

EXPLANATORY MEMORANDUM TO
THE WIRELESS TELEGRAPHY ACT 2006 (DIRECTIONS TO OFCOM)
ORDER 2010

2010 No. 3024

1. This explanatory memorandum has been prepared by the Department for Business, Innovation and Skills and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. **Purpose of the instrument**

2.1 To direct the Office of Communications (OFCOM) to carry out a package of spectrum management measures that will support the deployment of high speed mobile broadband services. The measures will also enable the UK to meet its obligations to implement Directive 2009/114/EC¹ and Commission Decision 2009/766/EC² on the liberalisation of frequencies in the 900MHz and 1800MHz bands to allow them to be used for different mobile telephony technologies.

3. **Matters of special interest to the Joint Committee on Statutory Instruments**

3.1 There are no matters of special interest to the JCSI.

4. **Legislative Context**

4.1 The instrument is being made under section 5 of the Wireless Telegraphy Act 2006. This is the first time that this power has been used.

4.2 The instrument additionally implements Directive 2009/114/EC and the Commission Decision which extend the technologies that can be used with certain radio spectrum frequencies. The Decision will allow the deployment of improved mobile broadband services across Europe. The direction to OFCOM will require it to take a variety of actions in respect of existing spectrum holdings, competition

¹ Directive 2009/114/EC of the European Parliament and of the Council of 16 September 2009 amending Council Directive 87/372/EEC on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community (Text with EEA relevance) OJ L 274, 20.10.2009, p. 25.

² Commission Decision 2009/766/EC of 16 October 2009 on the harmonisation of the 900 MHz and 1800 MHz frequency bands for terrestrial systems capable of providing pan-European electronic communications services in the Community (notified under document C(2009) 7801) (Text with EEA relevance) OJ L 274, 20.10.2009, p. 32.

and supporting the availability of higher speed mobile broadband services across the UK.

4.3 A Transposition Note has been prepared for this instrument and is attached to this memorandum.

5. Territorial Extent and Application

5.1 This instrument applies to all of the United Kingdom.

6. European Convention on Human Rights

The Minister for Culture, Communications, and Creative Industries, Ed Vaizey, has made the following statement regarding Human Rights:

In my view the provisions of the Wireless Telegraphy Act 2006 (Direction to OFCOM) Order 2010 are compatible with the Convention rights.

7. Policy background

7.1 In January 2009, the previous Government published its interim Digital Britain report setting out a series of actions designed to ensure the UK maximised the opportunities for all in the digital age. That report identified a complex set of challenges that were hindering the release and use of additional spectrum that could support the deployment of next generation broadband services, and the then Government announced the appointment of an Independent Spectrum Broker to examine whether a solution could be found to overcome the challenges.

7.2 The Independent Spectrum Broker's report was published on 12th May 2009³ and the Government's response to it was published in the Digital Britain report in June 2009. In that report, the Government indicated that it was minded to accept the proposals set out by the Independent Spectrum Broker, subject to further work to be progressed by the Independent Spectrum Broker.

7.3 This additional work was designed to address a number of issues, the most significant being those around making 900 MHz and 1800 MHz spectrum available for both GSM and UMTS systems to implement Directive 2009/114/EC and the Decision. This phase of work involved extensive engagement with a range of stakeholders. BIS published the Independent Spectrum Broker's final report of September 2009 in its Consultation on a Direction to Ofcom to Implement the Wireless Radio Spectrum Modernisation Programme (referred to in paragraph 7.4).

7.4 In the Digital Britain report, the Government noted that there was an option to direct OFCOM to implement any decision to take forward the proposals.

³ Report from the Independent Spectrum Broker : findings and policy proposals

In the light of the Independent Spectrum Broker's final report, the Government decided that the proposals represented a basis for further action and that it would seek to do this through a direction to OFCOM. In doing so, the Government was obliged to consult on the direction it proposed to give to OFCOM. The consultation document was published on the 16th October 2009, with a closing date for responses of 8th January 2010.

8. Consultation outcome

8.1 The consultation document was sent to a range of organisations, including OFCOM, telecommunications companies, representative organisations for businesses and consumers, equipment manufacturers and infrastructure operators. The Department received 35 responses. Although the majority of respondents broadly welcomed the overall objectives of the spectrum modernisation programme, given the complex nature of the issues and the differing positions of many of the interested stakeholders, there was a significant divergence of views around a number of the proposals. A small number of respondents believed that a direction would be inappropriate at this time.

8.2 The consultation document, the Government's response and a summary of the responses are available on the Department's website at www.bis.gov.uk.

8.3 Taking the responses into account, the previous Government decided to proceed to direct Ofcom in line with their proposals, with some amendments. A draft S.I. was laid under the affirmative procedure before Parliament in March 2010, but it was not possible to obtain the necessary time in both Houses to debate and vote upon the draft. When the General Election was called, the draft was left before Parliament pending a decision by the new administration on how to proceed.

8.4 The Coalition Government has subsequently considered a number of options in coming to a decision on whether to progress the existing draft, taking into account the responses to the consultation. They have decided that a less interventionist approach would be preferable and so have decided not to implement all the proposals set out in the previous draft direction, but only a selected sub-set of those proposals.

9. Guidance

9.1 The direction sets out actions for OFCOM. It does not require direct action by any other organisation. OFCOM have been consulted on the direction and no further guidance is planned.

10. Impact

10.1 The impact of the instrument on business, charities or voluntary bodies is limited. Only those businesses providing mobile telecommunication networks or

services, or who may wish to do so in the future, are directly impacted by this instrument.

10.2 The impact on the public sector is also limited. A number of departments have an interest in the use of spectrum and have been kept informed of these plans.

10.3 An Impact Assessment is attached to this memorandum and will be published alongside the Explanatory Memorandum on the OPSI website.

11. Regulating small business

11.1 The legislation does not apply to small business.

12. Monitoring & review

12.1 Success will be determined by the release of spectrum into the UK market suitable for the deployment of high speed mobile broadband services and the availability of those services to consumers and business. OFCOM regularly publish reports on the state of the UK communications market and will therefore monitor developments.

13. Contact

Mark Swarbrick at the Department of Business, Innovation and Skills (Tel: 0207 215 2900; mark.swarbrick@bis.gsi.gov.uk) can answer any queries regarding the instrument.

