



## Telesat submission to Global Symposium for Regulators 2024 Best Practice Guidelines

Universal and meaningful digital connectivity is crucial in achieving the United Nations Sustainable Development Goals. The recent COVID-19 pandemic has further highlighted the essential societal role of connectivity.

It is also clear that satellite can play a key role in bridging the digital divide thanks to their global coverage capability, which allows rapid broadband rollout in rural, remote, and mountainous areas, as well as coverage for mobile connectivity across oceans and skies.

The satellite industry is currently undergoing an evolution from traditional GSO (geostationary) satellites to NGSO LEO (non-geostationary Low Earth Orbit) constellations. Telesat, as a company with a deep tradition of innovation, is developing a technologically advanced LEO satellite constellation, Telesat Lightspeed<sup>1</sup>.

Telesat Lightspeed is designed specifically to meet the demanding needs of telecom, enterprise and government customers with secure, high broadband data links with low latency, high resiliency and committed SLAs (Service Level Agreements). The Telesat Lightspeed network will allow seamless integration and service orchestration with terrestrial networks.

Telesat will leverage a holistic approach to connecting communities, as bridging the digital divide is more than simply connecting households to the internet. It will also ensure that businesses, schools, hospitals, public safety and government agencies have reliable, high-performing connectivity, as well as access to the latest LTE and 5G technologies, enabling both fixed and mobile access within, around and between the communities.

To achieve this, Telesat will partner with mobile network operators, internet service providers and communities with a community aggregator connectivity model as opposed to offering direct-to-consumer services. The local telecom operators will in turn provide a wide range of affordable service plans, as well as last-mile connectivity and installation to individual homes, businesses and institutions, billing and local customer support.

A major application of Telesat Lightspeed will consist in delivering competitive multi-Gbps backhaul connectivity to unserved and underserved communities. This will have significant advantages for terrestrial operators, including lowering the risk on investment, eliminating large infrastructure deployments and creating new revenue growth in new, difficult-to-reach markets.

Using this service delivery model, Telesat Lightspeed will adopt a win-win approach for the extended ecosystem and play a vital role in bridging the digital divide everywhere in the world.

---

<sup>1</sup> <https://www.telesat.com/leo-satellites/>

For these beneficial services to be successfully provided, the domestic regulatory and market access aspect plays an essential role. While some of the good practices below refer specifically to NGSO systems, the majority are more generally applicable.

- NGSO systems have truly global coverage, including the poles: therefore a degree of harmonization in the authorization processes and spectrum availability, at least at regional level, is paramount
- Along the same lines, regulators should consider the adoption of internationally recognized technical standards for user terminal type approval (e.g. ETSI<sup>2</sup>)
- It is also of paramount importance that transparent, clear and streamlined domestic regulatory frameworks are made available. Examples include:
  - timely publication and updates
  - clear designation of relevant frequencies for use by NGSO satellite systems on a domestic basis, consistent with ITU Radio Regulations
- There should be no unwarranted discrimination between NGSO systems and GSO networks in order to ensure a technology neutral level playing field, leading, in turn, to a vibrant competitive environment for the ultimate benefit of the end users
- Spectrum fees should be reasonable, considering the large bandwidth used by novel NGSO satellite systems (e.g. up to 4GHz for uplink and downlink in Ka-band)
- Efficient and sufficient spectrum allocation to satellite services: it is essential that enough spectrum is available, especially in key bands such as the Ka-band, bearing also in mind that satellite operators can efficiently share spectrum and the large coverage capabilities of satellites
- Thousands of user terminals require authorization in some frequency bands. Individual terminal-by-terminal authorization would be exceedingly and unnecessarily cumbersome for the end users, service providers, as well as the regulators  
“Blanket” authorizations, covering the operation of multiple user terminals with similar characteristics, are a very effective solution. This principle is also imbedded in a number of CEPT Decisions<sup>3</sup>, ATU Recommendation 005<sup>4</sup> and CITELE PCC-II Recommendation 52, which was recently updated to include ESIM (Earth Stations In Motion)<sup>5</sup>
- User terminals installed on aircraft and vessels (i.e. ESIM) will naturally cross boundaries of multiple countries, either via high altitude flight or traversing their territorial waters for short periods of time. In order to avoid gaps in the service provision of critical in-flight and maritime connectivity, it is essential that aeronautical and maritime ESIM are allowed to operate while in temporary transit and on a non-interference basis.

Overall, it is clear that adoption of good practices by regulators and policy makers has a significant role to play in helping to close the connectivity gap. Telesat encourages the Global Symposium for Regulators to incorporate the measures listed above in its Best Practice Guidelines.

---

<sup>2</sup> <https://www.etsi.org/standards#Pre-defined%20Collections>

<sup>3</sup> e.g. <https://docdb.cept.org/download/1496>

<sup>4</sup> [https://atuuat.africa/wp-content/uploads/2021/08/En\\_ATU-R-Recommendation-005-0.pdf](https://atuuat.africa/wp-content/uploads/2021/08/En_ATU-R-Recommendation-005-0.pdf)

<sup>5</sup> Recommendation 52 was updated at the 43 Meeting of CITELE PCC.II in Uruguay in April 2024 through working document CCP.II-RADIO /doc. 6029/24 rev. 4. The updated Recommendation number is pending issuance of meeting’s Final Report