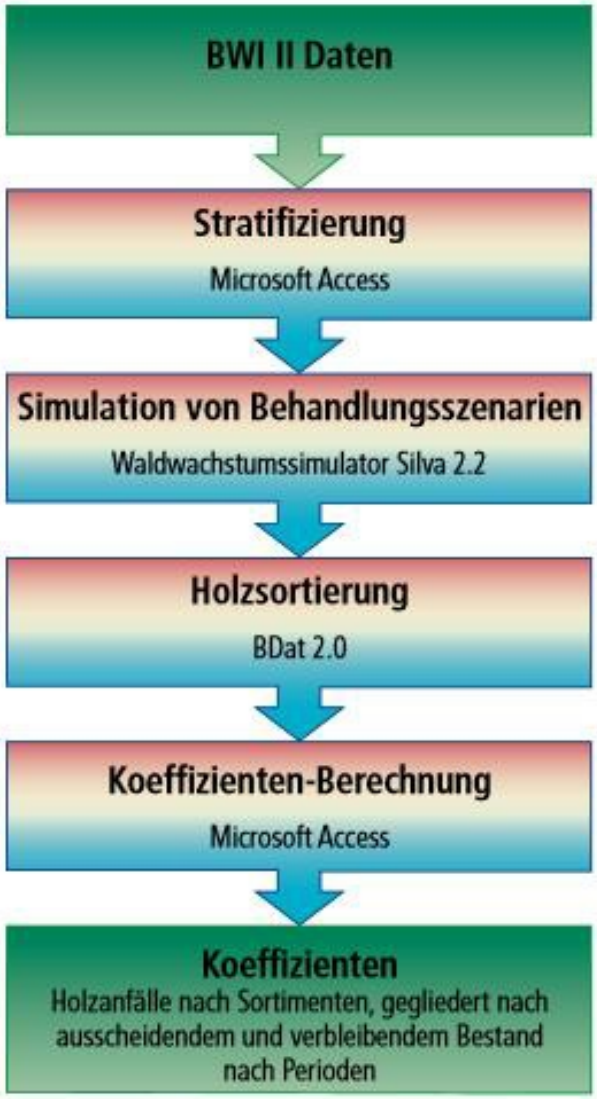
Natural and financial indicators for the consultation of private and communal forest owners



The basic idea is the processing of natural and financial data for typical forest stands and selected forest treatment alternatives after previous simulation calculations. Thereby, the question initially was limited to the depiction of the alternatives “thinning” or “without thinning”.

This prototype can be complemented with additional indicators; other areas and forest treatment strategies and therefore more data should be added and furthermore more risk integration has to be done

The sorted single tree data then were condensed to coefficients via MS Access queries. The coefficients contain information about the arising amounts of wood of the simulated treatments or rather the timber stock of the remaining stands – sorted into sorts of wood and simulation period. After feeding the data to the consultation support system, a connection to current prices for timber and timber harvesting costs was established. Based on the data from the second National Forest Inventory, the stratification of the area of the Bavarian “Tertiäres Hügelland” and the compilation of simulation stocks was carried out. Using the forest growth simulator Silva 2.2, the simulation stocks were updated once without treatment and once updated according to a thinning scheme. In the next step, the results of the simulation runs (single tree data for the remaining and the outgoing stock) were sorted according to regional sorting criteria using the sorting program BDat 2.0.

DETAILS

ORIGIN OF WOOD
Forest

TYPE OF WOOD
Stemwood

KIND OF WOOD CONCERNED
Stemwood

IMPACT ON ENVIRONMENT & BIODIVERSITY
Positive on biodiversity and forest resilience enhancement

INCOME EFFECT
Positive / more efficient working processes / cost reduction possibility identification

EXPLOITATION POTENTIAL
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HUB
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ECONOMIC IMPACT
An active learning of different silvicultural approaches for forest owners can be achieved. But cost effects are hardly to describe.

MOBILIZATION POTENTIAL
Area affected is small but information about advantages of thinnings regarding risks can contribute on a wider level (estimated more than 1 m3/ha)

SUSTAINABILITY POTENTIAL - VALUE
--

EASE OF IMPLEMENTATION
Difficult as an expert tool

EASE OF IMPLEMENTATION - EVALUATION
--

KEY PREREQUISITES
Just In cooperation with TUM possible

TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED
--

JOB EFFECT
Better qualified staff through verification and discussion possibilities

COSTS OF IMPLEMENTATION (EURO - €)
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SPECIFIC KNOWLEDGE NEEDED

The system is depending on complex program Silva 2.2 – forest experts of TUM have to be included

MORE DETAILS

CHALLENGE ADDRESSED

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DOMAIN

Forest management, ecosystem, resilience

TYPE OF SOLUTION

Modelling, simulation, optimization

KEYWORDS

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DIGITAL SOLUTION

Yes

INNOVATION

No

COUNTRY OF ORIGIN

Germany

SCALE OF APPLICATION

Regional/sub-national

START AND END YEAR

2009 - 2009

CONTACT DATA

OWNER OR AUTHOR

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REPORTER

REFERENCES AND RESOURCES

MAIN WEBSITE

https://mediatum.ub.tum.de/doc/829183/document.pdf

RESOURCES

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PROJECT WEBSITE

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PROJECT REFERENCE

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PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood

POST DATE

15 Nov 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