An Coimisiún um
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DotEcon's assessment of Digital Networks Act's proposed spectrum reforms

Information Notice

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1 Introduction

1.1 This document introduces DotEcon Ltd.'s (DotEcon)[1] assessment on the European Commission's (Commission) terrestrial radio spectrum proposals in the "Digital Networks Act" (DNA)[2] (DotEcon DNA Report).[3]

1.2 The aim of this work is to provide new and updated information, analysis and perspectives on the DNA's terrestrial spectrum proposals and the measures that could be used to address investment shortfalls with the aim of informing stakeholders including members of the European Parliament and the Council of the EU in their examination of the DNA spectrum proposals as co-legislators.

1.3 The DNA's terrestrial spectrum proposals will fundamentally change how radio spectrum is managed in Europe by, among other things:

- shifting the balance of power and responsibility on key spectrum management decisions from Member States to the Commission; and
- making indefinite (i.e. unlimited) duration the default for all spectrum rights[4] which weakens market contestability, competition and innovation, and leads to more administrative decisions increasing the likelihood of litigation.

1.4 ComReg has previously expressed fundamental concerns[5] about the negative impacts of the DNA's terrestrial spectrum proposals on competition, investment, innovation and consumer welfare (including the potential for increased prices). Currently, Europe has the most affordable mobile services for consumers of any comparative region, with European mobile prices (ARPU per month adjusted for GDP) being considerably lower than those in the USA, Japan, China and South Korea.

1.5 DotEcon's assessment rests on the common view that capable and ubiquitous mobile networks are needed to support advanced new uses, especially growing machine-to-machine communications. While DotEcon considers that the focus placed by the Commission on the lagging deployment of 5G standalone networks in Europe is not in itself a problem that needs to be addressed, it acknowledges that there may well be an investment shortfall that warrants policy attention – today, and

[1] DotEcon is an independent economics consultancy with more than 25 years' experience in spectrum management, having advised on more than 60 spectrum awards in over 20 jurisdictions. It has advised both regulators and operators, giving it a balanced perspective on how spectrum policy works in practice. www.dotecon.com

[2] https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-digital-networks-act-dna

[3] This is published alongside this document as ComReg Document 26/79a

[4] Or in exceptional cases for wireless broadband spectrum rights, time-limited licences with a minimum term of 40 years and the right to automatic renewals with the same conditions.

[5] See ComReg's submission to the Department of Culture, Communications and Sport's ('DCCS') public consultation on the DNA, published as ComReg Document 26/67 and 26/67a.

more importantly looking ahead to 6G, growing requirements for resilience and support for frontier use cases.

1.6 However, there is no need for the DNA's far-reaching changes to the management of a valuable and scarce public resource. These are unlikely to address the problem and risk doing more harm than good. The real reasons for an investment shortfall are a challenging business case for network features that benefit niche uses, co-ordination problems in technology adoption and the limited commercial return on resilience. Measures that give operators near permanent control of spectrum and improve operators' financial position without commitments in return are unlikely to overcome any of these problems.

1.7 DotEcon suggest five complementary options to address an investment shortall, being:

1. **EU-level guidance to guard against revenue-oriented or inefficient awards** - Guidance developed by BEREC and the RSPG, could set out a common understanding of good practice in award design and identify an agreed list of warning signs which would require NRAs to explain the specific reasons for adopting such design features in a peer review.
2. **Using award proceeds to support network deployment** - Where specific policy issues have been evidenced and identified, Member States could commit the proceeds of spectrum awards, in whole or in part, to supporting network deployment – in effect, a hypothecated tax.
3. **Reducing deployment costs through easier access to passive infrastructure**, based on the effective enforcement of the Gigabit Infrastructure Act (GIA) obligations where for example network operators and public sector bodies are obliged to meet reasonable requests for access to passive infrastructure such as rooftops, towers and poles.
4. **Tying specific investment obligations to licences** – for example attaching explicit investment or resilience requirements to spectrum licences, just as is the case already with coverage requirements;
5. **Facilitating investment subsidies** – This is a direct support in the form of state subsidies which decouples the support investment from spectrum licensing and applies even where the cost of investment obligations exceeds the value of the supporting spectrum. Any such support must comply with State aid rules.

1.8 Given the potentially far-reaching implications of how Member States manage and assign spectrum, an important State asset, ComReg urges stakeholders to carefully consider the advice in the DotEcon DNA Report, the executive summary of which is set out below with further reading available in ComReg Document 26/79a.

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Executive Summary:

The Digital Networks Act: An Assessment of the Proposed Spectrum Reforms

Prepared for ComReg

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Executive Summary

New services using mobile networks

It is common ground that we need capable and ubiquitous mobile networks to support advanced new uses, especially growing machine-to-machine communications. This is a prerequisite to realising productivity gains from automation, robotics and AI, and ensuring that Europe can compete globally in new services and products using these frontier technologies.

Indefinite licences do not mean more investment

The Digital Networks Act (DNA) proposes radical changes to spectrum management – including indefinite licences by default – in the expectation that mobile network operators (MNOs) invest more and deliver the capabilities we will need. However, this would hand MNOs near-permanent control of a valuable scarce public resource in exchange for nothing more than the hope, and without an obligation, that they will make investments that reflect the right priorities for European competitiveness. National regulatory authorities (NRAs) would be deprived of their current tools to place obligations in spectrum licences to correct market failures such as insufficient coverage, resilience or other network capabilities and to safeguard and promote competition. Ultimately, this may lead to customers paying more for no benefit.

