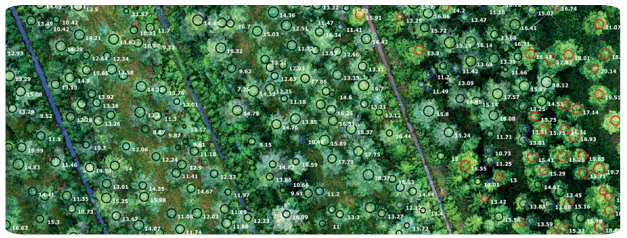
# Drones in Forestry Planning



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.

## DETALJER

VEDENS URSPRUNG

Skog

TRäTYP

Rundvirke

TYP AV TRä

Stemwood, energy wood

PåVERKAN På MILJö & BIOLOGISK MåNGFALD

Positive

EKONOMISK EFFEKT

Positive

KOMMERSIELL POTENTIAL

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NAV

Norra navet

EKONOMISK PåVERKAN

Positive

SPECIFIKA KUNSKAPSBEHOV

IT skills, knowledge of forest planning processes

MOBILISERINGSPOTENTIAL

Medium

HåLLBARHETS POTENTIAL - VäRDE

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ENKEL IMPLEMENTERING

Easy, requires IT skills

ENKEL IMPLEMENTERING - UTVäRDERING

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NYCKEL FöRUTSäTTNINGAR

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

TYP AV EVENEMANG DäR DENNA BPI HAR PRESENTERATS

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EFFEKT ANTAL ANSTäLLDA

Positive

KOSTNADER FöR IMPLEMENTERING (EURO - €)

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## MER INFORMATION

UTMANING SOM ADRESSERAS

5. Förbättra ekonomisk och miljömässig prestanda för skogsförsörjningskedjor

DOMäN

Skogsförvaltning, skogskjötsel, ekosystemtjänster

TYPE AV LöSNING

Rådgivning og serviceverktyg för skogsägare

NYCKELORD

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DIGITAL LöSNING

Nej

INNOVASION

Ja

UPPHOVSLAND

Finland

POTENTIAL

Nationell

START OCH SLUTåR

2017 -

## KONTAKT INFORMASION

ÄGARE ELLER FöRFATTARE

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RAPPORTöR

## REFERENCES AND RESOURCES

HEMSIDA (HUVUDSIDA)

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

PROJEKTETS HEMSIDA

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PROJEKTREFERENS

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RESURSER

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## LOGO FöR BEST PRACTICE

## LOGO, HUVUDORGANISATION

Metsä

### PROJEKT SOM DETTA FACTSHEET SKAPATS INOM

Rosewood

### DATUM FöR INLäGG

17 sep 2019

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