

Pilot sites in Finland

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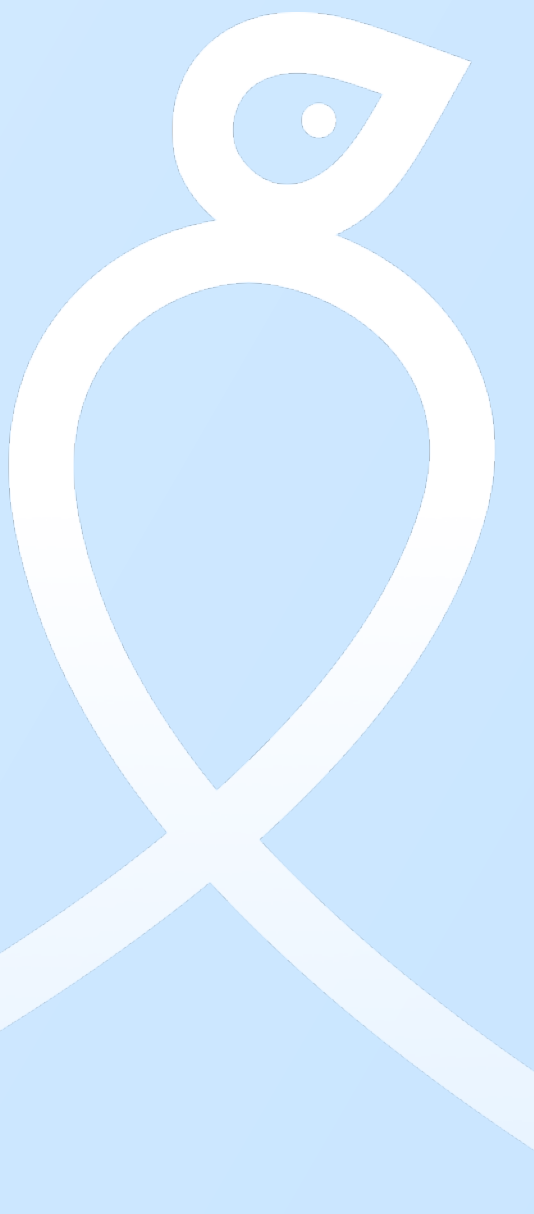
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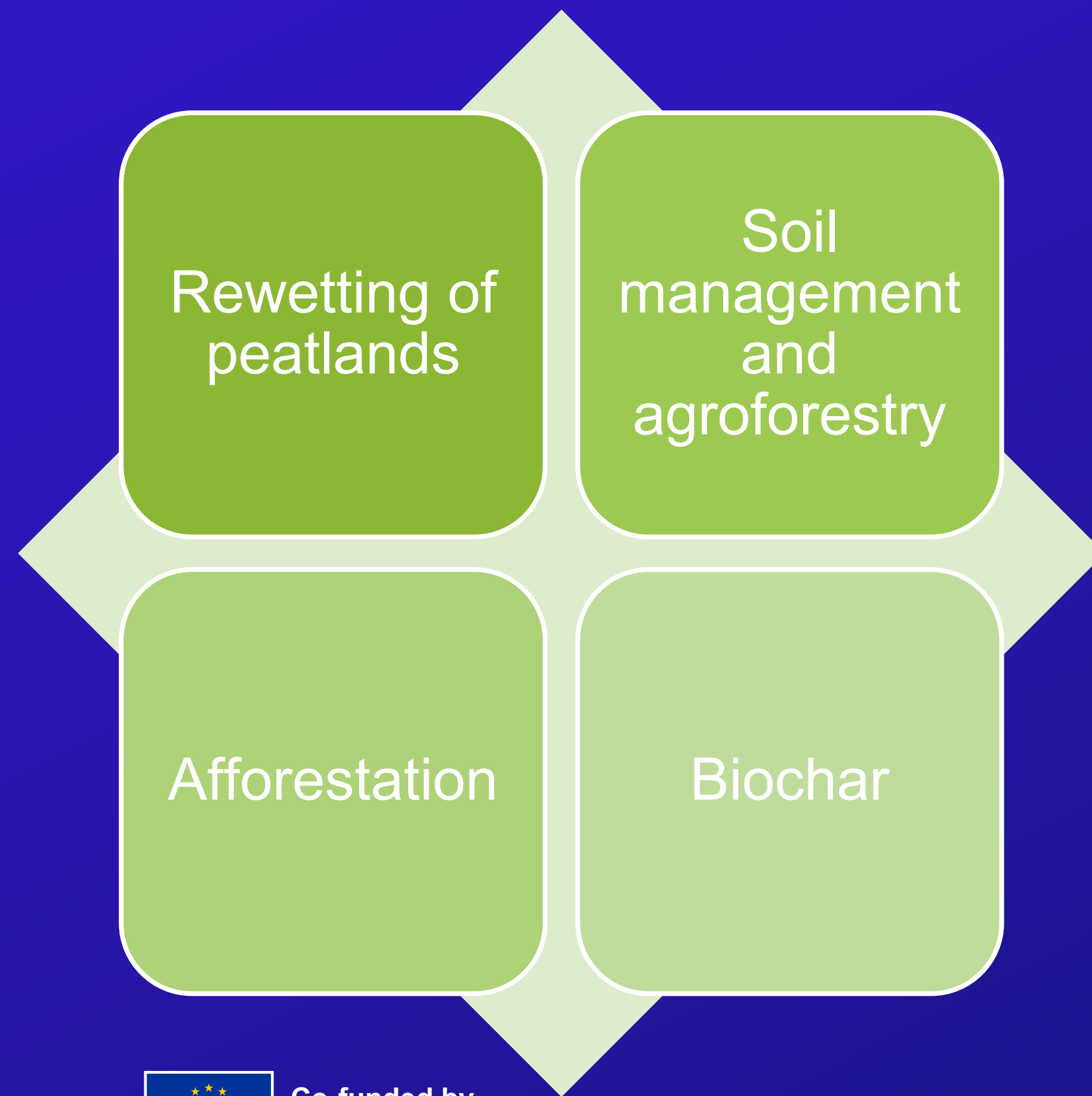
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Carbon Removal and Carbon Farming (CRCF) Methodologies to be developed by EU by the end of 2025



Critical challenges:

Sustainability

- Biodiversity co-benefits
- Link to nature restoration regulation

Liability

- Risk assessment

Additionality

- Combination with public funding

Quantification

- Validation of models



Expected next steps

2024

- Entry into force of CRCF Regulation

2025

- Proposal for first certification methodologies
- Proposal for rules of verification and registry

2026

- Recognition of certification schemes
- First issuance of certified units

2028

- Start of EU Registry

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When and how can additionality be achieved in Finnish forest management?

10. Rewetting of peatlands

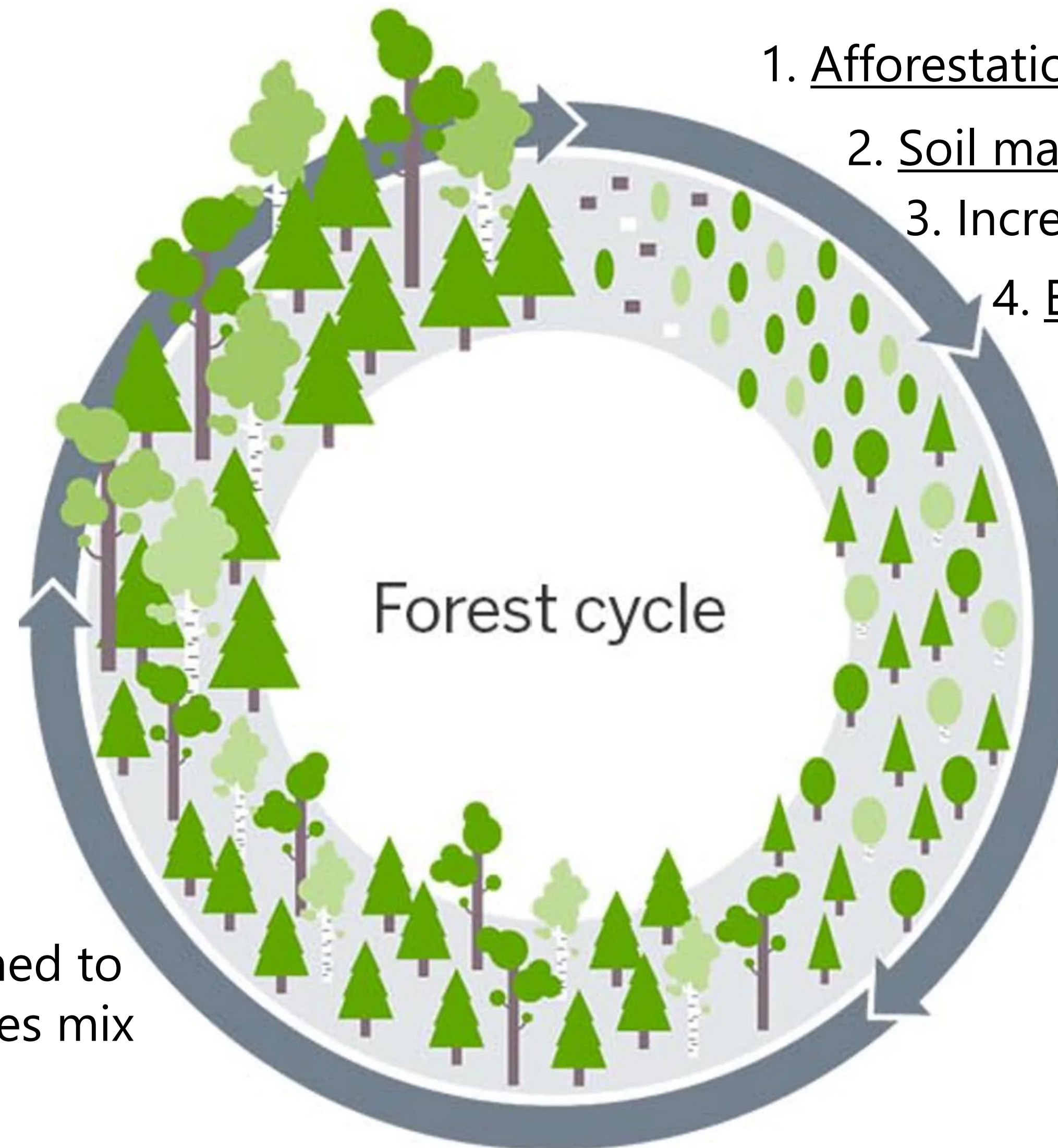
9. Extending rotation cycle

8. Continuous cover forestry:

- Natural regeneration
- Without soil disturbance
- Without soil preparation
- Soil carbon preservation

7. Fertilization

6. Smart thinning operation aimed to maximize carbon capture, species mix optimization



1. Afforestation of abandoned lands

2. Soil management and agroforestry

3. Increase planting/seeding density

4. Biochar

5. Smart young stands management aimed to maximize carbon capture, species mix optimization



Next Steps for Project Implementation

Practical Piloting:

- 🚀 Launch pilot projects and iterate (“learning by doing”), we need forest owners to establish pilot sites (private, public, other?)

Verification & Standards Integration:

- ✅ Utilize existing standards (Gold Standard, Verra): available now
- 📄 CRCF forestry methodologies (2025): integrate existing and explore new certification schemes

Policy & Regulatory Alignment:

- ⚖️ Address additionality, permanence, and “no double counting”

Corporate Insetting Opportunities:



- 🏭 Companies investing in carbon removals within their own supply chains (Scope 3 emissions, many agrifood companies)
- 🌲 Opportunities for wood products companies to finance forest projects generating credits



Boosting Forest Owner Profit Through Accurate Biomass Estimation in Finland

Core Idea

Remote Sensing Methods:



-  *Satellite-based estimation: ±20% error*
-  *LiDAR-based estimation: ±0.1% error*

Carbon credit rules:

Only verified biomass (outside error margin) can be monetized.

