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Forest EcoValue

Living Lab - Italy

The importance of a multi-functional approach to forest ecosystem services
The experience within the Italian Living Lab

Forest Eco-Value Final Conference
26th March 2026, Turin

Cristina Tha – Walden s.r.l.

What we will talk about

1. Territorial context
2. Objectives of the Italian Living Lab
3. Business Model development and test
4. Results from the Living Lab
5. Open challenges and next steps
6. Final considerations

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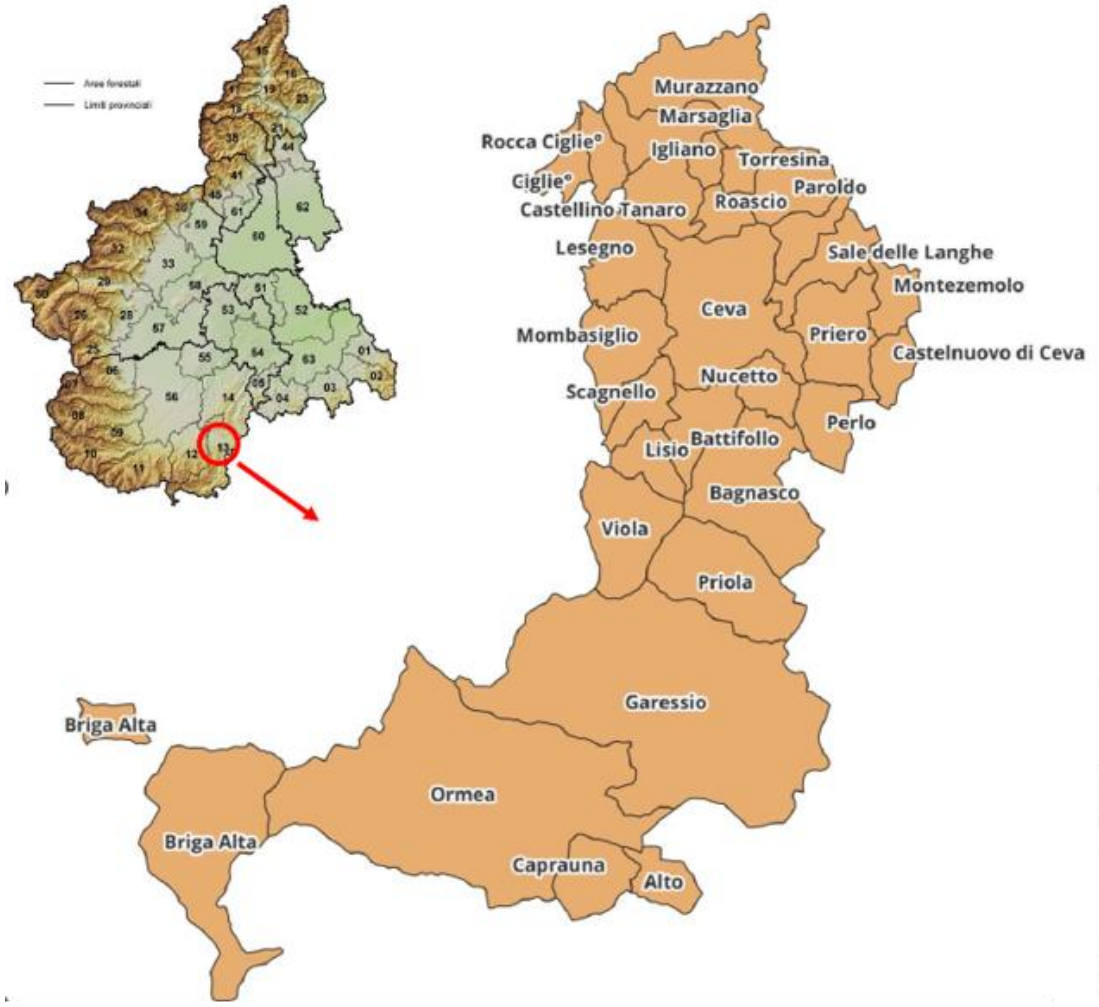
Initial territorial context



