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Abteilung Wald

Knowledge transfer about natural regeneration based on demonstration plots

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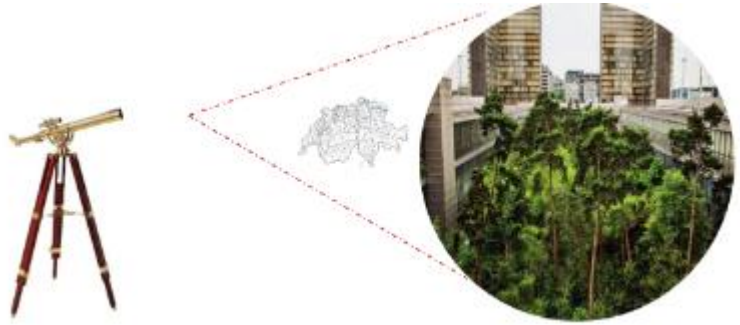
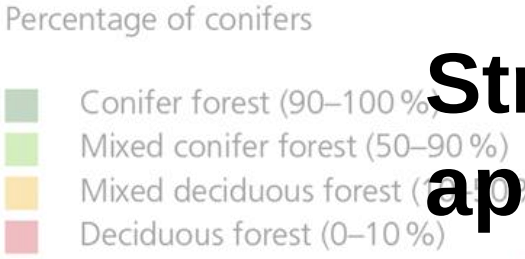
Content

1. **Silviculture strategy in Switzerland**
   - Close to nature forestry
   - Climate change → adaptive silviculture
   - The 5 adaptation principles
   - Implementation
2. **Types and functions of demonstration plots**
   - Marteloscopes
   - Natural regeneration - Documented case studies





Strengths and weaknesses of Swiss approach to close-to-nature forestry

Strength

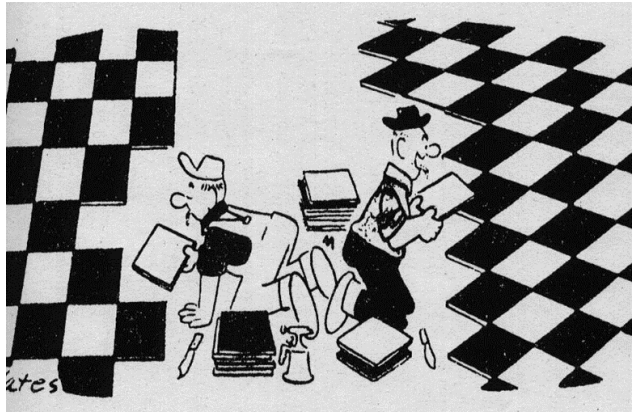
- Applied to the whole territory
- Applied at very small scales (by forest stand), therefore extremely diversified
- Diversity helps building resilience
- Formation and continuous training
- No standard… (→ diversity!)

Weakness

- Considered as normal by the population
- It has a cost for the owner, but he's not remunerated for it (no compensation for compliance with the law!)
- No standard, therefore no state control possible

Close to nature forestry and climate change

- Close-to-nature forestry promotes **biodiversity**
- Biodiversity increases **resilience** of forests
- Thanks to their **diversity** (species, mixtures, structures, etc.), Swiss forests seem to be well prepared to resist or adapt to climate change, compared to forests more focused on wood production and treated in a homogeneous way over very large areas



