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July 29, 2022

# HISPASAT Comments on the draft BEREC Report on Satellite Connectivity for Universal Services.

Hispasat is a European communications satellite operator based in Spain. Its fleet of satellites provides connectivity to almost a third of the planet, including the European Union territory, where it not only has the capacity to provide immediate connectivity, but is also a communication bridge to other continents, such as America and Africa. Hispasat offers broadband and connectivity solutions that include Internet access, mobility, and cellular network extension, as well as other value-added propositions to governments, corporations, and telecommunications operators.

HISPASAT has satellite capacity covering the European Union through its satellites HISPASAT 30W-5, HISPASAT 30W-6 and HISPASAT 36W-1, operating in Ku and Ka bands. These satellites can provide download speeds of up to 100 Mbps and wide range of services, including but not limited to all those included in Annex V of the European Communication Code defining the universal service. In addition to those basic services, HISPASAT satellites can provide other services such DTH content distribution, IoT services or mobile backhaul (4G and 5G), to mention a few. Therefore, HISPASAT kindly requests that its satellite fleet is duly considered in the assessment carried out in the BEREC report.

HISPASAT welcomes the opportunity to comment on the draft BEREC Report on Satellite Connectivity for Universal Services and applauds the BEREC initiative to study how satellites can contribute to the effective implementation of universal service in the European Union.

# Satellite as the most suitable solution for immediate connectivity in remote and rural areas

Satellite is the most suitable technology to provide immediate access to connectivity services due to its global coverage over 100% of the EU territory and its capacity to quickly deploy affordable, cost-effective and efficient connectivity solutions for end users. As opposed to other technologies, satellite can serve citizens scattered over large areas,

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national or continental, with a cost that is independent of the end-user location. Satellite networks can also be deployed rapidly since they do not need to carry out extensive civil works; connectivity is immediately established by the simple installation of an antenna and user equipment. In addition, satellites today can already provide download speeds of up to 100 Mbps and therefore are suitable to supply citizens in rural and remote areas with high-speed connectivity services, thus playing a very important role in the universalization of broadband access.

The need of a pan-European approach to the universalization of broadband services in the European Union

HISPASAT is of the opinion that the universalization of broadband access in the European Union can be better managed with a pan-European approach based on technological neutrality. Such an approach would facilitate, where appropriate, the use of technologies with global coverage like satellite, not only to provide direct connectivity to end-users, but also as a complementary technology and backhaul for terrestrial networks and their future take-up in areas where they are still not present.

Such an approach should include funding also at pan-European level, to ensure the rapid deployment of networks or hybrid combinations of networks (typically terrestrial plus satellite) to quickly establish connectivity in those areas of the European Union that are lagging behind in connectivity services. An example of this type of funding is laid down in the EU policy program "Path to the Digital Decade", which establishes the framework for multi-country projects to facilitate the achievement of the EU digital targets. In addition to its pan-European character, said type of funding should be technological neutral and not exclude any technology for reasons such as speed. Other factors like coverage of 100% of the population at an adequate speed are equally important to address the digital divide in an effective manner.

HISPASAT believes that a pan-European approach for the universalization of broadband services in the European Union would help solve the market failure in rural and remote areas, allowing citizens in these locations to access connectivity services in the same conditions of quality and price than those residing in urban areas, and eliminating market distortions. In this regard, funding of aspects such as end-user equipment and other at pan-European level is equally important to ensure this universalization of broadband access.

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#### Relevant aspects to assess satellite for the universalization of broadband access

When assessing satellite technology suitability for the universalization of broadband access, there are a few relevant aspects to be considered. To begin with, the recent technological advances have resulted in better services and lower costs for end-users. Such is the case with GSO-HTS satellites, which have considerably improved the efficiency in the use of spectrum through frequency re-use. This allows for a higher number of connections with the same amount of spectrum, thus reducing the price per user. Also, end-user equipment to connect with GSO is available at an affordable cost, which is not the case, however, with large constellations operating in LEO, that still need to devise cost wise antennas for end-users. Other features of HTS satellites are an increase of flexibility through software defined satellites, increased efficiency via interoperability with terrestrial systems through standardization in 5G and/or the integrated operation of the ground and space components and the use of new higher frequency bands (Q / V).

Sustainability is another aspect that is at the core of EU policies and strategies. In this regard, HISPASAT is concerned about the impact that the deployment of several megaconstellations operating from LEO orbits over the European Union might have on the space environment and the activities in space of the rest of operators, significantly European ones. Not to forget the future secure constellation of the European Union, aimed at providing secure connectivity services all over the EU and reinforce the sovereignty and autonomy of the EU in this domain. The deployment of mega-constellations, which consist of thousands of satellites, some of which are already serving numerous Member States, might render impossible the operation in space of other systems that would simply lack the room to do so. In HISPASAT's view, an open debate, consultation and analysis on the effects of LEO constellations on the space activities of the European Union is needed.

HISPASAT appreciates this opportunity to contribute to the BEREC consultation on the draft Report on Satellite Connectivity for Universal Services and would be pleased to have further discussions on the matter.