text functionality
   - Electronic Programme Guide

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

Dynamic Label

121. DLS provides an immediate point of difference between a digital radio and a traditional FM receiver. The industry has recently begun to develop DLS into a commercial opportunity, with advertisers recognising the value of DLS as an additional communications tool.

122. Folder Media 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

123. EPGs are important in a multi-channelled environment – allowing listeners to find stations and programmes quickly, and enable functionality like "time-shifting" of stations. They enable service providers to promote their new services and programmes, and also allow 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.

124. An EPG channel will be available to all service providers. This channel will conform to the ETSI TS 102 371 DAB EPG standard, currently broadcast by the two existing national multiplexes. Service providers will be encouraged to use more advanced features, such as "series linking" and incorporating telephone, SMS, website and email addresses into the schedule data. An enhanced EPG will also allow listeners to navigate podcasts that are available from the multiplex.

125. Folder Media has had detailed discussions with All In Media Ltd ('AIM') relating to the launch of an EPG channel on the multiplex, and it is their intention to work with AIM to launch an EPG from the start of the licence term. The EPG will be transmitted in a dedicated packet data channel.

Use of variable-XPAD

126.   From launch, each service provider will be able to run programme-related data services within their short XPAD data capacity. Folder Media has substantial experience in the field of launching data services, and will use this experience to help service providers launch new programme-related data services, such as:

Tagging (Book marking)
*   Logging a song in order to download it later.

Broadcast Slideshow
*   Adding visual content to make programmes and adverts more engaging.

"Red button" functionality
*   Competitions and Voting
*   Enhanced Advertising
*   Rewards

Other services

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

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

128.   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.

129.   A 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.

130. Two neighbouring multiplexes are audible in Carmarthenshire. MXR's South Wales & Severn Estuary multiplex (37%) and UTV-Emap Digital's Swansea multiplex (34%). The services carried on these multiplexes are:

South Wales & Severn Estuary		Swansea	
Heart	Kiss 101	The Wave	Swansea Sound
Smooth Radio	Real Radio	Smash Hits	Kiss
XFM	Choice	BBC Wales	BBC Cymru
The Arrow	UCB UK		
LBC			

131. The Mid and West Wales multiplex is the first local multiplex covering its proposed area and for the majority of listeners will be their only local multiplex. The following table summarises our overall breadth of programming, which has been measured by the range of local digital services to be provided on the multiplex.

Radio Pembrokeshire	Radio Pembrokeshire is the sole radio service on the multiplex to have an editorial focus on the county of Pembrokeshire, which will enable consumers from outside of the county to hear the service and residents of the county to listen to the service as they travel further afield.
Radio Carmarthenshire	Radio Carmarthenshire's USP is its editorial focus on the county of Carmarthenshire, which will enable consumers from outside of the county to hear the service and residents of the county to listen to the service as they travel further afield.
Wales Live	The only commercial speech-rich service on the multiplex, it will cater for the untapped demand for news and information. It will also provide an alternative source of news and speech to the popular BBC Radio Wales and Cymru.
Podcast Service	A mixture of music and speech content, serving a broad range of tastes and interests that will complement the full time services carried by the multiplex. The inclusion of a Podcast Service will bring additional listening choice to all, and especially younger demographics.

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 2001 data. Review of DRDB and relevant RAJAR data on digital audiences. Analysis of existing multiplexes.	Not relevant	December 2007
Consultation with local councillors	To gain further insight into local needs and issues.	The issues which the area faces	Email and Internet based questionnaire	43 councillors (of 257 contacted)	January 2008
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. Evaluating the 2006 data with rolling 12 month data for each of the 3 available 2007 quarters	Not relevant	December 2007
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 Fieldvision. All interviews conducted face to face.	250 adults 15+ from across the PPA Sampling PPS Quota controls to known demographic profile.	January 3rd to 13th 2008

Mid & West Wales population

132. The Mid & West Wales multiplex has been advertised to cover the counties of Pembrokeshire, Carmarthenshire, Ceredigion and Powys, an area of 400,000 adults.

133. The following table analysis the potential adult population within the TSA of Radio Pembrokeshire and Radio Carmarthenshire, highlighting the relative demographic splits of the population, with comparison to the UK as a whole.

