

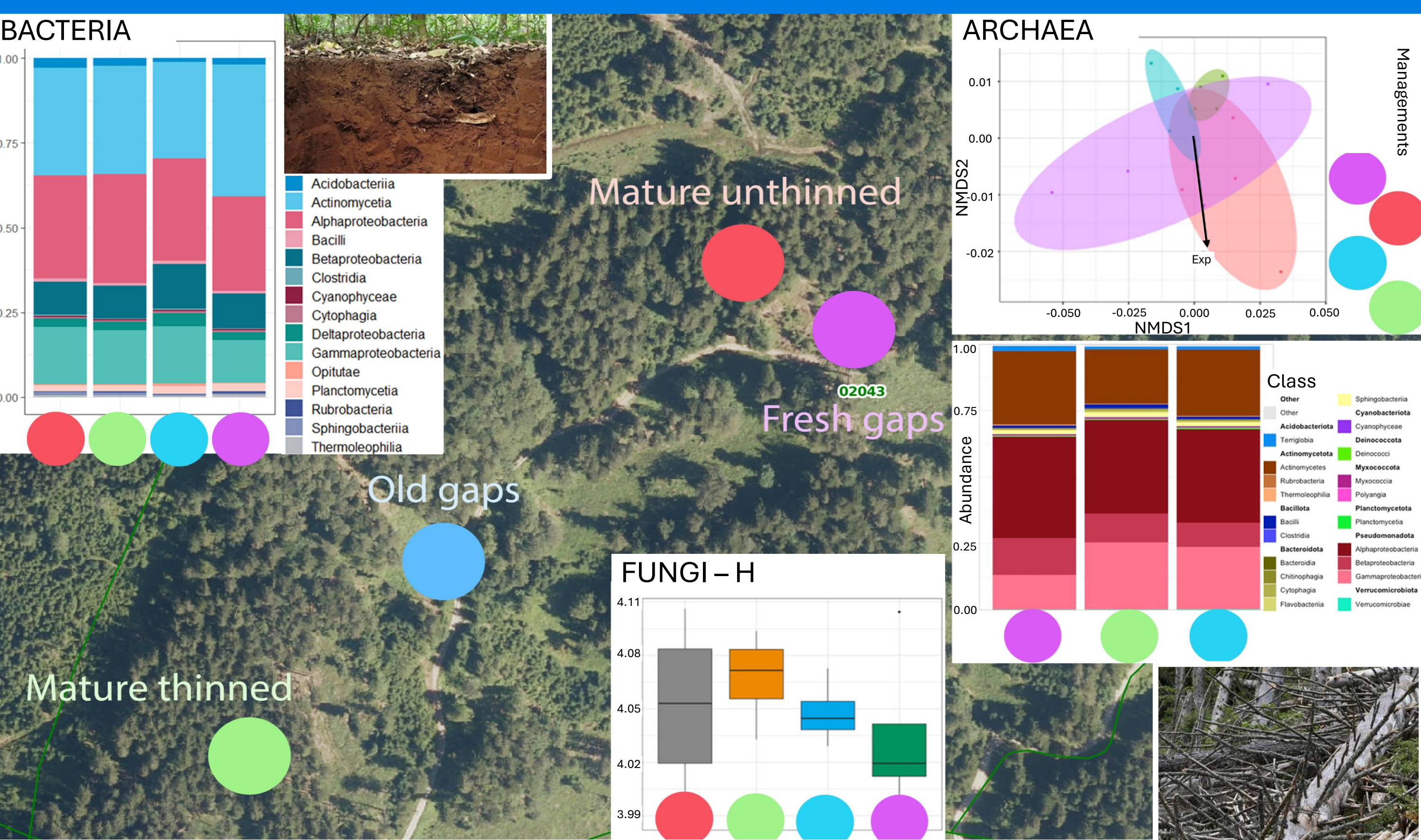


## WP 2: Silviculture and Management of Alpine Forests

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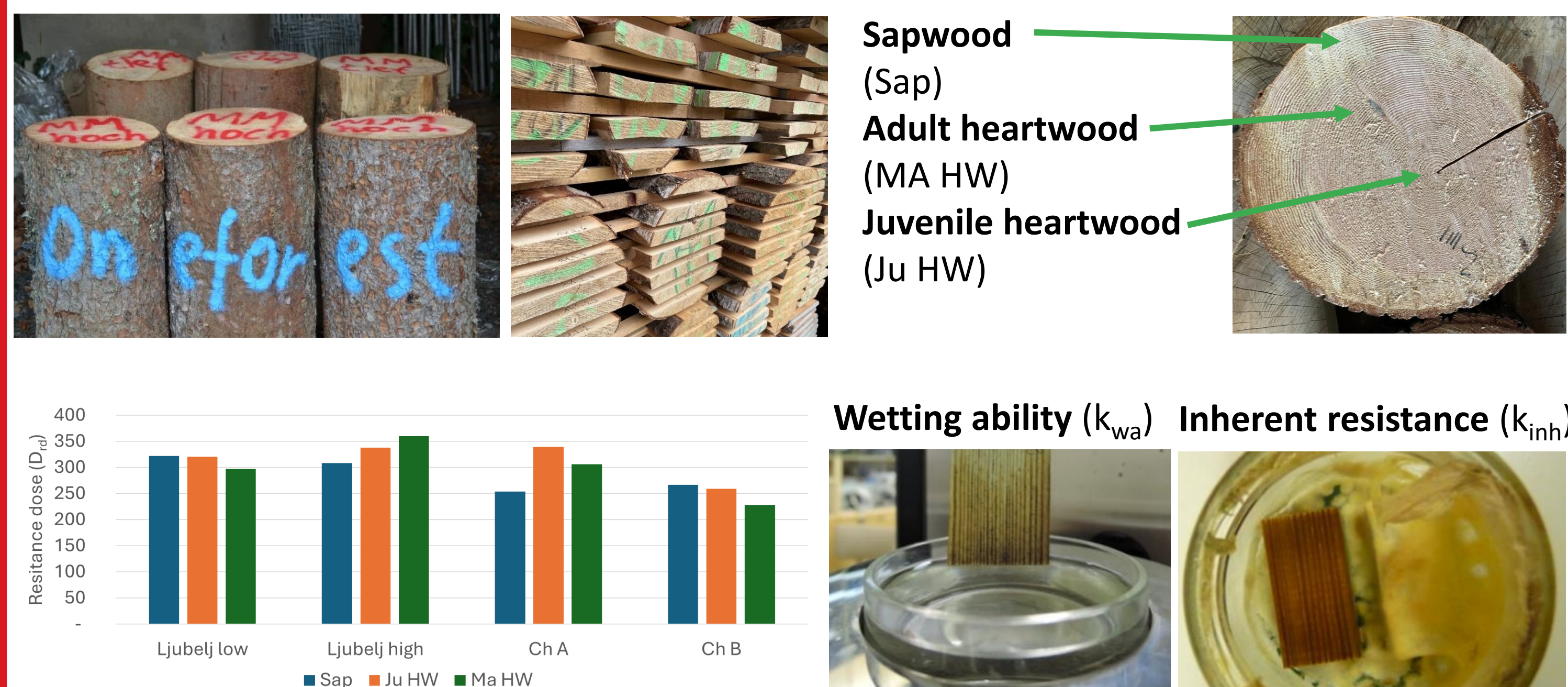
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### Forest management influencing forest microbiomes UniBZ

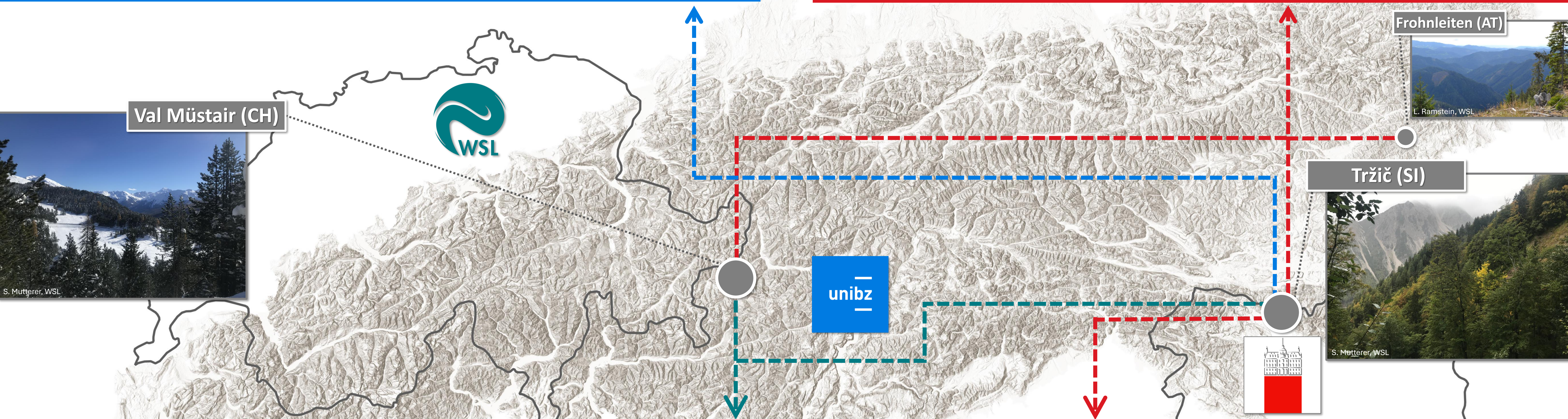


- Soil and deadwood microbiota has been investigated in 4 managed Slovenian forests
- Methods: full metagenome sequencing, gene quantification (qPCR), SEM microscopy
- Forest management influences microbial diversity and activity, but traditional ecological indices failed to measure such changes
- Ecological indices on functional genes are more promising tool to be used in understanding how management affect forest microbiomes

