

# MYTH

# VS

# FACT

## MODERNIZING EPFD LIMITS

### MYTH

**The issue before WRC-23 is whether to abandon Article 22 epfd limits and interference protections to GSO networks.**

### FACT

The issue before WRC-23 is whether the ITU should conduct technical studies for WRC-27 exploring the inefficiencies of the Article 22 sharing framework, and leaving open the possibility of updating those provisions at WRC-27 if the studies deem it appropriate. No one is proposing to remove interference protections to GSO networks, and in fact, the proposal before the ITU explicitly commits to maintaining the cornerstone of Article 22: That NGSO systems must not cause unacceptable interference to GSO networks.

### MYTH

**Changing epfd limits means that mega-constellations of NGSO satellites can block spectrum use by other satellite systems, like GSOs, and “create monopolies in space”.**

### FACT

The cornerstone of Article 22 indicates that NGSO systems shall not cause unacceptable interference in GSO networks. There is no proposal to change this fundamental premise or remove epfd limits, and any studies being proposed will ensure protections for GSO networks from unacceptable interference. It is impossible for any satellite operator to acquire a monopoly over space, and any changes to epfd limits would continue to allow GSO and NGSO networks to coexist.

### MYTH

**Changing epfd rules will give a few big players an unfair advantage and control of space will be concentrated into one nation, while entrants from other countries will be discouraged from investment and innovation.**

### FACT

The current epfd limits create artificially high costs of entry for NGSOs, harming competition and limiting opportunities for new or smaller satellite operators. Putting epfd limits on the WRC-27 agenda will create new opportunities for innovative market entrants; rather than concentrating power, updated epfd rules would pave the way for new satellite providers, globally, to enter the market.

## MYTH

**Modernizing epfd limits would negatively impact everyone who relies on satellite service.**

## FACT

Consumers would be the biggest beneficiary of updated epfd rules. NGSO-powered satellite broadband has the potential to bring connectivity to the farthest corners of the world, but current epfd limits have resulted in gaps in coverage. A recent study found that modernizing epfd limits could increase global broadband capacity by 180% and reduce consumer costs by 50%. Expanded coverage capabilities, competitive providers and lower consumer costs are all paramount to closing the digital divide and require up-to-date regulations.

Modernizing epfd limits won't disrupt existing satellite services. The proposed epfd agenda item underscores that no matter the outcome of the studies, the core principle of Article 22.2—that NGSO systems must not cause unacceptable interference to GSO networks—will not change. A dedicated agenda item to address epfd limits would ensure these GSO protections continue throughout the entire study process. A study on epfd limits would be focused on ensuring the optimal utilization of the spectrum and would include ensuring the protection of GSOs while promoting efficient spectrum sharing between GSO and NGSO systems.

## MYTH

**LEO constellations have already been able to innovate and grow under the current rules. Changing rules would disrupt a stable regulatory regime that has supported growing investment in satellite networks and technologies in recent years.**

## FACT

Yes, both GSO and NGSO constellations have been able to innovate and grow under existing epfd limits – but epfd limits are the single greatest regulatory hurdle to further innovation. An update to epfd limits would not change GSO capabilities to provide service. Non-interference is the crux of Article 22, and no WRC proposal seeks to change that.

Instead, updating epfd regulations will unlock the full potential of satellite broadband and encourage new innovation, competition and investment. The space industry is never done evolving, and closing the digital divide means continuing investment into the technologies of the future. Modernizing epfd limits will encourage more investment and innovation into a growing field, creating more options for consumers while ensuring that GSO networks are protected from unacceptable interference.

---

## MYTH

**No change to Article 22 should be taken lightly, and no one has justified such a change.**

## FACT

The epfd limits in Article 22 are technologically outdated. The NGSO Fixed Satellite Service (FSS) power levels in Article 22 for the Ku- and Ka- bands are based on the technologies and operational characteristics of NGSO FSS systems and other services from an era prior to WRC-2000. With all the innovation in the last two decades, comparing current NGSO satellite capabilities to 90s-era satellites is like comparing a smartphone to a rotary phone. In particular, the sharing studies that led to the epfd limits currently in Article 22 fail to consider technological changes and new spectrum management techniques for both NGSO and GSO systems such as:

- Smaller, steerable spot beams of satellite systems
- Better models for atmospheric propagation estimation
- Different use cases for satellite systems
- Enhanced modems employing adaptive coding and modulation
- Dynamic resource management supported by AI
- Cloud-enabled spectrum management tools
- Improved antenna technology
- The geometry, design and operations of NGSOs

The issue before WRC-23 is whether the ITU should conduct technical studies for WRC-27 exploring the inefficiencies of the Article 22 sharing framework, leaving open the possibility of updating those provisions at WRC-27 if the studies deem it appropriate.