

## Vodafone Group contribution to the draft Broadband Guidelines

Vodafone welcomes the possibility to comment on the draft revised guidelines for broadband deployment. The revised guidelines represent a key policy tool to deliver on the 2030 Digital Decade connectivity targets to bring Gigabit speeds to every household and 5G to all populated areas.

Vodafone is strongly supportive of the new elements of the guidelines designed to facilitate the deployment of truly transformational, 5G built right and 5G standalone networks to reach every business and citizen in Europe.

In this vein we also welcome that the revised guidelines maintain key principles of the current guidelines such as the principle of technology neutrality, avoidance of crowding out of private investments and of distortion of competition while at the same time provide certainty about how Member States can use public funds to support a larger and faster deployment of mobile networks, in particular transformational 5G, and also some further guidance on the deployment of ultrafast/gigabit capable fixed networks. We urge the Commission to further strengthen other principles in order to ensure the efficient use of public funds, in particular tighter rules for the subsidised overbuild of privately funded gigabit capable networks.

Vodafone's contribution is structured in the following way:

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### I. General Comments

The revision of the Guidelines is needed to reflect the technological and market developments and to take into account recently announced European connectivity objectives for 2025 and 2030 (i.e. EU Gigabit Society objectives and Digital Decade connectivity targets), as well as broader policy instruments such as the Recovery and Resilience Facility. At the same time, the overarching principles of State aid control such as the **priority of market-driven broadband deployment, limitation of state interventions to market-failure situations and reduction of distortions of competition** need to be upheld. All these principles should be thoroughly adhered to in the new Guidelines. For fixed networks, however, the draft Guidelines do

not take these principles sufficiently into account. The draft carries inconsistencies, apparently **mixing up intervention thresholds and target areas with step-change requirements**. The draft also disregards recent Commission decision practice (namely SA.54668 (2019/N) – Bavarian gigabit scheme, and SA.52732 (2020/N) – National gigabit scheme Germany) that gave private operators the indispensable degree of certainty on how their investments would be protected from overbuild.

Vodafone **strongly supports the introduction of a separate chapter on guidance to Member States on how they can use public funds for mobile deployment**. This should include a clear recognition of the need for public subsidy intervention for mobile and in particular **transformational 5G built right and 5G standalone networks**. It is important that the draft guidelines give clarity as to how Member States can use public funds to foster mobile deployment in areas where it is not economically viable to bring state-of-the-art mobile connectivity.

## II. Fixed connectivity

The focus on “ultrafast access networks” is a logical and consistent development further to the 2013 Guidelines. The draft defines these networks as *“an access network providing at least 100 Mbps download speed”*(recital 19 j)). Putting the emphasis on download speeds remains – against the background of market developments and end-user behaviour – the right thing to do. The evolution of consumer demand in terms of speeds is – and will remain to be – highly asymmetric with the download speed the most important component.

The draft correctly regards FTTx and cable networks with at least DOCSIS3.0 (as well as potentially fixed wireless access networks) as “ultrafast networks” (recital 22)) and FTTB/H as well as DOCSIS3.1 as capable to deliver 1 Gbps download speeds (footnote 5 to recital 5)).

In our view the **revised Guidelines should make clearer and more robust the principle that State aid should only be granted in favour of Gigabit-capable broadband deployment, irrespective of its technology, except in very exceptional circumstances**. This would underpin the Commission’s Gigabit Society strategy, in particular ensuring that where State aid is used it builds explicitly towards the Commission’s 2030 target for every household to have Gigabit connectivity, rather than allowing State aid to be used to invest in legacy technology which might meet the 2025 high-speed internet target but would leave those households requiring further intervention (and possibly further State aid) to reach the 2030 target. It would also tackle the distortive effect of incumbent operators leveraging fully amortised and outdated network assets (e.g. VDSL) in State aid funded deployments, which could in turn erode the business case for Gigabit-capable investment – some consumers at least may find their immediate needs satisfied by a limited increase in connectivity, and thus not support investment in Gigabit-capable provision. It would give the market a strong incentive to use the wider range of Gigabit-capable technologies available now or in the future to deploy high speed broadband. Against the Gigabit Society and Digital Decade objectives we invite the Commission to delete the reference to a step change in white areas that would allow Member States to allocate public means to support the deployment of networks only reaching 30 Mbps download (paragraph 99 a)). This provision risks entrenching legacy (non-Gigabit-capable) technology in areas that already suffer from a substantial digital deficit. This paragraph of the draft guidelines is not consistent with the EU objectives cited above and should therefore be deleted.

### a. Market Failure/Intervention thresholds (recitals 55 et seq.)

We see with some concern the changes introduced in the concepts of market failure and consequently the revised intervention thresholds regarding fixed connectivity. The draft Guidelines fail to set out in a consistent manner the criteria for the assessment of market failure in “white”, “grey” and “black” ultrafast areas. By introducing a number of new criteria, uncertainty is created. In particular, **the additional criteria**

according to which a market failure could be determined by Member States even in areas where Gigabit capable networks are present, run the risk of unduly neglecting the extent to which the private sector is able to address end-users' needs and of widely broadening the scope for public intervention, to the detriment of private investments and infrastructure-based competition. The suggested (sometimes fluid) thresholds would counteract the careful assessment required to identify a market failure.

**1 Gbps download and 200 Mbps upload speeds are more appropriate for the assessment of step-change and as the requirements for the aided networks in cases of state intervention, but not to assess market failure.** In fact, **public funding should be limited to addresses or areas that are not yet or not planned to be covered in order to avoid overbuild and duplication of existing networks.** We note that Recitals 52, 104 and 105<sup>1</sup> allow for the possibility of public funding in areas where one network providing 1 Gbps exists, provided unsatisfied end-users' need for up to 1 Gbps upload is demonstrated.

