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# Associating forest sector's actors to encourage forest management, an urgent response to land abandonment processes: an assessment of the Italian context

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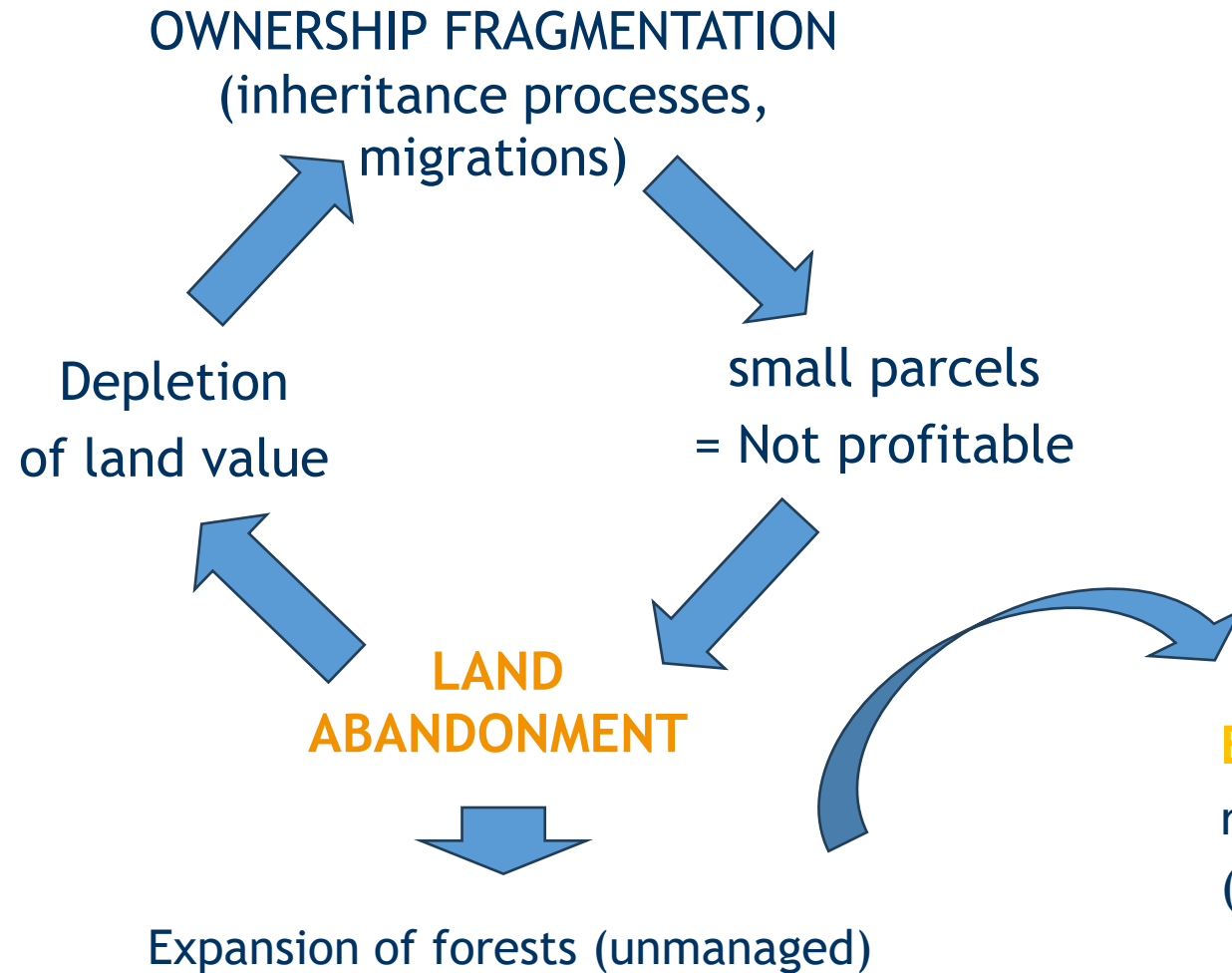
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# Background



European Forest sector facing economic and societal challenges:

- ✓ Re-forestation and re-wilding EU policies
- ✓ Climate change
- ✓ Societal demand for environmental protection and services

