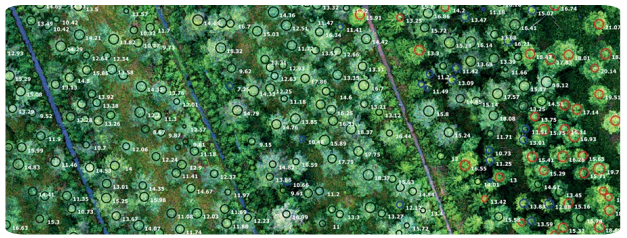
Drones in Forestry Planning



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

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

SFIDA RISOLTA

5. Migliorare le prestazioni economiche e ambientali delle filiere forestali

DOMINIO

La gestione forestale, selvicoltura, i servizi ecosistemici, resilienza

TIPO DI SOLUZIONE

strumenti di consulenza e servizi per i proprietari di foreste

PAROLE CHIAVE

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SOLUZIONE DIGITALE

No

INNOVAZIONE

Sì

PAESE D'ORIGINE

Finlandia

SCALA DI APPLICAZIONE

Nazionale

INIZIO E FINE ANNO

2017 -

CONTATTI

PROPRIETARIO O AUTORE

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REPORTER

REFERENCES AND RESOURCES

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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LOGO DELLE MIGLIORI PRATICHE

LOGO DELLA PRINCIPALE ORGANIZZAZIONE

PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood

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