Decoding the Digital Networks Act: the future of the EU electronic communications and digital infrastructure regulatory framework

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Oxera initial reactions and implications
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On 21 January 2026 the European Commission published the long-awaited draft of its Digital Networks Act (DNA)—the proposed new regulation that seeks to 'modernise, simplify and harmonise EU rules on connectivity networks'.[1] As the draft is now being reviewed by the European Parliament and the Council, representing the EU member states, we ask: what are the key proposed changes to EU electronic communications regulation, and what might be the implications?

The DNA is set in the context of an increased focus on the need for change in how the sector is regulated, building on the themes of the European Commission's White Paper on 'How to master Europe's digital infrastructure needs?',[2] the Letta report,[3] and the Draghi report.[4] All of these reports identified digital infrastructures as strategic assets for the EU's economic sovereignty and competitiveness, arguing for less fragmented regulation, a simplification of the rules, and a more investor-friendly environment.

In the run-up to the DNA's release, there was much debate around what it would mean in practice, and how the regulatory framework should adapt to support its goals while preserving the competitive environment

[1] European Commission (2026), 'EU supports digital connectivity with simpler and harmonised rules in Digital Networks Act', press release, 21 January.
[2] European Commission (2024), 'How to master Europe's digital infrastructure needs?', White Paper, February.
[3] Letta, E. (2024), 'Much more than a market', April.
[4] Draghi, M. (2024), 'The future of European competitiveness', September.

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that it has facilitated. In October 2025, Oxera hosted a roundtable in Brussels to discuss these issues. Held under the Chatham House rule, the event stimulated a lively and engaging debate among 30 senior stakeholders, including senior members of the European Commission (DG Connect), the Body of European Regulators for Electronic Communications (BEREC), national regulatory authorities (NRAs), telecoms operators and key digital players.[5]

In this article, we focus on assessing the DNA proposals on three key issues.

The first two (the future of the significant market power (SMP) regulatory regime, and the relationship between network operators and internet content and application providers) are topics that we addressed in the Briefing Paper prepared for our roundtable event (download the Briefing Paper here and read our summaries of the event discussions here and here).

The third issue relates to the DNA's proposed changes to radio spectrum management.

For each of these topics we provide a summary of the proposals, assess their potential implications, and suggest areas where the final version of the DNA would benefit from further clarity or adjustments.

Of course, across the 416 Recitals and 209 Articles of the draft DNA, many other topics are covered including preparedness and resilience; single market authorisation and passporting; numbering resources; copper switch off to support the transition to fibre, service-related obligations and end-user rights; and governance changes. In this article we do not comment in detail on these aspects, but include a short overview of some of the key proposals in the final section.

[5] The organisations represented were: Deutsche Telekom; the Belgian Competition Authority; Akamai Technologies; AKOS Slovenia; Amazon (Project Kuiper); Amazon Web Services; BEREC; BIPT Belgium; Cellnex; CNMC Spain; Colt; ECTA; the European Commission (DG Connect); Independent Regulators Group; Meta; Microsoft; Motion Picture Association; Ofcom; OpenFiber; Openreach; Pinsent Masons; Telefónica; T-Regs; Vodafone Group.

Fixed markets and the future of the SMP regulatory framework

Ex ante regulation enabled by the SMP regime has been a core component of the regulatory framework for electronic communications in the EU since its inception. Designed to enable a competitive market dynamic by opening access to key bottlenecks in the value chain it has facilitated market entry and has allowed progress towards the objective of enabling competitive markets that no longer need regulating.

Despite calls by some, in the run-up to the DNA, to remove SMP access regulation altogether and rely on 'symmetric access' rules and ex post competition law, the DNA has preserved most of the steps that are familiar from the existing framework (most recently in the European Electronic Communications Code, EECC) including the following.

- The Commission will still regularly analyse trends and may set out a recommendation on relevant product and service markets that are susceptible to ex ante regulation (Article 72).
- NRAs will review any recommended markets and can identify other markets that are susceptible to ex ante regulation in their member states using the three criteria test (Article 73).
- NRAs will identify any undertakings with SMP in the relevant market(s) (Articles 73 and 76).
- NRAs will then impose proportionate remedies to address the competition concerns identified (Articles 77–81).

There are some subtle (but notable) changes, which we generally see as supportive of the overall goals and principles of the telecoms regulatory framework from inception. These are that:

- intervention should be proportionate (the minimum necessary to address the competition concerns at play); and
- the aim should be to de-regulate where effective and sustainable competition has been achieved.

Nevertheless, there are some areas where concerns may arise or where further clarification is warranted. This includes:

- lack of clarity on how the presence of alternative networks should be taken into account in the market analysis;

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- tensions around the implementation of harmonised access remedies that may not take account of local market conditions;
- limited discussion on the role that physical infrastructure access facilitated by symmetric access regulations such as the Gigabit Infrastructure Act (GIA) can play in making markets more competitive; and
- no recognition that regulatory SMP remedies need to adapt to address a changing competition concern—namely, the risk of exclusionary practices by SMP operators (e.g. loyalty rebates, conditional offers) that can distort emerging infrastructure competition.

We turn to the these issues below.

Market definition and SMP

The DNA remains clear on the prospect of NRAs defining sub-national markets. While being able to define different geographic markets is not new, the DNA maintains the importance of a 'geographical survey of the reach of electronic communications networks capable of delivering broadband services' (as required in Article 183) in line with the EECC.

As a result, we expect to see a greater number of NRAs defining different geographic markets going forward, reflecting the different competitive conditions within member states depending on the number of operators, the constraints that they impose in different localities, and the overall objective of de-regulation where competition is effective and sustainable. In support of the broader 'harmonisation' and 'single market' objectives, the DNA also sets out procedures for two or more NRAs to work together and define transnational markets, where appropriate (Article 74).

The DNA would also commit the Commission to, after consulting with BEREC, publish updated guidelines for market analysis and the assessment of market power (Article 76(5)). Here, we encourage the final version of the DNA to include further clarity on how the presence of alternative networks should be taken into account. Even though the 'number of network operators present' criterion is often a focal point for assessing the degree of competition (and the 'geographical survey' may provide this detail at a granular level), this is not, in itself, a sufficient measure of **effective** and **sustainable** competition.

We argue that, even in the presence of multiple network providers, a broader assessment of market power should account for:

- the presence of direct constraints (from competing wholesale offers) or indirect constraints (arising from the presence of an

alternative network operator with a strong retail market position);
- evidence of competing commercial wholesale access agreements (backed up by evidence of material take-up);
- the overall network presence of the alternative networks (to assess the strength of the constraint imposed on the incumbent); and
- the degree of uniform pricing constraints.

A hierarchy of remedies

When assessing the need for imposing regulatory obligations where SMP has been found, the DNA explains that NRAs must consider 'the influence on competitive dynamics of existing regulations, possible commitment offered or remedies imposed in the context of proceedings under national or Union competition law or commercial agreements' and should 'choose the least intrusive way of addressing the possible problems identified in the market analysis' (Article 77).

Where remedies are deemed necessary, the DNA is explicit about the hierarchy of remedies below, and the requirement to provide 'substantiated justification' for the need to move to the next step in the hierarchy where the previous steps 'do not address the competition problems identified on the concerned market' (Article 77(4)).

Specifically, NRAs are instructed to follow the following hierarchical steps.

- First: consider obligations of transparency and non-discrimination.
- Second: if the above is not sufficient, consider passive access (Article 80).
- Third: if the above is not sufficient, consider introducing the 'harmonised access product' (Article 81).
- Fourth: only if justified, consider other obligations for access to specific elements or facilities (Article 78).
- Only then consider accounting separation, price control and cost accounting obligations.

This reinforces the best practice that, where competition concerns are identified in the retail market—absent regulation, as per the modified greenfield approach—regulatory intervention should be considered at as deep a level in the value chain as possible (i.e. at the physical infrastructure access—PIA layer). Only if these regulatory efforts are not sufficient to address the competition problem should NRAs proceed to assess the need for intervention in wholesale markets further downstream in the supply chain.