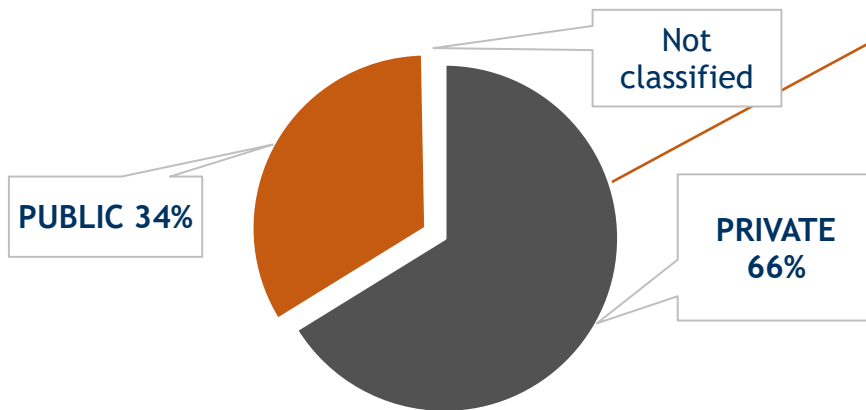
(Kajanus et al., 2019; Stanišić et al., 2021; Zhang et al., 2021)

**Enhanced magnitude** of climate change-related risks (forest fires, landslides, etc.) (Rodríguez Fernández-Blanco et al., 2022)

# Background

Italian forests > 36% of the territory  
→ 65 % above 500 m asl  
+15% in the last 35 years, +70% from 1936

## Forest ownership



Only 15,5% with Forest management Plan



90% small owners (less than 10 ha)

→ many small/micro parcels = **low profitability** = very difficult to actively manage

→ **abandonment of private forests**

(Sources: INFC, 2021; Secco et al., 2017; Falcone et al., 2020)

# Problem statement and Research questions

Forest management can improve the **overall provision of Forest Ecosystem Services** and reduces **risks from natural hazards** (Romano, 2017; Chirici et al., 2019)

Forest land fragmentation and poor organization of the value chain are recognized within the major causes for land abandonment (Dir. Gen. Foreste MIPAAFT, 2017)



Which solutions and instruments can be applied for associating forest owners, to contrast land abandonment and to encourage active management?



Need to better understand land abandonment



Which solutions for associate forest management?



How to implement the different associative models and instruments?

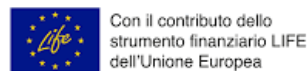
# Methodology

2 (+1) parts, design based on mixed methods:

1. Analysis of proxy statistical data from national databases

2. Policy Analysis + literature review (through 3 steps)

+ (ongoing) case study research analysing and comparing 30 cases of different forest-based associations in Italy

