

# THE DIGITAL NETWORKS ACT: A PATH TO A SINGLE TELECOMS MARKET?

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In January, the European Commission (EC) published its long-awaited draft Digital Networks Act (DNA), which is set to overhaul the EU's telecoms regulatory framework. The DNA aims to create an "effective EU single market" and, in turn, support growth and the competitiveness of the EU economy. The proposals cover a wide range of areas, including at the 'edge' of telecoms networks. We took some time to consider both the proposals and the reactions of the key stakeholders, including BEREC.

One key area where the proposals could mark a meaningful shift towards a more integrated single market is spectrum, a critical input for mobile services. The DNA places a stronger emphasis on investment relative to revenue generation from spectrum auctions, alongside enhanced EU-level oversight.

By contrast, the core elements of fixed access regulation – the longstanding cornerstone of EU telecoms liberalisation – appear largely preserved. That said, the extent of continuity will ultimately depend on the outcome of the forthcoming review of the list of relevant markets currently subject to ex ante regulation, and whether this leads to the removal of some or all of those markets.

Beyond these areas, the DNA signals a broader push towards harmonisation (e.g. via passporting and EU-level authorisation of satellite spectrum), though the practical impact of these remains uncertain.

Whether the proposals will succeed will depend on striking the right balance between ambition and implementation. In its recently published initial assessment, BEREC, the body representing Europe's national telecoms regulators, questioned whether the proposals have the pragmatism required for effective implementation, warning that they risk adding "...greater operational complexity, administrative burden and legal uncertainty, without offering clear benefits..."<sup>1</sup> over the existing regime.

In this article we present our initial assessment of the most significant changes that the EC is proposing and consider the implications for the industry.

### Tighter grip on spectrum licensing

The DNA's most consequential - and controversial - changes relate to spectrum, where the EC is seeking to reshape national licensing practices in the name of investment certainty and EU-wide harmonisation. The EC has identified fragmented spectrum policy as a key impediment to high-quality 5G and future 6G deployment and believes that more harmonised, predictable spectrum conditions could accelerate investment. It is therefore proposing to introduce:

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<sup>1</sup> <https://www.berec.europa.eu/en/document-categories/berec/reports/early-berec-assessment-of-the-digital-networks-act-dna>

- perpetual licences for new assignments and automatic renewal of existing licences by default, combined with “use it or share it or lose it” mechanisms; and
- enhanced Commission scrutiny of assignment procedures, fees and licence conditions, including a veto power over conditions attached to licences (Article 31).

### *Perpetual licences and “use-it-or-share-it-or-lose-it”: greater certainty, with strings attached*

Moving to perpetual licences aligns the EU with the UK and the US and would be a major departure for several Member States that have re-auctioned, or are planning to re-auction, legacy spectrum when licences come up for renewal - in particular Ireland, Croatia, Sweden and Germany. For other Member States that have instead opted for administrative extensions and annual licence fees (ALF) on expiry, typically with a strong presumption of renewal, the change may have less significant implications, at least in practical terms. Formalising automatic renewal could still help address residual risks around licence duration which can undermine MNOs’ investment incentives, particularly as licences approach renewal.

Whilst finite licences are effectively time-limited concessions with significant terminal value risk, an indefinite licence is more akin to an infrastructure asset, with an economic life that exceeds the network itself. In the US, where licences are effectively indefinite, spectrum is routinely included as collateral in secured telecom financing (sometimes referred to as “spectrum-backed securitisation (SBS)” – for example, in 2024, new entrant EchoStar borrowed \$9.55 billion by securitising its spectrum portfolio).<sup>2</sup> The move could therefore strengthen operators’ borrowing capacity and financing flexibility.

To address the increased risk of “hoarding” that could be associated with perpetual licences, the DNA also includes provisions for NRAs to revoke licences or impose sharing if they find spectrum is being used inefficiently (Article 25), referred to by the EC as “use-it-or-share-it-or-lose-it”. However, it is unclear from the draft DNA how this would work in practice, and in particular what would be expected of NRAs. Article 28 sets out that a new “Office for Digital Networks” (ODN) will, among other things, “...*establish a dynamic database for geolocation and monitoring of radio spectrum usage opportunities...*” which would also be accessible to prospective users of spectrum. This would allow third parties to identify spectrum that is being underutilised and submit requests to the NRAs to mandate sharing. However, a more proactive approach to “use-it-or-share-it-or-lose-it” would likely require significant work from NRAs to monitor and analyse spectrum usage data on an ongoing basis and initiate investigations where they suspect inefficient usage.