However, this also raises some questions.

1. What is the harmonised access product, and what trade-offs might come with this unified approach?
2. How does this hierarchy account for symmetric remedies or the presence of PIA agreements achieved through commercial negotiations or other symmetric access regulations, such as the Gigabit Infrastructure Act (GIA)?
3. Do the remedies available provide all the tools necessary to address emerging competition concerns, such as the risk of exclusionary practices (as opposed to the traditional concern of excessive prices)?

A harmonised access product and an extension of veto powers

The harmonised access products 'may include local access products', with further details expected to be specified in an implementing act within six months of the DNA coming into force. These would '[set] out the technical specifications, standard cost elements, cost for harmonised products and the reference offer related to the harmonised access product(s)' (Article 81.4).

Framed as essential 'to foster the achievement of an internal market in the area of digital networks and services' (recital 207), the presence of harmonised access products may bring a marginal benefit of supporting the achievement of economies of scale for any access-seeker operating in multiple member states. However, we raise caution about the following possible unintended consequences.

- What if the product, standards and network management conditions specified for the SMP provider's access product differ from those that are (or otherwise would be) offered by alternative players in the market that are seeking to compete? Would this make the switching process even more costly and dampen the competitive pressure of such alternative network operators?
- When seen together with the increased powers on the Commission to 'veto' NRA notifications on the basis of disagreements with the 'remedies' proposed (Article 85), the Commission now has the authority to favour the harmonised access remedy in support of single market objectives, over an NRA's tailored remedies. Care should be taken to ensure that the favoured remedy is focused on addressing the specific, and perhaps unique, national (or sub-national) competition concerns at play, for which the harmonised access remedy may not be as

effective as a tailored (and proportionate) remedy rooted in in-depth economic analysis.

What is the role of symmetric regulation in all this?

'Symmetric measures' have their own Article (Article 69), but with a primary focus on familiar concepts set out in the EECC on the topic of in-building wiring up to the first concentration or distribution point and, if justified, beyond. There is also new wording around 'Symmetric measures for transition to fibre' linked to the copper switch-off (CSO) process (Article 71).

Within the hierarchy of remedies, it appears that, if NRAs are to get to the fourth step (other obligations for access to specific elements or facilities), before they do so they will be required to:

analyse whether other forms of access to wholesale inputs, either on the same or on a related wholesale market, would be sufficient to address the identified problem in the end-user's interest. That assessment shall include commercial access offers, regulated access pursuant to Articles 68 and 69 [symmetric measures], or existing or planned regulated access to other wholesale inputs...
Article 78

For symmetric access imposed under Article 69, this may be reasonable, given that its narrow focus on in-building wiring is unlikely to replace broader PIA more generally, whether through SMP regulation (Article 80) or through PIA enabled by the GIA.

What is less clear from the proposed wording of the DNA is how (and when) the availability and incentives to provide commercial passive infrastructure enabled by the GIA should be taken into account.

Given GIA's role in putting pressure on operators to conclude commercial deals, against a backdrop of dispute resolution, this regulatory instrument is, at least in theory, a substitute for passive access remedies under the SMP regime. Indeed, in our work across Europe we have seen several examples of regulators acknowledging the role of GIA in spurring commercial deals (such as those in Malta and Bulgaria) that can make SMP remedies redundant, or even result in a finding of no SMP.

While it is understandable that an explicit reference to GIA does not feature in the hierarchy of remedies of Article 77(4), given that article

deals with asymmetric remedies imposed after a finding of SMP, rather than symmetric regulations like GIA, it is clear, based on our experience across Europe, that GIA does play a role in shaping commercial market dynamics, and its role and interaction with the SMP regime should be more explicitly acknowledged and discussed in the DNA. This could be in the recitals or in subsequent guidance on market analysis that the Commission has said it will publish (Article 76(5), as noted above).

Is the DNA missing the tools to address an important competition concern?

More generally, the suite of SMP remedies discussed in the DNA are still focused around the traditional concerns that have preoccupied regulators for more than two decades—namely, provision of access at cost-based or far, reasonable and non-discriminatory (FRAND) terms to curb the risk of excessively high wholesale access prices, as well as economic replicability tests to deal with potential discrimination of non-vertically integrated access-seekers.

Disappointingly, given that this was an issue discussed extensively at our roundtable and in the pre- and post-roundtable materials we published, the DNA is silent on how the focus of regulatory remedies could or should adapt to address a changing competition concern—namely, the risk of exclusionary practices by SMP operators via volume discounts, loyalty rebates, conditional offers and other terms or conditions that can induce loyalty from access-seekers, potentially distorting competition in wholesale access markets.

Indeed, while regulated access to PIA may lower the barriers to entry and expansion of rival wholesale network operators and thus encourage the increased presence of multiple wholesale networks, the effectiveness of those alternative operators in imposing effective (and sustainable) constraints on the incumbent network cannot be taken as a given, so de-regulation cannot be 'automatic'. Yet, further regulation based on wholesale access and price caps will do little to help alternative networks flourish.

If the finding of SMP, and therefore the need for asymmetric remedies, also arises from the lack of 'effective' and 'sustainable' competition, even in the presence of parallel networks, what should be the focus of regulatory remedies?

Where alternative wholesale network operators (altnets) are present but competition is not yet fully established, the competition concern shifts away from one of potential exploitative behaviour of the SMP operator (i.e. setting access prices 'too high' to the detriment of access-

seekers and ultimately end-users) to one of exclusionary behaviour towards rival wholesale network operators in an attempt to dampen infrastructure competition. Specifically, this would be behaviour that is aimed at affecting the entry and expansion plans of altnets that would prevent the market from becoming effectively competitive and enabling de-regulation.

Through our work across Europe for regulators, incumbent operators and challenger players, we have seen many NRAs either proactively introducing ex ante regulatory controls on wholesale 'commercial offers' or wholesale 'promotions and discounts' in the form of a review process based on competition law principles (as proposed in the UK[6] and in Ireland[7]), or grappling with how to ensure that the infrastructure competition that has emerged is not nipped in the bud before it can fully flourish (as is the case in Italy).[8]

However, the DNA is unfortunately silent on this important competition and regulatory development. We strongly recommend that this increasingly relevant issue is explicitly addressed in the final version of the DNA, or at the very least, is covered in formal Guidance issued by the Commission on its implementation.

Regulation of the wider internet value chain

One of the most debated subjects of the draft DNA considers the proposals about regulation of the wider internet value chain, and in particular the interactions between Network Operators and Internet Servis Providers (ISPs) on the one hand, and Content Application Providers (CAPs) such as YouTube and Netflix, on the other.

[6] Ofcom (2021), 'Promoting competition and investment in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26', Volume 3: Non-pricing remedies, paras 7.153–154.
[7] ComReg (2024), 'Market Reviews Wholesale Local Access (WLA) provided at a fixed location Wholesale Central Access (WCA) provided at a fixed location for mass-market products NON-CONFIDENTIAL Response to Consultation and Final Decision', Decision ComReg 24/07, 23 January.
[8] In Italy, the competition authority (AGCM) is currently investigating the master services agreement (MSA) between FiberCop and TIM for potentially anticompetitive clauses under Article 101 TFEU (Proceeding I874 – 'MASTER SERVICE AGREEMENT TIM–FIBERCOP' on 17 December 2024). As explained by AGCM, the investigation covers issues such as the duration of the MSA, volume discounts on VULA FTTH services, most-favoured-customer (MFC) clauses, preferred supplier clauses, and provisions that tie TIM's future purchasing (including in areas where TIM currently buys from third parties, once FiberCop covers them). While the regulator, AGCOM, has stated that it will take account of the outcome of the investigation in its future market analysis, the case illustrates the changing nature of competition concerns in the electronic communications sector and raises new questions about the ability and sufficiency of competition law to deal with such concerns in a timely manner.

