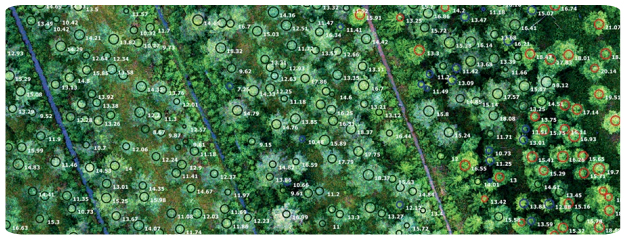
# Drones in Forestry Planning



Metsä Group photographed in 2018 with drone about 3 500 hectares of forest in southern and western Finland and utilized the data as basis for forest plans for forest owners. According to experience, the method has been developed and now the drone forest plans are being sold as an alternative to traditional forest plans. The forest plan based on information described by Drone or copter with camera challenges the traditional forest planning. The method is used in particular to get more accurate tree information.

The drone plan will be of interest to the forest owners who want to be in the front and develop new developments with forest industry. For example, in a virtual forest, the data measured in the drone will create a precise tree map, where the trees are in the right places and the tree species are correct. In virtual reality, it will better reflect the fluctuations of the wood inside the forest compartment than the traditional forest plan information. The drone design and virtual forests form an interesting pair in the future by producing new experiences for forest owners.

The measurements will provide both the amount of trees in cubic meters and the value of the wood in euros more accurately than before. With drone surveys we also get information about the amount of dead wood – it helps to preserve the important structure of forest for diversity.
The method is capable of identifying tree three species: pine, spruce and birch. The remaining deciduous tree species are logged into the category of other deciduous trees. Based on the measurement data, treatment recommendations are calculated. This drone-made plan differs from the traditional, where human being makes the treatment recommendations.
The forest plan produced by drone is particularly suitable for updating the forest plan that is about to expire.  It is also suitable for
forest owners, who are particularly interested in the amount and value of the timber.
The forest plan of the drone also benefits from a faster delivery of traditional forest plan. Delivery time is few months, which is only half of the delivery times of traditional forest plan.

## PODROBNOSTI

IZVOR LESA

Gozd

TIP LESA

Okrogli les

VRSTA OBRAVNAVANEGA LESA

Stemwood, energy wood

VPLIV NA OKOLJE IN BIODIVERZITETO

Positive

VPLIV NA PRIHODKE

Positive

POTENCIAL IZKORIŠČANJA

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VOZLIŠČE

Severno vozlišče

GOSPODARSKI VPLIV

Positive

POTREBNO SPECIFIČNO ZNANJE

IT skills, knowledge of forest planning processes

POTENCIAL ZA MOBILIZACIJO

Medium

TRAJNOST - VREDNOST

--

ENOSTAVNOST IZVEDBE

Easy, requires IT skills

ENOSTAVNOST IZVEDBE - OCENJEVANJE

--

KLJUČNI PREDPOGOJI

IT skills needed, co-operation needed between IT companies and forest companies

VRSTA DOGODKA, NA KATEREM JE BIL PREDSTAVLJEN TA BPI

--

VPLIV NA DELOVNA MESTA

Positive

STROŠKI IZVEDBE (EURO - €)

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## VEČ PODROBNOSTI

| IZZIV | DOMENA | TIP REŠITVE |
| --- | --- | --- |
| 5. Izboljšanje gospodarske in ekološke učinkovitosti gozdne oskrbovalne verige | Gojenje gozdov, gospodarjenje z gozdovi, odpornost, ekosistemske storitve | Svetovanje in storitve za lastnike gozdov |
| **KLJUČNE BESEDE** | **DIGITALNE REŠITVE** | **INOVACIJA** |
| -- | No | Da |
| **IZVORNA DRŽAVA** | **OBSEG UPORABE** | **ZAČETNO IN KONČNO LETO** |
| Finska | Nacionalni | 2017 - |

## KONTAKTN PODATKI

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https://www.metsaforest.com

**POROČEVALEC**

## REFERENCES AND RESOURCES

**SPLETNA STRAN**

https://www.metsaforest.com/fi/Yritys/Tiedotteet/Pages/Tiedote.aspx

**SPLETNA STRAN PROJEKTA**

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**REFERENCA PROJEKTA**

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**VIRI**

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LOGOTIP DOBRE PRAKSE

LOGOTIP GLAVNE ORGANIZACIJE

Metsä

PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood

DATUM OBJAVE

17 Sep 2019

ROSEWOOD 4.0 Sustainable Wood for Europe

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

cesefor

Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León