Q3 2007	Mid and West Wales	UK	Index on UK
15 to 24	14.2%	16.1%	88
25 to 34	11.8%	15.5%	76
35 to 44	14.7%	18.4%	80
45 to 54	17.6%	16.0%	110
55 to 64	17.4%	14.5%	120
65 plus	24.2%	19.5%	124
ABC1	45.1%	53.6%	84
C2DE	54.9%	46.4%	118
Male	47.7%	48.6%	98
Female	52.3%	51.4%	102

- The area has an older and higher C2DE profile than the UK average.
- It has a marked under representation of under 45s, and 25 to 34s in particular.
- By contrast, all age groups 45 plus are over represented, with 55 to 64 and 65 pluses over represented by 20% and 24% respectively.
- There are significantly more C2DEs compared with the UK as a whole, indexing at 118.
- The county's strongly atypical population profile, which trend analysis suggest will be compounded in the years ahead, has had a bearing on the range of services we propose to offer on the multiplex.

Consultation with locally elected representatives

134. In association with the local commercial stations, all county and local councillors across the four counties were contacted to explain DAB digital radio and the local opportunity. They were then asked to complete an online survey. The strong response (43) shows the strong relationship the stations have with their respective communities.

135. As a community orientated group of respondents, it was no surprise that their main listening was to the BBC's nation service, BBC Radio Wales, with more than 4 times as many councillors choosing to listen to this station than to its Welsh language sister station, BBC Cymru. The local commercial services, in particular Radio Pembrokeshire, rated extremely highly with 28% having the station in their repertoire and 10% listening to it most often.

136. Choice of stations listened to highlighted the importance of hearing local news and information as a means of keeping in touch. However, a high number of councillors conceded that the music they heard was also a significant influence. 93% of respondents had tuned to their favourite stations on analogue radio, with internet and satellite scoring equally at 16%. Only 6% claimed to have tuned in via a DAB radio. Their overall satisfaction with the range of local commercial radio was high with 67% 'quite' or 'very' satisfied with what they could already hear.

137.	In relation to new formats, councillors were most keen to hear a station playing a mix of classic hits and speech focussing on news and information for Wales. An easy listening station also rated highly and reflects the older population profile of the area whilst a similar number also wanted a station that provided regular traffic and travel information.

138.	Many councillors felt that there were a number of groups in the community that were not well served by local radio. Welsh speakers was mentioned by 33%, followed by the elderly. Only 25% thought no groups were poorly served. Interestingly, the key concern for councillors about the future was the impact of an ageing population, which at 74% was ahead of health and environmental issues which scored 67% and 65% respectively.

Radio choice

139.	The following local commercial and BBC analogue services currently operate from within the full multiplex area:

- Radio Pembrokeshire
- Radio Carmarthenshire and Scarlet FM
- Radio Ceredigion
- Radio Maldwyn
- BBC Radio Wales
- BBC Radio Cymru

140.	There are a number of services which operate outside the county but which attract an audience from within the PPA. These include Swansea Bay Radio, The Wave, Swansea Sound, Real Radio and XFM, and account for 15.2% of listening. Other listening accounts for 1.9%.

141.	With regard to national radio, the national services of the BBC and commercial services carried by Digital One are audible across the county, as will the services proposed by 4 Digital Group.

Current radio listening habits

142.	The following table summarises RAJAR results over the last 2 years, using rolled 12 month periods to Q3. Whilst radio reach has remained stable, average hours have declined marginally, resulting in a slight decrease in total radio listening.

	2006	2007
Population '000s		
Reach %	88.0%	87.7%
Reach '000s	189	190
Total Hours '000s	4,635	4,480
Ave. Hours	24.5	23.6

143.	Radio listening in the TSA has been reviewed against the UK to gauge how local listening compares. The following table summarises RAJAR performance for the 12 months ended Q3 2007 within the TSA and compares this with the UK as a whole.

Market Share	Mid and West Wales	UK	Index
All BBC	57.0%	55.0%	104
• BBC Network	41.7%	44.6%	93
• BBC Local	15.3%	10.4%	147
All Commercial	42.0%	42.8%	98
• INR	8.5%	10.9%	78
• ILR	33.5%	31.9%	105
Other	1.0%	2.2%	45

144. Despite the comparatively low choice of ILR services in the market, commercial radio performs significantly ahead of the UK average.

- Overall, the BBC slightly over performs; a reflection of the strong allegiance to, and performance of the local BBC services. By contrast, its network services under-perform.
- Commercial radio's performance is extremely strong at 42%, only marginally below the UK average.
- ILR overall scores ahead of the UK average, reflecting the strong service provision from a handful of ILR stations.
- However, INR services under perform and highlight the value of localness in this market.