The Wireless Telegraphy Act 2006 (Directions to OFCOM) Order 2010

Transposition Notes

(i) Directive 2009/114/EC of the European Parliament and of the Council of 16 September 2009 amending Council Directive 87/372/EEC on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community

(ii) Commission Decision 2009/766/EC of 16 October 2009 on the harmonisation of the 900MHz and 1800MHz frequency bands for terrestrial systems capable of providing pan-European electronic communications services in the Community

The purpose of Directive 2009/114/EC (“the Directive”) is to allow new digital technologies to be deployed in the 900MHz band in coexistence with GSM systems. Therefore, the exclusive reservation of the 900MHz band for GSM systems needs to be removed.

Article 1(1) of the Directive requires Member States to make the 900MHz band available for both GSM and UMTS systems, as well as for other systems capable of providing electronic communications services that can coexist with GSM systems in accordance with technical implementing measures adopted pursuant to Commission Decision 2009/766/EC (“the Decision”).

The Decision requires the implementation of technical measures to allow the coexistence of GSM systems with other terrestrial systems capable of providing electronic communications services in the 900 and 1800 MHz bands.

Article 3 and the Annex to the Decision provide that UMTS systems that comply with UMTS Standards as published by ETSI, in particular EN 301 908-1, EN 301 908-2, EN 301 908-3 and EN 301 908-11, are terrestrial systems capable of providing electronic communications services that can coexist with GSM systems in the 900MHz band. Under the Annex, UMTS systems must, in the absence of bilateral or multilateral agreements between neighbouring network operators (that may have less stringent technical parameters if agreed between those operators), be subject to conditions requiring carrier separation of 5 MHz or more between two neighbouring UMTS networks and carrier separation of 2.8 MHz or more between a neighbouring UMTS network and a GSM network.

Article 1(2) of the Directive requires that when making the 900MHz band available for UMTS systems, Member States must examine whether the existing assignment of the 900MHz band is likely to distort competition in the mobile markets concerned and, where justified and proportionate, address distortions.

Article 4 of the Decision requires the 1800MHz band to be designated and made available for GSM systems and for UMTS systems in accordance with the Annex (as above).

The Office of Telecommunications (OFCOM) is responsible for the management of the radio spectrum in the United Kingdom. Their powers and duties for the management of radio spectrum are set out in the Communications Act 2003 and the Wireless Telegraphy Act 2006 (“the Act”). Under section 5 of the Act, the Secretary of State can give general or specific directions to OFCOM about the carrying out by them of their radio spectrum functions. Directions are made by order and no order can be made unless a draft of the order has been laid before Parliament and approved by a resolution of each House. The Wireless Telegraphy Act 2006 (Directions to OFCOM) Order 2010 will give directions to OFCOM that will achieve the United Kingdom’s compliance with the Directive and the Decision.

At present, the wireless telegraphy licences granted by OFCOM to use the 900 MHz band and the 1800 MHz band allow for the bands to be used for GSM systems. The directions will require OFCOM to vary the relevant licences to allow for use of those bands for both UMTS and GSM systems and to ensure that network operators comply with the technical parameters in the Decision.

This table has been prepared by the Department for Business, Innovation and Skills.

DIRECTIVE 2009/114/EC

Article(s) of the Directive	Detail	Implementation (references are to the provisions of the Order)
1(1)	Requires Member States to make the 900 MHz band available for both GSM and UMTS systems, as well as for other terrestrial systems capable of providing electronic communications services that can coexist with GSM systems in accordance with “the Decision”.	Article 4(b) requires OFCOM to vary licences covering the 900 MHz band to allow use of that band for both GSM and UMTS systems. On other terrestrial systems that can coexist with GSM systems in accordance with the Decision, see the table for the Decision (below).
1(2)	Requires Member States, when implementing the Directive, to examine whether the existing assignment of the 900 MHz band to the competing mobile operators in their territory is likely to distort competition in the mobile markets concerned and, where justified and proportionate, to address such distortions in accordance with article 14 of Directive 2002/20/EC (“the Authorisation Directive”).	This Order directs OFCOM to take a range of measures aimed at ensuring the release of additional electromagnetic spectrum for use by providers of next generation wireless mobile broadband, the early deployment of next generation wireless mobile broadband and the broad coverage of next generation wireless mobile broadband services. In authorising current licensees to use the 900 MHz for both GSM and UMTS systems, likely market distortions are addressed in the context of the full range of Directions.
2	Definitions of “GSM system” and “UMTS system”	These definitions are reflected in article 3 (Interpretation)

DECISION 2009/766/EC

Article of the Decision	Detail	Implementation (references are to the provisions of the Order)
1	Sets out the aim of the Decision.	No implementation required.
2	Sets out the definitions used in the Decision	These definitions are reflected in article 3 (Interpretation)
3	Provides that the terrestrial systems capable of providing electronic communications services that can coexist with GSM systems in the 900 MHz band within the meaning in article 1(1) of the Directive are those listed in the Annex i.e. UMTS systems complying with UMTS Standards as published by ETSI, in particular EN 301 908-1, EN 301 908-2, EN 301 908-3 and EN 301 908-11.	The definition of UMTS systems in article 3 (Interpretation) restricts those systems that the 900 MHz band licences must be varied to accommodate to those in the Annex to the Decision.
3	The systems shall be subject to the conditions and implementation deadlines laid down in the Annex.	Article 4(c) requires OFCOM to impose the necessary technical requirements when it liberalises the 900 MHz and spectrum for both GSM and UMTS systems.

	Under the Annex, UMTS systems must, in the absence of bilateral or multilateral agreements between neighbouring network operators (that may have less stringent technical parameters if agreed between those operators), be subject to conditions requiring carrier separation of 5 MHz or more between two neighbouring UMTS networks and carrier separation of 2.8 MHz or more between a neighbouring UMTS network and a GSM network.	
4	The 1800 MHz band shall be designated and made available for GSM systems and for GSM and UMTS systems.	Article 4(b) requires OFCOM to designate the 900 MHz and 1800 MHz bands for both GSM and UMTS systems.
5	Member States may designate and make available the 900 MHz band and the 1800 MHz band for other terrestrial systems not listed in the Annex where certain conditions are met.	No implementation required.
6	Member States shall keep the use of the 900 MHz band and the 1800 MHz band under review to ensure the efficient use thereof and in particular report to the Commission any need for a revision of the Annex.	No implementation required.

