

Sound Digital

arqiva



*An application for a national radio multiplex licence
January 2015*



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EXECUTIVE SUMMARY

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

An unwavering commitment to enhancing listener choice

- i. Sound Digital unites two of the UK's leading music and speech broadcasters with the UK's leader in broadcast transmission to deliver a step-change in choice for radio listeners.
- ii. The company's innovative financial structure provides certainty that if awarded the UK's second national DAB multiplex licence, Sound Digital will launch its proposed network within 12 months and maintain it for the full 12 year licence term.
- iii. Sound Digital's goal is to play a leading role in the development of digital radio. This will be driven by the strength of the digital-only brands broadcast on its network, the promotional strategy detailed in this application and the financial security provided by its shareholders' commitment to the company.

Brands which are distinctive, appealing and exclusive to digital radio

- iv. The content brands which make up Sound Digital's launch line-up offer significant appeal to a wide variety of tastes and interests. They include a number of popular, well-loved brands which will be exclusive to digital radio.
- v. On the basis of legally binding commitments by its shareholders and third party content providers, Sound Digital is able to confirm the inclusion of a minimum of 15 distinctive radio stations in its launch line-up. None of these services are currently available via national analogue platforms and twelve will be unique to digital radio.
- vi. UTV will build on its track record as the UK's leading commercial speech radio broadcaster by launching three original speech services. talkRADIO, talkSPORT 2 and talkBUSINESS will significantly extend the availability of speech radio programming and offer additional plurality in a sector currently dominated by the BBC.
- vii. Sound Digital's music services cater to a broad spectrum of musical taste. They include three stations which extend Bauer's successful Magic, Kiss and Absolute Radio brands. The line-up includes heat radio for pop and entertainment fans and Planet Rock for classic rock enthusiasts.

- viii. To complement this strong musical offering from Bauer, UTV is teaming up with the Virgin Group to bring Virgin Radio back to the UK airwaves. Sound Digital is also making a firm commitment to providing a station which broadcasts non-mainstream music, with Jazz FM having signed a contract to provide this service.
- ix. Sound Digital's line-up also features confirmed services which cater to specific areas of interest for which there is additional national demand. These are Sunrise Radio and British Muslim Radio for Asian audiences, and UCB Inspirational and Premier Christian Radio for Christian audiences. These services will be operated by experienced third party content providers.
- x. Finally, to stimulate the DAB+ market and lay the foundations for a future migration to this efficient technology standard, Sound Digital is committing to providing a minimum of one distinctive DAB+ station. This takes the total number of committed stations at launch to 15.
- xi. Research by YouGov with a national sample of over 4000 adults shows strong appeal for our content line-up across all demographics, with 79% of respondents saying that they would listen to at least one of the stations if it was available.

Attracting new stations to digital radio through cost-effective coverage

- xii. The significant increase in digital radio choice offered by Sound Digital is facilitated by the affordability of our coverage to content providers.
- xiii. Sound Digital is differentiated from the existing national multiplex by its focus on digital-only stations including start-up operators and new entrants. Our network balances cost-effectiveness with high quality national coverage within each of England, Wales, Scotland and Northern Ireland. Careful consideration has been given to covering the UK road network, so as to support continued take-up of DAB digital radio in vehicles. We will also ensure contiguous coverage by joining major population centres together.
- xiv. Sound Digital's network plan will deliver our content line-up to over 46 million people in the UK and an estimated 88% of vehicles on the move.
- xv. The significant interest generated by Sound Digital amongst prospective content providers gives us confidence that our coverage approach represents the optimum solution both for the digital radio sector and above all for listeners.

A business model which is financially and operationally secure

- xvi. To provide certainty to Ofcom that Sound Digital's proposals will be realised if it is awarded the UK's second national commercial DAB multiplex licence, each of the shareholders has made binding commitments to fund fully and to maintain the multiplex for a minimum of 12 years from launch, and no party has an overall controlling interest in the company.
- xvii. Under the terms of these commitments, the shareholders will purchase the entirety of the available multiplex capacity from Sound Digital whether or not that capacity is in continuous use, thus guaranteeing the financial security of the company and the licence. Bauer and UTV will utilise their acquired capacity for their own radio services whilst Arqiva's capacity has been made available for sub-let to third parties.
- xviii. Each of Sound Digital's shareholders is a large and well-funded entity with a strong track record in operating broadcasting interests in accordance with licence commitments made to Ofcom.

Accelerating digital take-up through exclusive digital-only brands

- xix. The presence within Sound Digital's line-up of recognised brands which will be exclusive to digital radio heralds a major new chapter for the DAB platform. Sound Digital intends to harness the significant brand equity and distinctive appeal of stations such as talkRADIO, talkSPORT 2, Virgin Radio, heat radio, Magic Mellow, British Muslim Radio, UCB Inspirational and Jazz FM to spark a surge in consumer demand for digital radio.
- xx. Sound Digital will maximise the beneficial impact of its digital-only brands by initiating a high impact marketing and PR strategy. Particular focus will be given to the launch of the multiplex, with a national switch-on campaign coordinated by Sound Digital on a cross-industry basis with partners such as Digital Radio UK. This campaign will assist listeners in acquiring new DAB radios, retuning their existing sets and using streaming services to access the enhanced content line-up.
- xxi. Our strategic approach includes a commitment by Arqiva, Bauer and UTV to provide media support and cross-promotion worth £15m over six years. This will leverage shareholder-owned media platforms, complemented by promotional tie-ups with retail, vehicle and receiver partners, as well as airtime, national PR and above-the-line marketing by our content providers.
- xxii. Sound Digital believes that DAB+ offers significant future benefits for the digital radio sector. Multiplex capacity is therefore being made available for DAB+ stations at a significantly reduced price in the early years of the licence. To accelerate take-up of DAB+ radios, Sound Digital is committed to providing a minimum of one distinctive DAB+ station within its launch line-up.

An open and accessible platform to content providers

- xxiii. Sound Digital's goal is to provide financially secure foundations to support the launch and maintenance of an appealing line-up of national digital radio services. The company is structured to provide an open and accessible platform to established broadcasters and start-up operators alike, and to ensure fair and effective competition in the provision of services.
- xxiv. Sound Digital designated Arqiva to engage would-be content providers on its behalf, with an advert for expressions of interest published at the earliest possible opportunity. In total, discussions were held with over 30 credible prospective third party content providers.
- xxv. To ensure fair and effective competition in the sub-contracting of multiplex capacity to third party content providers, Sound Digital devised detailed operating guidelines which are enclosed within this application. These follow best industry practice and take advantage of its shareholders' existing experience in operating DAB digital radio multiplexes.

Efficient utilisation of multiplex capacity

- xxvi. Sound Digital has employed best industry practice to ensure that technical considerations support the shareholders' overarching objectives for the multiplex. Decisions about audio quality have been taken in consultation with service providers whilst drawing on the experience of our shareholders.
- xxvii. Factors taken into account include the commercial viability of each service, the nature of the content, extending the appeal of the line-up to a wide variety of tastes and interests, the characteristics of competitive services and the expectations of the target audience. In each case, an appropriate balance has been found between audio fidelity, achieving efficient use of capacity and cost-effectiveness to the content provider, thereby ensuring wide appeal to listeners.

General information

1 Name of Applicant, Address, Telephone No. and E-Mail Address

Q1. 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.

- 1.1 Sound Digital Limited (“SDL”, or “Sound Digital”) is a joint venture company owned by Arqiva Limited (“Arqiva”), Bauer Radio Limited (“Bauer”) and UTV Media (GB) Limited (“UTV”).
- 1.2 The shareholding structure provides an appropriate balance in the management of the company, with no single party having an overall controlling stake.
- 1.3 Sound Digital was incorporated in October 2014 for the purposes of applying for this licence and is a company registered in England with registered number 09245317.
- 1.4 Sound Digital’s certificate of incorporation is enclosed at Annex 1.1.
- 1.5 Sound Digital has appointed Bauer to provide corporate and financial services. Corporate enquiries should be directed to Bauer’s Director of Digital Radio, Grae Allan.

Name	Sound Digital Limited
Registered office address	1 Lincoln Court, Lincoln Road, Peterborough, PE1 2RF
Address for correspondence	3 South Avenue, Clydebank, Glasgow, G81 2RX
Telephone (daytime)	0141 5652347
Email address	grae.allan@bauermedia.co.uk

2 Main Contact (For Public Purposes)

Q2. Please nominate at least one individual to deal with any press or public enquiries.

- 2.1 Sound Digital has appointed UTV to provide communications and marketing services. Press and public enquiries should be directed to UTV's Director of Strategy, Jimmy Buckland.

Name	Jimmy Buckland
Address	18 Hatfields, London, SE1 8DJ
Telephone (daytime)	020 79597814
Email address	jimmy.buckland@utvmedia.co.uk

3 Main Contact (For Ofcom Purposes)

Q3. Please nominate one individual to whom questions of clarification and/or amplification should be sent.

The response to this question may be submitted in confidence, separately from the other responses in this section (if an applicant does not submit the response to this question in a separate annex, the response will be published).

- 3.1 Sound Digital has appointed Arqiva to provide transmission and multiplex management services. Ofcom should direct any questions of clarification and/or amplification to Arqiva's Director of Digital Radio, Paul Eaton.

Name	Paul Eaton
Address	UK House, 4th Floor, 2 Great Titchfield Street, London W1W 8BB
Telephone (daytime)	01962 823495
Email address	paul.eaton@arqiva.com

Section 47(2)(a) and (b): Extent of proposed coverage area and timetable for coverage roll-out

4 Summary of coverage proposals

Q4. Provide a summary, fully consistent with the more detailed information about transmission sites supplied separately (see Q.6 below), of the coverage areas proposed to be achieved by the applicant's technical plan, and an estimate of the percentage of UK households, UK major roads and/or the UK adult (aged 15+) population which will be served by the national radio multiplex service for both indoor and outdoor coverage.

High quality national coverage at a cost-effective price

- 4.1 Sound Digital's proposed network delivers high quality national coverage on behalf of listeners together with carriage which is cost-effective to digital-only content providers.
- 4.2 This network design approach was established as a core principle in the creation of Sound Digital by Arqiva, Bauer and UTV. Whereas the existing national commercial multiplex includes within its line-up the three analogue independent national radio stations¹, the Sound Digital partners envisaged that demand for carriage on a second national commercial multiplex would largely come from content providers whose services are exclusively or predominantly digital-only.
- 4.3 This was subsequently corroborated by the response to Sound Digital's advertisement for third party expressions of interest, which revealed that the majority of interest in national digital radio capacity was from stations with little or no access to analogue radio platforms. It is ultimately borne out in our proposed launch line-up.
- 4.4 Accordingly Sound Digital has developed a network that delivers national coverage in a cost-effective and sustainable manner. As well as serving the needs of content providers, including start-up and existing digital-only content services, this approach will be welcomed by listeners, who stand to benefit from a major expansion in digital radio choice. Conversely, a larger network would not deliver a sustainable expansion of choice for listeners.

¹ Absolute Radio, Classic FM and talkSPORT

The appointment of Arqiva as transmission provider

- 4.5 To support the achievement of its network design goals, Sound Digital appointed Arqiva as its transmission provider. This decision was made in the context of the formation of Sound Digital, with Arqiva's expertise and track record in building and operating national DAB networks considered as significant assets in this role.
- 4.6 A consequence of this decision is that Arqiva is both an equity partner in Sound Digital Limited and the proposed transmission provider. The provision of transmission services by Arqiva is regulated by the Competition Commission Undertakings of September 2008. Accordingly the separate roles of Arqiva as a Sound Digital partner and as the provider of regulated transmission services to Sound Digital have been partitioned.
- 4.7 Sound Digital established an arms-length interface with the regulated part of Arqiva, which we refer to in this application as Arqiva Transco. All costs and data related to managed transmission services (MTS) and network access (NA) have been provided to Sound Digital on this arms-length basis by Arqiva Transco.
- 4.8 The Sound Digital application has also had significant input from key Arqiva staff operating outside the regulated Arqiva Transco business unit and working exclusively with Sound Digital, notably in relation to coverage planning, multiplex & associated system design, finance and sub-contracting.

Sound Digital's network coverage brief

- 4.9 Following the appointment of Arqiva as its transmission provider, Sound Digital developed a coverage brief which focused on the following:
- Selecting transmission sites which provide high quality incremental coverage on a cost-effective basis;
 - Providing significant coverage within each of the four nations of the United Kingdom: England, Wales, Scotland and Northern Ireland;
 - Achieving a high level of coverage to vehicles on the UK road network, so as to support continued take-up of DAB digital radio in vehicles;
 - Delivering contiguous coverage of major population centres and the roads which join them together, as opposed to creating islands of unconnected coverage, within the constraints imposed by cost and international restrictions;
 - Co-siting transmitters with Digital One and BBC national DAB networks to avoid adjacent channel interference to existing digital radio services;

- Supporting a roll-out timetable which will enable Sound Digital to launch its network as quickly as possible following an award decision.

Significant national coverage that meets the needs of content providers

- 4.10 Sound Digital's proposed coverage network provides the optimum balance between cost and coverage for the UK's second national commercial DAB multiplex.
- 4.11 In accordance with Ofcom's direction in the licence advertisement, Sound Digital is submitting two network plans: the "SDL Compliant Plan" and the "SDL Enhanced Plan". These plans have been developed in line with Sound Digital's coverage brief by members of the Arqiva team responsible for designing the BBC National, Digital One and local DAB networks. Input has also been provided by broadcast engineering and multiplex operations experts at Bauer and UTV.
- 4.12 The Sound Digital partners gave careful consideration to the minimum coverage required for a new national DAB multiplex. Their conclusion was informed by advice obtained by UTV from the media agency Mindshare, which indicated that a national digital radio station should aspire towards weekly audience reach of 1 million adults (15+) in order to be regarded as credible by advertisers.
- 4.13 With the UK's leading digital-only radio stations attaining a weekly reach within their total survey areas of up to 3%², it follows that a network would need to deliver coverage of approximately 35 million UK adults (15+) in order for weekly reach of 1 million to be a realistic goal for its content services. This represents approximately 67% of the UK adult (15+) population.
- 4.14 Sound Digital concluded that it should go further than this, developing a network that delivers coverage in excess of 70% of the UK adult (15+) population from launch in order to maximise the benefits of its content to listeners across the UK. It concluded that it should seek to achieve this without compromising affordability to content providers or the speed with which it would be able to launch the network.
- 4.15 Accordingly the SDL Compliant Plan utilises 45 transmitters to provide high quality indoor coverage to 73% of UK adults (15+), 63% of major roads and an estimated 88% of vehicles on the move. The SDL Enhanced Plan employs higher transmitted power at nine of the 45 sites to increase coverage to 75% of UK adults (15+), 65% of major roads and an estimated 89% of vehicles on the move.

² For example, Absolute Radio 80s (RAJAR/Ipsos MORI/RSMB, Q3 2014)

- 4.16 In population terms:
- The SDL Compliant Plan covers 46.1 million people or 37.9 million adults (15+).
 - The SDL Enhanced Plan covers 47.7 million people or 39.2 million adults (15+).
- 4.17 For the reasons outlined in this section, Sound Digital is confident that this level of coverage represents the optimum and most sustainable solution for the UK's second national commercial DAB multiplex at launch.
- 4.18 The SDL Compliant Plan fully conforms to all international test points and bi-lateral agreements. The SDL Enhanced Plan relies on gaining the agreement of the Republic of Ireland authorities to relax the current bi-lateral agreement. Sound Digital believes that such agreement will be successfully negotiated on the basis that the SDL Enhanced Plan would still protect the Irish regional allotment in Cork yet provide increased UK coverage for 1.5 million people or 1.3 million adults (15+).
- 4.19 Both plans exclusively make use of existing and planned DAB transmitter sites to avoid adjacent channel interference. In many cases, following detailed technical analysis and design work, we have identified opportunities to use higher transmitted power in order to achieve significantly greater coverage than previously thought possible without interfering with listening on existing DAB multiplexes.
- 4.20 Initial planning work for Sound Digital's network was undertaken using Arqiva's industry-standard planning tools including the UK planning model (UKPM) before being verified and presented for the purposes of this application using the ATDI planning software specified by Ofcom in the licence advertisement. This approach enabled the planning team to address the requirements of Ofcom's advertisement whilst ensuring that the coverage can be directly compared with recent planning work undertaken by Arqiva using UKPM on behalf of the radio industry.
- 4.21 Arqiva's experience of building and operating DAB transmission networks has driven the detailed network design, with redundancy and diversity incorporated into the design where it is most effective. We will use dual-drive transmitters together with a dual distribution system to provide a network with equivalent reliability to the existing BBC and Digital One national networks. As a result, availability within covered areas is expected to exceed 99.9% of broadcast hours.
- 4.22 Given the importance of strong vehicle coverage and mindful of the recent and continuing significant expansion of line-fitted DAB radios in new cars, we have sought to understand the effective coverage of vehicle journeys by analysing Government traffic flow data published by the Department for Transport. We estimate that the SDL Compliant Plan will reach an estimated 88% of vehicles on the move, with the SDL Enhanced Plan reaching an estimated 89%. Annex 4.1 explains the methodology used to estimate coverage of vehicles on the move.

- 4.23 Tables 4.1 and 4.2 summarise our estimates of the percentage of UK households, UK major roads and UK adult (15+) population which will be served by the radio multiplex service for both indoor and outdoor coverage. Estimates are provided for both the SDL Compliant Plan and the SDL Enhanced Plan.

Table 4.1: Summary of coverage proposals – SDL Compliant Plan

Compliant Plan ATDI	Outdoor (Field Strength $\geq 54\text{dB}\mu\text{V/m}$ at 10m agl)		Indoor (Field Strength $\geq 62\text{dB}\mu\text{V/m}$ at 10m agl)
	% of Adults 15+	% of Major Roads	% of Adults 15+
England	86.3%	75.8%	75.3%
Scotland	72.6%	33.8%	68.9%
Wales	55.4%	30.4%	43.7%
Northern Ireland	66.0%	55.8%	57.1%
United Kingdom	83.0%	63.0%	72.7%

Table 4.2: Summary of coverage proposals – SDL Enhanced Plan

Enhanced Plan ATDI	Outdoor (Field Strength $\geq 54\text{dB}\mu\text{V/m}$ at 10m agl)		Indoor (Field Strength $\geq 62\text{dB}\mu\text{V/m}$ at 10m agl)
	% of Adults 15+	% of Major Roads	% of Adults 15+
England	87.3%	78.1%	77.6%
Scotland	72.7%	33.8%	68.9%
Wales	63.2%	41.1%	53.0%
Northern Ireland	70.3%	66.1%	62.0%
United Kingdom	84.4%	65.1%	75.2%

- 4.24 Maps showing geographic coverage for Mobile ($54\text{dB}\mu\text{V/m}$ at 10m agl) and Indoor ($62\text{dB}\mu\text{V/m}$ at 10m agl) achieved by the SDL Compliant and Enhanced Plans are enclosed at Annex 4.2.

- 4.25 Sound Digital has also calculated the coverage as predicted by the UKPM model. This is set out in Table 4.3, below, alongside the equivalent predictions from the ATDI model. This comparison shows national coverage of 77% of UK households for the SDL Enhanced Plan according to UKPM, a figure which can be directly equated with published DAB coverage figures for other local and national multiplexes.

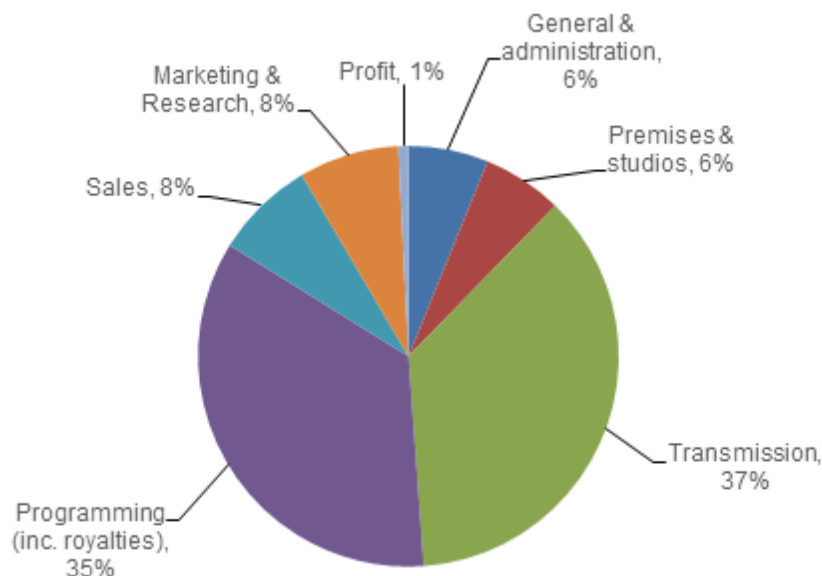
Table 4.3: Comparison between coverage as measured by ATDI and UKPM models

	Compliant Plan		Enhanced Plan	
	% of households / population	% of major roads	% of households / population	% of major roads
ATDI	72.7%	63.0%	75.2%	65.1%
UKPM	74.0%	65.0%	76.9%	66.9%

Cost-effectiveness to content providers

- 4.26 Having developed our coverage plan, Sound Digital sought to validate its cost-effectiveness to content providers.
- 4.27 This analysis assessed affordability by comparing transmission costs with the estimated revenues generated by a typical start-up digital-only station carried on the network ("Station Z"). For the purposes of our modelling, we assumed that Station Z broadcasts music output, generates advertising and sponsorship revenue and uses the Sound Digital network as its sole broadcast distribution platform. In practice Sound Digital's content services employ a range of business models, however Station Z is considered to be representative of an average station.
- 4.28 First, we used our knowledge of operating digital radio stations to estimate the typical cost base for a digital radio station such as Station Z. This analysis is shown in Figure 4.1 and it indicates that in order for a start-up digital-only radio station's business plan to be commercially viable, its transmission costs should not exceed approximately 37% of its total cost base.

