

# #RESTORENATURE

## SATELLITE DATA FOR EU NATURE RESTORATION & ENVIRONMENTAL COMPLIANCE

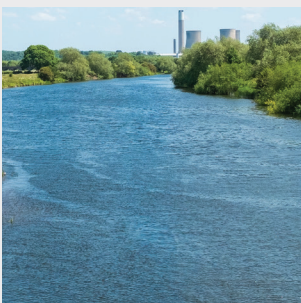
The Nature Restoration Regulation (NRR) and broader EU environmental initiatives are accelerating the need for authoritative, spatially explicit datasets that enable Member States to design, quantify, and report restoration measures at operational scale. As national authorities develop their restoration plans and adopt new soil health and water resilience frameworks, LPIS and habitat-mapping agencies will need consistent, high resolution baselines. Regular data updates are essential to assess habitat condition, pinpoint priority restoration areas, and track progress against EU-mandated indicators. Very High Resolution (VHR) satellite imagery, combined with existing Sentinel and in-situ datasets, provides a scalable foundation for these tasks and ensures seamless integration into established IACS/LPIS workflows.



### Nature Restoration Regulation (NRR)

- Requires Member States to prepare national restoration plans mapping areas, outlining measures, timelines, and financing.
- Obligations include monitoring and reporting habitat-condition indicators (forest structure, soil organic carbon, connectivity).

Source: Environment Directorate-General; EUR-Lex.



### Water & Ecosystem Resilience

- Restoration planning intersects with EU water policies, including wetlands, riparian zones, & hydrological connectivity.
- Satellite data enables monitoring water dynamics and documenting restoration outcomes over time.

Source: Environment Directorate-General; EUR-Lex.



### Soil Monitoring Directive / Soil Health Framework

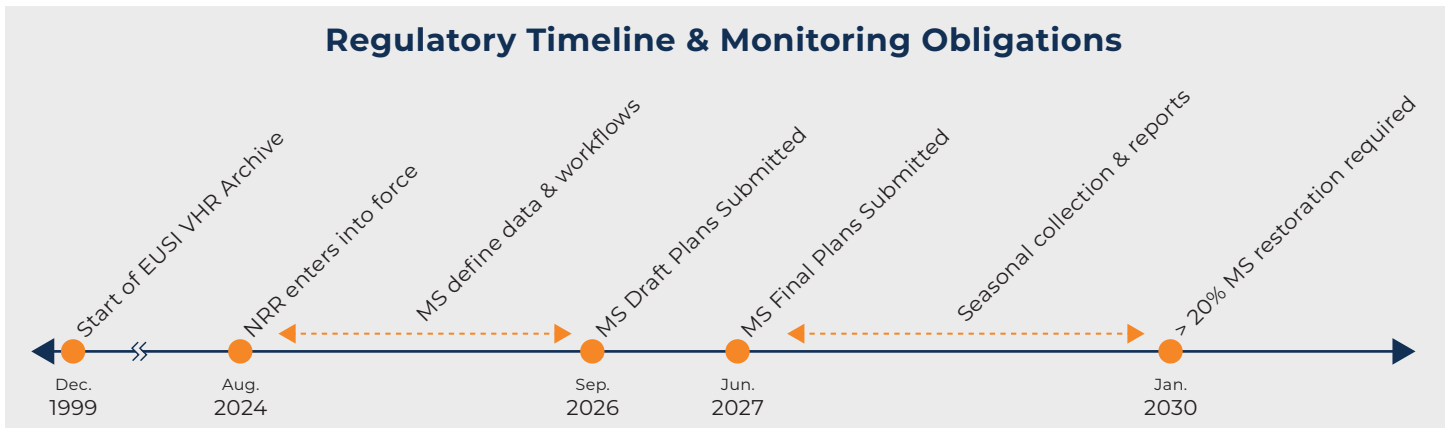
- Establishes soil health monitoring across Member States using common descriptors (organic carbon, compaction, sealing).
- Supported by the EU Soil Observatory (EUSO), providing reference datasets, indicators, and dashboards for reporting.

Source: consilium.europa.eu; EUSO / ESDAC (JRC)

# REGULATORY IMPLICATIONS & VHR SATELLITE SOLUTIONS

Implication / Challenge	VHR Satellite Solution
Need high-resolution baselines & change detection for NRR	Sub-meter archive imagery establishes defensible baselines; repeat collections track habitat condition trends and restoration progress
Reporting must be parcel-linked, spatially explicit & verifiable	Orthorectified, high-accuracy imagery supports parcel-aligned mapping and audit-ready documentation
Ecosystem-condition indicators (connectivity, forest structure, wetlands, soils) require consistent spatial data	8-band multispectral supports moisture, vegetation structure & surface composition analyses across habitats
Monitoring must be scalable, repeatable & compatible with national Sentinel workflows	VHR mosaics plus targeted revisits integrate seamlessly with Sentinel-based IACS/LPIS workflows for annual or seasonal monitoring

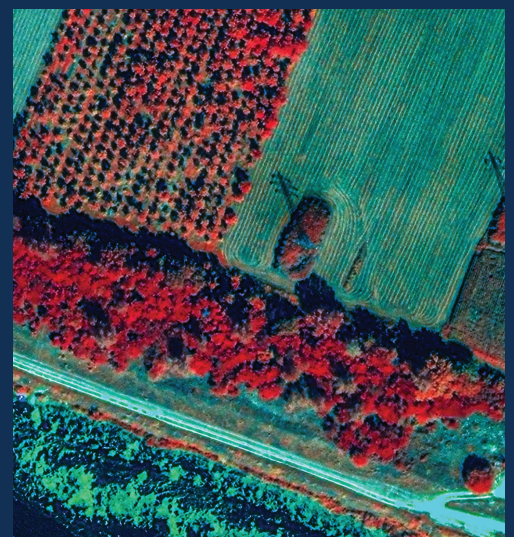
## Regulatory Timeline & Monitoring Obligations



## Which Imagery Specifications Best Support Habitat and Restoration Monitoring?

### RECOMMENDED SPECIFICATIONS AND CAPABILITIES

- ✓ 30 cm national coverage for high-detail basemaps
- ✓ 15 cm HD urban imagery for feature extraction
- ✓ 8-band multispectral, aligned with Sentinel-2
- ✓ Multi-stereo collections for 3D modelling
- ✓ < 5 m CE90 (1.5 m RMSE) accuracy without GCPs
- ✓ AM + PM collection windows to mitigate shadows
- ✓ Easily accessible 20 year archive
- ✓ Local EU-based tasking operations
- ✓ Flexible delivery: data-only or full processing
- ✓ Access via web app, API and personal support



Novi Sad, Serbia | 15 cm HD | EUSI

**Do you have questions?**

LPIS@euspaceimaging.com | +49 89 130 1420