

National Forest Inventories – a Potential for Information on Alpine Forests

Klemens Schadauer

Department of Forest Inventory

ENFIN Chair

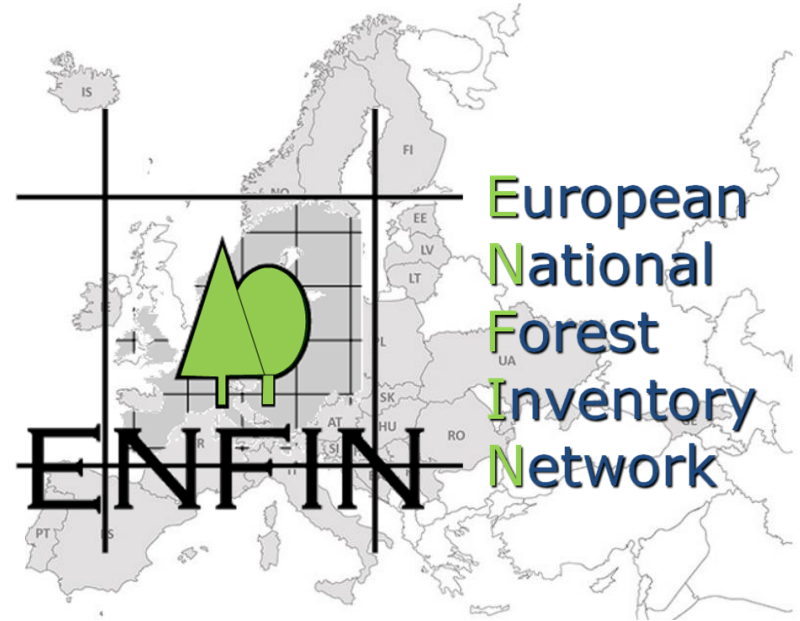
Protective Functions of Forests in a Changing Climate

EFC Working Party on Management of
Mountain Watersheds - EUSALP

26th Sep. 2019

ENFIN – History and Activities

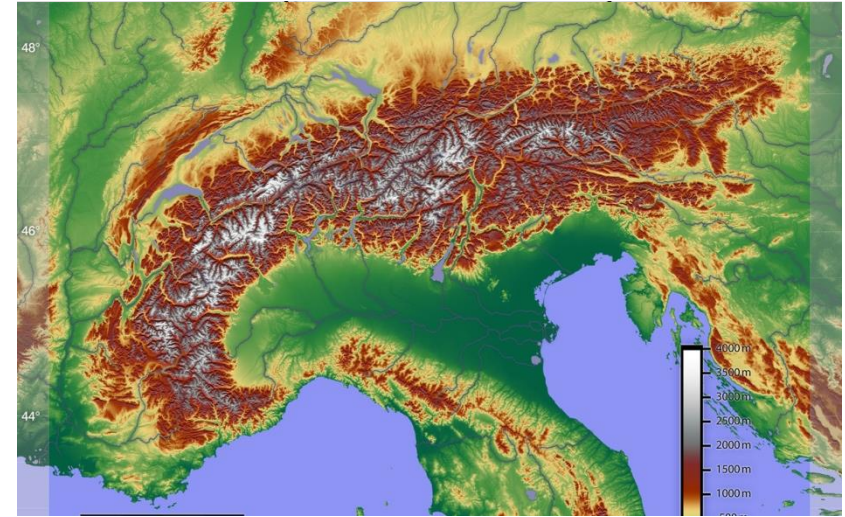
- 2003: ENFIN was founded with 17 members
- 2019: 32 different organisations from 29 countries
- 25 Projects
- 40 Publications
- Main challenge: Harmonisation



Success in many fields with basic work

ENFIN – Alps

- Subgroup of ENFIN
- Specific target variables
- All 6 Alpine countries – different methodologies
- Main challenge:
 - Harmonisation
 - Funds



de.wikipedia.org/wiki/Alpen

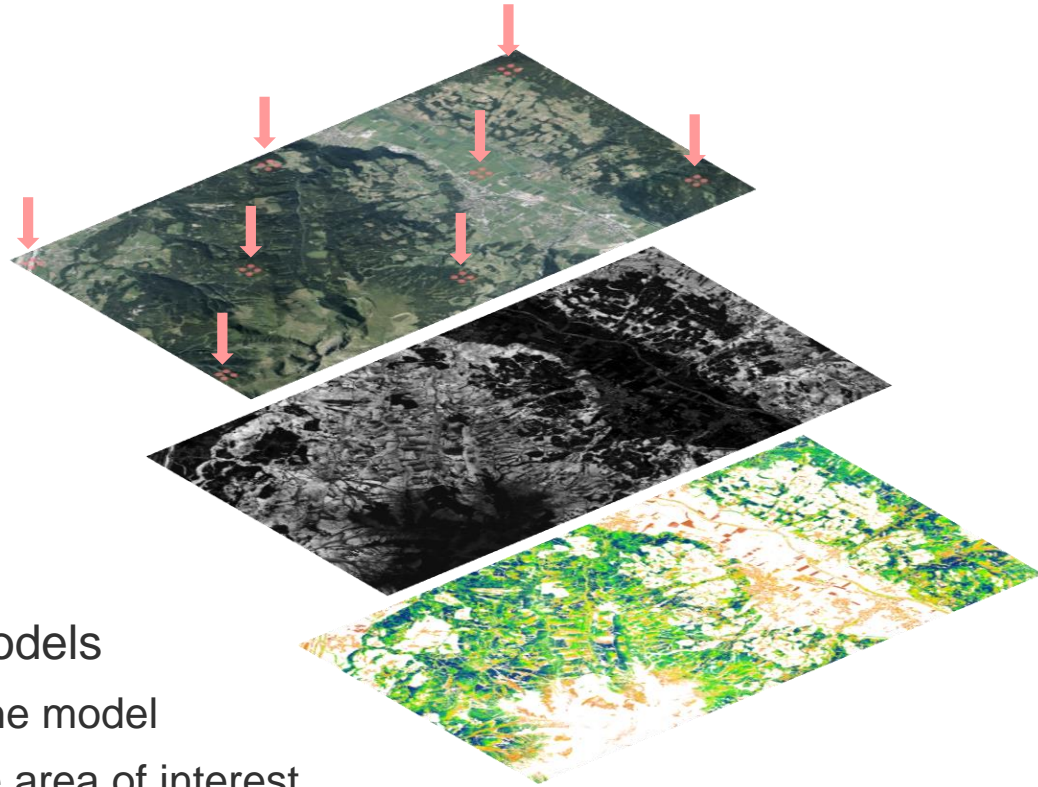
What is a National Forest Inventory

- Main source for forest information at the national and international level
 - Exist in all Alpine countries
 - Information is based on three pillars
 - Sampling on field plots
 - Remote Sensing



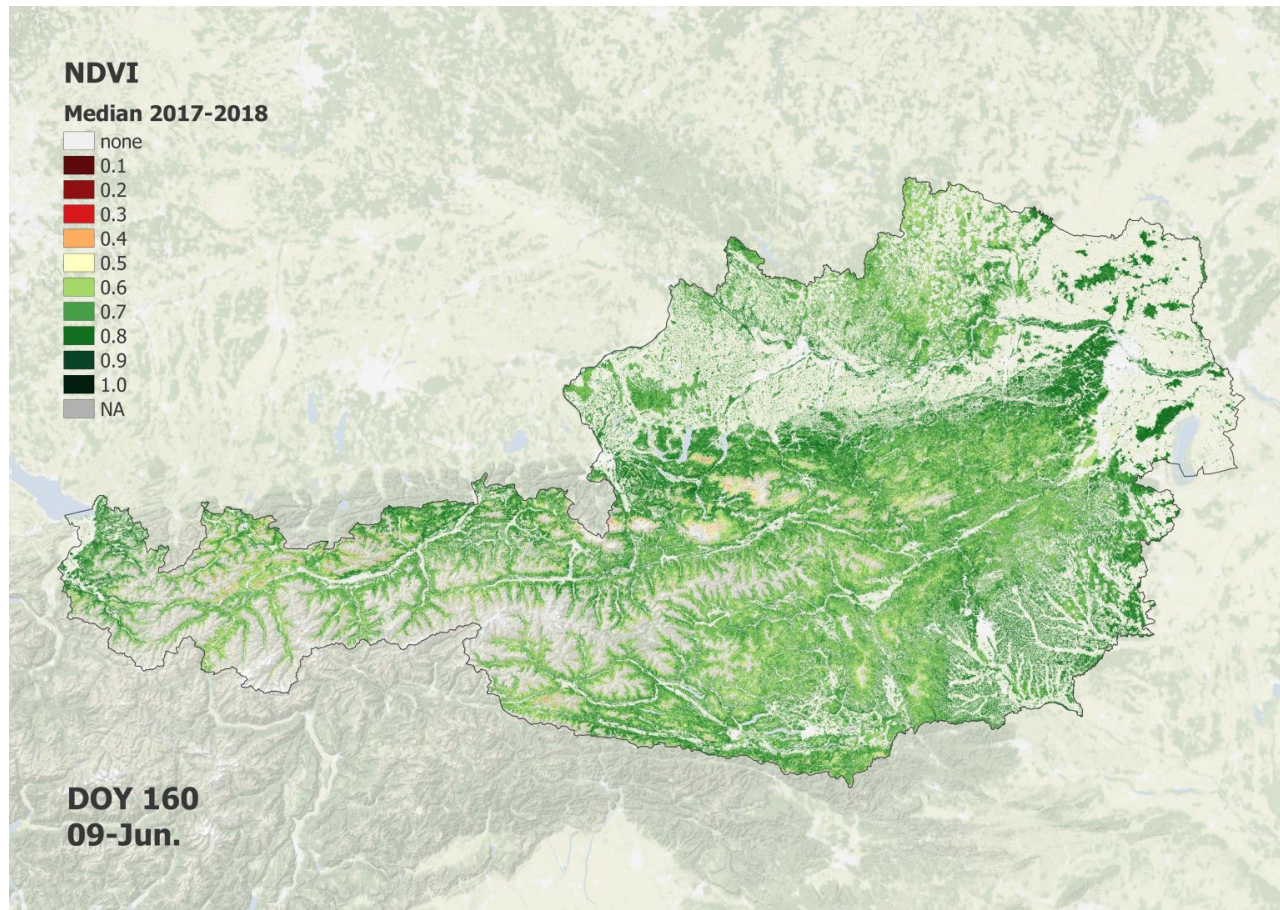
Combining Technologies

- Field plots
- Remote sensing
- Combining with models
 - Application of the model
 - Estimate for the area of interest
 - Mapping