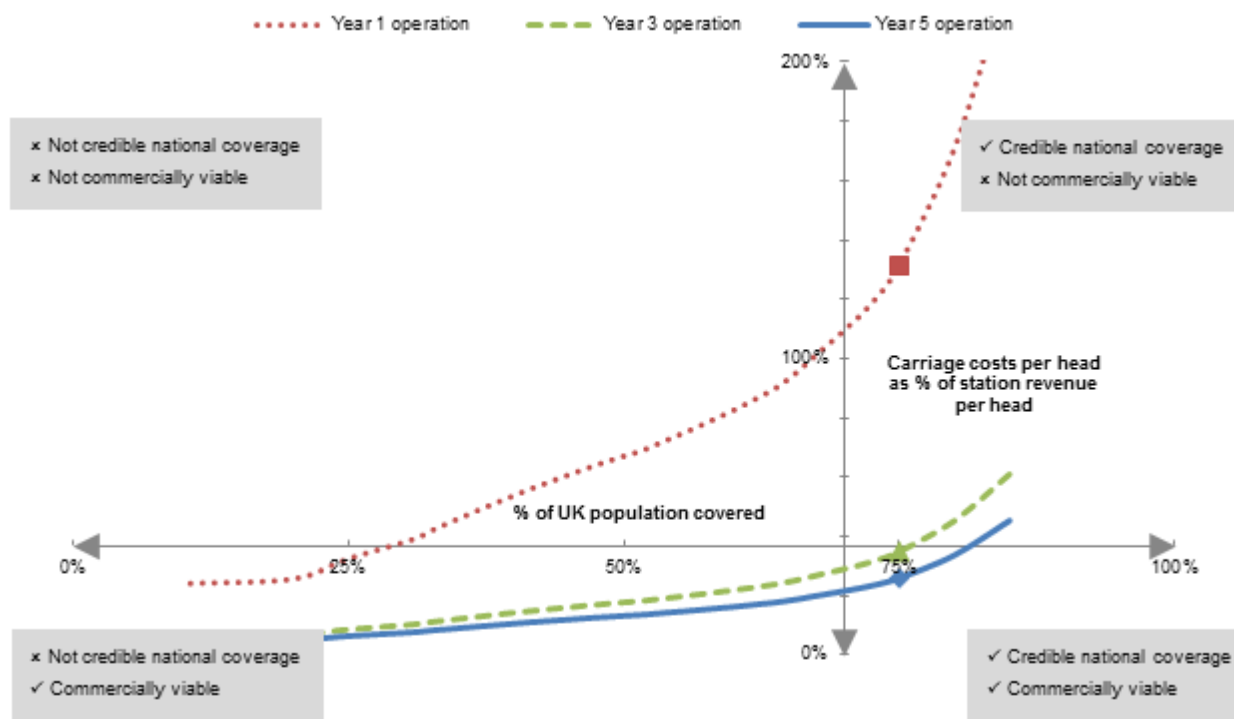
Figure 4.1: Estimated cost base for a typical digital radio station



Source: Sound Digital analysis

- 4.29 Second, we projected Station Z's advertising and sponsorship revenues in its first, third and fifth years of operation, based on conservative estimates of its audience. The audience estimates were generated by benchmarking Station Z against existing digital-only stations. To project the revenues we combined these audience estimates with our knowledge of typical industry inventory fill rates, average cost-per-thousand and airtime: sponsorship revenue splits.
- 4.30 Third, we used these insights into the costs and revenues of a typical digital radio station to assess the affordability of Sound Digital's network as opposed to networks built to a similar design specification but offering lower or higher amounts of population coverage, based on utilising a lower or higher number of transmitter sites.
- 4.31 Figure 4.2 plots the nominal relationship between population coverage and transmission costs, with the latter represented in terms of the percentage of Station Z's total estimated revenues which they would account for in its first, third and fifth years of operation.
- 4.32 The chart is divided into four quadrants, with each quadrant identifying whether or not a potential network delivers national coverage (defined as being in excess of 70% population coverage) and affordability (defined as carriage costs accounting for no more than 37% of revenues). The positions of the x and y axes reflect these assumptions. Sound Digital's network is indicated by a marker on each curve.

Figure 4.2: Affordability of Sound Digital's network to a start-up digital radio station

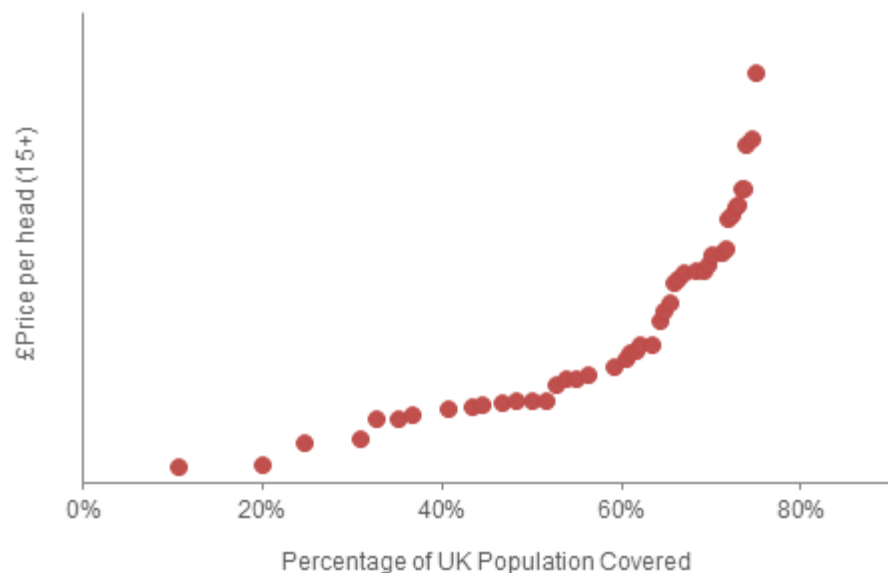


Source: Sound Digital analysis

- 4.33 Our analysis demonstrates that Sound Digital's national coverage network is affordable to a typical start-up digital radio station. In the first year of operation, the station's transmission costs would exceed its estimated revenues. Given other cost commitments, this would result in the station incurring significant losses. However it is assumed that the business plan for such a station would include sufficient initial funding to fund such losses, with a return on investment realised over a longer time-frame. In the third and fifth years, transmission costs fall below the 37% affordability threshold.
- 4.34 This analysis gives us confidence that our network represents an appropriate solution – indeed the most appropriate solution – for the UK's second national commercial DAB multiplex at launch.
- 4.35 Tellingly, our analysis indicates that a network which offered higher coverage than Sound Digital's would cost significantly more on a cost-per-head-of-population-covered basis. This would result in a significant risk to ongoing affordability for would-be content providers, with a consequential reduction in the number of services choosing to join the line-up.

- 4.36 There is also a realistic prospect that content providers would make an initial decision to join the multiplex, but would subsequently change their minds before launch or launch but find that the costs of transmission are unsustainable. In turn, this would reduce the benefits to listeners realised by the UK's second national commercial DAB multiplex.
- 4.37 The reason why a network with higher coverage would offer reduced cost-effectiveness is due to the accepted phenomenon of diminishing returns associated with adding additional sites to transmission networks. This is set out in Figure 4.3, which illustrates the dramatic escalation in the cost-per-head of Sound Digital's 45 transmitter sites. This chart plots the approximate price to a content provider of each site, calculated on a per-head-of-population-covered basis (adults 15+) to a content provider taking 48 capacity units. Sites are plotted in ascending order of price.
- 4.38 Although this analysis presents certain sites in Sound Digital's network as being relatively expensive, each plays an important role in meeting the design goals set out earlier in this section.

Figure 4.3: Price to a content provider of Sound Digital's 45 transmitter sites, per-head-of-population-covered (adults 15+)



Source: Sound Digital analysis of Arqiva Transco figures

- 4.39 The principle of diminishing returns highlighted in Figure 4.3 would continue to apply to any additional sites added to Sound Digital's network. Sound Digital considers that the significantly higher cost-per-head of such additional sites provides strong justification for the scale of the launch network proposed.
- 4.40 Sound Digital will consider future enhancements in network coverage through the same analytical framework of affordability to content providers. This approach will enable Sound Digital to take account of increases in digital listening over this period, as well as the post-launch performance of its services. Sound Digital is committed to consulting extensively with its service providers in considering any future coverage enhancements.
- 4.41 To formalise this process, the directors of Sound Digital will meet annually to consider proposals developed by Arqiva to enhance coverage. The proposals developed will be informed by Sound Digital's ongoing consultation with content providers. Following this meeting of Sound Digital's board, an annual forum will be held to which all Sound Digital content providers will be invited. At this forum, the board's conclusions will be presented and feedback sought. Once a specific proposal has been agreed, Sound Digital will submit a formal network expansion request to Ofcom.
- 4.42 In advance of any enhancement in Sound Digital network coverage, Sound Digital notes that a content provider seeking additional national DAB coverage could choose to secure capacity on a relevant local DAB multiplex. Analysis undertaken by Sound Digital reveals that there is currently spare capacity on applicable local DAB multiplexes.

5 Timetable for coverage roll-out

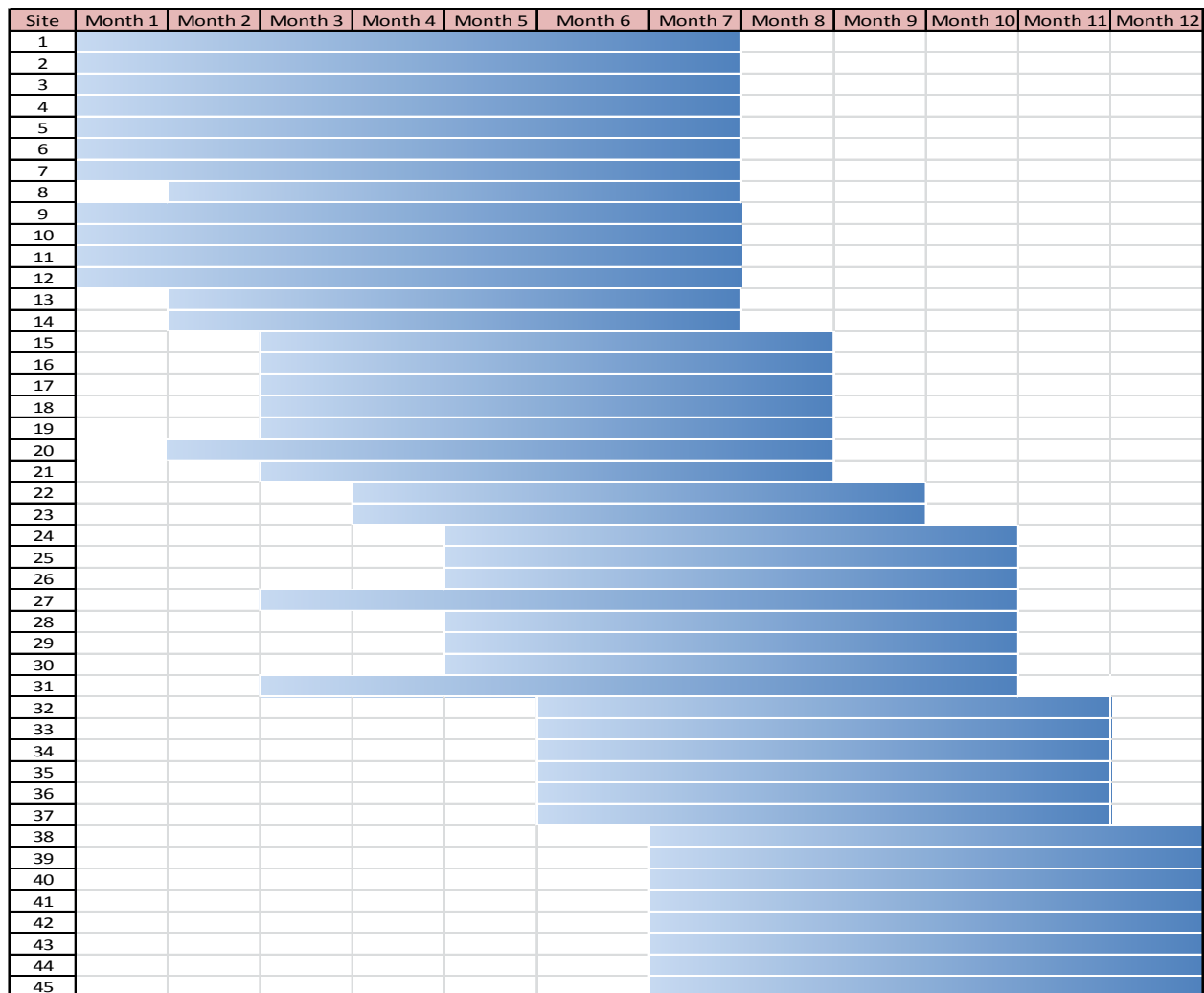
Q5. Outline the timetable in accordance with which the coverage proposed at Q.4 would be achieved, and the technical means by which it would be achieved. This should also be fully consistent with the more detailed information provided in response to Q.6.

A commitment to launch our network within 12 months

- 5.1 Having already executed a transmission agreement with Arqiva for network access, managed transmission services, multiplexing and distribution, Sound Digital is able to launch its network at the earliest opportunity following a positive award decision by Ofcom. Rather than using the initial period following a licence award to conclude negotiations as to its transmission arrangements, Sound Digital undertakes to initiate its network build programme immediately on receipt of Ofcom's notification.
- 5.2 This approach will enable Sound Digital to launch its network within 12 months of Ofcom's award decision. This will ensure that listeners benefit from increased choice of national digital radio services as soon as is practical.
- 5.3 Sound Digital's launch timetable takes account of guidance from Arqiva Transco as to the earliest realistic launch timetable given the technical requirements of the network build. Arqiva Transco also advised that Sound Digital's decision to acquire bundled network access and managed transmission services from Arqiva minimises the potential for roll-out delays.
- 5.4 The network developed by Sound Digital exclusively makes use of existing or planned DAB transmission sites. This minimises the risks associated with new sites such as the granting of planning permission and obtaining landlord consent to new works. It is also our intention to make use of existing national DAB antennas at most sites with minimal modifications to further reduce the risk of late completion. This approach will minimise any impact on existing services during the construction phase.
- 5.5 Using existing infrastructure eliminates the risk of interfering with existing DAB reception in the vicinity of Sound Digital's new transmitters (an effect known as adjacent channel interference or ACI). This approach makes the network construction phase as streamlined and rapid as possible.
- 5.6 Sound Digital intends to use the same dual satellite distribution feeds that are used by the Digital One network and has made advance arrangements to reserve suitable capacity in order to ensure its availability for our service. We will use the same uplink sites, downlink dishes and transmitting station low-noise-blocks (LNBs) as are utilised by the existing commercial and BBC national DAB networks. The system only requires configuration and thus will not present any risk to our launch plans.

- 5.7 Figure 5.1, supplied by Arqiva Transco, sets out an outline build programme taking into account all of the key tasks involved from licence award to launch. To ensure that this 12 month build programme is achieved, Sound Digital will instruct Arqiva to initiate it immediately following an award decision.

Figure 5.1: Proposed Arqiva Transco rollout plan



6 Detailed coverage proposals

Q6. 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. In order to meet existing international agreements, applicants must supply a plan that conforms to the international criteria described in Annex 3 of this advertisement; this will form the basis of Ofcom's assessment. Applicants may also submit an enhanced plan which they will commit to building subject to successful international coordination.

Sound Digital's Compliant and Enhanced Plans

- 6.1 As noted in the response to Question 4, Sound Digital is submitting two transmission network plans:
- the "SDL Compliant Plan" and
 - the "SDL Enhanced Plan".
- 6.2 The SDL Compliant and Enhanced Plans both use the same 45 transmission sites. The SDL Enhanced Plan has been developed in order to maximise the coverage achieved on behalf of listeners and to improve the cost-effectiveness to content providers.
- 6.3 Sound Digital is prepared to launch with its fully compliant network (the SDL Compliant Plan) in accordance with both the ITU requirements and our existing UK bi-lateral agreements with Ireland, France, Belgium and the Netherlands.
- 6.4 However, Sound Digital believes the current UK bi-lateral agreement with the Republic of Ireland is unnecessarily restrictive in requiring ITU compliance. Sound Digital has therefore included details for an SDL Enhanced Plan which will allow increased effective radiated powers (ERPs) at nine transmission sites. These higher ERPs will require additional bi-lateral agreements with the Republic of Ireland, which Arqiva advises is likely to be negotiated successfully.
- 6.5 Subject to securing this additional agreement, Sound Digital will either launch with the SDL Enhanced Plan or migrate to it as soon as possible after launch. This will result in coverage being extended to an additional 1.3 million UK adults (15+), equating to 2.5% of the UK adult (15+) population.
- 6.6 In the SDL Enhanced Plan, the majority of the non-compliant ITU test points fall in the North Sea or the Irish Sea and any test points falling on inland areas of Ireland are some distance from the Cork Regional allotment boundary: the only co-channel allotment in Ireland.

- 6.7 To enable enhanced coverage along the south coast of England some assignments, which Sound Digital is not intending to use in either the Compliant or Enhanced Plans, have been modified to provide additional margin in other areas of the country.
- 6.8 All of the above changes are included as modifications in the relevant Compliant and Enhanced ITU text files. Details of the changes between the 174 coordinated sites and the SDL Compliant and Enhanced Plans are detailed, as requested, in Table 6b in Annex 6.1.
- 6.9 Sound Digital considered it essential that its network be designed in such a way as to facilitate subsequent agreed coverage enhancements. Therefore, in developing both the Compliant and Enhanced Networks, Sound Digital is not proposing to remove any of the 174 ITU Assignments that are not included in either the SDL Compliant or Enhanced network plans. We are, however, proposing to move the Moel-y-Parc assignment from England to Wales and then to suppress the English assignment entry.
- 6.10 Retaining the recorded entries in the GE06 plan has not significantly affected the ability to maximise coverage for the network. Changes have been made to some of the entries to allow Sound Digital to improve coverage along the south and east coasts of the UK. This approach retains the ability to expand the network without requiring additional co-ordination requests and fully utilises the interference envelope already agreed and recorded in the plan.
- 6.11 Full details for the transmission characteristics of each of the transmitter sites in the SDL Compliant Plan and the SDL Enhanced Plan are detailed in Table 6d in Annex 6.2.
- 6.12 Sound Digital requests, if successful in this application, that negotiations are opened with the Republic of Ireland to agree the SDL Enhanced Plan.

Q6a. The first part of the technical plan is a table of assignment details. This gives the relevant technical detail of each transmitting station which the applicant is undertaking to provide as part of its network. It will be used to enable Ofcom to estimate the coverage which will be achieved by the applicant, on a basis consistent with other applicants. It will also enable confirmation of the plan's compliance with Ofcom's various technical requirements. All files must be supplied in text format which is in accordance with the ITU format defined for digital sound broadcasting assignments, details of which can be found at: http://www.itu.int/ITU-R/terrestrial/docs/notice-forms/ge06/BS-GE06_Guide.pdf.

6.13 Sound Digital has included seven text files in support of this application (Annex folder 6.3). The details of each file and the reasons for their inclusion in this application are detailed below.

1. "Annex 6.3.1 File1 SDL Compliant 45 Site.txt" – This file is supplied, as requested, and is formatted in accordance with the ITU file format. However, Sound Digital believes that because this file format does not support the description of variable beam tilt antennas, as is envisaged to be used at Belmont and Wrotham, it will not accurately determine the coverage of the SDL Compliant Network when imported into the ATDI frequency planning software. Sound Digital has, therefore, supplied ATDI formatted files (files 5 and 7) for import to allow accurate coverage of the SDL Compliant Network to be determined.
2. "Annex 6.3.2 File2 SDL Enhanced 45 Site.txt" - This file is supplied, as requested, and is formatted in accordance with the ITU file format. However, Sound Digital believes that because this file format does not support the description of variable beam tilt antennas, as is envisaged to be used at Belmont and Wrotham, it will not accurately determine the coverage of the SDL Enhanced Network when imported into the ATDI frequency planning software. Sound Digital has, therefore, supplied ATDI formatted files (files 6 and 7) for import to allow accurate coverage of the SDL Enhanced Network to be determined.
3. "Annex 6.3.3 File3 SDL Compliant International.txt" - This file is supplied in the ITU text format as requested. This file is to be used for the International coordination process of the SDL Compliant Network as it contains all additions and modifications to those entries already in the GE06 plan.
4. "Annex 6.3.4 File4 SDL Enhanced _ International.txt" - This file is supplied in the ITU text format as requested. This file is to be used for the International coordination process of the SDL Enhanced Network as it contains all additions and modifications to those entries already in the GE06 plan.
5. "Annex 6.3.5 File5 SDL Compliant 45 Site ATDI Import.txt" – This file is provided in the format required for import into the ATDI frequency planning software in order to allow Ofcom to accurately determine the coverage of the SDL Compliant Network. This file

needs to be used in conjunction with the antenna description files contained in the “zip” file described, in file 7.

6. “Annex 6.3.6 File6_SDL_Enhanced_45_Site_ATDI_Import.txt” - This file is provided in the format required for import into the ATDI frequency planning software in order to allow Ofcom to accurately determine the coverage of the SDL Enhanced Network. This file needs to be used in conjunction with the antenna description files contained in the “zip” file described, in file 7.
7. “Annex 6.3.7 File7_SDL_Antenna_Information.txt” – This “zip” file contains individual files for each antenna used in both the Compliant and Enhanced Networks. The files fully describe the antennas, including variable and large beam tilt, and are in the correct format for direct import into the ATDI frequency planning software. These files need to be used in conjunction with files 5 and 6.

Q6b. A table stating whether each of the 174 previously coordinated sites are to be used, modified or not used. If a site is proposed to be modified, please provide details.

6.14 Table 6b, provided in Annex 6.1, is extracted from the list of coordinated UK Block 11A transmitters supplied by Ofcom. The additional columns detail the following:

- Whether or not the site is to be used as part of the SDL Compliant or Enhanced Plan.
- If a site is to be used, then if it is to be modified, by either a change to effective radiated power (ERP) or a change of antenna pattern, or if it has been replaced by an alternative site.
- The difference in ERP between the coordinated ERP and the proposed ERP for both the Compliant and the Enhanced Plans.

Q6c. 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 (other than due to the need to protect analogue TV), 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.

