

SATIKAS — Estonia's Deep-Learning Satellite System Monitors 100% of Grasslands for CAP Mowing Compliance

AI in the Public Sector · Good practice · Estonia

Quality score: 87/100

Evidence strength: Observational / pre–post

Summary

Estonia's paying agency ARIB uses a deep-learning system built with Tartu Observatory and KappaZeta to check mowing compliance on all ~101,000 registered grassland parcels by satellite. A peer-reviewed evaluation found 92.4% detection accuracy.

Key dimensions

Dimension	Score
Evidence of impact / measured public value	3/3
Transparency, fairness & accountability	2/3
Transferability / demonstrated replication	3/3
Scalability beyond pilot	3/3
Governance, capability & sustainability	2/3

Evaluated by C-NAPSE

Data sources

[C-NAPSE web research](#) — accessed 2026-09-13

[Estonian Agricultural Registers and Information Board \(ARIB/PRIA\), Tartu Observatory, KappaZeta](#) — accessed 2026-09-13

[Preidane et al., Scientific Reports \(Nature\), 2022 — Exploiting time series of Sentinel-1 and Sentinel-2 to detect grassland mowing events using deep learning with reject region](#) — accessed 2026-09-13

[EARSC — Grassland Monitoring in Estonia case study](#) — accessed 2026-09-13

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