



Unveiling sustainable operating spaces for European forests

Matteo Vizzarri, project coordinator
On behalf of UMIL team and project partners

Università degli Studi di Milano, Milan, Italy
matteo.vizzarri@unimi.it

ForestValue2: "Science in progress"
14 October 2025, Brussels, Belgium



UNIVERSITÀ
DEGLI STUDI
DI MILANO



DiSAA
DIPARTIMENTO
di SCIENZE
AGRARIE e
AMBIENTALI

Funded by: *Ministero dell'Agricoltura, della
Sovranità Alimentare e delle Foreste (MASAF)*
con D.M. n. 150121 del 29 marzo 2024



Objectives

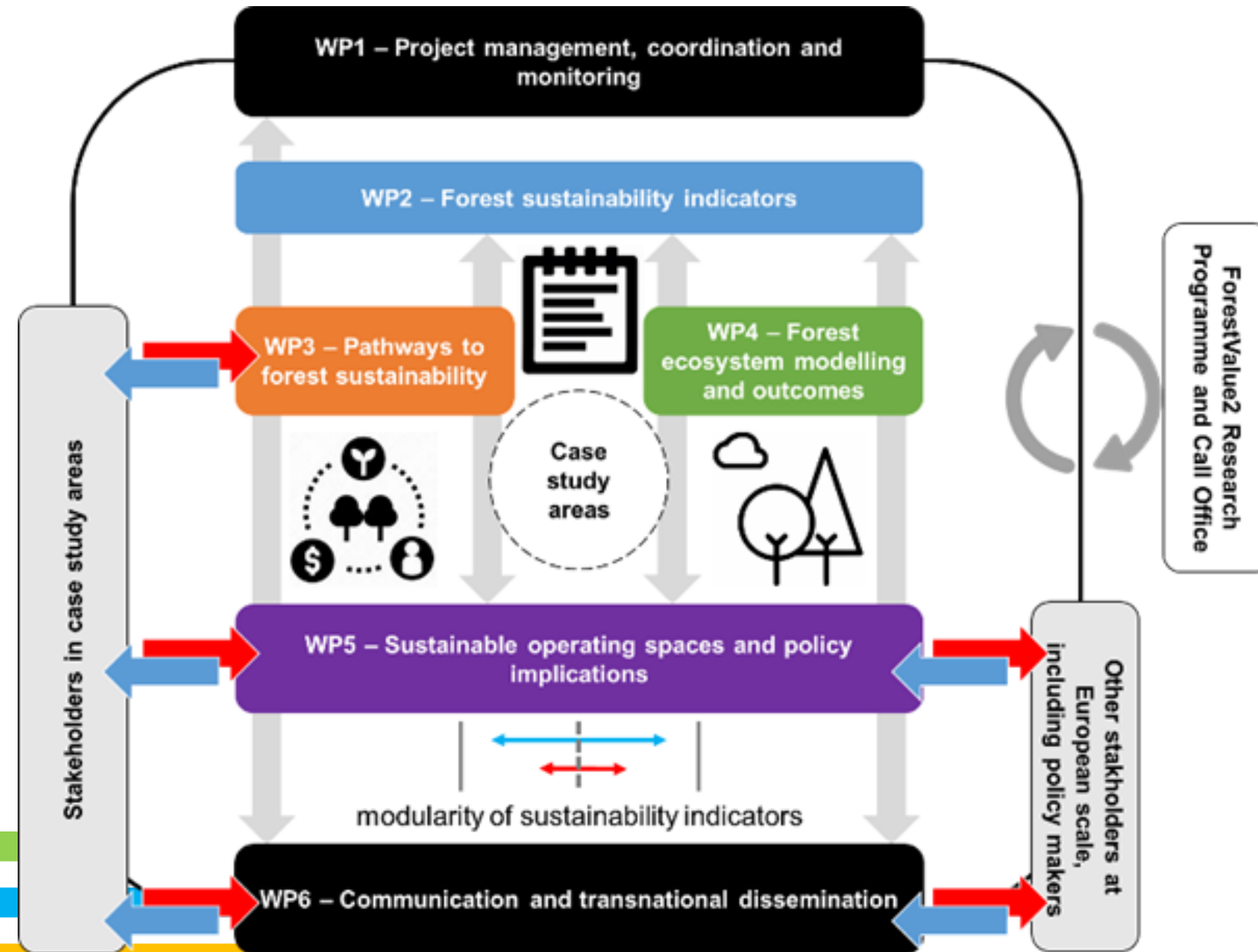
- **DPSIR** for forest-related 3-D sustainability
- **FES flow** by socio-economic and climate scenarios and by forest management
- **Europe-wide sustainable operating spaces** for forests, forest management and planning, value-chain and governance