- 6.15 Table 6c, provided in Annex 6.4, the “Implementation Table”, lists, for each transmitter in relation to both the SDL Compliant Plan and the SDL Enhanced Plan, the promised date of implementation and its parameters.
- 6.16 It is proposed that the implementation date of the SDL Enhanced Plan is the same as the SDL Compliant Plan. This is, however, dependent on bi-lateral meetings and agreements with the Republic of Ireland administration. Although Sound Digital believes it likely that agreements can be reached in time for the promised launch date, if for any reason this cannot be achieved then Sound Digital will launch the SDL Enhanced Plan with the applicable Compliant Plan ERPs. In this scenario Sound Digital will continue to seek the necessary agreements which would allow it to implement the SDL Enhanced Plan in full and at the earliest possible opportunity.

Q6d. Each transmission assignment should also be represented by site implementation data, specific to each transmission site. This detail is intended to elicit the practicability of the technical plan. For each site name (corresponding to assignment details and implementation table):

(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 photograph or scale diagram (or set of photographs or diagrams), showing the portion of the supporting structure on which the radiating aerials are to be mounted. Show the radiating aerials, and the aerials of other services mounted immediately above, below, and at the same level as, the radiating aerials of the applicant's service.

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

(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.

6.17 Table 6d, enclosed in Annex 6.2, details the requested site implementation data for each of the proposed transmission sites. The data indicates that Arqiva Transco, as Sound Digital's network provider, has assessed and confirmed the practicality of implementing each site in the technical plan.

6.18 For each transmission site Table 6d details:

- The Arqiva Transco site number, site name, national grid reference and site landlord.
- That Arqiva Transco has confirmed that it has agreements at each site.
- The proposed antenna, together with a brief description, height and whether it is existing or new.
- The proposed transmitter size, drive arrangement, feed type, location and ERP.

- Whether the site is understood to cause a likely adjacent channel interference (ACI blocking) issue

6.19 Where a new antenna is proposed, Annex 6.5 contains the required details and photographs of the sites to show the practicability of implementing the transmission site.

Q6e. Provide the following details regarding transmission arrangements:

i) Any transmission contracts that have been agreed

- 6.20 Sound Digital has already negotiated and agreed a binding transmission agreement with Arqiva to build and operate the network detailed in this application. The technical specification has been finalised subject only to any adjustments required to comply with Ofcom's licence terms.
- 6.21 The terms of the transmission agreement include the design, construction, operation, monitoring and maintenance of the transmission network detailed in this application for a period of 12 years commencing when the service is launched. The agreement also includes the provision of multiplexing services and the distribution of DAB ETI signals from the multiplexing centres to the network of transmitters.

ii) The status of these agreements

- 6.22 Sound Digital's transmission contract with Arqiva has been fully executed. The agreement is subject only to Sound Digital being awarded the new licence and is available for inspection by Ofcom if required.

7 Other technical proposals

Q7a. 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.

- 7.1 The answer to this question has been supplied to Ofcom in confidence.

Section 47(2)(b): Timetable for commencement of services

8 Commencement of services

Q8. 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).

A coordinated launch which achieves maximum PR impact

- 8.1 Sound Digital is committed to launching its proposed network and content services within 12 months of an award decision by Ofcom. As set out in our response to question 5, this represents the earliest possible launch date taking account of all relevant technical considerations and the beneficial decision by Sound Digital to execute a transmission agreement with Arqiva in advance of submitting this licence application.
- 8.2 To maximise the impact of its content services, Sound Digital will seek to align their launch on a single date. The chosen switch-on date will be the focus of a concerted PR and marketing campaign, described further in section 13. This approach is supported by legally binding terms within Sound Digital's partner carriage agreements and agreements with third party content providers.
- 8.3 The one content provider which may elect not to launch all of its services on Sound Digital's switch-on date is UTV. This is in light of UTV's commitment to launch four brand new radio stations. UTV will launch at least one service on the switch-on date, but the commencement of the others may be staggered within a period of one month for practical or promotional reasons.
- 8.4 If executed effectively, this approach by UTV will sustain heightened PR and marketing interest in digital radio over an extended period. It will also enable UTV to take account of editorial factors, such as the timing of sporting events.
- 8.5 Sound Digital will work closely with its content providers as they finalise their respective launch plans. Our overarching aim will be to ensure that the benefits of our content line-up for listeners and the wider digital radio sector are fully realised.

Section 47(2)(c): Ability to establish and maintain proposed service

9 Ownership and control of company which will hold the licence

Q9a. 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.

- 9.1 Sound Digital has a board of three directors, consisting of a senior executive director from each of Sound Digital's shareholder companies. Each director contributes significant relevant experience and expertise to the board of Sound Digital.
- 9.2 The shareholders have agreed that the chairpersonship will rotate between the three directors. The first chairperson to be appointed is Steve Holebrook. The chairpersonship will rotate on an annual basis with effect from 1 January 2016.
- 9.3 Sound Digital is structured to enable the appointment of alternate directors by each of the partners to take the place of the primary director from time to time. Bauer has formally appointed an alternate director.

Steve Holebrook (Managing Director of Arqiva Terrestrial Broadcast)

- 9.4 Steve Holebrook joined Arqiva (NTL as then known) in 1995 and has held a variety of roles in the company including running the standalone Satellite and Terrestrial business units and the combined Broadcast and Media division.
- 9.5 Steve previously worked for Mercury Communications, Kingston Satellite Services, British Aerospace and British Telecom International.
- 9.6 Steve graduated from Newcastle University with a degree in Electrical & Electronic Engineering in 1987 and gained a Master of Science postgraduate degree at Surrey University in 1989.

Other Directorships:

Arqiva Swing Limited, Digital One Limited, Digital UK Limited, ABHL Digital Radio Limited, MXR Holdings Limited, MXR Limited, Now Digital Limited, Now Digital (Oxford) Limited, Now Digital (Southern) Limited, Now Digital (East Midlands) Limited, South West Digital Radio Limited

Dee Ford (Group Managing Director Radio, Bauer Media)

- 9.7 Dee Ford is Group Managing Director Radio, for the UK division of the Bauer Media Group; running a multi-platform portfolio of 50 commercial local, national and digital stations.
- 9.8 Dee began her career in sales, achieving senior positions across a number of newspaper, magazine and radio groups. She joined Bauer (then emap) in 1994 as Managing Director of Rock FM. In 2002, Dee enjoyed a successful secondment to Polydor Music, as part of her personal strategy of remaining at the forefront of music media. Dee is an alumna of the prestigious Wharton Business School in Philadelphia, USA and of Stanford University.
- 9.9 Dee is highly respected within the industry for her many professional achievements; she is passionate about radio as a medium and the unique advantages that it offers its audience and commercial partners.

Other Directorships:

Bauer Radio Limited, RadioCentre Limited, Metro Radio Limited, UK Digital Radio Limited, Bauer Advertising Limited, Carlisle Radio Limited, Downtown Radio Limited, Kiss 101 Limited, Kiss 105 – 108 Limited, Moray Firth Radio Limited, Northsound Radio Limited, Radio Borders Limited, Radio Clyde Limited, Radio Forth Limited, Radio Tay Limited, South West Sound Limited, Vibe Radio Services Limited, Wave 105 FM Limited, West Sound Radio Limited, Scottish Radio Holdings Limited, Radio Joint Audience Research Limited, Bauer Digital Radio Limited, Key 103 Limited, Kiss FM Radio Limited, Magic 105.4 Limited, Planet Rock (West Midlands) Limited, Radio Aire Limited, Radio City (Sound of Merseyside) Ltd, Radio Hallam Limited, Red Rose Radio Limited, TFM Radio Limited, Viking Radio Limited, EG Digital Limited, Planet Rock Limited, Absolute Radio Limited, Bauer AR Digital Radio Limited, Bauer AR Holdings Limited, Bauer Golden Square Limited, One Golden Square Creative Limited, UK RadioPlayer Limited.

Scott Taunton (Chief Operating Officer, UTV Media plc)

- 9.10 Scott Taunton is Chief Operating Officer of UTV Media plc, with executive responsibility for the group's UTV Media (GB) division, as well as oversight of its TV sales operations in both Northern Ireland and the Republic of Ireland.
- 9.11 Born in Canberra, Australia, Scott was General Manager of DNA Internet at the point of its acquisition by UTV Media plc in March 2000. In 2002, Scott was appointed to the role of Business Development Director, and in 2005 to the role of Managing Director of UTV Radio following the group's acquisition of The Wireless Group in June 2005. He was appointed to the UTV Media plc board later that year and in August 2014 to his current post.

Other Directorships:

Allied Radio Ltd, First Radio Sales Ltd, Forever Broadcasting Ltd, Grand Central Broadcasting Ltd, Independent Radio Group Ltd, Perfecttaste Ltd, Pulse FM Ltd, Radiowave (Blackpool) Ltd, Signal Radio Ltd, Soccerbet Ltd, Swansea Sound Ltd, Switch Digital (London) Ltd, Switch Digital (Scotland) Ltd, Talk Radio UK Ltd, talkSPORT Ltd, The Wireless Group (ILRs) Ltd, The Wireless Group Holdings Ltd, Tower 107.4 FM Ltd, TWG Payments Ltd, UTV Connect Limited, UTV Digital (B&H) Ltd, UTV Digital Ltd, UTV Ltd, UTV Media (GB) Ltd, UTV Media plc, UTV Radio Ltd (formerly AR (UK) Ltd), Valley Radio Ltd, Wire FM (1997) Ltd, Wolverhampton Area Radio Ltd

Grae Allan (Bauer alternate director for Dee Ford)

- 9.12 Grae Allan manages Bauer subsidiary Bauer Digital Radio Ltd which operates twelve local DAB multiplexes.
- 9.13 Grae began his career at Radio Clyde in Glasgow in 1978, becoming Engineering Director of Clyde which was then part of Scottish Radio Holdings plc (SRH). He later established Score Digital Ltd, securing five local multiplex licences in Scotland and Northern Ireland. Following the takeover of SRH in 2005, Grae took on responsibility for the digital radio interests at emap which was in turn acquired by Bauer Media Group in 2008.

Other Directorships:

CE Digital Ltd, The Digital Radio Group (London) Ltd, Switchdigital (London) Ltd

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.

- 9.14 There are no plans to appoint additional Sound Digital directors beyond the possible appointment of further alternate directors.

Q9b. Proposed Investors and Shareholding Structure

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

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

9.15 There are three shareholders in Sound Digital as follows:

- **Arqiva Limited** a company registered in England with registered number 02487597 and having its registered office at Crawley Court, Winchester SO21 2QA (Arqiva);
- **Bauer Radio Limited** a company registered in England with registered number 1394141 and having its registered office at 1 Lincoln Court, Lincoln Road, Peterborough PE1 2RF (Bauer); and
- **UTV Media (GB) Limited** a company registered in England with registered number 03949697 and having its registered office at Faraday House, Birchwood Park, Warrington WA3 6FZ (UTV).

9.16 There are no plans to introduce additional shareholders.

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

9.17 There is only one class of shares in Sound Digital. There are a total of 100 £1 shares, all issued at par, fully paid up and all with the same voting rights.

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

9.18 The split of shareholding is as follows:

- Arqiva – 40 Shares
- Bauer – 30 Shares
- UTV – 30 Shares

- 9.19 The company is fully constituted and all shares have been issued.
- 9.20 The shareholding structure and the shareholder agreement ensure that Sound Digital is not subject to overall control by any of the individual parties. Beyond the terms already agreed, any significant change to the obligations of Sound Digital or of individual shareholders will require consensus of all three shareholders. This provides a balanced and secure corporate structure to ensure Sound Digital is able to deliver on the commitments being made in this application and if successful, to deliver on the licence obligations for the full 12 year term.

iv) Outline any shareholders agreements or arrangements which exist.

- 9.21 There is a fully completed joint venture agreement and associated articles which together govern the current and future operation of Sound Digital. The business of Sound Digital is to prepare and submit this application for the licence and, subject to the award and grant of the licence to the company by Ofcom, to operate the second national commercial DAB multiplex for the 12 year term of the licence.
- 9.22 The entire capacity of the licence is contracted to the shareholders. Subject only to the award of the licence, each of the three completed and fully binding partner carriage agreements will come into force. These agreements, between Sound Digital and each of the shareholders, commit the shareholders to jointly fund 100% of the revenues required under the Sound Digital business plan for the full 12 year term of the licence.
- 9.23 The allocation of licence capacity under the partner carriage agreements is as follows:
- Arqiva – 43.06% of licence capacity – 372 DAB capacity units
 - Bauer – 33.56% of licence capacity – 290 DAB capacity units
 - UTV – 23.38% of licence capacity – 202 DAB capacity units
- 9.24 The joint venture agreement also provides for UTV and Bauer to make exclusive commitments to supporting Sound Digital's licence application, including not contracting with any other applicant as a content provider. In practice neither UTV nor Bauer has been invited to become a content provider by any other applicant, nor did another applicant publish an invitation for expressions of interest in the manner that Sound Digital elected to.

9.25 The final key agreement is the completed and fully binding transmission contract between Sound Digital and Arqiva for the provision of the transmission network. This agreement becomes active following an award of the licence to Sound Digital. The transmission agreement is for the provision of a network complying with the multiplex licence. The technical specification within the transmission agreement will be adjusted once the detailed terms of the licence are known.

9.26 Sound Digital has appointed its shareholders to provide various ancillary services to the company. These comprise transmission and multiplex management services (Arqiva) finance, legal and corporate services (Bauer), and marketing and communications services (UTV). Each shareholder will make an agreed charge to Sound Digital for the provision of these services. In turn, these charges are covered by the commitments made to Sound Digital under the partner carriage agreements.

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

9.27 Each of the shareholders in Sound Digital is an existing Ofcom licensee.

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

9.28 Sound Digital Limited is a new company, created and established specifically to apply for the licence.

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

9.29 Sound Digital will be glad to receive requests for any additional information which Ofcom would find helpful.

Q9c. 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;

- 9.30 There is no involvement in advertising agencies by Sound Digital or its shareholders.

ii) Newspapers;

- 9.31 There is no involvement in newspapers by Sound Digital or its shareholders.

iii) Other broadcasting interests;

- 9.32 Arqiva, Bauer and UTV have wide-ranging existing television and radio broadcasting interests in the United Kingdom. For the purposes of this question 9(c)iii, the terms "Arqiva", "Bauer" and "UTV" are used to refer to these companies' respective groups, including affiliate companies and subsidiaries.

- 9.33 Arqiva owns two national digital terrestrial television multiplex licences, a national DAB multiplex licence (Digital One) and various local DAB multiplexes (many of which are operated via its NOW Digital subsidiaries).

- 9.34 Bauer operates a significant number of analogue and digital radio services, with key brands including Magic, Kiss, Absolute Radio, Key 103, Metro Radio and Clyde 1. Bauer holds AM and FM analogue licences, local DAB multiplex licences (including as part of the CE Digital joint venture), content licences for DAB locally and nationally and content licences for radio services for digital television. Bauer also owns a 50% shareholding in Box Television Limited which holds licences for television content services in the UK on various terrestrial and satellite channels including 4Music, the Box, Smash Hits!, Magic, Kiss, Kerrang! and heat.

- 9.35 UTV holds the channel 3 licence for Northern Ireland. UTV operates one national radio service (talkSPORT) and a number of local radio services, holding various AM and FM licences (including for Signal 1, Juice FM and U105), as well as local and national DAB content licences and content licences for digital television. UTV also owns various local DAB multiplex licences (including via its Switchdigital subsidiaries).

iv) Bodies whose objects are wholly or mainly of a religious nature;

- 9.36 There is no involvement in bodies whose objects are wholly or mainly of a religious nature by Sound Digital or its shareholders.

v) Bodies whose objects are wholly or mainly of a political nature;

- 9.37 There is no involvement in bodies whose objects are wholly or mainly of a political nature by Sound Digital or its shareholders.

vi) Local authorities;

- 9.38 There is no involvement in local authorities by Sound Digital or its shareholders.

vii) Other publicly-funded bodies

- 9.39 There is no involvement in other publicly-funded bodies by Sound Digital or its shareholders.

10 Financial and business plan

Q10a. Overall Financial Strategy

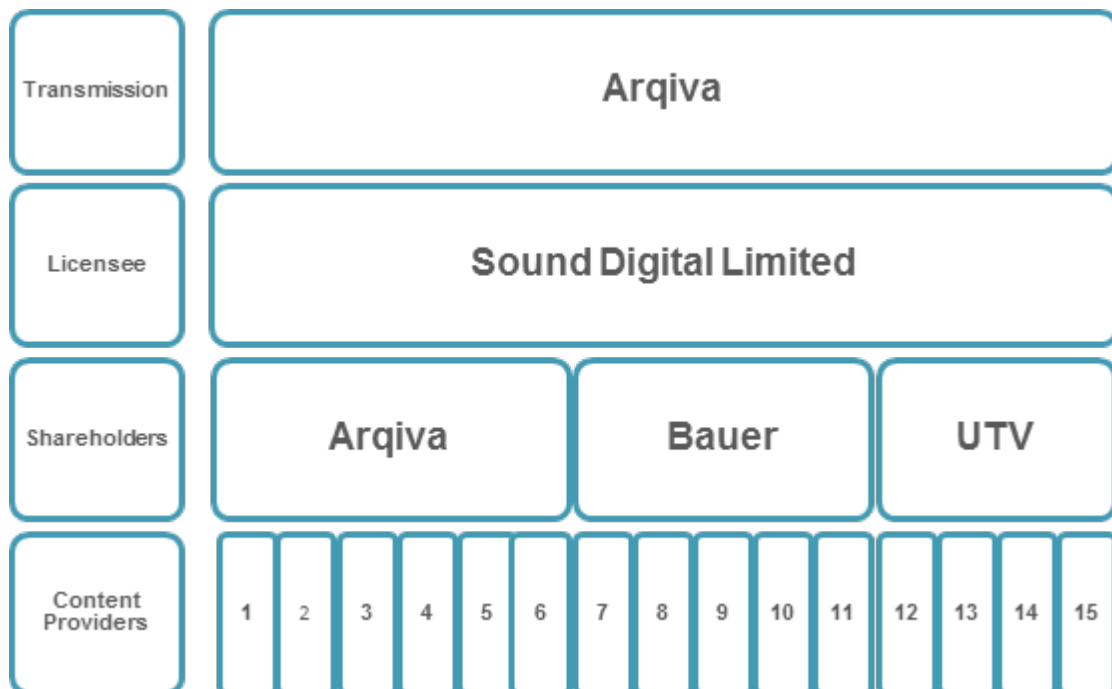
Explain how the applicant considers it is able to establish and maintain, throughout the licence period, its proposed service.

A business model which guarantees that Sound Digital will deliver

- 10.1 Sound Digital is backed by an innovative business model which provides complete certainty as to the company's commitment to launching and maintaining a new national DAB multiplex for a minimum of 12 years from launch. Accordingly Ofcom can have confidence that if it awards the licence to Sound Digital, the proposals in this application will be fully delivered and to the promised timetable.
- 10.2 The company is structured on a secure financial basis with shareholders – Arqiva, Bauer and UTV – who as leading existing multiplex operators have significant experience in and commitment to the UK DAB digital radio sector. Each shareholder is a large and stable entity with a strong balance sheet and established track record in operating broadcasting interests in accordance with licence commitments made to Ofcom.
- 10.3 Recognising that the previous award of the second national commercial DAB multiplex licence in 2007 to a consortium controlled by Channel 4 failed to launch, no party has an overall controlling interest in Sound Digital and each of the shareholders has made binding commitments to fully fund and maintain a new national DAB multiplex for a minimum of 12 years from launch. These commitments are conditional only on Sound Digital being awarded the licence.
- 10.4 As detailed in our answer to question 4, Sound Digital has sought to design a network which enables capacity to be offered to a wide range of content providers at an affordable price, thereby fostering additional competition in the provision of national digital radio services and unlocking additional choice for listeners.
- 10.5 Sound Digital's primary financial obligation is to meet the terms of its transmission agreement with Arqiva for the provision of transmission, multiplexing, distribution and multiplex management services.
- 10.6 Its ability to meet this obligation is ensured by three completed and fully binding partner carriage agreements which will come into force subject only to the award of the licence. These agreements, between Sound Digital and each of its shareholders, provide for guaranteed income equivalent to slightly more than 100% of Sound Digital's outgoings for the full 12 year term of the licence.

- 10.7 Under the terms of these partner carriage agreements, the shareholders have agreed to purchase the entirety of the available multiplex capacity from Sound Digital whether or not that capacity is used, thus guaranteeing the financial security of the company and the licence. It is the intention of Bauer and UTV to utilise their acquired capacity for their own radio services whilst Arqiva intends to sub-let its capacity to third parties.
- 10.8 Taken together Sound Digital is a secure and viable business with each of the partners playing to their core strengths.
- 10.9 The high level business hierarchy is summarised below:

Figure 10.1: High level business hierarchy



This explanation should include an assessment of each of the following, but is not restricted to these factors:

i) The network construction phase

- 10.10 Under Sound Digital's executed transmission agreement with Arqiva, network construction costs, prior to transmission fees becoming payable at the time of launch, are the responsibility of Arqiva. The executed agreement minimises any risk of delays or unforeseen costs prior to launch due to protracted negotiations post-licence award because it fixes the contractual arrangements between Arqiva and Sound Digital. This commitment is conditional only on Sound Digital being awarded the licence.
- 10.11 Under the terms of each partner carriage agreement, the shareholders are required to commence payments to Sound Digital one month before transmission charges become payable at the time of launch. This will ensure that Sound Digital can show positive cash-flow at all times so as to enable transmission charges to be fully funded.

ii) The operational start-up phase

- 10.12 Sound Digital as a trading company is neither intending to own any assets nor directly to employ any staff.
- 10.13 The joint venture agreement commits each shareholder to provide various operational services to Sound Digital. These commitments cover the term of the licence as well as the operational start-up phase. The operational services to be supplied include network planning and bid management services (Arqiva), finance legal and corporate services (Bauer), and marketing and communications services (UTV). Any third party costs are to be shared between the shareholders in proportion to their shareholding.

iii) Marketing

- 10.14 Sound Digital's consumer marketing activities principally relate to its strategy for promoting the acquisition of equipment capable of receiving the Sound Digital services. UTV is responsible for coordinating this strategy on behalf of Sound Digital, including ensuring delivery of the shareholder and content provider marketing commitments.

