



Regulatory Impact Assessment  
for the Wireless Telegraphy (White  
Space Devices) (Exemption)  
Regulations 2015

Issued: 18 December 2015



# Regulatory Impact Assessment

## Introduction

- 1.1 The analysis set out in this document represents a Regulatory Impact Assessment (“RIA”) following Ofcom’s notice of proposals to make the the Wireless Telegraphy (White Space Devices) (Exemption) Regulations 2015, published on 6 November 2015 (the “Notice”).<sup>1</sup>
- 1.2 The analysis presented in this document, together with that set out more fully in the consultation documents and statements referred to in paragraph 1.7 below, is an impact assessment relating to our Decision to make the Wireless Telegraphy (White Space Devices) (Exemption) Regulations 2015 (the “Regulations”). It is consistent with Government practice on RIAs and Ofcom’s duty under section 7 of the Communications Act 2003 (the “2003 Act”).
- 1.3 RIAs provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making and are commonly used by regulators, including Ofcom. In producing the RIA in this document, Ofcom has had regard to such general guidance as it considers appropriate, including Cabinet Office guidance.
- 1.4 As the impact of the policy decisions that are given effect to by the Regulations has already been assessed in the other documents referred to below, a separate impact assessment for the Regulations may not strictly be necessary. We nevertheless provide this document, which summarises the earlier, fuller assessments, as a matter of good practice.

## Background to these Regulations

- 1.5 These Regulations give effect to our earlier policy decision to allow a new type of technology – white space devices (“WSDs”) to access unused parts of the radio spectrum in the 470 to 790MHz UHF TV band (“TV White Spaces” or “TVWS”) on a licence exempt basis.
- 1.6 WSDs will share this band with the existing uses, Digital Terrestrial Television (DTT), including local TV, and Programme Making and Special Events (PMSE), including in particular wireless microphone users. The sharing will take place dynamically, controlled by databases which will hold information on the location of DTT and PMSE users and WSDs. They use this information to allow WSDs access to the spectrum band, but only to the extent that this does not cause harmful interference to the existing users of the spectrum.
- 1.7 We have previously consulted, and made decisions, on the policy behind our decision to allow access to TVWS by WSDs on a licence exempt basis in the following documents (which include full impact assessments where relevant and appropriate):

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- our statement “Digital dividend: cognitive access. Statement on licence-exempting cognitive WSDs using interleaved spectrum” , published on 1 July 2009<sup>2</sup>;
- our consultation document “Digital Dividend: Geolocation for Cognitive Access. A discussion on using geolocation to enable licence exempt access to the interleaved spectrum” , published on 17 November 2009<sup>3</sup>;
- our consultation “Implementing Geolocation ” published on 9 November 2010,
- our statement “Implementing Geolocation: Summary of consultation responses and next steps” published on 1 September 2011<sup>4</sup>;
- our consultation “TV white spaces: A consultation on white space device requirements” published on 22 November 2012<sup>5</sup>, which set out a proposed regime for authorisation of white space devices, and the proposed technical requirements for the devices;
- our consultation “TV white spaces: approach to coexistence” published on 4 September 2013<sup>6</sup>, which set out a proposed approach to how we would calculate where white space devices could operate and with what powers in order to protect existing uses;
- our statement “Implementing TV White Spaces” published on 12 February 2015 (the “TVWS Statement”)<sup>7</sup>, which confirmed our decision to allow access to TV White Spaces on a licence exempt basis, in accordance with the framework set out in that Statement.

1.8 Therefore, this document should be read in conjunction with the above documents.

## **Our duties under the Wireless Telegraphy Act 2006**

1.9 In the UK, Ofcom is responsible for authorising civil use of the radio spectrum and achieves this by granting wireless telegraphy licences under the Wireless Telegraphy Act 2006 (the “WT Act”) and by making regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 8(1) of the WT Act, it is an offence to install or use wireless telegraphy equipment without holding a licence granted by us, unless the use of such equipment is exempted.

