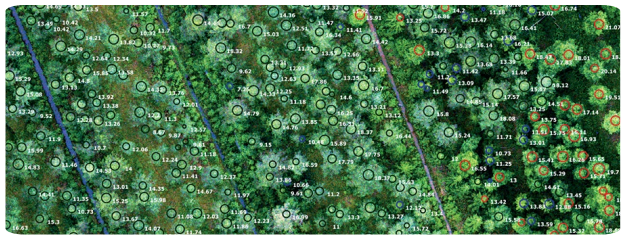
Drones in Forestry Planning



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.

DéTAILS

ORIGINE DU BOIS

Forêt

TYPE DE BOIS

Grume

TYPE DE BOIS CONCERNé

Stemwood, energy wood

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITé

Positive

EFFET SUR LE REVENU

Positive

POTENTIEL D'EXPLOITATION

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HUB

Pôle Nord

IMPACT éCONOMIQUE

Positive

CONNAISSANCES SPéCIFIQUES REQUISES

IT skills, knowledge of forest planning processes

POTENTIEL DE MOBILISATION

Medium

POTENTIEL DE DURABILITé - VALEUR

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FACILITé D'IMPLéMENTATION

Easy, requires IT skills

FACILITé D'IMPLéMENTATION - ÉVALUATION

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PRéREQUIS CLéS

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

TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE

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EFFET SUR L'EMPLOI

Positive

COûTS D'IMPLéMENTATION (EURO - €)

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PLUS DE DéTAILS

DéFI CONCERNé

5. Accroître les performances économiques et environnementales de la chaîne logistique forestière

DOMAINE

Getsion forestière, sylviculture, services écosystémiques, résilience

TYPE DE SOLUTION

Conseil, outils de service pour les propriétaires forestiers

MOTS-CLéS

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SOLUTION DIGITALE

Non

INNOVATION

Oui

PAYS D'ORIGINE

Finlande

ECHELLE D'APPLICATION

Nationale

DéBUT ET FIN D'ANNéE

2017 -

INFORMATIONS DE CONTACT

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RAPPORTEUR

REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

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

SITE WEB DU PROJET

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RéFéRENCE DU PROJET

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RESSOURCES

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LOGO DE LA BONNE PRATIQUE

LOGO DE L'ORGANISATION PRINCIPALE

PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A éTé CRééE

Rosewood

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