HCT lorries (High Capacity Transport)



Heavy-duty vehicles can increase the efficiency of timber transport and reduce emissions to the environment.

Transportation costs are the most costly part of wood mobilization especially in sparsely populated areas with long distances. The distance between forest and factory can be over 500 kilometers. To reduce costs of long-distance transportation of wood, bigger lorries were innovated and are now tested in Finland in a research project. The environmental effects and traffic safety are also explored.

Full utilization of HCT vehicles requires maintenance of road networks including forest roads, main roads, and bridges.

The 33-metric vehicle combination is able to carry even 70 tons of wood. The vehicle consumes less fuel than the smaller one and therefore contributes to reducing the environmental effects of transportation. The vehicles will also contribute to traffic safety since fewer vehicles will be needed to wood transportation in the future.

The research project is participated by experienced research institutes: Aalto University, Oulu University, Metsäteho, and Tampere Technical University. In the research project, the impacts on the road as well as the features of the lorries are investigated: braking distances, passing capacity, oscillations of the vehicle, and curve driving. The consumption of fuel, emissions, and durability of tires are also focused on.

Cost efficiency is gained in long-distance transportation of wood. The HCT vehicles reduce transportation costs and carbon emissions.

The first combination to transport wood started shipping with a pilot permit in December 2020.

DETALLES

ORIGEN DE LA MADERA
Bosque

TIPO DE MADERA
Madera en rollo

TIPO DE MADERA AFECTADA
Stemwood

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD
Reduces carbon emissions, consumes less fuel than smaller vehicles

EFECTO SOBRE LOS INGRESOS
Positive

POTENCIAL DE EXPLOTACIóN
--

HUB
Eje Norte

IMPACTO ECONóMICO
Less transportation costs, positive effect to climate change

CONOCIMIENTOS ESPECíFICOS NECESARIOS
Skills to handle bigger vehicles

POTENCIAL DE MOVILIZACIóN
High

POTENCIAL DE SOSTENIBILIDAD - VALOR
--

FACILIDAD DE APLICACIóN
Easy

FACILIDAD DE IMPLEMENTACIóN - EVALUACIóN
--

PREREQUISITOS CLAVE
Involvement of relevant stakeholder, incl. traffic bureau and other authorities

TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS
--

EFECTO SOBRE EL EMPLEO
Positive

COSTES DE IMPLEMENTACIóN (EURO - €)
--

MáS DETALLES

RETO ABORDADO

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

DOMINIO

Aprovechamiento, infraestructura, logística

TIPO DE SOLUCIóN

--

PALABRAS CLAVE

--

SOLUCIóN DIGITAL

No

INNOVACIóN

No

PAíS DE ORIGEN

Finlandia

ESCALA DE APLICACIóN

Regional/sub-nacional

AñO DE INICIO Y FIN

2015 - 2019

DATOS DE CONTACTO

PROPIETARIO O AUTOR

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REPORTADOR

REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL

http://www.e-julkaisu.fi/metsahallitus/autoesite/

SITIO WEB DEL PROYECTO

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REFERENCIA DEL PROYECTO

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RECURSOS

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PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood

FECHA DE MENSAJE

17 Sep 2019

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY