

## Contribution to the European Commission's public consultation on the draft revised Horizontal Guidelines

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Infrapont Economic Consulting welcomes the European Commission's new draft of the Horizontal Guidelines ("HG"), especially that it contains a whole chapter on Mobile Network Sharing Agreements ("NSAs"). The competition policy community has been waiting for almost a decade for clear guidance on the competitive assessment of these agreements, especially because of the Czech network sharing case AT.40305 that has been under investigation since 2016.

In the last 10 years, Infrapont has provided economic analysis and advice to multiple clients in various jurisdictions regarding NSAs, and we have also published two refereed articles on this subject.<sup>1</sup> In this document, we comment only on Chapter 3.6 of the draft, discussing NSAs. First of all, we commend the Commission for including the important statements that NSAs can lead to benefits in several ways (especially in point 298) and that these should be a starting point of the assessment. Second, it is also essential to recognise that the assessment of NSAs should be based on the careful analysis of effects on a case-by-case basis (points 299-300), and various factors should be carefully evaluated (point 303).

On the other hand, we also want to take this opportunity to recommend fine-tuning some statements, especially as the messages of the new Horizontal Guidelines should serve as the main guidance for the next 10-15 years. Therefore, instead of focusing on the specific messages of cases and regulatory guidelines that might have been relevant in the specific markets and circumstances 5-10 years ago, we recommend taking a more general perspective, as this industry is continuously developing and the competitive assessment of any NSA should also be conducted in a forward-looking way.

We make and briefly discuss our specific recommendations one by one in the following sections.

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<sup>1</sup> Zoltán Pápai, Gergely Csorba, Péter Nagy, Aliz McLean (2020): Competition Policy Issues in Mobile Network Sharing: A European Perspective, *Journal of European Competition Law & Practice*, <https://doi.org/10.1093/jeclap/lpaa018>; and Zoltán Pápai, Aliz McLean, Péter Nagy, Gábor Szabó, Gergely Csorba (forthcoming): The impact of network sharing on competition: the challenges posed by 5G, *Digital Policy, Regulation and Governance*. Earlier working paper versions are freely available at <https://kti.krtk.hu/wp-content/uploads/2018/11/MTDP1828.pdf> and <https://kti.krtk.hu/wp-content/uploads/2020/07/CERSIEWP202033.pdf>

### **Recommendation 1: use "network sharing agreements" instead of "infrastructure sharing agreements"**

First of all, the industry widely uses the term network sharing agreement (NSA) and this was also followed by the European Commission (see, for example, all official communication in the above-referenced Czech case).

Second, the sharing agreements normally cover more than the infrastructure. The provision of network elements and functions are also shared. Network planning, building, maintaining and operating the shared infrastructure elements are mostly indispensable elements of these agreements.

Finally, in the world of fast-developing mobile technology, it is too restrictive to focus only on the hardware (i.e., infrastructure) side. Because of new technological developments, the network is becoming more software defined.<sup>2</sup> In the technical realisation of the agreements, network hardware and functions may have to be shared for the proper and cost-effective functioning of the network, while there would be less need for physical separation as the control of the network could take place at the software level.

### **Recommendation 2: avoid or soften references to infrastructure competition**

In our opinion, the potential restriction of infrastructure competition in points 300 and 301 is overemphasised, and it seems as if this were one of the major competitive concerns with NSAs. We want to stress that infrastructure competition is not a well-defined concept in the mobile network context. The concept of infrastructure competition in the telecom sector emerged for fixed networks and still refers to the difference between competitors having their own network (infrastructure-based competitors) versus other players competing by using access to an incumbent's network (so-called service-based competitors). In mobile networks, service-based competitors are companies using internal roaming or virtual operators (MVNOs) using wholesale network access to provide their own retail services. Mobile parties in an NSA each have and use their own network and remain in full control of their network services.

Point 300 specifically says that "Reduced infrastructure competition may in turn limit competition at wholesale as well as at retail level. This is because more limited competition at the infrastructure level may affect parameters such as the number and location of sites, timing of the sites' rollout, as well as the amount of capacity installed at each site, which, in turn, can affect quality of service and prices."

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<sup>2</sup> For a succinct brief on the new technological developments, affecting network sharing in 5G networks, like the concepts of the Software Defined Network (SDN) and Network Function Virtualisation (NFV), see Frias, Z., Stocker V. (2020): The Economics of Shared Infrastructure in 5G Networks, IEEE Future Directions, 2020, <https://cmte.ieee.org/futuredirections/tech-policy-ethics/july-2020/the-economics-of-shared-infrastructure-in-5g-networks/>. For a comprehensive review of issues around using NFV and SDN in 5G networks, see Barakabitze, A., Ahmad, A., Mijumbi, R., Hines, A. (2020): 5G network slicing using SDN and NFV: A survey of taxonomy, architectures and future challenges, Computer Networks, Volume 167, 11 February 2020, <https://doi.org/10.1016/j.comnet.2019.106984>.

While we agree that this statement on the possibility of reduced competition is true, it exaggerates the relevance of these concerns to wholesale and retail competition.

The level of competition and how it will be affected by the NSA should be evaluated on the relevant markets at the retail and wholesale level. Infrastructure competition, no matter how it is interpreted, should not be a goal in itself. Therefore, in point 301 we propose omitting the disorienting reference to "infrastructure competition" and instead refer here to "competition at the retail and/or wholesale level".

### **Recommendation 3: make the statements more technology-neutral**

In our opinion, too direct references to technical features of the mobile networks given the current state of network technology (or what was available in previous cases many years ago) carries the considerable risk that the Guideline soon becomes obsolete and much less helpful in the foreseeable future, despite its aim to establish a common understanding and provide meaningful guidance for the next 10-15 years. We strongly believe that a more technology-neutral wording would give much clearer and more general guidance for the assessments conducted both by authorities and parties involved.

The treatment of the core network in point 304 provides a good example to illustrate our point. We agree that the core network plays a critical role in the operators' independence, which is an essential factor in the competitive assessment. However, this does not automatically mean that sharing part of the core network infrastructure undermines that independence, especially in the upcoming era of 5G technologies. What is essential for service autonomy is to preserve the independent control of core network functions, but with new technology developments on the horizon (like software-defined networks and virtualisation) this can be achieved at the software level even if some hardware parts are shared.

We think that communicating this idea is especially important in point 304 (a), which sets the minimum criteria of compliance. With the addition of a simple word (in italics below), the statement would become less restrictive:

"(a) Operators control and operate their own core network *functions* ..."

Similarly, while point 302 discusses the various potential concerns however well, even the main text and especially the related footnotes go into unnecessary technological details that were relevant in the specific cases in the past. Given the new technological developments, these statements may not hold in general anymore.

**Recommendation 4: avoid statements on the different forms and depths of sharing which are prone to misinterpretation and not substantiated by sound theoretical and/or empirical analysis**

We very much understand and commend the discussion of different types of network sharing agreements (discussed in point 302) and the list of the relevant dimensions of the sharing agreements (in point 303). However, our opinion is that some statements are too strong, lack empirical foundation and are prone to misinterpretation, and therefore we do not recommend putting them in a general document that is supposed to provide guidance for competition cases in the next 10 years or more.

It is very important to emphasise that competition authorities bear the burden of proof to substantiate restrictive effects on competition. They should do this by building on the results of economic analysis and empirical facts, not just on hypotheses raised by certain regulatory guidelines which never actually had to prove their concerns in such a rigorous manner as required in a competition law case.

There are two prominent examples for ill-substantiated claims, where we think the messages are too strong in general and some fine-tuning might be warranted: one concerns the discussion of types of sharing by network dimension, while the other is the consideration of geographic scope with respect to population density.

1. In point 302, the Guideline states that passive sharing "is unlikely to give rise to restrictive effects on competition, as long as the network operators maintain a significant degree of independence and flexibility in defining their business strategy, the characteristics of their services and network investments". While we agree with this statement, in our opinion it can also be valid for active sharing agreements, although some additional conditions have to be fulfilled. However, the text suggests that active sharing agreements in general automatically lead to restrictive effects on competition, just because this was found in some specific cases examined by competition authorities in a few countries.

We recommend softening the statements on the forms of sharing, by simply stating in a more general way that the deeper an agreement in any dimension, the higher the potential for competition concerns may be (similar language is adopted in other parts of the Guidelines, for example concerning information sharing agreements). It is also recommended to state that the increase in the seriousness of the potential concerns with depth or extension in any dimension is neither linear nor necessary.

We also recommend moving the important but non-comprehensive list of well-established competition principles from the paragraph on passive sharing to the head text of 302, for example by saying that:

"Network sharing is unlikely to give rise to restrictive effects on competition, as long as the network operators maintain a significant degree of independence and flexibility in defining their business strategy, the characteristics of their services and networks.

(a) According to these principles, passive sharing is unlikely to be harmful to competition; "

We further recommend considering the use of the term "*RAN sharing with spectrum sharing/pooling*" as a substitute for "spectrum sharing" in point 302 (c). This would make almost the entire footnote 171 redundant, and as a result the discussion of "Dynamic Spectrum Sharing" could be avoided. It is evident to technical experts that DSS is very different from spectrum sharing in a mobile network sharing context.

2. The geographic scope of the agreement is another example which is prone to misinterpretation. Though the main text does not claim this explicitly, the text in parentheses together with the reference to the BEREC guideline tends to suggest that network sharing in densely populated areas has a high potential to restrict competition. However, to our knowledge, neither BEREC nor any other regulatory or competition authority has substantiated empirically or theoretically in a credible way that that network sharing leads to larger negative effects at locations with a higher population density.

Therefore, we propose avoiding the reference to the BEREC guideline, which does not reflect a consensus on this issue in the mobile industry and the expert community.