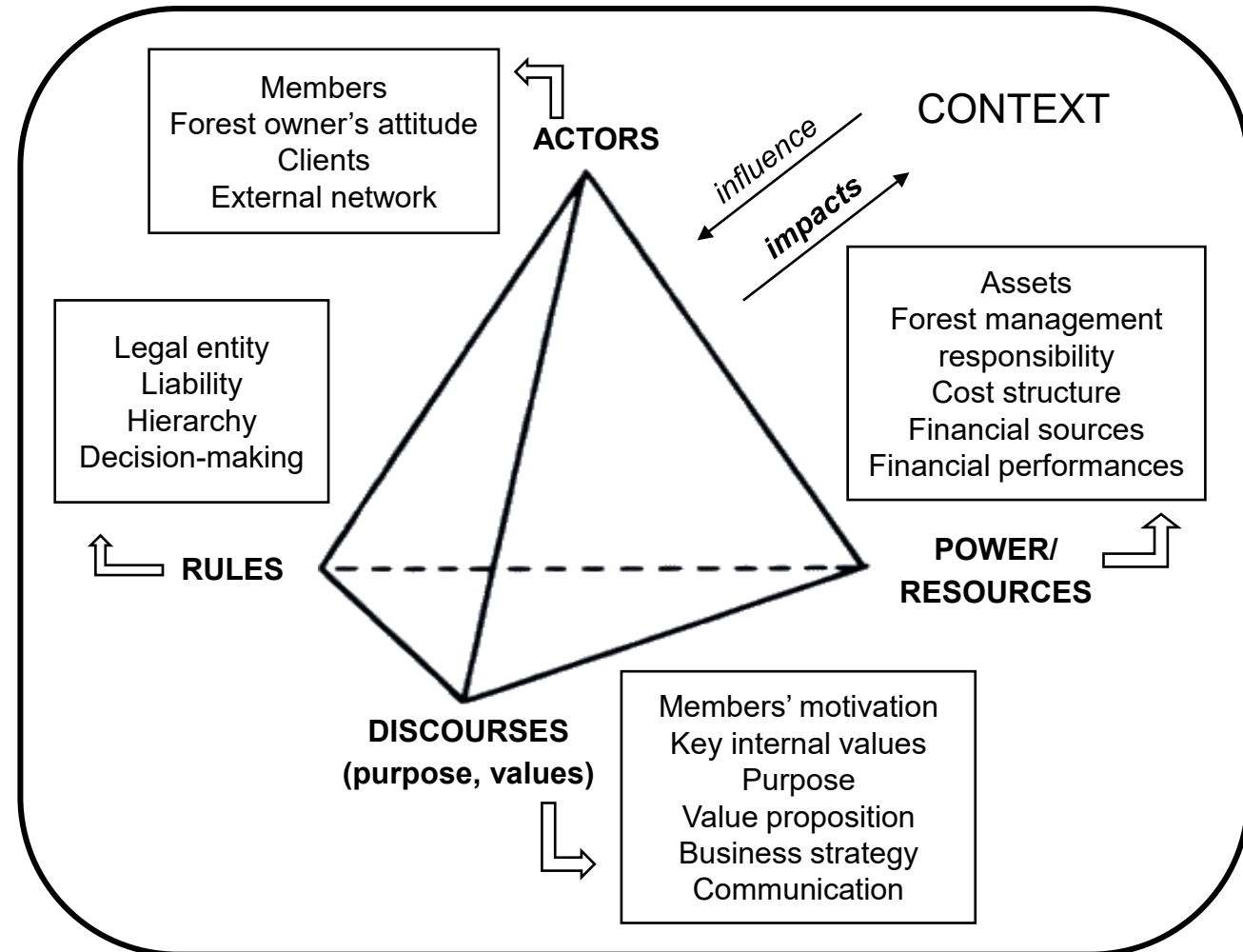


# Conceptual framework

**FOREST OWNERS' ASSOCIATIONS (FOAs)  
or INSTRUMENTS for ASSOCIATE FOREST  
MANAGEMENT (AFMIs)**

ORGANIZATIONAL MODELS → a representation of the way one or more *actors* establish internal and external relationships, set order (*rules*), manage responsibilities (*power*) and resources, to achieve their purposes.

20 variables nested within the 4 key dimensions to describe and characterize organizational models.



(Source: Loreggian et al. 2023, modified from Arts et al. 2003; Wiering & Arts, 2006)

# Results - Land abandonment

From 1982 to 2020:

UAA (Utilized Agricultural Area) → 3,2 Mha missing

TAA (Total Agricultural Area) → 5,9 Mha missing

WA (Wooded Areas) → decreased 2,75 Mha

2,86 Mha of Wooded Areas within active farms  
in 2020

(ISTAT, 2022. Census of Agriculture)

From 2006 to 2020

0,11 Mha of natural and semi-natural  
soil lost  
(ISPRA, 2022. Report on Soil  
consumption)

8,95 Mha of highforests in 2015,  
increased by 46% from 1985  
NO silvicultural intervention on  
37,4% of the forest area  
15,5% with a forest management  
plan  
(National Forest Inventory, 2020)