On the other hand, provisions in the DNA that are aimed at facilitating spectrum trading and leasing – e.g. harmonised transfer and leasing procedures (Article 26) - could, if effective, reduce the need for direct intervention by NRAs to ensure efficient use. However, whilst spectrum trading has been permitted under the EU framework for some time, trading activity has been relatively limited. Whilst the DNA’s efforts to harmonise procedures could reduce

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<sup>2</sup> <https://www.communicationstoday.co.in/sbs-is-helping-us-telecoms-operators-raise-capital/>

potential barriers to trading – in particular, regulatory uncertainty and fragmentation in national approaches, it remains to be seen whether they will be sufficient to unlock a genuinely active secondary market.

### Spectrum fees and auctions: shifting the focus from revenue to investment

The move towards tighter control of assignment procedures and spectrum fees appears to be motivated in large part by concerns that current approaches may contribute to high spectrum costs which could in turn weaken incentives for network rollout: in particular, the EC notes that auctions can “... result in the creation of an important financial burden on operators if they are not designed properly...”. With respect to legacy spectrum, the EC hopes to address this concern by making automatic renewal the default in combination with a ‘common methodology’ for designing ALFs. In relation to new assignments, while not rejecting auctions per se, the proposals signal a desire to move towards “*investment-oriented auctions focusing on the achievement of certain quality and coverage commitments rather than on the payment of fees.*”

The proposals do not set out precisely what the EC has in mind with regard to fees,<sup>3</sup> though Article 29 indicates that a key focus will be the approach to setting reserve prices. The DNA proposes that NRAs should not set reserve prices at all where there are coverage and/or quality obligations attached. This could have a material impact on fees in scenarios where supply exceeds demand, and reduce the risk of reserve prices being used primarily as a revenue-raising instrument. In particular, where prices cluster at or near the reserve, auctions can in practice operate as a transfer mechanism from the telecoms sector to governments, rather than as a tool for revealing the underlying opportunity cost of spectrum—i.e. the economically efficient price.

High spectrum prices have also been driven by auction design which can intentionally aim to create competition within the auction for larger versus smaller blocks: e.g. in Italy’s recent 3.5 GHz auction, where the splitting of 200MHz of available spectrum into just two large blocks (80MHz each) and two smaller blocks (20 MHz each) resulted in intense competition between the four MNOs for the more valuable 80MHz blocks. The provisions in the DNA that give the EC ex-ante oversight of auction designs (Article 31) would, in principle, reduce the scope for auction design resulting in “artificial scarcity” and hence inflated fees.

While the EC’s recommendations would not, in themselves, be legally binding, the DNA empowers the EC to adopt implementing acts requiring NRAs to amend fee methodologies and reserve prices. This amounts to a material shift of control over spectrum-related revenues from Member States to the EU level and could therefore face strong resistance from national treasuries. However, mobile markets are now more mature than they were during the 3G and 4G auction periods, when spectrum licences presented major revenue-raising opportunities. This may reduce concerns among national treasuries and economic ministries, as

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<sup>3</sup> Spectrum fees will be subject to a separate recommendation 12 months after adoption of the DNA.

governments may now place greater weight on ensuring affordable spectrum access to support network investment than on maximising auction proceeds.

