Dear Chair, Distinguished Delegates,

The Committee on Space Research COSPAR is very pleased to co-organize the UN-COSPAR Symposium "Space-Observation Contributions Supporting Climate Action" that is sponsored by the United Nations Office for Outer Space Affairs (UNOOSA) as part of the UN Agenda for Sustainable Development.

COSPAR is the oldest and largest international scientific society devoted to promoting international cooperation in space research. COSPAR was founded in 1958 to provide a neutral forum for the scientific dialogue between scientists. Many nations have joined COSPAR since then. COSPAR members include today 46 national scientific institutions from all around the world, plus 13 international scientific unions. There are 12,000 space scientists from all around the world who participate in COSPAR's activities, attend our assemblies, participate in panels and roadmaps, and publish in our journals.

COSPAR's first mission is about dialogue among scientists. COSPAR's second mission is about encouraging international cooperation between space stakeholders worldwide. COSPAR has eight scientific commissions that cover all space science disciplines, from Earth and atmospheric science, to planetary science, astrophysics, from solar and space plasma physics to life and microgravity science.

The topic of today's symposium is "Space-Observation Contributions Supporting Climate Action".
Climate change is already affecting the entire world, with extreme weather conditions such as drought, heat waves, fires, heavy rain, hurricanes, floods and landslides becoming more frequent, snow and rainfall patterns are shifting.

The Emissions Gap Report 2022 of the United Nations Environment Programme discusses that without rapid societal transformation, there is no credible pathway to a 1.5°C future. The COP27 final

agreement also highlights that "US$4 to $6 trillion a year needs to be invested in renewable energy until 2030 – including investments in technology and infrastructure – to allow us to reach net-zero emissions by 2050." In summary, climate change will generate high economic costs and humanitarian crises, trigger migration and provoke social unrest and geopolitical conflicts.

Space applications are part of our daily lives. And space can contribute directly and indirectly to all the 17 Sustainable Development Goals. Through Earth observations we can monitor the Earth surface, atmosphere and oceans and their changes to better understand the Earth system and to assess the influence of human activities and the consequences of the rapidly changing climate that will include among many other factors, more severe extreme weather events and loss of biodiversity. We all need to better understand hazards and resulting risks.

I want to welcome Ralph Kahn, Chair COSPAR Scientific Commission A: Space Studies of the Earth's Surface, Meteorology and Climate. He will introduce our distinguished speakers and the 2h UN-COSPAR Symposium.

Pascale EHRENFREUND
COSPAR President