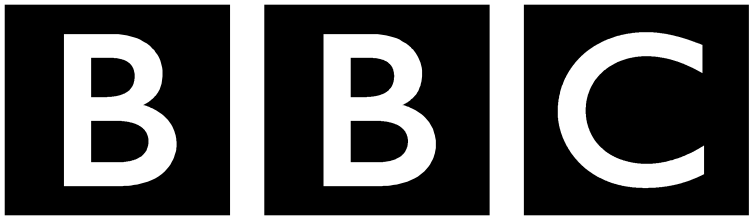

Response to Final Report of the *Review of Radio Spectrum Management*

May 2002

BBC'S RESPONSE TO THE FINAL REPORT OF THE INDEPENDENT REVIEW OF RADIO SPECTRUM MANAGEMENT (March 2002)

Executive Summary

1. The BBC shares the Government's aim of:

- Ensuring the universal delivery of quality public broadcasting services;
- Ensuring the efficient use of scarce terrestrial spectrum in achieving this wider public policy objective.

2. The BBC was therefore pleased to participate in Prof Martin Cave's independent review of spectrum management. The BBC's aim was to help in the development of practical steps which would ensure, within the wider policy framework for broadcasting, that spectrum efficiency was maximised.

3. The BBC believes that the greatest opportunity for delivering greater spectrum efficiency in the broadcasting sector is the achievement of analogue switch-off. It is therefore in the interests of all concerned – Government, regulators, broadcasters and manufacturers – to create the conditions for rapid switchover to digital.

4. However, the BBC is not convinced that Prof Cave's central recommendation, that broadcasters be charged for the spectrum they use, would advance that objective in practice:

- It is more likely to delay rather than accelerate the switch to digital, as resources are diverted out of investment in new digital services and transmitter roll-out and into the payment of unavoidable charges to the Treasury, and as access to additional digital capacity to complete roll-out is discincentivised;
- In practice, the ability of broadcasters to release or trade spectrum at the margin is minimal or zero, particularly in the case of the public service broadcasters who are under continuing regulatory obligations to aim for a universal audience via terrestrial transmission;
- So pricing incentives are irrelevant in the public service broadcasting sector – they would create sanctions to which public service broadcasters have no legal opportunity to respond, and would slow down progress to analogue switch-off.

5. In putting forward practical alternative proposals for maximising spectrum efficiency in the broadcasting sector – culminating in the detailed analysis attached at Annex C to this response – the BBC therefore focussed particularly upon how to achieve analogue switch-off. The BBC would suggest to the Government that, notwithstanding the findings of Prof Cave's theoretical analysis, the question of how to optimise spectrum efficiency in the broadcasting sector is reconsidered, but in a wider, practical context – taking into account all of the Government policy objectives and strategic aims for broadcasting as well as how to achieve the key policy goal of analogue switch-off. The BBC would continue to engage positively in that debate.

Background and previous contributions to the Review

6. The BBC was pleased to contribute to Prof Martin Cave's review of spectrum management. The BBC has a keen interest in ensuring that scarce spectrum is used efficiently. It is not in the BBC's interests to use spectrum inefficiently – the less efficient the BBC is, the fewer people can receive its services and the higher costs the BBC faces in transmission infrastructure and charges from transmission providers.

7. Particularly at this dynamic moment in broadcasting markets, as government, regulators, broadcasters, platform operators and manufacturers are joined in pursuing the common goal of achieving universal digital switchover, it is right to debate how broadcasting spectrum is managed, in order to deliver broader public interest objectives.

8. The BBC therefore engaged fully with the review, making detailed and constructive contributions to this important debate:

- We were pleased to be invited to meet Prof Cave and his team on 4 May 2001, for an initial discussion of how the review would be conducted and the key issues for consideration.

- Subsequently, the BBC made its initial written contribution, in a letter of 13 June 2001 which is attached at Annex A. In this letter, we aimed to answer the specific questions and underlying assumptions which Prof Cave had made at the meeting, as well as to provide broader context and analysis.

- The BBC submitted its formal detailed response to Prof Cave's initial consultation paper in August 2001, and this is attached at Annex B. The BBC continues to consider that this contribution takes a fair, balanced and accurate approach to the issue of spectrum management, and would not seek to reiterate the detailed argumentation in this present note, but rather to cross refer to the August 2001 paper.

