



Assessment of Cost in Harvesting Systems using a Web-based Tool (WoodChainManager)

Introduction

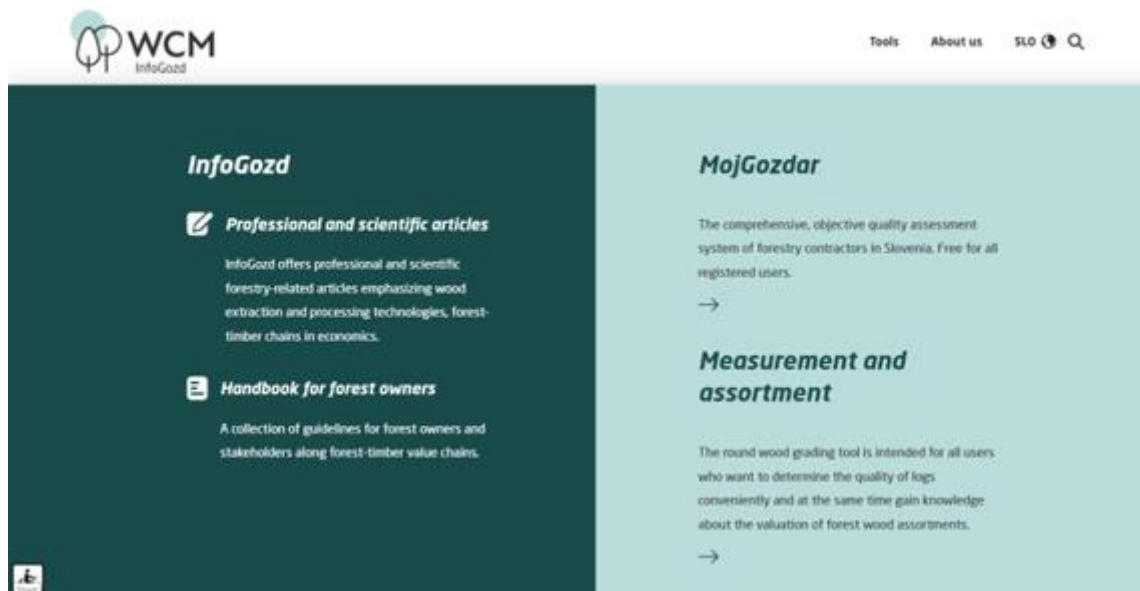
Streamlining work processes is increasingly important in a difficult market environment. Rational production requires that we are always aware of what and how much needs to be invested in a business process to deliver the desired products or services without economic loss. The Slovenian Forestry Institute has developed a tool for estimating the costs of forest timber supply. WoodChainManager is a web-based tool consisting of three user modules, designed to estimate the material costs of individual machines or the total costs of all selected machines in a timber harvesting system. Users can test the impact of individual technologies on the total material costs of a harvesting system and thus optimise work processes. The basic tool for describing harvesting systems is a matrix that visualises the felling and harvesting process from the standing tree in the stand to the forest products at the end user. The method chosen to calculate the cost of each machine is simple, but still reflects the actual costs incurred. WoodChainManager offers cost calculations for a wide range of technologies, machines and associated attachments. The authors of this innovation want to increase awareness and understanding of costing and to offer the possibility to directly compare different harvesting systems.

Lessons learned

Cost is an important issue in the selection of individual machines and the integration of individual links in production process chains. The development of the web tool focused on the visualisation of forest-wood production chains with a simple method for cost calculation. The costing tool makes users aware, that the choice of appropriate technology can have a significant impact on production costs. It allows users to determine which timber extraction operations will be included in the production chain (logging, harvesting, felling/sawing, chip production, harvesting/transport) and the location where the operations will be carried out (forest stand, logging, forest train, etc.). The user can choose between several different machines and associated accessories. Currently, the database contains data for more than 100 different machines or equipment for forestry activities. In addition to direct material costs, the calculations also include

information on the effects of the machines, allowing a calculation per unit of product (e.g. €/m³). The application allows an easy selection of the technological model for the production of roundwood and green wood chips.

Figure 1: Overview of digital platform.



The information presented in this factsheet was developed by the FOREST4EU partner, drawing on the innovations and knowledge generated by the indicated operational group with their explicit authorization.

Further information

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