

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 three tree 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

POTENCIAL DE MOVILIZACIÓN

Medium

TIPO DE MADERA AFECTADA

Stemwood, energy wood

FACILIDAD DE APLICACIÓN

Easy, requires IT skills

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

Positive

FACILIDAD DE IMPLEMENTACIÓN - EVALUACIÓN

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EFFECTO SOBRE LOS INGRESOS

Positive

PREREQUISITOS CLAVE

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

POTENCIAL DE EXPLOTACIÓN

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TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

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HUB

Eje Norte

EFFECTO SOBRE EL EMPLEO

Positive

IMPACTO ECONÓMICO

Positive

COSTES DE IMPLEMENTACIÓN (EURO - €)

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CONOCIMIENTOS ESPECÍFICOS NECESARIOS

IT skills, knowledge of forest planning processes

MÁS DETALLES

RETO ABORDADO	DOMINIO	TIPO DE SOLUCIÓN
5. Mejorar el rendimiento económico y medioambiental de las cadenas de suministro forestal	Gestión forestal, silvicultura, servicios ecosistémicos, resiliencia	Herramientas de asesoramiento y servicios para propietarios forestales
PALABRAS CLAVE	SOLUCIÓN DIGITAL	INNOVACIÓN
--	No	Si
PAÍS DE ORIGEN	ESCALA DE APLICACIÓN	AÑO DE INICIO Y FIN
Finlandia	Nacional	2017 -

DATOS DE CONTACTO

PROPIETARIO O AUTOR	REPORTADOR
Metsä Forest	
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REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL	RECURSOS
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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LOGO DE LA BUENA
PRÁCTICA

LOGOTIPO DE LA
ORGANIZACIÓN PRINCIPAL



PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood

FECHA DE MENSAJE

17 Sep 2019



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.

862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY



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