ChangeHabitats2 –
Habitat Monitoring by Airborne Laser Scanning and Hyperspectral Imaging Supported Field Work



Photos: Mónica Mándoki

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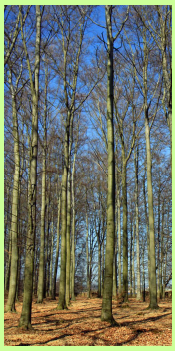
Motivation

Across **Europe**: there are more than **50 Mio hectars of NATURA 2000 sites**
Habitat directive: **monitoring every 6 years** ⇔ current **field mapping techniques ca. 10 years**
Costs: more than **10 billion Euros** per interval ➔ time and cost **efficient methods are needed**!

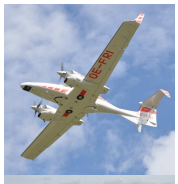
2 APPROACHES

Field habitat survey

Mapping and assessment of selected Natura 2000 habitat types




Criteria:
- Habitat typical **structure(s)**
- Habitat typical (plant) **species**
- Anthropogenic **disturbances and interferences**




Airborne data acquisition

Airborne Laser Scanning
Hyperspectral Imagery

Data analysis:
- **Extraction of structural parameters** from airborne data
- **Correlations:** structural parameters and relevant habitat features from field surveys

HABITAT ASSESSMENT

Expected outcome

Derivation of **habitat indicators** from airborne data
➔ selection of field **sites** of interest **prior to field work**
→ considerable **reduction of time for field work**
→ annual **cost savings 0.9 … 3.4 billion Euros**