Close to nature forestry and climate change

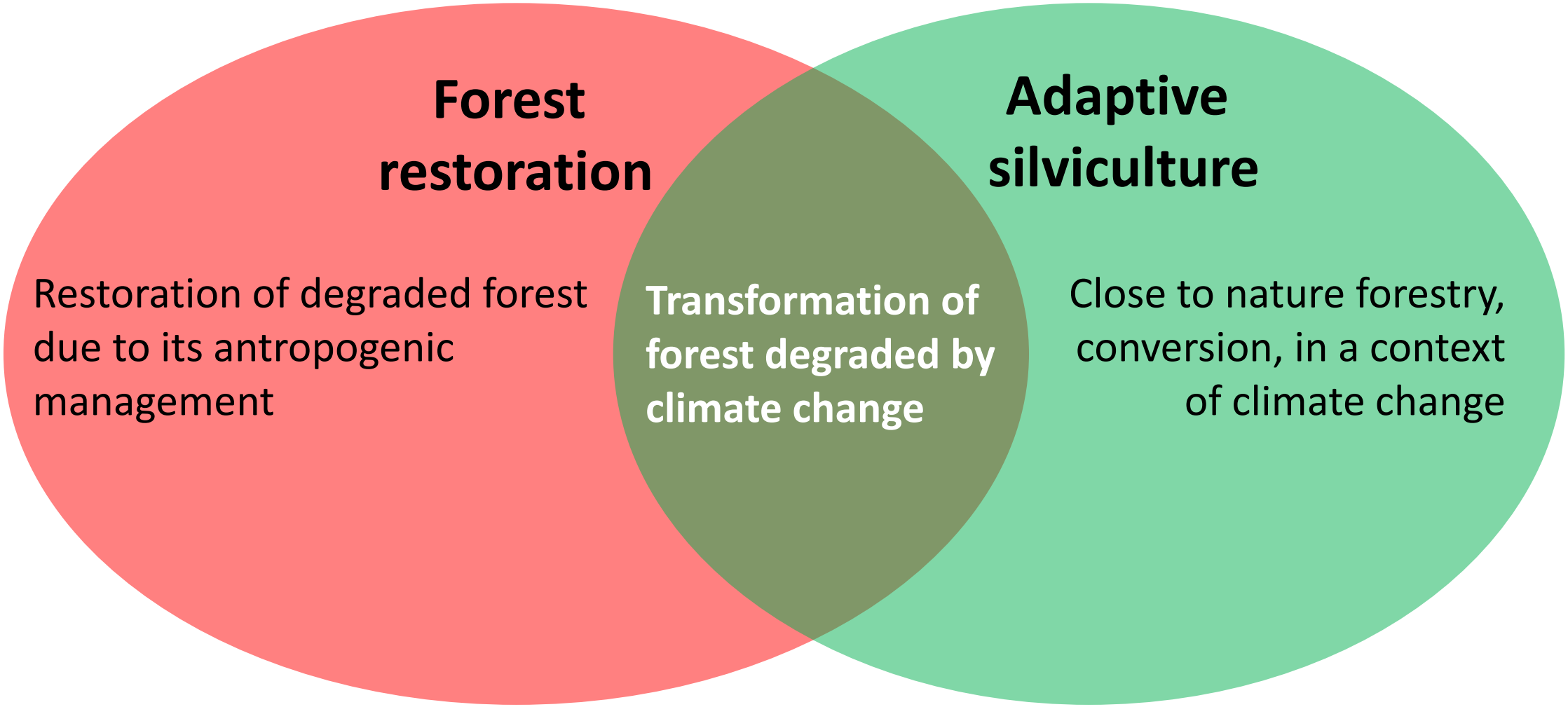
- Climate change means a **shift in tree species**
- The Confederation has developed some **decision support tools** for the choice of future tree species, for example tree-app.ch
- To obtain through natural regeneration the right species adapted to the future climate, **all silvicultural practices have to be adapted**

