Ash as construction material in forest road maintenance



The ashes can be used in a road building among gravel. The use of ash from neighboring heat plants reduces the use of natural aggregates. The use of ash in the construction of the road has been limited, as it is currently subject to environmental permits.
In the forest and energy industries, burning wood produces a lot of ash, which is placed in landfills. The forest industry alone generates more than 300 000 tonnes of exploeable ash every year. The increase in wood energy increases the amount of ash even further. Current measures to benefit from the use of ash do not correspond to the principles of sustainable consumption and production. It would be essential to influence the legislation in order to ease the utilization of ash. It is important to perform carrying capacity measurements and research and test different mixtures of gravel and ash. The environmental issues need to be surveyed.

In Finland there are 135 000 km of forest roads where maintenance is necessary for wood procurement. According to the National Forest Programme 2015, forest car roads should be upgraded to 4 000 km annually. In the construction of roads, cost-effectiveness is most essential. The biggest challenge in most cases is the availability of affordable gravel or crushing near the forest road project. Utilization of ash as material for road construction and maintenance has produced excellent results in terms of both the technical suitability and the environmental impact.

DETTAGLI

ORIGINE DEL LEGNO

foresta

TIPO DI LEGNO

Fusto

TIPO DI LEGNO IN QUESTIONE

Stemwood, energy wood

IMPATTO SULL'AMBIENTE E LA BIODIVERSITà

Positive: less waste from production side streams

EFFETTO SUL REDDITO

Positive

POTENZIALE DI SFRUTTAMENTO

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HUB

Polo Nord

IMPATTO ECONOMICO

Positive

CONOSCENZE SPECIFICHE NECESSARIE

Knowledge, research and testing of special mixtures

POTENZIALE DI MOBILITAZIONE

Not possibile to assess

POTENZIALE SOSTENIBILITà - VALORE

--

FACILITà DI IMPLEMENTAZIONE

Easy

FACILITà DI IMPLEMENTAZIONE - VALUTAZIONE

--

PREREQUISITI CHIAVE

Information about side streams from mines and forest industry

Information about usability of side streams in road infrastructure

TIPO DI EVENTO IN CUI QUESTO BPI è STATO PRESENTATO

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EFFETTO SUL LAVORO

New business from utilization of side streams and waste

I COSTI DI ATTUAZIONE (EURO - €)

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Più DETTAGLI

SFIDA RISOLTA

2. Migliorare le infrastrutture e le capacità degli attori pubblici

DOMINIO

La raccolta, le infrastrutture, la logistica
industrie forestali, bio / economia circolare
industria energetica del legno

TIPO DI SOLUZIONE

Circolari, prodotti a base biologica

PAROLE CHIAVE

--

SOLUZIONE DIGITALE

No

INNOVAZIONE

Sì

PAESE D'ORIGINE

Finlandia

SCALA DI APPLICAZIONE

Local

INIZIO E FINE ANNO

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CONTATTI

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REPORTER

REFERENCES AND RESOURCES

SITO PRINCIPALE

https://tapio.fi/projektit/arvo-tuhka-hanke-tuhkan-maarakentamisen-uudet-arvoketjut/

RISORSE

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SITO WEB DEL PROGETTO

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PROGETTO DI RIFERIMENTO

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PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood

DATA DI INSERIMENTO

17 Set 2019

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Link to Rosewood 4.0

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY