SUPERB - Systemic solutions for upscaling of urgent ecosystem restoration for forest related biodiversity and ecosystem services
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forest-restoration.eu
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SUPERB aims to restore forest landscapes across Europe by creating an enabling environment for the implementation of forward-looking forest restoration at different scales.
We have 12 large-scale demo areas in 12 countries, representing diverse stressors on European forests and a wide range of necessary restoration actions.

Among other common stressors:
Our aim is to demonstrate best practices and collect practical and scientific knowledge on successful forest restoration and synthesise it for action.
Fagaras Mts.
Connecting & enlarging old growth remnants, Fagaras mountains

- protect and connect old growth forest fragments
- establishment of buffer zones for primary forests
- application of ecological forestry in special areas to increase the structural diversity and a transfer to a non-destructive economy.
- restoration of the upper timber line and alder galleries
How to turn this... into this....
Spruce monocultures (40 and 85 years old) - transfer to mixed beech dominated forests – after thinning planting saplings of species such as *Fagus sylvatica*, *Abies alba* and *Acer pseudoplatanus*
In case of natural disturbance, the area left for natural regeneration and spontaneous development, with no wood extraction.
Diversifying the composition of species inside planted clear cut areas
Restoration of riparian habitats and alder galleries: elimination of spruce, planting of alder galleries, the release of beaver.
Restoration activities in alpine areas: Arrolla pines regeneration in upper timber line dengraded by grazing
Biodiversity and Carbon Monitoring

- sampling chronosequences of restoration pathways in the 12 demos
- Structural inventory (structural biodiversity indicators, aboveground carbon)
- biodiversity assessments assisted by remote sensing, citizen science, DNA metabarcoding, and bio-acoustic recording of species.
- measurements of soil carbon content, stability, and biological activity
- demonstrate the effectiveness of restoration in the 12 demos and derive guidelines.
Primary forests = reference sites for the foresters
• some remaining primary forests are still not identified and/or protected
• forest owners and authorities are not willing to declare protection of these areas
• there is a lack of trust on long term in the official compensation payments system.
• Moreover, lack of immediate financial compensation affects the decision-making processes.
Sambata
Unmapped primary forests - Ucisoara
Unmapped primary forests just few meters from the road (45° 39.521’N, 24° 42.494’E). Presence of the Ural owl (Strix uralensis) was documented in the unmapped primary forests.
Logging of permanent research plots
• Many primary forests are still not mapped and are not protected
• Conservation of only primary forests stands is insufficient, conservation targets should be also the natural forests, valley systems, secondary old growth forests and habitats of protected species if biodiversity conservation and carbon sequestration is the objective
• Ecological forestry approach can be used to restore degraded habitats
Thank you!

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