



## 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

the following attributes:

- Top height

- BHD

- Social status in the upper-class

- Z-trees

Vector-geodata (type points) with detected single trees and

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... )

## MAIS DETALHES

---

### DESAFIO ABORDADO

2. Melhorar as infra-estruturas e a capacidade dos actores públicos

### DOMÍNIO

Inventário, avaliação e monitorização  
Gestão florestal, silvicultura, serviços do ecossistema, resiliência  
Investigação e desenvolvimento

### TIPO DE SOLUÇÃO

Sensores, equipamentos de medição

### PALAVRAS-CHAVE

Remote sensing data; monitoring; Detection;  
Software

### SOLUÇÃO DIGITAL

Sim

### INOVAÇÃO

Sim

### PAÍS DE ORIGEM

Suíça

### ESCALA DE APLICAÇÃO

Nacional

### ANO DE INÍCIO E FIM

--

## DADOS DE CONTACTO

---

### PROPRIETÁRIO OU AUTOR

BFH Bern University of Applied Sciences

Luuk Dorren

luuk.dorren@bfh.ch

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

### REPÓRTER

BFH Berne University of Applied Sciences

Moritz Dreher

moritzkaspar.dreher@bfh.ch

## REFERENCES AND RESOURCES

---

### WEBSITE PRINCIPAL

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

### WEBSITE DO PROJETO

--

### REFERÊNCIA AO PROJETO

--

### RECURSOS

--

---

PROJETO NO ÂMBITO DO QUAL A FOLHA DE DIVULGAÇÃO FOI CRIADA

Rosewood 4.0

DATA DE ENTRADA

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