**The extension of market failure concepts to areas where there is competitive investment is gravely concerning and risks disincentivising further investment if investors believe that their investments will be undermined by state subsidised networks over time.** We consider that the guidance as currently formulated neither provides sufficient safeguards against potential market distortion nor ensures that private investments are not disincentivised. Consistent with the principle that State aid should be limited to that which is necessary to achieve the public policy objective (in this case, ultra-fast connectivity), State aid should in principle not be permissible where private investors have already created the capability which is the object of the public policy objective. In particular, the concept of "unsatisfied end-users' need" is vague and open to interpretations which could lead to abuse.

In practice, the suggested thresholds are likely to lead to a finding of market failure for grey or even black areas, even though one or more ultrafast networks are already available that can deliver download speeds of well over 100 Mbit/s. In fact, even the usual retail products provided by operators of FTTB/H today tend to fall below the minimum 1 Gbps download and 200 Mbps upload thresholds.

Any State intervention should remain the exception and not become the rule. However, the thresholds proposed by the draft could lead to exactly the opposite, namely to public intervention in large parts of the territories of the Member States.

Therefore, and in line with recent decision practice (SA.54668 and SA.52732), we suggest for the intervention thresholds to be as follows:

#### *5.2.2.1.2 Grey areas*

*(56) Grey areas are those in which one ultrafast network is present or credibly planned in the relevant time horizon. The mere existence of one ultrafast network<sup>46</sup> does not necessarily imply that no market failure exists.*

*(57) A market failure may be demonstrated if the existing or credibly planned ultrafast network cannot provide at least ~~500-1 MG~~bps download ~~and 200 Mbps upload~~ speeds<sup>49</sup>.*

#### *5.2.2.1.4 Black areas*

*(60) Black areas are those in which at least two independent<sup>52</sup> ultrafast networks are present or credibly planned. In such areas, broadband services are typically provided under competitive conditions (infrastructure-based competition)<sup>53</sup>. A market failure may be demonstrated if none of the existing networks can provide ~~500 Mbps-1 Gbps~~ download ~~and 200 Mbps upload~~ speeds and if none of the existing providers commits to upgrade its network to those speeds in the relevant time horizon<sup>54</sup>.*

*(61) If at least two independent existing networks can be upgraded to provide ~~500 Mbps-1 Gbps~~<sup>55</sup> download speed, it can be assumed that, as demand for higher speeds unfolds, competition will lead to a timely upgrade to ~~significantly higher 1 Gbps~~ download and ~~200 Mbps~~ upload speeds.*

<sup>1</sup> In this paragraph we believe that the reference to section 5.2.2.3 is incorrect.

*State support for the construction of an additional broadband network with comparable capabilities will, in principle, lead to an unacceptable distortion of competition, and the crowding out of private investors<sup>56</sup>.*

~~*<sup>54</sup> Irrespective of demonstrated needs for enhanced upload speed, no intervention is possible if there are at least two networks that can be upgraded to provide at least 1 Gbps upload speed.*~~

Recital 52 is to be amended accordingly:

~~*(52) Aid can bring about a material improvement that the market alone does not deliver in areas where there is no fixed network in place or credibly planned to be deployed within the relevant time horizon, able to address end-users' needs. At the current stage of market development and given identified end-users' needs<sup>44</sup>, a market failure may be demonstrated where the market does not and is not likely to provide end-users with a connectivity of 500 Mbps1 Gbps download speed. While uupload speed may be becoming increasingly relevant to guarantee user's access to a number of services, bandwidth requirements remain highly asymmetric. Market failure may therefore also be demonstrated in the absence (and unlikely provision by the market in the relevant time horizon) of a connectivity of 200 Mbps upload speed<sup>45</sup>. As the decade progresses, a market failure may also be demonstrated<sup>46</sup>, where the market does not and is not likely to satisfy identified end-users' needs for enhanced upload speed<sup>47</sup> up to 1 Gbps (see Section 5.2.3.1.4).*~~

Should the Commission decide not to change the guidance on market failure and intervention thresholds provided in the current draft and allow Member States to push for enhanced upload speeds, it should provide for stricter rules than the ones suggested in paragraphs 52 and 105 (incl. footnotes 46 and 77). As this type of intervention carries a high risk of distortion of competition and crowding out of private investments the Commission should ring-fence it by ensuring that sufficient safeguards are in place. Any “reliable evidence” provided by Member States should be checked against independent third-party assessments or benchmarks that go beyond the Member State requesting the intervention (e.g. EU comparisons). Considering the current DESI-Index and the expected reporting improvements through the Digital Decade process, it should be easy to confirm evolving end-user needs throughout the Union.

## **b. Step change**

As mentioned in the previous section the draft Guidelines seem to mix up different topics such as: intervention thresholds, the required step-change in each particular area and the technological requirements that the new aided network must meet. In our view these different areas should be considered separately from each other. While the intervention thresholds need to be set in a way that carefully assesses market failure and limits the distortion of competition as much as possible, the step-change requirements should reflect technological developments, take into account European policy objectives and make sure that state-funded fixed networks are future-proof. Given how close the 2030 target is in terms of the investment cycle, an approach to step change which allows for investments which are not in themselves capable of upgrade to Gigabit connectivity would be perverse, and risk allowing State aid which does not in practice support key EU objectives.

The draft guidelines fail in this respect. In particular, the target requirements for “white areas” could lead to the rollout of aided networks with bandwidths even below that of “ultrafast” networks and which are anything but upgradable to Gigabit.

Therefore, we advise to rephrase this section as follows:

*5.2.3.1 Step-change – Fixed access networks*

(98) For fixed access networks, enhanced characteristics may be measured in terms of speeds. In such a case a step-change requires a substantial increase of download and upload speed (see paragraph 5.2.3.1.4) compared to existing network.

#### 5.2.3.1.1 White areas

(99) Where the existing networks are not able to provide ultrafast download speed, public support must:

a) ~~Below 30 Mbps download speed: at least double the download speed and at least reach 30 Mbps download speed.~~

b) 30 Mbps and above download speed: ~~at least triple the download speed and~~ at least reach 1 Gbps download and 200 Mbps upload ultrafast download speed. The Union has set a strategic objective that, by 2025, 'all European households, rural or urban, will have access to Internet connectivity offering a downlink of at least 100 Mbps, upgradable to Gigabit'<sup>73</sup>.