- Following a further meeting with the review team on 9 October 2001, the BBC submitted further evidence on 20 November, answering a specific question posed by Prof Cave about the existing incentives for spectrum efficiency. This note, which is attached at Annex C, provided a detailed account of different ways in which broadcasters were incentivised to use spectrum efficiency and the practical impact of those incentives (including specific examples). It also made a number of proposals for practical steps which could be taken to ensure spectrum efficiency – notably the achievement of analogue switch-off, which could eventually result in up to half of broadcasting spectrum being released for other uses.

- The BBC gave a presentation to Prof Cave and members of his team on 3 December 2001, providing an analysis of the steps which needed to be taken to achieve early switch-off of analogue broadcasting, with its potentially huge spectrum "saving".

BBC reactions to the final report

9. The BBC does not believe that Prof Cave's final report does full justice to the whole range of practical, current issues concerning the use and management of spectrum in the broadcasting sector specifically, choosing instead to take a largely theoretical approach to the subject, attempting to find a single answer to what is in fact a range of different questions for different sectors. In the BBC's view, an opportunity has been missed.

10. The BBC is also concerned about what it considers to be false assumptions in the report, among which are:

- That a review of how to ensure spectrum efficiency in different sectors can in reality be undertaken as a discrete academic exercise, separate from a consideration of other prominent Government policy objectives which might apply to those sectors.
- In general, that one size can fit all – ie. that what works as an incentive to spectrum efficiency in one sector will necessarily be effective in relation to all users of spectrum. That presupposes that there are no external considerations applying to the use of spectrum in particular sectors, and that the choices open to users are identical in every sector, neither of which is the case.
- In particular, that broadcasters are completely free to respond to spectrum pricing incentives. In the absence of wholesale changes in the Government policy framework for broadcasting – a framework which the Government is currently reinforcing, not dismantling, in the Communications Bill – this is not the case: it is the Government, not the public service broadcasters, which takes the key decisions which determine how much spectrum broadcasters use (as set out in Section 7 of Annex B).
- That the achievement of "spectrum efficiency" in broadcasting is solely a question of how much spectrum broadcasters can be incentivised to give up for other uses. Given the Government-established framework in which they operate, broadcasters are by contrast under constant pressure to extract maximum public value from this scarce resource in other ways, which are equally legitimate manifestations of spectrum efficiency (as argued in the additional evidence at Annex C).
- That public service broadcasting is analogous to other public sector uses of spectrum, for example the emergency services, the armed forces and civil aviation. The danger here is in confusing public services *delivered by spectrum* with public sector service providers which *themselves use spectrum*. Other public sector users of spectrum use it "privately" – in communicating with themselves, within a closed network using equipment which they themselves specify, supply and pay for, whereas broadcasters are providing services to a universal public audience with an installed receiver base which the audience has funded itself, in very large part, at considerable expense.

- That, conversely, public service broadcasting is analogous to mobile telephony in its use of spectrum. In practice, however, broadcasters are uniquely subject to public service obligations, including the obligation of universal coverage. Broadcasting is different in other crucial respects: the near universal audience for public service broadcasting, the inability of individual broadcasters to act alone to change broadcasting technologies, and the vastly higher price and longer life-expectancy of consumer equipment to receive broadcast services. All these differences combine to ensure that broadcasters do not have the same flexibility as mobile phone operators to respond to spectrum pricing "incentives".
- That public service broadcasters currently face no incentives to use spectrum efficiently. In fact, the inefficient use of spectrum directly imposes additional transmission and distribution costs on broadcasters (for this and other current incentives, see Annex C). The BBC believes an informed debate around this issue requires an attempt to be made to ascertain whether in fact the current range of incentives is effective in practice.
- That spectrum pricing is the only effective incentive to ensure spectrum efficiency at the margin. That is to underestimate the potential of the option already trailed by the draft Communications Bill, to allow spectrum *trading* as a way of incentivising the use of spectrum to full capacity. Spectrum trading – allowing current users of spectrum to sell or lease spare capacity at the margin – does not necessarily presuppose charging those users for the whole of their spectrum usage. The two should not be confused.
- That spectrum use in the broadcasting sector can be considered as if the market were as static as in other spectrum-using sectors, when in fact it is facing its most dynamic period for many decades. This risks missing the opportunity to have a real debate about the approach to spectrum management and planning which is needed to ensure that the greatest available spectrum saving – analogue switch-off – can be achieved within the Government's timetable.
- That spectrum pricing could speed progress to analogue switch-off. Little supporting analysis is provided to support this statement, and the review largely overlooks the argument that the imposition of spectrum charges would in the short term disincentivise roll-out of more digital transmitters and reduce available investment for new digital services which will drive consumer take-up, and so actually *slow* progress to analogue switch-off.

11. The BBC does not believe that a one-size-fits-all approach to spectrum management is appropriate across every sector. A debate around spectrum management in the broadcasting sector needs to take full account of the practical realities of what the government and the nation expect of public service broadcasting, in contrast to a theoretical approach based on measures which might work in other sectors.

12. The BBC believes that Prof Cave's central recommendation, that public service broadcasters should face charges based on the opportunity cost of the terrestrial spectrum they are allocated to enable them to meet their public service obligations, poses a serious threat to the achievement of the Government's policy of analogue switch off, and thus perversely jeopardises the single most dramatic potential "saving" in broadcasting spectrum.

The way forward – practical approaches to spectrum efficiency

13. As stated in its previous submissions, the BBC fully acknowledges that spectrum is a scarce resource and that it should therefore be allocated and used efficiently.

14. The BBC would wish to continue to advance practical approaches to optimise spectrum efficiency in the broadcasting sector. The BBC considers that such approaches are possible at three separate levels:

- At the highest level, it is solely for the Government to decide whether to turn terrestrial spectrum into a "public asset" by requiring its use by public service broadcasters. The Government needs in doing so to be aware of the opportunity cost of so earmarking spectrum rather than allowing the market to determine an alternative use for it.
- At the next level, Government, regulators, broadcasters and others need to work together, within the overall policy framework established by the Government, to ensure that in the current dynamic broadcasting market, the ongoing use of spectrum is planned – over the medium and longer terms – so as to ensure the optimum public benefit.
- At the level of the individual spectrum user, the regulatory framework should not mitigate against using any marginal spare capacity within broadcasting signals.

Areas of possible action at each level are considered in a little more detail below.

The Government

15. The BBC accepts that the Government needs to be aware of the full economic cost of the public policies which it pursues, including in the sphere of broadcasting.

16. The Government should properly assess the opportunity cost when deciding how much spectrum to allocate for broadcasting. That assessment might take into account the revenues which might be derived for the Exchequer, and any other benefits which might flow, from allocating the spectrum for other uses.

17. In formulating broadcasting policies, including spectrum allocation, the Government should more explicitly balance the opportunity cost against the perceived benefits derived through broadcasting use of the spectrum, which will include:

- Near-universal public access to a wide, diverse range of broadcast services from several broadcasters;
- The social/cultural benefits of public service broadcasting.

Those benefits in turn will have to be balanced against non-financial benefits which could flow from alternative uses (such as benefits to the individual from services such as mobile telephony.

18. Such consideration would also help the Government to assess the value of new policies for the broadcasting sector. For example, in developing its thinking on the possibility of a new "access" tier for radio, the Government could consider the additional value which this tier could extract from existing broadcasting spectrum, by using very low-power, short range transmissions on frequencies which are currently unallocated and cannot otherwise be used. The value of such additional services might then more readily be weighed against any public funding which such a new tier of not-for-profit radio might require.

Government, regulators, broadcasters and others

19. By far the greatest "saving" in broadcasting spectrum – and therefore the greatest potential efficiency gain – will arise when current analogue signals can be switched off. Approaching half of all broadcasting spectrum might at that point be released.

20. The decision on when to turn off the analogue signals will be taken by the Government. The public service broadcasters will be obliged to continue to provide analogue services until that date.

21. However, <u>all</u> the key players – government, regulators, broadcasters and equipment manufacturers – have a role to play in creating the conditions for analogue switch-off in line with the Government's published criteria. While all these players have clear economic and business incentives to achieve this, there needs to be a clear strategy, led by the Government, to which the whole industry can work. The BBC has separately put forward practical proposals for the key elements of such a strategy.