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

Market Share by Age	2006	2007	UK 2007
15 to 34			
All Commercial	51.9%	46.8%	55.4%
All BBC	47.5%	52.7%	42.0%
35 to 64			
All Commercial	49.2%	46.0%	43.3%
All BBC	49.5%	53.1%	54.5%
65 pluses			
All Commercial	27.7%	26.3%	25.1%
All BBC	71.1%	72.1%	73.3%

Source RAJAR 12 mths ending Q3

- The commercial sector outperforms the UK average within both 35 to 64s and the 65 plus age groups, albeit the trend in market share is on the decline. The commercial market will need to respond strongly to offset further growth from the BBC with these demographics.

- Whilst commercial radio's performance is high with 15 to 34s, it is below the UK average and the trend is one of decline.

- Despite the BBC's dominance of the 65 plus age group, commercial radio's performance is ahead of the UK average and reflects, we believe, the comparatively greater speech output available on local services. Given this age groups over representation in the population, increased choice will help further improve commercial radio's share.

146. The table below details reach and hours profiles for BBC, all commercial radio and all ILR, and their indexation against the population.

Reach	All BBC Radio	Index on Population	All Commercial	Index on Population	All ILR	Index on Population	Population Profile
	%		%		%		%
15-24	15.9	112	18.4	130	18.5	130	14.2%
25-34	12.2	103	13.1	111	13.8	117	11.8%
35-44	13.4	91	16.4	112	18.1	123	14.7%
45-54	16.9	96	19.8	113	20.6	117	17.6%
55-64	17.9	103	17.1	98	16.5	95	17.4%
65+	23.7	98	15.3	63	12.5	52	24.2%

Hours	All BBC Radio %	Index on Population	All Commercial %	Index on Population	All ILR %	Index on Population	Population Profile %
15-24	13.0	92	14.9	105	12.6	89	14.2%
25-34	9.4	80	12.2	103	11.8	100	11.8%
35-44	11.9	81	20.6	140	23.4	159	14.7%
45-54	16.3	93	19.8	113	21.4	122	17.6%
55-64	22.4	129	19.2	110	20.5	118	17.4%
65+	26.9	111	13.3	55	10.4	43	24.2%

- In relation to the BBC:
  When compared with the population profile, the BBC's strengths in reach are with 15 to 34 and 55 to 64 year olds. The BBC is weakest with 35 to 54s.
  In terms of hours, the BBC's performance shows under delivery with all groups under 55.

- In relation to commercial radio:
  Commercial radio scores highly and above average in age groups under 55, especially 15 to 24 years olds.
  Analysis by hours shows this strength to be strongest with 35 to 64 year olds.

- In relation to ILR:
  ILR's reach profile broadly follows that of commercial radio, with ILR strong with all age groups under 55, especially 15 to 24 and 35 to 44 year olds.
  The hours profile shows that the best served age groups to be 35 to 64 year olds, especially 35 to 44s.

147. The following table summarises the historical performance of each local service over the last three years.

	2006	2007
Radio Pembrokeshire		
Weekly Reach %	23.3	22.3
Total Hours '000	714	542
Market Share	15.4	12.1
Radio Carmarthenshire		
Weekly Reach %	15.9	15.6
Total Hours '000	300	277
Market Share	6.5	6.2
BBC Radio Wales/Cymru		
Weekly Reach %	23.0	26.1
Total Hours '000	638	678
Market Share	13.8	15.1

Source RAJAR rolled years ending Q3
Radio Ceredigion and Radio Maldwyn do not participate in RAJAR

- Over the past two years Radio Pembrokeshire has seen a fall in market share. However weekly reach has held at a consistent level down 4%.
- Radio Carmarthenshire has delivered a stable reach and market share performance over the past two years.
- By contrast, the BBC has seen growth in both reach and market share up 13% and 8% respectively.