Real-World Example (per 1 ha of Finnish forest):



- Average annual CO₂ growth: 3.5 tons/ha
- CO₂ price: €200 per ton

Method	Usable CO ₂	Revenue (€/year)	Revenue (€/5 yrs)
 Satellite	2.8 t	€560	€2,800
 LiDAR	3.4965 t	€699.3	€3,496.5

 Annual gain per ha: +€139.3

 Gain over 5 yrs (per ha): +€696.5

Scaling Up – 20 ha Forest Example:

Method	Revenue (1 yr)	Revenue (5 yrs)
 Satellite	€11,200	€56,000
 LiDAR	€13,986	€69,930

 Extra income (5 yrs): +€13,930

Conclusions:

 **Higher measurement accuracy = more verified carbon = more revenue**

 Ideal for carbon credit projects & sustainable forestry

Potential approach in Finland

To be discussed with partners and stakeholders

- 1. Select a site eligible for certification under existing methodologies, such as:**
 - Afforestation of abandoned lands: Metsitustuki (Kontiolahti 10 ha)
 - Biochar application
 - Forest fertilization (Oulu?)
 - Extending the rotation cycle

- 2. Identify a site suitable for future certification** under the upcoming EU Carbon Removal Certification Framework (CRCF) post-2025, including:
 - Smart forest management practices
 - Continuous cover forestry (CCF)

Discussion Questions: Integrating Project Outcomes with Regional Needs

- 1. Which regional climate or forestry policies could directly benefit from the project's demonstration results or toolkit?**
(e.g., carbon farming pilots, continuous cover forestry, forest biodiversity strategies)
- 2. How can local forest owners and small municipalities be supported in applying the project's methods after the project ends?**
(consider capacity-building, funding, advisory services)
- 3. Are there specific regional barriers (legal, technical, cultural) that might limit the uptake of digital tools like drones or AI in forest carbon accounting?**
- 4. How can regional actors contribute to the long-term use and updating of the Forest Carbon Farming Toolkit?**
(e.g., through local universities, agencies, or forest centers)
- 5. What role should the project partners play in influencing upcoming EU or national policies through the policy recommendations being developed?**

Thank you!

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