SILVISMART

-EFFICIENCY PORTAL FOR FOREST OPERATIONS-

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Silvismart is a cloud system able to store and analyse data collected from the field in forestry operations. Collected data can be of different types, such as those coming from machines, electronic submission procedures, performance data, available natural resources, environmental data, and so on. Thus, the dataflow is digitalised, and the forest owner is in control of his/her data. Data can be shared with other interested or involved actors.

The main rationale of such a system is to ease the management of daily operations in forestry. It will enable the collection of data into a central repository, its analysis, and the extraction of useful information for machine operators, forest owners, and forest managers.

Application scenario
Management, tracking/traceability, locating
Digital technologies
Physical tags and interfaces to visualise collected data
Socio-economic impact
▪ Economic: trust and transparency in value chains, efficiency improvement   ▪ Environmental: natural resources tracking   ▪ Social: transparency and access to information on natural resources
More info: https://www.silvismart.eu

Analysed data can support productivity through advice on how to increase efficiency. The target is the wood supply chain, and contractors using Silvismart can link their machines with this cloud platform. Managers and owners can then be granted access, to see how and when the machines are operating, performance figures, size and distribution of trees and species in the area, personnel data, and environmental data. All this is organised into an interface showing: 'My Fleet', 'My Operations', 'My Stand' (forest), and 'My Files & Access'.
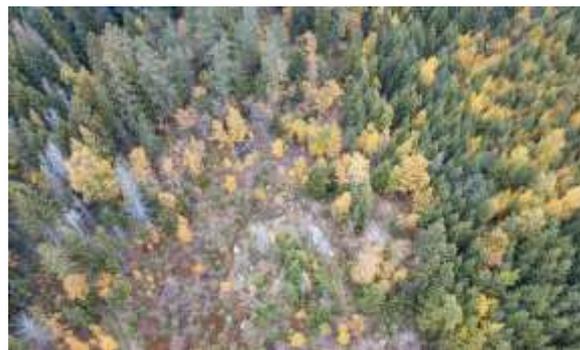
Silvismart has been developed within the TECH4EFFECT project and will be maintained by an international association once the project ends in October 2020.

Purpose of the tool

The main purpose is to provide a centralised access point to relevant information for daily operations in forestry. The information is extracted from data collected in the field, and analysed to provide support and reporting tools. Efforts have been made to make Silvismart a low-cost and universal system for countries and organisations to use.

Source: Silvismart.eu

Description of the tool

Silvismart is able to automatically transfer data from machines to Amazon cloud storage, interacting with different machine types. It can store and organise data, ensuring its long-term persistence. Data can be visualised and analysed to extract information useful for production reports or other custom ones, thus facilitating management and informed decisions. Furthermore, Silvismart can provide benchmarking figures to improve efficiency, suggesting measures to improve daily operations in forestry.

Access to data is tightly controlled to enforce control over data by forest owners, which they can also share them with other involved actors. The actors can be machine owners, forest owners, managers, consultants, machine operators, scientists, certification authorities, or control bodies. In this way, trust and transparency are improved, thus bringing potential economic benefits.

Areas of socio-economic impacts

Being able to collect data from machines and on forestry parcels where operations are conducted can improve both trust and transparency in daily operations. Data can be used to improve efficiency through benchmarking, but also to track the use of natural resources.

Social	Trust and transparency in value chains, efficiency improvement.
Economic	Natural resources tracking.
Environmental	Transparency and access to information on natural resources.