FINT-CH (Find Individual Trees Switzerland)

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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…)

MORE DETAILS

CHALLENGE ADDRESSED

2.- Improve infrastructures and capacity of public actors

DOMAIN

Inventory, monitoring

Forest management, ecosystem, resilience

Research and development

TYPE OF SOLUTION

Sensors, measurement equipment

KEYWORDS

Remote sensing data; monitoring; Detection; Software

DIGITAL SOLUTION

Yes

INNOVATION

Yes

COUNTRY OF ORIGIN

Switzerland

SCALE OF APPLICATION

National

START AND END YEAR

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REFERENCES AND RESOURCES

MAIN WEBSITE

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

PROJECT WEBSITE

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PROJECT REFERENCE

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RESOURCES

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PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

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