MeineWaldKI: Using Citizen Science and AI-Based Image Analysis to Support Forest Monitoring

The interdisciplinary research project MeineWaldKI, led by Anhalt University of Applied Sciences, launched on 1st March 2024. The project investigates the suitability of citizen science and artificial intelligence (AI) for the supplementary monitoring of the ecological condition of forests. The project explores whether citizen science-based data collection (photos from citizens) and AI-based recognition and processing of parameters of the ecological condition of forest ecosystems are suitable to complement existing monitoring approaches through comprehensive spatial-temporal coverage with image data.

The objective is to create AI-based methods for identifying species and structures in forest images submitted by citizens, and to develop network-based AI monitoring and forecasting tools for assessing forest condition. A collaborative data and analysis platform will be built to facilitate automated data processing and quality control. Optimization strategies for AI-based image recognition will be developed and iteratively evaluated with the AI algorithms.

The forested areas of Dölauer Heide and Biosphere Reserve Karstlandschaft Südharz serve as two model regions where the project's approach will be tested and evaluated through field data collection.

Project duration: 1st March 2024 - 30th August 2027