



Commission for  
**Communications Regulation**

# **DotEcon's Assessment of Comments on ComReg Document 18/12 and 18/13**

A report for ComReg  
Non-Confidential

**Reference: ComReg 18/33**

**Date: 27 April 2018**

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# Assessment of responses to Consultation 18/12 and 18/13

Prepared for ComReg

April 2018

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## 1 Introduction

On 23 February 2018 ComReg published its draft Decision on the forthcoming 26 GHz spectrum Award (as well as its assessment of responses to the initial consultation 17/85), ComReg Document 18/12. Shortly afterwards, on 2 March 2018, ComReg published the draft Information Memorandum for the award, ComReg Document 18/13. Stakeholders were invited to submit comments on both documents.

ComReg received responses from:

- Three Ireland; and
- Vodafone.

In this document, DotEcon (as ComReg's expert economic adviser) sets out its assessment of the comments in these responses concerning matters raised in relation to the proposed award format. In particular, we assess:

- [redacted]; and
  - Three's objection that the requirements of existing licensees have not be adequately taken into account.
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1 [Redacted footnote text]





[REDACTED]

This topic is discussed in detail (along with examples) in Section 5.1.4 and Annex B of ComReg document 17/85a.

### 3 Three's objection that the requirements of existing licensees have not been given adequate consideration

#### 3.1 Summary of Three's comments

Three does not believe that adequate consideration has been given to the requirements of existing licensees. In particular, Three argues that ComReg has underestimated the materiality of the migration costs associated with the replacement of existing hardware that would be required were an incumbent operator to be assigned frequencies outside the tuning range of its current equipment (with installation costs exceeding the cost of the hardware itself).

[REDACTED]

[REDACTED]

Three points out that over 50% of its existing links span distances of less than 4km and could be provided using a higher frequency band such as the E-band.

Finally, Three argues that it does not have an unfair advantage derived from being an existing user of the band and that, when considering the objective of achieving an efficient award outcome, it is incorrect to selectively discount sources of value that affect some bidders but not others.

### 3.2 DotEcon Assessment

We disagree that inadequate consideration has been given to the requirements of existing operators, and it is not the case that we have selectively discounted sources of value that affects some bidders but not others.

We explicitly recognise that there are costs to existing users associated with being relocated within the band, and that it is relevant to avoid *unnecessary* costs of changing frequencies where possible. However, a balance must be struck between:



[REDACTED]  
[REDACTED]. ]

It is important, from a fairness point of view and to promote efficient competition downstream, that incumbent licensees are not given enhanced rights or bidding advantages over spectrum that endure past the end of their licences, in particular where this would restrict existing users ability to expand their holdings or prevent potential new entrants from being able to acquire a sufficiently large block of contiguous spectrum. As noted in Section 3.5 of ComReg Document 18/12a, this would establish a poor regulatory precedent and would be unfair to other parties who wish to acquire spectrum.

It might be necessary for some migration costs to be incurred in order to assign contiguous frequencies to all other winners i.e. due to the fragmentation of the currently unallocated spectrum, some movement within the band by one or more existing users may be necessary for that spectrum to be aggregated into a usable contiguous block. In this respect, migration costs are one-off costs, whilst any costs associated with the inefficiencies arising from failing to obtain a sufficient bandwidth on a contiguous basis would be on-going.

On the other hand, the proposed award format provides existing users with opportunities to win back frequencies relatively close to their current assignment, and thus we do not agree with the claim that the value derived from maintaining a position within the band has been discounted. As demonstrated in Annex 1 of ComReg Document 18/12a, any existing licensee that wins the same amount of spectrum as it currently holds would have the option to compete, in the assignment stage, for specific frequencies that are at least close to its current assignment (as well as other parts of the

band), in the same way that other bidders would be able to express value differences across alternative frequency options that may arise for other reasons. It is not guaranteed that an incumbent would not be required to move by a greater degree as a result of the assignment stage, but if this were the case then it would likely be due to a new user having a greater valuation for the specific frequencies currently used by the incumbent, and hence would represent a more efficient outcome (although we find it difficult to imagine a plausible scenario in which this would occur).

In the design phase for this auction, we also considered the alternative approach of using a sealed bid combinatorial auction with frequency-specific lots (i.e. a single stage auction where bidders could submit bids for different frequency-specific blocks of spectrum, provided that the different blocks a bidder bid for would need to be contiguous). Three stated its preference for this approach in its response to ComReg Document 17/85. This approach would have the advantage that existing users could target particular frequency ranges and remove any uncertainties over the need to relocate. However, using frequency-specific lots can provide opportunities for strategic bidding aimed at fragmenting currently unallocated spectrum (denying usable spectrum to others) and/or driving up prices for existing users with significant relocation costs. At the same time, it could facilitate tacit collusion by some of the incumbent bidders and restrict competition for some parts of the band, creating unfairness for an entrant.

We acknowledge that with the proposed two-stage auction, there may be some concern over strategies that target particular frequency assignments in the assignment round in order to drive up prices for incumbents. However, in that regard we make the following observations:

- New entrants, or existing users looking to expand or relocate their assignments, should not be prevented from acquiring usable blocks of spectrum simply to maintain an incumbent's position within the band. Similarly, there may be good, legitimate, reasons for another bidder to value specific frequencies that overlap with an existing user's current assignment, and that bidder should be given the opportunity to compete for those frequencies.
- Price driving strategies in a sealed-bid setting are risky, since all bids are binding and could potentially win, so if the strategy is misjudged a bidder may end up winning an assignment it does not want at the price it is required to pay. Indeed, any bid that drives prices would be a potentially winning bid if the winning bid that it affects were lower; therefore, *any* pricing driving bid is at risk of winning if its target were to bid less. In a one-shot sealed bid auction, there is very little information that would be available to allow a bidder aiming to drive up a winner's price to assess the level of risk that would result.
- The potential for price driving strategies is also prevalent under the frequency-specific lot approach, as bidders could potentially target packages containing particular frequencies that are believed to be valued more highly by other bidders. The problem is therefore not resolved by using frequency-specific lots, so does not provide an argument for the changing the approach.
- There is no way of completely eliminating the risk without designing an award process that explicitly protects incumbents from competition on their current assignment. As argued previously, we do not see any justifiable reason for giving existing users enhanced rights over spectrum that endure past the expiry of current licences.