→Development of the concept

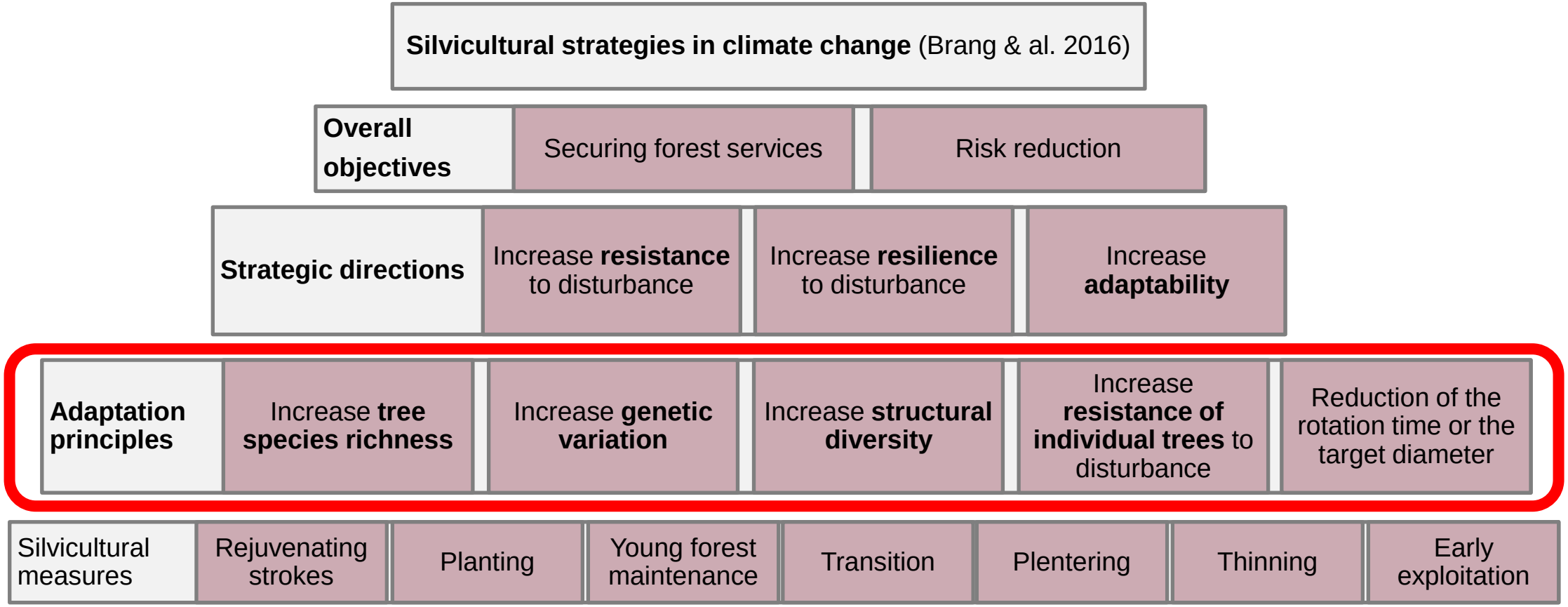
“adaptive silviculture”!