- 10.15 Individual content providers will implement their own marketing strategies in respect of their services and this will not incur any costs on Sound Digital. UTV will again provide coordination services to support this activity.
- 10.16 Planned trade marketing activity includes a licence application launch event for press, advertising agencies and industry on Friday 30 January 2015. This activity will be coordinated by UTV with third party costs shared between the shareholders under the terms of the joint venture agreement.
- 10.17 Further details of Sound Digital's marketing strategy are provided in our response to question 13.

iv) Ongoing operation of the service

- 10.18 Under the terms of the partner carriage agreements, Bauer, UTV and Arqiva are committed to making monthly payments even if their respective tranches of capacity are not fully utilised and therefore Sound Digital's business will always operate in credit. Indexation of the carriage charges paid by the shareholders is linked directly to indexation of the transmission charges payable under the transmission agreement and thus the income and expenditure of Sound Digital will always remain connected.
- 10.19 In the event that Sound Digital incurs additional costs during the ongoing operational phase, such costs will be shared between the shareholders in proportion to their respective shareholdings.
- 10.20 The shareholders' obligations to provide various ancillary services will continue for the duration of the licence term, thereby minimising the need for Sound Digital to incur further external costs.

Q10b. Funding

Detail the sources of finance that will be used to fund the licence.

- 10.21 Sound Digital will be entirely funded by its shareholders. Due to the way in which the shareholders have each committed to purchase a proportion of the multiplex capacity, it will not be necessary for the company to seek any specific loans, grants, donations or bank overdrafts.
- 10.22 Each of the shareholders has signed a partner carriage agreement that sets out the cost of capacity and creates an obligation for the shareholders to cover Sound Digital's full costs for the duration of the licence term.

i) Share capital

- 10.23 Sound Digital Limited has £100 of issued share capital held by the shareholders as follows:

Arqiva	40 shares	£40
Bauer	30 shares	£30
UTV	30 shares	£30

ii) Loan stock

- 10.24 The company does not envisage a requirement for the release of loan stock.

iii) Leasing / HP facilities (capital value)

- 10.25 Sound Digital will not purchase any capital items nor lease any equipment or facilities.

iv) Bank overdraft

- 10.26 Bauer will provide all financial services for Sound Digital. Sound Digital will also operate a separate bank account but does not expect to require any bank overdraft facilities.

v) Grants and donations

- 10.27 Sound Digital will not receive any grants or donations.

vi) Other (please specify)

- 10.28 Sound Digital will not have any other sources of finance.

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

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

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

- 10.29 The latest statutory accounts for each of Sound Digital's incorporated investing shareholders are enclosed in Annex 10.5.

Q10c. Financial Projections

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

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

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

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

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

The forecasts should be supplied on an Excel spread-sheet or similar and guidance notes should be provided. The applicant must also complete and submit the spread-sheet at: http://licensing.ofcom.org.uk/binaries/radio/digital/financial_template_national.xls using information from its business model. Guidance notes for completion of the Template can be found in Annex 2 to this Notice.

This section must include a full listing of the underlying assumptions on which the financial projections are based.

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

- i) Access fees*
- ii) Fees based on audience or revenue shares*
- iii) Other fees (please specify)*

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

The application should clearly set out the fee structure for each service provider, and explain the reasons for any differences in fees paid between providers. Where the applicant expects to receive fees based on audience or revenue shares of the services carried on the multiplex, forecasts of the audiences and revenues of those services should be provided.

10.30 The answer to this question has been supplied to Ofcom in confidence.

Q10d. Risks

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

The business plan must therefore:

- (i) Incorporate a set of sensitivity tests*

Sound Digital's 12 year costs are fully covered by its revenues

- 10.31 Sound Digital's financially secure business model ensures that if the UK's second national commercial DAB multiplex licence is awarded to Sound Digital, the partners are immediately legally bound to underwrite the company's cost base for the entire term of the licence regardless of whether the multiplex capacity is fully utilised.
- 10.32 This innovative structure passes all Sound Digital revenue risk to the shareholders, each of which is a financially stable business backed by a strong balance sheet, and with a track record of sustained investment in DAB and in honouring financial commitments.
- 10.33 Our sensitivity analysis is that because carriage charges payable by the partners are tied to the cost of the binding transmission contract with the inclusion of a modest margin to cover other Sound Digital operating costs, increases or decreases in costs will be tracked by revenues from Bauer, UTV and Arqiva. In turn each partner is accepting the resultant risk.

ii) Provide details of the main operational and financial risks to the business plan and explain how the applicant proposes to address these risks.

A business model which passes external risk onto our shareholders

- 10.34 Arqiva, Bauer and UTV's shared goal in structuring Sound Digital was to afford complete certainty to Ofcom that if awarded the licence, the company would follow through on its commitments to launch and maintain a new national commercial DAB licence for the full 12 year licence term.
- 10.35 In structuring the company, Sound Digital's shareholders drew on their existing experience as multiplex operators to identify the key risks to which a new national DAB multiplex licensee could be exposed, both prior to launch, and over the course of a 12 year licence term.
- 10.36 Sound Digital also took account of Bauer's and UTV's insights, as minority shareholders in the Channel 4 controlled 4DigitalGroup, into some of the circumstances which gave rise to its failure to launch.
- 10.37 The analysis set out below in tables 10.5.1 to 10.5.12 lists these identified risks together with their potential impact on a multiplex operator's business plan and the way in which they have been successfully addressed by Sound Digital.

Table 10.5.1: Risk 1

Risk	Shareholders seek to back out of their commitments post-award
Impact on business plan	Delays to launch timetable or multiplex fails to launch Management time taken up in addressing internal issues
How addressed by Sound Digital	The shareholders have made legally binding commitments to launch the multiplex and underwrite its entire cost base. These commitments are conditional only on the award of the licence. Each shareholder has a track record in operating DAB multiplexes, adhering to licence commitments and honouring financial obligations. None of the shareholders has an overall controlling interest in the company. Each shareholder's role within Sound Digital sees them playing to their core strengths, thereby providing inherent stability to the company. Legal redress would be available to Sound Digital and its remaining shareholders in the unlikely event of a default by one of the partners.

Table 10.5.2: Risk 2

Risk	Failure or delays in executing the transmission agreement
Impact on business plan	Multiplex fails to launch or launches later than envisaged Coverage delivered is not compliant with application proposals
How addressed by Sound Digital	Sound Digital has already executed a transmission agreement with Arqiva which is conditional only on the licence being awarded by Ofcom.

Table 10.5.3: Risk 3

Risk	Failure to convert a content provider's indicative interest into a legally binding contract
Impact on business plan	Anticipated multiplex revenues are insufficient to cover external cost commitments Multiplex fails to launch
How addressed by Sound Digital	The partner carriage agreements signed by each of the shareholders ensure that the entirety of the multiplex capacity is contracted throughout the licence term. As detailed in our response to question 11a and 17, Sound Digital and its content providers are making firm commitments to launch 15 radio stations.

Table 10.5.4: Risk 4

Risk	Failure to renew carriage agreements with terms of less than 12 years when they expire
Impact on business plan	Revenues insufficient to cover external cost commitments Multiplex fails midway through licence term
How addressed by Sound Digital	Sound Digital's partners have made binding commitments to purchase the entirety of the multiplex capacity for the full 12 year term of the licence. With DAB content providers often preferring shorter term contracts, Arqiva has made a binding commitment to absorb the financial risks associated with underutilisation of its contracted multiplex capacity throughout the 12 year licence term. Arqiva has indicated that its risk management approach will balance these short to medium-term risks against the long-term benefits of supporting the development of digital broadcast platforms.

Table 10.5.5: Risk 5

Risk	Financial default by content providers caused by failure to achieve internal revenue projections
Impact on business plan	Revenues insufficient to cover external cost commitments Cash-flow issues and risk of financial default by multiplex operator
How addressed by Sound Digital	The terms of the three binding partner carriage agreements signed by Arqiva, Bauer and UTV ensure that Sound Digital will meet its external financial commitments. These agreements do not include any linkages between carriage fees and the revenues achieved by content services. All three shareholders already have extensive interests in UK radio and their respective obligations to Sound Digital are only a modest proportion of those wider businesses. Changes in Sound Digital's cost base therefore cannot jeopardise the viability of the company. Sound Digital has validated the cost-effectiveness of its carriage network to content providers, and in turn the viability of its launch line-up. In the case of UTV, which is planning to launch four entirely new services, analysis commissioned by Mindshare provides broad support for its business plan assumptions. Mindshare identified an "appetite in the market for new stations that would open up new routes to market for advertisers" and provided commercial feedback on initial business plans which has informed UTV's final proposals. A letter summarising Mindshare's findings is enclosed in Annex 10.3.

Table 10.5.6: Risk 6

Risk	Movement in transmission charges caused by increased electricity charges
Impact on business plan	Multiplex revenues may be insufficient to cover increased transmission costs
How addressed by Sound Digital	As transmission charges vary over time, payments made under the three partner carriage agreements will be adjusted to ensure that Sound Digital's revenues track its costs. This will ensure that Sound Digital always remains cash positive.

Table 10.5.7: Risk 7

Risk	Increasing finance costs due to external market factors
Impact on business plan	Cost base grows to exceed revenues, resulting in loss of business viability Increased costs passed on to new content providers in the form of increased carriage charges Alternatively, multiplex operating company defaults on its financial obligations resulting in failure of the company and inability to maintain the multiplex service
How addressed by Sound Digital	Sound Digital does not have any finance requirements such as shareholder loans, bank loans or other credit facilities. This has a beneficial impact to Sound Digital's cost base and also insulates the company against any exposure to movements in the cost of accessing financing. Sound Digital has been structured so that the company is not an investment proposition; rather it is as an extension of the shareholders' core businesses with no need for an exit plan within the 12 year licence term.

Table 10.5.8: Risk 8

Risk	No digital radio switchover
Impact on business plan	Possible uncoupling of analogue and digital licensing regimes Depressed demand for national DAB capacity
How addressed by Sound Digital	Arqiva, Bauer and UTV's respective internal business plans take a pragmatic view of digital radio take-up and accordingly are not predicated on assumptions about a substantial analogue switch-off taking place by a certain date. The carriage of primarily or exclusively digital-only content services also reduces any potential impact of analogue switchover on Sound Digital.

Table 10.5.9: Risk 9

Risk	Increases in DAB+ receiver penetration reduces the overall level of demand for multiplex capacity (due to DAB+ requiring less capacity)
Impact on business plan	Reduction in demand for capacity unless there is a balancing increase in demand for additional content services
How addressed by Sound Digital	Demand for DAB+ capacity is currently low even at the discounted rates detailed in this application, but this may increase with DAB+ set penetration. Arqiva has undertaken to absorb any fluctuations in demand for multiplex capacity from third parties while Bauer and UTV have undertaken to fund their allocated capacity independent of the technology.

Table 10.5.10: Risk 10

Risk	Lack of in-car availability of DAB radios and / or increased in-car availability of IP-delivered audio services
Impact on business plan	Decreased demand for DAB capacity from content providers New entrants increasingly choose internet radio as the best route to market, including in reaching in-car listeners
How addressed by Sound Digital	The growth in line-fit of DAB radios in car has been significant in recent years, with around 60% of new cars now fitted with DAB radios as standard ³ . The retrofitting of DAB into all other cars will take time, although after-market solutions have been developed by several manufacturers. As detailed in our response to question 13, Sound Digital will work with industry partners including Digital Radio UK to accelerate in-car DAB take-up. Sound Digital is protected against fluctuations in demand by its shareholders' commitments to underwriting the entirety of the capacity for the 12 year licence term.

Table 10.5.11: Risk 11

Risk	Possibility of a third national commercial DAB multiplex
Impact on business plan	Increased market supply of DAB / DAB+ capacity Consequential failure to attract sufficient revenue from content providers to cover the company's external cost commitments
How addressed by Sound Digital	The Sound Digital business plan is underwritten by its partners for the entire term of the licence regardless of external market events. Any impact of an alternative route to market emerging will therefore fall more directly on content providers than on Sound Digital. Sound Digital is not aware of any current plans for a third national DAB licence and in the long term migrating services to DAB+ will offer a means of expanding the capacity of existing multiplexes.

³ Source: Digital Radio UK

Table 10.5.12: Risk 12

Risk	Increased consumption of radio & music services via the internet
Impact on business plan	Decreased listener demand for DAB-delivered linear content services Reduced content provider demand for DAB capacity
How addressed by Sound Digital	<p>As detailed in our response to question 13, Sound Digital's shareholders and third party content providers are at the forefront in harnessing the opportunities presented by the growth of internet audio listening, to the benefit of digital radio audiences.</p> <p>Despite increased choice of audio content from new platforms, including non-linear music streaming services such as Spotify, listeners exhibit strong continuing demand for professionally produced and distinctive linear radio programming such as can be found within Sound Digital's content line-up.</p> <p>This is also borne out in recent research, which indicates that listening to internet music services predominately displaces listening to personal music collections rather than radio listening⁴.</p> <p>Sound Digital considers the internet as a complement to broadcast distribution as opposed to a replacement, with broadcast platforms satisfying the bulk of live radio's distribution needs for the foreseeable future.</p> <p>Despite high internet penetration across the UK, AM, FM and DAB currently supply the vast majority of UK radio listening.</p> <p>Moreover, the technical challenges associated with migrating the entirety of the one billion hours of weekly UK radio listening to fixed line and 3G/4G platforms should not be underestimated.</p>

- 10.38 Sound Digital's business model provides an innovative and comprehensive response to each of the potential risks identified above. In turn this provides complete certainty that Sound Digital will follow through on the proposals detailed in this application if they are converted into binding licence commitments by Ofcom.
- 10.39 As a result, Ofcom can have confidence that the benefits identified for listeners in this application will be fully realised if the UK's second national DAB multiplex licence is awarded to Sound Digital.

⁴ Source: Audiomonitor, www.audiomonitor.co.uk

Section 47(2)(d): Appeal to a variety of tastes and interests

11 Proposed digital sound programme services

Q11a. Provide, for each digital sound programme service for which capacity is to be allocated, a description of the service. This description should encapsulate the nature and characteristics of the proposed service (e.g. type(s) of music and speech to be provided, target audience, etc.). The number of hours each day that the service will be broadcast must also be included. These service descriptions will form part of the licence. Therefore, questions of clarification may be asked prior to licence award and the wording amended to reflect this, if necessary.

A highly appealing line-up of distinctive well-known brands

- 11.1 If awarded the UK's second national commercial DAB multiplex licence, Sound Digital will launch its network with a minimum of 15 digital sound programme services. These stations include a large number of familiar well-loved brands, and the significant majority will be exclusive to digital radio⁵. The services are highly distinctive, with collective appeal to a wide variety of tastes and interests.
- 11.2 UTV will build on its track record as the UK's leading commercial speech radio broadcaster by launching three original speech services. talkRADIO, talkSPORT 2 and talkBUSINESS will significantly extend the availability of speech radio services in the UK and offer additional plurality in a sector currently dominated by the BBC.
- 11.3 Sound Digital's music services cater to a broad spectrum of musical tastes. They include three stations which extend Bauer's hugely popular and successful Magic, Kiss and Absolute Radio brands. The line-up includes heat radio for pop and entertainment fans and Planet Rock for classic rock enthusiasts.
- 11.4 To complement this strong musical offering from Bauer, UTV is teaming up with the Virgin Group to bring Virgin Radio back to the UK airwaves for the first time since 2008. Sound Digital is also committing to provide a station from launch which broadcasts non-mainstream music, with Jazz FM having signed a contract to provide this service.

⁵ Planet Rock is available on FM in the West Midlands, Sunrise Radio is available on AM in London and Premier Christian Radio is available on AM in London and Surrey.

- 11.5 Sound Digital's line-up also features confirmed services which cater to specific areas of interest for which there is additional national demand. Stations confirmed for launch are Sunrise Radio and British Muslim Radio for Asian audiences, and UCB Inspirational and Premier Christian Radio for Christian audiences. These services are operated by experienced third party content providers who boast in-depth understanding of these underserved groups.
- 11.6 Finally, to stimulate the DAB+ market and lay the foundations for a future migration to this efficient technology standard, Sound Digital is committing to providing a minimum of one distinctive DAB+ service from launch.
- 11.7 Sound Digital's 15 confirmed services are summarised below, with more detailed information including proposed licence descriptions following on the subsequent pages.



News, current affairs and general speech



Live sport and sports talk



Business and finance



Rock and pop music



Old skool dance tunes and anthems



Relaxing and melodic music



Pop music, celebrity gossip and entertainment



Classic rock music



80s music



Asian music and speech



Asian music and speech, with elements of Islamic content



Christian music



Christian music and speech



Non-mainstream music



A service to stimulate take-up of DAB+ compatible radios

- 11.8 In developing this launch line-up, Sound Digital was mindful of its commitment to providing Ofcom with complete certainty that it will deliver on the proposals set out within this licence application. Ofcom states in question 11a that the service descriptions set out in this section “will form part of the licence”. This has led us to take a cautious approach towards any content proposal which is not supported by an unconditional legally binding agreement with the relevant provider, or a backstop commitment by Sound Digital's shareholders.
- 11.9 Accordingly, providers of the 14 brands listed above have signed contracts to form part of Sound Digital's line-up, and this section details how Sound Digital will deliver its commitment to provide the DAB+ channel at launch.
- 11.10 Sound Digital is continuing with discussions with other content providers who were not able to enter into contracts before the application closing date, and these discussions may result in binding commitments to launch further new services beyond the current 15 firm commitments. This indicates that listeners can anticipate further expansion in choice during the 12 year licence term.

Service 1: talkRADIO

Proposed licence description:-	
Format:	An engaging speech service presented by knowledgeable talk radio personalities, featuring current affairs and entertainment programming and regular UK and international news
Target audience:	25-54 year olds
Hours of broadcast:	24 hours a day

- 11.11 Since acquiring talkSPORT in 2005, UTV has changed the face of speech radio by introducing a credible challenge to the BBC's historic dominance of the genre, backed by sustained investment in content.
- 11.12 talkRADIO will build on this track record with an innovative new approach to live news, current affairs and entertainment. With its emphasis on engagement and interaction, and line-up of knowledgeable and entertaining presenters, talkRADIO will enjoy broad appeal amongst the UK population. The station's accessible editorial style, promotion of new presenting talent and distinctive production values will also ensure that it attracts a new generation of listeners to speech radio.
- 11.13 talkRADIO will reflect the heritage of the original Talk Radio UK, which launched in 1995 as the UK's first national commercial speech radio station. This station was re-launched as talkSPORT in 2000, however non-sport programming remained a feature of talkSPORT's schedule until 2012, enjoying a loyal listener base.
- 11.14 The new talkRADIO will balance significant coverage of news and current affairs with programming about subjects including TV & film, technology, health & lifestyle, consumer advice and entertainment. talkRADIO will also seek to provide an additional home for comedy programming on UK radio. UTV is exploring opportunities to work with Comedy Central which could result in Comedy Central branded stand-up comedy programming forming a regular part of the schedule.
- 11.15 Mindful that a majority of the UK population lives outside of the M25, talkRADIO will draw on UTV's pedigree as a local and regional broadcaster and ensure that it caters to the views and interests of listeners throughout England, Wales, Northern Ireland and Scotland. Stories originating from London and Westminster will not be allowed to dominate the news agenda and will be placed in a proper national context.

Service 2: talkSPORT 2

Proposed licence description:-	
Format:	A speech service providing coverage of a broad range of live sporting action from the UK and around the world along with complementary sports talk programming
Target audience:	18-54 year old sports fans with a male bias
Hours of broadcast:	24 hours a day

- 11.16 In the last decade, talkSPORT has evolved into one of UK's preeminent sports broadcasters. The station's live commentary sets the benchmark for excitement and drama, whilst its punditry draws on the unparalleled insight of its presenters, many of whom have competed at the very highest level.
- 11.17 The launch of a sister station – talkSPORT 2 – will significantly broaden the range of live sporting events which talkSPORT is able to cover. It will also add a major new free-to-air platform for underexposed sports. Examples of events which will feature include cricket, rugby, horse racing and athletics.
- 11.18 When talkSPORT 2 is not covering live sporting events, the station will broadcast sports talk programming which complements the output of its parent channel. It is expected that this will include independently produced content, as well as re-runs of popular talkSPORT shows.
- 11.19 talkSPORT 2 will also provide a new platform for commercial partners to associate themselves with coverage of live sporting events. Prior to the submission of this application, UTV has explored a potential content and distribution partnership with William Hill, which itself operates two live sports radio channels via internet platforms and has strong grass-roots involvement in sports such as domestic horse racing and darts.

Service 3: talkBUSINESS

Proposed licence description:-	
Format:	A service featuring news, analysis and coverage of business, finance and economic issues at key times, together with other programming of relevance to the target audience
Target audience:	25-64 year olds with a particular focus on the business and financial services sectors
Hours of broadcast:	24 hours a day

- 11.20 talkBUSINESS is the UK's first national radio station dedicated to coverage of business, finance and economic issues. The UK is a world-leading centre for business and financial services, however the availability of business and financial radio programming has historically been limited. This new service from UTV will address this gap, drawing on the success of dedicated business radio formats in North America, Europe and Asia.
- 11.21 Programming will include business and financial news updates, interviews with economic experts and business leaders, and analysis of market and business trends. The weekday schedule will include agenda-setting breakfast and drivetime shows presented by authoritative business and financial journalists who command the respect of their audiences.
- 11.22 talkBUSINESS's audience will be drawn primarily from the business and financial services sectors. YouGov research for this licence application enclosed at Annex 12.1 revealed that 52% of the potential talkBUSINESS audience are current Radio 4 listeners. It is anticipated that the channel's distinctive appeal will attract advertisers who do not currently consider radio due to an absence of suitable outlets for their campaigns.
- 11.23 The station's schedule for launch will include programming produced by or with existing business and financial media providers. These may include Bloomberg, who have provisionally agreed to contribute relevant programming produced in Hong Kong, London, New York, San Francisco and at other international bureaus. UTV is also exploring the possibility of producing branded programming with The Economist.
- 11.24 With business and financial news having particular relevance during and immediately before and after business hours, other speech or music programming of appeal to the target audience may feature outside these times.
- 11.25 talkBUSINESS will seek to do for business radio what talkSPORT has done for sports radio, with an editorial style, journalistic approach and tone appropriate to its subject matter and target audience.