(100) In all cases the new network must sufficiently increase the upload speed<sup>74</sup> of the existing network that provides the highest download speed.

(101) As explained in recital (96) the State supported intervention must also represent a significant new infrastructure investment bringing significant new capabilities to the market<sup>75</sup>.

The European Commission should take a **very cautious approach when assessing** the intention of Member States to **use public funds in black areas**. There should be a **clear presumption against use of public funds in all but the most exceptional circumstances**. The wording on step change should be aligned with the one provided in the definition of market failure in black areas as any intervention in these areas is likely to distort competition and be incompatible with the internal market under Article 107 (3) (c) of the TFEU.

#### 5.2.3.1.3 Black areas

(103) Where there exist already at least two ultrafast networks, public support for a more performing network ~~is likely to distort competition and~~ may ~~only~~ be granted if, in addition to the requirement of at least tripling the download speed and sufficiently increase the upload speed as compared to the existing network, the new network provides at least 1 Gbps download speed.

#### 5.2.3.1.4 Enhanced upload speeds

(104) As the decade progresses and in light of the expected market developments, there may be a demonstrated need for enhanced upload speed up to 1 Gbps. In such circumstances networks providing 1 Gbps download speeds but not 1 Gbps upload speeds may not sufficiently satisfy end-users' particular needs.

(105) On this basis, public ~~intervention support for a more performing network may only be granted if the State funded investment in the new network increases the to-deploy networks providing upload speed up to 1 Gbps upload can be allowed in areas where a network providing 1 Gbps download speed already exists<sup>77</sup> if the Member State demonstrates that there is an identified need for enhanced~~ upload speed ~~up to at least 1 Gbps upload and subject to the fulfilment of the conditions described in Section 5.2.2.3. To this end, Member States should provides reliable factual evidence from verifiable sources.~~

~~(106) State aid for the deployment of networks providing enhanced upload speed must lead to a significant, sustainable, pro-competitive and non-temporary technological advancement without creating disproportionate disincentives to private investments.~~

Regarding footnote 77 we wonder why the EC is opening the door for an intervention in areas where there is one network that can be upgraded to 1 Gbps upload speed. An efficient use of public funds would require a careful assessment of the need for addressing a specific target area and therefore **no intervention should be possible *per se* if at least one network has the possibility to address the demonstrated needs.**



**c. Mixed areas (white and grey)**

The concept of mixed areas (recitals 58 and 59) consisting of target areas which are partly white and partly grey in our view represent an undesirable threat to well established principles of state aid control. Overbuilding existing networks in areas not eligible for funding will always have distortive effects and crowd out private investment. Any overbuilding, how little its extent may be, should always be regarded as “undue”. It is not clear how Member States or local authorities could demonstrate that overbuilding would be proportionate or not create undue distortions of competition. A reduction of the necessary state aid amount should not in itself constitute a justification or make overbuilding proportionate. Despite the suggested overbuild limitation of 10% of all premises in the target area, the potential for abuse and distortion of competition remains and has very negative consequences for any private investor investing (or that have invested) in that area.

Against this background, **the concept of “mixed areas” has great potential for abuse and therefore should be removed from the revised Guidelines** (paragraphs 58 and 59). By leaving it open to public authorities to define such “mixed areas”, the revised Guidelines would also allow for “mixed areas” to be designed such that the State aid intervention would naturally favour one economic operator. Any public intervention to deal with remaining smaller gaps should rather focus on other policy instruments for example through regulatory support for private operators to expand the deployment in that particular target area e.g. reducing deployment costs or removing any existing bureaucracy hurdles. This would be equally consistent with general principles of State Aid also enshrined in the current draft and the present guidelines that the Commission should assess thoroughly whether the aid is an appropriate policy instrument to meet the objectives (para. 32, b), iii). In fact, this is a guiding principle of the guidelines that also provide that Member States must demonstrate the appropriateness of the aid measure as policy instrument (section 5.2.3) in particular if there are no other policy (administrative and regulatory) measures that would be more appropriate (para. 111 and Annex II). These less distortive measures, including the best practices provided by the Connectivity Toolbox should be given stronger focus instead of creating new intervention criteria that can have very distortive effects.

**d. Wholesale access in fixed networks**

While it certainly is the case that demand for open wholesale access to funded networks (or for certain access products) has been limited, this is likely to change soon. As the rollout of fixed Gigabit infrastructure proceeds, both based on private investment and on aid measures, the issue of wholesale open access is becoming increasingly relevant for the market as a whole.

In addition, only a comprehensive wholesale open access obligation including all access products is a suitable means to limit the distortive effects of aid measures on competition.

Against this background (and with a view to the possibility of exceptions laid down in recital (150)), there is no basis to *a priori* limit the obligation for the aided network to provide effective and full physical unbundling to black ultrafast areas. On the contrary, it is precisely where infrastructure competition has been less intense so far (i.e. in white and grey areas) that the physical unbundling requirement should apply, and by doing so provide the maximum stimulus to competitive retail offers in these hitherto under-served areas. Effective and full physical unbundling also allows retail operators to offer a wider range of products, thus also stimulating competition.

Therefore, sections 5.2.4.4.1.1 and 5.2.4.4.1.2 should be changed as follows (with subsequent amendments required to Section 5.2.4.4.2):

*5.2.4.4.1.1 Fixed access networks ~~deployed in white and grey areas~~  
(137) The State funded network must ensure bit-stream access, ~~virtual unbundled access~~  
~~(VULA<sup>94</sup>)~~, access to street cabinets, poles/masts/towers, ducts and dark fibre<sup>95</sup> ~~as well as~~  
~~effective and full physical unbundling.~~*

~~5.2.4.4.1.2 Fixed access networks deployed in black areas and providing enhanced upload speed (138) In black ultrafast areas and for networks providing enhanced upload speed (see paragraph 5.2.3.1.4) the State funded network must provide effective and full physical unbundling in addition to what is foreseen for white and grey areas.~~

### III. Mobile Connectivity

As mentioned in the introductory part, **Vodafone supports the introduction of a separate chapter providing guidance on how Member States can use public funds for mobile deployment.** This has been a request from Vodafone right from the start of the revision process and we are keen to provide further input on how to improve the guidelines to allow Member States to bring transformational 5G into rural areas and consequently bridge the digital divide and avoid depopulation trends.

In addition to ensuring coverage of rural areas to support mobile and wireless broadband coverage in white areas, public funding of 5G investment may also be necessary in grey or occasionally black areas to accelerate the development of 5G powered services, which in turn will contribute to Europe's long term growth potential, job creation and economic and social resilience. Investment returns based on consumer services (mobile and wireless broadband) and operator efficiency are in many cases likely to be adequate to sustain 5G investment in more populous areas. However, the investment case for, for example, transport corridors and business parks (which often house start-up companies which might particularly benefit from 5G as an innovation-driver) may be harder to establish. Such business cases would rely on a wide range of actors in the smart transport, smart logistics and innovative start-up sectors seeing the same incentive to invest in 5G enabled systems in the same area at the same time. Similarly, there is a need for investment in socio economic drivers (such as schools, transport hubs, providers of public services, including healthcare and digitally intensive enterprises) where Gigabit connectivity is essential. There is therefore a risk that the development of 5G powered services could be inhibited and 5G network operators could hold back on provision of 5G in such areas until they see customer demand. Demand in various sectors (agriculture, health, transport, manufacturing) in turn may be slow to develop until customers are sure that 5G network coverage will deliver the benefit to justify the investment – i.e. a form of vicious circle. Public funding for 5G deployment would in these circumstances be an effective way to break the investment logjam and stimulate the broader IoT economy. Such interventions are as likely to be necessary in grey, and to some extent black, areas as in rural areas as well as in funding creating 5G capital venture funds and support for start-ups and SMEs. To ensure that even the remotest areas can benefit from widespread wireless Gigabit coverage, Member States may decide to cover – as part of gap funding – as much of the investment costs of a mobile network as possible.

#### a. Market failure

The revision of the Broadband State Aid Guidelines represents a great opportunity to rethink the most suitable approach to state aid for mobile networks so that the state aid framework helps achieve the 2030 connectivity targets and directly supports the digital transformation in a fair and ideally equal manner across the EU. We very much welcome the guidance on mobile market failure as defined by the European Commission in the draft guidelines. The current guidance represents an important development from the previously strict guidance provided by the European Commission to Member States for the design of national plans under the Recovery and Resilience Facility<sup>2</sup>. In fact a change in approach was crucial as the restrictive approach by prescribing that a market failure could only be demonstrated where mobile networks have not been deployed or where only mobile networks capable of supporting mobile services of up to 3G are available and where there are no 4G and/or 5G mobile networks present or planned in the near future could be supported by public funds completely undermined the possibility to finance 5G networks.

<sup>2</sup> [https://ec.europa.eu/competition/state\\_aid/what\\_is\\_new/template\\_RFF\\_broadband\\_roll\\_out\\_and\\_demand\\_side\\_measures.pdf](https://ec.europa.eu/competition/state_aid/what_is_new/template_RFF_broadband_roll_out_and_demand_side_measures.pdf)

We therefore **welcome the clear guidance** provided for in section 5.2.2.2 of the draft guidelines. Paragraphs 65 and 66 of the draft guidelines combined with the guidance on step change in mobile networks (paras. 107-109) provide a straightforward approach **for Member States on how to define target areas**. Target areas can be for example 4G (or even 5G) networks where such networks do not (and are not expected to) provide end-users with sufficient quality of services to satisfy their evolving needs. Linked to the guidance on step change we welcome the fact that the EC recognises the need to bring transformational 5G (i.e. 5G Standalone – not built on 4G core and using legacy licenses) beyond urban (and sub-urban) areas and industrial parks and that public funds represent a key policy element to deliver on that objective.

## b. Step change

Since the beginning of the revision process we have recommended to the European Commission a set of principles to inform state aid decisions for mobile networks, in view of making the Guidelines fit for purpose to accelerate 5G network investments and directly contribute to ensuring that all populated areas of the EU are covered by 5G by 2030. Several of them have been reflected in the guidelines including how to define step change in mobile networks.

We very much welcome the guidance provided in paragraphs 107-109 of the draft guidelines according to which each generation of mobile technologies represents a step change compared to the previous generation (i.e. 5G standalone is a step change compared to 4G). But the EC goes even beyond by considering standalone 5G a step change from non-standalone 5G. The current draft also excludes the allocation of public funds for mere incremental upgrades which in Vodafone's view is the correct decision – **incremental upgrades on a given mobile technology shall not be considered as step change** (e.g. incremental upgrades to 4G such as DSS are not to be considered a step change compared to 4G).

These are very positive elements of the guidelines that demonstrate the ambition of the EC regarding 5G deployment and consequently a step in the right direction to achieve the digital decade targets.

What could be added in the final guidelines is **how the State Aid framework could facilitate the acceleration of a step change technology such as 5G standalone**. This guidance should be detached from the guidance provided on how Member States can use public funds to go beyond coverage obligations imposed under Spectrum auctions.

## c. Active equipment

The 2013 guidelines were written principally with fixed wireline infrastructure in mind, which in turn dictates a focus on the need for funding to be directed to passive instead of active infrastructure, which should not be applied by analogy to wireless networks, where the role of active infrastructure is integral to enhanced performance. In wireless infrastructure the significant increase in capabilities is achieved by the combination of passive (e.g. towers, steelworks, cooling systems) and active network elements (e.g. radios, massive MIMO antennas, baseband units), the role of which cannot be separated in a way similar to fixed networks as both are integral to the step change. Therefore, both passive and active network elements should be considered eligible for state aid subject to the condition that they are not merely incremental upgrades but integral part of a significant uplift in the capabilities of the network.