Close to nature forestry in a climate change context

Forest restoration vs. adaptive silviculture

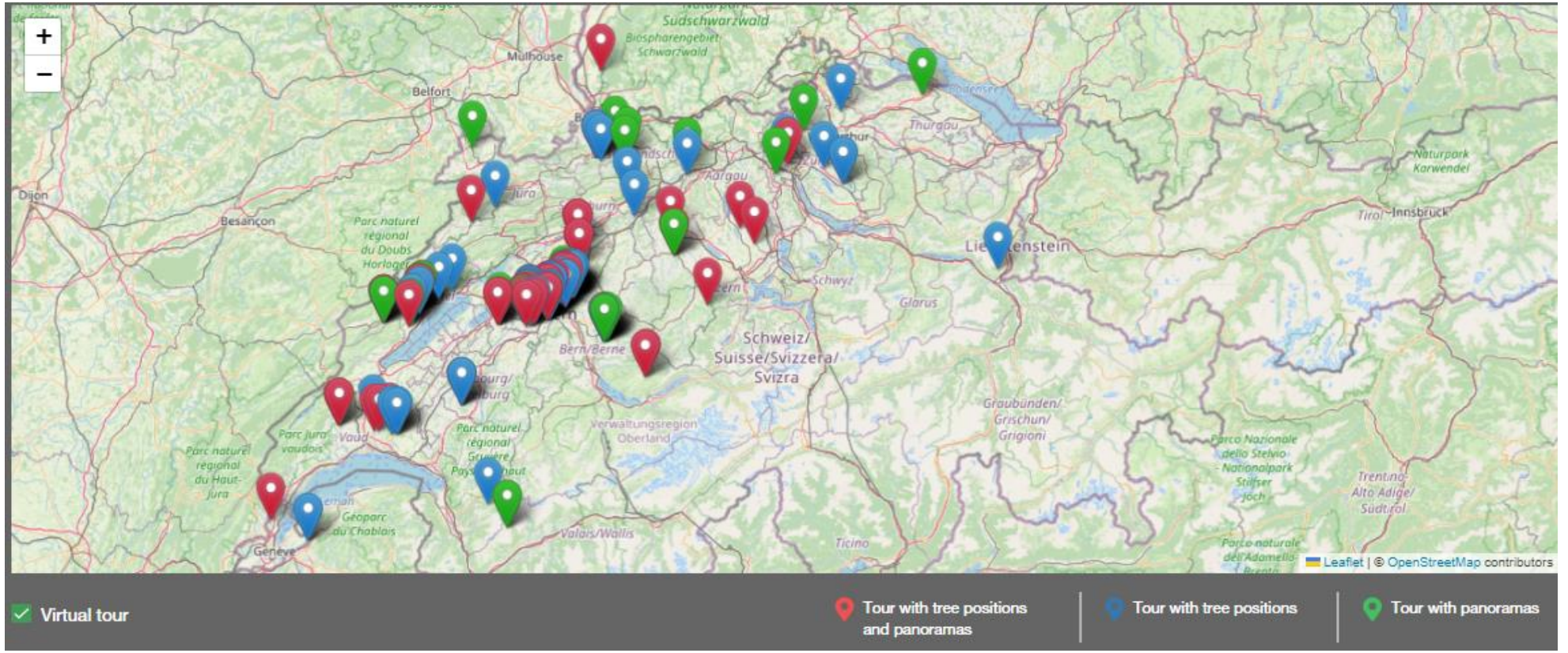


The famous «five adaption principles»



Demonstration plots

- About 200 demonstration plots online on [Martelage - Sylvotheque]

