



EARSC Statement

Soil health – protecting, sustainably managing and restoring EU soils

The European Association of Remote Sensing Companies ([EARSC](#)) is a trade association based in Brussels, representing the European downstream services sector. EARSC counts more than 135 members across 25 countries of Europe.

EARSC welcomes the initiative focused on protecting, sustainably managing and restoring EU soils and supports the need of an EU Soil Health Directive.

In the context of the European Union (EU) Green Deal, the use of digital solutions is becoming increasingly important to meet the EU's climate targets. Earth observation information, such as data coming from the European flagship programme Copernicus¹, is key to better understand our planet Earth, monitor its evolution and implement mitigation solutions. Indeed, thanks to unprecedented technological innovations, Earth Observation now allows decision-makers to identify risks, tailor policy response and resource allocation, monitor progress and identify trends.

As stated in the [EU Soil Strategy for 2030](#), the quality and health of soils are pivotal to sustain biodiversity, food production and clean water and crucial to meet the EU environmental challenges. Soil is the foundation for all the food chains and for biodiversity on the ground and healthy soils are a solution for the key challenges addressed by the [European Green Deal](#).

¹ <https://www.copernicus.eu/en>

In order to have a better knowledge on soil, the Commission will need an abundance of resources, including viable and reliable data. Satellites can measure indicators including vegetation, how much of the soils are covered to reduce loss of nutrients and loss of soils in urban areas. Copernicus data, in particular with the Land Monitoring Service² provides data on bio-geophysical variables such soil pH or acidity, soil fertility parameters, soil functional properties such as soil organic carbon, soil texture, land cover and land use in the EU and beyond. These EO services are restricted not only to supporting the informed implementation of numerous soil-related policies but also to protecting soil by encouraging farmers to take extra steps to improve soil management practices. Subsequently, EO data and services can further contribute to proposing and designing management practices for improving the status of agricultural soils and stopping land degradation through the application of variable rate fertilization.

Using remote sensing data has a number of benefits, including improvement of spectral resolution, continual spatial coverage on wide areas, readily available data acquired at frequent time intervals and the ability to integrate information with other sources of spatial data such as standardized soil data reference analysis and landform mapping, and climatic data.

By measuring different indicators of production and soil health, Earth Observation data and services will contribute to innovative soil research and use and represent an important source of information for policy-makers. These operational solutions will be key to monitor land and soil degradation using three sub-indicators –land cover, vegetation productivity and soil organic carbon - to estimate the degraded land area with the objective to produce spatial explicit information and achieve land degradation neutrality by 2030 and understand the effectiveness of countermeasures.

Consequently, EARSC believes that the Soil Health Directive should specify that Earth Observation data and added-value services are operational solutions, which shall be used for the monitoring of land and assess the health of soils. EARSC remains at your disposal to work together on this objective.

² <https://land.copernicus.eu/>

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