

ESOA Response to the ITU Consultation on the GSR-21 “Regulatory uplift for financing digital infrastructure, access and use”

1. **100% connectivity is achievable by using a variety of technologies, and every Regulator’s goal should be to provide their people with meaningful connectivity.**
2. **Financing digital infrastructure should prioritize the development of robust and affordable national infrastructure.**
3. **Satellite technology has multiple existing and emerging offerings that can be used in tandem with terrestrial services to finally provide ubiquitous coverage, and Regulators should provide incentives for their licensees to use satellite capacity where useful.**
4. **Regulators need to encourage the adoption of all connectivity technologies by providing financial solutions such as tax breaks and broadband funds to their most underserved areas.**

The above points are elaborated below.

1. OBJECTIVES: Investments need to prioritize universal meaningful connectivity

The COVID pandemic has revealed the absolute necessity of considering connectivity as an essential element of social cohesion. At the same time, millions of people are still not, or not well, connected at home, in all regions of the world. While investment in Internet connectivity has risen over the past years, funding opportunities have generally remained insufficient to ensure universal access to affordable broadband connectivity.

Extending connectivity is more of an *economic challenge* than a technical one, as areas without coverage are typically remote or isolated areas (such as islands, rural locations, or those surrounded by difficult terrain) with low population densities and less developed or non-existent infrastructure, representing significant obstacles to commercially sustainable solutions.

Appropriate financial resources therefore have to prioritize the deployment of universal meaningful connectivity, noting the needs are not the same in all regions and all countries. Improving the digital infrastructure has never been more important, as businesses and consumers continue to adapt to the COVID-19 pandemic, broadband connectivity is vital to economic growth and social cohesion. Satellite connectivity can accelerate this transformation to ensure all people are connected, no matter their location.

2. PRIORITIES: Affordability and access to networks, with a focus on unserved and underserved areas and populations

Investments should not only focus on the race to 5G / 6G, as it is generally agreed that terrestrial 5G will only improve connectivity where 4G exists already – it will not extend connectivity to remote and rural areas or close the digital divide. What is essential is to ensure *robust* and *affordable* access to the Internet to everyone. National planning integrating smart cities with rural or remote areas will need to rely on meaningful connectivity, which will mean integrating satellites into the national critical infrastructures.¹

Financial incentives need to be put in place to foster the rapid and wide deployment of affordable and scalable connectivity solutions, specifically responding to e-Government, e-Education, e-Health or e-Payment needs, by extending access to online services. For example, the universal service funds (USFs) should be primarily dedicated to underserved areas, and the stimulation of further demand in these areas. In some cases, access to electricity is critical and must be addressed and included in the connectivity project.

Financial instruments from the governments ought to be adapted to new business models, notably aiming at the reduction of deployment and operation costs for underserved areas that are most often not commercially viable.

3. PRACTICALITIES: Target everyday and essential connectivity needs plus facilitate emerging solutions

It is important that regulators recognize a wide range of connectivity options, without imposing technical targets that will likely only lead to delayed (or non-existent) deployment as in the past: many technological solutions have proven successful in enabling a range of *everyday* and *essential* digital services that people around the world have come to

¹ ESOA is amongst all the signatories to the Web Foundation letter: “**Leave No One Behind: A People-Centered Approach to Achieve Meaningful Connectivity**” – from <https://webfoundation.org/2021/04/leave-no-one-behind-a-people-centered-approach-to-achieve-meaningful-connectivity/> or <https://esoa.net/press-room/leave-no-one-behind-a-people-centered-approach-to-achieve-meaningful-connectivity>

rely on. Satellite technology has burgeoned in the last years and can provide a substantial range of services to meet disparate needs.

Since consumers tend to value reliable connectivity over the speed of the connection, stakeholders' access to procurement tenders and financial instruments should not depend on absolute technicalities in terms of speed and latency and instead be developed on a case-by-case basis, so the solutions should be tailored to users' needs, applications' requirements and geographical situations. These solutions can involve satellite in a standalone mode, satellite enabling community WiFi solutions or satellite backhauling terrestrial mobile networks including, *if and when needed*, at the level of 5G standards. Satellite also has a key role to play in combating the downsides of network outages. Considering satellite's potential role in the IoT technology mix should be also top of mind for fixed-line and mobile operators looking to in-fill coverage gaps and unlock new use cases.

In addition, funding is to be adapted to new solutions based on emerging technologies: some ICT developments today allow a reduction in physical infrastructure, for example by having recourse to the cloud technology, which in turn, lowers the costs to consumers. The satellite communications sector also is going through several major innovation trends and increased competition that contribute to advanced performances at significantly lower cost than ever before, and the impact of this evolution has already been felt during the pandemic.

4. INVESTMENT NEEDS: Adopt a multi-tiered and holistic policy approach

The *national backbone* infrastructure and *international* Internet connectivity are two critical building blocks to drive connectivity. Increasing the number of international connections per country fosters competition and brings down prices, accelerating the transition to a functional digital economy. International financing mechanisms (relying, e.g., on the World Bank, the European Investment Bank, or the African Development Bank) can be activated to contribute and build this fundamental tier, notably for landlocked countries and islands.

Building upon this high-speed backbone, many countries worldwide still require carrying Internet and data traffic *inland*, from the edge to urban and rural centres. To this end, backhaul networks are necessary to extend connectivity further. Funding used for this deployment has to be *holistic* in such a way that a mix of technologies (terrestrial mobile, satellite, microwave, and other emerging technologies) provides reliable, quickly deployable and cost-efficient infrastructure connectivity.

It is only once high-speed connectivity is delivered to population centres via international and backhaul connectivity that telecom operators and service providers may *use any solution*, without undue market access restrictions, to ultimately serve the populations.

5. RECOMMENDATIONS: Boost investment in infrastructure and develop financial instruments tailored and based on the mutualisation of strengths and resources

It is becoming vital to boost investment and develop financial instruments that are tailored for the specificity of each infrastructure project, through partnerships between private operators and investors, government, financial institutions and international donors. The approach should always be *technology neutral*. To this end, regulators should:

- Support the creation of structured *policy dialogues* involving all relevant stakeholders and promoting a governmental approach to investments facilitating digital economy, using reliable data and country-owned assessments on national connectivity
- Empower the *civil society* by consulting users and citizens
- Leverage technical assistance to conduct *feasibility studies*, for the development and implementation of bankable projects
- Undertake capacity building to develop the necessary *digital skills* to use new technologies and guarantee the sustainability of new projects
- Map the infrastructure needs and provide a *priority list for investments* in building the missing links, considering *all* connectivity technologies and services
- Create *innovative financial instruments* for infrastructure deployment with a focus on underserved areas, such as dedicated infrastructure funds, blended grants and guarantee schemes to provide tailor-made solutions, on a case-by-case basis
- Adopt *streamlined* regulatory, licensing and spectrum policies to incentivise *all* technology solutions together and contribute to connectivity reach with affordable devices and services