



BioHub is moving forward

We start the fall by looking back at what happened in the spring that was a busy one.

ONGOING WORK

Properties and locations of terminals and industry facilities in the region are collected and will be implemented to the mapping software GIS. Distances to main transportation routes, habited areas and wood processing industries will be calculated next.

Furthermore, a simulation study aiming to re-design storage of piles to improve the material flow has started. Another study aiming to improve the internal logistics at two terminals is also running.

Storage of biomass is important and one task is to identify changes in chemical composition of the material during storage. The studied assortments are sawmill bark and spruce logs in Pietarsaari.

NEW INFOSHEETS

We are writing infosheets about what is going on in the project. Read them here!

6. Direct versus Via-Terminal Delivery of Small-Diameter

Trees. In order to make the use of small-diameter trees profitable, terminals could play a central role in cost-efficient supply systems.

7. Windrowing and Fuel Chip Quality of Residual Forest Biomasses in North Sweden. Utilization of forest residual biomasses is expected to increase. More knowledge of stacks dry mass content would be highly useful for logistic planning and value estimations.

FACTS ABOUT FOREST BIOMASS TERMINAL



What is a forest biomass terminal?

There can be different activities at a terminal:

- buffer storage
- transfer of material between different modes of transport
- raw material upgrading

Where are terminals located?

A terminal is most often located close to the forest or close to the end-user, industry. They can also be located in logistically good places close to main road, railway or harbor.

Who owns a terminal?

A terminal is most often owned by a forest company, by a municipality or by a private company.

Read more about terminals in infosheets 1, 2 and 4.

PUBLICATIONS

Masters thesis "Provtagning med motorsåg och uppsamling av sågspån för fukthaltsbestämning av icke sönderdelade skogsbränslen." is published in SLU and <u>you can find</u> it here!

Forest biomass terminals in Botnia-Atlantica area

BIOHUB TERMINAL ROAD TRIP

During spring, we have visited 16 forest biomass terminals in Sweden and Finland for interviews with terminal owners and operators. With the collected data, we will be able to better design the project studies and assess the economic added value and possible social impacts of the BioHub model.

A survey focusing on the factors behind business solutions and choices has been distributed to terminal owners during the visits. Mikko Luoma from Vaasa University will later analyse and suggest new business models based on this survey.



Terminal visits in Finland

Otto Läspä (Seinäjoki University of Applied Sciences) and Anna Claydon (Luke) have been responsible for the visits in Finland supported by Magnus Matisons from BioFuel Region. Otto is working with issues related to forest technology and Anna is working with gender issues and project management.

On the Finnish side of the project area about 10 termi- nals have been visited. Otto and Anna reports that terminal operators have seen the visits as a positive thing. They want to develop their business activities and to network with other terminals.

"Most interesting thing has been the variation between terminals. There are big differences in e.g. operational models, raw materials and ownership." says Otto.

"Also, it has been interesting to find out what kind of business models there are today and what the gender structure is like within the biomass supply chain," adds Anna.



Terminal visits in Sweden

In Sweden, Dimitris Athanassiadis from SLU and Magnus Matisons have visited six terminals from Umeå to Hudiksvall. Dimitris is working with calculations of forest biomass feedstocks and flow. Magnus main focus has been to build a cross border terminal network. Dimitris reports that they were well received everywhere and that terminal operators were very interested in information from BioHub.

"On my behalf most important was to tell about BioHub. It is important that we broaden our network and help dialogue between different terminals. And they can benefit from each other's development," says Dimitris.

"It has been really interesting to see how different terminals are organized and to hear what they plan for the future. We want to help the terminals to develop and grow.

We are now planning to bring Swedish terminal owners to Finland for a two day study trip in September," says Magnus

Work report coming

Work reports based on the interviews will be published during autumn 2017. Reports will cover e.g. business models, gender issues, bottle necks and development ideas.