Title: Impact Assessment for a Direction to the Office for Communications (Ofcom) to intervene in spectrum management Lead department or agency: Department for Business, Innovation and Skills (BIS) Other departments or agencies: Ofcom	Impact Assessment (IA)
	IA No: BIS0118
	Date: 13/07/2010
	Stage: Final
	Source of intervention: Domestic
	Type of measure: Statutory Instrument
	Contact for enquiries: Tim Hogan (0207 215 1628)

Summary: Intervention and Options

What is the problem under consideration? Why is government intervention necessary?

The UK Government has been considering possible solutions to the complex set of challenges hindering the release and use of additional spectrum that could support the deployment of next generation mobile broadband and ensure that the UK mobile sector remains highly competitive. These challenges have centred around the change in use of 2G spectrum to deliver 3G mobile services.

Government intervention through a Direction to the regulatory body, Ofcom, is deemed necessary to avoid further delay. Acting now will help accelerate the process of releasing existing and new spectrum, and thereby progress towards universal coverage in 3G and next generation mobile services and the transition to next generation high speed broadband services.

Depending on how the market for 3G and next generation mobile and mobile broadband services develops in the future, should the level of competition become weaker as a result of the way in which spectrum is held by mobile operators, further intervention at a later date may be appropriate.

What are the policy objectives and the intended effects?

The UK Government will direct Ofcom to take specific actions with the objective of facilitating the release, liberalisation and more efficient use of existing and newly awarded spectrum in a number of bands, including sub 1GHz spectrum. This Direction will include adoption of the EU GSM Directive and Radio Spectrum decision which require EU Member States to allow 900MHz and 1800MHz spectrum bands respectively to be used to deliver 3G services as well as 2G.

By laying this Direction, the UK Government aims to bring forward the benefits to businesses and consumers associated with universal coverage in 3G and next generation mobile services and the transition to next generation high-speed broadband services. It should also serve to ensure that the degree of competition, and similarly investment, is safeguarded, particularly following the merger of T-Mobile and Orange on 1st March 2010.

What policy options have been considered? Please justify preferred option (further details in Evidence Base)

The following options have been considered by Government:

Option 0: Do nothing - Ofcom left to address the issues through the normal regulatory process

Option 1: Lay a Direction to Ofcom specifying particular interventions on spectrum management

Following the recent consultation and further discussions with Ofcom, the Government has decided to take forward Option 1 which means that Ofcom will be directed to take actions now which may otherwise continue to be delayed

When will the policy be reviewed to establish its impact and the extent to which the policy objectives have been achieved?

It will be reviewed
2013-2015

Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?

Yes

Ministerial Sign-off For final stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) the benefits justify the costs.

Signed by the responsible Minister: Ed Vaizey Date: 26th July 2010.....

Summary: Analysis and Evidence

Policy Option 1

Description:

Price Base Year 2010	PV Base Year 2010	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: Net positive

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Not quantified	Not quantified	Not quantified
High	Not quantified	Not quantified	Not quantified
Best Estimate	0	0	0

Description and scale of key monetised costs by 'main affected groups'

As there is a high degree of overlap between Options 0 and 1, with the main difference between the two options concerning the timing of the action, the marginal costs of Option 1 are minimal. This is not counted as a cost because it is part of Ofcom's existing portfolio.

Other key non-monetised costs by 'main affected groups'

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Not quantified	Not quantified	Not quantified
High	Not quantified	Not quantified	Not quantified
Best Estimate	Not quantified	Not quantified	Not quantified

Description and scale of key monetised benefits by 'main affected groups'

There is a high degree of overlap between Option 0 and 1, with the main difference between the two options concerning the timing of the action. Under Option 1 the timing of additional benefits would be brought forward since a solution would be implemented relatively sooner. This will represent a transitional benefit lasting the period of time between the action being undertaken following Direction and the action being undertaken had Ofcom followed the normal regulatory process.

Other key non-monetised benefits by 'main affected groups'

One-off benefits to businesses and consumers stemming from rapid transition to next generation mobile and mobile broadband, progress towards universal coverage in 3G and next generation mobile and safeguarding competition in the UK mobile sector.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

BIS used Ofcom modelling where appropriate to make a qualitative assessment of the costs and benefits associated with the revised Direction. The limitations of this approach are set out in the evidence base.

Ofcom will carry out an assessment of the 3G and next generation market ahead of the upcoming auction of 800MHz and 2.6GHz so that any potential competition concerns can be addressed in the auction's design.

Impact on admin burden (AB) (£m):			Impact on policy cost savings (£m):		In scope
New AB: N/A	AB savings: N/A	Net: N/A	Policy cost savings:		N/A

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	United Kingdom				
From what date will the policy be implemented?	September 2010				
Which organisation(s) will enforce the policy?	Ofcom				
What is the annual change in enforcement cost (£m)?	N/K				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	No				
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: N/A		Non-traded: N/A		
Does the proposal have an impact on competition?	Yes				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs: N/A		Benefits: N/A		
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	Micro £0m	< 20 £0m	Small £0m	Medium £0m	Large £0m
Are any of these organisations exempt?	N/A	N/A	N/A	N/A	N/A

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
Statutory equality duties¹ Statutory Equality Duties Impact Test guidance	Yes	13
Economic impacts		
Competition Competition Assessment Impact Test guidance	Yes	9
Small firms Small Firms Impact Test guidance	Yes	13
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	13
Wider environmental issues Wider Environmental Issues Impact Test guidance	Yes	13
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	No	13
Human rights Human Rights Impact Test guidance	No	13
Justice system Justice Impact Test guidance	No	13
Rural proofing Rural Proofing Impact Test guidance	Yes	13
Sustainable development Sustainable Development Impact Test guidance	No	13

¹ Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Evidence Base

References

The following impact assessment builds on the issues set out in the impact assessment which accompanied the Digital Britain Report (June 2009), the Digital Economy Bill (November 2009, revised March 2010) and the consultation on spectrum modernisation (October 2009). Weblinks to the relevant documents are set out below.