Service 4: Virgin Radio

Proposed licence description:-	
Format:	A music service featuring classic and contemporary pop and rock hits, with established presenters at peak times
Target audience:	25-44 year olds
Hours of broadcast:	24 hours a day

- 11.26 To complement its line-up of national speech radio services, UTV has teamed up with the Virgin Group to bring one of the world's most iconic radio brands back to the UK airwaves.
- 11.27 The all new Virgin Radio will play a range of the best rock and pop music from the 1980s to the present day, appealing particularly to those aged 25-44 and with a clearly defined slight bias towards male listeners. Programming will be carefully tailored to what this target audience wants to hear.
- 11.28 Virgin Radio will hire talented radio personalities to present its flagship weekday breakfast and drivetime programmes. These presenters will be established names who will epitomise what the station stands for – including a love of great music and an outlook that refuses to take itself too seriously.
- 11.29 Virgin Radio will feature standout production and highly engaging programming, with entertainment, humour and irreverence a feature of the station's imaging and speech content.
- 11.30 Although Virgin Radio ceased broadcasting in the UK in 2008, it has continued to grow internationally and boasts market-leading stations operated in partnership with media groups in North America, Europe, the Middle East and South East Asia. This expertise coupled with UTV's track record in operating music radio stations in the UK and Ireland will be harnessed to ensure that Virgin Radio is a must-listen radio station for its target audience.
- 11.31 Virgin Radio will be controlled by UTV under an operating agreement with Virgin Radio International and a trade mark licence agreement with Virgin Enterprises Limited. These agreements have been executed in fully binding form, condition precedent only on Sound Digital being awarded the UK's second national commercial DAB multiplex licence.

Service 5: Kisstory

Proposed licence description:-	
Format:	Old skool dance tunes and anthems featuring dance, RnB, hip-hop and garage
Target audience:	15-44 year olds
Hours of broadcast:	24 hours a day

- 11.32 Kisstory is a successful sub-brand created by Kiss to explore its twenty four year musical heritage. The station has become known for “playing the hits that Kiss made famous”, taking pride in its devotion to playing old skool dance tunes and anthems.
- 11.33 Born out of a one hour radio programme on Kiss FM, its wordplay on “History” was soon adopted by its passionate audience to describe classic dance tracks.
- 11.34 From this birth as a regular recurring programme, Kisstory has embarked on a series of successful brand extensions, including monthly sell-out club events, thriving CD music compilations and culminating in the launch of its unique radio service on digital TV in May 2013.
- 11.35 Old skool dance tunes and anthems is a much neglected segment of music encompassing dance, RnB, hip-hop and garage. It seamlessly blends tracks from artists as diverse as Destiny's Child, Artful Dodger, Daft Punk, Notorious B.I.G. and Faithless. Kisstory revitalises older catalogue and its unique genre span makes it a much loved station.
- 11.36 Kisstory has grown rapidly in the short time that it has existed as a full-time station. It currently has 973k passionate listeners and a strong active social media presence⁶. In December 2014, Kisstory distribution was expanded to reach 49% of the UK via local DAB alongside the DTV channel. A move onto national DAB will extend coverage to an estimated 12 million additional adults (15+), bringing the station to a larger potential audience, including amongst its target listenership of 15-44 year olds.
- 11.37 The inclusion of Kisstory in Sound Digital's line-up will promote DAB to a younger audience who are discovering old skool dance tunes and anthems for the first time. It also has strong appeal for those who enjoy hearing timeless tunes evoking memories of a high-point in their life music journey.

⁶ RAJAR/Ipsos MORI/RSMB, Q3 2014

Service 6: Magic Mellow

Proposed licence description:-	
Format:	Relaxing melodic songs from classic artists and from stage and screen including personality guest presenters
Target audience:	50-64 year olds
Hours of broadcast:	24 hours a day

- 11.39 London's Magic 105.4 is famous for its market-leading evening show "Mellow Magic". This popular show airs all week between 8pm and midnight and is consistently the number 1 or 2 commercial radio show for reach in its timeslot in the London market⁷
- 11.40 Due to the show's popularity Bauer is committed to developing Mellow into a station in its own right, providing a distinctive mix of chilled, relaxing and melodic songs and a wide range of West End, Broadway and movie show tune favourites 24 hours a day.
- 11.41 Magic Mellow will be carefully programmed by tempo to provide a relaxed and laid back station sound. It will feature a broad range of core artists from the Mellow category, including acts who do not receive mainstream commercial airplay such as Anita Baker, Sade, Dean Martin, Frank Sinatra, Billie Holiday, Celine Dion and musical stars such as Barbra Streisand, Bette Midler, Idina Menzel and John Barrowman.
- 11.42 Evening programming will be further differentiated from existing stations available to listeners by a focus on popular musical and show tunes, followed by a relaxing smooth jazz evening programme featuring artists such as George Benson, Tony Bennett, Ray Charles, Ella Fitzgerald and Jamie Cullum.
- 11.43 Mellow will have a live breakfast show from launch and to ensure a relaxing atmosphere on the station, the commercial minutage on Magic Mellow will be capped at eight minutes per hour; focused on two breaks per hour to allow long uninterrupted sweeps of music.
- 11.44 Magic Mellow provides a distinctive music offering differentiated by tempo and by a wider range of artists that are not currently featured on any mainstream commercial stations. This station is based on an already highly successful format and offers more choice for the underserved older demographic of adults aged 50-64.

⁷ RAJAR/Ipsos MORI/RSMB, Q1 2011 to Q3 2014

Service 7: heat radio

Proposed licence description:-	
Format:	Pop music from the late 80s to now – with celebrity gossip and entertainment news and features
Target audience:	18-34 year old females
Hours of broadcast:	24 hours a day

- 11.45 heat radio was launched in 2003 and complements heat magazine. It is currently available via local DAB reaching approximately 50% of UK households. heat radio is also broadcast nationally via Freeview. Coupled with the brand's separate TV channel, heat has been grown by operator Bauer into a fully immersed multi-platform brand.
- 11.46 Musically heat radio offers a feel-good, positive pop playlist mixing the biggest new songs around with pop classics and guilty pleasures from the 90s onwards. Artists include the universally popular Katy Perry, Ed Sheeran, Take That, Cheryl Cole and Pink.
- 11.47 Editorially the recently revamped schedule includes a daily show from highly successful American entertainment presenter Ryan Seacrest, whose previous guests have ranged from Oprah Winfrey to Usher and from Vin Diesel to Miley Cyrus. Lucie Cave, heat's editor-in-chief, presents two shows direct from the editor's chair, giving personal insight into the big entertainment, celebrity and show business stories of the week.
- 11.48 Bauer's investment in programming for its showbiz hungry female 18-34 target audience has seen heat deliver record audience figures across 2014, with weekly reach now sitting at 965k⁸. Bauer's ambition is to further invest in entertainment features and strands in line with heat's brand values.
- 11.49 Moving heat onto national DAB will extend coverage to an estimated 10 million additional adults (15+) and is the next logical step for the station as it targets a weekly reach in excess of 1 million. The station enhances Sound Digital's overall service line-up as a strong established brand with a young audience (average age 29⁹) and distinct editorial proposition.

8 RAJAR/Ipsos MORI/RSMB, Q3 2014

9 RAJAR/Ipsos MORI/RSMB, Q3 2014

Service 8: Planet Rock

Proposed licence description:-	
Format:	A specialist rock music service for rock aficionados; classic rock with some modern rock (plus some complementary tracks selected from genres appreciated by rock fans) with stimulating speech, especially at breakfast. Identifiable specialist music programmes feature for at least 30 hours a week
Target audience:	35-54 year olds with a male bias
Hours of broadcast:	24 hours a day

- 11.50 Planet Rock joins Sound Digital's line-up as the UK's longest established digital radio station.
- 11.51 Planet Rock IS rock... in all its forms.
- 11.52 Every day Planet Rock celebrates the great heritage of over 40 years of quality rock music - from hard rock to heartfelt rock, from rock ballads to blow-your-head-off riffs, from blues to prog, from innovative to classic.
- 11.53 Planet Rock revels in the texture and the rich tapestry of rock music – from the Ace of Spades to Ziggy Stardust and everything in between. The station joins the dots for listeners on how classic rock inspired today's rock bands. Planet Rock plays Airbourne next to AC/DC, Black Sabbath next to Royal Blood and the music tells the story.
- 11.54 Current presenters include rock legends Alice Cooper and Joe Elliot from Def Leppard and full-on rock-fan comedian Al Murray, all bringing special insight and rock passion to the station. The stations guest list is a who's who of rock royalty; Eric Clapton, Ozzy Osbourne, Slash, Jimmy Page, Roger Daltrey, Bruce Dickinson and Brian May have all presented shows on the station.
- 11.55 The inclusion of Planet Rock will enable Sound Digital's line-up to appeal to a distinct audience of listeners not catered for anywhere else in radio.
- 11.56 Planet Rock is proposing to migrate from its current home on Digital One to the Sound Digital multiplex. Sound Digital understands that Bauer will write to Ofcom to explain the rationale for this move.

Service 9: Absolute 80s

Proposed licence description:-	
Format:	The UK's only 80s radio station, a nostalgia trip, playing undisputed 1980s classics with an up-tempo party feel at night
Target audience:	30-54 year olds
Hours of broadcast:	24 hours a day

- 11.57 Absolute 80s is a brand extension of Absolute Radio and is the UK's number 1 digital-only commercial radio station. The station celebrates the music of the 1980s with engaging broadcasters and a contemporary presentation style familiar to Absolute Radio listeners.
- 11.58 The station's playlist focuses on both the hits and the forgotten classics with more popular 80s tracks played during daytime. Evenings and weekends have more of a party feel with special programming featuring some of the stars of the 80s.
- 11.59 Targeting an audience of 30-54 year olds, Absolute 80s appeals to those whose musical taste was formed in the 1980s. It also appeals to younger listeners discovering the songs of the decade for the first time. Key artists include Madonna, Duran Duran, Prince and Pet Shop Boys.
- 11.60 The station's unique focus allows it to delve deeper into the catalogue of 80s songs than mainstream stations, playing tracks amongst the chart-toppers that surprise the audience.
- 11.61 Absolute 80s is proposing to migrate from its current DAB home on Digital One to the Sound Digital multiplex. Sound Digital understands that Bauer will write to Ofcom to explain the rationale for this move.

Service 10: Sunrise Radio

Proposed licence description:-	
Format:	A music-led service with a mix of Asian music and other more mainstream music where appropriate, alongside speech and lifestyle content appealing to British Asians
Target audience:	15-34 year old British Asians
Hours of broadcast:	24 hours a day

- 11.62 Sunrise is an established brand in the Asian media market, which recently celebrated its 25th anniversary. The Prime Minister, David Cameron, is among the many politicians to have recognised Sunrise's contribution to British life and the lives of its listeners.
- 11.63 Sunrise Radio features the latest Bollywood music, Punjabi Desi beats, news and celebrity news, as well as interviews with Bollywood actors and playback singers. The service appeals to adults aged 15-34, with a particular focus on affluent British Asians.
- 11.64 As well as music, speech content will include segments on the latest trends in Asian fashion, weddings, travel, property, lifestyle and sport. It will serve an aspirational audience that likes to keep up-to-date with the latest technology.
- 11.65 Sunrise Radio will provide a real national alternative to the single existing public service Asian channel. The service offered as part of Sound Digital's line-up will initially benefit from some simulcast programming taken from Sunrise Radio's London station which is also available on four local DAB multiplexes in the London area. It will also feature bespoke shows at peak weekday times, notably breakfast and drivetime. Further dedicated programmes will launch as the new national digital station develops.

Service 11: British Muslim Radio

Proposed licence description:-	
Format::	A music and speech led service targeting British Asians and the broader Muslim community
Target audience:	British Asians and Muslims aged 15-44
Hours of broadcast:	24 hours a day

- 11.66 British Muslim Radio is a brand new music and speech service from the Asian Sound group, targeting British Asians and the broader Muslim community. The programming will constitute a mix of news, interviews, features, music and information predominantly in English but with elements in languages including Urdu, Punjabi, Bengali and Gujarati.
- 11.67 Presenters will be informed and knowledgeable about the British Asian community and the Islamic faith. Speech content will include regular news bulletins and cover topics such as Bollywood films, features on health, cuisine, celebrity gossip, business, consumer affairs and religious output. Particular attention will be paid to special programming at times of major Islamic festivals, such as the Hajj and Ramadan. Sports news and information will include football, cricket and boxing.
- 11.68 Music will be programmed for the target age group of 15-44, with a mix of Asian tracks and elements of Arabic pop music.
- 11.69 British Muslim Radio will be a sister station to Asian Sound Radio, a service currently broadcasting in Manchester on AM and in other areas on local DAB. The two stations will have complementary programming and music policies. The company behind both services celebrates its 20th anniversary this year.

Service 12: UCB Inspirational

Proposed licence description:-	
Format:	A mix of inspirational and Christian music including traditional hymns, contemporary praise-songs and melodic pop tracks. A music led radio station, with speech content including news, current affairs and Christian talk programmes.
Target audience:	Christians with a particular focus on those aged 45+
Hours of broadcast:	24 hours a day

- 11.70 UCB Inspirational is an inspirational and contemporary music service appealing to those with a Christian belief and those looking to learn more about Christianity. By delivering inspirational teaching, discussion and practical advice the service aims to deepen listeners' understanding of their faith and motivate listeners to engage with their local community of interest.
- 11.71 UCB Inspirational currently broadcasts on local DAB and Sky and is a sister station to UCB UK which already broadcasts nationally on DAB. Feedback from listeners indicates strong demand for UCB Inspirational to be available more widely. UCB's own research indicates that UCB Inspirational had around 275k unique listeners per week during 2014 H1, and this is projected to grow to around 575k following the station's first year on national DAB¹⁰.
- 11.72 The primary target audience for this service is 45+ with a female bias. The audience for UCB services reflects church attendance in the UK, comprising predominantly of people who would describe themselves as Black British, White British/European and British Asian. Church attendance is estimated by UCB to be 5-6 million across all Christian denominations.
- 11.73 Like UCB UK, UCB Inspirational's playlist is drawn from artists and tracks which receive minimal exposure on mainstream services. UCB's older audience target is reflected in the selection of more mellow, tuneful and familiar music from Christian artists across the English speaking world. This musical approach also gives UCB Inspirational its distinctiveness compared with other UK Christian stations.

¹⁰ UCB estimates.

Service 13: Premier Christian Radio

Proposed licence description:-	
Format:	A full-service speech and music Christian station. Inter-denominational and serving the broad Christian church. Music accounts for up to 50% of the content. In speech, there is a major emphasis on news from a Christian perspective.
Target audience:	25-65+ Christians
Hours of broadcast:	24 hours a day

- 11.74 Premier is an inter-denominational Christian radio station. It is unique in serving and reflecting the broad church, from the Pentecostal and Protestant to the Catholic and Orthodox traditions.
- 11.75 Premier offers a wide and varied range of entertaining and informative programming based on the beliefs and values of the Christian faith. It is a full service of speech and music, which reflects and proclaims the worship, thought and action of the Christian church.
- 11.76 The major emphasis is on news with a seven-day-a-week bulletin service including responses to local, national and international events from a Christian perspective. Premier presents news from all areas of the Christian faith across all denominations and explores current concerns and lifestyle issues. There are also programmes that explain and commend Christian belief.
- 11.77 Christian praise and worship songs are blended with traditional, modern and classic hymns to create a unique sound with music being up to 50% of the broadcast content. The music tends to be distinctive from tracks played on the overwhelming majority of UK radio stations as it is predominantly Christian inspired music by Christian artists (as opposed to UK chart and tracks from mainstream commercial artists).
- 11.78 Premier also responds to its listening audience in a practical way through Lifeline, a telephone helpline service.
- 11.79 The station is currently available on AM in London and Surrey, on national DAB digital radio and on Freeview.

Service 14: Jazz FM

Proposed licence description:-	
Format:	A non-mainstream music service
Target audience:	Reflecting the station delivering the format e.g. 35-54 ABC1
Hours of broadcast:	24 hours a day

- 11.80 To ensure that its content line-up caters to a wide array of musical tastes, Sound Digital is committed to providing a non-mainstream music service within its launch line-up. Sound Digital has contracted with Jazz FM to provide this service. Jazz FM has established a reputation as the home of jazz, blues and soul.
- 11.81 Jazz FM's musical output is unique, offering a mixture of truly eclectic new music featuring the likes of Robert Glasper, Jamie Cullum and Gregory Porter alongside well known tracks by the legends of jazz such as Ella Fitzgerald, Ray Charles, Nina Simone, Herbie Hancock and Miles Davis.
- 11.82 The station boasts some of the UK's most experienced presenters, each experts in their fields, such as Lynn Parsons, Helen Mayhew and Nigel Williams.
- 11.83 Key shows includes the legendary Dinner Jazz, which is broadcast seven nights a week and is a proven commercial success. It is followed by chilled-out classics and laid-back beats in The Late Lounge with Claire Anderson. During the weekend Peter Young offers the hottest selection of soul and Ian Shaw goes backstage at the world famous Ronnie Scott's jazz club for a special selection of interviews and live recordings.
- 11.84 Jazz FM has been in existence as a radio station since the early 1990s and has built itself into an established and respected brand with listeners, advertisers and on the jazz scene. The service was broadcast on national DAB digital radio between 2011 and 2013 and in that time grew its audience by 12.5%. At the point that it moved to a local London multiplex its national audience was recorded as 681k¹¹.
- 11.85 The service predominantly appeals to a male audience (63%) and has broad age appeal, over-indexing among 15-34s and with 62% of listeners aged 35-54 proving interest in jazz music is no longer the preserve of the old. The audience is consistently one of the most upmarket commercial stations in the UK with 70% of listeners in the ABC1 group¹².

¹¹ RAJAR/Ipsos MORI/RSMB, Q3 2014

¹² RAJAR/Ipsos MORI/RSMB, Q3 2014

Service 15: DAB+ channel

Proposed licence description:-	
Format:	A DAB+ service which enhances choice in UK radio and helps stimulate the take-up of DAB+ radios in the UK
Target audience:	Reflecting the station delivering the format
Hours of broadcast:	24 hours a day

- 11.86 DAB+ presents significant future opportunities for the radio sector, given its efficient use of spectrum and potential to provide lower cost carriage to broadcasters. Full details of Sound Digital's strategy for supporting the development of DAB+ can be found in section 13.
- 11.87 In order to accelerate take-up of DAB+ compatible radios, Sound Digital is committed to including at least one distinctive DAB+ content service within its launch line-up.
- 11.88 To deliver this goal, Sound Digital's prices for DAB+ capacity have been discounted in the early years. This approach also reduces barriers to entry. It resulted in serious discussions with two potential content providers, but neither has opted to enter into a contract for DAB+ capacity prior to the application closing date.
- 11.89 Sound Digital's commitment is that, unless we secure a contract for the DAB+ channel in the coming weeks, then if awarded this licence by Ofcom we will formally advertise the availability of a DAB+ channel at the discounted carriage rates.
- 11.90 Factors taken into account in the selection process will include the likely impact of a proposed station on consumer take-up of DAB+ radios (including the extent to which the proposed service is already available on analogue platforms) and its likely impact on the range of tastes and interests to which the multiplex appeals.
- 11.91 In the event that a suitable DAB+ service is not identified as a result of this process, Sound Digital will devise, launch and operate this service itself, utilising capacity which is contracted to Arqiva and drawing on the programming expertise amongst its shareholders.

Q11b. 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.

11.92 Sound Digital's content line-up offers significant audience appeal which is evenly distributed across all demographics.

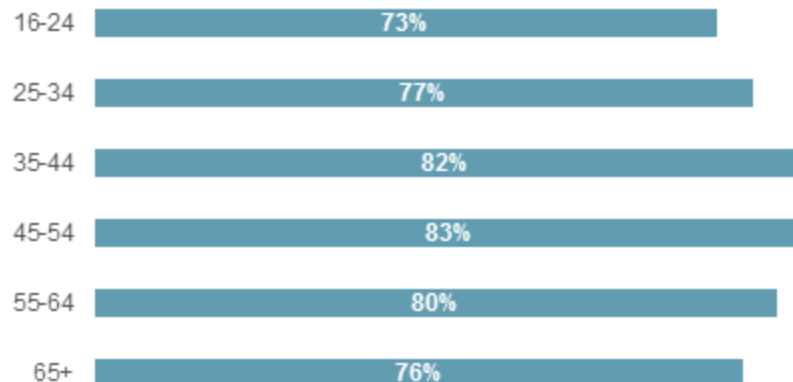
11.93 The target audiences for Sound Digital's content services as supplied by our content providers are shown in Table 11.1.

Table 11.1: Target audiences for each Sound Digital content service

Service	Age range	Gender split	Socio-economic background	Ethnic composition / other characteristics
talkRADIO	25-54	50% male: 50% female	55% ABC1: 45% C2DE	n/a
talkSPORT 2	18-54	75% male: 25% female	55% ABC1: 45% C2DE	n/a
talkBUSINESS	25-64	65% male: 35% female	80% ABC1: 20% C2DE	Business and financial services professionals
Virgin Radio	25-44	55% male 45% female	55% ABC1: 45% C2DE	n/a
Kisstory	15-44	40% male 60% female	40% ABC1: 60% C2DE	n/a
Magic Mellow	50-64	45% male 55% female	60% ABC1: 40% C2DE	n/a
heat radio	18-34	40% male 60% female	50% ABC1: 50% C2DE	n/a
Planet Rock	35-54	70% male: 30% female	50% ABC1: 50% C2DE	n/a
Absolute 80s	30-54	55% male 45% female	60% ABC1: 40% C2DE	n/a
Sunrise Radio	15-34	50% male 50% female	50% ABC1: 50% C2DE	British Asians
British Muslim Radio	15-44	45% male 55% female	50% ABC1: 50% C2DE	British Asians and Muslims
UCB Inspirational	45+	40% male 60% female	50% ABC1: 50% C2DE	Practising Christians
Premier Christian Radio	25-65+	45% male 55% female	60% ABC1: 40% C2DE	Practising Christians
Jazz FM	35-54	60% male 40% female	70% ABC1: 30% C2DE	n/a
DAB+ channel	Service dependent	Service dependent	Service dependent	Service dependent

- 11.94 This target audience information has also been verified with reference to YouGov's data concerning the specific potential demographic appeal of each Sound Digital service, as described in our response to question 12.
- 11.95 In addition, Figures 11.1, 11.2 and 11.3 summarise the breadth of demographic appeal for Sound Digital's content line-up¹³ amongst the national UK population as a whole. This YouGov data shows what percentage of each sub-demographic claim that they "would listen to" one of the stations on the multiplex, broken down by age, gender and social class.
- 11.96 These findings provide confirmation that our line-up has balanced broad appeal amongst a wide range of demographic groups.

