



Open Source Digital Infrastructure for Food &
Agriculture

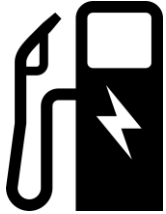
Spotlight: Deforestation tracking for EU regulations

Outline

1. Motivation for open-source digital infrastructure
2. Deforestation Tracking - Proposed Solution Architecture
3. POC Demo [optional]
4. Governance and Partnerships
5. Budget for Financial Sustainability

Motivation for open-source digital infrastructure

Metaphor - Digital Innovation in the 21st century



Data <=> Energy [gasoline / diesel / electrons]

- **Source of power**



Applications <=> Vehicles [car, truck, boat, airplane]

- **Value creation**

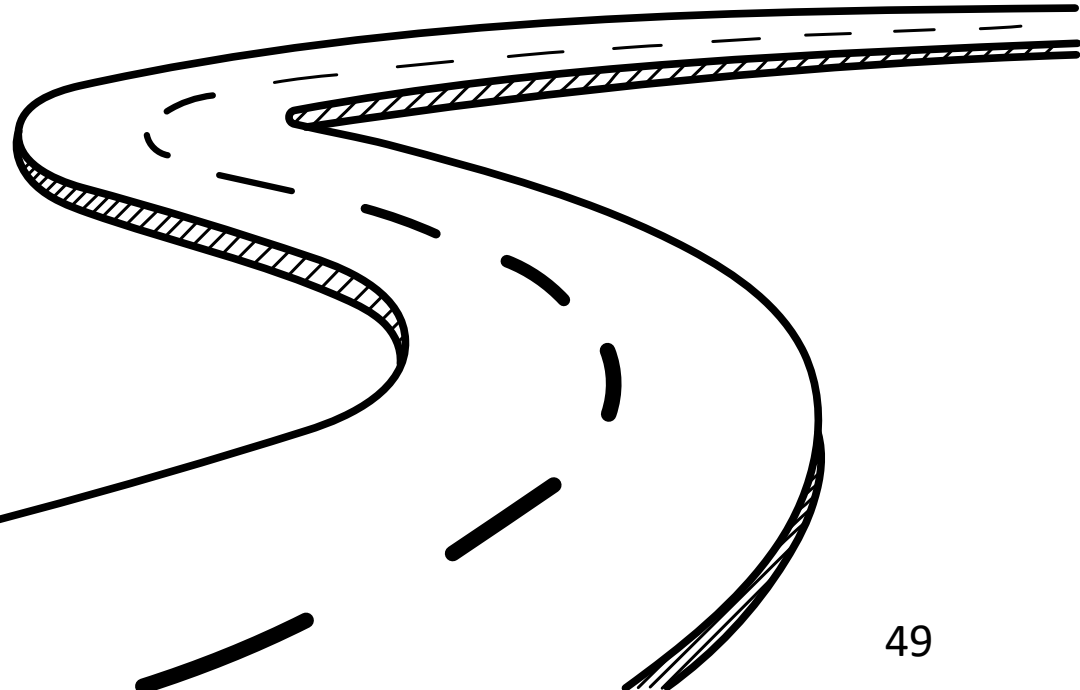


Infrastructure <=> Road [port/dock, airport]

- **Value enablement**

Problem - Everyone is building their own road !

1. Accessibility
2. Cost / Reusability
3. Maintainability
4. Interoperability
5. Trust (Neutrality, Security)
6. Quality



Important considerations

1. What comes first? (energy, vehicle, road)
1. Can we build roads one small section (for a given vehicle and use-case) at a time?
1. Who pays for the road? (so everyone can use it)
1. Can this road provide guard rails for safety? (e.g., AI, larger question of trust)
1. Can roads accelerate value-creation in the private-sector?