Network and study areas



Workflow and key components

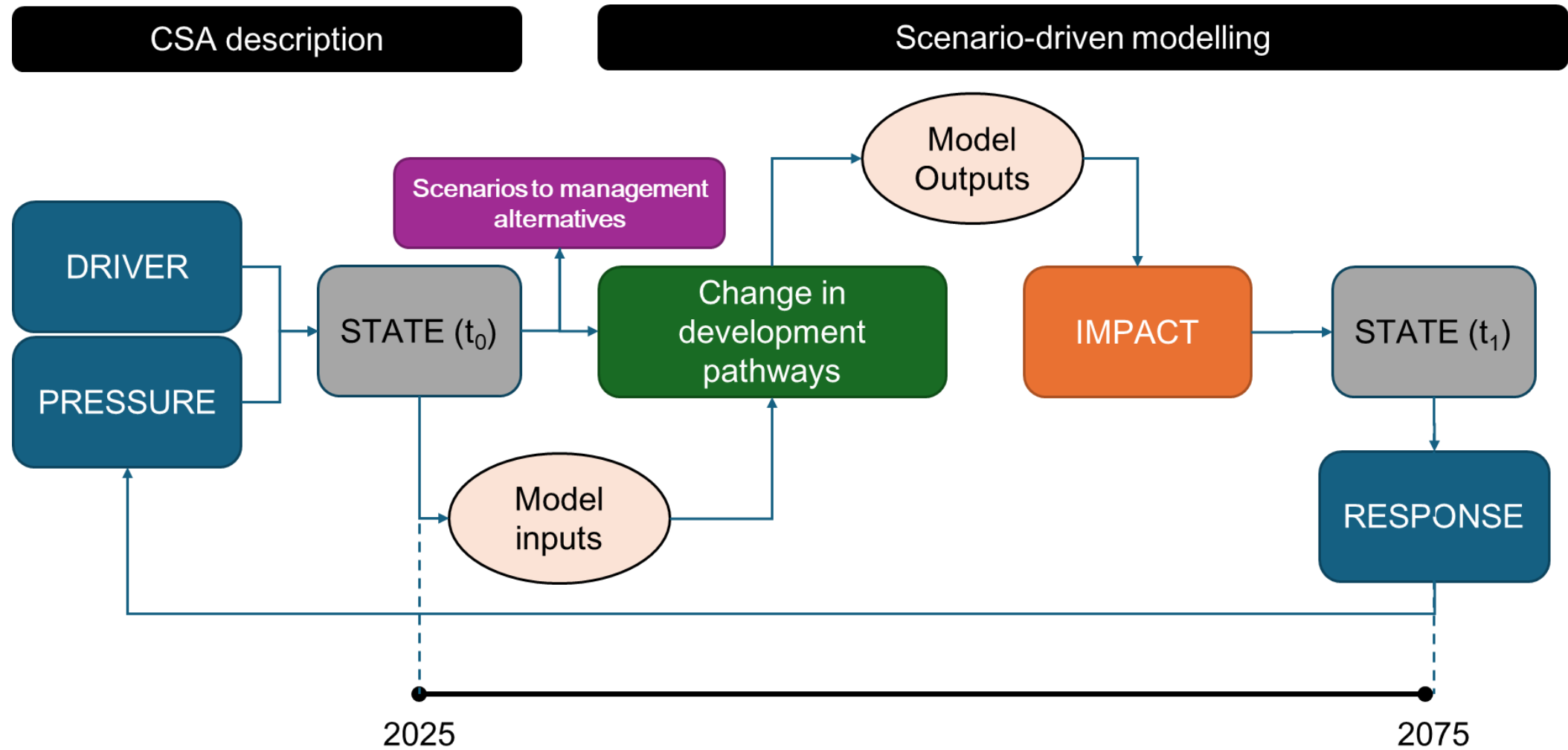


May 2024 -> April 2027

- Comprehensive DPSIR indicators' framework
- Co-designed scenarios (socio-economic / SSP and climate / RCP)
- Harmonized forest landscape simulations and FES flow
- Sustainable Operating Spaces

Ongoing activities...