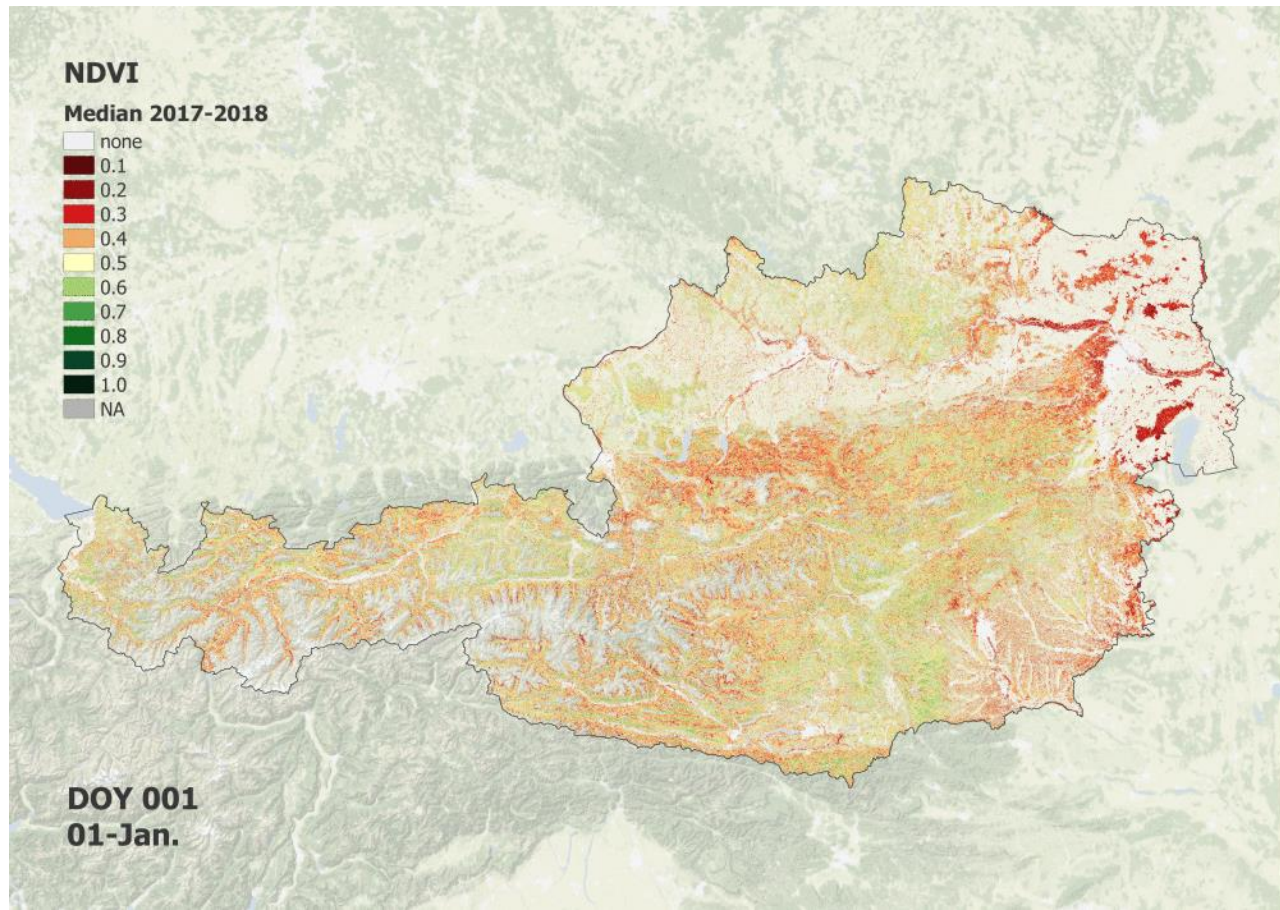
Digitalisation and Protective Forest

- Satellite technology
- Modelled Vegetation Index
- 400. Mio. models inside forest



Digitalisation and Protective Forest

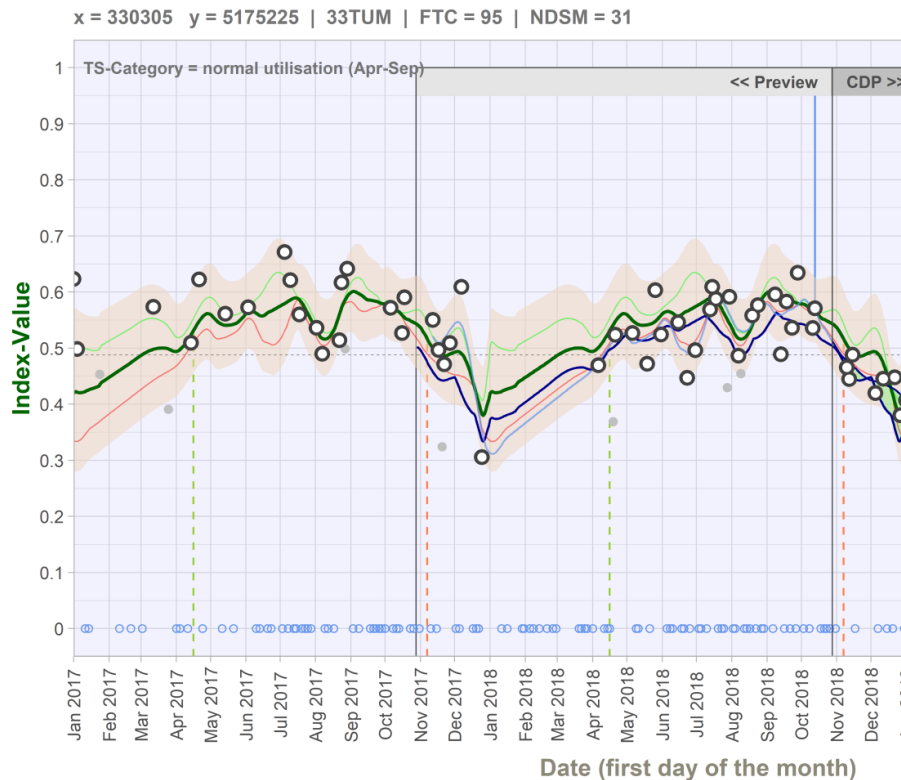
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Digitalisation and Protective Forest