No.	Legislation or publication
1	Digital Britain Final Report Impact Assessments (June 2009) Thttp://webarchive.nationalarchives.gov.uk/+http://www.culture.gov.uk/images/publications/digitalbritain_impactassessment.pdf
2	A Consultation on a Direction to Ofcom to implement the Wireless Radio Spectrum Modernisation Programme (October 2009) http://www.bis.gov.uk/files/file53061.pdf
3	Digital Economy Bill Impact Assessment (November 2009) http://interactive.bis.gov.uk/digitalbritain/wp-content/uploads/2009/11/DEB-Impact-Assessments.pdf
4	Digital Economy Bill Impact Assessment, 2 nd Edition (March 2010) http://www.bis.gov.uk/assets/biscore/corporate/docs/d/10-810-digital-economy-bill-impact-assessments

Rationale for Government Intervention

Over the last eighteen months, the UK Government has been considering possible solutions to the complex set of challenges hindering the release and use of additional spectrum that could support the deployment of next generation mobile broadband and ensure that the UK mobile sector remains highly competitive. These challenges have centred around changing the use of 2G spectrum to deliver 3G mobile services (referred to in the industry as '*2G refarming*').

Government action through a Direction to the regulatory body, Ofcom, is deemed necessary to avoid further delay. Appropriate intervention now will accelerate the process of releasing existing and new spectrum, and thereby progress towards universal coverage in 3G and next generation mobile services and the transition to next generation high-speed broadband services. It would also serve to help safeguard competition in the UK mobile sector.

Without government intervention, more time could elapse before an appropriate solution is agreed and implemented. As a result, the benefits to businesses and consumers of a modern effective wireless communications infrastructure would be delayed even further. These benefits would include efficiency gains, increased innovation and investment in mobile networks and services, including mobile broadband, and greater consumer choice.

Depending on how the market for 3G and next generation mobile and mobile broadband services develop in the future, should the level of competition become weaker as a result of the way in which spectrum is held by mobile operators, further intervention at a later date may be appropriate.

No alternatives to regulation are possible because of the nature of bandwidth provision. Bandwidth provision requires a statutory duty by OFCOM to provide auctions for spectrum allocation to the mobile services sector to bid and secure access.

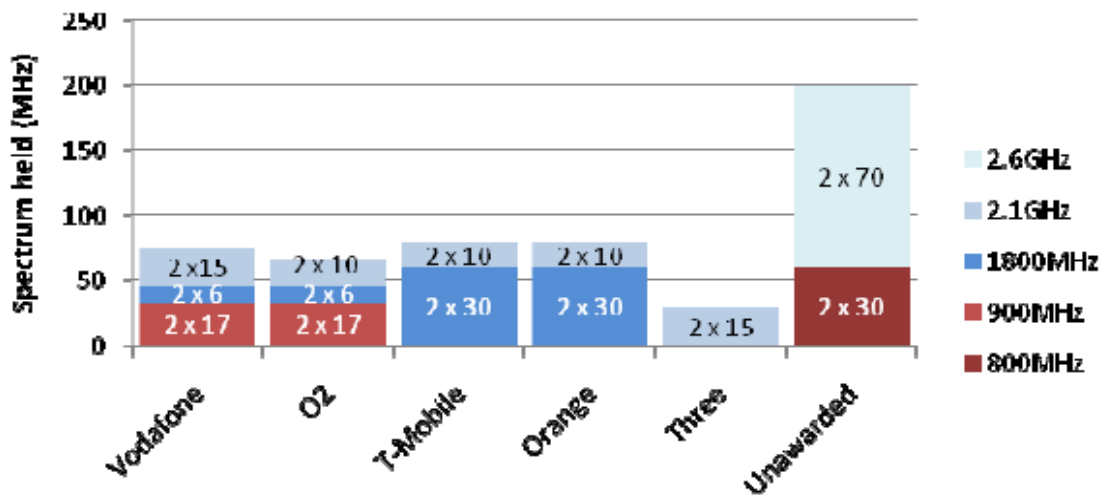
Current spectrum holdings in the UK mobile sector

Until 2000, the UK adopted a command and control approach to spectrum management. This involved the UK Government, or one of its appointed bodies, making decisions on who could use certain bands of spectrum and what it could be used for.

In 1983, the UK Government allocated second generation (2G) mobile spectrum at 900MHz to Vodafone and O2. In 1991, it allocated the majority of 2G mobile spectrum at 1800MHz to T-Mobile and Orange with the rest distributed between Vodafone and O2.

Since 2000, the UK Government has switched to a more market-based approach to spectrum management with three pillars: spectrum liberalisation; spectrum pricing; and spectrum trading. In 2000, the UK Government auctioned third generation (3G) licences at 2.1GHz. This band of spectrum is relatively evenly divided across three mobile network operators (MNOs) – Vodafone, O2, T-Mobile and Orange (Everything Everywhere) – and 3UK which does not have any holdings of 900MHz or 1800MHz. The spectrum held by the main mobile companies in the UK is illustrated in Figure 1 below.

Figure 1: Distribution of paired spectrum across the five main MNOs²



Source: Independent Spectrum Broker's initial report, May 2009

Note: 2x15 implies two blocks of 15MHz spectrum

Options

The Government has been considering two options. These are:

Option 0: Do nothing – Ofcom left to address the issues through the normal regulatory process

Option 1: Lay a Direction to Ofcom

Option 0: Do nothing - Ofcom left to address issues around 2G refarming

Under this option, the Government would leave it to Ofcom to address these issues through the normal regulatory process. Even in the absence of a Direction, Ofcom would still take action on a number of wide ranging issues relating to spectrum management.

For example, it would still be required to liberalise 900MHz under the EU GSM Directive and the 1800MHz in accordance with the draft Radio Spectrum Committee decision. Liberalisation means that specific technology and usage restrictions will be relaxed to allow mobile network operators to use these spectrum bands to deliver 3G services as well as 2G. At the same time, Ofcom would make these licences indefinite and tradable. It would also set revised licence fees to reflect the full economic value.

