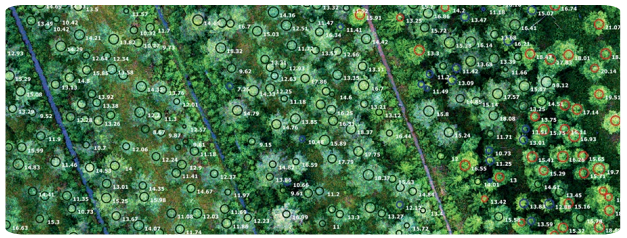
Drones in Forestry Planning



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.

DETALHES

ORIGEM DA MADEIRA

Floresta

TIPO DE MADEIRA

Tronco

TIPO DE MADEIRA EM CAUSA

Stemwood, energy wood

IMPACTE NO AMBIENTE E BIODIVERSIDADE

Positive

IMPACTE NAS RECEITAS

Positive

POTENCIAL DE EXPLORAçãO

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HUB

Pólo Norte

IMPACTE ECONOMICO

Positive

CONHECIMENTOS ESPECIFICOS NECESSáRIOS

IT skills, knowledge of forest planning processes

POTENCIAL DE MOBILIZAçãO

Medium

SUSTENTABILIDADE POTENCIAL - VALOR

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FACILIDADE DE IMPLEMENTAçãO

Easy, requires IT skills

FACILIDADE DE IMPLEMENTAçãO

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PRE-REQUISITOS CHAVE

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

TIPO DE EVENTO EM QUE ESTE BPI TEM SIDO APRESENTADO

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IMPACTE NO EMPREGO

Positive

CUSTOS DE IMPLEMENTAçãO (EURO - EUR)

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MAIS DETALHES

DESAFIO ABORDADO

5. Melhorar o desempenho económico e ambiental das cadeias de abastecimento florestal

DOMíNIO

Gestão florestal, silvicultura, serviços do ecosistema, resiliencia

TIPO DE SOLUçãO

Ferramentas de consultoria e prestação de serviços a proprientários florestais

PALAVRAS-CHAVE

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SOLUçãO DIGITAL

Não

INOVAçãO

Sim

PAíS DE ORIGEM

Finlândia

ESCALA DE APLICAçãO

Nacional

ANO DE INíCIO E FIM

2017 -

DADOS DE CONTACTO

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REPóRTER

REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

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

WEBSITE DO PROJETO

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REFERêNCIA AO PROJETO

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RECURSOS

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LOGOTIPO DA BOA PRáTICA

LOGOTIPO DA ORGANIZAçãO PRINCIPAL

PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood

DATA DE ENTRADA

17 Set 2019

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