

# 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.

## DETTAGLI

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### ORIGINE DEL LEGNO

foresta

### TIPO DI LEGNO

Fusto

### TIPO DI LEGNO IN QUESTIONE

Stemwood, energy wood

### IMPATTO SULL'AMBIENTE E LA BIODIVERSITÀ

Positive

### EFFETTO SUL REDDITO

Positive

### POTENZIALE DI SFRUTTAMENTO

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### HUB

Polo Nord

### IMPATTO ECONOMICO

Positive

### CONOSCENZE SPECIFICHE NECESSARIE

IT skills, knowledge of forest planning processes

### POTENZIALE DI MOBILITAZIONE

Medium

### POTENZIALE SOSTENIBILITÀ - VALORE

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### FACILITÀ DI IMPLEMENTAZIONE

Easy, requires IT skills

### FACILITÀ DI IMPLEMENTAZIONE - VALUTAZIONE

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### PREREQUISITI CHIAVE

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

### TIPO DI EVENTO IN CUI QUESTO BPI È STATO PRESENTATO

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### EFFETTO SUL LAVORO

Positive

### I COSTI DI ATTUAZIONE (EURO - €)

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## PIÙ DETTAGLI

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### SFIDA RISOLTA

5. Migliorare le prestazioni economiche e ambientali delle filiere forestali

### PAROLE CHIAVE

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### PAESE D'ORIGINE

Finlandia

### DOMINIO

La gestione forestale, selvicoltura, i servizi ecosistemici, resilienza

### SOLUZIONE DIGITALE

No

### SCALA DI APPLICAZIONE

Nazionale

### TIPO DI SOLUZIONE

strumenti di consulenza e servizi per i proprietari di foreste

### INNOVAZIONE

Sì

### INIZIO E FINE ANNO

2017 -

## CONTATTI

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### PROPRIETARIO O AUTORE

Metsä Forest

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### REPORTER

## REFERENCES AND RESOURCES

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### SITO PRINCIPALE

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

### SITO WEB DEL PROGETTO

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### PROGETTO DI RIFERIMENTO

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### RISORSE

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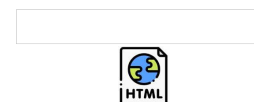
PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood

DATA DI INSERIMENTO

17 Set 2019

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