148. Our consumer research supports the RAJAR results:

- 83% of adults claimed to have listened to a radio station in the past 7 days.
- 71% listened to a BBC service compared to 42% who listened to a commercial station. 38% listen to an ILR station each week.
- The BBC dominates listening among DAB owners; 95% of whom say they listen to BBC stations compared to only 35% who listen to commercial stations. 60% of DAB owners claim to listen only to BBC stations, while only just over a quarter said they listen to an ILR station. This is not necessarily surprising looking at the national multiplex coverage.
- 40% only listen to BBC services, i.e. are solus listeners.
- Radio 2 was the most listened to individual service (27%), just ahead of Radio 1 (25%). Two more BBC stations featured ahead of any commercial services, Radio 4 (18%) and BBC Radio Wales (16%) were mentioned by 18% and 16% respectively, while 12% claimed to listen regularly to Radio Ceredigion– and the BBC's Welsh language service, BBC Radio Cymru.
- 1% of the population claimed to listen to digital only services. Among DAB owners, there is no exclusive digital radio listening, while 17% (of the small number of people with access only) told us they only listen to digital services.

Uptake of DAB digital radio

149. Across the uptake of DAB is strong, and with new developments over the next 12 to 18 months, such as iPod adapters and in-car receivers, means that by the time the multiplex launches, the potential DAB audience in Mid and West Wales will be significant.

150. The latest sales data from the DRDB is that 6.5m DAB sets had been sold by the end of Q4 2007 (with 1m sold in the quarter alone), whilst RAJAR Q3 2007 highlights that 28.4% can access DAB. Our research shows around 10% of the population of Mid and West Wales own a DAB digital radio set. This figure rises to 16% when including those who have access to DAB radio without owning a set of their own. These figures are significantly below the national average and goes some way perhaps to explaining the low interest and understanding surrounding some of the questions about functionality and alternative data services.

151. The following table details the profiles of adults in DAB homes (per RAJAR) in Mid and West Wales against the UK profile.

| | Profiles of | | Mid & West Wales Index on UK DAB Population |
| | UK Population DAB Profile | Mid & West Wales Adults in DAB Homes | |
	%	%	
Men	52.6	50.0	95
Women	47.4	50.0	105
16 to 24	16.8	11.4	68
25 to 34	15.8	6.8	43
35 to 44	19.9	15.9	80
45 to 54	18.7	20.5	110
55 to 64	15.2	20.5	135
65 plus	13.6	22.7	167

*Source RAJAR 12 mths ending Q3 2007*

- Compared with the UK profile, consumers of DAB Radio in Mid and West Wales are much more likely to be aged 45 or more.

152. Since Q2 2007, it has been possible to quantify radio listening by platform through RAJAR. Overall, the response to this additional aspect of data collection in the survey diary has been high. However, 24.3% of listening is not attributed down from 31.4% in the previous survey suggesting that consumers are now more accurately identifying the source of their listening.

153. In overall terms, 15.0% of all radio listening is via digital platforms, up 17% Qtr on Qtr. There are slight variations between commercial and BBC listeners. Commercial radio delivers a higher proportion of its listening via digital than the BBC, 16.8% v 13.4%.

	West Wales % of All Digital Hours*	UK % of All Digital Hours	UK % of All BBC Digital Hours	UK % of All Commercial Digital Hours
DAB	39.5%	57.0%	68.5%	47.7%
DTV	35.6%	19.7%	13.8%	25.4%
Internet	10.7%	10.9%	10.6%	8.6%
Other digital	14.2%	12.4%	7.1%	18.4%
	100.0%	100.0%	100.0%	100.0%