- 30 Municipalities
- **Land cover**: 61% forests (41.347 ha)
- **Altitude**: 350 – over 2000 m a.s.l.
- **Climate**: alpine and mediterranean influence
- **Type of forests**: chestnut (45%), beech (21%), mixed broadleafs (oak, ash, hornbeam)
- Presence of Natura 2000 sites and Protected Area

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Local challenges related to forests and community

- Land fragmentation
- Forest abandoned or under-managed
- Low profitability of forest value chains
- Increasing ecological risks (biodiversity loss, climate vulnerability)
- Low competitiveness of local value chain in international markets
- Low cooperation between local stakeholders

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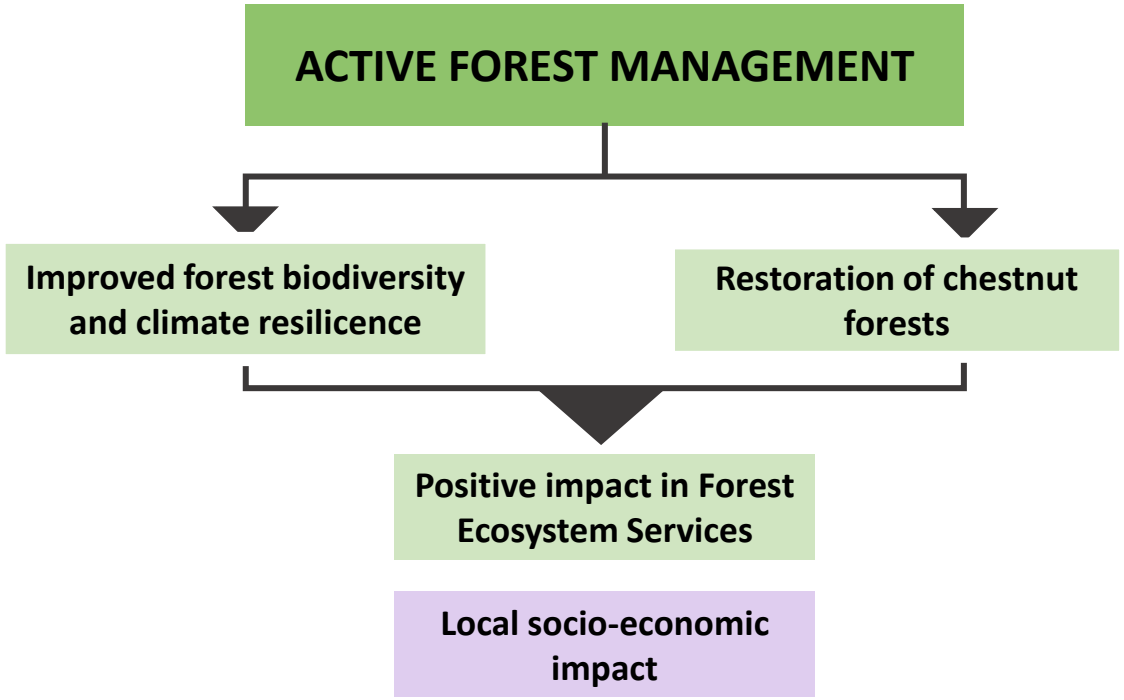
Objectives of the Living Lab



To develop a Business Model capable of valorizing active forest management, oriented to preserve and improve Ecosystem Services provisioning.

Can active forest management become economically sustainable?

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A participatory process…

…to define needs, problems, opportunities and good practices

- Public authorities
- Forest owner associations
- Agricultural enterprises
- Forestry enterprises
- Cooperatives
- Other associations
- Citizens