22. Aside from the vital question of the measures necessary to achieve analogue switch-off, detailed reviews could be carried out, jointly between the regulators and broadcasters, into existing spectrum plans. These could consider whether widescale replanning could generate sufficient savings to justify the costs of implementing such changes. If so, a case could be made for investing in a replanning exercise, and a mechanism developed for recycling the value of any spectrum released to offset the cost to individual transmission providers and broadcasters.

Broadcasters

23. Individual public service broadcasters, obliged to aim for a universal audience, already have an incentive to maximise the coverage that they achieve through the use of the frequencies available to them and thus, on that level, to optimise spectrum efficiency. However, there will in some cases be a small amount of spare *capacity* within the broadcast signal – ie. more data could be carried on the signal. Whether or not that capacity is used to the full has no impact on the total amount of spectrum "used" by the broadcaster: a frequency or frequencies are allocated to the broadcaster and cannot be used by others.

24. Commercial digital terrestrial operators are permitted under broadcasting legislation to use up to 10% of the capacity of each digital multiplex for the carriage of non-broadcasting services, such as business data. This raises the possibility of fitting very low capacity services into any marginal gaps on the multiplex which are two small to accommodate higher capacity broadcast services.

25. However, such flexibility to ensure that capacity is used to the full is not readily to all broadcasters. It is not clear, for example, that the BBC can accept bids from commercial data providers to access small amounts of spare capacity which might be found around its broadcast signals. The proposed spectrum trading regime envisaged in the draft Communications Bill might provide the flexibility required to exploit any such opportunities which might arise.

26. It should be stressed, however, that in the case of the BBC and other public service broadcasters this of relevance only to *very small amounts* of spare capacity. If the spare capacity were anything other than marginal – say, enough for a whole new broadcasting service – then the pressure on capacity would be such as to ensure that the regulators required the broadcaster to give up the capacity for reallocation to another user.

Spectrum Planning

27. As well as his proposals on spectrum charging, Prof Cave recommends that on the creation of OFCOM, all current spectrum planning responsibilities should transfer to the new regulator (Recommendation 11.7). Currently, spectrum planning is coordinated between the ITC, Radio Authority and the BBC. The report does not provide supporting analysis for this recommendation, or make any assessment of the practical impact it would have on spectrum planning or the resource and other consequences for OFCOM.

28. The BBC considers that this issue needs to be considered in separate consultation with all the key players, so that a proper conclusion may be reached on the appropriate way forward, in the wider context of the creation of OFCOM and the conferring of its powers and responsibilities in the

forthcoming Communications Bill. Among the issues which need to be considered are:

- What is to be gained and whether there is anything to be lost by replacing the current arrangements?

- In particular, to what extent the element of "peer review" which exists under the current arrangements – where there is active debate between the current planning bodies about conflicting priorities for spectrum – encourages spectrum efficiency?

- How comfortably the centralisation of all spectrum planning in a single public body sits alongside the Review's own aims of providing broadcasters with more flexibility over spectrum use, such as permitting spectrum trading?

- Whether OFCOM would in practice be able to equip itself to handle the highly specialised spectrum planning task for the whole industry, what this would mean in terms of staffing and resourcing of OFCOM, and how this might impact upon the establishment and operation of OFCOM as a whole?

29. These are issues which the Review does not attempt to address. It is impossible in the absence of such an analysis to engage positively with the recommendation. The BBC would very much welcome the opportunity to contribute to a wider Government-inspired debate on this issue.

Conclusions

30. Spectrum efficiency in the broadcasting sector cannot be considered in isolation from the range of other Government public policy objectives for broadcasting. Spectrum pricing, while a perfectly legitimate efficiency incentive for many users of spectrum, is demonstrably an ineffective measure in application to public service broadcasters who are not legally permitted to respond to its signals. Its impact would be as an unavoidable, punitive tax.

31. By diverting investment away from extending digital coverage and from new digital services which will drive consumer take-up, spectrum pricing would actually slow down progress to analogue switch-off, which is the efficiency prize for which all should be aiming.

32. Rather than attempt to apply a theoretical pricing model upon a sector to which it is inappropriate, the Government should focus on working with the industry to create the conditions for analogue switch-off and on implementing other practical steps which can ensure maximum efficiency at the margin while not going against the grain of its own broadcasting policies.

BBC
May 2002