What people would like from digital radio

154. Having reviewed existing radio listening habits through RAJAR and our local consumer research, the next stage of our research was to evaluate interest in accessing existing radio services, new formats and data services. The following chart summarises the results for existing local services.
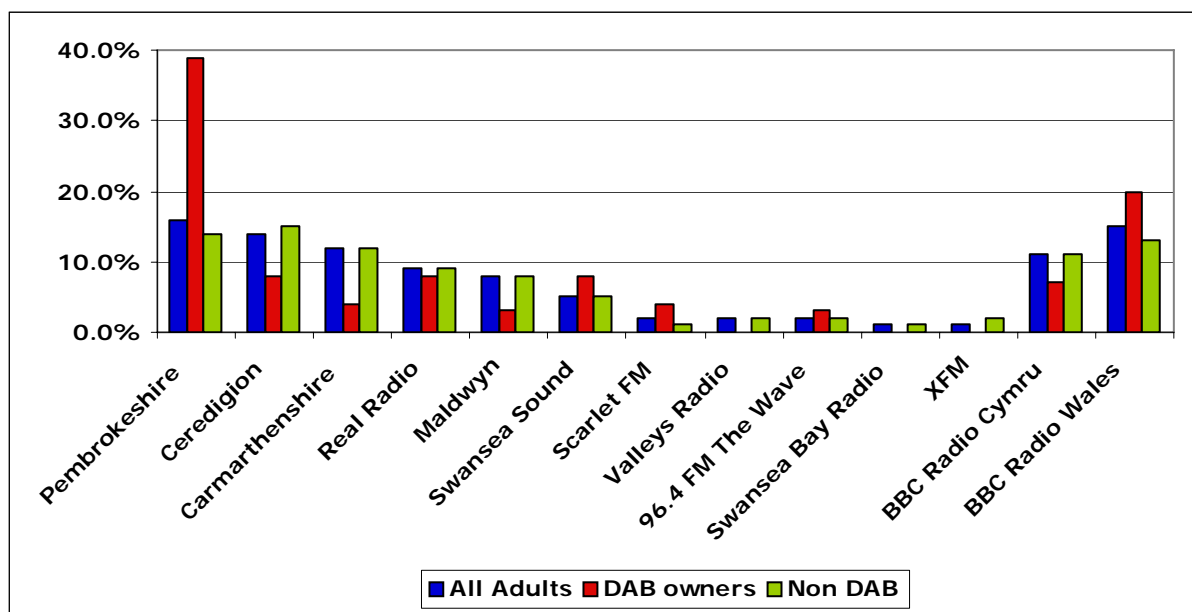
155. Our local consumer research also sought to gauge interest in a range of music genres and lifestyle genres. The majority of formats tested