# Results

## National policies and normative solutions for associate forest management

→ **Forest Consortium**  
Forest Law - RD n.3267/1923

1923

RDP 2000-2006

→ **“Forest management Associations”**

2000-'06

New Forest Law - DL n.34/2018

2018

→ **“associated forms of management**

DM n.13329 del 22/04/2020

2020

→ **Tender for Forest Associations**

**National Forest Strategy**

2022

Promoting forms of **public-private integration**  
for forest management

2023

1970s

L. n.281/1970 and L. n.382/1975  
→ **Administrative decentralisation**

2016

LR Piemonte 21/2016  
LR Lombardia 9/2019  
→ **Landowners Associations**

2019

LR Toscana 11/2018  
→ **Forest Communities**






2021

DL n.77/2021  
→ **Forest Agreements**

2023

DM n.48567 del 31/01/2023  
→ **Tender for Forest Supply-chain contracts**

# Results - Identification, categorization and characterization of FOAs and AFMIs

	<b>FOREST CONSORTIUM</b> 	<b>COMMONS</b> 	<b>ASSOCIATIONS</b> 	<b>FOREST COMMUNITY</b> 	<b>COMMUNITY COOPERATIVES</b> 
<b>ACTORS#1 (Members)</b>	Forest entrepreneurs (private) or Public forest owners	Families holding rights to participate (delegates)	Forest owners (private and public)	Citizens of a forest region + Stakeholders	Members of a local community with strong identity
<b>ACTORS#2 (Forest ownership)</b>	Shareholders, contracts	Local community's ownership	Shareholders, contracts	Contractor	Contractor
<b>RULES#1 (Legal form)</b>	Contract. Can become enterprise C.c. artt. 2602-2616	Special legal form (L. n.168 del 20/11/2017)	Association LR Piemonte n.21 - 2/11/16 LR Lombardia n 31 - 5/12/08	Association Rif. LR Toscana n° 11/2018	Cooperative (labouristic model) LR E.-Romagna n.12 – 27/07/22 LR Toscana n.67 – 14/11/19
<b>RULES#2 (int. Govern. structure)</b>	Democratic	Democratic (closed)	Democratic (open)	Democratic (open)	Democratic (open)
<b>DISCOURSES#1 (Purpose)</b>	Transaction costs reduction = enhancement of forest management profitability	To produce resources and richness for the local community	Transaction costs reduction = enhancement of forest management profitability	Sustainable Forest Management oriented to local socio-economic development and landscape conservation	Socio-economic development of the local community
<b>DISCOURSES#2 (Value proposition)</b>	Forest products and services	Products and services from forests, breeding and agriculture	Forest management plans, Support for administration, marketing and logistics	Forest products and services, Projects for raising financial opportunities	Forest products and services, for the benefit of the community
<b>POWER/RESOURCES#1 (Forest management)</b>	Internal responsibility, eventually supported by ext. professionals	Internal responsibility, eventually supported by ext. professionals	Management responsibility contracted to professionals	Management responsibility contracted to professionals	Internal Management responsibility or contracted to professionals
<b>POWER/RESOURCES#2 (Financial sources)</b>	Financing from shareholders + commercial revenues	commercial revenues	General and dedicated Grants + (rarely) Financing from shareholders	Fund Raising + commercial revenues + Grants (PSR, ecc.)	Fund Raising + commercial revenues

# Forest Consortia

## a traditional organizational model with entrepreneurial character

Defined and regulated by the Civil Code (artt. 2602-2616) and the old Italian Forest Act (RD 3267/1923)

It's a **CONTRACT** between entrepreneurs and/or public administrations, establishing an associate organization to carry out precisely defined purposes and activities.

Common solution to manage State/Regional forests. Very strong in some regions, some new experiences are developing with mixed public-private membership

- ✓ Consortia **can become enterprises**, adopting diverse legal corporate forms
- ✓ The main purpose is **to reduce transaction costs of forest management**, concentrating administrative, planning, marketing and logistics' activities
- ✓ Internal rules are defined by the members and must be written in the consortium's contract (bylaws)
- ✓ Typically characterized by **limited liability**
- ✓ Solid financial model, based on commercial revenues and grants from EU funds + members' fees.
- ✓ Not uniform nor clear **application of public entities legal principles** (impartiality, transparency, etc.), when owners are public

# Forest Owners' Associations

## an innovative organizational model resulting from institutional innovation

Inspired by French forest owners' associations, in Italy are called «ASFO» = Land-owners' Association  
Can **associate both private and public owners**, to group together woodlands, pastures, agricultural and abandoned lands, to encourage a production-oriented sustainable management.

