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The Global Satellite Operator's Association (GSOA) is the global CEO-driven association representing global and regional satellite operators. GSOA provides a platform for collaboration between satellite operators globally and a unified voice for the sector. Our vision is to help policymakers improve the state of the world by continuously bridging digital, education, health, social, gender and economic divides across diverse geographies and across mature and developing economies.

Against this background, we welcome the opportunity to provide comments on the revision of the European Union's State Aid Broadband Guidelines. We appreciate the Commission's focus on high-speed broadband coverage for the European Union given that the regional block is largely connected, with only a small percentage of European households remaining unconnected. Nonetheless, for high-speed broadband connectivity, it is our view that satellite has an important contribution to make in ensuring that all European citizens have access to resilient and secure 5G services in the future. We would highlight that the State Aid Broadband Guidelines are an extremely important tool with which to provide Member States with recommendations concerning broadband solutions and on where state aid risks jeopardizing ongoing private investments into solutions that will sufficiently provide high-speed broadband connectivity. It is therefore essential that the information passed be complete, both in terms of acknowledging different technological solutions and in terms of addressing the needs of the Union's complete population, rather than just the majority.

Accordingly, GSOA provides comments on the following:

- (1) inclusion of all technologies to reach global coverage by 2030 and prioritize coverage over speed;
- (2) ensuring that supported backhaul services are technology inclusive and not solely fibre;
- (3) supporting a technology inclusive voucher program; and
- (4) updating the current state of satellite technology in the proposed text.

### **1. The need to include all technologies to reach global coverage by 2030 and prioritize coverage over speed.**

GSOA agrees with the European Commission that high-speed broadband coverage is key for both citizens and businesses, especially in the wake of Covid-19. In this context, the Path to the Digital Decade, on which the revision of the Broadband Guidelines is based, sets an objective of 1 Gbps for all by 2030, both for upload and download speeds. Accordingly, to achieve this ambitious objective, the text under consultation focusses essentially on fibre, which is the only technology able to provide such speed at the present time. We understand the ambition of the EU Commission to promote solutions providing 1 Gbps, as a vector of international competitiveness for Europe. However, Europe's cohesion is also a key objective to pursue, and *all* European households need access to high-speed broadband. The updated Guidelines should therefore encompass all broadband technologies, including satellite-based connectivity, to support universal availability of high-speed broadband service in the short and medium term. Without this, connectivity for all *will* remain unachieved – not just with 1 Gbps but also with 100mbps, 30mbps and even basic broadband to cite some of the previous digital targets set by the Commission.

If full coverage for citizens and businesses in both urban and remote areas is to be reached by 2030, all technologies must be included as contributors to the EU's challenging broadband targets. Also in the longer term, there will always be plenty of areas that fibre, or any other terrestrial technology for that matter, will *not* be able to reach efficiently and that is where satellite can contribute to ensure that everyone, everywhere, no matter their location, can have access to quality high-speed broadband services.

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In a recent Communication on stronger, connected, resilient and prosperous rural areas by 2040, the European Commission has acknowledged with regard to broadband coverage that *“a combination of terrestrial and space-based connectivity, ensuring high-speed broadband everywhere for resilient and cost-effective services will help achieve this.”*<sup>1</sup> Indeed, several technological options and especially hybrid solutions (with a mix of technologies involving Satellite, Terrestrial Mobile, WiFi) exist and have proven successful in enabling meaningful/high speed connectivity, especially in the areas where it is not cost-efficient to deploy fibre. Most countries with universal service plans in Europe and elsewhere rely on a mix of technologies to achieve their objective. Universal coverage will only be achieved by ensuring that all wireless systems contributing to high-speed connectivity are utilized to support full connectivity.

Prioritizing Gigabit speed over global coverage is likely to have the undesirable effect of broadening the digital divide. Quite simply, there are citizens and businesses in remote and rural areas who will never see terrestrial coverage, or not for years. Accordingly, to ensure that all EU citizens receive high-speed broadband service, adequate quality of service should be prioritized over speed to ensure that no one is left behind.

For the reasons stated above, GSOA proposes to include in the text under consultation the reference to investment in and use of other technologies such as satellite-based connectivity when fibre or future similar performing networks are not cost-effective or available, not only as a step in the way to ultimately reaching 1 Gbps speed, but also as an important, available alternative whenever access to Gigabit speeds is not possible.

## **2. Backhaul services should not be based on fibre only.**

GSOA would also like to comment on the reference that the Guidelines make to backhaul services, when stating that at the current stage of technological development, the increase in the demand for capacity can be addressed by fibre based backhaul networks or by backhaul networks based on other technologies able to provide the same level of performance and reliability of fibre based backhaul networks. Here, we would highlight 2 things.