+40 stakeholders involved

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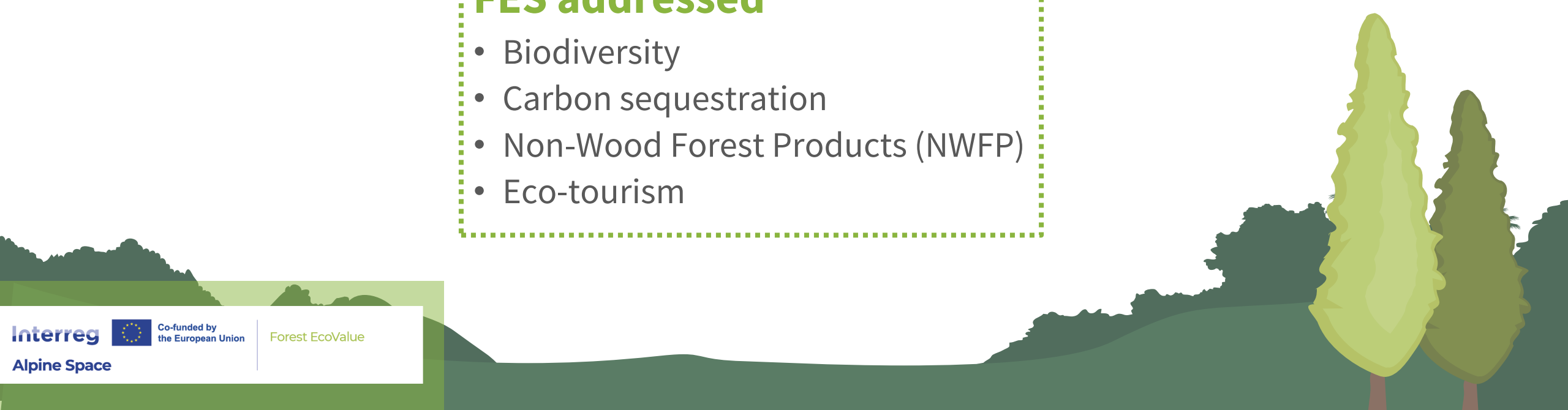
Need of an integrated approach to:

- → Strengthen and enable the network
- → Promote local economy and active forest management
- → Valorise the whole set of Ecosystem Services, not the single ones

FES addressed

- Biodiversity
- Carbon sequestration
- Non-Wood Forest Products (NWFP)
- Eco-tourism



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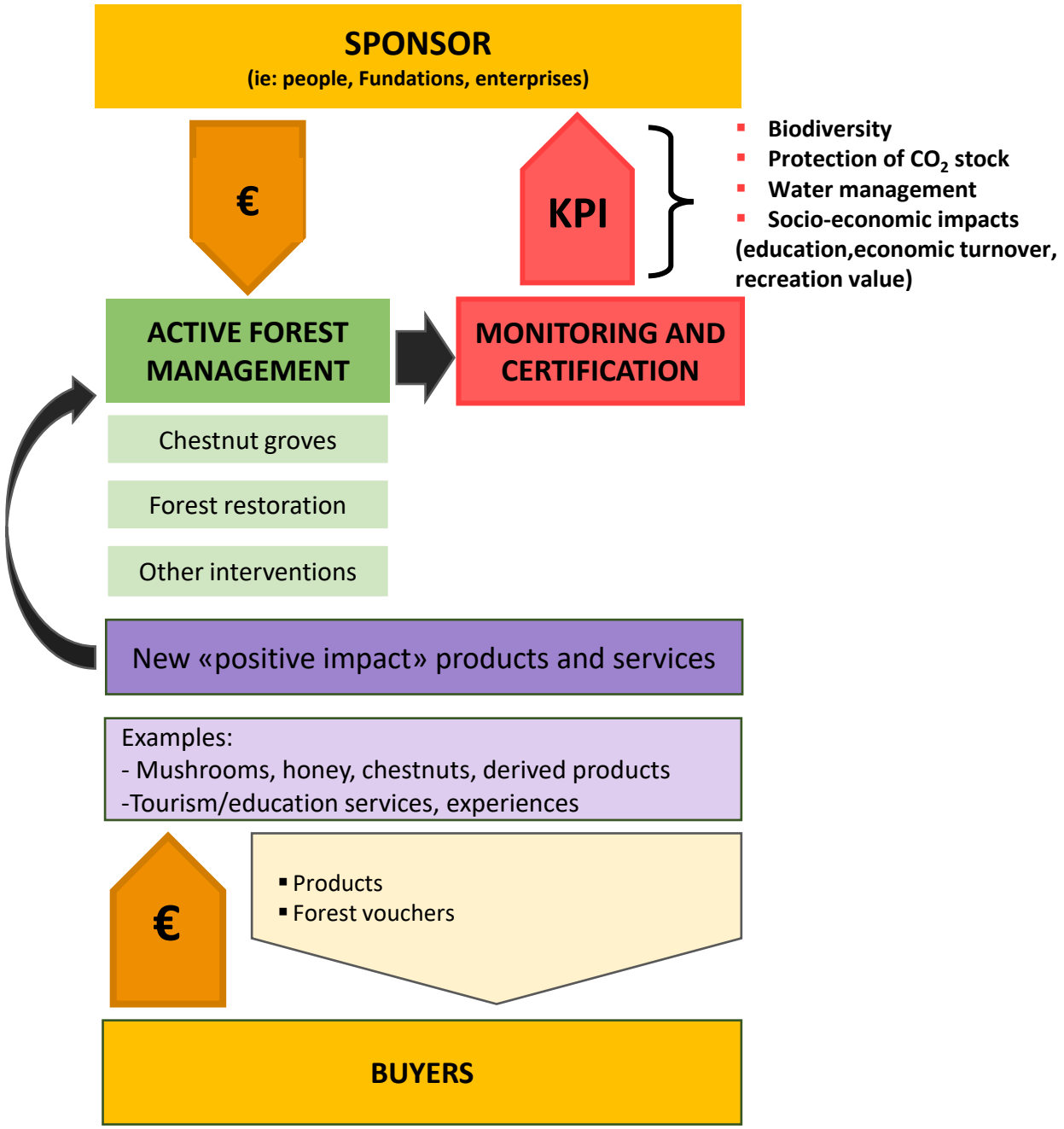

