



NEWS

Launching BioHub Model



BIOHUB PROJECT

To fulfil political climate and renewable energy goals, the use of forest biomass in all industry segments including emerging biorefineries is expected to increase in the future. To increase the geographical accessibility of forest biomass, terminals play a big role in current supply systems, and their importance is likely to increase in a growing bioeconomy. Cost competitive forest biomass supply is of utmost importance and profit margins are currently low.

Terminals operational costs, including loading and unloading, are highly sensitive to their layout and design. To make terminals more cost-effective, it is important to develop and optimize their internal logistic design and management. A clear business plan is an important step to take to ensure terminal profitability.

To build up and develop a terminal includes many considerations. To assist terminal entrepreneurs and developers to create value-added business, [the BioHub model](#) has been developed.

BIOHUB MODEL

The main result of our work in BioHub is the webpage; BioHub model. This the first and biggest source of knowledge about Nordic biomass terminals. It is unique in that here we have converted the scientific results to the end users. This is done by using a visual, short, easy-to-understand language and appearance.



The model is presented in three levels. Level one is the basic level, a video animation, explaining what a biomass terminal is. Level two is divided in four sections, business support, location and supply chain, design and operation and raw material quality. In the text you will find references to the third level, where all the scientific results from the project can be found.

With this we have collected results and new knowledge from the BioHub project, that will be available also after the BioHub project has ended. This will continue to increase the knowledge about methods and business models in both countries.



Terminalen i Bastuträsk AB - project partner in BioHub

FOREST TERMINAL NETWORK

A cross border terminal network was mobilised early in the project during the terminal road trip including interviews, terminal workshop and crossborder study tours. This has been a great advantage when building and promoting the BioHub Model. The crossborder interactions and exchange of knowledge between terminal owners and researchers, have been strengthened and will continue for a long time.

BUSINESS SUPPORT



What to consider when making strategically sound and economically profitable choices and decisions.

By adapting more advanced forms and methods of business management, it is possible to form a clearer and more versatile business model, and by doing so, gain higher profitability. In the business support section, you can find information about factors behind terminal success.

We have provided you with guidelines to consider when making decisions over your terminal's development, examples of the most common terminal concepts, information about the scale / scope of terminal operations in the Botnia-Atlantica area, that is, Västerbotten and Västernorrland in Sweden and Ostrobothnia, Southern Ostrobothnia and Central Ostrobothnia in Finland.

LOCATION AND SUPPLY CHAIN



What to consider when establishing a new terminal or redesigning an old one.

The location of the terminals and the supply chain around the terminal is crucial to its success. This section provides logistic solutions that can improve the cost efficiency of the terminal, based on scientific results.

We provide updated figures on how much forest biomass there is in the Botnia Atlantica region, present information on different kind of machinery for biomass harvest and transportation and elaborate on different methods that will help to decide where the terminal could be established.

Finally we offer practical information on the regulations that are applied specifically to biomass terminals.



DESIGN AND OPERATION



What to consider when establishing a new terminal or redesigning an old one.

Forest terminals look different depending on the activities and the location of the terminal. On this site, different terminal types and possible different activities are described. The handling of different forest biomass at the terminals are described in the topic stock management together with sampling and measurement techniques. Processing of biomass describes different comminution techniques as well as debarking, screening and sieving. Furthermore, the machinery and equipment used for handling and processing are described.

You will also find practical guidelines and simulation as a cost-efficient way to test development of a forest terminal.

RAW MATERIAL QUALITY



What can happen to the different components when handling forest biomass? How to preserve the quality.

The quality of the raw material is affected by the changes in its properties during the supply chain. The changes in the chemical composition of raw material affect the suitability of feedstock for biorefining. Changes in the raw material could decrease the yields in biorefineries. Additionally, some applications might set demands for the microbiological quality of raw material which need to be taken into account.

Here you can find information about the most important properties of raw materials, how the properties change during the supply chain and how to maintain the raw material quality.

By following some "rules of thumb" terminals can maintain the quality of the raw material.

[Learn more at the webpage;](http://www.biohubmodel.se)
www.biohubmodel.se



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