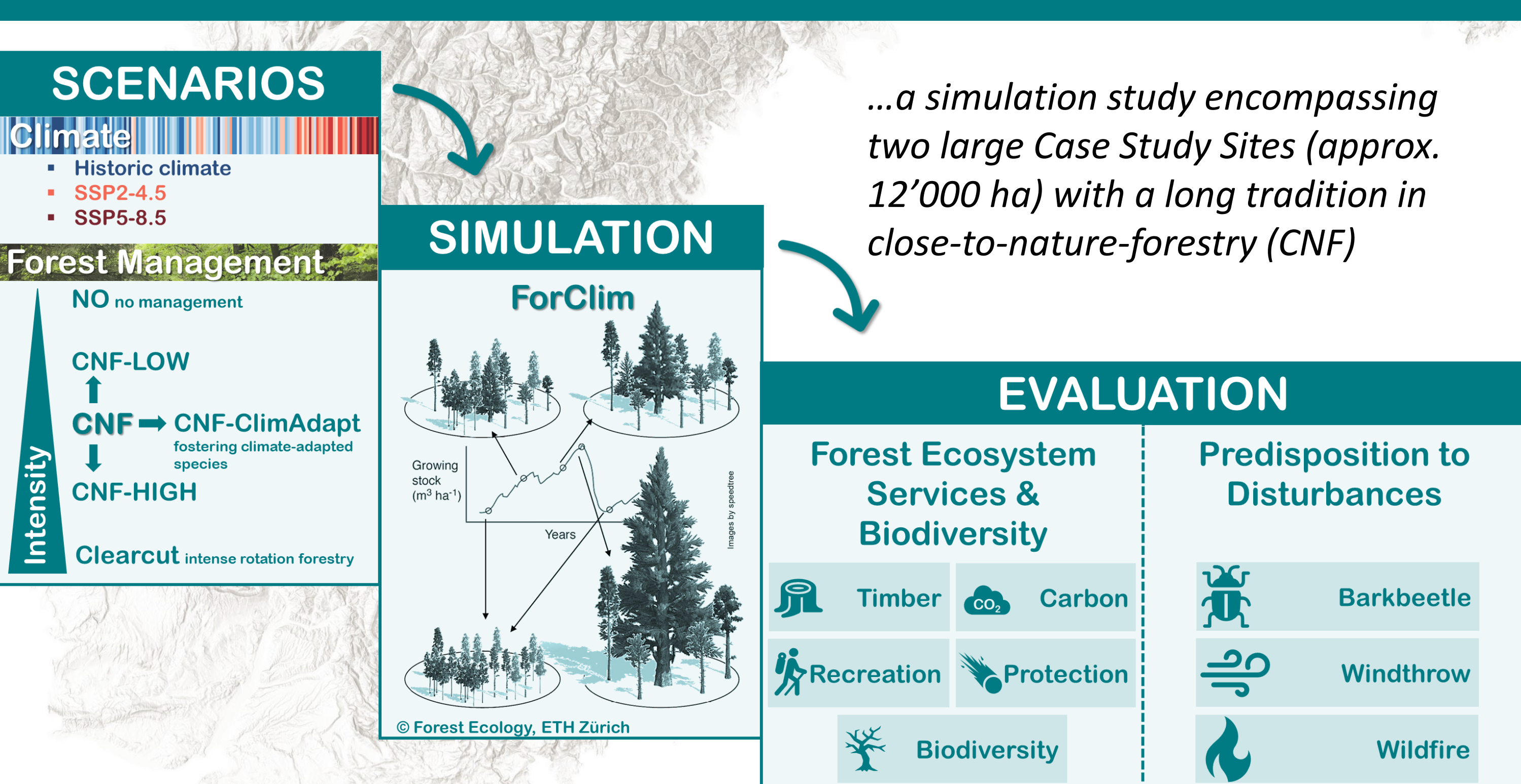
### Influence of growth locations on wood properties ULJ



- The effect of growing sites (Switzerland, Austria and Slovenia) and altitude on the decay resistance of wood was analysed.
- Among the sites, spruce from lower altitudes had a 5% lower relative service life than spruce from higher altitudes.
- Norway spruce from Slovenia proved to be more resistant to decay than spruce from Switzerland.

