FINT-CH (Find Individual Trees Switzerland)

FINT-CH

In the project FINT-CH a methodology for the large-scale characterization of forest structures, thereon a better detection of single trees on the basis of remote sensing data, is under development. Top height, cover and mixture ratio get determined.

In the project FINT-CH a methodology for the large-scale characterization of forest structures, thereon a better detection of single trees on the basis of remote sensing data, is under development. By using segmentation, stand boundaries and the corresponding top height, cover and mixture ratio get determined. This forms the basis for the specific single tree detection using forest structures. Large-scale geodata with valuable forest information can be generated. Their usage in practice are demonstrated on the basis of four examples.Vector-geodata (type polygon) with stand boundaries and the following attributes:

- Basic shape (uniform, unequally)
- Top height (hdom)
- Cover ratio
- Mixture ratio

- Stem number of upper-class trees
- Basal area of upper-class trees Vector-geodata (type points) with detected single trees and the following attributes:
- Top height
- BHD
- Social status in the upper-class
-Z-trees

Vector-geodata (type polygon) with forest gaps, boundaries and aisle The methodology should be able to get a simple and large-scale investigation every 5 to 10 years regarding the mentioned data attributes mentioned beforehand. With these attributes conclusions are possible regarding stem numbers of different classes, protective forest investigations, mapping of forest gaps, boundaries and aisle as well as on stock estimations and finally operational planning (allowable cut, activity planning…)

Più DETTAGLI

SFIDA RISOLTA

2. Migliorare le infrastrutture e le capacità degli attori pubblici

DOMINIO

Inventario, la valutazione, il monitoraggio

La gestione forestale, selvicoltura, i servizi ecosistemici, resilienza

Ricerca e sviluppo

TIPO DI SOLUZIONE

I sensori, apparecchi di misura

PAROLE CHIAVE

Remote sensing data; monitoring; Detection; Software

SOLUZIONE DIGITALE

Sì

INNOVAZIONE

Sì

PAESE D'ORIGINE

Svizzera

SCALA DI APPLICAZIONE

Nazionale

INIZIO E FINE ANNO

--

CONTATTI

PROPRIETARIO O AUTORE

BFH Bern University of Applied Sciences

Luuk Dorren

luuk.dorren@bfh.ch

https://www.bfh.ch/hafl/en/

REPORTER

BFH Berne University of Applied Sciences

Moritz Dreher

moritzkaspar.dreher@bfh.ch

REFERENCES AND RESOURCES

SITO PRINCIPALE

https://www.bfh.ch/hafl/en/

SITO WEB DEL PROGETTO

--

PROGETTO DI RIFERIMENTO

--

RISORSE

--

PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood 4.0

DATA DI INSERIMENTO

12 Ago 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY