

Satellite Industry Response to Consultation on “What Does It Take for Regulators to Become Digital Ecosystem Builders?”

As a key pillar of the global digital infrastructure, the satellite industry plays a vital role in extending connectivity to remote, underserved, and disaster-prone areas, ensuring territorial coverage and connectivity access for the benefit of all everywhere.

New generations of satellite technologies contribute to provide seamless, universal connectivity by directly connecting consumers with high-speed service, by converging with mobile networks or delivering backhaul services.

Satellite-powered solutions are increasingly delivering real-world impact across various sectors, including precision agriculture, environmental monitoring, smart logistics, disaster response, and aeronautical and maritime tracking, by transforming real-time data into actionable insights. Satellites enable truly global connectivity, ensuring coverage not only in urban centers but also across remote communities and between connected areas where terrestrial infrastructure is absent. This is not just about using technology efficiently; it's about using it meaningfully, making connectivity relevant, seamless, and accessible in ways that enhance the daily lives of people everywhere.

To unlock the full potential of digital ecosystems, regulators play a key role as enablers of reliable and meaningful connectivity. This is especially critical for realizing the social and economic benefits of the digital economy. However, realizing these benefits require a fundamental shift in regulatory policies, licensing structures, and fee structures to support innovation, inclusion, and cross-border collaboration.

1. Fostering Innovation in Regulatory Approaches

To foster an innovation-driven culture, regulatory frameworks are to move towards a more flexible, inclusive, and forward-looking approach. In today's converging connectivity landscape, innovation thrives when policy frameworks embrace technological diversity and allow space for experimentation.

Technology-Inclusive Approach: A technology-inclusive mindset is key. Rather than mandating specific technologies or imposing arbitrary performance benchmarks that unintentionally favor certain solutions, it is essential for regulators to take an inclusive approach enabling the most effective technologies for a given geography, population, or use case that deliver resilient, affordable, and scalable services, especially in remote or underserved regions.

Flexible licensing frameworks: Flexible and adaptive licensing frameworks, including mechanisms such as general authorizations, blanket licensing of satellite Earth stations, and regulatory sandboxes, are key. These approaches accelerate service deployment while reducing administrative burdens for both providers and regulators

Regulatory certainty: Fostering innovation requires regulatory certainty, a predictable environment that supports long-term investments in infrastructure and technology. Long-term access to essential spectrum for all connectivity providers on a fair and non-discriminatory basis. Spectrum certainty is a cornerstone of infrastructure investment and is essential to supporting evolving consumer needs and benefits to all.

Supporting this transformation requires new skillsets and mindsets:

- Technical understanding of the different satellite systems (eg.: GSO, NGSO, multi-Orbit) and converging and integrated network architectures.

- Policy agility to respond to rapidly evolving technology and incentivizing innovation and growth.
- Collaboration with industry to co-design regulatory pilots and sandbox environments.
- Data-driven decisions-making based on evidence-based outcomes with expertise support as necessary.

2. Adapting and Enhancing Regulatory Capacity

As digital infrastructure becomes increasingly vital to social and economic development, regulatory mandates are to be updated to reflect the central role of connectivity. The satellite industry recommends adopting balanced, technology-inclusive frameworks that will allow innovation while enhancing services for connected users and extending the benefits of connectivity to the unconnected. Key adaptations include:

- **Reforming Universal Service Funds (USFs)** to support digital inclusion better. USFs should:
 - Channel funds from high-revenue urban regions to support rural and remote connectivity projects.
 - Allow recipients the freedom to choose the most cost-effective technologies.
 - Introduce incentive mechanisms, such as reduced USF contributions, for providers who extend coverage to unserved areas using diverse technologies.
- **Supporting public-private partnerships (PPPs)** that combine public funding and private expertise:
 - To develop scalable, technology-inclusive solutions and increase cross-sector collaboration.
- **Providing financial incentives and subsidies** to encourage deployment:
 - Grants to reduce upfront costs associated with satellite integration.
 - Operational cost-sharing programs to enhance affordability and long-term viability.
- **Introducing regulatory incentives**, such as:
 - Reduced taxes and regulatory fees for operators serving remote or disadvantaged regions.
 - Simplified processes to avoid administrative burden and duplicative efforts such as mandating local infrastructure when security compliance can be addressed via alternative mechanisms

3. Cross-Border Cooperation for Building Digital Ecosystems

Regional and international cooperation is essential for sharing best practices and reducing barriers to deployment. This should include:

- **Engaging with public and private stakeholders** and adopting global and national best practices.
- **Participating in regional knowledge-sharing initiatives**, highlighting the do's and don'ts of satellite regulation as a shared learning opportunity.
- **Fostering global standardisation activities** (3GPP, ETSI) to encourage scale, interoperability, and investment across markets.

Conclusion

This is the time to act. Satellite technology is evolving rapidly and also converging with mobile networks to enable inclusive, meaningful, seamless connectivity. Regulators can lead by harmonising regulatory frameworks, facilitating innovation, and fostering collaboration across borders to build inclusive digital ecosystems that benefit all, everywhere.