In previous discussions, and in the Commission's White Paper,[9] there has been the suggestion that the draft DNA should include a 'fair share' to be paid by CAPs to Network Operators, an idea supported by many large Network Operators (and their association Connect Europe), or alternatively, that a regulatory 'dispute settlement mechanism' should be introduced, with the aim of contributing to a more 'fair' outcome in negotiations between the different actors.

Oxera, in a 2023 study for the Dutch Ministry of Economic Affairs,[10] explored the potential economic welfare gains of such a contribution (in short: we concluded that a contribution had more the character of a monetary transfer than a policy that would lead to significant welfare gains, and that there was a risk of high regulatory costs stemming from such proposals).

During the Oxera roundtable event in October 2025, this subject was discussed among the stakeholders. That discussion centred around questions of how the incentives of CAPs and ISPs affected the interaction between these two groups, and whether there could be mechanisms to unlock the lack of investments (for instance, as Vodafone suggests in its 'responsible use' paper[11]).

A related question that was discussed during the roundtable concerned the Open Internet Regulation (OIR) (also known as the 'net neutrality' rules), and whether the interpretation of these rules by NRAs and BEREC, as well as jurisprudence by the European Court of Justice (ECJ), could have a stifling effect on innovative use cases. This led to some participants suggesting that the DNA should make some modifications to the existing Regulation to allow for more innovative use cases, especially now that networks have become more 'virtual' and software-based, allowing for more product diversification.

Does the DNA update the Open Internet Regulation?

The core principles of the OIR remain in place and will now be covered under Articles 93 and 94 of the DNA. The Commission notes (Recital 255) that the principles governing open internet access continue to be fit for purpose, striking the right balance between end-user protection and

[9] European Commission (2024), 'How to master Europe's digital infrastructure needs?', White Paper, February.
[10] Oxera (2023), 'Proposals for a levy on online content application provides to fund network operators', an economic assessment prepared for the Dutch Ministry of Economic Affairs and Climate, 30 January.
[11] Vodafone (2025), 'A Framework for Responsible Use of Networks', 28 February.

innovation. However, the Commission also notes that, since networking technologies have advanced significantly since 2015 (particularly with developments such as 5G, edge computing and network slicing), there is a growing need to more clearly define the conditions for offering specialised business services.

The fact that the core elements of the OIR such as Article 3 are unchanged could be seen as a missed opportunity from an economic point of view. The Commission could have chosen to allow for more pro-innovative use cases, while still protecting the core principles of net neutrality. Ofcom, in the UK, has shown more flexibility by allowing for more innovative use cases, provided that certain criteria are met.[12] The Commission could have followed a similar approach, but instead has chosen a more conservative path, keeping Article 3 of the OIR and the interpretation by NRAs, BEREC and the ECJ rulings intact.

On a more positive note, Article 93(6) of the draft DNA allows the Commission to adopt Implementing Acts to detail the conditions for services as specified under Article 93(5) (specialised services), which is something that some Network Operators, ISPs and many other stakeholders have asked for.

From 'fair share' to 'ecosystem cooperation'

Regarding the subject of Ecosystem Cooperation (Title IV of the draft DNA), we note that neither the 'fair share idea' nor a 'dispute settlement' mechanism has made it into the final text, which is an indication that the Commission agreed with the potential negative effects of such proposals, as illustrated not only by the Oxera report mentioned above, but also by a study by BEREC[13] since that date.

Instead, NRAs are now required to provide 'Guidance to facilitate ecosystem collaboration' (Article 191) and a 'facility for voluntary conciliation' (Article 192).