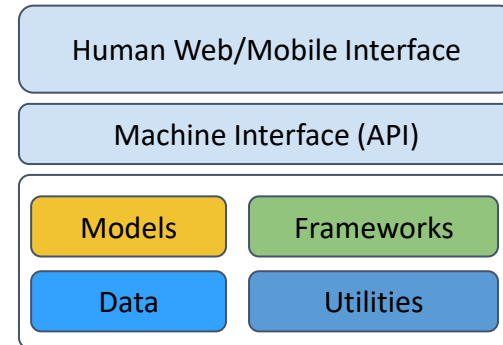
All of these have been addressed multiple times in other industries by open-source

Deforestation Tracking

Proposed Solution Architecture

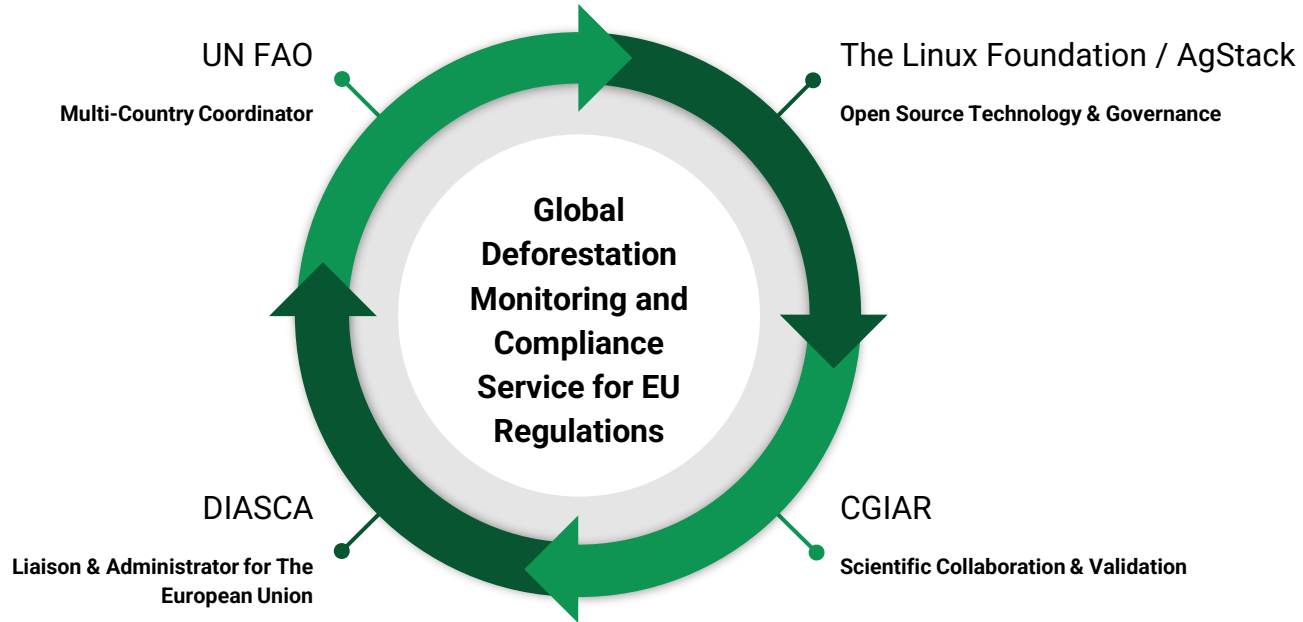
Proposed Architecture for a **Solution** for Deforestation Tracking

1. Geo-boundary registry **utility** [creation and maintenance of a *geoid*]
2. **Data** pipeline for public data [geospatial and temporal *data indexed by geoid*]
3. **Model** library with pub-sub mechanism [models use *input from the data pipeline*]
4. IoT, Messaging and blockchain **frameworks** for ground-truthing / observation data collection
5. FREE UX/Front-End [no-code] and public API for humans and machines



Governance & Partnerships

Partnership for Governance of this Digital Public Good



Governance - Leverage the Linux Foundation Model

The Linux Foundation builds ecosystems

