



Acronym	ROAKS
Full Title	Real time observation for adaptative management in Southeastern oak forests
Partner(s)	Institutul Național de CercetareDezvoltare în Silvicultură "Marin Drăcea", Romania
Grant Theme	Pilots of long-term climate impact forest monitoring sites: Providing temporally resolved ecosystem-level information on the effects of climatic drivers on forest structure and function in near real-time
Start Date	April 2025
Duration	18 months
Description	The ROAKS project aims to enhance the understanding of climate change impacts on Central Eastern European oak forests. By integrating advanced monitoring techniques, the project assesses oak tree responses to stressors such as drought, pests or insect disturbances. The research is conducted in two key ICP Forests oak plots and four supporting sites, providing insights into forest resilience and contributing to the ForestWard Observatory initiative. The objectives include enhancing the ROAKS network, applying the Air-Water-Soil-Tree (AWST) Nexus through field measurements and remote sensing, and ensuring long-term monitoring data in near real-time. By involving fieldwork in diverse climate conditions, ROAKS will enhance our understanding of climate impacts on forests. The integration of the AWST Nexus into the existing ICP Forests system will create new research opportunities for European forest monitoring, supporting adaptive management strategies and contributing to the long-term conservation of European forests. By using remote sensing technologies and standardized methodologies, ROAKS will provide temporally dense information on soil moisture, tree ecophysiological responses, and carbon storage. The project will also facilitate collaboration and knowledge exchange within international networks, enhancing the scalability and representativeness of the findings.



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