Protocols for project design of active forest management with quantitative metrics for impact assessment.

2 type of business to economically support forest management:

- forest stewardship
- products and services with positive impacts

The model

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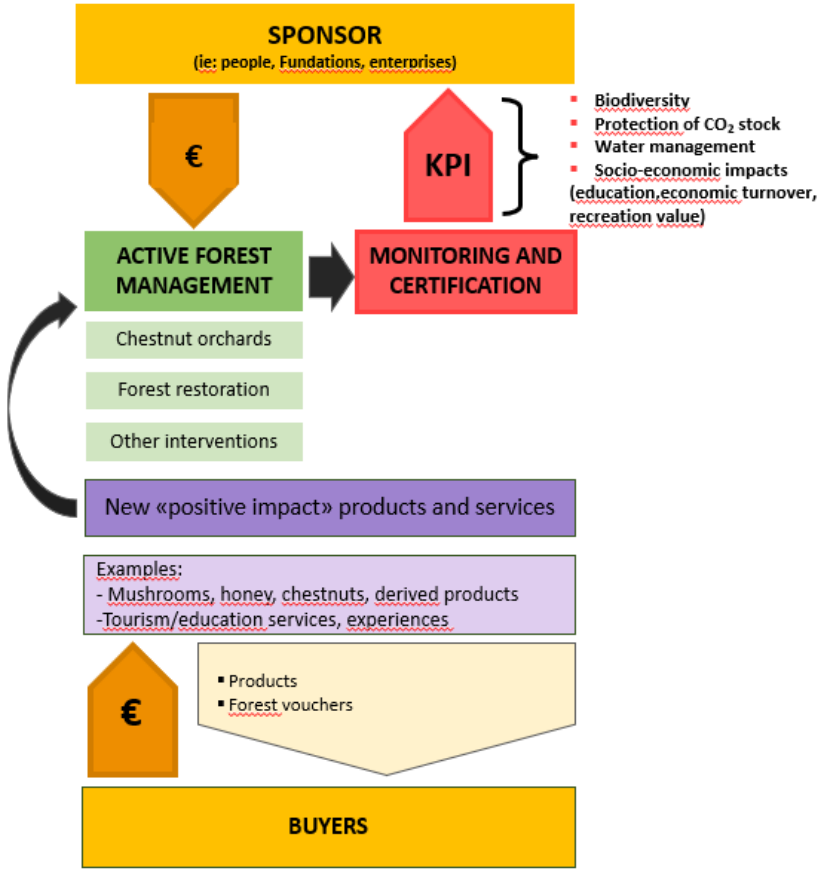
Testing the economic sustainability of the model

