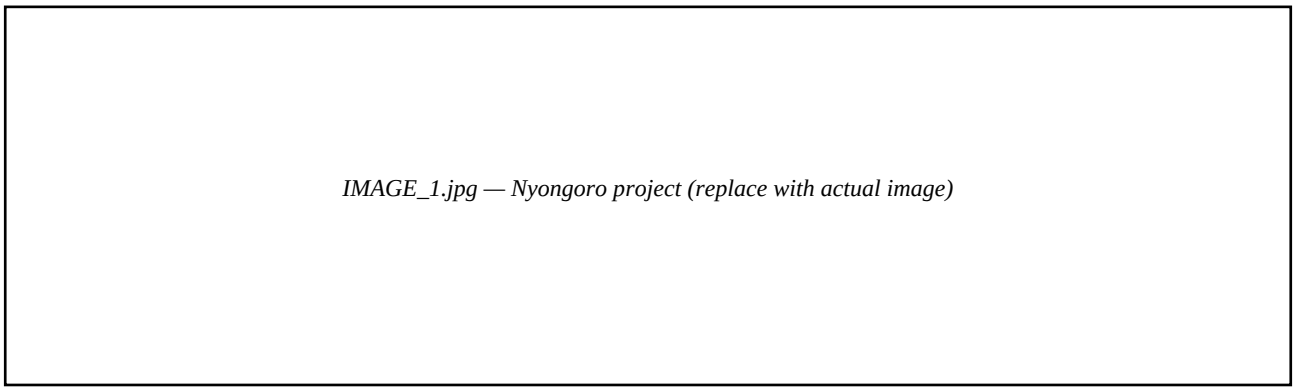
From Carbon to Proof — Case Study

Spera Impact — Measurable Planet (derived from BA Woll, Nov 9, 2025)

Executive summary: Spera Impact has developed a proof-based platform (SIS v3.2) that turns ecological outcomes into auditable, investable assets. This document summarises the architecture, Nyongoro pilot, DIPPS, financial innovations, permanence engineering, governance, and market implications.

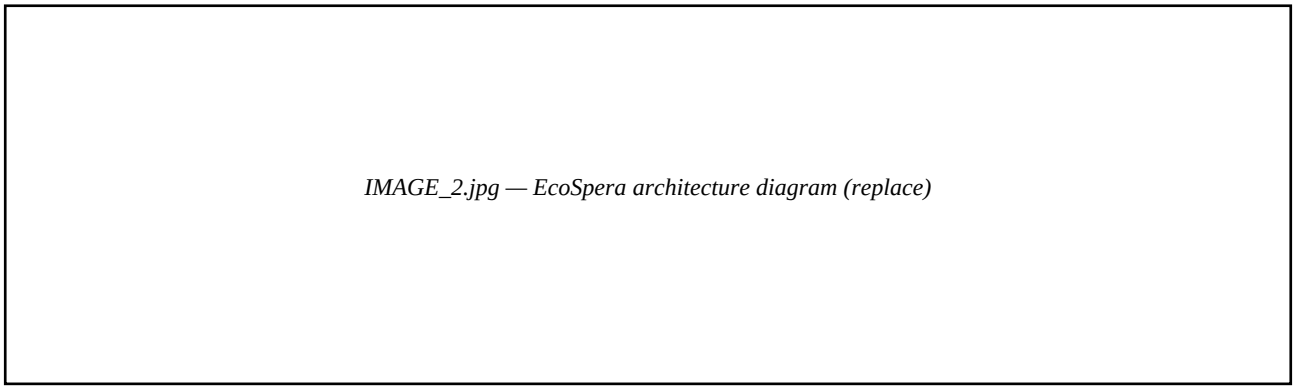


Market context

The voluntary carbon market is shifting from faith-based offsets to verifiable removals. Signals include large verified removaI deals (e.g., corporate purchases), regulatory alignments, and measurable deforestation reductions creating demand for continuous, auditable MRV.

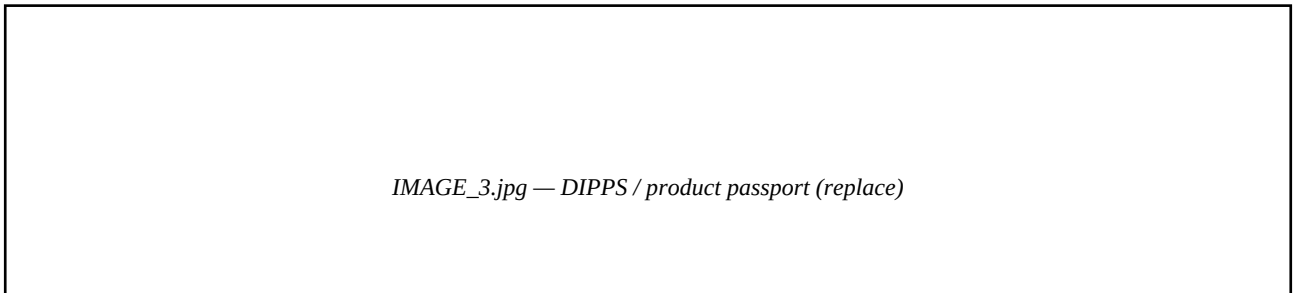
Spera Impact Standard v3.2 — System architecture

Core components: EcoSpera zkMRV (continuous MRV using IoT, drones and satellites; zero-knowledge proofs), Environmental Credits Repository (eco_hash records), SperaNex (Smart ERPAs and Smart Bonds), Spera DAO + SEAL Nodes (Science, Ethics, Audit, Legal oversight).



The Nyongoro pilot

Nyongoro Carbon Agroforestry Cluster: 2,000 hectares initial pilot (scale to 50,000 ha). Projected to remove 2,000,000 tCO2e in phase one, create thousands of jobs with a 50% priority for women and youth, and channel 60% of net revenues into community development.



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DIPPS fractionalises verified tonnes into micro-offsets attached to consumer goods, enabling product-level proof and integration with major ERP systems and blockchain networks. This allows enterprises to move from estimates to verifiable Scope 3 accounting.

Financial innovation

Smart Bonds and Smart Credits tie investor returns to ecological performance. Forecast yields 6–9% depending on verified outcomes; coupon payments are released automatically by SperaNex upon meeting MRV thresholds.

Permanence & governance

Permanence engineered via a 25% dual buffer (terrestrial + blue-carbon) with predictive analytics modelling 40-year storage probability. Governance uses a DAO structure with SEAL Nodes to ensure distributed, auditable oversight. Compliance aligns with Article 6, ICVCM Tungsten Plus and CORSIA Phase 2 standards.

Conclusion

Spera Impact demonstrates a transition to a proof-based carbon economy: continuous verification, on-chain evidence, product-level traceability, and finance tied to outcomes. When impact is measurable, market value aligns with verified environmental and social returns.

References: BA Woll, 'From Carbon to Proof: The Dawn of the Measurable Planet' (Nov 9, 2025). Spera Impact materials (2025). COP30 briefs.