

# 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.

## DETALII

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### SURSA DE LEMN

Pădure

### TIPUL DE LEMN

Lemn masiv

### TIPUL DE LEMN ÎN CAUZĂ

Stemwood, energy wood

### IMPACTUL ASUPRA MEDIULUI ȘI BIODIVERSITĂȚII

Positive

### EFACT ASUPRA VENITURILOR

Positive

### POTENȚIAL DE EXPLOATARE

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### HUB

Hub-ul de Nord

### IMPACT ECONOMIC

Positive

### CUNOȘTINȚE SPECIFICE NECESARE

IT skills, knowledge of forest planning processes

### POTENȚIALUL DE MOBILIZARE

Medium

### POTENȚIAL DE SUSTENABILITATE - VALOARE

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### FACILITATEA DE IMPLEMENTARE

Easy, requires IT skills

### FACILITATEA DE IMPLEMENTARE - EVALUARE

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### CONDIȚII CHEIE PREALABILE

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

### TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB

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### EFACT ASUPRA LOCURILOR DE MUNCĂ

Positive

### COSTURI PENTRU IMPLEMENTARE (EURO - €)

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## MAI MULTE DETALII

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### PROVOCARE ABORDATĂ

5. Îmbunătățirea performanțelor economice și de mediu ale lanțurilor de aprovizionare cu păduri

### CUVINTE CHEIE

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### ȚARA DE ORIGINE

Finlanda

### DOMAIN

Managementul pădurilor, silvicultura, servicii ecosistemice, reziliență

### SOLUȚIE DIGITALĂ

Nu

### SCARA DE APLICARE

Național

### TIP DE SOLUȚIE

Instrumente de consiliere și servicii pentru proprietarii de păduri

### INOVAȚIE

Da

### ANUL DE ÎNCEPUT ȘI DE SFÂRȘIT

2017 -

## DATE DE CONTACT

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### PROPRIETAR SAU AUTOR

Metsä Forest

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### REPORTER

## REFERENCES AND RESOURCES

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### PAGINĂ WEB

<https://www.metsaforest.com/fi/Yrityk/Tiedotteet/Pages/Tiedote.aspx>

### WEBSITE PROJECT

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### REFERINȚĂ PROIECT

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### RESURSE

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PROIECTUL ÎN CADRUL CĂRUIA A FOST CREATă ACEASTă FIȘă INFORMATIVă

Rosewood

DATA POSTĂRII

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

