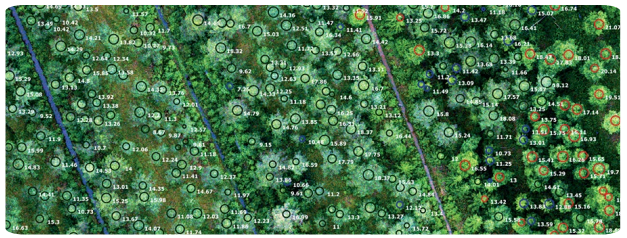
Drones in Forestry Planning



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.

DETALLES

ORIGEN DE LA MADERA

Bosque

TIPO DE MADERA

Madera en rollo

TIPO DE MADERA AFECTADA

Stemwood, energy wood

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

Positive

EFECTO SOBRE LOS INGRESOS

Positive

POTENCIAL DE EXPLOTACIóN

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HUB

Eje Norte

IMPACTO ECONóMICO

Positive

CONOCIMIENTOS ESPECíFICOS NECESARIOS

IT skills, knowledge of forest planning processes

POTENCIAL DE MOVILIZACIóN

Medium

POTENCIAL DE SOSTENIBILIDAD - VALOR

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FACILIDAD DE APLICACIóN

Easy, requires IT skills

FACILIDAD DE IMPLEMENTACIóN - EVALUACIóN

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PREREQUISITOS CLAVE

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

TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

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EFECTO SOBRE EL EMPLEO

Positive

COSTES DE IMPLEMENTACIóN (EURO - €)

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MáS DETALLES

RETO ABORDADO

5. Mejorar el rendimiento económico y medioambiental de las cadenas de suministro forestal

DOMINIO

Gestión forestal, silvicultura, servicios ecosistémicos, resiliencia

TIPO DE SOLUCIóN

Herramientas de asesoramiento y servicios para propietarios forestales

PALABRAS CLAVE

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SOLUCIóN DIGITAL

No

INNOVACIóN

Si

PAíS DE ORIGEN

Finlandia

ESCALA DE APLICACIóN

Nacional

AñO DE INICIO Y FIN

2017 -

DATOS DE CONTACTO

PROPIETARIO O AUTOR

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REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL

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

SITIO WEB DEL PROYECTO

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REFERENCIA DEL PROYECTO

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RECURSOS

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LOGO DE LA BUENA PRáCTICA

LOGOTIPO DE LA ORGANIZACIóN PRINCIPAL

PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood

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