

ITU Space Connect Series
Episode 1: LEO Satellite Constellation Fundamentals

Virtual Event

Introductory Remarks

30 January 2025

Mario Maniewicz,
Director, Radiocommunication Bureau

ITU Secretary-General,

Distinguished Panellists,

Ladies and gentlemen,

I am delighted to join our Secretary General in welcoming you to the ITU Space Connect Series.

The monthly series will offer dynamic virtual episodes exploring the rapidly evolving space sector.

Today we stand at the threshold of an exciting and transformative era in space communications and exploration.

We are witnessing an expansion of satellite deployments in Low Earth Orbit (LEO), which are bringing broadband connectivity to remote areas worldwide. Additionally, more countries are gaining access to Earth Exploration Satellite Services through both private and governmental investments. This democratization of space activity underscores the need to adapt existing policies and regulations as we navigate this new era of space exploration and technology.

This growing focus on space is further validated by the remarkable increase in projects submitted to the ITU for spectrum-orbit resources. Over the past decade, such requests have grown 5.5 times, showcasing not only the immense promise of the rapidly growing Space Economy, but also highlighting the complexity and challenges we face.

Dear Participants,

When we examine the agenda of the next World Radiocommunication Conference (WRC-27), 80% of the preparatory work in ITU-R study groups for the conference is directly tied to space communications and exploration—be it around the Earth, the Moon, or even beyond.

At the ITU, and within the Radiocommunication Bureau's Space Department, we have already begun to adapt to these evolving scenarios. Through initiatives like this series of monthly webinars, we aim to provide our members—and prospective members—with critical updates on the latest space technologies, regulations, and the challenges that accompany this new space race. Our goal is to empower you with the knowledge and resources to be able to innovate strategically and to leverage the benefits offered by satellite communication systems and technologies.

Throughout the year, we will address a variety of key topics, including:

- Fundamentals of NGSO constellations,
- Space sustainability,
- Space economy and safety operations,
- Advances in launch technologies,
- Cislunar communications,
- Earth observation, climate monitoring, emergency response and
- Direct-to-device/NTN technologies designed to connect the unconnected on Earth.

These are just some of the areas we intend to explore together. But this is a collaborative journey, and your participation is invaluable. I encourage you to share your thoughts and suggestions on additional topics of interest through the survey available on the Space Connect website.

I would also like to take this opportunity to invite you all to contribute to the ongoing work of the ITU-R Study Groups. The contribution of our Members is what drives the work of the ITU-R.

Finally, I am pleased to let you know that a recording of each webinar will be posted on the Space Connect website, not only for the over 1,000 participants who are joining us live today, but also for those who may wish to revisit these resources in the future. This ensures that the knowledge we generate and share today will remain a valuable resource for years to come.

As we embrace this new era of space communications and exploration, let us work together to address its challenges, unlock its opportunities, and build a more connected and sustainable future for future generations.

Thank you.