

MITJA SKUDNIK (UNIVERSITY OF LJUBLJANA)

The Role of Remote Sensing Products in Forest Inventories

#forest science #remote sensing monitoring

This presentation examines the role of remote sensing in forestry, beginning with findings from a survey of forest practitioners across Europe, with a particular focus on Slovenia. The survey identifies practitioners' technical requirements for remote sensing products, including tree species maps, canopy height models, wood volume and biomass estimates, and forest disturbance monitoring. While some products, such as canopy height models, frequently meet user needs, others reveal limitations in thematic detail and accuracy. The second part of the presentation features selected case studies from Slovenia, demonstrating practical applications of remote sensing in forest inventories. These examples underscore both the transformative potential and the challenges of integrating remote sensing technologies into forest management.

Dr. **Mitja Skudnik** is an Assistant Professor at the University of Ljubljana, Biotechnical Faculty, Department of Forestry and Renewable Forest Resources, and a Senior Researcher at the Slovenian Forestry Institute. His expertise lies in forest monitoring, remote sensing, GIS, and ecological monitoring. At the university, he delivers lectures on forest inventories and remote sensing, while at the Slovenian Forestry Institute, he leads Slovenia's National Forest Inventory and contributes to both national and international forest condition reporting.

Mitja has coordinated and participated in numerous national and international projects, including H2020 and Alpine Space initiatives. On the international stage, he represents Slovenia in the ENFIN association, actively promoting sustainable forestry and environmental monitoring.

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