### Licence conditions to prioritise investment certainty over market entry

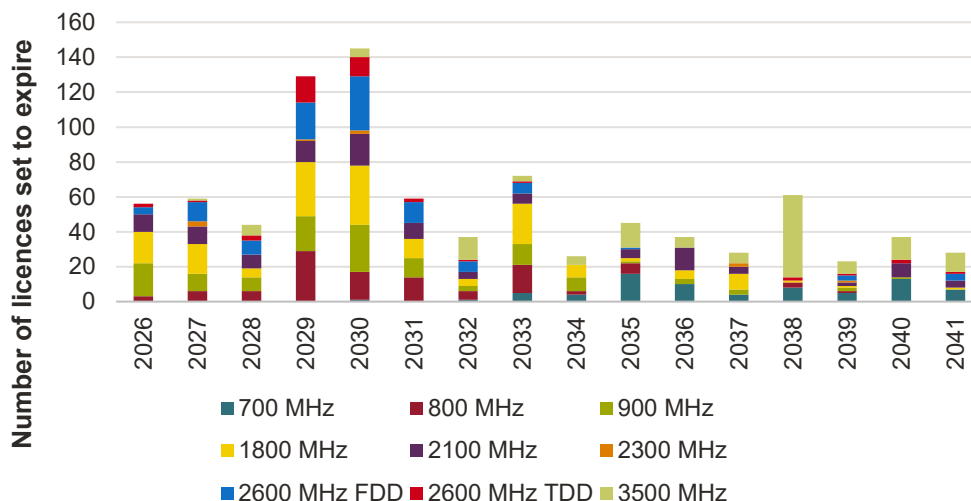
On the proposal for a Commission veto over licence conditions (Article 32), Article 32(2) sets out that such conditions should only be proposed on the basis of a forward-looking assessment, including an assessment of “... *existing and future investments*.” The Article specifically expresses concerns about “...*the provision of wholesale access or national or regional roaming*...”, suggesting that such obligations should not be imposed routinely, but only where they are clearly justified and proportionate. Together with the shift to perpetual licences, this could point to a greater prioritisation of investment certainty for existing operators, relative to facilitating new entry. This contrasts with the EC’s broad historical approach to 4-to-3 merger cases in mobile, where wholesale access remedies have often been required<sup>4</sup> in order to substitute for the competitive pressure previously exerted by the merging parties, with relatively limited weight being placed on the claimed investment benefits, put forward by merging parties.

On the face of it, the DNA proposals on mobile spectrum do look like the most radical effort to harmonise the approach to spectrum awards across the EU with more emphasis on investment than revenue generation for governments. Still, they stop short of full centralisation, with NRAs still expected to do much of the heavy lifting. As the DNA does not propose altering existing licences, the EC’s new harmonised approach would only apply to new spectrum, and licences when current terms expire. The impact of the new framework is therefore likely to be gradual rather than immediate, though a significant number of legacy licences are due to expire towards the end of this decade, as shown in Figure 1 below.

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<sup>4</sup> See, for example, European Commission merger decisions in Hutchison 3G Austria/Orange Austria (Case COMP/M.6497), Hutchison 3G UK/Telefónica Ireland (Case COMP/M.6992), and Telefónica Deutschland/E-Plus (Case COMP/M.7018)

**Figure 1** Expiry of current spectrum rights of use in EU countries



Source: CEPT, [ECO Frequency Information System](#)

## Limited change to the regulatory framework for fixed access

In contrast to spectrum, the DNA’s proposals for fixed networks are significantly less radical than those set out in the EC’s 2024 White Paper. Whereas the White Paper had signalled a shift away from ex-ante regulation, the DNA broadly preserves the existing SMP regime. NRAs will still be obliged to review the list of “relevant markets”<sup>5</sup> that the EC deems susceptible to ex ante regulation, on five-year cycles, and can identify other relevant markets provided they satisfy the three-criteria test.

That said, a review of the EC’s list of relevant markets is ongoing, and one possible outcome is the removal of the two remaining markets – including wholesale local access (WLA). The default position would then become deregulation across all markets, as per the White Paper’s 2024 proposals, unless NRAs can demonstrate that the three criteria test is met. Whilst NRAs have always had the power to regulate markets that are not on the EC’s list, in practice this has been relatively rare. A shift in the evidential burden could therefore tilt regulation towards deregulation, particularly in areas where two or more networks are present.

At the same time, however, the DNA places greater emphasis on detailed, geographically granular analysis of competitive conditions – in particular, Article 185 requires geographical surveys covering not just broadband infrastructure availability, but also network readiness and take-up. It also says that the NRA must analyse those results and decide whether a market

<sup>5</sup> The EC launched a consultation in June 2025 reviewing the current Recommendation to take into account major market and technological developments such as the deployments of 5G networks, the convergence between different types of networks and services and the deployments of fibre networks.

review is needed, potentially ahead of the normal cycle. Enhanced data collection requirements and more localised assessments of network availability and competition could encourage NRAs to define sub-national markets and intervene more selectively. This could also increase the likelihood that operators not currently designated as SMP are subject to regulation in specific areas.

### Harmonised access products: prioritisation without prescription

The DNA builds on the remedy hierarchy articulated in the Gigabit Recommendation, reinforcing the prioritisation of upstream or passive access remedies. It also introduces harmonised active access products, which NRAs are expected to consider - and, where appropriate, impose on SMP operators - as a first step before resorting to alternative forms of active access remedies. Originally floated in the 2024 White Paper, the plan for harmonised access products appears to have been watered down significantly: rather than imposing a mandatory EU-wide wholesale product, the draft DNA proposes a “menu” of harmonised options, while leaving NRAs with discretion to implement additional or alternative remedies where justified. BEREC has been tasked with developing the technical and economic specifications of these products. There is no firm timetable for when harmonised access products will be formally defined or become operational. It also remains to be seen whether NRAs will make use of these standardised products or whether there will be demand for them from access seekers. Implementing them ex-post on already deployed networks may prove challenging, as it could require costly network redesign and adjustments to the existing set of remedies. At the same time, where NRAs choose not to rely on harmonised products, they will be required to justify why they have not, meaning increased regulatory burden.

These proposals may help explain BEREC’s concerns about the DNA introducing additional layers of complexity without clear benefits, given the practical and procedural challenges associated with defining and implementing standardised wholesale products across diverse national markets.

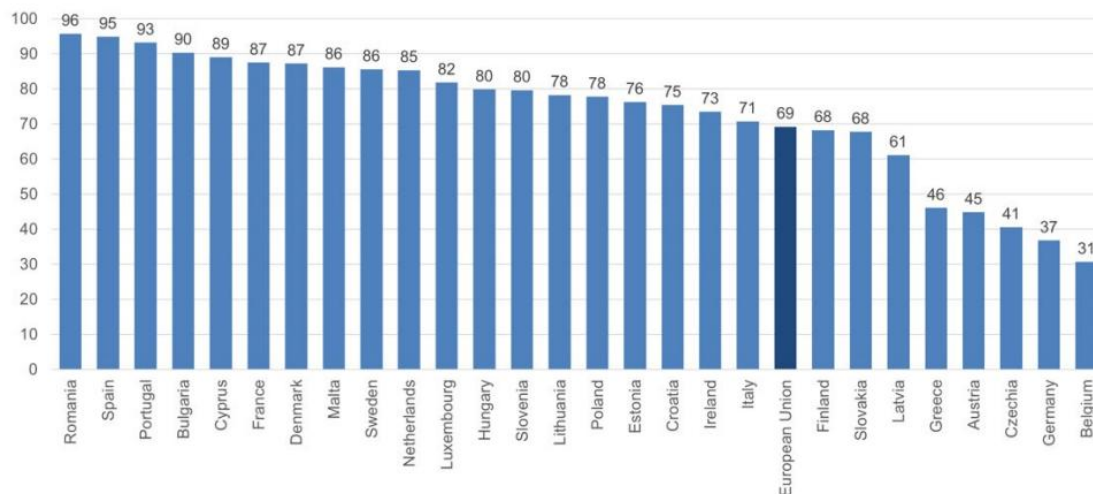
### Copper switch-off: a ‘soft’ backstop with uneven national impact

Copper switch-off (CSO) represents a major structural change for the European telecoms sector as copper networks have underpinned fixed telecommunications services for more than a century.

The EC proposes a conditional and phased CSO by 2035, intended to accelerate fibre rollout and support the EU’s gigabit connectivity objectives. Under the proposal, Member States are required to mandate copper switch-off in designated areas once predefined conditions are met, including high levels of FTTP coverage within the relevant exchange area. By 2035, copper switch-off must be mandated across all such areas, with only limited exceptions where fibre deployment is not economically viable and no adequate alternative connectivity solution is available. As illustrated in the figure below, the practical impact of these measures is likely

to vary significantly across Member States, given the differences in existing FTTP network deployment, competitive dynamics and national transition plans.<sup>6</sup>

Figure 3: FTTP coverage in % of households in EU 27 (2024)



Source: European Commission (2025)<sup>16</sup>

To support the transition to fibre, Article 71 introduces a “connect-on-demand” obligation in areas where copper switch-off has been mandated. In practice, this could require operators to extend their networks beyond existing commercial rollout plans - particularly in privately funded areas - raising questions around how the costs of connecting additional premises - which can be very high - should be recovered.

More generally, these proposals raise the question of whether fibre would need to replace copper everywhere, or whether alternative technologies - such as fixed wireless or satellite - could provide adequate substitutes in certain areas. This also brings into focus broader policy considerations, including the extent to which the EU may be willing to rely on non-EU providers for satellite-based connectivity.

## Centralised satellite spectrum authorisations

The proposal to centralise satellite spectrum authorisation at EU level (Articles 36–45) does not constitute a wholly new regulatory approach, but rather a formalisation and extension of existing practice. In particular, a form of EU-level centralised selection procedure already applies to the harmonised 2 GHz MSS band, where the European Commission selects pan-European operators, with national authorities subsequently granting rights of use. The DNA proposal would streamline and formalise this process, removing the need for individual

<sup>6</sup> Frontier Economics will examine these issues in more detail in an upcoming article, assessing the economic rationale for mandatory copper switch-off, its feasibility across countries, and the implications for incumbents, alternative operators, access seekers and consumers.

Member State implementing decisions, and extend it to a wider range of satellite spectrum bands.

The EC's decision to opt for a fully centralised approach for satellite spectrum, in contrast to mobile spectrum, appears consistent with the specific economic characteristics of satellite markets: satellite services are inherently cross-border, operate at a scale that extends well beyond national markets, and are characterised by very high fixed costs and strong economies of scale. As a result, competition in these markets is likely to be driven by a small number of large, global players rather than by local or national players. Against this backdrop, a fully centralised approach which enhances transparency and certainty for investors appears more defensible than for terrestrial services which are inherently local.

However, the rationale for centralisation in the DNA is not purely linked to the wide geographic scope of the services. The recitals make clear that sovereignty and industrial policy considerations will also play a central role in comparative selection procedures, with an explicit emphasis on "EU-controlled connectivity," and strengthening the Union's strategic autonomy and space-sector supply chains. Embedding these objectives into the EU-level selection procedure may lead to more stringent conditions for non-EU satellite operators, with potential implications for market entry and the economics of copper retirement, as noted above.

### Light-touch approach on IP interconnection

The DNA adopts a cautious approach to IP interconnection and so-called "ecosystem cooperation", stepping back from some of the more interventionist ideas explored in the EC's 2024 White Paper in the context of the "fair share" debate, including the possibility of mandatory contributions towards network costs. Instead, the proposal relies on soft measures and a "wait-and-see" approach, notably empowering BEREC to monitor market developments, conduct analysis and issue guidance to facilitate voluntary cooperation between ecosystem players. The proposal also introduces a voluntary dispute resolution ("conciliation") mechanism, which, while non-binding, could in practice become a channel for exerting increased pressure on large content and application providers to contribute more to network costs.

This approach retains contractual freedom in IP interconnection and suggests a reluctance to intervene in the absence of clearer evidence that funding concerns stem from competition problems rather than broader commercial or policy considerations. At the same time, the DNA explicitly leaves the door open to future intervention, with the EC signalling that it may revisit these arrangements after three years of operation in light of market developments.

### More EU oversight, more work for NRAs?

Overall, the DBA marks a shift towards greater EU-level coordination and oversight across key areas of telecoms regulation, most notably in spectrum policy and satellite authorisation.

MNOs could stand to benefit from greater spectrum certainty through perpetual licences, stronger protection against poor auction design, and tighter Commission scrutiny of licence conditions that could otherwise dilute investment incentives. Satellite operators may also benefit from the clarity and scale offered by a single authorisation regime. That said, the embedding of sovereignty considerations could raise barriers for non-EU players.

NRAs appear to be ambivalent about the proposals. Whilst they have been broadly supportive of greater coordination, this comes with a loss of discretion and increased Commission oversight. BEREC's initial assessment reflects this tension, welcoming the ambition of the DNA while highlighting concerns around centralisation, the potential erosion of NRA discretion, the reduced emphasis on the promotion of competition as a core regulatory objective and the practical implications of the proposals. While NRAs retain primary responsibility for implementation, they do so under tighter EU supervision and with additional procedural and analytical burdens—from monitoring spectrum use and justifying departures from harmonised access products, to planning copper switch-off and administering new symmetric obligations.

The coming years are likely to be characterised less by immediate structural change, and more by intensive regulatory work at national level as NRAs seek to translate the DNA into workable and proportionate outcomes that balance investment incentives, competition and efficient network deployment. In practice, this is likely to require much greater coordination between NRAs and the EC - particularly in areas such as spectrum assignment and licence conditions - alongside continued tension over the boundaries of national discretion. In particular, the stronger emphasis on passive and symmetric access remedies could encourage a more granular, location-specific approach, as NRAs distinguish more explicitly between areas where such remedies are effective and those where greater intervention is required. A further area of focus is likely to be the design and implementation of harmonised active access products, where practical challenges and market-specific considerations may test the limits of a one-size-fits-all approach. More broadly, the success of the DNA may ultimately depend less on its formal architecture than on how flexibly these new tools are applied in practice—and whether they can deliver meaningful simplification without adding another layer of regulatory complexity.

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