in the consumer research were ones for which we were confident that a service provider would be forthcoming, either at the time of the application or during the licence period. In addition, we felt that having consumer reaction to additional alternative format choices would be particularly relevant when expanding the choice of services in the future (either full or part time, or as Podcast services).
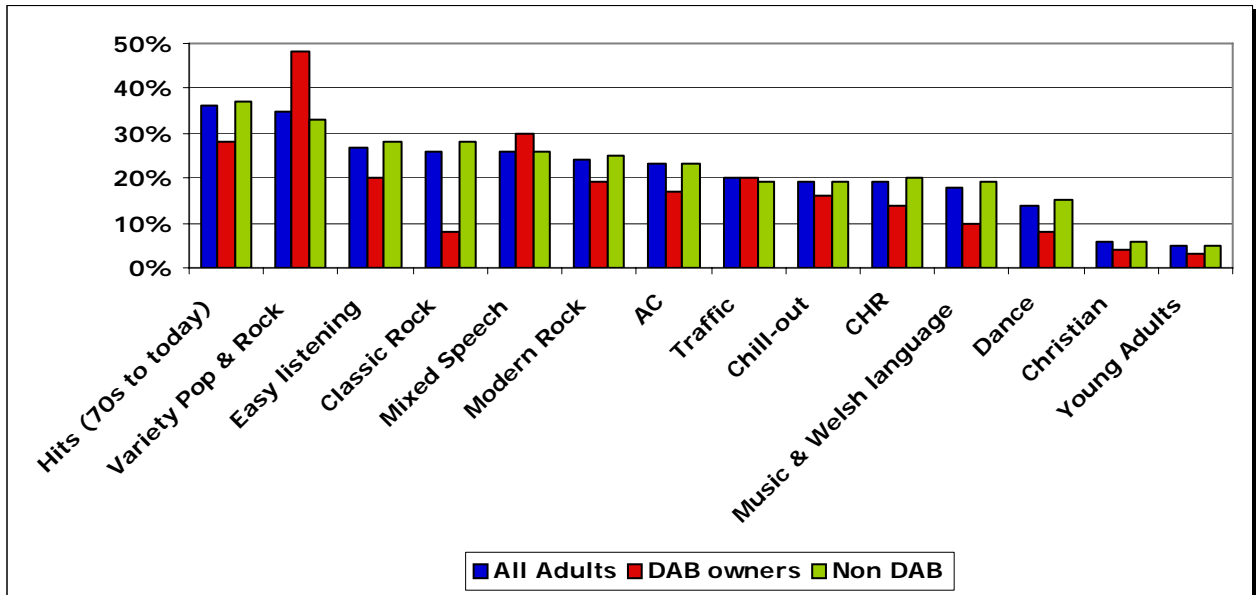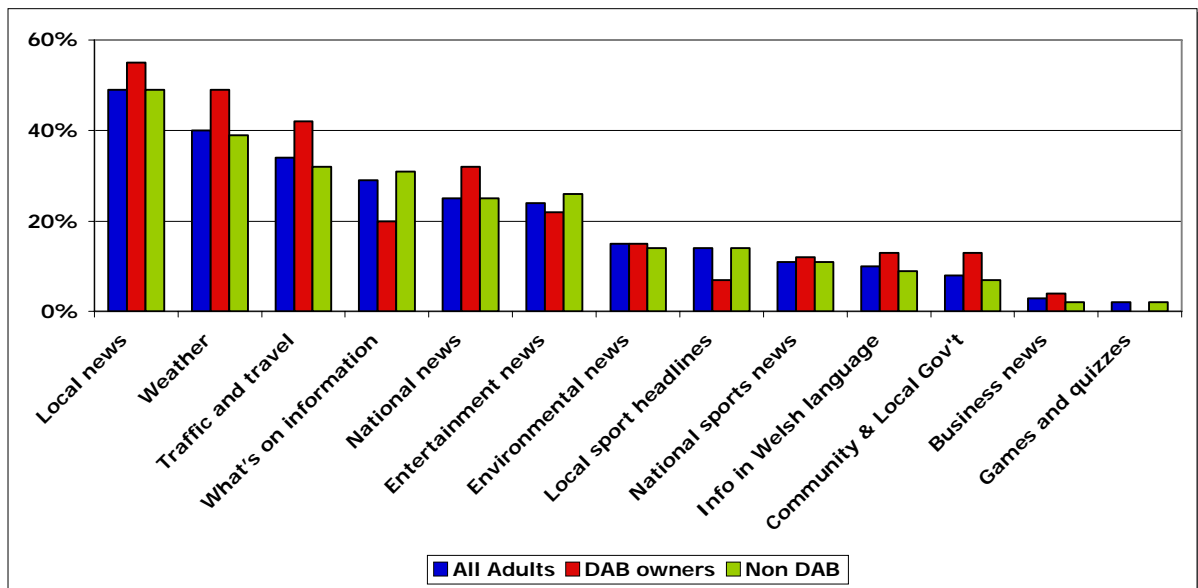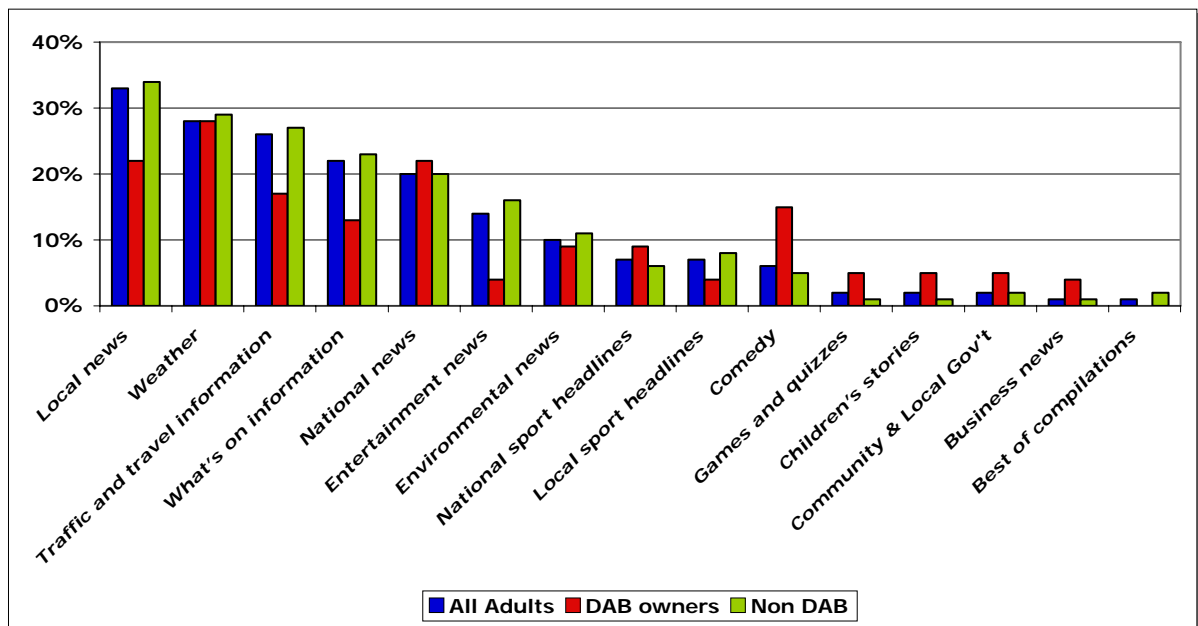

