

STATEMENT BY THE EUROPEAN ORGANISATION FOR ASTRONOMICAL RESEARCH IN THE SOUTHERN HEMISPHERE (ESO)

The 68th Session of the Committee on the Peaceful Uses of Outer Space 2025

AGENDA ITEM 4: General Exchange of Views

Read by:

Ms Beatrice Kioko
ESO- Institutional Affairs Officer

Dated: 25.06.2025

Chair, Distinguished delegates,

It is a great honour to deliver this statement on behalf of the European Organisation for Astronomical Research in the Southern Hemisphere—ESO.

I am pleased to report that, with the support of our 16 Member States, our Host State Chile, and our strategic partner Australia, ESO continues to build and operate some of the most advanced and scientifically productive ground-based astronomical observatories in the world and remains firmly committed to fostering international collaboration for astronomy.

Since this Committee last met, construction of ESO's Extremely Large Telescope—the ELT—has reached 65% completion. We are on track to begin observations by the end of this decade. With a 39-metre diameter, the ELT will be the largest optical telescope ever built. It will allow astronomers to study galaxies across cosmic history in detail, examine the atmospheres of planets around distant stars in the search for life outside Earth- and even more exciting — discover the unexpected.

In the past year, observations from ESO telescopes led to over 1,200 peer-reviewed publications—a new record, and the eighth consecutive year surpassing 1,000 publications. These numbers underscore ESO's role in advancing humanity's understanding of the universe.

Chair, earlier this year, the asteroid 2024 YR4 was estimated to have a 3% chance of hitting Earth—well above the 1% threshold considered safe. Observations with ESO's Very Large Telescope refined its orbit and indicated that it poses no threat. This is one example of how ESO contributes to global efforts in planetary defence. We are committed to supporting the International Asteroid Warning Network and to apply our technologies to meet global challenges.

In addition to science and research, astronomy also plays a broader role. It stimulates interest in science and technology, helps builds national capacity in space capabilities, and generates wider societal benefits. Technologies developed at ESO have been applied in fields such as medicine, imaging, data transmission, and sensor technology.

Chair, as committed custodians of the night sky, we remain concerned about the growing number of artificial satellites in low Earth orbit and the increased light pollution, from constellations and other artificial light sources. The brightening of the night sky interferes with

astronomical observations, threatening not just research, but the broader societal gains astronomy provides.

In this context, we welcome the inclusion of a new agenda item on Dark and Quiet Skies in the Scientific and Technical Subcommittee from February 2025. ESO is committed to working with all parties over the next five years to develop effective measures to mitigate the impact of satellite streaks on ground based astronomical research. We emphasise ground-based astronomy remains irreplaceable in our quest to understand the Universe.

Chair, Distinguished Delegates, we commend the efforts of many COPUOS Member States and Observers who have raised attention to this issue. ESO pledges its full support to protecting dark and quiet skies, and to safeguarding global access to knowledge of our cosmos.

I thank you for your kind attention.