- 15 years scenario
- Business plan and market analysis for:
  - Timber
  - Non-Wood Forest Products (chestnuts, mushrooms and honey)
  - Immersive and tourist services
  - Carbon and Biodiversity credits
- Revenue streams:
  - Products and services selling
  - Carbon and biodiversity credits
  - Public incentives



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Testing the economic sustainability of the model

Alternative baseline for credits

Different level of management:
1 - Area extension
2 - Type of forest interventions

Entity of public contribution:
0%
20%
50%
85%

Multiple financial scenario

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Results from the living lab

- Business Model built to reach a minimum profit margin of 10%
- Selling prices of products and service defined by market analysis
- Carbon credits price varies in order to satisfy the principle of 10% profit margin
- High price of carbon credits without public incentives

	CONTRIBUTION			
Scenario 1	0%	20%	50%	85%
Baseline reg	108,00 €	85,00 €	50,00 €	10,00 €
Baseline ord	187,00 €	147,00 €	87,00 €	17,00 €
	CONTRIBUTIION			
Scenario 2	0%	20%	50%	85%
Baseline reg	87,00 €	69,00 €	40,00 €	8,00 €
Baseline ord	151,00 €	119,00 €	70,00 €	13,00 €

Results from the living lab

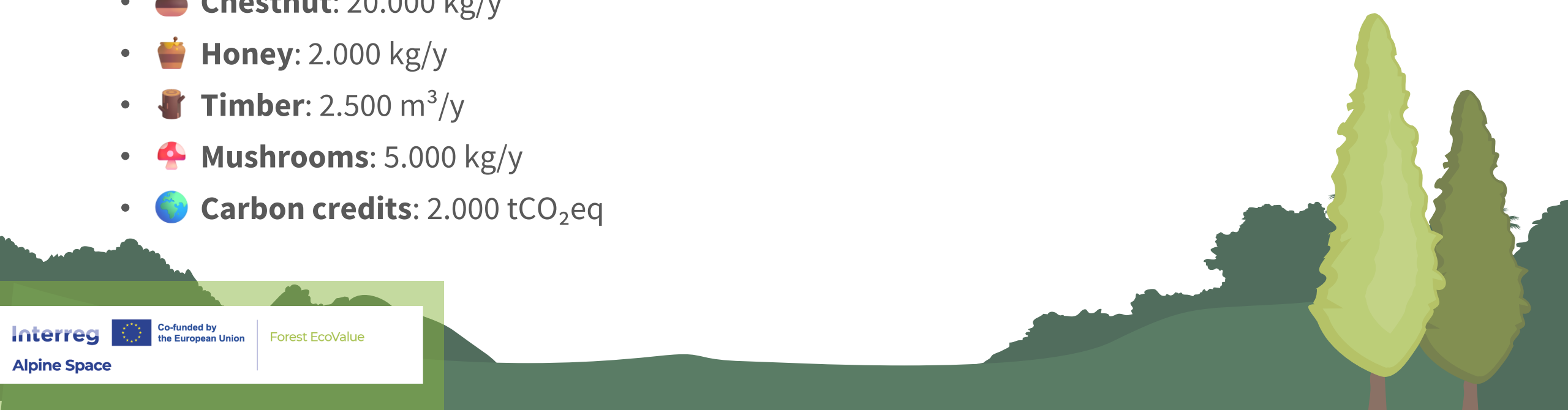
Silvicultural activities

Estimate at full capacity

- 🌳 Aged beech coppices → **25 ha/y** of improved forest surface
- 🌰 Chestnut forests
  - **30 ha** managed (with chestnut forest restoration scenario)
  - **5 ha/anno** (with mixed forest scenario)

Annual output

- 🌰 **Chestnut**: 20.000 kg/y
- 🍯 **Honey**: 2.000 kg/y
- 🪵 **Timber**: 2.500 m^3/y
- 🍄 **Mushrooms**: 5.000 kg/y
- 🌍 **Carbon credits**: 2.000 tCO_2eq



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- **Considered the worse case scenario (negative stumpage)**
  - improved profit margins with forests with positive stumpage
- **Small annual surface**
  - larger surface = more credits issued
- **Some costs already covered by public incentives**
  - management plan, certification, investments in forest interventions and machineries, community engagement