SOSFOR's approach to forest sustainability



Half-way key achievements (WP2)

Sustainability indicators for European forests

DRIVERS

N	Name	Type
1	Δ Temperature	Environmental
2	Δ Precipitation	Environmental
3	Tourist offer	Social
4	Wood consumption	Economic

PRESSURES

N	Name	Type
6	Drought (SPEI)	Environmental
8	Anthropogenic pressure	Environmental
9	Land abandonment	Social
10	Tourist pressure	Social
11	Infrastructures	Economic

STATE

N	Name	Type
16	Forest mortality	Environmental
18	Tree species composition	Environmental
20	Population density	Social
22	Forestry sector	Social
26	Timber usage	Economic
27	Roundwood	Economic
	...	

IMPACTS

N	Name	Type
28	Habitat fragmentation	Environmental
29	C sequestration	Environmental
33	Economic viability	Social
34	Gender equity	Social
42	Annuity	Economic
43	Net revenue	Economic
	...	

RESPONSES

N	Name	Type
45	Genetic resources	Environmental
47	Biodiversity policies	Social
51	Training activities	Social
53	Forest certification	Economic
54	Forest funding schemes	Economic
	...	

Half-way key achievements (WP3)

Setting the stage for co-designing and co-developing social and economic scenarios



Identification and mapping of relevant stakeholders
(clustered by Quintuple Helix approach)



Consultation

Semi-structured interviews

- Interest
- Influence



Co-design and co-creation

In-person workshops

July 2025

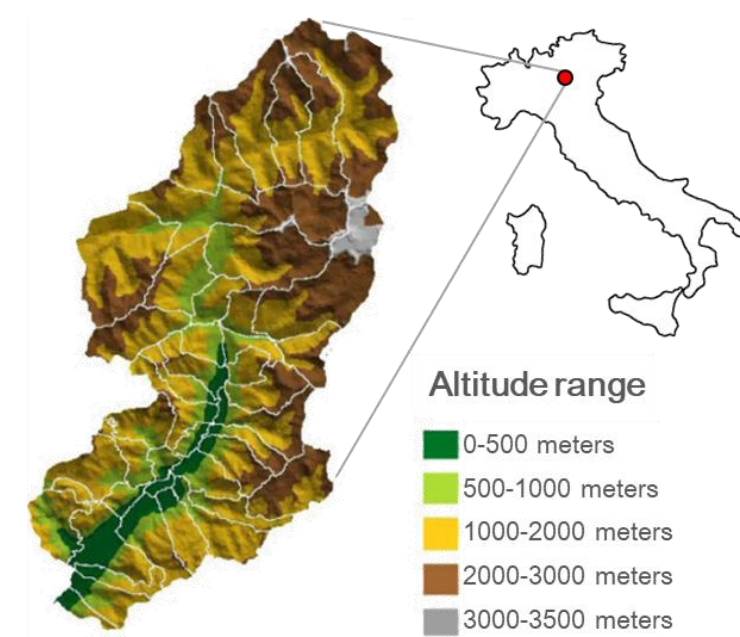
December 2025

Half-way key achievements (WP4)

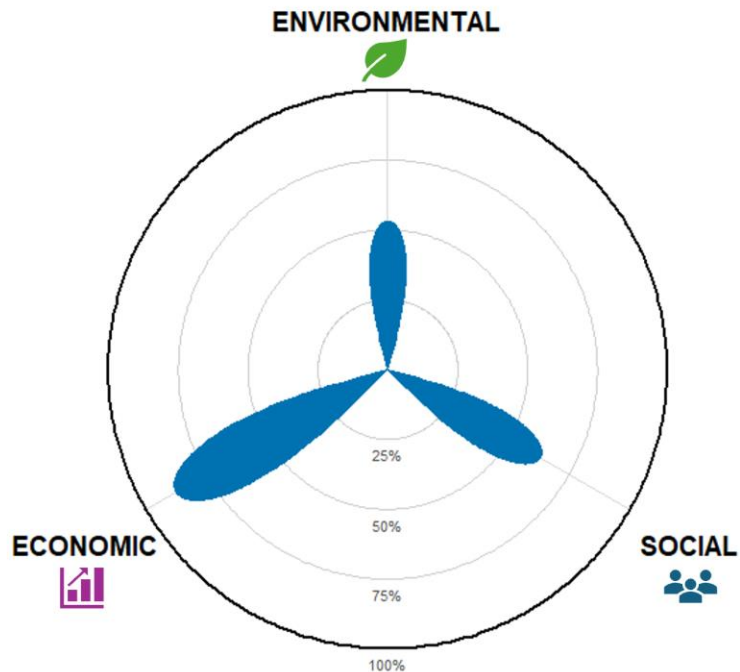
Testing the effects of preliminary scenarios driving sustainability pathways in the Camonica Valley, Central Alps, Italy