1.10 Section 8(4) of the WT Act requires that Ofcom must make regulations to exempt the use of WT equipment if the conditions in section 8(5) of the WT Act are met, namely that its installation or use is not likely to:

- involve undue interference with wireless telegraphy;
- have an adverse effect on technical quality of service;

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<sup>2</sup> <http://stakeholders.ofcom.org.uk/consultations/cognitive/statement/>

<sup>3</sup> <http://stakeholders.ofcom.org.uk/consultations/cogaccess/>

<sup>4</sup> <http://stakeholders.ofcom.org.uk/consultations/geolocation/statement/>

<sup>5</sup> <http://stakeholders.ofcom.org.uk/consultations/whitespaces/>

<sup>6</sup> <http://stakeholders.ofcom.org.uk/consultations/white-space-coexistence/>

<sup>7</sup> <http://stakeholders.ofcom.org.uk/consultations/white-space-coexistence/statement>

- lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
  - endanger safety of life;
  - prejudice the promotion of social, regional or territorial cohesion; or
  - prejudice the promotion of cultural and linguistic diversity and media pluralism.
- 1.11 In accordance with the requirements of section 8(3B) of the WT Act, the terms, provisions and limitations specified in licence exemption regulations must be:
- objectively justifiable in relation to the wireless telegraphy stations or wireless telegraphy apparatus to which they relate;
  - not such as to discriminate unduly against particular persons or against a particular description of persons;
  - proportionate to what they are intended to achieve; and
  - transparent in relation to what they are intended to achieve.

## **The citizen and consumer interest**

- 1.12 Our principal duty under section 3 of the 2003 Act is to further the interests of citizens in relation to communications matters; and of consumers in relevant markets, where appropriate by promoting competition. We take account of the impact of our decisions upon both citizen and consumer interests in the markets we regulate. We must, in particular, secure the optimal use for wireless telegraphy of spectrum and have regard to the principle under which all regulatory activities should be targeted only at cases in which action is needed.
- 1.13 We set out in the TVWS Statement the reasons why we considered that it is appropriate to authorise the use of WSDs in the UHF TV band through licence exemption. As noted in the TVWS Statement, the Regulations will be of benefit to citizens and consumers in particular for the following reasons:
- (i) The measures concern the use of radio equipment on a licence exempt basis, which generally entails the least regulatory and administrative burden on our stakeholders compared to other forms of authorisation, such as individual licences.
  - (ii) There may be a wide variety of use cases for White Space technology. Some of the applications for TVWS that have been proposed by industry could potentially lead to mass market consumer use of devices and/or deployments of a very large number of devices – for example for machine to machine applications. These new licence exemptions therefore support the introduction of new and innovative technologies that will be of benefit to citizens and consumers and therefore are likely to remove barriers to access to the spectrum, foster innovation and competition in the development of WSDs, and thereby result in benefits to consumers.
  - (iii) Licence exemption is introduced only on the basis that use of devices on a licence-exempt basis would not be likely to lead to harmful interference to

other spectrum users or have an adverse impact on technical quality of service, provided that devices:

- operate under the control of a geolocation database qualified by Ofcom; and
- comply with a set of technical and operational requirements that we consider are necessary to avoid harmful interference.

## Equality Impact Assessment

1.14 In carrying out our functions, we are also under a general duty under the Equality Act 2010<sup>8</sup> to have due regard to the need to:

- eliminate unlawful discrimination, harassment and victimisation;
- advance equality of opportunity between different groups; and
- foster good relations between different groups, in relation to the following protected characteristics: age; disability; gender re-assignment; pregnancy and maternity; race; religion or belief; sex and sexual orientation.

1.15 We fulfil the above duties through an Equality Impact Assessment (EIA).

1.16 Following an analysis undertaken in relation to these Regulations, we have concluded that the policy does not have a significant differential impact on different racial groups, on disabled citizens or consumers or other identified equality groups. Nor have we seen the need to carry out separate EIAs in relation to the additional equality groups in Northern Ireland (religious belief, political opinion and dependants) because we anticipate that the Regulations will not have a differential impact in Northern Ireland compared to consumers in general.

## Ofcom's policy objectives in making these Regulations

1.17 We seek, wherever possible, to reduce the regulatory burden upon our stakeholders, in this instance users of the radio spectrum. One way in which we can do this is by way of a licence exemption – i.e. removing the need for spectrum users to apply for individual licences to authorise the use of radio equipment.

1.18 This is realised by describing in a Statutory Instrument the details of equipment and the parameters under which this equipment may be used without the need to hold a licence.

1.19 The Regulations therefore set out the minimum technical requirements that a device has to meet in order to transmit in the UK and the Isle of Man in the TV UHF band without a licence. We identified two criteria that would make licence-exemption appropriate: operation under the control of a database and compliance with technical and operational conditions.