Need of testing with data from a real forest district

Possibilities to improve climate credits value

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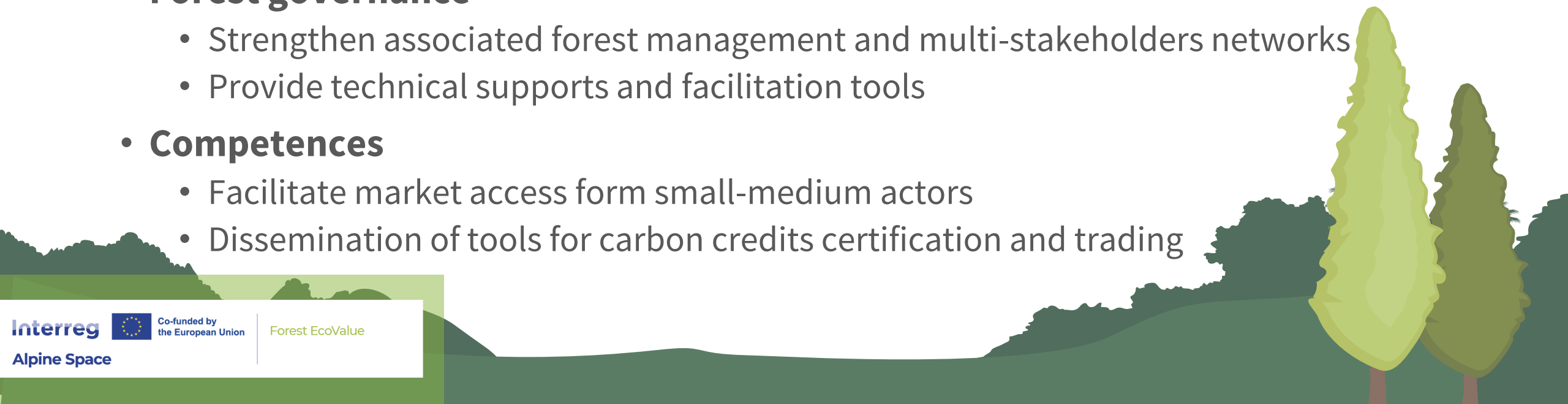
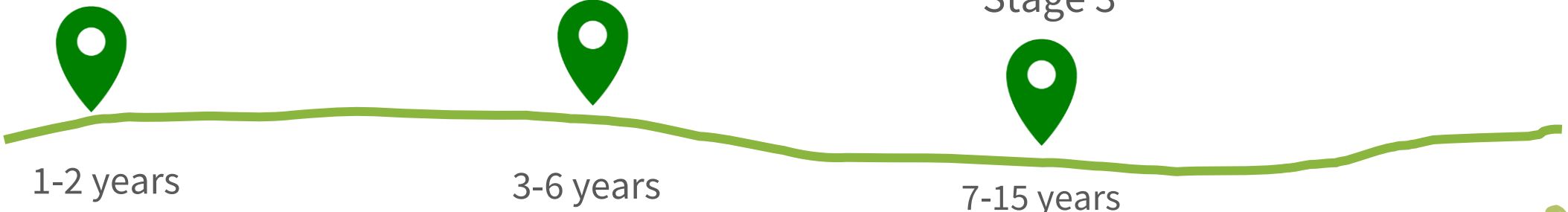
Enabling factors and open challenges

- **Activation of blended finance models**
  - public-private fundings, PES
  - rewards for climate smart timber
- **Climate credits reliability**
  - Clear definition of eligibility and additionality criteria
  - Improved integrity of carbon markets
- **Forest governance**
  - Strengthen associated forest management and multi-stakeholders networks
  - Provide technical supports and facilitation tools
- **Competences**
  - Facilitate market access form small-medium actors
  - Dissemination of tools for carbon credits certification and trading



Next steps

A roadmap to align competences, actors and resources



Experimentation and building trust:

- Contractual model
- Pilots
- Certification

Scale up:

- Improved surfaces
- Products development
- Market activation

Model consolidation and integration in long term territorial planning

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Final consideration

- Active forest management becomes economically viable when revenues from forest products are complemented by ecosystem services revenues and additional public–private funding mechanisms.
- Difficult to have local forest development without public incentives
- Need of forest management oriented to multifunctionality and with medium-long term vision capacity

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Thank you!

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