We therefore **very much welcome the distinction made by the European Commission on the possibility to allocate public funds to active equipment when deploying mobile networks**, which represents an evolution from the 2013 guidelines but is in line with recent Commission practice<sup>3</sup>. In our view, footnote 71 rightly differentiates the relevance and the cost of active equipment for the step change

<sup>3</sup> For example, the Commission has approved State aid for the upgrade of active equipment as a step change in the following cases: SA.40720 (2016/N) – National Broadband Scheme for the UK for 2016-2020; In SA.33438 (2011/N), SA.33440 (2011/N), SA.33441 (2011/N), SA.33439 (2011/N), SA 30851 (2011/N) – Broadband network project in Eastern Poland and more recently in SA.57497 (2020/N) – Broadband infrastructure roll-out to connect schools in Italy. More recently the Commission adopted a decision State Aid SA.57216 (2021/N) – Spain – Mobile coverage in rural areas in Galicia, in which it was explicitly recognised the possibility to finance active equipment as the costs of active equipment is still considerable compared to passive mobile infrastructure.



in fixed and mobile networks. Active equipment in mobile networks can represent a very large percentage of the total deployment cost and should rightly so be included into the eligible cost of any State Aid mobile scheme.

As we expect an increase of State Aid schemes involving the funding of both passive and active infrastructure, we encourage the guidelines to specify that for efficiency purposes the projects should ensure that the funding for both active and passive elements are carried out at the same time and not separated in time. This synergy is crucial to allow the different players in the market to have a much better perspective of the overall funding availabilities and are able to incorporate them in their own business decisions.

On top of the clarification on the possibility for Member States to finance active equipment when deploying mobile networks, the European Commission could also use the opportunity of the revision of the State Aid guidelines to clarify that – irrespective of whether funding entails both active and passive mobile infrastructure or is limited to passive infrastructure – the cost to be taken into account for the profitability gap assessment and to be eligible for funding should also include the *on-going expenditure necessary for the provision of the mobile site*. This approach was acknowledged by the Commission in SA.59574 (Deployment of high-performance mobile infrastructure in Germany) and should be reflected in the revised guidelines as operating costs of mobile infrastructure can represent a significant share of the overall expenditure for providing mobile coverage.

#### **d. Wholesale access obligations on mobile networks**

Vodafone welcomes the fact that in some sections the Guidelines explicitly recognise the fundamental difference between fixed and mobile markets (see above). Unfortunately, this is not the case regarding the list of access obligations to be imposed on a publicly funded mobile network. The EC takes an approach similar to the well-established fixed regulatory regime but neglects the fact that this needs to be revised in view of how mobile networks are designed and operated. In particular, mobile markets are currently not regulated (and rightly so) and therefore there are no established (and standardized) access products. In our view the access obligations to be imposed on a publicly funded network foreseen in paragraph 139 are disproportionate, unsuitable and in several cases technically unfeasible.

Paragraph 139 of the draft Guidelines prescribes that the publicly funded mobile network *“must offer the widest range of wholesale access products, including among others bitstream access, access to poles/masts/towers, and, as they become available, those access products necessary to exploit the most advanced features of 5G and future mobile generations networks. Effective access may include access to components of the network that have not been publicly funded but that are necessary in order for the access seeker to provide its services”*.

Footnote 97 clarifies which forms of access can be mandated in the State funded network such as *“Roaming, Multi-Operator-Access- Network (MORAN), Multi-Operator Core Network (MOCN), network slicing”*.

The draft Guidelines appear to be modelled after the open access rules for fixed networks, with detrimental consequences for investment incentives. All the suggested obligations appear to aim at maximizing access obligations irrespective of efficiency and proportionality considerations and of questions of technical feasibility. We believe that while publicly funded mobile infrastructure may overcome a specific identified market failure in a certain area, it should not alter the sustainably competitive market structure, but instead enable mobile network operators to extend their network reach further to better serve citizens and businesses. Therefore, national authorities should aim for a market consensus on what access to mobile networks should entail and where an effective and efficient point of access to publicly funded mobile network elements is located.

A market consensus should be reached well in advance of a funding measure in order to allow the national authorities to shape the tenders in a way that can provide an efficient and competitive outcome. In our view, the process to achieve the consensus should be guided by the following principles:

1. Recipient of the funds to provide wholesale access on acceptable pricing terms (cost-orientation alone is not suitable) that take into account the risk of expanding a mobile network into a non-profitable area; a suitable form to compensate the risk – either through a risk premium or a high level of WACC – needs to be considered when setting the price;
2. Stakeholders (incl. MNOs, public authorities and access seekers) to pre-agree on the type of access that is needed on the publicly funded network, in particular if roaming and/or active sharing is required (if pre-agreed, active sharing can go beyond the usual number of partners of active sharing agreements negotiated on commercial terms – which is 2).

In this vein, in our view it is not reasonable to request the winner of the tender to *“...offer the widest range of access products [...] as they become available, those access products necessary to exploit the most advanced features of 5G and future mobile generations networks”*. It is unclear the scope of the wording on “access products necessary” and what the EC aims to achieve with this reference. Does it refer to “mobile access capabilities/features”? As 5G is still being developed in standards and future mobile generations are necessarily unspecified, it would be hard to guarantee timely availability of these unknown capabilities. It would be more reasonable to suggest that these networks should deliver at least a minimum capability set in line with reasonable customer needs over time. Moreover, innovative network operators need to be conferred a competitive edge over non-investing operators. Being obliged to give access to most advanced features as these become available will undermine any competitive edge and consequently have a negative impact on investment and innovation.

As mentioned above some of the access obligations listed in the draft guidelines are unsuitable and disproportionate. This is especially the case for network slicing. A “network slice” is a software-based virtual network that is not and cannot reasonably be limited to publicly funded sites. It simply does not fit the concept of access to publicly funded infrastructure in the first place. It is a service specifically offered by a mobile network operator, or a third party, to fulfil a specific demand, e. g. for quality of service of a business customer. It is unclear how – or indeed why – public funding for a specific mobile site or subset of sites could result in an access obligation for a ‘network slice’ which would require service-level guarantees across the entire MNO network.