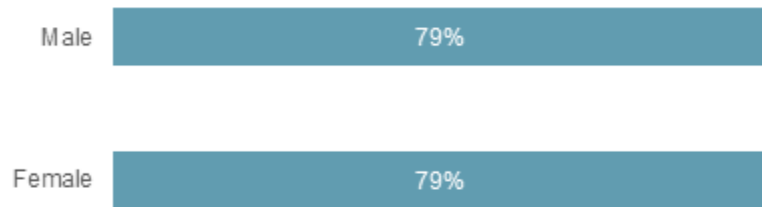
Figure 11.1: Consolidated audience appeal by age (proportion of demographic that would listen)



Source: YouGov

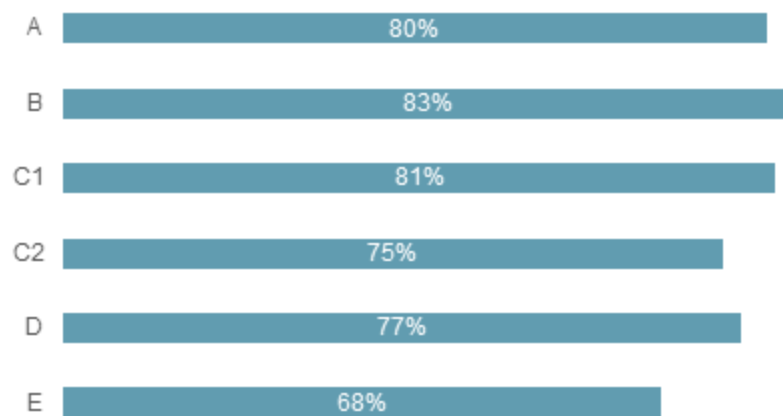
¹³ Excluding the DAB+ channel

Figure 11.2: Consolidated audience appeal by gender (proportion of males and females that would listen)



Source: YouGov

Figure 11.3: Consolidated audience appeal by social class (proportion of demographic that would listen)



Source: YouGov

Q11 b – continued.

To what extent will these services, taken as a whole, appeal to a variety of tastes and interests?

- 11.97 Taken together, the Sound Digital digital sound programme services cater to listener interest in a wide range of speech and music genres.

- 11.98 Table 11.2 shows the significant range of long-form speech programmes and extended speech discussion topics which will be provided within the Sound Digital content line-up. These range from Asian culture, to business and finance, health and lifestyle, politics, technology, entertainment and news. The speech output shown here consists of regularly scheduled dedicated programmes and features and does not include speech content provided in the form of news bulletins or ad-hoc presenter links.

Table 11.2: Breadth of speech genres

	talkRADIO	talkSPORT 2	talkBUSINESS	Virgin Radio	Planet Rock	Absolute 80s	Magic Mellow	heat radio	Kisstory	Sunrise	British Muslim Radio	UCB Inspirational	Premier Christian Radio	Jazz FM	DAB+ channel
Asian culture										•	•				
Business and finance	•		•											•	
Comedy	•			•											
Fashion and beauty								•							
Health and lifestyle	•														
International news	•		•									•	•		
Music				•	•	•	•	•	•	•	•	•	•	•	
People and celebrities	•				•			•		•	•				
Personal finance	•		•												
Politics	•		•									•	•		
Religion and spirituality											•	•	•		
Science	•		•												
Sex and relationships	•							•							
Sport		•									•				
Technology	•		•							•					
TV and film	•							•		•	•				
UK news	•		•									•	•		

Source: Sound Digital analysis

- 11.99 Table 11.3 shows the diverse array of musical genres which will be played by the Sound Digital content services. As well as breadth of genres, the music played by Sound Digital's content services will span the decades, with tracks from as early as the 1960s in the case of stations like Magic Mellow, through to contemporary pop in the case of stations like heat radio.

Table 11.3: Breadth of music genres covered by Sound Digital

	talkRADIO	talkSPORT 2	talkBUSINESS	Virgin Radio	Planet Rock	Absolute 80s	Magic Mellow	heat radio	Kisstory	Sunrise	British Muslim Radio	UCB Inspirational	Premier Christian Radio	Jazz FM	DAB+ channel
Blues														•	
Bollywood / Asian										•	•				
Classic rock				•	•	•									
Current chart hits				•				•							
Dance									•						
Easy listening							•								
Ethnic / World										•	•				
Funk / Soul														•	
Gospel / Religious												•	•		
Hip-Hop / Rap									•						
Jazz							•							•	
Modern rock				•	•										
Pop				•		•		•		•	•				
R&B / Urban									•						
Show tunes							•								

Source: Sound Digital analysis

- 11.100 The extent of the tastes and interests addressed by Sound Digital's speech and music content is also highlighted by YouGov's research for this licence application, which demonstrates the breadth of its overall appeal to audiences. These findings are summarised in our response to question 12 and fully detailed in YouGov's report, enclosed in Annex 12.2.

Q11 b – continued.

To what extent will these services appeal to tastes and interests distinct from those catered for by the digital sound programme services provided on the existing national radio multiplex service?

- 11.101 This section seeks to demonstrate the distinctive appeal of Sound Digital's line-up against the digital sound programme services available on the existing national radio multiplex using two analysis methodologies:
- Content assessment based on comparing the Sound Digital services against the existing multiplex services
 - Audience overlap assessment based on YouGov research
- 11.102 In accordance with Ofcom's requirements, we have excluded the three simulcast independent national radio services as defined by Ofcom from our definition of digital sound programme services.
- 11.103 In preparing this analysis, Sound Digital noted that the line-up of digital sound programme services carried on Digital One as enclosed within Ofcom's licence advertisement has since undergone a number of revisions. These included the addition of Smooth Extra and Magic, and the removal of Absolute Radio 90s / Absolute Radio Extra. We also noted that the service labelled "TBA" featuring music from the 70s, 80s and early 90s is not currently present.
- 11.104 Sound Digital decided to address this by considering the distinctiveness of its line-up both against the Annex of Digital One services enclosed within Ofcom's advert, and also against new services which have launched on the multiplex since the advert was published. A consequence of this approach is that the distinctiveness of our line-up is if anything slightly understated.
- 11.105 In addition, Sound Digital notes that the inclusion of Planet Rock, Premier Christian Radio and Absolute Radio 80s within our line-up effectively duplicates the current availability of these services on the existing national multiplex.
- 11.106 Although some of Sound Digital's partners are involved in discussions about how these changes affect Digital One's line-up, Sound Digital itself is not. Sound Digital's assumption is that any capacity vacated on Digital One would be reallocated to alternative service providers.
- 11.107 Therefore Sound Digital considers that the transfer of Planet Rock, Premier Christian Radio and Absolute Radio 80s to the new multiplex would support a further future extension in the choice of distinct national digital radio services available in the UK.

Content analysis

- 11.108 Our content analysis indicates that most Sound Digital services cater to tastes and interests which are distinctive from those currently provided by Digital One digital sound programme services (excluding simulcast services).
- 11.109 Detailed assessments of the extent to which each Sound Digital service caters to distinctive tastes and interests are set out in Table 11.5.

Table 11.5: Sound Digital distinctiveness compared with existing national multiplex

Content service	Potentially overlapping stations	Distinctiveness assessment
talkRADIO	LBC	<p>talkRADIO will distinguish itself through an accessible and entertaining style and the breadth of genres covered, including TV & film, technology, health & lifestyle, consumer advice, entertainment and comedy.</p> <p>In addition, LBC's heritage is in London, where it has an FM licence and from where it obtains 85% of its current listening hours¹⁴. talkRADIO will seek to provide a service for the whole of the UK from launch.</p>
talkSPORT 2	Absolute Radio Extra*	talkSPORT 2 will distinguish itself by providing full-time coverage of a broad range of live sporting events coupled with distinctive sports talk.
talkBUSINESS	LBC	talkBUSINESS will distinguish itself by dedicating the entirety of its output to business and financial news and specifically targeting business and financial services professionals.
Virgin Radio	TeamRock, Planet Rock, Absolute 80s, Absolute 90s*, Kiss and Capital XTRA	<p>Virgin Radio will distinguish itself by catering to a broad range of musical tastes and interests across rock and pop music, rather than providing specialist coverage of one genre or musical era.</p> <p>The station is expected to have less than 10% of its playlist in common with TeamRock, Planet Rock and Capital XTRA, with a larger proportion (less than 50%) in common with Absolute 80s, Absolute 90s and Kiss.</p>
Kisstory	Kiss, Capital XTRA and Absolute 90s*	<p>Kisstory will distinguish itself through its focus on old skool dance tunes and anthems, providing a complementary offering to its parent service Kiss as well as Capital XTRA.</p> <p>When analysing Kisstory's 50 most played tracks over the year to November 2014, not one appeared on the equivalent list for either Kiss or Capital XTRA¹⁵.</p> <p>Bauer analysis indicates that Kisstory has approximately 20% of tracks in common with Absolute 90s, however this service is no longer available on national DAB.</p>

¹⁴ RAJAR/Ipsos MORI/RSMB Q3, 2014

¹⁵ radiomonitor.com 30 Dec 2013 to 16 Nov 2014

Content service	Potentially overlapping stations	Distinctiveness assessment
Magic Mellow	Smooth Extra, Magic	<p>Magic Mellow will distinguish itself from Smooth Extra by its musical output. The music will be differentiated by its slower tempo, minimal and laid back presentation. The stations advertising minutage will be capped at 8 minutes per hour, delivered by two breaks per hour. Unlike Smooth Extra, Magic Mellow will feature music primarily from the 60s, 70s and 80s plus specialist programming that includes music from musicals and relaxing Jazz.</p> <p>Magic Mellow will be deliberately programmed by Bauer to exhibit clear differentiation from its sister station Magic.</p>
heat radio	Kiss, Absolute Radio 90s* and Capital XTRA	<p>heat is deliberately programmed to provide differentiation from fellow Bauer stations Kiss and Absolute Radio 90s¹⁶.</p> <p>In November 2014, heat shared just 9% of its playlist with Capital XTRA - the closest third party service¹⁷.</p> <p>heat also caters to distinctive tastes and interests through its unique brand-established approach to entertainment news.</p>
Planet Rock	Team Rock, Planet Rock, Absolute Radio 80s and Absolute Radio 90s*	<p>Planet Rock has minimal musical overlap with Absolute 80s and Absolute 90s¹⁸, with owner Bauer ensuring that these three stations represent distinctive editorial propositions.</p> <p>Planet Rock shares a musical focus with TeamRock however it is considered that the market is able to support multiple classic rock stations.</p>
Absolute Radio 80s	Absolute Radio 80s, TBA*	Absolute Radio 80s is distinguished by an exclusive focus on music from the 1980s, whereas TBA is not dedicated to this decade.
Sunrise	Kiss and Capital XTRA	Although it plays some mainstream music for a youth audience, Sunrise is distinguished from existing stations by its focus on Asian music and by the nature of its speech programming, which addresses topics of particular interest to British Asians and features presenters, contributors and celebrities who resonate with this audience.
British Muslim Radio	None	<p>No existing station plays a meaningful amount of Asian music or popular Arabic music.</p> <p>British Muslim Radio will also differentiate itself via its speech programming which will be shaped by its understanding of its target audience.</p>
UCB Inspirational	UCB UK and Premier Christian Radio	<p>UCB aims to reach different audiences with UCB UK and UCB Inspirational. UCB Inspirational is targeted at an older 45+ audience and plays more MOR / easy listening music. It is in UCB's interest to minimise the overlap.</p> <p>In contrast to UCB Inspirational's focus on the 45+ age group, Premier Christian Radio aims to have broad appeal 25-65+. Premier plays less music, with speech making up at least 50% of its output.</p>

¹⁶ heat radio shares 9% of its playlist with Absolute Radio 90s (comparemyradio.com as at 14 Nov 2014). Of heat's 100 most played songs over a sample 30 day period, 49% were also played by Kiss (radiomonitor.com as at 17 Nov 2014)

¹⁷ comparemyradio.com as at 14 November 2014

¹⁸ comparemyradio.com as at 14 November 2014

Content service	Potentially overlapping stations	Distinctiveness assessment
Premier Christian Radio	UCB UK and Premier Christian Radio	<p>While both UCB UK and Premier are Christian stations with some overlap in content and target audiences, UCB UK plays more music and features less speech than Premier.</p> <p>The breadth of Premier's inter-denominational appeal gives it a unique positioning. In terms of target audience, Premier Christian Radio has a broad age target of 25-65+, while UCB UK seeks to complement its sister station UCB Inspirational by having particular appeal to an audience under the age of 45.</p>
Jazz FM	None	<p>Other than Christian stations, there is only one non-mainstream music service provided on the existing national multiplex. However this is a simulcast service (Classic FM). Therefore the inclusion of a non-mainstream music station in Sound Digital's line-up will add significant additional choice.</p> <p>While individual tracks played on Jazz FM might from time to time be programmed on Smooth Extra or Magic, Jazz FM's focus on jazz, blues and soul music makes it a highly distinctive service.</p>
DAB+ channel	To be confirmed	Whilst the editorial format for this service is yet to be confirmed, there is no DAB+ channel available on the existing commercial national DAB multiplex.

Source: Sound Digital analysis; stations marked with an asterisk are not currently available

Audience assessment

- 11.110 The audience research undertaken for this licence application by YouGov demonstrated that the most popular stations amongst potential listeners to the Sound Digital line-up are overwhelmingly BBC services, as opposed to commercial services (whether carried on the existing national multiplex or otherwise).
- 11.111 Detailed findings showing the top 5 most listened to stations amongst the potential audience for each individual service are shown on pages 35 – 37 of YouGov's Final Report, which is enclosed at Annex 12.2.
- 11.112 Concentrating on the stations which exhibit some potential overlap in the tastes and interests catered to, YouGov's findings indicate that only a small proportion of potential listeners to the Sound Digital services are current listeners to the potentially overlapping Digital One service¹⁹:
- Only 6% of potential talkRADIO listeners currently listen to LBC (the most popular stations amongst this group were BBC Radio 2, BBC Radio 4 and BBC Radio 5 Live); this figure drops to 5% amongst potential talkBUSINESS listeners.
 - Just 18% of potential Kisstory listeners are current listeners to its parent station Kiss. The most popular stations overall amongst potential Kisstory listeners are Heart, BBC Radio 1 and Capital FM.
 - Smooth listeners (who could be assumed to be likely to listen to Smooth Extra) account for 10%, 15% and 14% respectively of potential listeners to Virgin Radio, Magic Mellow and Absolute Radio 80s. Conversely the most popular stations amongst potential Virgin Radio and Absolute 80s listeners were BBC Radio 2, Heart and BBC Radio 1. Amongst Magic Mellow potential listeners, the three most popular current stations are BBC Radio 2, BBC Radio 4 and Classic FM.
 - Only 2% of potential Planet Rock listeners currently listen to TeamRock.
- 11.113 This analysis indicates that in practice, the Sound Digital service line-up has a distinct audience appeal, and caters to tastes and interests not served by the existing multiplex. Although some of the services include output which is similar to some of the output of certain services on the existing multiplex, each service contributes some form of unique content and in most cases this represents a majority of that service's output.

¹⁹ YouGov's fieldwork was undertaken in September 2014, and accordingly this audience analysis only assesses overlap with the Digital One services as defined in Ofcom's advertisement

Q11c. 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 national digital sound programme service.

- 11.114 Sound Digital is committed to providing the 15 stations detailed in the answer to Question 11a as forming part of its launch line-up. Long form contracts are in place with all 14 content providers for DAB services. The process for selecting the DAB+ channel provider has been summarised above.
- 11.115 The answers to this question has been supplied to Ofcom in confidence.

Q11d. Give details of any programme-related 'data' or other services to be provided to enhance the audio elements of the digital sound programme services proposed to be provided. List separately those provided by the relevant digital sound programme licensees themselves (as 'ancillary' services) and those, if any, provided by other parties under a digital additional service licence.

- 11.116 The only data service which Sound Digital envisages being provided at launch is DAB text (DLS), consisting of programme related data. In addition, Sound Digital will permit content providers to use DAB text for advertising, subject to each holding a digital additional services (DAS) licence. At this time there are no plans to offer third party data services, EPG or slideshow services although this may be introduced over time dependent on demand from service providers.

Q11e. 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.

- 11.117 No Sound Digital services will use any form of encryption system.

12 Audience requirements

Q12. 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 statement of the key objectives of the research;

The specific questions that the research sought to answer;

How the research was conducted;

The size and composition of the sample(s);

When and where the research was conducted;

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;

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).

12.1 To support the delivery of Sound Digital's goals, including a financially secure business plan together with a step-change in national radio choice for listeners, the company and its shareholders carried out a range of market research and analysis which has informed this application.

12.2 The key pieces of analysis summarised in this section are:

- Audience Analysis of the UK Radio Market by John Fryers (commissioned by Arqiva) (Annex 12.1)
- Audience Appeal of Sound Digital's Proposed National Digital Radio Services by YouGov (commissioned by Sound Digital) (Annex 12.2)
- DAB+ Penetration in the UK by Mediatique (commissioned by Arqiva) (Annex 12.4)

Digital Radio Audiences - Market Context by John Fryers

a) Key Objectives	To understand UK radio listener behaviour and consumption patterns of existing national radio services
b) Questions Sought to Answer	<p>What is the nature of radio listening in the UK, in terms of stations listened to, performance by format, preferred platforms and listening demographics?</p> <p>How have radio listening habits developed over time and by sub-demographics?</p> <p>What is the nature of radio listening in London against the UK as a whole (as an example of a more developed market)?</p> <p>How are the stations carried on Digital One which are measured in RAJAR currently performing, compared to the wider radio and commercial radio markets?</p> <p>Which demographic groups are currently underserved by Digital One and where might potential opportunities lie for Sound Digital stations?</p>
c) How Conducted	Analysis of existing RAJAR data, commissioned by Arqiva. W1 99 to W2 14
d) Sample Details	RAJAR respondents. Information about RAJAR's sampling approach can be found at www.rajar.co.uk
e) When and Where Conducted	Desk research (July/August 2014)

- 12.3 John Fryers is an experienced research analyst who was previously Insight Director at Global Radio and Chrysalis and whose current clients include Bauer Media.
- 12.4 Fryers' analysis highlighted that the proportion of adults (15+) listening to radio in the UK has remained constant at 90% since 1999. Growth in absolute reach has been as a result of increased population.
- 12.5 The total number of listening hours consumed also remains constant, however average time spent listening has fallen. This is particularly apparent in the younger demographics and is independent of gender and of socio-economic group.
- 12.6 DAB ownership has continued to increase since its introduction with approaching half of all adults claiming ownership. The profile of ownership is relatively broad. When compared to the overall population it exhibits a slight bias towards 35-54 year olds and has an upmarket skew, however it is balanced in terms of gender.
- 12.7 Considered as a whole the stations currently offered on DAB appeal to a wide range of demographic groups. Those listening on DAB share a broadly similar profile to all radio listening, with only the over 65's underrepresented compared to radio listening as a whole.

- 12.8 Digital One's audience has displayed continual growth in both reach and total hours listened since launch in November 1999²⁰.
- 12.9 The three largest stations (Classic, Smooth and talkSPORT) are responsible for half of all listening hours to Digital One. Three out of the top four stations, measured by hours, are also available nationally on analogue radio.
- 12.10 The profile of Digital One's audience is broadly in line with that of the population, with a slight bias towards men and those aged 25-44 when compared to the population as a whole.
- 12.11 Whilst the individual stations carried on Digital One have audience profiles that reflect their output, Fryers concluded that considered alongside the other stations, or networks, available nationally there are no obvious gaps for new stations in demographic terms.
- 12.12 John Fryers' report is enclosed at Annex 12.1.

²⁰ BFBS, UCB and TeamRock are not measured in RAJAR and Premier Christian Radio is only measured as a local London station.

Audience appeal of Sound Digital's proposed national digital radio stations by YouGov

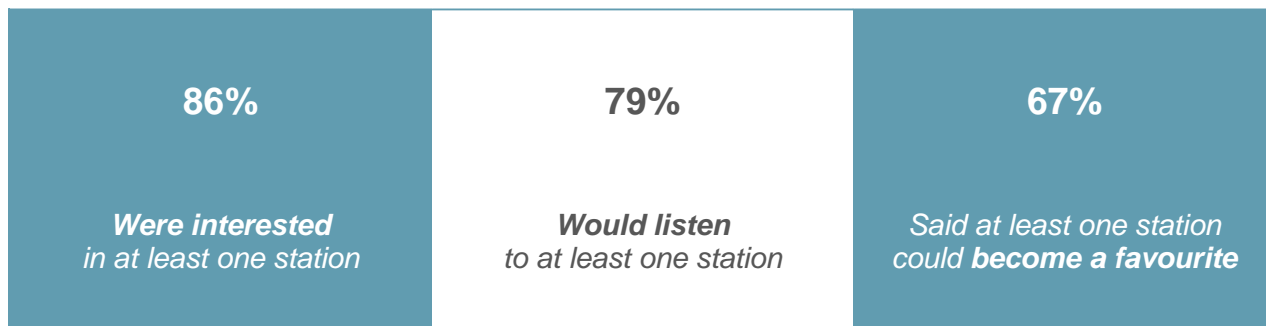
a) Key Research Objectives	Establish the appeal of Sound Digital's proposed content services Identify the demographic groups to be served by each service Reveal how the services will impact on digital technology uptake
b) Questions Sought to Answer	What are the current radio listening habits of UK adults? Which genres are perceived as being available on the radio and which genres would listeners like more of? What is the extent of interest in the format/stations being considered by Sound Digital and how far is this interest likely to convert into listening? What are the audiences to which each station has particular appeal and what are the demographics of those audiences? How far would the services being proposed by Sound Digital increase the propensity of consumers to acquire digital radio technology?
c) How Conducted	Online quantitative survey conducted by YouGov, commissioned by Sound Digital
d) Sample Details	UK nationally representative sample of 4056 adults. Specific respondent groups received additional sample boosts to allow robust analysis of their requirements.
e) When and Where Conducted	UK wide survey, fieldwork September 2014

- 12.13 YouGov is a leading international market research agency which was selected to assess the audience appeal of Sound Digital's content line-up on the basis of its media industry expertise and reputation for objective and insightful consumer research.
- 12.14 YouGov's research identified strong appeal both for Sound Digital's content services, and for the speech and music genres which they cover.
- 12.15 Despite widespread availability of musical genres on the radio, YouGov found there is still appetite to listen to more music on the radio, particularly pop and rock. When it comes to speech genres, there is particular appetite for news and current affairs, but significant proportions of respondents are also interested in comedy, politics and sports programming.
- 12.16 Based on the descriptions shown to respondents within the survey, 86% of our nationally representative sample said they were interested in at least one of the stations proposed by the consortium, with 79% saying that they would go on to listen to one of the stations if it was available. 67% said they think one of the stations could go on to become one of their favourites²¹.

²¹ Findings relating to our consolidated content line-up exclude the DAB+ channel

- 12.17 These high levels of appeal are considered by YouGov as a reflection of the broad range of stations presented to respondents, covering a range of talk and music genres as well as stations focused on specific religious and ethnic minority groups. These findings are summarised in Figure 12.1.

Figure 12.1: Collective audience appeal of Sound Digital content services



Source: YouGov

- 12.18 There was a high level of appeal for the stations across all demographics, with the highest appeal amongst those aged 35-54 year old and amongst ABC1s.
- 12.19 Each respondent was also asked a series of in-depth questions about a selection of two stations within Sound Digital's line-up. The first of these was chosen based on interest and the second was based on the target audience.
- 12.20 Based on this selection of just two stations out of Sound Digital's total content line-up, 52% of the national population consider that at least one of the selected stations would be good for UK radio, 50% say that the selected stations provide additional choice and would be a good thing, while 47% agree that the content sounds interesting.

- 12.21 These findings are shown in Figure 12.2 and provide further evidence that our line-up will cater to a variety of tastes of interests.

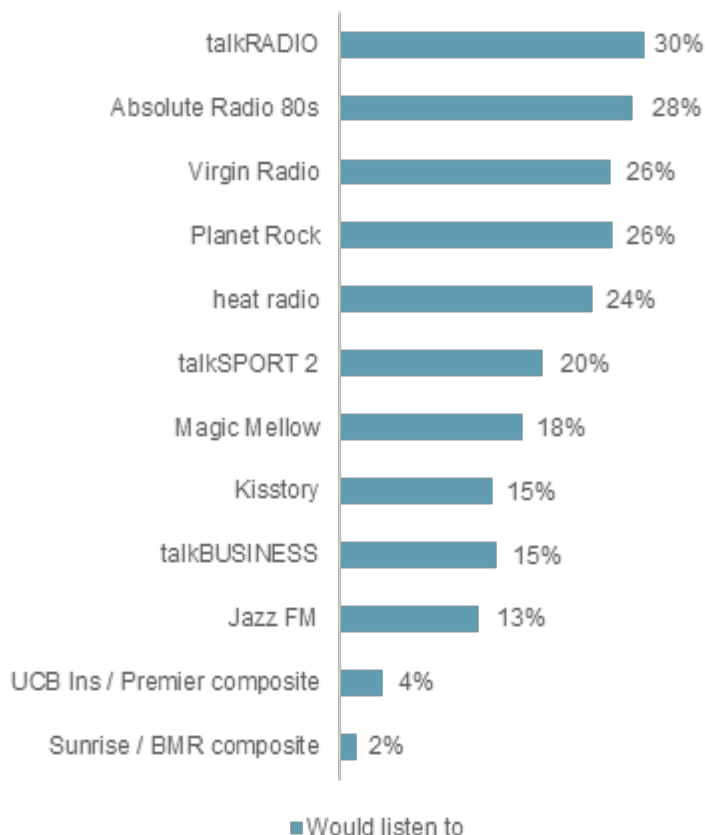
Figure 12.2: Audience perceptions of Sound Digital's benefits for UK radio



Source: YouGov

- 12.22 Figure 12.3 demonstrates that the services with the largest audience appeal are talkRADIO (30%), Absolute Radio 80s (28%) and Virgin Radio (26%). This chart sets out the percentage of the nationally representative sample who indicated an intention to listen to each respective service. These responses were based on a description of each station, with none of the stations having any branding when presented to respondents.

Figure 12.3: Audience intention to listen to individual Sound Digital content services



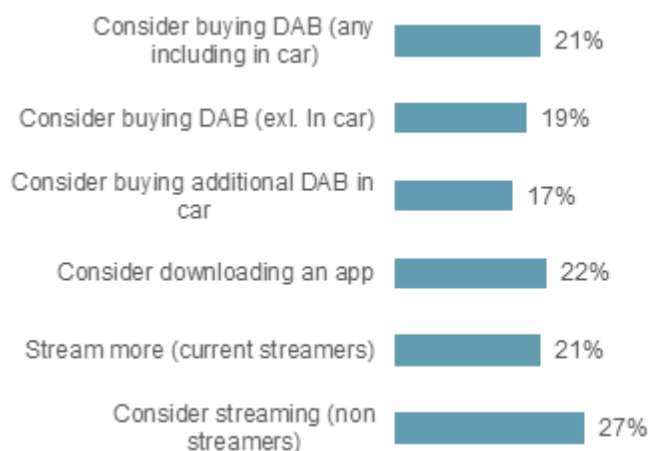
Source: YouGov

- 12.23 Each of the individual stations has a slightly different demographic appeal depending on the nature of the content, as set out in full report. Taken together, YouGov's research findings indicate that the line-up has a broad appeal across a wide variety of demographics.
- 12.24 YouGov also analysed existing perceptions of radio. This revealed that general satisfaction levels with radio are relatively high, with 70% satisfied with the content available and 72% satisfied with the quality of reception. Amongst DAB owners, satisfaction with both content and reception increase significantly.

- 12.25 There is also evidence to suggest that Sound Digital's line-up will support further uptake of digital radio. Respondents were asked a series of questions about the likely impact on their digital radio consumption habits of two of the stations, one of which was selected based on interest and the other of which was selected based on target audience.
- 12.26 Overall, 33% of respondents said the availability of these two stations would have a positive impact on at least one of the digital radio uptake measures. This was based on either acquisition of DAB radios or access to internet streaming.
- 12.27 The research demonstrates that Sound Digital's line-up will prompt additional DAB take-up amongst both amongst those who do not currently have DAB radios, as well as those that do. It also provides evidence that our editorial offering will lead to additional demand for in-car radios. Sound Digital's line-up will also encourage more streaming of radio content over the internet, particularly amongst those who are aged 25-34. These findings are summarised in Figure 12.4.

Figure 12.4: Sound Digital impact on digital radio take-up.

33% said at least one of two stations which they were asked about in depth would have a positive impact on at least one of the digital radio uptake measures



Source: YouGov

- 12.28 YouGov's detailed report is enclosed in Annex 12.2. The full data tables compiled by YouGov are supplied in tabulated form within Annex 12.3.

DAB+ penetration in the UK by Mediatique

a) Key Research Objectives	To assess the current penetration of DAB+ capable radios in the UK To create a forecast for sales of DAB+ capable radios from 2014-2027
b) Questions Sought to Answer	What is the existing penetration of radios capable of receiving DAB+ services in the UK? How far should DAB digital radios which are capable of being upgraded to DAB+ be included in figures for DAB+ ownership in the UK? What will be the future take up in the UK of both DAB+ and DAB digital radios in the car and home? What are the key factors which will affect the proportion of UK radios which can receive DAB+ services over time?
c) How Conducted	Analysis by Mediatique, commissioned by Arqiva
d) Sample Details	The analysis was based on desk research supplemented by industry interviews carried out by Mediatique with radio industry stakeholders (radio manufacturers, retailers and broadcasters).
e) When and Where Conducted	Desk research and UK stakeholder interviews July-September 2014, final report updated November 2014 to include latest available data

- 12.29 Mediatique is an independent agency which specialises in providing UK and international media companies with strategic insight and research.
- 12.30 This study by Mediatique is believed to be the first detailed analysis of UK DAB+ sales by a third party (as opposed to figures cited by manufacturers).
- 12.31 The Mediatique analysis was that at the end of 2013, 2.9 million DAB+ radios (vehicle and domestic) had been sold. At that time approximately 20 million DAB radios had been sold in total.
- 12.32 Mediatique forecast that DAB+ penetration will increase and, by the end of 2020, the majority of DAB radios (vehicle and domestic) will be DAB+ capable. By 2027 the forecast was that DAB penetration will be 69 million in total, of which 42 million will be DAB+ capable radios.
- 12.33 Mediatique's analysis suggests that for DAB+ exclusive content to have a significant impact on DAB+ take-up it would need to be very highly appealing.
- 12.34 Mediatique's report is enclosed at Annex 12.2.

Section 47(2)(e): Promotion of acquisition of digital receivers

13 Promotion of digital take-up

Q13. Outline the broad strategy proposed "for promoting or assisting the acquisition, by persons in the proposed coverage area of the service, of equipment capable of receiving the service". This should include any promotional activities planned by the national radio multiplex licensee and/or individual digital sound programme service or digital additional service providers, and/or any initiatives involving other parties. Outline fully the objectives and assumptions underlying any promotional or marketing strategy planned. (A copy of any supporting research should be supplied with the application.)

Converting listeners to digital radio through unique content

- 13.1 Ofcom research shows that the UK leads the world for take-up of digital radio technology²². If awarded the licence, Sound Digital will play a key role in extending this technological lead for the UK digital radio sector.
- 13.2 Sound Digital believes that a key determinant of listener demand for digital radio is the strength of the brands available exclusively on digital platforms compared with traditional FM / AM radios. Although 37.8% of total UK radio listening is currently via digital platforms, 80.2% of all digital listening is to services which are already available on either AM or FM²³. This suggests that an absence of sufficient compelling digital-only content may have constrained historic DAB take-up in the UK.
- 13.3 Conversely the inclusion within Sound Digital's line-up of a large number of popular well-loved brands which will be exclusive to digital radio has the potential to spark a surge in consumer demand for digital radio. Moreover, Sound Digital's unique digital content services include a number of brand extensions of popular existing analogue stations. These services will benefit from significant cross-promotion as well as immediate brand recognition from launch.

²² Ofcom, International Communications Market 2014, December 2014

²³ RAJAR/Ipsos MORI/RSMB Q3, 2014

- 13.4 Currently over half of the listening to the Digital One services that are measured via RAJAR occurs via analogue platforms, and only 6% is to stations which are unique to digital radio platforms. In marked contrast, Sound Digital forecasts that less than 10% of listening to its services will be via analogue platforms. This is on account of an anticipated 12 out of 15 stations being entirely unique to digital radio and none being available on national analogue platforms²⁴.
- 13.5 To ensure that it capitalises on the potential benefits afforded by its line-up of strong digital-only brands, Sound Digital will initiate a high impact marketing and PR strategy with partners drawn from across the digital radio sector. Campaign activity will highlight the compelling attributes of services such as talkRADIO, talkSPORT 2, Virgin Radio, heat radio, Magic Mellow, British Muslim Radio, UCB Inspirational and Jazz FM in tandem with their exclusive availability on digital platforms to accelerate take-up of digital radio.
- 13.6 Our strategic approach includes a commitment by Arqiva, Bauer and UTV to provide media support and cross-promotion worth £15m over six years. This will leverage shareholder-owned media platforms, complemented by promotional tie-ups with retail, vehicle and receiver partners, as well as airtime, national PR and above-the-line marketing by our content providers.
- 13.7 Particular focus will be given to the arrangements for the launch of the multiplex, with a national switch-on campaign coordinated on a cross-industry basis. This campaign will assist listeners in acquiring new DAB radios, retuning their existing DAB sets and using streaming services to access the enhanced content line-up.
- 13.8 Sound Digital's strategy is distinguished from previous campaigns promoting digital radio choice by the strength of its digital-only brands (including two of the three original independent national radio brands from the mid-1990s), and by the weight of cross-promotion from existing platforms on which it draws. Our strategy takes the successful brand-extension model developed by broadcasters such as Absolute Radio and the BBC to a level which has hitherto not been seen.
- 13.9 Sound Digital's approach is also supported by the research undertaken for this application by YouGov. This demonstrates that Sound Digital's line-up will prompt additional take-up of DAB radios, including in-car receivers. Sound Digital's line-up will also encourage more streaming of radio content over the internet, particularly amongst those who are aged 25-34. These findings were outlined in more detail in our response to question 12.

²⁴ RAJAR/Ipsos MORI/RSMB Q3, 2014. Only three stations within Sound Digital's launch line-up are expected to have any analogue listening. Of these, the largest is Planet Rock, which has 11% analogue listening.

Sound Digital's £15m media commitment

- 13.10 The Sound Digital consortium includes Bauer and UTV who boast existing national scale as media owners, enabling them to make a significant media commitment to support the promotion of digital radio. Sound Digital's third party service providers have also agreed to provide media support to promote digital radio, via their capacity sub-contracting agreements with Arqiva.
- 13.11 Sound Digital's media commitment is worth an estimated £15m over six years (based on current media value). Sound Digital will concentrate this media contribution over the first six years of the licence period, in the expectation that consumer penetration of digital radio reception technology will increase significantly over this period. The commitment is
- Gifted airtime for industry digital radio promotional campaigns, to be spread across all 15 Sound Digital services.
 - Substantial cross-promotion for the Sound Digital services from existing service provider-owned media outlets (including analogue radio stations owned by Sound Digital's shareholders), to be provided via radio and print advertising, as well as integrated editorial promotions.
 - On-air promotional campaigns (consisting of giveaways and other promotions) involving partners from the retail, manufacturer and vehicle industries, to coincide with the launch of the network and continue thereafter on an annual basis.
- 13.12 The objectives for this activity will be to stimulate awareness and positive perceptions of the Sound Digital services, educate listeners as to how they can be accessed and in turn to prompt acquisition and usage of technology capable of supporting trial and take-up.
- 13.13 Campaign messaging will include clear information for listeners as to how to access the Sound Digital services. Those without a DAB radio will be encouraged to buy one. Those who already have a DAB radio will be encouraged to consider adding a new set to extend their access to digital radio into other locations. Those with only an FM / AM set in their car will be encouraged to consider upgrading to DAB.

National consumer marketing and PR led our by content providers

- 13.14 To amplify Sound Digital's £15m media commitment, its shareholders and content providers will initiate their own consumer marketing and PR activity to stimulate listener interest in their services. This will include presenter interviews, station profiles and content-led announcements in national press and specialist interest media outlets.
- 13.15 A number of Sound Digital's content services will also initiate above the line consumer marketing activity, utilising external media platforms in order to maximise awareness amongst listeners. This above the line activity will be in addition to the £15m media commitment offered by Sound Digital's shareholders.
- 13.16 UTV will work closely with Richard Branson and the Virgin Group to bring their considerable marketing and PR expertise to bear in supporting the return of Virgin Radio to the UK airwaves.
- 13.17 Sound Digital will provide advice as to the messaging, timing and strategic approach for these consumer PR campaigns, with activity to be coordinated on Sound Digital's behalf by UTV.

A major switch-on campaign coordinated with industry partners

- 13.18 A particular focus of Sound Digital's consumer PR and marketing activity will be the launch of the network.
- 13.19 To maximise the benefit of a sudden increase in the availability of popular well-loved brands on a national basis, Sound Digital will develop a switch-on campaign centred around the launch of our line-up of content services. This campaign will be carefully designed so as to assist listeners in acquiring new DAB radios, retuning their existing DAB sets and accessing streaming services to access the enhanced content line-up.
- 13.20 Sound Digital's switch-on campaign will be coordinated on a cross-industry basis with partners including Digital Radio UK. Two of Sound Digital's shareholders – Arqiva and Bauer – are already key contributing members of Digital Radio UK. Sound Digital understands that following a positive award decision by Ofcom, UTV will initiate discussions about the possibility of joining them as a full member. Such membership would build on UTV's longstanding support for Digital Radio UK airtime campaigns and marketing events.



- 13.21 In the run-up to launch, Sound Digital's shareholders and service providers will also enter into promotional tie-ups with receiver manufacturers, retailers and vehicle industry partners. This will include manufacturers such as Roberts and Pure, with whom the consortium has had dialogue regarding future collaboration in the event that the licence is awarded to Sound Digital. Anticipated activity includes on-air DAB radio giveaways coinciding with the launch of the services.

PURE



ROBERTS

- 13.22 By working closely with industry partners, Sound Digital will ensure that the benefits of the UK's second national commercial DAB multiplex are spread as widely as possible throughout the UK population and digital radio sector.

A strategy informed by insight into evolving listener behaviour

- 13.23 To maximise the benefits of its digital radio promotional strategy, Sound Digital will ensure that its services sustain continued growth not only of DAB but of all forms of digital radio listening.
- 13.24 Since the launch of the UK's first national commercial DAB multiplex in 1999, consumers have benefited from a technological revolution which has altered how audio and radio services are consumed.
- 13.25 Key developments in this period have included the increased availability and affordability of connected portable devices, substantial improvements in fixed line and mobile internet networks, growth in music streaming services such as Deezer and Spotify, the emergence of non-linear audio services such as AudioBoom, iTunes and Soundcloud, as well as increased penetration of DAB digital radio receivers.
- 13.26 In developing this licence application, Sound Digital has benefited from the considerable expertise which exists amongst its shareholders as to the opportunities presented by these technological developments and the resulting changes in consumer behaviour.
- 13.27 Collectively Arqiva, Bauer and UTV operate some of the UK's most commercially successful digital radio stations, websites and apps and have pioneered commercial innovations such as in-stream advertising, multi-platform sales and commercialisation of overseas listening. Through involvement in bodies such as WorldDMB, Digital Radio UK and UK Radioplayer Ltd, the shareholders are also involved in initiatives which will shape the digital development of radio in future years.

- 13.28 For example, Sound Digital supports the Radioplayer hybrid radio project which encourages the development of radios which can switch seamlessly between broadcast and the internet delivery based on availability. On publication of accepted hybrid radio specifications, Sound Digital will encourage its content providers to support them to the fullest extent, including transmitting appropriate DAB metadata if applicable.



Supporting positive perceptions of digital radio amongst advertisers

- 13.29 Sound Digital's strategy for promoting digital take-up amongst consumers will also be supported by a concerted focus on trade marketing and PR. The objectives of this activity will be to engender positive perceptions of digital radio amongst advertisers, thereby supporting the commercial development of the sector and enabling further investment in content and services on behalf of listeners.
- 13.30 UTV and Bauer will take a lead in arranging advertising and agency focused events, and all three shareholders shall collaborate closely in ensuring awareness of the launch of Sound Digital and its line-up of well-loved and predominantly digital-only brands within the wider media industry and amongst key digital radio stakeholders.
- 13.31 This trade marketing activity will commence with a launch event for the Sound Digital licence application in central London on 30 January 2015. A large number of major media agencies accepted invitations to attend this event in advance of the submission of this licence application. The event will also be attended by an invited audience of journalists from key trade publications. This event will be followed by further activity in the event that the application is successful.

Laying foundations for a future migration to DAB+

- 13.32 DAB+ presents significant future opportunities for the radio sector, given its efficient use of spectrum and potential to provide lower cost carriage to broadcasters.
- 13.33 Unfortunately, whereas penetration of DAB enabled receivers is now above 50% of the UK population²⁵, a minority of these receivers are DAB+ enabled. As highlighted by the Mediatique analysis summarised in our response to question 12, this is likely to remain the case until around 2020, after which date the majority of receivers are likely to be able to receive DAB+ stations. Given that DAB+ is approximately 50% more data efficient than standard DAB, from this point onwards the lower cost per listener reached will make DAB+ increasingly commercially attractive to would-be content providers.
- 13.34 A key goal of Sound Digital's strategy for promoting digital take-up is to accelerate take-up of DAB+ compatible radios. To achieve this, Sound Digital will prioritise promotion for receivers which comply with Digital Radio UK's "tick-mark" scheme²⁶. Our choice of retailer, manufacturer and vehicle partners will be influenced by whether they are themselves supporting the tick-mark.
- 13.35 As detailed in section 11, Sound Digital is also committing to include at least one distinctive DAB+ channel within its launch line-up. Accordingly, content providers are being offered the opportunity to access DAB+ capacity at a significantly reduced price in the early years of the licence. As well as providing an incentive for stations to launch on DAB+ at a time when DAB+ radio penetration is still at relatively low levels, this approach reduces barriers to entry.
- 13.36 Sound Digital will work with DAB+ content providers on specific communications activity to ensure that listeners acquire radios compliant with the tick-mark scheme to access these services.
- 13.37 The draw-back of providing stations via DAB+ rather than DAB is that it reduces potential listeners' access to these services, resulting in a possible short-to-medium-term reduction in the overall consumer benefit of Sound Digital's content line-up. Moreover, Mediatique's analysis suggests that for DAB+ exclusive content to have a significant impact on DAB+ take-up it needs to be highly appealing.
- 13.38 However, Sound Digital considers that any downsides will be outweighed in the long-term if the inclusion of DAB+ content encourages manufacturers to place an increased focus on DAB+ compatibility and compliance with the tick-mark scheme.

²⁵ RAJAR/Ipsos MORI/RSMB Q3, 2014

²⁶ Further information about this scheme can be found at <http://www.getdigitalradio.com/industry/what-is-the-tick-mark/>

- 13.39 If awarded the licence, Sound Digital will keep the role of DAB+ under close review and will also monitor ownership of DAB+ on an ongoing basis against the Mediatique model.

14 Digital additional services and television licensable content services

Q14. 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.