Data Functionality and Services

156. The opportunities for DAB to provide a range of data services that will complement radio services, or provide additional services, is an important aspect.
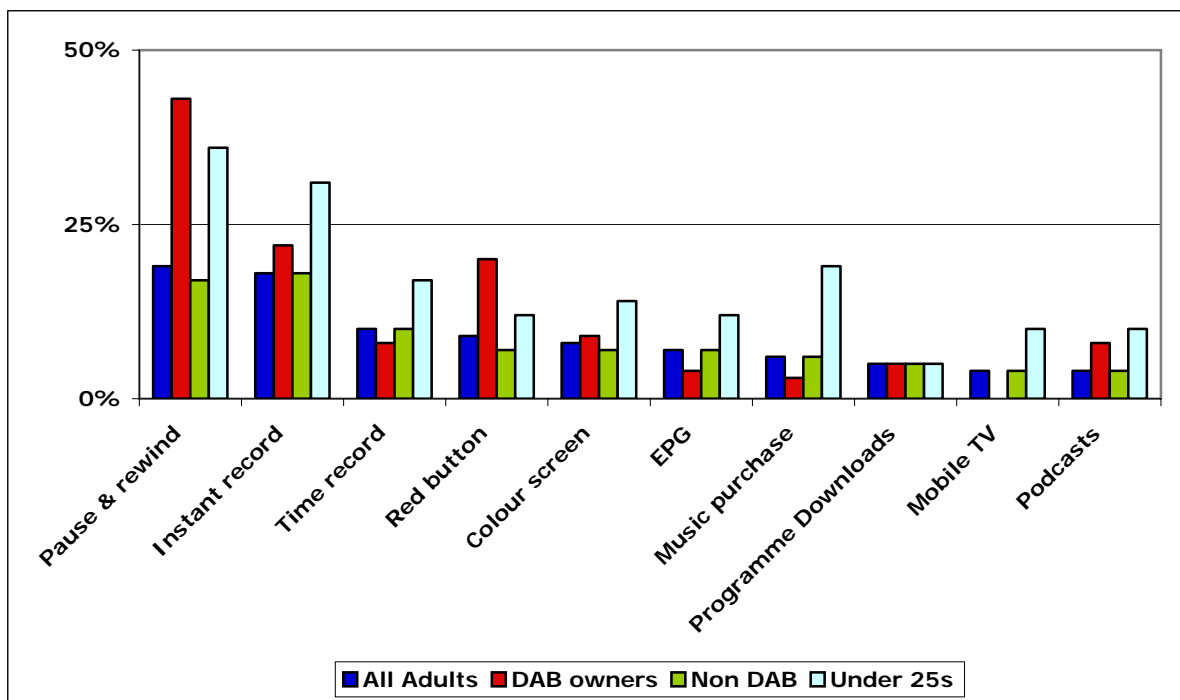
157. The following chart summarises reaction to a range of possible services that could be accessed through a screen on the radio.

158. And as audio downloads.

What does the future hold for digital radio?

159.   The new multiplex, with its proposed complement of existing and new services, will help increase the amount of time spent listening to the radio. Of those who would choose to listen to DAB:

- 30% would spend more time listening to the radio in order to include new digital stations in their weekly listening.
- 11% would spend less time listening to existing choice of stations in order to include new digital stations in their repertoire.
- 3% would stop listening to one or more existing stations in order to include new digital stations in their listening. Given the low level it is unlikely that any one service would be damaged by this impact.
- 39% were not sure how their listening would be impacted

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

- Radio 1 would be most negatively affected (43%). Given that only 11% said this would be their approach, Radio 1's score would only account for 3% of the adult population.
- No INR station would be significantly impacted.
- In relation to local services, the following results were noted - Real Radio (19%), Radio Pembrokeshire (9%), Scarlet FM (5%), Radio Cymru (4%) and Radio Wales (3%).
- Of great interest was that of those claiming they would listen less were almost exclusively non DAB owners, suggesting that those who already receive DAB see further choice as a chance to hear even more radio.

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

- 11% of would be listeners and 8% of the population would spend less time listening to one or other existing station. The impact here would be to potentially reduce total hours of listening to these services and thus their market share. Given the low level it is unlikely that any one service would be damaged by this impact.

162.   Finally, those who had claimed not to currently own a DAB radio were asked whether having heard about DAB and its possibilities, their radio listening habits might now change.

