
SUBMISSION TO THE BEREC STRATEGY 2018-2020 CONSULTATION

We would like to kindly thank BEREC for the opportunity to submit our views on the Draft BEREC Strategy 2018-2020. We agree with BEREC that it has successfully produced professional and high quality deliverables over the past years. BEREC's work, either directly or indirectly through NRAs, affects the day-to-day operations of the undersigned. We therefore appreciate the continuous dedication to quality BEREC strives for, and we recognise that the triannual strategy is an important basis to achieve this quality.

It is the first time for Bouygues Telecom, Hutchison, Iliad, MASMOVIL Group, Tele2 and Vodafone (in this document referred to as *alternative MNOs*) to form an alliance to respond to a BEREC consultation. We do so on this occasion, because we think the importance of the **availability of infrastructure suitable for 5G backhaul** warrants a joint response from operators that have mobile connectivity services at the core of their business.

In our view, availability of backhaul is exceptionally important to ensure a market situation which creates an open, innovative and competitive road to 5G. However, we are not sure that we will have **access to the necessary 5G backhaul capacity under reasonable conditions, which would enable us to provide users with an alternative to the retail mobile offers of MNOs with SMP on fixed infrastructure** (in this document referred to as *fixed SMP MNOs*). This is due to the following reasons:

1. The requirements for backhaul are changing as we approach 5G mobile networks;
2. The infrastructure that meets these requirements is usually only available to *fixed SMP MNOs*, and they deny access to their infrastructure to *alternative MNOs*;

In the end, this will lead to a reduction in competition on the retail market for 5G services, to the detriment of the end-user. We would like to take this opportunity to elaborate on two points.

1. Changing requirements for backhaul in 5G:

- In order to meet the requirements envisaged for 5G, a very granular access network of base stations is necessary (i.e. due to the necessity of deploying small cells).
- This access network needs to be connected through a very granular and very high capacity backhaul network.



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- In order to be cost effective, networks need to be efficiently scalable to adapt according to actual demand for connectivity.
- Not all current technologies for backhaul will remain feasible to create a 5G backhaul infrastructure that meets those demands. This decreases to possibilities to self-supply, or to purchase access to suitable infrastructure from providers other than *fixed SMP MNOs*:
 - Microwave links will not necessarily provide sufficient capacity in the future. Those that have larger capacity than the current generation require complex deployment with line of sight, which is not feasible in densely built areas;
 - Leased circuit lines are not appropriately scalable and therefore not cost-efficient;
 - **Only solutions based on dark fibre that allow full control and are fully scalable are feasible inputs in the long term for 5G backhaul** from an operational and economic perspective.

2. Infrastructure only available to *fixed SMP MNOs*, and access is denied to *alternative MNOs*:

- MNOs who do not have a fixed SMP infrastructure will not have access to all necessary network components needed to provide services through self-supply. They (at least partially) depend on third-party networks for backhaul capacity.
- The very granular backhaul capacity necessary to offering 5G retail services is often only owned by, or feasible to build for *fixed SMP MNOs*. Those operators are able to efficiently converge their historically owned, nationwide, granular fixed network backhaul, which serves consumers and enterprises, with their mobile network backhaul. In order to upgrade these networks, *fixed SMP MNOs* can rely on both fixed wholesale and retail revenues delivering significant benefits of scale and scope.
- *Alternative MNOs* do not have the same legacy infrastructure and/or revenues. **Replicating such a network is not economically efficient in general**, and in particular not to operators who do not benefit from the same economies of scale and scope as the fixed SMP MNOs.
- At the same time, in the absence of regulation, *alternative MNOs* are usually not able to lease the required backhaul inputs, because this capacity is then used to compete with the incumbent on the retail market. As a result, *fixed SMP MNOs* typically have connected more than double the amount of base stations to fibre, compared to *alternative MNOs*.
- In the vast majority of EU countries, we consider that there is no competitive wholesale market and/or there are no regulatory obligations (e.g. to provide passive access for mobile backhaul).
- Furthermore, alternative fibre infrastructures that provide wholesale access to dark fibre only cover smaller areas. A patchwork combining those networks cannot be efficiently used to create a nationwide backhaul, as the overhead involved is too costly, the operational implementation is very complex and coverage is likely to remain incomplete.
- If products suitable for 5G backhaul are not available to *alternative MNOs*, there will likely be a **reduction in competition in retail mobile markets to the detriment of the end-user**.
- Additionally, in markets with a high take-up of quad-play offerings, a submarket might emerge in which challengers cannot participate if there are enduring bottlenecks. **This further increases the incentive for *fixed SMP MNOs* to deny access to crucial infrastructure inputs**, including but not limited to 5G backhaul.



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Our message to BEREC:

- *Alternative MNOs* are critical to competition in the mobile services markets, challenging *fixed SMP MNOs'* offerings on choice, innovation, affordability and quality.
- We agree with BEREC's decision to include "*Strategic Priority 1: Responding to connectivity challenges and to new conditions for access to high-capacity networks*" and "*Strategic Priority 3: Enabling 5G and promoting innovation in network technologies*" in the strategy 2018-2020. We ask BEREC to **closely monitor and research (future) availability of 5G backhaul within the scope of these strategic priorities.**
- **We believe a competition problem is emerging, so we urge BEREC and its member NRAs to remedy this issue, and to:**
 - **apply regulatory intervention** where appropriate, such as passive remedies based on ex-ante market analysis like access to dark fibre, or access to civil engineering, ensuring that fixed very high capacity connections to 5G base stations are available to all network operators.
 - support *alternative MNOs* to engage in pro-competitive, market based solutions, such as the joint roll-out of backhaul infrastructure.

We are looking forward to engage with BEREC in the future on this subject, and are keen to provide further input.



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