

EARSC Statement for the CoR Consultation: A multilevel and harmonised UN framework for climate, biodiversity, and SDGs

The European Association of Remote Sensing Companies ([EARSC](#)), a trade association representing over 140 companies across Europe in the **Earth Observation (EO) industry¹**, **supports the Committee of the Regions (CoR) efforts towards developing a stakeholder consultation for a multilevel and harmonised UN framework for climate, biodiversity, and Sustainable Development Goals (SDGs).**

The United Nations' 2030 Agenda lies at the core of this endeavor, which **emphasizes the critical need to leverage new datasets to enhance its objectives.** Recognizing the transformative power of data and science in catalyzing the green transition, **Earth observation data emerges as a pivotal tool for accurately reporting environmental and economic indicators outlined in the European Green Deal.**

Constellations of satellites rotate around the Earth daily taking pictures of the same areas to allow for monitoring over time. The [European Commission](#) launched its Earth observation programme, in partnership with the [European Space Agency](#), in 2014. The Copernicus Programme² consists of earth observation satellites and in situ sensors such as ground stations, airborne sensors, and sea-borne sensors, supporting a range of applications from security, urban planning, and transport to environment protection and climate change. Current industry acquisition capabilities allow for line scanning of the planet to image the Earth daily. Earth observation is a key tool for the implementation of the European Green Deal as it can be used to monitor everything from crop health to reef degradation. Indeed, satellite imagery can be leveraged across sectors and produce valuable and unique information that remains unseen from the ground.³

¹ Earth Observation (EO) refers to the use of remote sensing technologies to monitor land, marine (seas, rivers, lakes) and atmosphere. Satellite-based EO relies on the use of satellite-mounted payloads to gather imaging data about the Earth's characteristics. The images are then processed and analysed in order to extract different types of information that can serve a very wide range of applications and industries. Ref. [EUSPA](#)

² Copernicus is the European Union's Earth observation programme (<https://www.copernicus.eu/en>)

³ EARSC Green Deal ToR (<https://earsc.org/wp-content/uploads/2021/11/EARSC-Working-Group-on-the-European-Green-Deal.pdf>)

Satellite-derived data, with its unparalleled ability to offer insights into climate patterns, biodiversity, and land use dynamics, becomes **instrumental to guiding informed decision-making and targeted interventions**. By integrating satellite data with ground-based measurements and cutting-edge technologies like artificial intelligence and machine learning, a diverse array of services can be harnessed to support SDG reporting and monitor progress effectively.

In this journey towards sustainable development, EARSC highlights the role of Earth observation data in strengthening advocacy efforts and providing evidence-based insights at the local and regional level. Furthermore, regional and local governments should be **empowered to strategically integrate satellite data into their climate resilience and biodiversity protection measures, fostering synergies between environmental objectives and the sustainable development goals**. Through enhanced engagement with national governments and EU institutions, facilitated by effective communication and data sharing mechanisms, EARSC envisions a cohesive approach towards achieving global agendas. By advocating for **open data policies and collaborative platforms**, local and regional authorities should enhance accessibility to satellite data, fostering innovation and addressing societal challenges.

As we strive to meet the ambitious goals outlined in the UN Sustainable Development Agenda, EARSC remains committed to promoting advanced capacities and services for monitoring and mitigating the impact of human activity on natural resources. Through initiatives like the [SDGs-EYES project](#), EARSC aims to raise awareness of European capabilities in monitoring SDGs using satellite-derived data and services, thereby supporting decision-making aligned with EU Green Deal priorities. With a firm determine to incorporate Earth observation data into policy-making processes, EARSC stands ready to collaborate in achieving a multilevel and harmonized UN framework for climate, biodiversity, and SDGs, ensuring a sustainable future for generations to come.

Examples: Contribution of Earth observation to climate, biodiversity and SDGs
(extracted from EARSC Green Deal ToR)

Within the **agricultural sector**, earth imaging can be used to monitor crop health, detect in-field variation, and predict yield. For the European Green Deal's flagship Farm to Fork strategy aimed at building a healthier and more sustainable EU food systems, earth observation can enable industry players to ensure effective food productions and policy-makers to monitor compliance with industry standards and track crop growth.

Earth observation helps to **track deforestation and illegal logging** in real-time. High spatial and temporal resolutions are key for the European Commission to meet its reforestation objectives, down to each individual tree. They can help track land use and estimate carbon stocks, allowing policy-makers to develop climate policy uniquely tailored to the climate risks.

Daily images of the Earth facilitate the tracking of **biodiversity loss and damage to our ecosystems**. As the EU embarks on its climate mission, these images can provide useful insight to find a balance between the interests and needs of citizens and health of nature's resources.

As **soil degradation and desertification** continue to progress in many parts of Europe, geospatial data can help monitor changes and understand the effectiveness of countermeasures. Beyond the land and onto the sea, data can track plastic pollution, spillage and pollutants that threaten the reefs and livelihood of coastal species.

Real-time and precise urban and rural development monitoring can help policy-makers with the planning of transportation networks and assist to fight climate change and protect our ecosystems.

With natural and man-made disasters continuing to threaten entire populations, earth observation data can help detect these **disasters, tailor governments' response**, and assess the impact on ecosystems and infrastructure.

While there are no shortages of use cases of earth observation data, data collection, without analysis, is meaningless. Satellite-derived data can only be leveraged if translated into meaningful and actionable insights to better understand our ecosystems, identify the most pressing risks to our planet, and alternative solutions to reduce our environmental impact.