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.

DETALHES

ORIGEM DA MADEIRA

Floresta

TIPO DE MADEIRA

Tronco

TIPO DE MADEIRA EM CAUSA

Stemwood

IMPACTE NO AMBIENTE E BIODIVERSIDADE

Reduces carbon emissions, consumes less fuel than smaller vehicles

IMPACTE NAS RECEITAS

Positive

POTENCIAL DE EXPLORAçãO

--

HUB

Pólo Norte

IMPACTE ECONOMICO

Less transportation costs, positive effect to climate change

CONHECIMENTOS ESPECIFICOS NECESSáRIOS

Skills to handle bigger vehicles

POTENCIAL DE MOBILIZAçãO

High

SUSTENTABILIDADE POTENCIAL - VALOR

--

FACILIDADE DE IMPLEMENTAçãO

Easy

FACILIDADE DE IMPLEMENTAçãO

--

PRE-REQUISITOS CHAVE

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

TIPO DE EVENTO EM QUE ESTE BPI TEM SIDO APRESENTADO

--

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

Cortes, infraestruturas e logistica

TIPO DE SOLUçãO

--

PALAVRAS-CHAVE

--

SOLUçãO DIGITAL

Não

INOVAçãO

Não

PAíS DE ORIGEM

Finlândia

ESCALA DE APLICAçãO

Regional/ sub-nacional

ANO DE INíCIO E FIM

2015 - 2019

DADOS DE CONTACTO

PROPRIETáRIO OU AUTOR

Metsähallitus

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REPóRTER

REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

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

WEBSITE DO PROJETO

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REFERêNCIA AO PROJETO

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RECURSOS

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PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood

DATA DE ENTRADA

17 Set 2019

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY