

EARSC Statement EU forests – new EU Framework for Forest Monitoring and Strategic Plans

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

EARSC welcomes the proposal for a regulation on the new EU Framework for Forest Monitoring and Strategic Plans and fully supports the initiative of the European Commission to develop an EU-wide forest observation framework to provide open access to detailed, accurate, regular and timely information on the condition and management of EU forest ecosystems, ensuring sustainable forest management for healthy, biodiverse and climate change resilient forest ecosystems.

Forest management is increasingly expected to address broader policy issues, including poverty alleviation, climate mitigation, energy supply and other fundamental issues on the development agenda. As a consequence, forest management, in addition to traditional wood production and conservation objectives, needs to be mainstreamed across sectors and issues. Comprehensive forest monitoring, assessment and reporting¹ are therefore required for informed data-driven decision-making, to have forests and forest management significantly contribute to livelihoods, sustainable development and poverty reduction. This statement introduces how the Earth Observation sector is currently supporting forest monitoring² and can therefore contribute to the objectives of this initiative.

Achieving Europe's forest restoration goals will require multifaceted coordinated efforts throughout all EU member states. Measuring forest changes in a timely manner is a prerequisite for understanding forest policy effectiveness and driving progress towards the 2030 goals. Forest measurements through Earth Observation technology can provide objectivity and transparency. Without this transparency through real-time data, the success of the EU forest legislation may not meet the expectations of its initiators.

¹ FAO's partnership with developing countries –opportunities for the REDD process (<https://www.fao.org/3/k1276e/k1276e.pdf>)

² Services built on remote sensing can support the monitoring, detection and prediction for a variety of use cases including fire alerts, pest management; early detection and monitoring of invasive species; carbon quantification; biomass and wildfire risk management; and sustainable harvest operations.

It is essential to empower decision-makers, both at the EU and Member State level, with the right tools for success. The starting point for this is data. EU institutions and the Member States should have access to the best possible data, from multiple sources, on the state of Europe's forests. This is essential to meet the goals of the 2030 Biodiversity Strategy and the new EU Forest Strategy. The call for evidence for an EU-wide forest observation framework rightfully discusses the potential for data integration, such as that of ground-based sample data and Earth observation satellite data. This is exactly what an EU-wide monitoring system can and should offer in order to cost-effectively provide all stakeholders with a common and improved understanding of forest resources.

Earth Observation data and services play a crucial role particularly in tracking changes to the extent, health and ecological condition of forests inside and outside of Europe. In this respect, remote sensing offers unique capabilities that ground-based in-situ data simply cannot deliver alone. Remote sensing delivers high frequency, high transparency, and wide-area coverage at precision and in a cost-efficient way, powering automated analyses at scale. All of these features are essential for policy development, implementation, and measure tracking. As satellite data sources are constantly expanding, an EU-wide monitoring system with a complete forest inventory, powered by the [Copernicus](#) Programme³ and complemented by commercial datasets would be a game-changer in making forest changes visible and actionable and, thus, should be seen as an essential and legitimate tool for forest management. Commercial satellite missions are designed to be interoperable with the Copernicus Missions and offer additional spatial and temporal resolutions (revisits) to common insights. This is especially important to achieve the stated goals of high-spatial granularity on EU Forests.

The technology is available today and it is operationally used in many countries and regions worldwide providing detailed information on large areas to allow policy-makers to identify risks and tailor their responses reducing the efforts of the costly verification on the ground. The benefits of a standard framework complemented with commercial data would facilitate tracking and comparing country performances against EU targets. This can ensure that forest cover and condition change is automatically detected, classified and actionable, down to the individual tree level where needed.

Europe must also have tools that provide harmonized and timely information across the whole EU, leveling the playing field and offering the Member States the intelligence they need to act. Earth Observation data shall be a foundational element of such information services, since it is wide-scale and consistent globally, it can help construct coherent measurement systems across the board relevant to all actors. However, data must be transformed into useful insights. In order to do this, we shall leverage existing technology and services which are already operational today and which provide crucial forest parameters such as forest cover loss, forest degradation, forest structure change and re- and afforestation.

An EU-wide forest observation framework would also establish a standard practice to be followed by other regions that are important for climate change reporting – forest area

³ Copernicus programme: Copernicus is the European Union's Earth observation programme coordinated and managed by the European Commission in partnership with the European Space Agency, the EU Member States and EU agencies. It aims at achieving a global, continuous, autonomous, high quality, wide range Earth observation capacity (www.copernicus.eu)

changes and forest carbon stock. Moreover, it has the potential to not only meet climate policy objectives but also create sustainable innovation and economic opportunity⁴. EU-wide monitoring systems represent significant and sustainable economic development opportunities for downstream applications in sectors as diverse as agriculture, forest, and natural resource management.

Forest monitoring applications and related analytical functions provide key insights-evidence based enabling a better understanding of the state of forests, and providing situational awareness over vast areas in a timely manner. Earth observation data will play a key role in the EU-wide integrated forest monitoring framework. Together with other commercial operators, downstream service companies and Copernicus Sentinel missions, a powerful Earth Observation ecosystem will improve the accuracy and timeliness of forest monitoring. EARSC remains at your disposal to work together on this objective.

⁴ i.e., Swedish best practices for forest management ([link](#)) foresee forest replanting after clearing, pre-commercial thinning and commercial thinning. To support forest owners in the process, the Swedish Forest Agency (SFA) advises owners when to best cut their trees and get higher long term returns from their forest assets. Through the use of satellite-based clear-cut maps, the SFA can promote best practice to the 300,000 private owners. This has resulted in increasing forest and timber reserves whilst at the same time preserved natural forest land increasing its value for ecotourism.