Article 191 states that:

[12] Ofcom (2023), 'Ofcom revises net neutrality guidance', 26 October.
[13] Body of European Regulators for Electronic Communications, 'BEREC response to the European Commission's Exploratory Consultation on the future of the electronic communications sector and its infrastructure. Annex to complement section 4 of the BEREC response', BoR (23) 131d, section 4, p. 7.

within 12 months after DNA adoption, BEREC shall, **in close cooperation with the Commission**, publish guidelines to assist ISPs and other undertakings active in the electronic communications or closely related sectors, in the application of industry practices and in facilitating cooperation on technical and commercial matters related to the provision of electronic communications services or information society services in an efficient, economically sustainable and reliable way...[emphasis added]
Article 191

Article 192 continues that:

with the support of the ODN, BEREC shall **promote effective cooperation** among providers of electronic communications networks and undertakings active in the electronic communications **or closely related sectors**, ensuring that such cooperation is consistent with the guidelines ... [emphasis added]

BEREC shall facilitate the coherent application of those guidelines, **encourage the development of joint technical and commercial practices**, and monitor their effects on the provision of electronic communications services and information society services in an efficient, economically sustainable and reliable way. [emphasis added]
Article 192

We are somewhat sceptical about what this proposal can achieve in practice given that, from an economic perspective, a crucial issue is the fact that the OIR remains largely unchanged (as mentioned above), which means that the outside options in negotiations between network operators and CAPs also remain largely unchanged. That is, as we noted in our post-roundtable article, ISPs must carry all traffic under net neutrality rules, but they cannot impose charges on CAPs, who in turn face no explicit obligation regarding how they offer content or to consider the impact of their delivery decisions on network quality.

Hence, we predict that the outcome of these 'facilitated' negotiations will remain (largely) the same as they are today, unless the Commission

or BEREC takes a clear position in those discussions, which in that scenario would place them in a position akin to that of a dispute resolution body. But given that the proposed process is not a dispute settlement mechanism (as some were requesting) it is unclear at this stage what will be the outcome of these negotiations. It therefore remains to be seen if this proposal will lead to better (or 'fairer') outcomes, and whether it can avoid the creation of significant additional regulatory burden.

Additionally, the definitions in this article seem to be ambiguous (for example, what does 'promote' or 'encourage' mean in this context, especially if there is no legal requirement or framework justifying regulatory interference?), and it also brings BEREC into markets and parts of the internet value chain where they have no formal oversight (except for those NRAs who also have concurrent competition powers).

In short, these articles do not seem to address a clear market failure and therefore seem to be at odds with the 'simplification' agenda of the Commission. They also state that BEREC needs to operate *in close cooperation* with the Commission without clarifying what this means in practice, all of which could lead to (additional) regulatory friction and regulatory costs in markets that have generally shown to be functioning well without additional regulation.

Radio spectrum policy

Arguably, the most ambitious proposals in the DNA relate to spectrum licencing. This appears to be driven primarily by the Commission's view—supported by the Draghi[14] and Letta[15] reports—that the large investment requirements and financial constraints experienced by mobile network operators (MNOs) may risk poor network outcomes for EU mobile customers if investment is not incentivised.

In this context, the DNA includes a number of provisions relating to radio spectrum that seek to improve the incentives of MNOs to invest in their networks.

First, it articulates a preference for **spectrum licences with unlimited durations** (Article 24). Given the large sunk investments involved in

[14] Draghi, M. (2024), 'The Draghi report: the future of European competitiveness', 9 September.
[15] Letta, E. (2024), 'Much more than a market', April.

building mobile networks, the DNA recognises that, if a spectrum licence is time limited, and there is a material risk that it will not be renewed at the end of the term, the expected payback period on the investment may not be long enough to incentivise investment in the first place. By recommending unlimited spectrum durations, the Commission therefore appears to be seeking to provide investment certainty for licence-holders. For similar reasons, where spectrum licence durations need to be limited, the DNA proposes that these durations are set at a minimum of 40 years and that there is a presumption that they will be automatically renewed for a similar duration and with similar conditions on expiry (Article 25).