Some northern **Regional administrations** started encouraging this model, with Regional Laws and dedicated tenders: Piedmont (2016), Friuli Venezia-Giulia (2018), Lombardy (2019).

- **Democratic** internal governance structure: all members participate to the assembly for decision-making
- High personal responsibility of the President
- Management plan for the ensemble of its members' land (**ownership is warranted**) is a requirement from regional laws
- Strongly **reliant on public financial** sources
- **Very small forest areas** (frequently < 100ha)... hard job to establish and run ASFOs, but very limited impact.



REGIONE AUTONOMA  
FRIULI VENEZIA GIULIA



# Woodland Community

## “Institutionalizing” social innovation

Very singular experience in Tuscany, inspired after a **big forest fire** that destroyed >1000ha of forest on Monte Pisano.

**5 Municipalities + the Mountain Union + Tuscany Regional Administration**

GOAL of restoring and protecting landscape, and fostering local socio-economic development based on active land (forest) management.

→ Regional Law n.11 - 20/03/2018 introduced «Woodland communities» among the strategic organizational solutions for implementing sustainable forest management.

→ The Woodland community «Monte Pisano» was established in october 2019, as an association («ETS» = Third Sector Entity)

- ✓ People from the **local community and forest stakeholders** are members;
- ✓ Democratic internal governance structure, with a **complex organization** based on specialized «commissions»
- ✓ Forest Management Plans are contracted by the Association;
- ✓ Development projects and application for grants;

# Community Cooperatives

## an innovative model resulting from social innovation

First experience from 1991 → Coop. Valle dei Cavalieri (RE)

First legal recognition: Apulia Region in 2014, then other Regions → Regional Laws can only characterize such model above the cooperative model defined by the state law

> 200 community cooperatives in 2022

A brand new organizational model, with direct (and exclusive) involvement of the **community for governance, decision-making, management**. Prevailing **labour cooperative** model.

- ✓ Typically multi-activity/cross-sectoral
- ✓ Beyond mutualism, **the purpose is to benefit the whole community** (even if not necessarily all community members are shareholders of the cooperative)
- ✓ Starting from local resources, (re-)activate businesses, creating new **job opportunities and revenues for the community**
- ✓ Democratic internal governance structure;
- ✓ Several Regions are supporting the establishment of community cooperatives with grants

# Forest Agreements “Accordi di Foresta”

## Institutional innovation to involve all forest actors

It is a **legally binding instrument** (a CONTRACT → ART. 1321 of the Italian Civil Code) established with the aim of “improving public and private areas with an agro-sylvo-pastoral vocation as well as for the conservation and provision of ecosystem services provided by forests”.

National Law n.108 - 29/07/2021 introduced «Forest Agreements» nesting this new law into the law regulating Enterprises’ network contracts.

- **Forest owners can (must) participate, also if not entrepreneurs**
- It must be established to carry on Sustainable Forest Management
- Good instrument to create a **network between enterprises and forest owners**
- Hard to involve non-professional forest owners;
- Good for **vertical integration** of forest sector’s different actors

# Forest supply-chain contracts

## The last national policy instrument

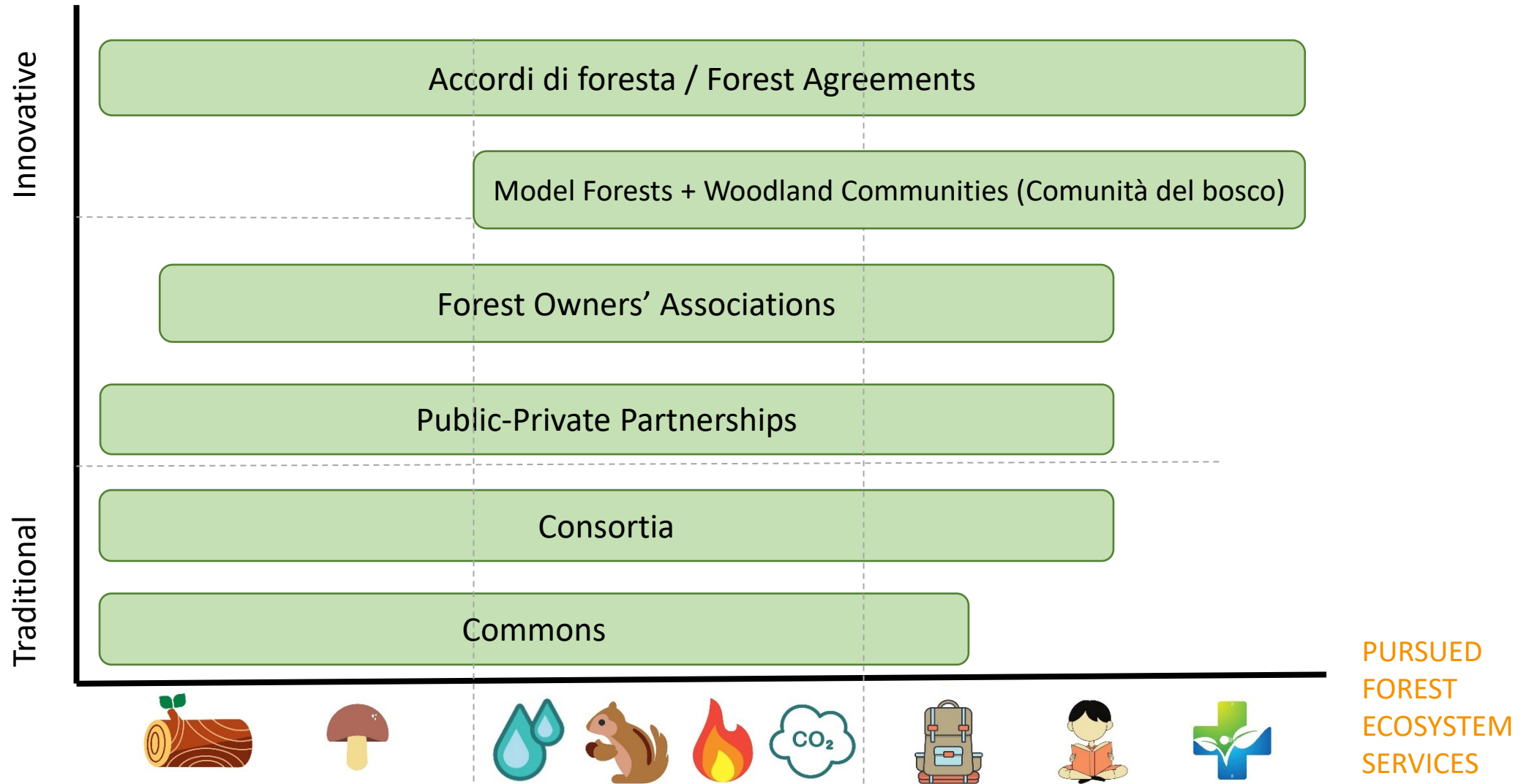
It is a **legally binding instrument** (a CONTRACT → ART. 1321 of the Italian Civil Code) established between a network of enterprises (non-professional owners can be involved, too!) and the ministry of Agricoltura and Forests.

DM n.48567 del 31/01/2023 introduced this kind of contracts in the forest sector (already tested in agriculture). An instrument for **vertical integration** within the supply chain.

- Nearly 100 proposals submitted to the tender, still under evaluation.
- Forest owners can participate, also if not entrepreneurs, being part of a pre-existing «Forest agreement»
- Duration could be limited to the purpose of the project
- RP Funds dedicated to finance investments in machineries, technologies, R&D, some infrastructures (i.e. forest roads)
- Ministry's participation to allow **easiest access to bank loans**



# OMs and Forest Ecosystem services



# Conclusions

- Land abandonment → a **wicked problem...** Lack of management, soil consumption (urbanization), Population decline in rural areas, Climate change
- Hard to separate agricultural land from forest land in statistics
- A variety of solutions for associated forest management, some as policy instruments, others rise as social innovation experiences
- High relevance of the **context**, much influenced by **administrative decentralisation**
- Central role of **forest owners... who are they?**
- Organizational models may influence the provision of **ecosystem services** (more research needed)
- Hard to replicate organizational models, some general tendencies, a combination of several instruments is probably the best solution.

# Thanks for your attention!

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