The regulator would also have to make decisions regarding:

1. The award of 2.6GHz spectrum
2. The award of the 800MHz spectrum
3. Whether to impose access and/or coverage obligations
4. What rules (including possible spectrum caps) would form part of any future auction design

² The chart has been reproduced from Independent Spectrum Broker's Interim Report to Government, May 2009 at http://www.culture.gov.uk/images/publications/ISB_final_report.pdf

Option 1: Lay a Direction to Ofcom

Under this option, Ofcom would still take many of the actions described in Option 0 above. These include:

- Liberalisation of 900MHz and 1800MHz spectrum in the hands of the incumbent operators so that it can be used to deliver 3G services as well as 2G services
- Making 2G and 3G spectrum licences indefinite and tradable
- Revising annual licence fees to reflect the full market value of the relevant spectrum
- Proceeding with the auction of 800MHz and 2.6GHz spectrum

The main difference between Option 0 and 1 relates to timing. Under Option 0, Ofcom would have to decide how to best to implement the above EC legislation. Given the large number of issues which Ofcom would need to consider, and the widely differing views of various stakeholders, this could entail further consultation and could result in a further delay of between six to nine months before action is taken.

Under Option 1, specific action on these issues would be taken earlier. This would enable the potential benefits to businesses and consumers associated with universal coverage in 3G and next generation mobile services and the transition to next generation high-speed broadband services to be brought forward.

In contrast to previous solutions considered by the UK Government, at the present time, Ofcom would not be directed to introduce quantitative restrictions on holdings of particular frequencies (so-called 'spectrum caps') or impose wholesale or coverage obligations on different spectrum bands.

Prior to the auction of 800MHz and 2.6GHz spectrum, Ofcom will also be required to assess how the market for 3G and next generation mobile and mobile broadband services in the UK is likely to evolve in the next few years. It is intended that the findings of their market assessment will inform the auction's design, with a view to addressing any identified risks of potential competition distortion.

Cost-Benefit Analysis of Options

Methodology, Limitation, Assumptions

Modelling the economic value achievable from the liberalisation and release of existing and new spectrum is a highly technical and resource intensive exercise. The models developed by Ofcom to inform their policy proposals consider a number of different possible scenarios and are underpinned by a number of wide-ranging economic and technological assumptions including the amount of spectrum released, the number of potential competitors, future demand for communication and media services, including mobile broadband, and the timing of spectrum release.

There are many significant unknowns. These include the precise timing of any auctions under both the baseline and following a Direction, as well as the value of UK spectrum, which means the estimation of a reliable quantification of the potential benefits and costs of bringing forward these specific actions on spectrum management is not possible.

Ofcom has carried out considerable analysis on the economic benefits and costs of applying spectrum liberalisation and trading to the UK mobile sector³. Where appropriate, we have used the results of their modelling work, (developed for the purpose of informing their policy proposals), to make a qualitative assessment of the costs and benefits associated with the proposed Direction.

The costs and benefits associated with the release and liberalisation of the relevant bands of spectrum – namely 900MHz and 1800MHz – have been assessed individually. For completeness, we have considered the costs and benefits associated with 2.1GHz licences and the combined auction of 800MHz and 2.6GHz.

The disadvantage of considering these proposals on an individual basis is that it does not provide a true assessment of the expected economic value of the proposed Direction as a whole, as this is not possible. Therefore, this approach is an imperfect assessment and as such the estimates of costs and benefits outlined in this Impact Assessment are intended solely for illustrative purposes.

³ The weblink to the reports are attached here: <http://www.ofcom.org.uk/consult/condocs/800mhz>;
<http://www.ofcom.org.uk/consult/condocs/spectrumlib/>;

<http://www.org.uk/consult/condocs/2ghzrules/statement/statement.pdf>. It should be noted that the circumstances have changed materially since these documents were published. It should not therefore be assumed that the preferred options set out therein would be in the options that Ofcom would pursue if the Government did not intervene. Moreover, Ofcom's proposals for the 2.6GHz level of spectrum have been withdrawn in light of the publication of the Digital Britain Report.

Cost - Benefit Analysis for 900 MHz and 1800MHz

In accordance with the revised EU GSM Directive and the draft Radio Spectrum Committee decision, 900MHz and 1800MHz spectrum bands would be liberalised in the hands of existing holders. Licences would be made tradable and indefinite and annual licence fees would be revised to reflect the full market value of these spectrum bands.

Considerable work has been done on the economic benefits of a market-based approach to spectrum management including liberalisation and secondary trading. A useful review of the economic literature can be found in a report by Analysys Mason for the European Commission in 2004⁴ and a paper by Xavier and Ypsilanti (2006)⁵. In summary, some of the main high-level benefits of spectrum liberalisation and trading include:

- Increased investment and innovation in new technologies and services arising from more efficient use of spectrum
- Efficiency gains arising from greater usage of lower frequencies which enable mobile operators to reduce the number of masts they need to relay services.
- Increased competition between existing and new technologies and users of spectrum brought about by the reduction in restrictions on access and use of spectrum
- Greater consumer choice with users gaining access to a wider range of mobile operators and new more innovative mobile services including mobile broadband at lower cost
- Consumer benefits in the form of faster and better quality mobile services including mobile broadband and improved geographical coverage, particularly in more rural areas
- Greater social inclusion of people and communities in more remote regions
- Increased GDP growth arising from increased competition for spectrum brought about by the removal of restrictions on access to spectrum and greater competitiveness in the mobile sector
- Increased transparency raising awareness of the true value of spectrum and market entry opportunities, and reducing barriers to entry

Relatively few studies have attempted to actually estimate the potential economic value associated with spectrum. Work by Europe Economics estimated that the economic value generated by spectrum applications in the UK could be in the order of £42bn in 2006 of which nearly £38bn was consumer benefits⁶.

Economic modelling work by Ofcom suggests that liberalisation of 900MHz could deliver some resource cost savings to mobile operators. These savings arise because lower frequencies such as 900MHz are good for achieving wider coverage, requiring fewer base stations to cover a particular area. The size of the resource cost savings achieved will be influenced by the degree of access non-holders of 900MHz have to this spectrum⁷. If access continues to be limited then the potential cost savings achievable is reduced since non-holders of 900MHz will have to use other spectrum bands to enhance their networks which will be relatively more costly.

