



ABSTRACT SUBMISSION

We invite submissions to the below themes and life cycle stages. Themes and life cycle stages include but are not limited to the examples given but are intended to span fundamental research through to industrial and policy applications across the whole Earth System and beyond. We encourage you to review all themes and life cycle stages before selecting.

THEMES

We ask you to select a theme where your research or application most closely aligns. Where appropriate we encourage you to select a secondary theme.

Geosciences - Geology, geophysics, geochemistry, geodesy or geomorphology. All topics connected to surface and sub-surface dynamics and their interactions with the atmosphere, oceans and land surface.

Carbon & Biomass - Quantifying the current state, dynamics and likely future of the terrestrial carbon cycle. Monitoring of biomass and ecosystem processes, including how to leverage new and diverse datasets: biomass includes terrestrial, coastal, oceanic and otherwise. Understanding current levels of confidence and identifying future opportunities.

Biodiversity, Habitat & Ecosystems - Protecting, restoring and promoting sustainable use of ecosystems, combatting desertification, and halting and reversing habitat degradation and biodiversity loss.

Inland Waters & Hydrology - Biogeochemical cycling, biodiversity, erosion, sedimentation and more within fresh-water systems. Including rivers, streams, lakes, ponds, and marshes. Their interactions with the land, oceans and atmosphere.

Cryosphere - Ice sheets and glaciers, permafrost, river and lake ice, seasonal snow cover, and sea ice, and the interaction of the cryosphere with the Earth system.

Oceans & Coasts - Understanding of the oceans and coastal area and their processes, including physical, biogeochemical, and sedimentary ocean processes and their interactions with land, atmosphere and other components of the Earth system.

Climate Change & Global Cycles - Monitoring and diagnosing teleconnections and forecasting climate change. Including the role of exchanges between atmosphere-water-land and interactions between global biogeochemical and biogeophysical cycles.

Resilience, National Security & Dual Use - Identification and mitigation of risk to National Security and societal resilience. Such as digital (networks, servers) and physical infrastructure (e.g. road, rail, power), ecosystem degradation and collapse (climate regulation), food security and more. Technology which can be applied to multiple use cases, both civil and defence.

Disaster Prediction & Response - Data collection and interpretation for early warning systems; modelling or prediction of future disasters or their impacts in certain areas; provision of real-time data to support disaster relief first responders; long-term disaster recovery. Disasters natural or otherwise.

Sustainable Development, Social Impact & Policy - The use of EO data in support of Sustainable agriculture & aquaculture, reduction in inequality, and any other Sustainable Development Goals. EO data supporting socioeconomic improvement, policy development and regulation.

Meteorology & Atmospheric Chemistry - Monitoring and forecasting weather and atmospheric transport. Advances in atmospheric chemistry, quantifying the impacts of pollutants, and chemical interactions of weather, oceans and land on local to global scales.

Beyond Earth - e.g. Space weather prediction and monitoring; impacts of space weather on remote sensing infrastructure; space weather intersecting with Earth processes and risks. Lessons learned from lunar and planetary remote sensing.

LIFECYCLE

We ask you to select the EO lifecycle stage in which your research or application most closely aligns. These can be broadly thought of as flowing from upstream to downstream activities. A non-exhaustive list of examples is given for each stage. Please read all options before selecting as your topic may fit with multiple categories, please choose the best fit.

State-of-the-Art - Review of current missions, data, latest findings on ongoing works. Lessons learned from previous activities.

Future Technologies - Innovations in technology and hardware that can be applied to remote sensing e.g. novel developments of drones, spacecraft, HAPS, SAR, sensors, in-situ methodologies, developments enabling on-board data processing.

Novel Problems & Novel Data Solutions - Problem identification (e.g. new applications of EO data). Digital Methods and novel analysis techniques for post-processing data including AI, data science. Applying solutions from a discipline to a new context.

Impact - Supporting decision making, commercialisation, bringing to market and influencing policy, socioeconomic activities, outcomes, social value, climate justice.

Other - If you feel your work does not fit one of the suggested life-cycle stages please select this option