Affordability

Europe already has the most affordable mobile services of any comparative region, with quality that compares well internationally. Nevertheless, the European Commission, echoing the Draghi report, treats low prices as a problem that has "*reduced the industry profitability*" of MNOs. However, industry profitability is not an end in itself. Direct interventions to boost effective investments in better and more resilient networks may be needed if competition cannot deliver these. Such interventions must be based on a proper public policy assessment showing real net benefits for customers.

Spectrum prices are not excessive

The claim – explicitly advanced in the Draghi report and echoed in the DNA – that under the current framework Member States have treated spectrum auctions primarily as a tool for generating revenue is unsupported by evidence. The principle that charges for spectrum should promote efficient use of a scarce resource has been embedded in the legal framework under which NRAs operate going back to the 1997 Licensing Directive. This principle is reflected in the statutory objectives of most NRAs.

There is nothing to suggest that auctions in Europe have resulted in excessive spectrum costs. Prices are largely an outcome of competition between mobile networks for spectrum and so reflect both prices of services sustainable within a competitive marketplace and operators' costs, including investment in network capabilities and coverage. European spectrum prices are in line with global averages and well below those in North America.

Spurring investment

In any case, lower spectrum costs do not mean higher investment – as a recent study prepared for the Commission already found. The European Commission's Impact Assessment cites that study, but notably omits this finding.[1] Italy, heavily criticised for high 3.5 GHz prices, has the best coverage in that band in Europe, promoted through competition, licence coverage obligations and state-aid funding. Cheaper spectrum with no strings attached will not buy better networks – it will enrich shareholders. If the European Commission's aim is to boost the capabilities of networks through accelerated investment, indefinite spectrum licences and centralisation of spectrum awards are a side-show.

No evidence that longer licences or cheaper spectrum drive investment

The European Commission's Impact Assessment never tests whether licence duration affects investment but simply assumes a positive impact. However, in studies where duration has been tested, no effect on investment has been found. Investment follows a sound business case, not licence length. In the wider sphere of publicly-created rights and concessions, indefinite spectrum licences would become the outlier, with patents, extraction rights, wind energy sites (to name but a few) all being of finite length.

Interventions to drive investment

If we want to drive new frontier technologies needing better mobile networks, interventions may be needed. In a competitive marketplace, network operators are rightly cautious to invest in network capabilities that may initially be niche requirements needed by few customers. As with coverage, targeted interventions may be needed to drive forward network capabilities, including availability of services with latency guarantees (through 5G SA), reliability and more homogeneous coverage. Investments to improve resilience are similarly held back by the limited ability of MNOs to monetise the benefits of more resilient networks.

With existing policy and legal tools, spectrum receipts can be recycled to pay for obligations on networks to meet a variety of quality-of-service metrics, not just coverage, where there is a clear public policy case. NRAs need to be bolder to address the specific deficiencies of networks within their jurisdictions, in line with a strategic Europe-wide vision of the minimum capabilities needed to drive development of new advanced in services and products at the bloc level.

NRAs lose the tools that work; the safeguards will not be effective

The DNA impedes, rather than promotes this agenda. It substantially removes NRAs' ability to tailor licence terms to national conditions, to use licence expiry to promote competition and reallocate spectrum, and to update coverage and quality obligations at renewal. Departing from the default – even to impose a precautionary temporary spectrum cap – requires a burdensome assessment and navigating a process subject to a Commission veto.

[1] LS telcom, PolicyTracker and VVA (2023), cited in footnotes 244 and 247 of Part I of the Impact Assessment.

Use-it-or-lose-it conditions shift the burden of proof onto regulators and rest on revocation for cause, a far higher bar than the threat of non-renewal. Similarly, wholesale obligations would bring ongoing monitoring and enforcement burdens – contrary to the preference for structural over behavioural remedies that the Commission applies in merger control. Nor would it address asymmetries in existing spectrum holdings, which NRAs could no longer rebalance at renewal.

Uncertainties about how the multifactorial objectives of the DNA would be applied, including the vague competitiveness objective, are likely to lead to more disputes between network operators and NRAs. Greater legal uncertainty is not conducive to more investment.

The value of a public resource should benefit end users

Spectrum fees exist to ensure efficient use, not to raise money. But indefinite rights granted without payments that reflect the value of the spectrum, and without commitments in return, would transfer that value to existing licensees as a windfall, rather than ensuring that competition, efficient allocation and conditions attached to licences deliver benefits for end users.

Better instruments are available

The current framework already provides the tools needed (and allows issuance of indefinite licences or licences with a duration of more than 20 years and clear provisions in relation to renewal); targeted improvements would make them more effective:

1. **EU-level guidance to guard against revenue-oriented or inefficient awards**, developed with BEREC and the RSPG, including advice on effective award design and an agreed list of warning signs to guard against revenue-oriented or inefficient outcomes– such as artificial restriction of supply, avoidable delays in releasing spectrum, set-asides or a complete absence of caps– that could also inform an enhanced Peer Review process;
2. **Using award proceeds to support network deployment** – making it easier for Member States to commit award proceeds to supporting network deployment by explicitly procuring network capability funded by spectrum receipts where specific policy issues have been identified and sufficiently evidenced;
3. **Reducing deployment costs through easier access to passive infrastructure** based on the effective enforcement of the Gigabit Infrastructure Act (GIA) obligations;
4. **Tying specific investment obligations to licences** – for example attaching explicit investment or resilience requirements to spectrum licences, just as is already the case with coverage requirements; and
5. **Facilitating investment subsidies.** State aid rules that facilitate support intervention at levels beyond the value of spectrum to boost network capability and resilience as well as coverage.

Member States could use such interventions to work towards EU-wide targets for network capability to encourage investment in

frontier use cases in the way that best works, given national conditions. All these work with, rather than against, NRAs' ability to respond to national circumstances. The spectrum management proposals in the DNA, by contrast, would weaken that ability without addressing the underlying problem.