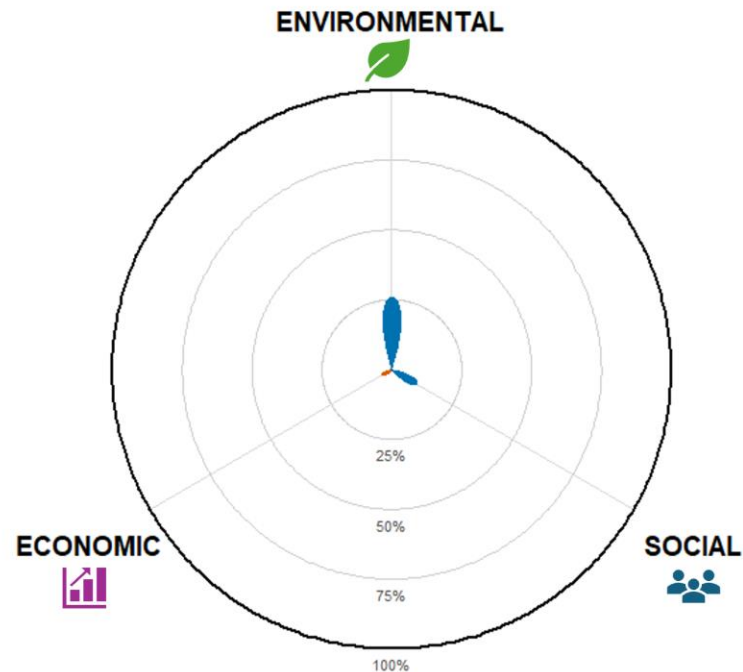
<http://dx.doi.org/10.1016/j.ecolmodel.2012.02.015>



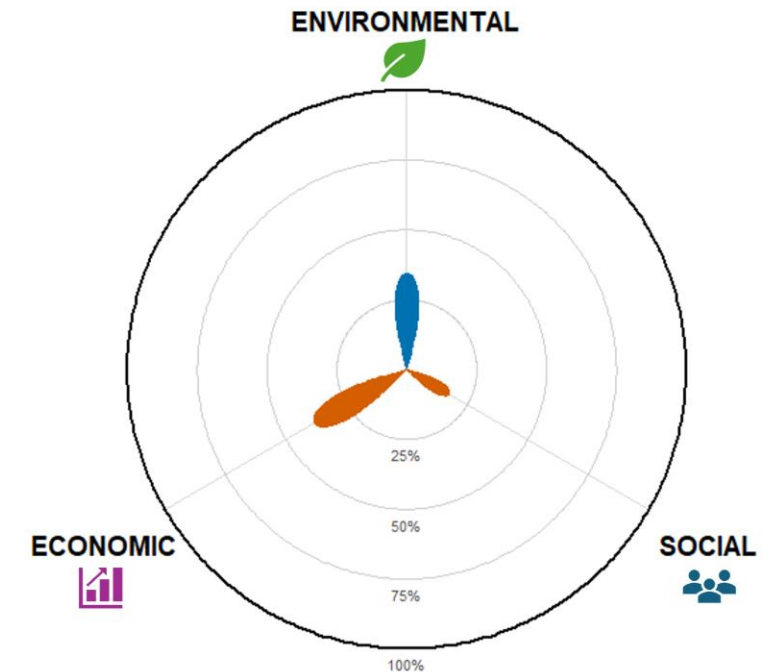
Sustainable Innovation - SSP1



Business As Usual - SSP2



Fragmented Exploitation - SSP3



Next steps

- In person project meeting in Italy (1 quarter 26) + high-level seminars (forest-based mitigation, forest ecosystem modelling, forest economics) + press tour + field trip
- SOSFOR's project website (65% ready)
- Finalizing activities in WP3 (by end 2025), performing simulations for all case studies in WP4 and defining sustainable operating spaces in WP5



**Thank you...
and stay tuned!**

matteo.vizzarri@unimi.it



**UNIVERSITÀ
DEGLI STUDI
DI MILANO**



DiSAA
DIPARTIMENTO
di SCIENZE
AGRICOLE e
AMBIENTALI

Funded by: *Ministero dell'Agricoltura, della
Sovranità Alimentare e delle Foreste (MASAF)*
con D.M. n. 150121 del 29 marzo 2024

