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.

DéTAILS

ORIGINE DU BOIS
Forêt

TYPE DE BOIS
Grume

TYPE DE BOIS CONCERNé
Stemwood

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITé
Reduces carbon emissions, consumes less fuel than smaller vehicles

EFFET SUR LE REVENU
Positive

POTENTIEL D'EXPLOITATION
--

HUB
Pôle Nord

IMPACT éCONOMIQUE
Less transportation costs, positive effect to climate change

CONNAISSANCES SPéCIFIQUES REQUISES
Skills to handle bigger vehicles

POTENTIEL DE MOBILISATION
High

POTENTIEL DE DURABILITé - VALEUR
--

FACILITé D'IMPLéMENTATION
Easy

FACILITé D'IMPLéMENTATION - ÉVALUATION
--

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

TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE
--

EFFET SUR L'EMPLOI
Positive

COûTS D'IMPLéMENTATION (EURO - €)
--

PLUS DE DéTAILS

DéFI CONCERNé

5. Accroître les performances économiques et environnementales de la chaîne logistique forestière

DOMAINE

Récolte, infrastructure, logistique

TYPE DE SOLUTION

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MOTS-CLéS

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SOLUTION DIGITALE

Non

INNOVATION

Non

PAYS D'ORIGINE

Finlande

ECHELLE D'APPLICATION

Régionale/subnationale

DéBUT ET FIN D'ANNéE

2015 - 2019

INFORMATIONS DE CONTACT

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RAPPORTEUR

REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

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

SITE WEB DU PROJET

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RéFéRENCE DU PROJET

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RESSOURCES

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PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A éTé CRééE

Rosewood

DATE DE PUBLICATION

17 sep 2019

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Link to Rosewood 4.0

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