In general, access on the active level of mobile networks can be technically extremely demanding and costly. If access requirements are too broad, this might make an aid scheme too unattractive for MNOs to participate and could negatively affect existing investment as well as significantly distort competition.

Another concern of the wording included in paragraph 139 is the reference to *“access to components of the network that have not been publicly funded but that are necessary in order for the access seeker to provide its services”*. In our view the imposition of such type of access requires further clarification in recital 99. In fact, without examples on which components are (or can be) excluded from an access obligation, the provision may go too far as it threatens to undermine private investments carried out by MNOs in their own networks. This would consequently bear the risk of stalling investment decisions and distort competition.

As an example to the latter, there are end-to-end capabilities on a 5G network that require investment across the whole network (such as Mobile-Edge-Computing, 5G Core network, Transport, Orchestration etc.) that will generally be offered across the whole network – not just the (limited) parts where the access network is funded. Allowing access seekers to “free-ride” on those investments would seriously distort competition.

Taking all these arguments into account we urge the Commission to revise this section accordingly.

#### IV. Other comments

- a. Definitions –overbuilding; relevant time horizon; premisses passed
- b. Use of existing infrastructure
- c. Extension of networks in adjacent areas
- d. Wholesale pricing
- e. Demand-side measures
- f. Green element
- g. Mapping
- h. Spectrum and Coverage Obligations

##### a. Definitions

We believe that at least the following definitions should be fine-tuned in order to ensure coherent and predictable guidelines that ensure and efficient use of public funds.

##### Relevant time horizon (Para. 19 j)

With a view to what has been common practice under the current guidelines and has a proven track record the “relevant time horizon” should not be shorter than three years (instead of just two years as suggested by the European Commission). A time horizon of three years is important to ensure that priority is given to private investments and to maintain opportunities for network rollout without public intervention. The definition in recital 19 l) should be revised and be brought back to the wording of the current guidelines.

##### Overbuilding (Para. 19 m)

Overbuilding current or planned networks, unless they are poor quality or low speed and therefore should be replaced, is not an appropriate use of public funds. This is because: (i) there is no significant benefit (because there is already a performant infrastructure present or planned); (ii) it distorts competition, because the beneficiary of the aid will have an inherent competitive advantage in an area where presumably the returns are already low (otherwise there would have already been more private investment); and (iii) it represents an inefficient use of public resources, in particular because the aid has no incentive effect and because the public funds could be used to support deployment where it is genuinely needed. NRAs, National Competition Authorities and national competent authorities overseeing the granting of State aid should therefore pay particular attention to the potential risk of negative impact that the dominant/SMP operator’s overbuild tactics could have on an effective and sustainable competition for Gigabit networks deployment.

The suggested definition provided by the European Commission in the current draft should be reinforced and guidance should be given accordingly to ensure that the threat of overbuilding Gigabit capable networks is inexistent or at least reduced to the absolute minimum. In fact, the approach on overbuilding should include not only the deployment but also the announcement to deploy a State funded network on top of one or more privately financed networks or crowding out private investment by targeting areas that would otherwise have been subject to private investments for the upgrade of existing networks to, or creation of, Gigabit-capable networks.

##### Premises passed (Annex I)

In our view the definition of “premises passed” in paragraph 10 of Annex I is too restrictive. The definition would unduly exclude many premises to be taken into account for which there is a supply capability on the basis of existing infrastructure from the address points.

Both in terms of time (service activation within just 4 weeks) and in terms of costs (not exceeding average activation cost), arbitrary specifications are made in Annex I that appear to be completely detached from what is standard market practice.

This starts with the fact that the draft speaks of “activation [sic!] fee”, which usually does not refer to the costs of connecting a building or premise passed to the network. Such costs of turning a “passed” building or premise into a “connected” one, as well as the fact that they are borne by the owner, are customary in the market and commonly accepted.

If at all, the Annex should refer to “connection fees” and mandate for “premises passed” to include all address points for which it is possible to set up a building connection at standard market conditions and within a reasonably short period of time:

*(10) ‘Premises passed’ means premises which can be connected within a reasonably short period of time at standard market conditions the normal activation fee for the end user, regardless of whether those premises are already connected to the network. ~~A stakeholder can report premises as passed only if, following a request from an end user, it commits to connect the premises and activate the service within 4 weeks from the date of the request and for normal activation fees, meaning without any additional or exceptional cost and, in any case, not exceeding the average activation fee in the Member State concerned.~~*

#### **b. Use of existing infrastructure**

Vodafone welcomes the Commission work on providing more guidance and suggesting stricter rules for the use of existing infrastructure to participate in public tenders (paragraph (132) et seq. of the draft guidelines). A strict enforcement of these rules will help ensuring more open and fair tender procedures, putting the competitors in equal footing when applying to the available funds

#### **c. Extension of networks in adjacent areas**

Due to the possibility of network extensions into adjacent areas, aid measures can lead to situations of overbuilding existing network infrastructures and thus to significant distortive effects on competition. It is therefore right that the revised guidelines must contain provisions to attenuate these effects.

However, in our view the rules contained in paragraphs (148) and (149) of the draft guidelines are neither appropriate nor sufficient to mitigate the risks of overbuild and distortion of competition, both from a procedural point of view and to the conditions set for excluding private extensions.

Paragraph (148) requires interested parties to oppose to private extensions in the public consultation process. This is unlikely to be an effective approach because at the beginning of the mapping and consultation process the target area is not yet clearly defined and can only be determined as a result of the process. Therefore, it may be highly uncertain during the consultation process which adjacent areas may be relevant for possible extensions. It may also be the case that network operators do not participate in the consultation process because they do not have any relation to the target area, yet their infrastructure present in neighbouring areas may be subject to later overbuild by extensions of the aided network.