(1) Covering every single area of the Union with fibre, especially in rural and remote areas, seems an impossible task. Satellite operators have long worked to deploy backhaul networks and contribute to enhance capacity provision to end users everywhere in the world. Important challenges remain about how to provide full coverage and connectivity in Europe where rural, remote or isolated territories are many. Satellite can be chosen as a backhaul technology as a more cost-effective and more reliable option to address these challenges. It is essential that the Broadband Guidelines do not only allow but also *encourage* this option.

(2) In neighbouring states such as the UK, telecoms operator BT integrated satellite across its network to deliver on coverage obligations for the UK's emergency services network. They found that this significantly increased the uptime of their network – i.e. the resilience and reliability of the overall network. Looking to the future, BT notes that "ultra-reliable networks could utilise satellite backhaul alongside terrestrial solution to provide enhanced network availability."<sup>2</sup> Only the inclusion of all

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<sup>1</sup> Communication from the Commission on A long-term Vision for the EU's Rural Areas - Towards stronger, connected, resilient and prosperous rural areas by 2040, **COM(2021)345**

<sup>2</sup> <https://www.sat5g-project.eu/wp-content/uploads/2019/12/BT-Sat5G-MNO-v1.1-Andy.pdf>

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available technologies, especially satellite, with its proven reliability in the provision of backhaul services, will therefore allow true global coverage for all citizens and business in the Union to be reached. We urge the Commission to take a broader, more pragmatic view with respect to backhaul services as this will contribute to future-proofing the State Aid Guidelines as more and more critical services start relying on communications networks.

### **3. Vouchers.**

GSOA welcomes the Commission's initiative of including vouchers as a take-up measure to increase subscriptions to electronic communication services and incentivize that the existing ones are maintained. However, to ensure the effectiveness of social vouchers, eligible costs should include all pieces of the equipment and network terminal point components needed to provide broadband service to the end-user location. For example, in the case of satellite, these costs should also include the purchase and installation of antennas (satellite-based ground equipment).

Satellite operators have long advocated that funding programmes contemplate the costs of access to infrastructure. One example of this was the inclusion in Council Regulation No 473/2009<sup>3</sup> of backhaul facilities and satellite-based ground equipment as eligible for EAFRD funding for the creation and enabling of access to broadband infrastructure. The funding established by said Regulation was part of the EU Recovery Plan after the economic crisis that took place in 2009 and provided the basis for connectivity vouchers for satellite broadband across the European Union. To the best of our knowledge, subsequent regulations at EU level have not covered this aspect. However, the current situation derived from Covid-19 requires more than ever the enabling of ubiquitous broadband connectivity. In order to achieve this objective, the grant of funding merely to subscriptions of end-users is not enough in areas where adequate infrastructure has not been deployed.

Connectivity vouchers have the objective of contributing to the development of economic activities. In fact, they should address economic development as a whole. It is well accepted that an increase in broadband penetration results in better economic results. In addition, other relevant benefits may be gained, such as incentivizing repopulation of and stimulus of economic activity in rural and remote areas. Needless to say, to stimulate economics, eligible costs for connectivity vouchers should also include satellite-based ground equipment.

### **4. The proposed Guidelines do not reflect the current state of satellite technology.**

GSOA highlights that the text of Footnote 22 of the Guidelines under consultation which states that "currently available satellites in the Union are still not able to provide ultrafast broadband services" defined in the Guidelines as at least 100 Mbps is incorrect. Satellite broadband offerings ranging from 20 Mbps to 100 Mbps are today available across the European Union, for example in France (Nordnet<sup>4</sup>), Ireland (Digiweb<sup>5</sup>) and Germany/Austria (SoSat<sup>6</sup>). GSOA members will also be launching Very High Throughput Satellites and Software Defined Satellites in the coming months and years. These, together with emerging non-geostationary satellite broadband systems, will more than adequately address the market for ultrafast connectivity.

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<sup>3</sup> COUNCIL REGULATION (EC) No 473/2009 of 25 May 2009 amending Regulation (EC) No 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and Regulation (EC) No 1290/2005 on the financing of the common agricultural policy, Annex III. Retrieved January 25, 2022: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0473&from=en>

<sup>4</sup> <https://www.nordnet.com/connexion-internet/internet-satellite>

<sup>5</sup> <https://digiweb.ie/konnect/>

<sup>6</sup> <http://www.sosat.com>

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Again, we call on the Commission to ensure its Guidelines remain future-proof in view of the dynamic pace of development in satellite systems which is making this possible. Satellite operators have invested massively into these systems, and as a result, the satellite communications sector has been through several major innovations during the last decade. The same footnote also expresses an expectation that satellites will play a significant role in providing services to public authorities. It is important to note, however, that satellites are doing this *already*. For the reasons exposed above, GSOA kindly asks that Footnote 22 be updated in line with the current state of satellite technology, since it does not accurately reflect the current level of performance of satellite solutions.