- 31% expressed some degree of interest in buying one, which is the equivalent of 28% of the entire population.
- If these were all to convert to DAB ownership, this would increase digital penetration from 16% to 44%.

15. Local support

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

163. We believe that interest in the complement of services is best measured by the level of support for the services to be broadcast on the multiplex. We have assessed interest in existing services through RAJAR, and both existing and new through our commissioned research. Through this research (detailed in Q.14), demand for each format was evaluated, both individually and collectively on the basis of the chosen complement of services. Our research also evaluated interest in digital radio and the key drivers for the new technology, over and above pure choice of formats which will assist in the development of our local marketing activities.

Local Consultation

164. We have consulted with MPs and local councillors as to their views of the issues that the county is likely to face over the next 10 years and how radio can assist. We have also discussed the DAB opportunity with a number of local organisations and individuals to make sure that the opportunities to broadcast as full services or as part of the Podcast Service are recognised, and to build local relationships.

Research

165. We will undertake on-going consumer research. This, in the main, will be undertaken in association with service providers through bodies like RAJAR. Such 'RAJAR' style research will assist service providers to measure audiences and the level of take-up, 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

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

Internet

167. MuxCo Wales will be served by a 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.

168. 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.

169. 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".

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

171.   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.

172.   Following the advertisement of the licence opportunity, we contacted the identified local analogue licensees 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.

173.   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.

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

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

176.   During the application process, we have engaged with all potential service providers in an open and non-exclusive manner.

Fair and Effective Competition during the Licence Period

177.   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.

178.   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.

179.   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.

180.   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-labeled 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.

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

182.   We are aware of a number of recent listening tests undertaken to evaluate the latest 'state of the art' MPEG 1 Layer II audio codec. These tests demonstrated that there was only slight degradation (1.7 points on the ITU scale).

183.   The following tables detail the division of multiplex capacity by kbits and CUs between the proposed audio channels, data capacity and EPG.

Kbits Allocation	Service Type	UEP	6am to Midnight	Midnight to 6am
BBC Radio Wales	MPEG1L2	UEP3	128	128
BBC Radio Cymru	MPEG1L2	UEP3	128	128
Pembrokeshire	MPEG1L2	UEP3	112	112
Carmarthenshire	MPEG1L2	UEP3	112	112
Wales Live	MPEG1L2	UEP3	96	96
Podcast Service	AAC	EEP3A	16	80
Data	DATA	EEP3A	56	8
EPG	EPG	EEP3A	8	8
Total			**656**	**672**
Allocated as % Total			*57%*	*58%*
Data as % Total			*7%*	*8%*

CUs Allocation	Service Type	UEP	6am to Midnight	Midnight to 6am
BBC Radio Wales	MPEG1L2	UEP3	96	96
BBC Radio Cymru	MPEG1L2	UEP3	96	96
Pembrokeshire	MPEG1L2	UEP3	84	84
Carmarthenshire	MPEG1L2	UEP3	84	84
Wales Live	MPEG1L2	UEP3	70	70
Podcast Service	AAC	EEP3A	12	60
Data	DATA	EEP3A	42	6
EPG	EPG	EEP3A	6	6
Total			**484**	**496**

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?

184. 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

185. 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 allocation are those of each service provider.

186. NGW has 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 Wales 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.

187. 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.

188. 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.

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

21. Audio characteristics

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

	Service Type	Stereo / Mono	Coding	Protection Level	Audio Sampling
BBC Radio Wales	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
BBC Radio Cymru	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Pembrokeshire	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Carmarthenshire	MPEG1L2	Stereo	Full Rate	UEP3	48kHz UEP3 Stereo
Wales Live	MPEG1L2	Mono	Full Rate	UEP3	48kHz UEP3 Stereo

190.   The Podcast Service will be licensed under a DSPS licence. The nature of the downloaded content will define the format of the coded audio; files with a majority of music content will be in stereo but those with predominately speech content may be encoded as mono to conserve data capacity. The use of AAC audio encoders will, however, allow us to maximise the audio quality at lower bit rates by employing the Parametric Stereo and Spectral Band Replication options. The inclusion of an AAC based podcast service will also ensure that the new receivers that support it will be able to decode this codec, something that will likely make them capable of decoding DAB+ services when they come to the UK.

Declaration

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

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

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

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

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

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

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

191.   MuxCo Mid and West Wales Ltd is not aware of any issues which would prevent the award of a licence to the company.