To avoid such practical imponderables “tout court”, any opposition to the acceptability of private extensions should apply at any time without any pre-conditions as suggested by the EC in the draft. In fact, opposing to network extensions during a consultation process outside their implementation areas is not a suitable process.

Even more problematic are the conditions under which an extension is only ruled out on a temporary basis. Paragraph (149) allows for an extension of a publicly funded network into a relevant adjacent area even when this area is “*already served by at least two independent networks providing speed comparable to those of the State funded network or that there is at least one comparable network in the adjacent area which entered into operation less than five years before the State funded network*”.

This would potentially allow private extensions (and consequently overbuild) into (grey or even black ultrafast) areas which according to the (already generous) intervention thresholds foreseen in the draft (see above) would not be eligible for funding. State aid-induced extensions could massively crowd out private investment in areas where according to the draft guidelines clearly no market failure exists.

In our view, the EC should provide for clear safeguards of private extensions (see below). The suggested rules are not sufficient to protect private investments in adjacent areas. The performance of the subsidised network is not a suitable benchmark criterion to protect existing network infrastructures from overbuild by extensions into adjacent areas from a publicly funded target area. Furthermore, it is neither comprehensible why a differentiation should be made between the aid beneficiary's and access seekers' extensions nor that the period during which no extension may be carried out should be limited to only two years after the entry into operation of the aided network.

The rules on private extension therefore need adaption (the basis for which could be decision SA.48418 – Bavarian gigabit pilot project). Otherwise, the permissibility of private extensions could de facto lead to uncontrollable scenarios, with aid-induced extensions resulting in massive distortions of competition.

*(147) Using their own resources, the aid beneficiary or access seekers connecting to the State funded network may extend the network into adjacent areas subject to the following conditions. [...] If they are not linked to the aid beneficiary, there is no limitation on their private extensions.*

*(148) When carrying out a public consultation inquiring about existing or planned network in the target area (see Section 5.2.2.3), the Member State must indicate that private extensions are permitted at a later stage unless interested parties in an adjacent area oppose such extensions during public consultation process.*

*(149) Private expansions of the subsidized new network will only be possible if, based on a mapping exercise and public consultation, a market failure can be demonstrated for the adjacent area according to Section 5.2.2.1 on the basis of the defined eligibility and target thresholds. A step change compared to the infrastructure which existed before the measure or which was planned by private investors at the time of the original public consultation will be ensured also by such private expansions. The step change follows the principles set out in Section 5.2.3.1. Open wholesale access will be granted under the same conditions as for the subsidized network if the private expansion is done by the original beneficiary. For any private expansion going into areas which had not been included in the original mapping and public consultation, a new mapping and public consultation has to be undertaken thereby ensuring that all those private investments which do not make use of wholesale access to the subsidized network will be taken account of. If, in the mapping exercise and public consultation, interested parties demonstrate that the planned extension enters an adjacent area which is already served by at least two independent networks providing speed comparable to those of the State funded network or that there is at least one comparable network in the adjacent area which entered into operation less than five years before the State funded network, private extension into such adjacent area may only be carried out two years after the publicly funded network enters into operation<sup>104</sup>.*

#### **d. Wholesale Access Pricing**

We welcome the fact that the Commission provides further guidance on how Member States are expected to set prices for access to the publicly funded network and the increased involvement of NRAs in the process. A practical example from one Vodafone subsidiary shows that clear and enforceable pricing rules may be necessary to ensure non-discriminatory access to publicly funded infrastructures. There must be enforceable mechanisms in place ensuring that competition may evolve through access to the publicly funded network and the revised guidance is a step in the right direction. This requires not only that cost orientation is regarded as one key pricing methodology for accessing state funded networks but also that



NRAs have the competence not only to monitor but also to intervene in case the access pricing conditions do not encourage adherence to networks.

**e. Demand-side measures (social and connectivity vouchers)**

Vodafone welcomes the fact that the European Commission dedicated a considerable section to demand-side measures (section 6 – paragraphs 171-201). In broad terms, vouchers and other demand-side measures have the potential to play a useful role in supporting broadband deployment, in addition to or as an alternative to supply-side State aid and private investment. However, demand-side measures should only be deployed to the extent that they enhance, rather than distort, competition. Schemes that have an adverse impact on competition in the market, whether at retail or wholesale level, are unlikely to deliver optimum results in the medium to long term.

To be effective, voucher schemes should promote two key objectives, namely digital inclusion and societal resilience. We appreciate the fact that the EC recognised the relevance of both societal and connectivity vouchers. Regarding the societal component, vouchers can be an effective way of ensuring that low-income households are not priced out of the market and suffer digital exclusion. If vouchers and other forms of demand-side support include tailored technology requirements, they can also encourage the deployment of and the demand for upgradeable technology rather than supporting legacy copper infrastructure. This in turn builds up societal resilience through investment in future-proof technology.

Voucher schemes should be tailored to address the specific barriers to digital connectivity. To ensure that this is the case, it is important to clearly identify what connectivity problem the voucher scheme is aiming to solve before a scheme is developed. In consumer segments, these can include solutions for low-income households where affordability is the issue and solutions to help SMEs and households access improved connectivity to support higher bandwidth demands. For SMEs, vouchers can also be used to incentivise further digitisation and innovation, building in additional resilience. In the public sphere, they can include solutions for improving/deploying connectivity for schools and hospitals or other public institutions as required and connected cars solutions that enable a shift to electric cars and are consistent with the EU Green agenda. There may also be more general deployment and connectivity issues, e.g. where there is a general lack of network deployment or basic connectivity, the scheme can stimulate adequate rollout of future-proof networks to such areas. By clearly identifying the problem that needs to be solved, and the relevant market segment, the scheme can be tailor-made. There is unlikely to be a “one size fits all” solution, as the markets will vary in terms of deployment, network technology, market competition, consumer needs and specific COVID-19 economic issues. There is therefore scope to ensure that problem definition leads to adequate problem solution.

