

Agroforestry Practice Identification and Development through Stakeholder Engagement.



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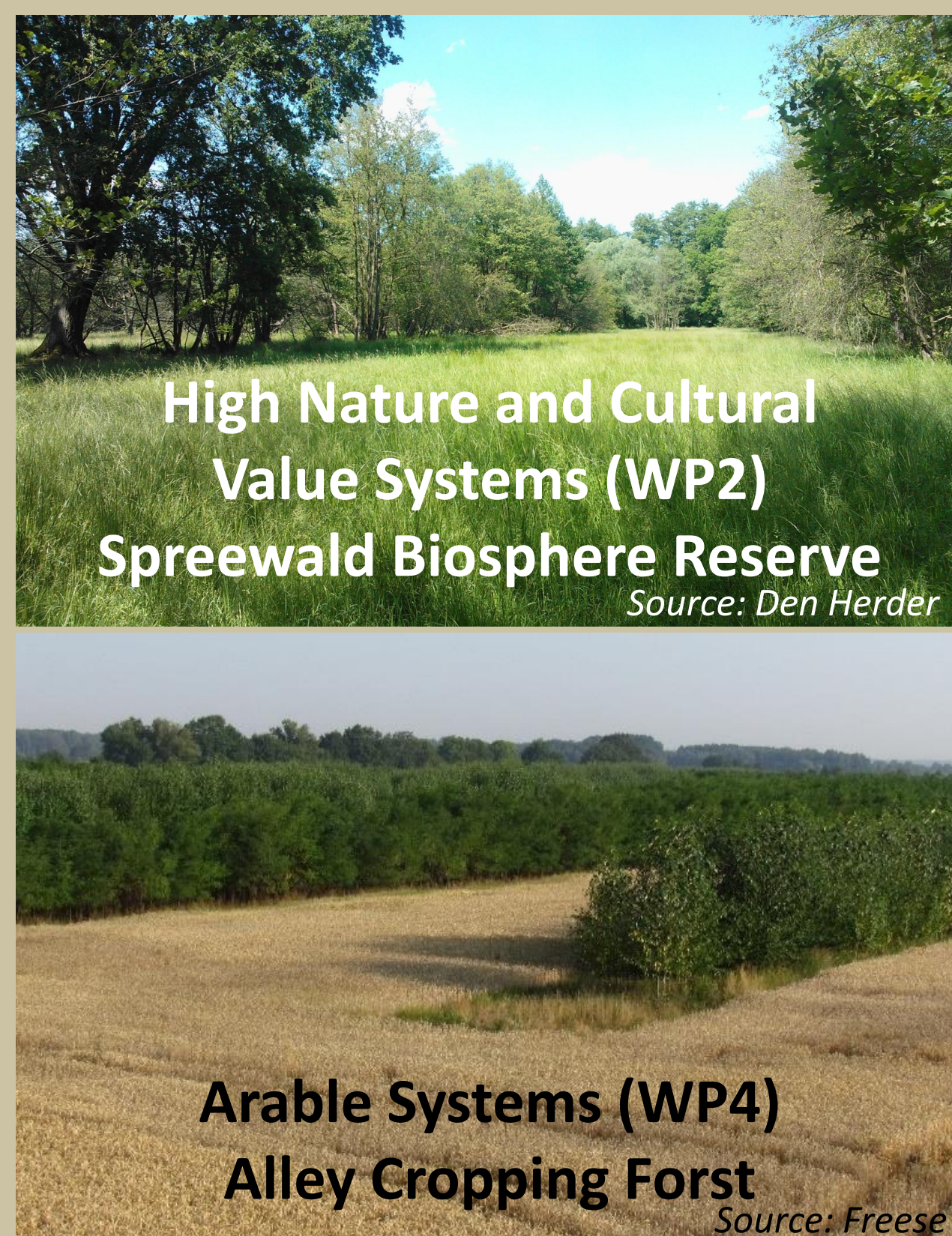
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Introduction

AGFORWARD is a four-year project (2014-2017) co-funded by the European Union, which is promoting AGroFOREstry practices that Will Advance Rural Development in Europe. The project is led by Cranfield University and includes another 25 partners across Europe. The Brandenburg University of Technology, Cottbus-Senftenberg (BTU) is one of these partners.

Project Focus

AGFORWARD project is working with farmers on 4 types of agroforestry systems:



Objective

- Identify best practices, key challenges and innovations to address challenges identified by the Participative Research and Development Network (PRDN).

Methods

- To establish PRDNs over 40 meetings were held across Europe between May and December of 2014.
- Participants were given the same questionnaire at each stakeholder meeting.

BTU Stakeholder Meetings

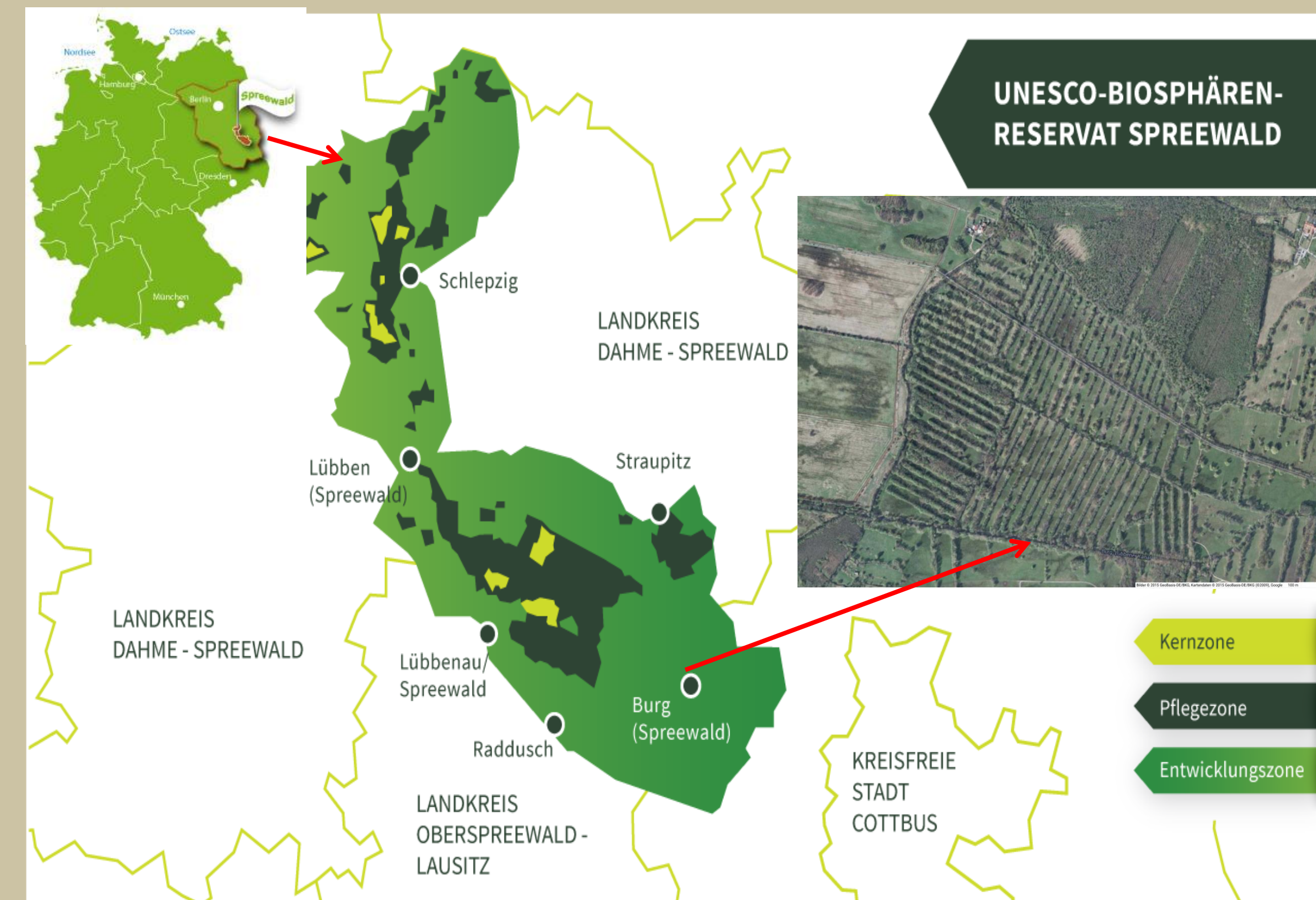


WP2 at Spreewald Biosphere Reserve

WP4 at future silvoarable farm

WP2: Spreewald Biosphere Reserve

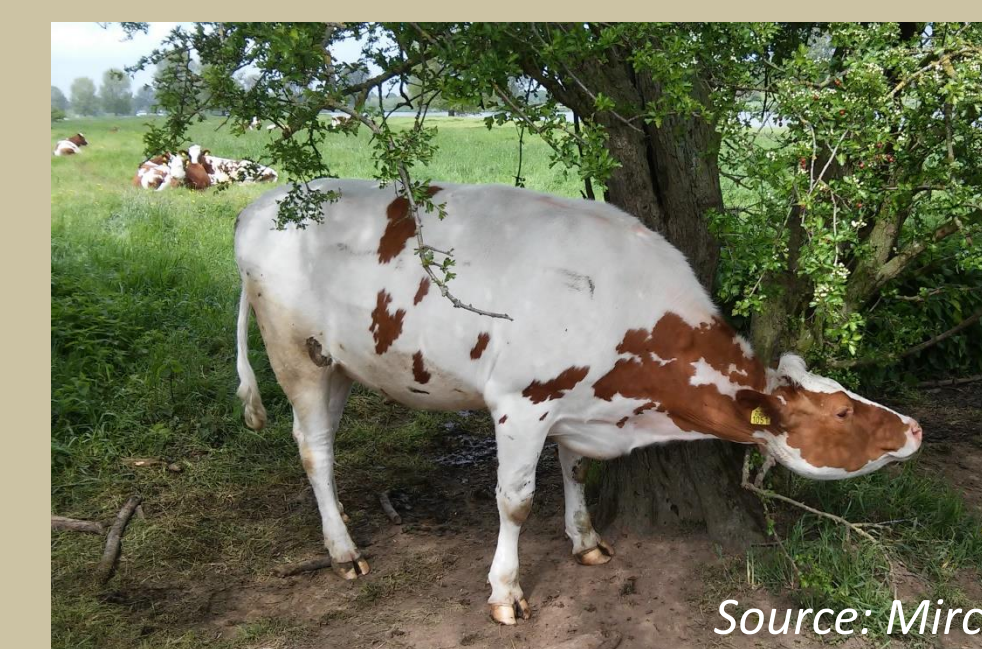
- Designated as reserve in 1990, recognized by UNESCO in 1991
- Spreewald region 3000 km², Biosphere Reserve 475 km²
- Natura 2000 – flora-fauna-habitat
- Trees: black alder (*Alnus glutinosa*), black poplar (*Populus nigra*), hackberry (*Prunus padus*), willow (*Salix* spp.), and durmast oak (*Quercus petraea*)
- Shrubs: glossy buckthorn (*Frangula alnus*), buckthorn (*Rhamnus alaternus*), wild rose (*Rosa canina*)
- Agricultural component: grass (pasture)



Map of Germany with location experimental site in Spreewald (inlay left upper corner), Spreewald Biosphere Reserve with core zone (light green), buffer zone (dark green) and transition zone (medium green), and Filower experimental site (inlay right).

Innovations

- Problem:** Lack of natural rejuvenation due to trampling cattle, grazing, tree aging
- Innovation:** Test different rejuvenation methods



Source: Mirck

Treatments

Treatment	Harvesting/rejuvenation method	Regeneration method
A	Whole row harvesting	1/3 rows harvested, natural regeneration
B	Whole row harvesting	1/3 rows harvested, natural regeneration, fenced
C	Gap filling + single tree harvesting	Gaps and/or harvested trees filled/replaced with long lived trees, natural regeneration
D	Gap filling + single tree harvesting	Gaps and/or harvested trees filled/replaced with long lived trees, natural regeneration, fenced
E	Business as usual	No protection

WP4: Alley Cropping Forst

- 73 ha alley cropping system at Agricultural Cooperative Forst
- Seven 11 m wide tree hedgerows, distances 24, 48 and 96 m
- Trees: poplar (*Poplar* spp, varieties Max 1 (*Populus nigra* L. x *P. maximowiczii*) and Fritzi-Pauley (*P. trichocarpa*) and black locust (*Robinia pseudoacacia*)
- Agricultural component: sugar beet (*Beta vulgaris*)



Map of Germany with location experimental site at Agricultural Cooperative Forst (inlay) and of experimental site. Coloured lines indicate tree rows.

Innovations

- Problems:** Tree crop competition & soil erosion
- Innovations:**
 - Assess competition between crops and trees for light, water and nutrients
 - Compare productivity in agroforestry and conventional agricultural systems
 - Assess erosion reduction and soil fertility in agroforestry system

Treatments

Treatment A	Treatment B	Treatment C	Treatment D
Alley cropping	Alley cropping	Alley cropping	Conventional agriculture
Tree: poplar	Tree: black Locust	Crop: sugar beet	Crop: sugar beet

More Info

For more info visit www.agforward.eu.



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