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.

DETAILS

HERKUNFT DES HOLZES

Wald

ART DES HOLZES

Stammholz

ART DES BETROFFENEN HOLZES

Stemwood

AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITäT

Reduces carbon emissions, consumes less fuel than smaller vehicles

EINKOMMENSEFFEKT

Positive

VERWERTUNGSPOTENZIAL

--

NABE

Nördliches Drehkreuz

WIRTSCHAFTLICHE AUSWIRKUNGEN

Less transportation costs, positive effect to climate change

SPEZIFISCHES WISSEN ERFORDERLICH

Skills to handle bigger vehicles

MOBILISIERUNGSPOTENZIAL

High

POTENZIAL FüR NACHHALTIGKEIT - WERT

--

LEICHTE IMPLEMENTIERUNG

Easy

LEICHTE IMPLEMENTIERUNG - BEWERTUNG

--

WICHTIGE VORAUSSETZUNGEN

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

ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE

--

ARBEITSPLATZEFFEKT

Positive

KOSTEN DER IMPLEMENTIERUNG (EURO - €)

--

MEHR DETAILS

ANGESPROCHENE HERAUSFORDERUNG

5. Verbesserung der wirtschaftlichen und ökologischen Leistung der forstwirtschaftlichen Forstlieferketten

DOMäNE

Holzernte, Infrastruktur, Logistik

ART DER LöSUNG

--

SCHLüSSELWöRTER

--

DIGITALE LöSUNG

Nein

INNOVATION

Nein

HERKUNFTSLAND

Finnland

UMFANG DER ANWENDUNG

Regional/sub-national

ANFANGS- UND ENDJAHR

2015 - 2019

KONTAKTDATEN

EIGENTüMER ODER AUTOR

Metsähallitus

juha.pyhajarvi@metsa.fi

REPORTER

REFERENCES AND RESOURCES

HAUPT-WEBSITE

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

PROJEKT-WEBSITE

--

PROJEKT-REFERENZ

--

RESSOURCEN

--

PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood

BEITRAGSDATUM

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