Voucher schemes should also be tiered. The best schemes will be those that can stagger their impact from most pressing, immediate needs, while ensuring they also anticipate the medium to long-term socioeconomic needs and recovery. A tiered approach to vouchers can ensure that those consumer segments who take up higher speed future technologies should have higher value vouchers made available to them. Wherever possible (i.e. where a future proof network is available in the short term), legacy networks should not receive the same amount of incentives as the future proof ones. Such an approach is both optimal for the COVID19 response, as well as being consistent with the Commission’s Gigabit Society goals.

Finally, funding via a voucher scheme should encourage investment. Enabling new, competitive infrastructure investment is the key to ensuring that societal needs are met on a sustainable basis, and hence the long-term need for State support declines. It is counter-productive to inject taxpayer money into legacy networks, as this will be an expense without any future benefit or socioeconomic recovery goal. It is therefore important to ensure that State funds, including in the form of demand-side schemes, are used as a socioeconomic investment where better connectivity removes the need for government assistance in the future, while stimulating economic recovery.

We believe that the EC was able to strike the right balance and provides for sufficient safeguards that properly enforced can help supporting digital inclusion and increasing societal resilience.

#### **f. Environmental criteria**

Vodafone supports the European Green Deal and is highly committed to the green transition. Already in 2020 Vodafone committed to reducing the company's total global carbon emissions to 'net zero' by 2040 and its 2030 carbon reduction targets have been approved by the Science Based Targets initiative as in line with reductions required to keep warming to 1.5°C, the most ambitious goal of the Paris Agreement.

While we appreciate the guidance provided in the guidelines on the relevance of improving the environmental and energy efficiency impact of electronic communications networks it is important that market dynamics and competition are not distorted due to strict environmental requirements for publicly funded networks. An assessment of market failure and deviations of the principle of technology neutrality should not be justified due to strict environmental aspects and mitigating measures should be taken into account as stressed in paragraphs 124 and 127 of the guidelines. In the same vein it is important that environmental aspects such as the improvement in energy efficiency of network operations are not misused to allow the overbuild of existing performant Gigabit capable networks (paragraph 168).

#### **g. Annex I – Mapping**

Annex I of the draft guidelines provides for very comprehensive and detailed technical specifications which deviate profoundly from industry practice, provide questionable added value and may lead to unintended consequences. In fact, the suggested mapping requirements will blur the existing boundaries between the mapping exercise and the public consultation process and will result in an enormous effort and complexity for all stakeholders involved.

The recommended method described in the Annex, which is referred to in paragraph 74 of the draft Guidelines as the most accurate method, is far from accurate, but on the contrary far from practical and very prescriptive. The proposed method focuses on an achievable performance under peak load conditions that end-users can rely on. This peak load is identified in the present draft, with regard to fixed networks, as the time when at least 20% of the users are active and transmitting simultaneously at the nominal peak rate. This methodology is likely to lead not only to a distorted picture but also an underestimation of the actual speeds available to subscribers.

We see a risk of artificially inflating the number of eligible areas. The companies in the sector take peak load factors into account when dimensioning the network. However, these are not usually calculated by assuming 20 % utilisation at nominal peak upload and download rates but rather determined by typical use cases for different user groups. For this reason, peak load factors can vary widely across the EU. Therefore, the recommended methodology is not one that network operators use when dimensioning network capacity. The same arguments apply in view of the recommended mapping methodology for mobile networks. Neither the recommended methodology, nor the too narrow options for alternative methodologies defined in paragraphs 4, 5, 9, 10 and 12 of Section 2 of the Annex that paragraph 74 of the draft Guidelines refers to will lead to more reliable, but probably less reliable results compared to nationally proven approaches, contrary to what was intended.

In our view the suggested mapping requirements will blur the existing boundaries between the mapping exercise and the public consultation process and will result in an enormous effort and complexity for all stakeholders involved. There are already new processes to be implemented under the Directive (EU) 2018/1972 (European Electronic Communications Code) on geographical surveys of network deployments (article 22). Based on this, Member States will establish (have established) exhaustive mechanisms to assess

(existing or planned) broadband coverage, which may well continue to serve as the basis for a mapping exercise in the context of state aid measures (article 22, 5). Against this background it is questionable the objective to establish any additional procedures via an annex to the Guidelines.

In this context, it should also be taken into account that Article 102 of the EEC requires operators to create transparency about essential performance characteristics of broadband connections in the form of a contract summary, for which the network operators must also be liable vis-à-vis their customers. Art. 4 of Regulation (EU) 2015/2120 also already provided for transparency on the bandwidths available on broadband connections.

The Commission should therefore refrain from making any (additional) specifications on mapping in the context of the revised Guidelines.

#### **h. Relationship between state aid and coverage obligations**

While as a matter of principle, State aid certainly cannot be granted to rollout mobile networks in areas subject to coverage obligations placed upon mobile operators in spectrum allocation, a more differentiated approach seems to be appropriate in cases where the public support is limited to the rollout of passive mobile infrastructure.

In these cases, significant private investment by mobile network operators is required in order to ensure actual mobile coverage. Therefore, there is no basis to per se rule out the use of public funds or of publicly funded (passive) infrastructure for the deployment of a mobile network which is part of the fulfilment of coverage obligations.

In any case, coverage overlaps from funded sites into areas subject to coverage obligations should be considered irrelevant. Otherwise, there is a risk of unsolvable delimitation issues in practice, and the goal of addressing a market failure as comprehensively as possible could be missed.

*(68) As a matter of principle, even in the presence of a market failure, State aid cannot be granted to deploy a mobile network if the deployment of such network is part of the fulfilment of the obligations linked to the spectrum allocation. However, State aid can be granted if it is limited to cover the deployment of passive mobile network infrastructure only or to provide additional quality of service required to meet demonstrated end-users' needs going beyond what is already required in order to comply with such obligations, Such aid can only cover additional costs necessary to ensure increased network quality. In any case, an overlap of a funded mobile network into areas subject to coverage obligations is permissible.*