1.20 The Regulations specify the information that devices will have to provide to a database to enable the database to calculate the channels and powers that the device may use. They also make it a requirement that the device should only operate on channels and at powers that have been authorised by a designated database.

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<sup>8</sup> 2010 c. 15, <http://www.legislation.gov.uk/ukpga/2010/15/contents>.

- 1.21 The Regulations also set out other technical requirements that the device must comply with. Most significantly it is a requirement that any parameter that affects the permitted channels or powers calculated by the database, or the compliance of the device with those permitted channels and powers, should not be able to be input or configured by a user. This is to ensure that information provided to the database by devices will be accurate.
- 1.22 The provisions in the Regulations are consistent with the requirements in the ETSI harmonised standard covering white space devices<sup>9</sup>. Compliance with the ETSI Standard would also mean that a device complies with the requirements in the Regulations, though it may also be possible to comply with the Regulations in other ways (as compliance with the ETSI Standard is not mandatory). We believe that these provisions are a proportionate way to avoid harmful interference whilst nonetheless providing the benefits of licence-exempt access to the band.

## Options considered

- 1.23 Having made the relevant policy decisions (see the documents referred to in paragraph 1.7 above), the principal options open to us were:
- i) to make Regulations that introduce the ability for some devices to operate on a licence-exempt basis; or
  - ii) to do nothing, which means that these devices would need to be authorised via a WT Act licence.

## Analysis of the different options

- 1.24 The following section assesses the impact of options open to Ofcom by reference to the principal changes that were made by the Regulations.

### To make the Regulations

- 1.25 When considering the authorisation of devices Ofcom can either licence them or make regulations to exempt them from licensing. Section 8(4) of the WT Act requires that if Ofcom is satisfied that the criteria set out in section 8(5) of the WT Act are met, Ofcom must make regulations to make use of such equipment exempt from the requirement for licensing. If the equipment does not meet all of the requirements of section 8(5), this does not prevent us still going ahead with exemption but any decision would need to consider the impacts versus the benefits of any such decision.
- 1.26 Generally, licence exemption presents the lowest barrier to entry compared with other forms of authorisation, such as individual licences. Our analysis takes this proposition as a starting point and then assesses concerns over harmful interference or congestion to existing users (if any) or potential new users of the band. With respect to this, as set out in the TVWS Statement, our framework is based on ensuring low probability of harmful interference.
- 1.27 Overall we believe that costs to business are likely to be lower under a licence-exempt approach than the requirement for users to obtain individual licences. Licence exemption represents the least cost regulatory approach to authorisations for the use of spectrum. For example if use of spectrum is authorised through a licence,

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<sup>9</sup> ETSI EN 301 598.

businesses face administrative costs associated with applying for the licence and the cost of the licence itself.

- 1.28 We consider that implementing the Regulations is likely to generate a net benefit for UK businesses, citizens and consumers and at worst would have a neutral outcome (to the extent that benefits depend on the uptake of licence exempt WSDs). Therefore the effect of implementing the measures is likely to be positive overall.
- 1.29 There are one-off administrative costs associated with making Statutory Instruments. We consider the implementation costs to be low, both in absolute terms and in comparison to licensing alternatives.

### **Not to make the Regulations**

- 1.30 The alternative to making the Regulations would be to do nothing. By doing nothing, we mean not making the regulations and therefore not enabling the use of this equipment on a licence-exempt basis.
- 1.31 Citizens and consumers would not be able to benefit to the same extent from the opportunities that WSDs could provide. The only way for citizens and consumers to use such devices would be under a licensing regime. This would impose additional administrative and financial costs to consumers where otherwise they could avoid them because their WSDs fulfil the licence exemption criteria. This would risk significantly undermining the potential economic value that use of these devices may have.
- 1.32 By not making regulations there would be no additional cost imposed on Ofcom relating to making this Statutory Instrument. However, this cost is small compared to the likely additional internal costs that would be associated with licensing WSDs that fulfil the licence exemption criteria.

### **The preferred option**

- 1.33 For the reasons set out above, our preferred option is to make the Regulations. We consider this is consistent with Ofcom's duties as well as its policy decisions. We have therefore decided to make the Wireless Telegraphy (White Space Devices) (Exemption) Regulations 2015.



**Declaration**

**I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.**

**Signed**

**Philip Marnick**

**Group Director, Spectrum Group**

**18 December 2015**

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