➤ one out of 400.000.000 Models

➤ Deviation from the model

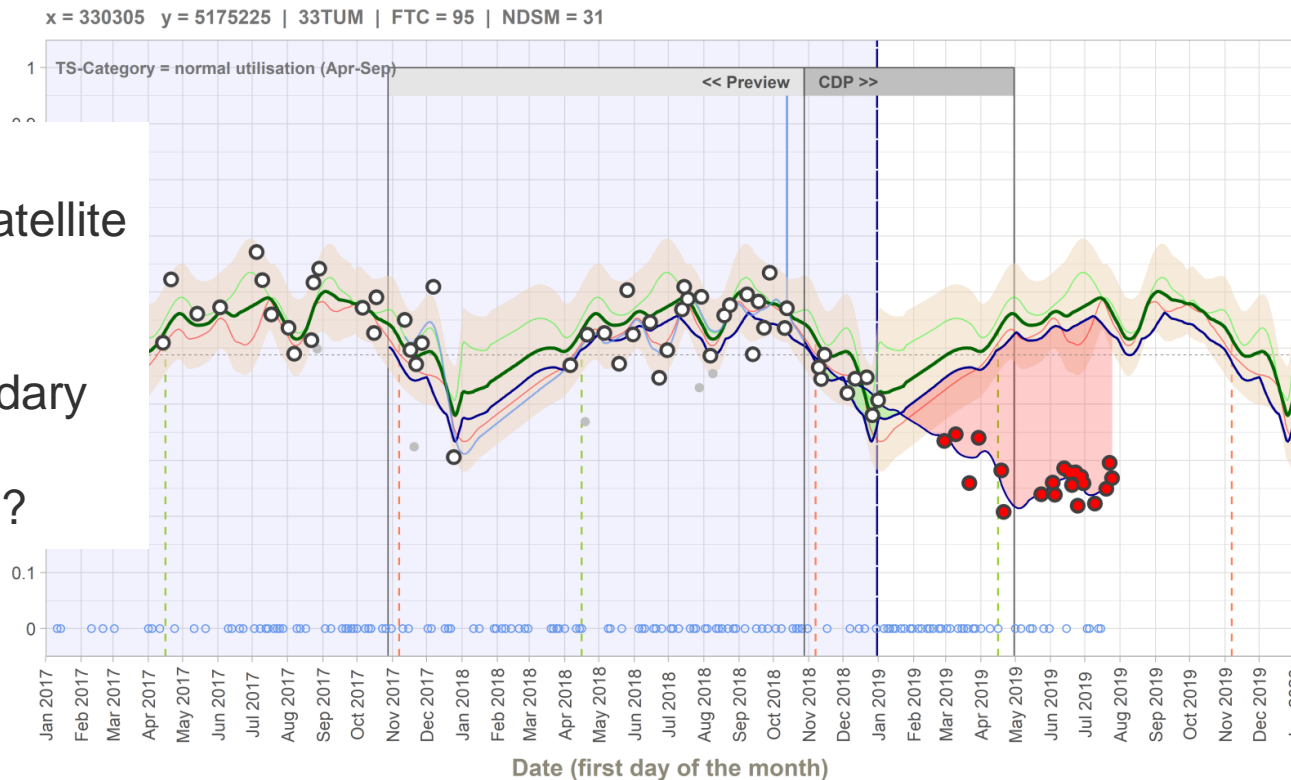


Digitalisation and Protective Forest

➤ one out of 400.000.000 Models

➤ Deviation from the model

- National Satellite Application
- Transboundary Alpine Application?