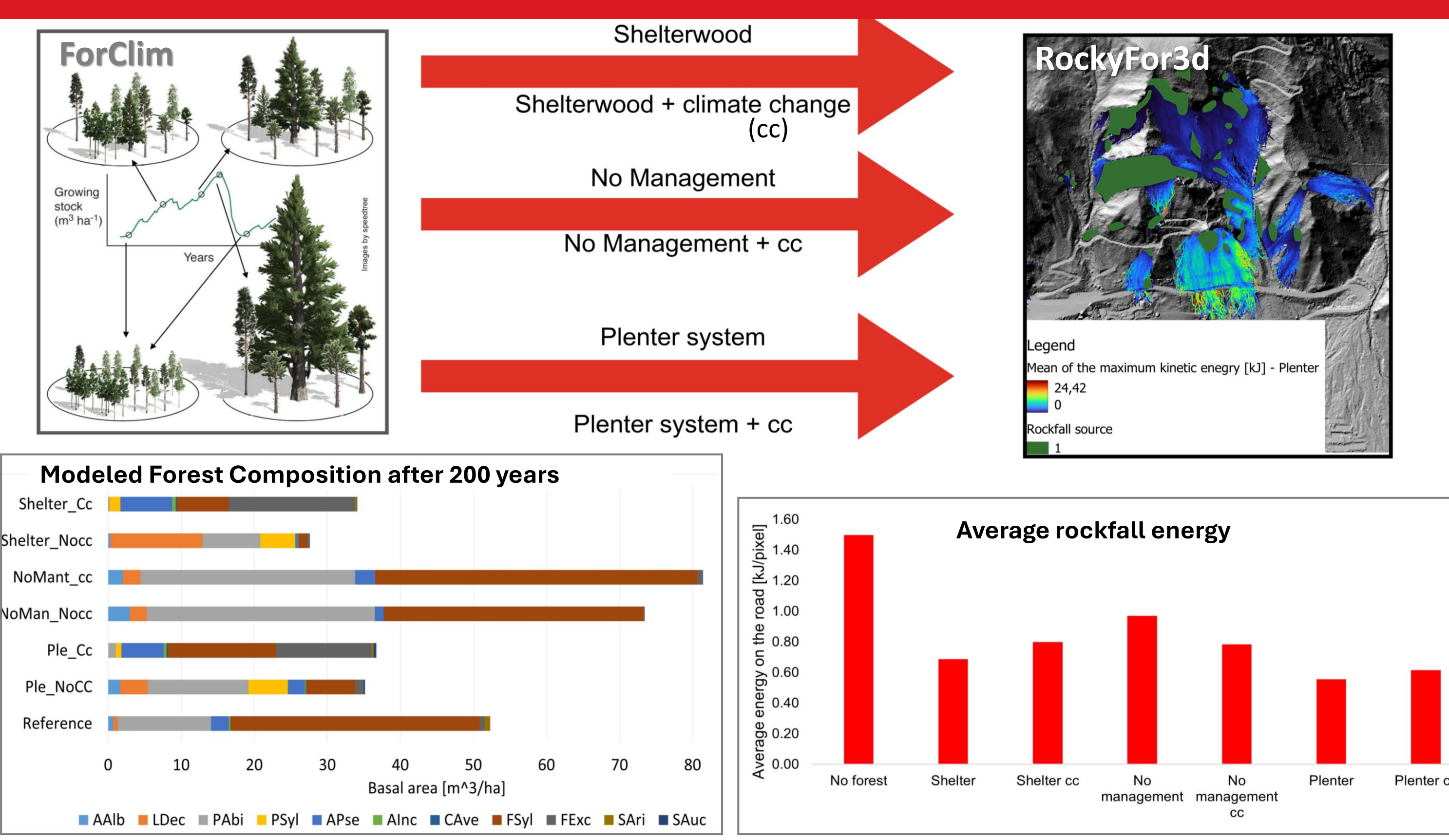


### Decision support for climate-adapted management of Alpine Forests WSL, ULJ



- Alternative climate change and CNF management scenarios were simulated across diverse biogeographic gradients
- CNF performs well in ensuring multiple forest ecosystem services and biodiversity
- Climate change requires adaptation of CNF by fostering climate-adapted tree species
- High multifunctionality needs diversified management

### Rockfall in protection forests: Silvicultural measures ULJ, WSL



- Field inventory data was used to model forest development under different management and climate scenarios (ForClim) at the Ljubelj pass
- Results from ForClim were used to model rockfall protection effects (RockyFor3d)
- The plentering system proved suitability to ensure protective function