EARSC
European Association of Remote Sensing Companies

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EARSC Response: Roadmap towards Nature Credits

The European Association of Remote Sensing companies (EARSC) is a trade association representing approximately 140 members across Europe in the Earth Observation (EO) downstream industry. EARSC and its members are closely following initiatives and activities of the European Commission in the biodiversity domain, and welcome the initiative on a Roadmap Towards Nature Credits, and acknowledge the need for additional funding and mechanisms to ensure the EU can meet its climate and biodiversity targets.

EARSC appreciates the recognition already given to Copernicus services in the text of the Roadmap, as well as to remote sensing and geospatial tools, in supporting the development of this domain. Building on projects such as the European Space Agency's LEON Project (Leveraging Earth Observation for Nature Finance)[1], and through Horizon Europe and LIFE programmes, it is clear that EO can play a central role in providing reliable, transparent, and scalable data to underpin and support nature credits.

EO technologies offer capabilities to monitor ecosystems, track changes over time, and verify outcomes consistently and cost-effectively. EO is already supporting monitoring, reporting, verification (MRV) in the biodiversity domain, as well as in other policy areas such as carbon removals, land use and land use change, and ecosystem health, all of which are key parameters for a robust and trustworthy nature credits system. These features are essential for establishing trust in nature credits, ensuring integrity, and enabling sound decision-making and financial management. The roadmap and its implementation should further emphasise the integration of EO and Copernicus services as key enables for the credibility and effectiveness of the European approach to developing nature credits. Furthermore, credible and trustworthy nature credits rely on measurable biodiversity gains. In other words, nature credits should not compensate for biodiversity reduction and eviction over seasons and over natural habitats. EO, combined with AI, is a key technology to measure biodiversity uplifts, starting with baseline metrics and monitoring capabilities over time and space, while providing scientific, unbiased, consistent, time and resource-efficient analytics that support quantifiable and measurable information.

Despite recent advances in the spatial, spectral, and temporal resolution of Earth Observation (EO) data, whether from public sources such as the Copernicus programme or from private missions represented by many EARSC members, it is widely acknowledged that biodiversity proxies remain the most practical and effective objects to observe, detect, and monitor. These proxies include, i.e., biodiversity-relevant landscape elements such as hedgerows, natural rockfills, flowery strips, and pastures, as well as carbon farming practices like extending crop rotations, introducing legumes into rotations, planting cover crops, and reducing chemical inputs. Such proxies provide the best available means of assessing biodiversity potential and measuring both gains and losses over time. In this context, zu Ermgassen et al. (2025) emphasize that the proxies used in nature markets must be closely aligned with the intended

[1] LEON - Leveraging Earth Observation for Nature Finance - European Space Agency.

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ecological outcomes.[2] Their first key recommendation, "ensure the nature market's proxy correlates with the desired outcome," stresses that when the target variable relates to land cover, credit issuance should be linked to real-time satellite data. Conversely, when policy goals focus on site-level biodiversity that cannot be reliably captured by remote sensing alone, markets should either conduct on-site measurements or use a scientifically validated proxy. Last but not least, while EO can play a major role in monitoring and supporting ecosystem biodiversity, specific and genetic biodiversity must also be addressed in parallel in order to establish a robust, long-term, and meaningful nature credit system for the private sector and investors.[3]

EARSC and its members stand ready to support the European Commission in its ambition to develop a sound framework for nature credits, and believe that EO can be a vital tool for the success of this ambition.

[2] zu Ermgassen, S., Swinfield, T., Bull, J.W., Duffus, N., Macintosh, A., Maron, M., Theis, S., White, T.B. and Evans, M.C., 2025. Five golden rules for scientifically-credible nature markets.

[3] UN definition 1993: "Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.