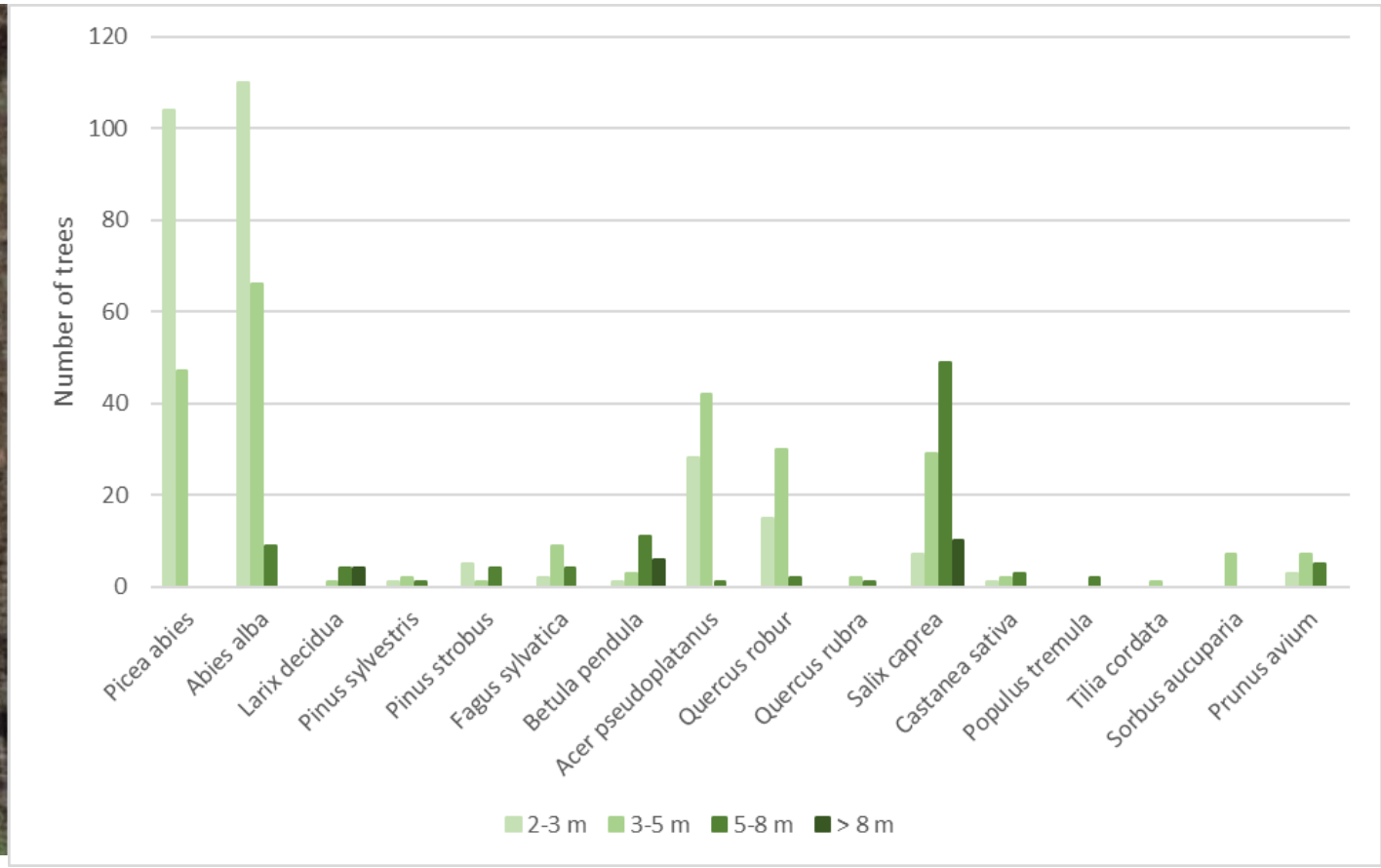


Tour with tree position and panoramas

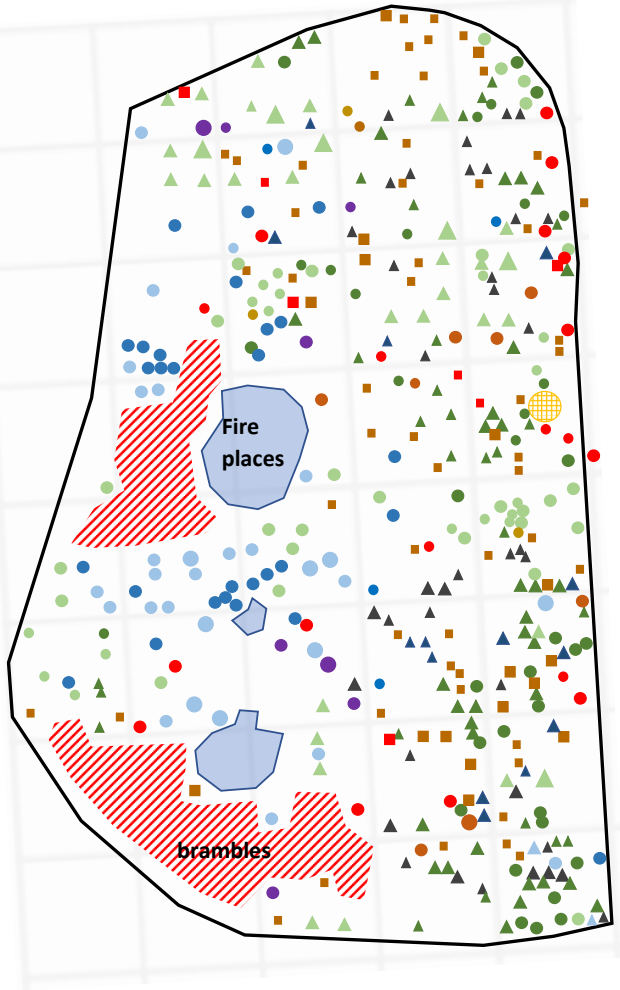
Natural regeneration - Documented case studies

- Challenge: How can I simply document a natural rejuvanation area in order to share a successful experience?

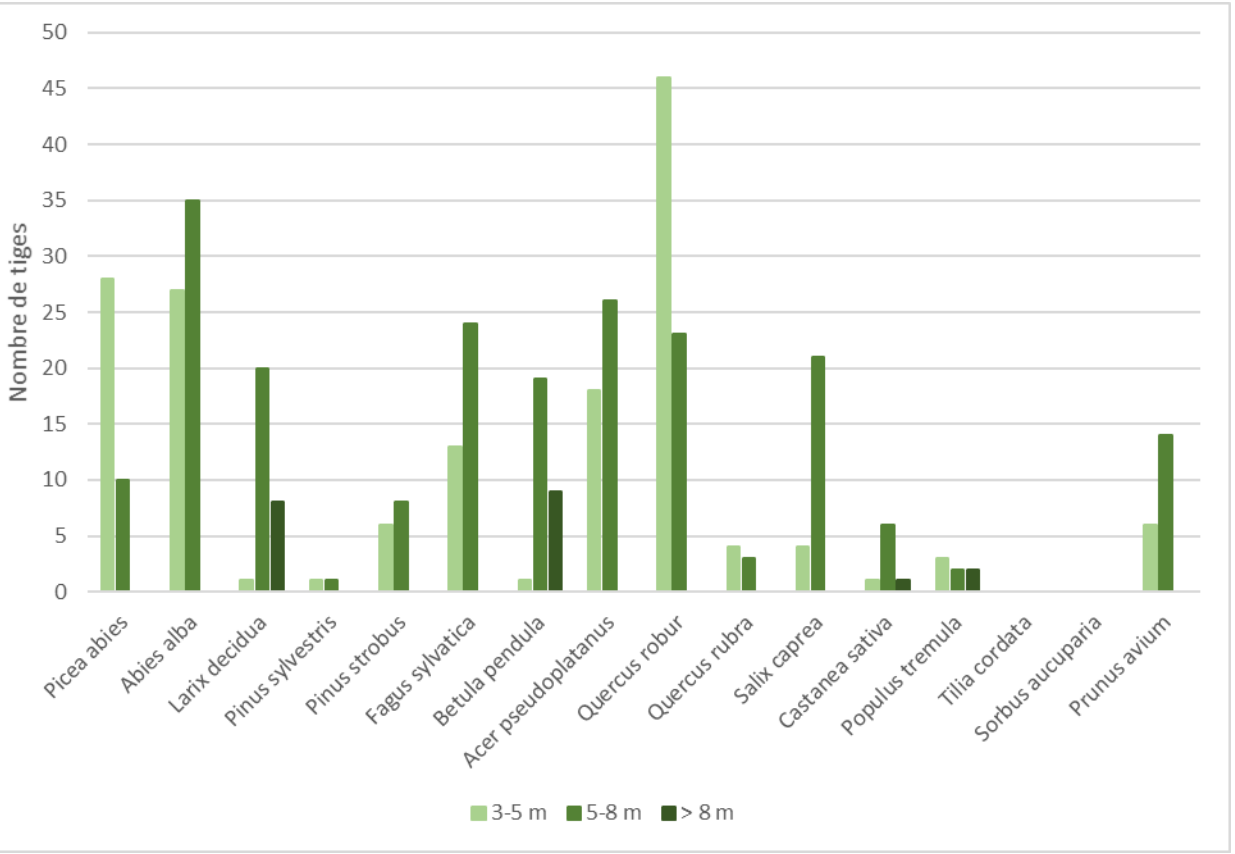
Distribution of rejuvenation by height class along 5 transects



Survey of dominant trees around the perimeter



	3-5m	5-8m	>8m
Picea abies			
Abies alba			
Larix decidua			
Pinus sylvestris			
Pinus strobus			
Fagus sylvatica			
Betula pendula			
Acer pseudoplatanus			
Quercus robur			
Quercus rubra			
Salix caprea			
Castanea sativa			
Populus tremula			
Tilia cordata			
Sorbus aucuparia			
Prunus avium			



Uses of demonstration plots and case studies

- **Initial formation** of forest-engineers, foresters and forest-workers
- **Continuous training** for these same trades
- **Self-training** within companies and teams
- So far, **no use communicating with the general public**, mainly due to a lack of resources, as these surfaces would be ideal for this.

Close-to-nature forestry. What else?

Maybe… adaptive silviculture?