It is possible that there may be some resource cost savings associated with the liberalisation of 1800MHz. However, Ofcom suggest that these may be much smaller as these bands of spectrum do not share the same propagation properties as 900MHz.

⁴ Analysys Mason (2004) Study on conditions and options in introducing secondary trading of radio spectrum in the European Community.

http://ec.europa.eu/information_society/policy/ecom/radio_spectrum/document_storage/studies/secondary_trading/secondtrad_final.pdf

⁵ Xavier, P. and Ypsilanti, D. (2006) *Policy issues in spectrum trading*. This paper can be found at <http://www.emeraldinsight.com/journals.htm?articleid=1546218&show=abstract>

⁶ Europe Economics (2006) *Estimating the economic value of radio spectrum in the UK*

http://stakeholders.ofcom.org.uk/binaries/research/spectrum-research/economic_impact.pdf

⁷ Economic modelling work carried out by Ofcom as part of its 2007 consultation on liberalising 900MHz and 1800MHz suggested cost savings in the region of hundreds of millions of pounds based on specific technology and demand assumptions. See Ofcom (2007) *Application of spectrum liberalisation and trading to the mobile sector*. Consultation document <http://stakeholders.ofcom.org.uk/binaries/consultations/liberalisation/liberalisation.pdf>

The resource cost savings achieved from the liberalisation of 900MHz and 1800MHz may be passed onto consumers in the form of lower prices or improvements in the speed, quality and geographical coverage of 2G and 3G networks. The potential implications for competition are considered in a later section.

Cost - Benefit Analysis for 2.1GHz

As part of the Direction, Ofcom would be required to make 2.1GHz licences indefinite and tradable. This could bring about similar economic benefits to those described above (e.g. enhancements in 3G networks, and increased innovation and investment in mobile services including mobile broadband). These benefits would arise because this band of spectrum enables mobile operators to deliver services which require greater bandwidth capacity.

Cost - Benefit analysis for 800 MHz and 2.6 GHz

The advantage of a combined auction is that it will make appropriate decision making easier for those companies wishing to acquire spectrum in bands, and at levels that would support the roll-out of new services. We would expect the economic benefits achievable from auctioning these two bands of spectrum jointly should be higher than individual awards since mobile network operators will be able to bid for the quantity and mix of low and high frequency spectrum that they need. The Government anticipates the auction occurring 9 to 12 months after laying the Direction.

The 800 MHz spectrum

Ofcom's statement in July 2009 on releasing 800MHz confirmed its preferred option to include cleared channels 61, 62 and 69 in the award of the digital dividend (represented by channels 63 to 68 inclusive).

The results of modelling work by Ofcom – reproduced in Table 2 below – suggests that the total gross economic value achievable from the release of 800MHz under different demand scenarios could range from £4.1bn to £7.5bn under different demand scenarios. The costs of clearing channels 61, 62 and 69 would range from some £115m to £250m.

Table 2: Total benefits of liberalising all of 800MHz⁸

	Scenario 1 ⁹	Scenario 2 ¹⁰	Scenario 3 ¹¹
Clearing Channels 61-69 inclusive			
Economic value of DTT	2,000	2,000	3,100
Economic value of Mobile Broadband	4,400	4,400	1,300
Economic value of MMS	0	1,400	0
<i>Less costs of clearing channels 61, 62 & 69</i>	<i>-115</i>	<i>-250</i>	<i>-250</i>
Total economic value (£m)	6,300	7,500	4,100

Source: Ofcom (2009) Digital Dividend: Clearing the 800MHz band. Statement

The 2.6 GHz spectrum

Ofcom withdrew their previous proposals on 2.6GHz in 2008 as a result of legal challenges from mobile network operators. Further developments including the publication of the Digital Britain Report by the previous Government which proposed an alternative regulatory solution is one of the main reasons why Ofcom has not brought forward revised proposals.

An imperfect proxy of the economic value which spectrum users place on different frequencies is the amount of money they are to bid for spectrum rights in an auction. To date, a small number of auctions of 800MHz and 2.6GHz have been carried out. For example, a recently concluded auction in Germany raised some €4.4bn (around £3.7bn)¹² for frequencies including 800MHz and 2.6GHz (along with

⁸ Ofcom (2009), Digital Dividend: Clearing the 800MHz Band, Statement, 2009.

<http://stakeholders.ofcom.org.uk/binaries/consultations/800mhz/statement/clearing.pdf>

⁹ Scenario 1: Strong demand for mobile communication: strong consumer demand for mobile communications and weak demand for other services

¹⁰ Scenario 2: Strong demand for all services: strong demand for the spectrum for all mobile communications, DTT and MMS.

¹¹ Scenario 3: Strong demand for DTT: strong demand for DTT and relatively weak demand for mobile communications and MMS. (This scenario was used to stress-test the analysis and was not considered especially likely.)

¹² Exchange rate from Financial Times (21st July 2010) of €1=£0.85

some other spectrum). Further evidence on the revenues raised through spectrum auctions can be found at http://kbspectrum.com/blog/?page_id=348.

One in, One Out

For the One In, One Out Rule, a One Out measure does not need to be sought for this measure as there are no total costs.

Competition Assessment

Structure of the market

In recent months, there has been further consolidation in the UK mobile sector. On 1st March 2010, the European Commission approved the joint venture between T-Mobile and Orange, reducing the number of mobile network operators (MNOs) in the sector from five to four. These are Everything Everywhere (the new name for T-Mobile and Orange), Vodafone, O2 and Hutchison 3G (hereafter 3UK).

Three of the four MNOs – Vodafone, O2 and Everything Everywhere – are able to provide both 2G and 3G mobile telephony services. The fourth MNO, 3UK, is a pure 3G network but in areas in the UK not covered by its own 3G network, it has a national roaming agreement with Everything Everywhere to use its 2G network¹³.

On the basis of subscriptions over the first half of 2009, the four main network operators together account for around 80-90% of the retail market. Everything Everywhere would have the largest share of the retail market, followed by O2, Vodafone and then 3UK (see Table 3 below). The Mobile Virtual Network Operators¹⁴ (MVNOs), of which there are around 25, account for the remaining 10-20%.

Table 3: UK retail market share: First half of 2009⁵

Operator/Service providers	Market share (% of subscribers)
Everything Everywhere	30-35
O2	25-30
Vodafone	25-30
3UK	5-10
Virgin Media (MVNO)	0-5
Tesco Mobile (MVNO)	0-5
BT Mobile (MVNO)	0-5
Lycamobile (MVNO)	0-5
Lebara Mobile (MVNO)	0-5
Other MVNOs	0-5
TOTAL	100%

Source: OFT submission on proposed merger

Characteristics of the market

¹³ Prior to the joint venture, this network sharing agreement was with Orange. Continuation of this arrangement was a condition attached to European Commission's decision to approve the joint venture.

¹⁴ Mobile Virtual Network Operators (MVNOs) are companies which are able to provide mobile phone services but do not have their own network or hold any spectrum. They offer mobile services by using the networks of the main national mobile companies. MVNOs include Virgin Mobile, Tesco Mobile and BT Mobile. For more information see Ofcom (2009) *Mostly Mobile*. Ofcom mobile sector assessment. <http://stakeholders.ofcom.org.uk/binaries/consultations/msa/summary/msa.pdf>

¹⁵ OFT submission on proposed merger: http://www.of.gov.uk/shared_of/mergers_ea02/2010/Orange-T-Mobile-article-9.pdf

The UK mobile sector is regarded as competitive relative to other countries. Evidence presented in Ofcom's second market assessment of the mobile sector shows that the degree of competition in the sector has increased since 3UK entered the market in 2003¹⁶.

One of the factors which can have an important influence on competition in the sector is the availability of spectrum. Mobile network operators (MNOs) ideally need a mixture of low and high speed spectrum frequencies in order to deliver next generation mobile (NGM) services. Lower frequencies such as 800MHz and 900MHz are good for achieving wider coverage, requiring fewer base stations to cover a particular area and delivering in-building penetration while higher frequencies such as 2100MHz and 2600MHz are necessary for providing capacity for large number of end-users in dense (urban) areas. Difficulties acquiring the quantity or mix of relevant spectrum needed to deliver high quality mobile phone and broadband services across larger areas can therefore act as a significant barrier to entry.

For all operators, spectrum below 1GHz is particularly valuable because lower frequencies enable mobile phone signals to cover longer distances and penetrate buildings more effectively than higher frequencies. As a result, operators who hold sub 1GHz may have a significant cost advantage over those which do not.

Competition effects associated with liberalising 900MHz

Ofcom's consultation in February 2009 reported the potential risks to competition of liberalising the 900MHz spectrum in the hands of the incumbent operators, Vodafone and O2. In brief, they argued that Vodafone and O2 would be able to offer a higher quality mobile broadband service with better in-building penetration and greater network coverage than its competitors.

This would stem from the significant advantages of holding low frequency spectrum such as 900MHz over higher frequency spectrum such as 2100MHz. First, network at 900MHz would require 50% fewer base station sites than at 2100MHz implying that Vodafone and O2 would have a significant cost advantage over its competitors when extending network coverage in more rural areas. Second, 900MHz spectrum would also enable Vodafone and O2 to provide better in-building coverage for mobile broadband services.

The consultation concluded that liberalising 900MHz in the hands of the incumbents could weaken competition in the sector for around two to four years until the other incumbent operators could roll out a competitive service using a network at 800MHz. During this period, consumers could face higher prices or receive poorer quality mobile broadband services than would otherwise have been the case.

Since the consultation was published, there have been a number of further developments in the UK mobile sector which together may reduce competition concerns. First, demand for mobile broadband services has continued to grow. Second, there is greater certainty that 800MHz, once released, will be used to support mobile broadband services. Third, there has been further progress on Long Term Evolution mobile services (LTE),¹⁷ to the extent that LTE deployment in the 800MHz would represent a more credible competitive alternative to 3G services in the 900MHz. Fourth, the increasing deploying of femtocells – low cost, low power 2G/3G mobile base stations for indoor residential and business use – may help reduce some of the differences in indoor quality and capacity between 900MHz and 2100MHz networks

The final, and most significant development, has been the merger of T-Mobile and Orange, creating the new commercial entity Everything Everywhere. Through this merger, these two operators now have access to a greater number of sites than they did previously. This should help reduce the competitive advantage that Vodafone and O2 could have deploying 3G services through a network at 900MHz. Competition intensity may be further enhanced by 3UK which, as a result of the merger, should also have access to many of these sites.

Competition effects associated with liberalising 1800MHz

In the same way as 900MHz, the proposed liberalisation of 1800MHz in the hands of incumbents has also raised potential competition concerns. These arise because the newly formed joint venture, Everything Everywhere, holds the majority of 1800MHz which it could use to gain an advantage in the deployment of LTE services as take-up increases.

¹⁶ Ofcom (2009) Mostly Mobile. Second mobile sector assessment. Consultation Document: <http://stakeholders.ofcom.org.uk/binaries/consultations/msa/summary/msa.pdf>

¹⁷ Long Term Evolution (LTE) is a next generation wireless broadband technology considered by the mobile industry to be a successor to current 3G technology.

It is not, however, envisaged that liberalisation of 1800MHz in the hands of the incumbents should distort competition. First, 1800MHz is similar to 2100MHz spectrum for providing 3G coverage. Second, with respect to 3G capacity, operators appear able to obtain sufficient capacity by using other spectrum bands or deploying new sites or technologies to meet likely demand. Finally, the divestment by Everything Everywhere of 2x15MHz of 1800MHz to one of the other operators should help reduce any potential advantage, thereby mitigating the risk of competition being distorted.

Competition effects associated with making 2G and 3G licences indefinite

The overall impact on competition of making all 2G and 3G licences indefinite, including 800MHz and 2.6GHz, is unclear. If licences are made indefinite, this may encourage further investment by mobile network operators in their networks, especially 3UK which it is claimed would exit in the market if this did not happen. Under such circumstances, making licences indefinite could serve to safeguard competition by ensuring that there continues to be four players in the market rather than three.

There is however, a risk that competition could be dampened. This is because, in the absence of any definite licence expiry date, mobile operators would be able to hold onto their current holdings of spectrum for as long as they wish to, preventing other incumbent operators, as well new entrants from acquiring the spectrum they need to enter the sector or expand and provide effective competition.