However, there is a tension between longer spectrum licences and other policy objectives, such as ensuring that the spectrum is used efficiently, and long-term competition outcomes. For example, there might be a particular concern where the identity of the most efficient user of the spectrum changes over time and, with unlimited-duration licences, the most efficient user does not ultimately end up using the spectrum. This may occur where the distribution of customers across MNOs changes over time (for example, due to MNOs' commercial strategies, mobile virtual network operators changing host providers, or mergers and acquisitions) so that the amount of spectrum that each MNO requires to efficiently serve its customer base relative to its competitors also changes. Mitigating this risk requires measures that prevent licence-holders from inefficiently hoarding spectrum. This can be achieved via the following two methods.

- **Market-based mechanisms**: the DNA seeks to strengthen the secondary market for spectrum licences by allowing holders of spectrum licences to transfer or lease their rights to third parties (Article 26).
- **Regulatory intervention**: the DNA includes a number of direct regulatory interventions that seek to prevent spectrum hoarding, including (i) periodic reviews of spectrum allocations; (ii) giving NRAs the ability to revoke spectrum licences (with at least five years' notice); (iii) 'use-it-or-share-it' requirements; and (iv) wholesale access obligations (via spectrum licences rather than SMP obligations).

Second, the DNA considers that the **scale of spectrum costs**—whether annual or one-off fees—can harm MNOs' ability to invest. The Commission has, therefore, committed to publishing recommendations on a common methodology for setting annual fees and spectrum auction reserve prices within 12 months of the DNA coming into force (Article 29). While there will undoubtedly be challenges involved in

determining a common methodology that can be effectively applied across different spectrum bands in different member states with different market structures, recommendations that lead to fees that incentivise investment would be very welcome for the industry.

Moreover, the DNA sets out provisions that could lead to annual or one-off fees being reimbursed by NRAs on the fulfilment of pre-determined commitments. This is a thoughtful inclusion which, if properly operationalised, would strike a balance between ensuring that spectrum fees impose the correct incentives on MNOs to use limited spectrum efficiently and promoting network investment to the benefit of consumers. This is an approach that Oxera previously recommended in the UK when advising DCMS as part of its wireless infrastructure strategy,[16] alongside similar alternatives such as a hypothecation approach whereby annual spectrum fee revenues are re-distributed back to the industry in the form of a subsidy to support investment in those areas where a market failure has been identified.

Third, the DNA recommends that some **spectrum should be allocated on an EU-wide basis** to better exploit the significant economies of scale of deploying mobile networks (Articles 22 and 23). It further suggests (recital 97, but not in any Articles) that—given its view that it will not be economically feasible for all MNOs to upgrade their networks to 6G—the service provided with this EU-wide spectrum allocation could be provided on a wholesale basis (presumably to national operators who cannot afford to deploy their own 6G networks).

This proposal appears to be short of detail on how it would be operationalised. Putting it into practice will present a number of challenges that the Commission would need to consider closely, as follows.

- Given the fragmented picture of spectrum that is already allocated to mobile across member states (with different bands used for different purposes and with different intensities), it is likely that it will be feasible to undertake an EU-wide allocation of spectrum only for those bands that are not yet allocated to mobile and that are relatively lightly used. A good candidate may be the upper 6GHz band.

[16] Oxera and Analysys Mason (2022), 'Ensuring future wireless connectivity needs are met', May, Section 8.1.3.

- There is a question about how the spectrum would be allocated and who would collect the proceeds. Currently, spectrum is allocated at a national level—typically via auction—with member states retaining the proceeds. The DNA is silent on whether this process will remain the same with harmonised allocations, or whether it instead anticipates EU-wide spectrum allocations (with EU-wide licences), possibly with the proceeds being rebated to member states. Alternatively, it may even consider awarding EU-wide spectrum to the provider that it considers to be the most appropriate, without a competitive process. However, this 'beauty contest' approach has largely been rejected as a spectrum allocation mechanism since it is less likely to allocate the spectrum efficiently than well-designed auctions.
- The possibility of a pan-EU wholesale provider raises questions of the identity of that provider, given that there are currently no MNOs which operate a network across all Member States. Furthermore, this also opens up the possibility of SMP-style regulation in mobile markets, given that the pan-EU operator will have access to a key economic input across the EU and may therefore have incentives to price excessively (requiring price caps) or discriminate against certain access seekers (requiring ex ante margin squeeze tests or mandating that the operator be a wholesale-only provider).

The DNA proposes to give the Commission considerable ex ante powers to enforce these provisions, by requiring NRAs to submit draft spectrum measures to the Commission and revise or revoke them if it has reservations (Article 31). This represents a significant toughening up of the Commission's assessment and enforcement of its spectrum policy and, if applied appropriately, could help to drive some of the investment and, ultimately, network quality outcomes that the Commission is seeking.

Other notable points in the DNA

In addition to the three important topics covered above, we note the following key points.

An Act, not a Directive: the DNA will replace the EECC in its entirety, with the goal to increase harmonisation across all member states and to streamline compliance, in particular for providers that operate in multiple member states. The DNA will therefore be a Regulation, which

means direct applicability and no transposition into national laws. We have seen before that the transposition of the EECC into national laws has varied considerably across member states, leading to a patchwork of timelines and, in some cases, diverging implementation, and the DNA as a Regulation seeks to prevent this happening again.

Further steps to support the single market: in addition to further harmonisation rules on wholesale access and spectrum (discussed in above), there are proposals to introduce a **single EU satellite framework** to replace national authorisations (Article 38), and an **EU Single Passport** whereby an electronic communications network or service provider operating in multiple member states will have to notify its activities to just a single NRA. An operator will then no longer have to notify in other EU member states (Article 10).

Preparedness and resilience: the draft DNA prominently sets out steps to further enhance the overall resilience, preparedness and continuity of electronic communications at the EU level (Articles 4–8).

Sector-specific end-user rights maintained: the DNA reinforces end-users' rights introduced by the EECC, including requirements for provisions relating to contracts, bundles and switching to be abided in all member states (Articles 95–102).

Universal service: universal service obligations that ensure access to affordable and adequate internet access services are maintained, and BEREC must prepare guidelines to support the definition of adequate internet access and the 'specification of the bandwidth necessary for social and economic participation in society' (**Articles 87–92**), moving beyond simple reporting of best practice, as was the case under the EECC.

CSO is emphasised to support transition to fibre: two cumulative sustainability conditions must be met for CSO:

- fibre networks must pass in close proximity to at least 95% of homes in the CSO area (such that they can be connected with reasonable effort and cost);
- affordable retail connectivity services of comparable quality must be available to end-users.

Other key CSO milestones include:

- By 31 October 2029, each member state must prepare a plan for transition to fibre, and notify it to the Commission.

- By 30 June 2029, NRAs must publish an initial list of CSO areas that meet sustainability conditions.
- Before 31 December 2035, member states must mandate CSO in CSO areas where sustainability conditions are met.
- By 31 December 2035, member states must mandate CSO in all remaining CSO areas. In CSO areas where fibre deployment is not economically viable and no adequate connectivity solution is capable of replacing copper-based services, member states may decide not to mandate the CSO.

To ensure a smooth transition and protect end-users, member states should provide for appropriate safeguards prior to the copper switch-off. These safeguards should include clear and timely information, as well as measures to ensure the continuity or migration of critical services to functionally equivalent alternatives (Articles 53–61).

Governance changes: the BEREC Office will be renamed the Office for Digital Networks (ODN). The current Radio Spectrum Policy Group (RSPG), which gives advice on spectrum strategy to the EU institutions, will be formalised into the Radio Spectrum Policy Body (RSPB). The current RSPG is an expert group created by a Commission decision. The Commission provides administrative support. A body within the EU context is an undefined term to establish an organisation on a more solid footing. The legal basis of the RSPB will be the DNA Regulation rather than a Commission decision, and it will be supported by the ODN. The ODN will support both BEREC and the RSPB. The aim will be to enable better coordination and more coherent outcomes, according to the explanatory memorandum. The ODN will also 'systematically support and contribute' to the activities of the BEREC and RSPB working groups. Both BEREC and the RSPB should set out their working groups through the ODN.