Digitalisation and Protective Forest

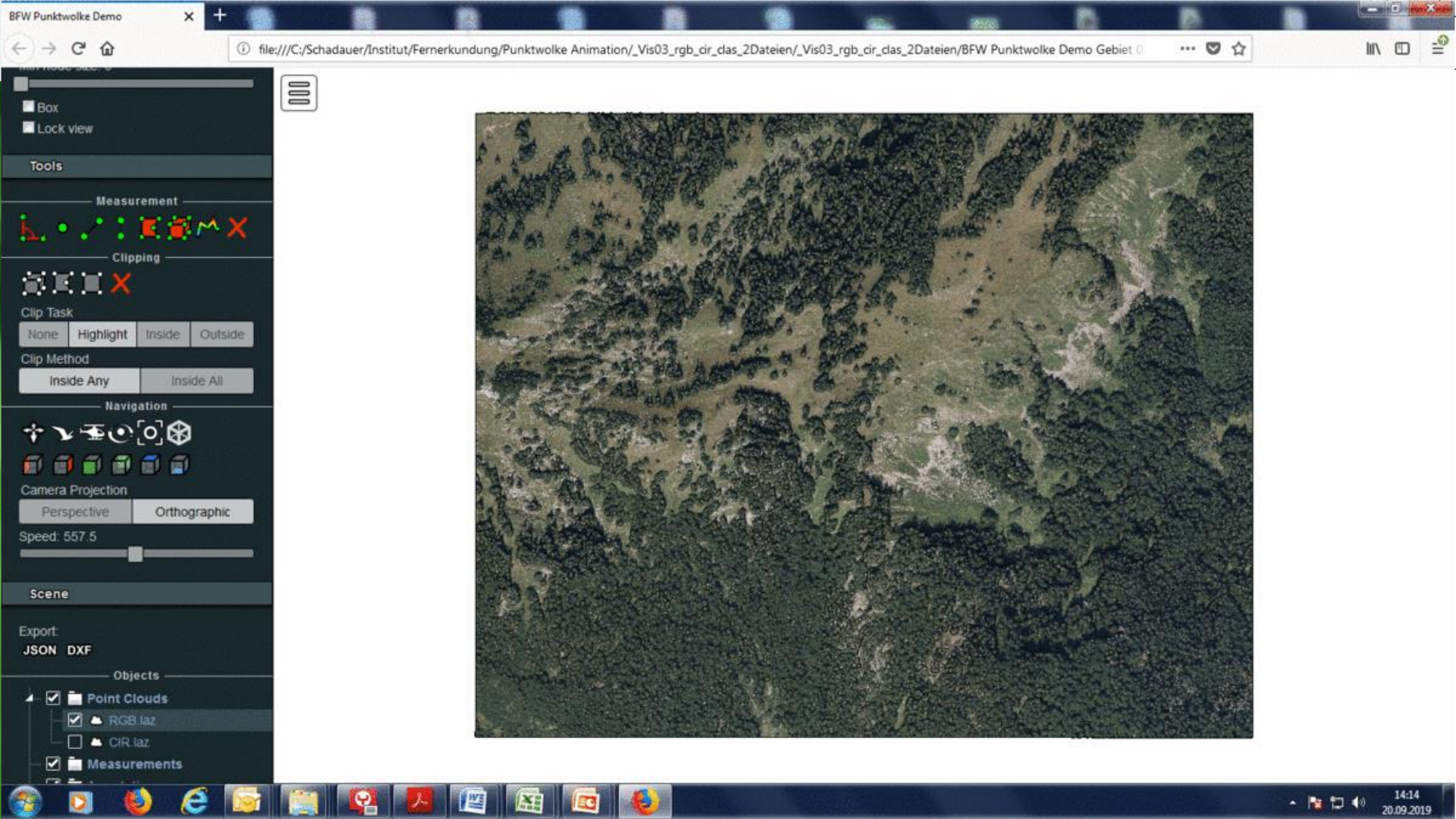
➤ Aerial Photos

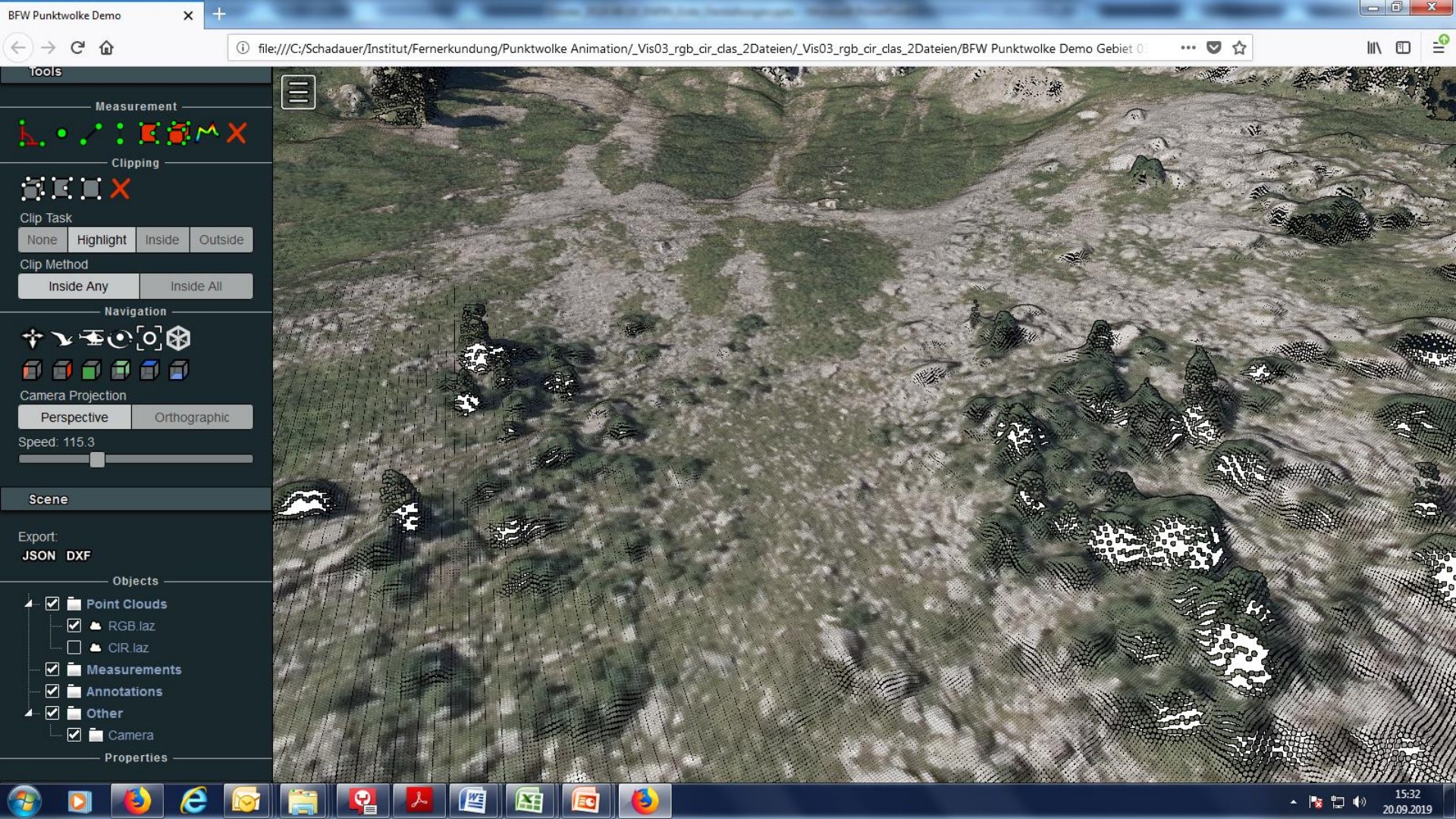
➤ Very high
resolution
20cm

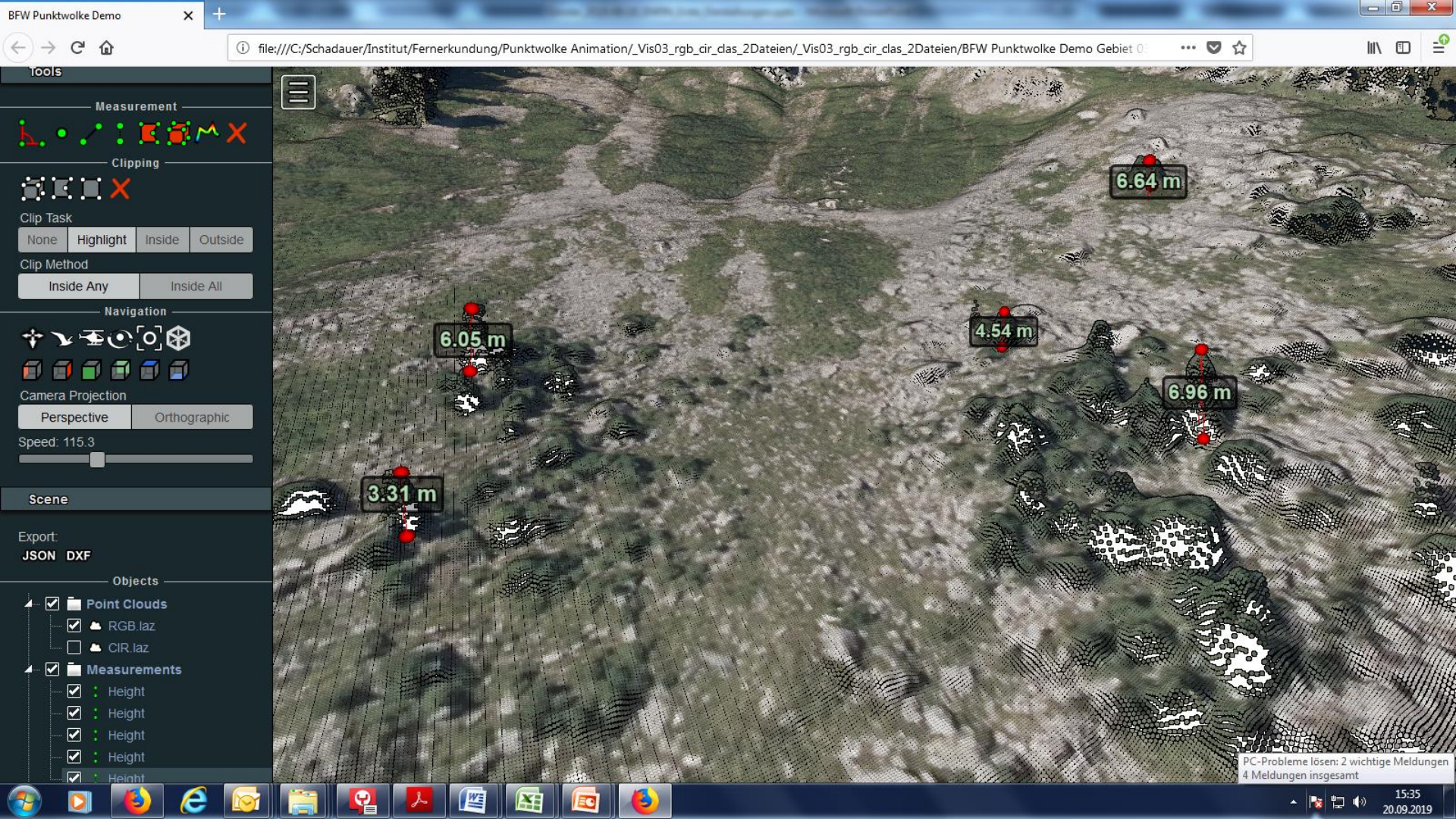
➤ 3D -
application

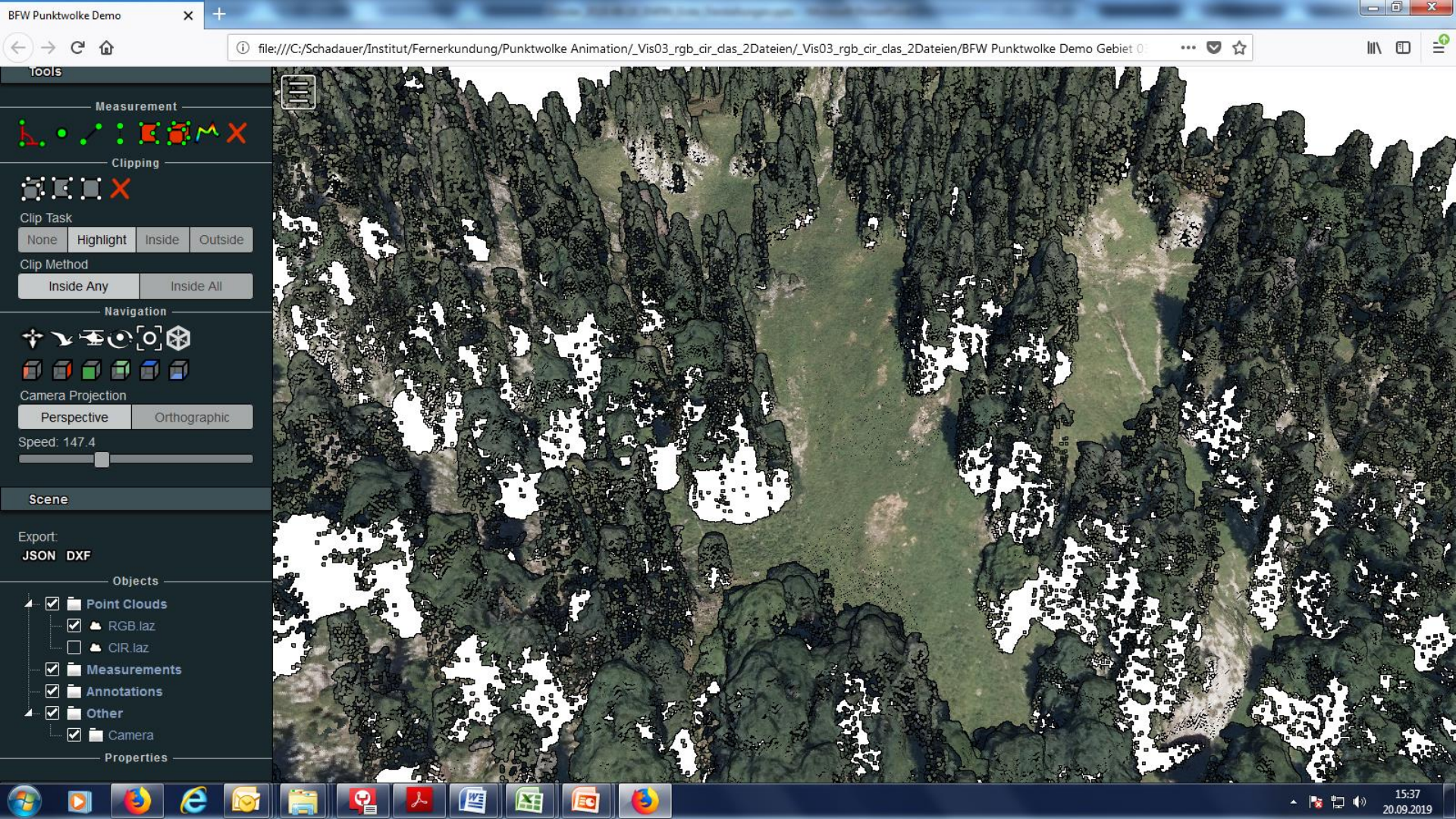
➤ 3D - Point
Cloud

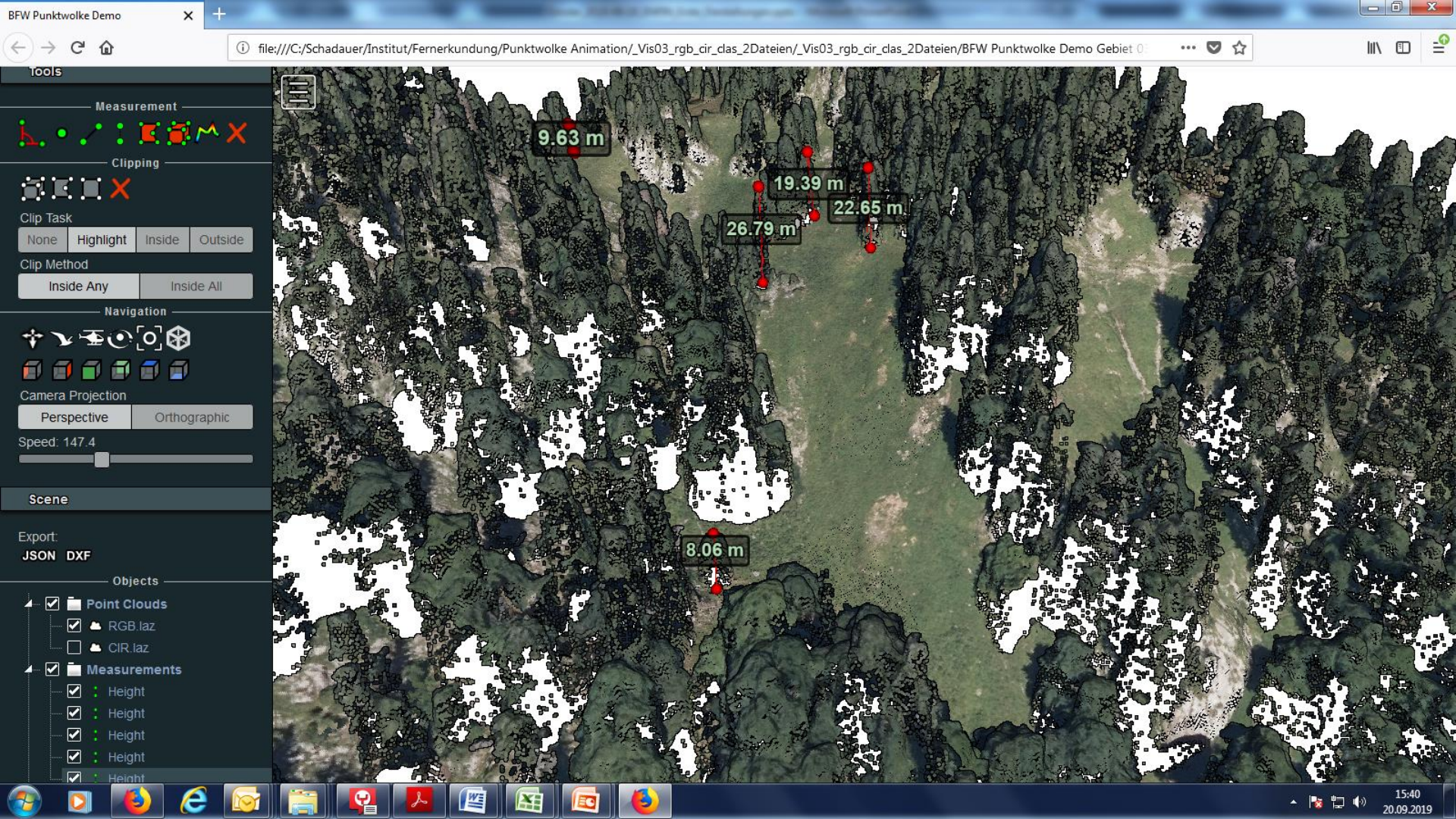






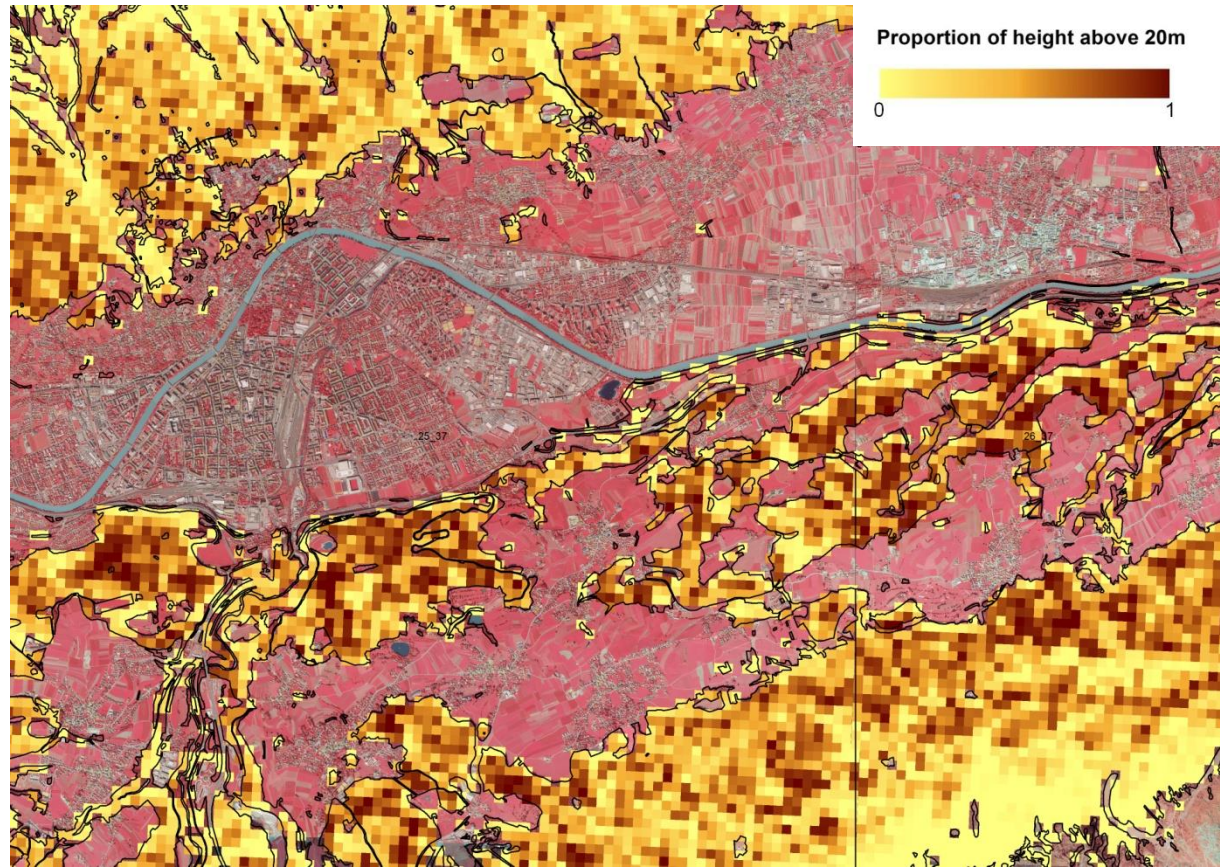






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- Gather these data
- Example Transboundary Application
- Alpine 3D data set
- Height is very important for the protective effect!



The image displays a complex 3D point cloud or mesh visualization. The data is represented by numerous small, colored points or vertices. The color palette is primarily composed of reds, pinks, and teals, with some white highlights. The overall shape is irregular and volumetric, suggesting a complex object or a large dataset. The text "Thank you very much!" is superimposed in the center in a bold, yellow, sans-serif font.

Thank you
very much!

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Thank you
very much!

An aerial photograph of a mountainous landscape. The mountain slopes are covered in dense, dark green forest. A prominent valley runs down the center of the image, containing a winding river and several small, light-colored patches that appear to be snow or cleared land. The text "Thank you very much!" is overlaid in the center of the image in a large, bold, orange font.

Thank you
very much!

How does the challenge look?



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Digitalisation and Protective Forest

- Forest types
- National Satellite Application
- Transboundary Alpine Application?