There are two principal reasons why operators may hold onto their spectrum, even if they are not using it. Firstly, they may wish to have it in reserve in case new technologies and uses emerge which increase the value of spectrum, or there is greater certainty about consumer demand for new emerging services. Secondly, they may wish to hold onto it to deliberately prevent competition from incumbent operators or new entrants. Spectrum is a limited resource and by limiting its availability, hoarding operators can prevent incumbent and new entrants acquiring the quantity and mix of spectrum that they need to compete effectively¹⁸.

The risk to competition of making licences indefinite may be mitigated if there is a high level of secondary trading activity. This will be influenced by a number of factors. These include the amount of information which operators have about the value of different spectrum bands, the extent to which operators choose to hoard spectrum, the size of transaction costs relative to the value of spectrum being exchanged and sold, and the degree to which the value of different spectrum changes over time as a result of ongoing innovation in mobile technologies and services including mobile broadband. The application from 2021 of annual licences charges, known as administrative incentive pricing (AIP), should also serve to reduce the incentive to hold idle spectrum.

Secondary trading of spectrum is still very much in its infancy with markets established in only a small handful of countries to date, most notably the USA, Australia and New Zealand. Early evidence from Australia and New Zealand suggests that the level of activity in spectrum trading has been relatively modest, a finding which can be explained in part by the fact that the markets are still not well developed. Evidence from Australia also shows that the majority of trading has involved spectrum bands below 3.5GHz, reflecting the high value that spectrum users place on lower band frequencies¹⁹.

As noted in this impact assessment, prior to the auction of 800MHz and 2.6GHz spectrum, Ofcom will also be required to assess how the market for 3G and next generation mobile and mobile broadband services in the UK is likely to evolve in the next few years. It is intended that the findings of their market assessment will inform the auction's design, with a view to addressing any identified risks of potential competition distortion.

Moreover, depending on how the UK mobile sector develops in the future, should the level of competition become weaker as a result of the way in which spectrum is held by mobile operators, further intervention at a later date may become appropriate.

Other economic considerations

As noted above, in contrast to previously proposed solutions, the current Direction does not include proposals to introduce quantitative restrictions on holdings of sub 1GHz spectrum (so-called spectrum caps) or impose wholesale or coverage obligations on the different spectrum bands. The potential economic effects including on competition in the longer-term are unclear.

¹⁸ Xavier, P. and Ypsilanti, D. (2006) *Policy issues in spectrum trading*.

¹⁹ Xavier and Ypsilanti (2006).

For example, the absence of spectrum caps could serve to distort competition because certain bands of spectrum remains concentrated in the hands of just one or two operators providing them with a potential cost or technical advantage over their competitors.

With regards 800MHz, allowing all operators to bid freely for the newly released spectrum may serve to increase competition for new spectrum. However, there is a risk that 3UK could get squeezed out for new sub 1GHz spectrum. This may hamper its ability to invest in new network and could restrict further expansion in the market; it is even possible that 3UK exits the sector altogether. This would weaken competition by reducing the number of players in the sector.

In the absence of wholesale obligations, there may be less competitive pressure on downstream markets. Further in the absence of coverage conditions, the Government may make less, or slower, progress towards extending super-fast mobile broadband services across the UK. This would raise equity concerns in some areas – particularly the more rural and remote regions of the UK.

Prior to the auction of 800Mhz and 2.6GHz taking place Ofcom will be required to assess how the market for 3G and next generation mobile and mobile broadband services in the UK is likely to evolve in the next few years. It is intended that the findings of Ofcom's assessment of 3G and next generation mobile services will help inform the auction's design with a view to mitigating any identified risks of potential competition distortion.

Other specific tests

Other environment/ rural proofing

It is possible that the Direction may have a positive impact on the environment. If more operators are able to acquire and use lower frequencies to deliver next generation mobile services and mobile broadband, fewer masts may be needed reducing the detrimental effect masts may have on the aesthetic value of the landscape. This Direction may also help improve the coverage of 3G mobile and mobile broadband networks in more rural areas.

Race, disability and gender equality

After an initial screening it has been deemed that no significant impact is anticipated on the statutory impact tests for race, disability and gender equality.

Small Firms Test

The Direction will mainly affect the main national mobile operators – Everything Everywhere, Vodafone, O2 and 3UK. Small firms may benefit if the Direction leads to 3G mobile and mobile broadband networks and services which are of better quality and offer greater coverage.

Other tests

Other specific impact tests have been considered including the Justice System, Human Rights, Legal Aid, Health and Well-Being, Rural Proofing, Sustainable Development, Carbon Assessment and Greenhouse Gas Assessment. Again, after initial screening, it has been deemed that no significant impact is anticipated.

Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

Basis of the review: [The basis of the review could be statutory (forming part of the legislation), it could be to review existing policy or there could be a political commitment to review];

Under the Digital Economy Act, Ofcom now has a duty to produce a report every three years on the UK communications infrastructure.

Prior to the auction of 800Mhz and 2.6GHz taking place Ofcom will be required to assess how the market for 3G and next generation mobile and mobile broadband services in the UK is likely to evolve in the next few years.

Review objective: [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]

It is intended that the findings of Ofcom's assessment of 3G and next generation mobile services will help inform the auction's design with a view to mitigating any identified risks of potential competition distortion.

Review approach and rationale: [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]

Ofcom already carried out market assessments and, under the Digital Economy Act 2010, now has a duty to provide a report every three years on the UK's communications infrastructure.

Baseline: [The current (baseline) position against which the change introduced by the legislation can be measured]

That these measures are implemented next year (based on the assumption that Ofcom would have to consult which could take six to nine months).

Success criteria: [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]

That the objectives are realised (e.g. the auction of 800MHz and 2.6GHz is able to take place sooner than would otherwise have been the case).

Monitoring information arrangements: [Provide further details of the planned/existing arrangements in place that will allow a systematic collection systematic collection of monitoring information for future policy review]

Ongoing use of Ofcom surveys and market assessments that monitor the UK mobile sector. Competition assessment ahead of upcoming auction of 800MHz and 2.6GHz

Reasons for not planning a PIR: [If there is no plan to do a PIR please provide reasons here]

N/A