

Baltic ForBio

Accelerating the Production of Forest Bioenergy in the Baltic Sea Region



Project Key Information

- Research knowledge to practise related to sustainable green forest bioenergy
- 6 countries – 13 partners
- Duration: 2017-2021
- Project budget: EUR 2.55 million



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Project Partners

Sweden	Swedish Agricultural University (SLU), Swedish Forest Agency (Skogsstyrelsen), Swedish Forest Research Institute (Skogforsk)
Estonia	Foundation Private Forest Centre (Erametsakeskus), Tartu Regional Energy Agency (TREA)
Finland	Natural Resources Institute Finland (Luke), Regional Council of Central Finland
Germany	Technical University of Applied Sciences Wildau (TUASW), Castle property Altlandsberg GmbH, Forest Service Ueckermann
Latvia	Latvian Rural Advisory and Training Centre, Latvian State Forest Research Institute (Silava)
Lithuania	Kaunas Forestry and Environmental Engineering University of Applied Science (KMAIK)
Associated organizations	The Finnish Central Union of Agricultural Producers and Forest Owners, The Finnish Ministry of Agriculture and Forestry, Estonian forest owners' association, Brandenburg Ministry of Rural Development, Environment and Agriculture





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Project Objective

To improve the institutional capacity of relevant organisations in the Baltic Sea Region to promote the harvest of logging residues and small trees cut at early thinning and production of forest bioenergy.

Relevant organisations are working in the forest **science**, the forest **education** and the forest **business**.



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Target Groups

1. Public authorities
2. Forest and energy agencies
3. Forest advisory organisations
4. Renewable energy and forest owner associations
5. Forest companies
6. Energy enterprises



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Project Components (WPs)

WP 2: Cost-effective and Sustainable Harvest Methods

WP 3: Development and Test of Decision Support Tools

WP 4: Development of a GIS Platform and Database

WP 5: Development of Business Models for Small Scale
Forest Bioenergy Plants in Rural Areas



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Project Outputs by WPs

WP 2: Handbook for Harvest of Logging Residues and Small Trees, Training Programs & Demonstration Sites for Biomass Recovery in Pre-commercial Thinning

WP 3: Decision-making Support Tools

WP 4: GIS Platform and Database

WP 5: Innovative Business Models & Guidelines for Small Scale Forest Bioenergy Plants in Rural Areas

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WP2 Cost-Effective and Sustainable Harvest Methods - Handbook





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WP2 Handbook – Key Technical Data

- Handbook content is based on the forest bioenergy production potential during different phases of the forest growth cycle
 - > Young stands, Middle-aged and Mature forests
- Handbook deals with the different sustainability aspects
 - > Technological, Economic and Environmental aspects
- Handbook is divided into the core publication with 115 pages and Appendix part with 85 pages
- Handbook consists of five (5) main chapters in the core publication and six (6) sub-chapters in the Appendix part
- Generally, the content of Handbook provides the most progressive elements of forest bioenergy production in the Nordic countries and some specific conditions in the Baltic countries and Germany.

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WP2 Handbook – Some Tips for Readers

- The aim is to learn about new approaches to the forest bioenergy individually and organizationally.
- Reader's map for finding key elements from the handbook:

Forest Sites in the Operations	Technological	Economic	Environmental	Total
Young Stands	16	7	5	28
Thinnings	3	2	3	8
Final Fellings	11	2	11	24
Total Number by Aspect	30	11	19	60

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WP2 Handbook Content of the Core Publication

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WP2 Handbook Content of the Appendix Part



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WP2 Handbook – Elements for Understanding

- Each chapter ends with controlling questions.
- Core publication consists of 62 pictures, 25 figures and 4 tables.
- Handbook has been prepared in six languages: ENG, EST, GER, LT, LV and RUS in order to be easy to use for local operators.
- Hardcopies are available in each country by contacting with the local partners, and as pdf-file in the website.

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WP2 Handbook – Videos & Demonstration Sites

- Luke has prepared two videos from the energy wood harvest demonstration sites in Finland, locating 500 km northeast from Helsinki.
- In the first (15 minutes) video, forest machine operator and Finnish private forest owner are interviewed on energy wood harvest operations, and the second (3 minutes) video shows a forest site before and after energy wood harvest.
- The videos are providing detailed information on the Finnish forest conditions, and they can be seen in the project website as well as in Luke Youtube Channel.

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A group of approximately 15 people, including men and women of various ages, are posing for a group photo in a forest. They are standing in front of a black tracked excavator with yellow hydraulic hoses. The forest consists of tall, thin trees, mostly without leaves, suggesting a winter or late autumn setting. The ground is covered with dry leaves and twigs. The people are dressed in winter clothing, such as jackets, hats, and scarves. One man in the center foreground is wearing a bright yellow safety vest over a dark jacket. The excavator has some text on its side, including "Metsa- ja Ohimud Mehaanika" and "eestime".

Thank you!