- 14.1 Sound Digital is not proposing to provide any standalone dedicated digital additional services and/or television licensable content services at launch.
- 14.2 It is envisaged that some of the Sound Digital content providers will hold digital additional service licences to enable them to carry commercial messages within their DAB text.

Section 47(2)(f): Fair and effective competition

15 Measures taken to ensure fair and effective competition

Q15. 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".

An open and accessible platform to content providers

- 15.1 Sound Digital has been structured to support the launch and long-term operation of a compelling line-up of digital radio services across the UK. The company has therefore been structured to offer an open and accessible platform to content providers, including start-up digital radio stations as well as established broadcasters.
- 15.2 As noted elsewhere in this application, the decision by Sound Digital's shareholders to make firm commitments to contract and pay for multiplex capacity for the whole licence term ensures that the commercial viability of Sound Digital is guaranteed. In addition, the 12 year commitments made by the shareholders enable third party content providers to access capacity in a flexible manner without any obligation to underwrite the multiplex's future liabilities or to provide ancillary services to Sound Digital.
- 15.3 With Bauer and UTV electing to utilise their allocated capacity in order to broadcast their own content services, the principle means by which a third party can access capacity on the multiplex is via a sub-contract with Arqiva. Accordingly, Arqiva has been appointed to market vacant capacity on the multiplex to such third parties.
- 15.4 To ensure the widest possible range of potential content providers, Sound Digital arranged for Arqiva to publish an advertisement in July 2014 for expressions of interest in operating national radio services. The publication of this advertisement was at the earliest opportunity following the execution of the framework joint-venture agreement between the parties to apply for the licence.
- 15.5 Arqiva's subsequent dealings with third parties have been and will continue to be governed by a set of guidelines which are set out below. These guidelines have been developed by Arqiva with input from both Bauer and UTV. They draw on the collective digital radio multiplex expertise within Sound Digital, including Arqiva's track record as an independent multiplex operator with Digital One and Now Digital.

- 15.6 Since acquiring Digital One and Now Digital in July 2009, Arqiva has secured carriage contracts with large and small radio groups, new business start-ups, charities, community stations and stations that raise funds via on-air appeals. It has shown a willingness to trial or launch innovative content to extend the range of stations available to UK audiences: Panjab Radio, Fun Kids, Amazing Radio, BFBS Radio, NME Radio, MKFM, Black Cat Radio, Angel Radio and Boat Radio. Some of these deals have entailed support for innovative content combined with a commercial risk. The number of services carried on Digital One has also been increased from four in 2009 to 14 in 2014
- 15.7 Sound Digital's guidelines for sub-contracting capacity, developed by Arqiva and adopted by Sound Digital, reflect best industry practice in ensuring fair and effective competition in the provision of content services. They have been agreed with Bauer and UTV and would apply in the event that either of them sought to sub-contract capacity at some future date.
- 15.8 Within the guidelines, the commitment to fair treatment of content providers is a constant principle; the systems and processes may be subject to change to reflect varying market conditions or other changes in circumstances.

Guidelines for Sub-Contracting Sound Digital Capacity

- 15.9 Availability of Capacity to Run Services on Sound Digital
- a) We believe it is generally good to make it widely known when multiplex capacity is available. This opens up the market to a broad range of potential customers and builds confidence that no one is being excluded for improper reasons.
 - b) Experience shows that, in many circumstances, it is easy to publicise the availability of capacity. For example, when a multiplex is broadcasting with spare capacity, it is like displaying a virtual "For Sale" sign.
 - c) Sometimes, for example when there is an excess of demand for the capacity that is available or when capacity becomes free after a multiplex has been full, it will help to advertise that capacity is available and ask for Expressions of Interest. An advert will often be via a radio industry website, such as Radio Today, but may sometimes be via other media.
 - d) Even when there is no capacity immediately available, it is always open to potential customers to proactively lodge an unsolicited Expression of Interest. With this in mind, when the multiplex is full (and at other times) it should always be clear who potential customers should contact about future capacity. Expressions of Interest should be sent to nationaldigitalradio@arqiva.com.

- e) Sometimes, the fact that capacity will become available cannot be made public, because revealing any information would breach a confidentiality undertaking. In this situation, the information will be made public as soon as the confidentiality undertaking allows.

15.10 Standard Contract Terms and a Capacity Rate Card

- a) We believe that it is generally good for parties contracting for equivalent capacity at the same time and for the same period to contract on similar terms and at a similar price, unless there are fair reasons for any differences.
- b) Having a rate-card for capacity, and using this as the basis for any discussion, helps ensure that potential customers are treated fairly. This does not mean that every contract must be agreed at the rate-card price, but there need to be good reasons to agree a higher or lower price. Generally, potential customers will be required to enter into a confidentiality undertaking before being sent details of the rate-card.
- c) In a similar way, having a standard contract with standard terms helps ensure that potential customers are treated fairly. Again, this does not mean that amendments will never be considered.
- d) Sound Digital has been established and its finances are underwritten by financially strong shareholders, including Arqiva. Arqiva is then making sub-contracted capacity available to third parties. Customers sub-contracting capacity, generally on a long term basis for between four years and the lifetime of the licence, can have confidence that their sub-contract will be honoured and their service will continue to be broadcast. In parallel, Arqiva will seek confidence that the sub-contract will be honoured and this will include asking potential customers for financial information about the track-record of the content provider's company. In some circumstances, a content provider may be required to pay in advance, provide a deposit or commit to a personal or company guarantee. In this respect, although the way that comfort will be provided that a sub-contract will be honoured may vary from case to case, the differences will be for fair reasons.

15.11 Process for Deciding to Allocate Capacity

- a) We believe that it is important that capacity is always allocated in a way that is fair and non-discriminatory. But a process that is unchanging and mechanical does not always deliver genuine fairness. We follow general principles, and the process will usually follow one of the templates set out in this section. However, we reserve the right to do something different where, in Arqiva's view,

the particular circumstances warrant it provided that the alternative process was still fair.

- b) Arqiva has invested in Sound Digital capacity as a business venture with the intention of making an appropriate profit from sub-contracting its capacity. All decisions about allocating capacity take into account the relevant commercial and regulatory factors:
- Arqiva's commercial interests (which includes a judgement about the ability of a content provider to pay the rate-card price for the capacity and sustain the service throughout the proposed term of the sub-contract);
 - The regulatory and legal framework, which includes but is not limited to the Ofcom licence conditions for DAB digital radio multiplexes in the UK.
- c) Examples of things which might be considered as relevant commercial and regulatory factors, and flow from the two headings described above, include:
- the attractiveness of the proposed service to consumers and the ability of the content to attract new listeners to the multiplex and digital radio more generally as well as drive take-up of digital radio equipment by consumers;
 - whether the service proposed has appeal to tastes and interests that are distinct from those catered for by existing services on the multiplex or the existing commercial national digital radio multiplex;
 - the commitment offered by the content provider in its investment in content and in its commitment to promote its service and the development of digital radio in the UK;
 - the level of commercial risk to be carried in sub-contracting with the potential content provider which might be measured, for example, by certainty of income, the length of the contract;
 - market conditions prevailing at the time the sub-contract is being negotiated.
- d) In most cases during the licence term, a decision to allocate capacity will require a variation to the multiplex licence issued under the Broadcasting Act 1996. In taking decisions about allocating capacity, Arqiva may take into account its expectation about whether or not Ofcom would approve the variation which would be needed. However, any offer ultimately remains subject to Ofcom's approval of any necessary variation. Details about Ofcom's process and criteria for approving variations can be found at <http://licensing.ofcom.org.uk/radio-broadcast-licensing/digital->

radio/radio-mux-changes/ (NB the licence which Sound Digital is applying for is a national radio multiplex licence).

- e) If the amount of capacity available to be sub-contracted exceeds the short term demand, Arqiva will consider allocating capacity to a company which has proactively lodged an unsolicited Expression of Interest (i.e. without advertising or running a formal competitive process). In such a process all decisions will be based on the relevant commercial and regulatory factors.
- f) If the existing or expected demand for capacity exceeds the amount of capacity available to be sub-contracted, Arqiva would tend to run a Competitive Process (as outlined below). However, if a company has proactively lodged an unsolicited Expression of Interest, which Arqiva believes is so likely to be selected after a Competitive Process that it would be artificial to hold such a process, then Arqiva may, after considering the Relevant Commercial and Regulatory Factors, allocate capacity without a Competitive Process.
- g) Alternatively, if the existing or expected demand for capacity exceeds the amount of capacity available to be sub-contracted, Arqiva would run a multistage process (described in the bullet points below).
 - The first step would be to run an advert describing the capacity available with brief details of any key factors relating to the capacity (e.g. a preferred genre or target audience) and requesting Expressions of Interests to be submitted by email (usually with a deadline for submission of Expressions of Interest);
 - Companies making an Expression of Interest would be required to enter into a confidentiality undertaking (i.e. a legal agreement designed to protect both parties' confidential information).
 - Companies making an Expression of Interest would be asked to respond to a standard Request for Proposals document (the "RFP") which would typically include questions relating to content, target audience, company finances, business plan, eligibility to hold the relevant Ofcom licence and preferred contract duration. The RFP would set out further details about the available capacity and the intended process and timetable for its allocation.
 - After the given date, Arqiva would consider all of the responses to the RFP, alongside its own prior market knowledge and data from other sources (e.g. from Companies House or Ofcom publications) against criteria shaped by the Relevant Commercial and Regulatory Factors. Some companies might be excluded from the process at this stage as a result of being judged against the criteria. Unsuccessful companies would be

informed of the decision. Other companies would continue into the next stage of the process.

- Companies continuing into the next stage, would be sent further information about the opportunity (e.g. standard contract terms) and might be required to respond to further standard questions in writing. Particular issues or questions related to an individual company's application might be discussed one-to-one and clarification or additional information sought.
 - Arqiva would then, using criteria based on the relevant commercial and regulatory factors described in 3 (b) above, either decide not to offer capacity to any of the applicants remaining in the process or to offer capacity to one company (subject to contract and regulatory approval). Once a contract had been agreed, or earlier if appropriate, unsuccessful companies would be informed.
- h) Throughout this sequence of events, Arqiva would always reserve the right to suspend or amend the process. During a Competitive Process, Arqiva will try to answer questions quickly and accurately, but it will not be able to give advice which might be seen as giving one company an advantage over other applicants.

Complaints Process

- a) If an interested party thinks any process for the allocation or sub-contracting of capacity has been unfair, we have established routes for such parties to raise issues formally with Arqiva and Sound Digital. The process is there to alert us to problems, put things right if something has gone wrong and provide feedback about how this policy is working.
- b) Any party can raise an issue with the person who has been handling their Expression of Interest. This is usually Arqiva's General Manager for Digital Radio Platforms, Glyn Jones.
- c) Within Arqiva, parties can escalate a concern to Arqiva's Director of Digital Radio, Paul Eaton or the Managing Director of Arqiva Terrestrial Broadcast, Steve Holebrook.
- d) A further escalation route is available to any party to raise concerns with the board of Sound Digital.
- e) Any of these routes is open to anyone who has provided an Expression of Interest at any point. These escalation routes are in addition to the legal or regulatory options that are always open to parties who consider they may have been treated in ways that are unfair or discriminatory.

15.12 Notes and Matters Not Covered Elsewhere

- a) Arqiva will generally give only very limited feedback to unsuccessful applicants for capacity, beyond informing them of its decisions. However, records will be kept of the processes followed and the reasons for the decisions that are taken. These will always be available if Ofcom needs formally to review decisions taken about the allocation of capacity.
- b) It is the current intention of UTV and Bauer to use the capacity they have contracted for the full 12 years of the multiplex licence for their own services. If for any reason, UTV or Bauer were no longer to require any part of their contracted capacity for their own services, then it would be made available to be sub-contracted (for the benefit of whichever company no longer required the capacity) via Arqiva following the relevant policies and processes detailed in this document.
- c) Throughout this policy, the words “company” or “party” should be taken to include a charity, community interest company or any other legal entity which is able to enter into a contract and is entitled to hold any Ofcom licence which will be required. Generally, the contracting company for capacity will be the same legal entity which holds the relevant Ofcom licence.
- d) Throughout this policy the word “fair” should be taken to mean that something reflects and embodies the commitment to act in a manner calculated to ensure fair and effective competition in the provision of services as required by a DAB digital radio multiplex licence.

16 Contacts with prospective service providers

Q16. 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 applications discussed and, for each application which is not among those planned for inclusion on the multiplex (as per Q.11 and Q.14 above), state the reason(s) why the prospective provider and/or the service(s) proposed by that provider has not been included.

An open door to committed would-be content providers

- 16.1 Sound Digital is committed to providing an open and accessible platform for prospective content providers. Prior to submitting this licence application, Arqiva on behalf of Sound Digital engaged with over 30 credible potential providers who expressed an interest in operating services.
- 16.2 In engaging in discussion with prospective content providers, Sound Digital was also mindful of its commitment to providing Ofcom with complete certainty that the firm proposals included within its final licence application will be fully delivered. This has led us to take a cautious approach towards content providers who were either unable or unwilling to enter into legally binding carriage agreements that were condition precedent only on Sound Digital being awarded the licence.
- 16.3 As noted elsewhere, Sound Digital's financially secure business model provided flexibility to the discussions with prospective content providers in relation to matters such as length of carriage term. In addition, at no point was any third party asked to make an exclusive commitment to Sound Digital in order to be included within Sound Digital's licence application.
- 16.4 The answer to this question has been supplied to Ofcom in confidence.

17 Contractual and other arrangements with service providers

17.1 The answer to this question has been supplied to Ofcom in confidence.

Technical quality

18 Division of multiplex capacity

Q18. Show, by means of a pair of clearly-labelled tables, the proposed division of the available multiplex capacity into digital sound programme services and other services during all time periods. The tables should depict the proportion of the total available capacity (in kb/s/pts/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, and to each simulcast radio service (if relevant) inclusive of any ancillary services. It should also show the total proportion of the available multiplex capacity which it is proposed to allocate to digital additional services and television licensable content services. Please also indicate what proportion of these services will be programme-related (see paragraph 3.36). One of the tables should refer to the capacity units taken by each service (i.e. inclusive of capacity used for error protection), and the other table should refer to the bitrate net of error protection capacity, together with the associated protection level (1 to 5) which it is proposed to use, in accordance with EN 300 401.

- 18.1 As shown in Table 18.1, Sound Digital has allocated 89% of the multiplex capacity. All of this multiplex capacity has been allocated to digital sound programme services.
- 18.2 Table 18.2 shows the division of multiplex capacity by bitrate net of error protection, together with the error protection level used for each service.

Table 18.1: Division of multiplex capacity

Digital sound programme service	Operating times	Capacity units occupied (inclusive of error protection)	Percentage of total multiplex capacity
talkRADIO	00:00 – 23:59	48	5.6%
talkSPORT 2	00:00 – 23:59	48	5.6%
talk BUSINESS	00:00 – 23:59	48	5.6%
Virgin Radio	00:00 – 23:59	58	6.7%
Kisstory	00:00 – 23:59	58	6.7%
Magic Mellow	00:00 – 23:59	58	6.7%
heat radio	00:00 – 23:59	58	6.7%
Planet Rock	00:00 – 23:59	58	6.7%
Absolute 80s	00:00 – 23:59	58	6.7%
Sunrise Radio	00:00 – 23:59	48	5.6%
British Muslim Radio	00:00 – 23:59	48	5.6%
UCB Inspirational	00:00 – 23:59	48	5.6%
Premier Christian Radio	00:00 – 23:59	48	5.6%
Jazz FM	00:00 – 23:59	58	6.7%
DAB+ channel	00:00 – 23:59	24	2.7%
TOTAL		766	88.8%

Table 18.2: Division of multiplex capacity by bitrate net of error protection:

Digital Sound Programme Service Name	Service capacity net of error protection kbits/sec	ETSI EN 300 401 Error Protection Level
talkRADIO	64	UEP3
talkRADIO 2	64	UEP3
talkBUSINESS	64	UEP3
Virgin Radio	80	UEP3
Kisstory	80	UEP3
Magic Mellow	80	UEP3
heat radio	80	UEP3
Planet Rock	80	UEP3
Absolute 80s	80	UEP3
Sunrise Radio	64	UEP3
British Muslim Radio	64	UEP3
UCB Inspirational	64	UEP3
Premier Christian Radio	64	UEP3
Jazz FM	80	UEP3
DAB+ channel	32	EEP3A

19 Basis of allocation of multiplex capacity

Q19. 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?

Overview

- 19.1 Sound Digital's technical decisions on the allocation of capacity have been determined by each content provider and informed by the experience of Sound Digital's shareholders within the digital radio sector. Factors considered include the nature of the content, the characteristics of competitive services, the expectations of the target audience and cost-effectiveness.
- 19.2 As a result of the capacity choices made by Sound Digital content providers, each service uses relatively modest proportions of capacity. This has resulted in Sound Digital being able to offer a high overall number of services, thereby maximising the benefits for listeners of extending choice of programme services. It has also enabled each content provider's individual carriage costs to be minimised.
- 19.3 A potential drawback of this approach is that none of Sound Digital's content services is offered in stereo. However Sound Digital considers that the advantages of stereo are significantly outweighed by the associated disadvantages, of which the most notable are increased carriage pricing and a reduction in the overall range of tastes and interests catered to by the multiplex due to a reduced number of content services.
- 19.4 Sound Digital notes that if DAB+ is widely adopted in the future by consumers, there will be an opportunity to upgrade music services to stereo without reducing the range and variety of content services.

Audio bit rate allocation

- 19.5 Sound Digital's content providers broadcasting music services via standard DAB have largely opted for the higher mono quality at 80kbts/sec using full-rate sampling. This combination achieves a high degree of fidelity with audio bandwidth and quality. The use of mono recognises that a significant majority of the audience will listen to the service on single speaker radio sets or in environments where stereo image is of limited value.

- 19.6 The use of 80kbits/sec strikes an effective and commercially viable balance between extending listener choice by using less than 7% of multiplex capacity for each service, allowing a significantly wider range of services to broadcast on the multiplex, while maintaining a consistently high standard of audio quality in the broadcast across the wide range of source material that will comprise the radio service.
- 19.7 The strong levels of listenership to DAB music services operating below 80kbits/sec (as measured by RAJAR) indicate that audiences do not always value or require the added quality associated with this higher bit rate setting. Nevertheless, 80kbits/sec represents a popular choice amongst content providers due to its ability to provide additional audio fidelity to listeners compared with other mono formats.
- 19.8 Other content providers using standard DAB have opted to use mono quality at 64kbits/sec using half-rate sampling. This is the rate chosen for all of Sound Digital's speech-based services and some music stations. It provides good clarity, more than adequate audio bandwidth and appropriate quality for music. It is a mono quality already widely used on UK digital radio multiplexes for music stations and for speech radio.
- 19.9 The use of 64kbits/sec allows stations to reach a national audience at a lower price. It uses less than 6% of multiplex capacity per service, allowing a significantly wider range of services to be accommodated on the multiplex whilst maintaining a high standard of audio quality and taking account of the wide range of audio paths over which a proportion of the source material will be gathered.
- 19.10 For DAB+ services, 32kbits/sec mono channels have been allocated at this stage with a sampling rate of 32kHz. This has been informed by internal listening tests conducted by Arqiva and is subject to further review and testing. At the discounted prices for DAB+ capacity, the quality target is to match or exceed the subjective quality delivered by a standard Factum 100 DAB encoder with its Philips algorithm at 64kbits/sec.

Error protection

- 19.11 For the DAB services Sound Digital considers that the use of Unequal Error Protection Level 3 (UEP3) gives a good balance between a wider range of services and the quality of reception. UEP3 is also consistent with the Ofcom technical code.
- 19.12 While stronger UEP levels (UEP2 and UEP1) can improve the robustness of reception and in some case extend the limit of coverage, these settings use a disproportionate amount of capacity for very modest gains in robustness. UEP3 has been found to provide the optimum balance between the number of services the multiplex can carry and the number of transmitters required for robust reception.

- 19.13 DAB+ services will be protected using Equal Error Protection Level 3A (EEP3A). This level of protection is generally regarded as providing a similar listener experience to that provided when using UEP3 for a DAB service.

20 Audio characteristics

Q20. For each digital sound programme service and simulcast radio service proposed to be provided, state whether it will be broadcast in 'stereo' or 'mono', and whether it will operate at 'full-rate coding' or 'half-rate coding'. The response to this question should be consistent with the proposed division of multiplex capacity set out in response to Q.18.

20.1 Table 20.1 details the audio characteristics of each of the proposed digital sound programme services in respect of operating in mono or stereo and the respective sampling rate.

Table 20.1: Audio characteristics of the proposed digital sound programme services

Digital sound programme service	Stereo or mono	Sampling rate	Coding method
talkRADIO	Mono	Half Rate	DAB
talkSPORT 2	Mono	Half Rate	DAB
talkBUSINESS	Mono	Half Rate	DAB
Virgin Radio	Mono	Full Rate	DAB
Kisstory	Mono	Full Rate	DAB
Magic Mellow	Mono	Full Rate	DAB
heat radio	Mono	Full Rate	DAB
Planet Rock	Mono	Full Rate	DAB
Absolute 80s	Mono	Full Rate	DAB
Sunrise Radio	Mono	Half Rate	DAB
British Muslim Radio	Mono	Half Rate	DAB
UCB Inspirational	Mono	Half Rate	DAB
Premier Christian Radio	Mono	Half Rate	DAB
Jazz FM	Mono	Full Rate	DAB
DAB+ channel	Mono	32kHz sampled	DAB+

DECLARATION

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

I hereby apply for and on behalf of Sound Digital Limited (the "Company") to the Office of Communications ("Ofcom") for the National Radio Multiplex Licence (as specified in Ofcom's Notice dated 1 July 2014) in order to provide the national radio multiplex service proposed in this application.

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

I declare that the information given by the Company in this application form is accurate and up-to-date to the best of my and the Company's knowledge and that any matters which might influence Ofcom's judgement as to whether the directors and substantial shareholders involved in the application are fit and proper persons to participate in a radio licence have been made known to Ofcom.

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

Applicant Signature:



Name: STEVE HOLEBROOK

Position: CHAIRMAN OF SDL

Date: 16 JANUARY 2015