Sustainable Biomass Program

NEPCon Evaluation of Warmeston OÜ - Purila production Compliance with the SBP Framework: Public Summary Report

Fourth Surveillance Audit

www.sbp-cert.org

Completed in accordance with the CB Public Summary Report Template Version 1.4

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

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1 Overview

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Current report completion date:	10/Mar/2020
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Name of the Company:	Warmeston OÜ. Purila factory. Purila Village, 79631 Rapla county, Estonia
Company contact for SBP:	Viljo Aros, quality- and environmental manager
Certified Supply Base:	Estonia
SBP Certificate Code:	SBP-01-07
Date of certificate issue:	03/Mar/2016
Date of certificate expiry:	02/Mar/2021

This report relates to the Fourth Surveillance Audit

2 Scope of the evaluation and SBP certificate

Scope of this evaluation is based on SBP standards 1; 2; 4; and 5. To meet the demand, Warmeston OÜ undertakes a supply base evaluation for primary and secondary feedstock that is originating from Estonia.

Organization holds valid FSC COC certificate NC-COC-024339, covering both FSC transfer and FSC credit system and PEFC CoC certificate no NC-PEFC/COC-024339 covering also PEFC Controlled Sources part.

Company is using PEFC certification requirements for receiving raw material and FSC certification requirements for volume calculation and sales. Credit system is the main control system used and is implemented when FSC certified and FSC Controlled Wood inputs are used. FSC transfer system is exclusively used only to segregate uncontrolled materials and PEFC materials, in case such are received.

Wood pellets might be produced from roundwood, sawdust, chips or wood shavings. Other types of feedstock: chips from forest residues, sawmill residues and bark, are used in the drier. Inputs that are used for pellet production and inputs for the drier go through the same control system upon receipt. Company is sourcing feedstock from logging companies, traders and from primary and secondary producers.

All inputs for SBP-Compliant biomass production are FSC or PEFC certified and FSC or PEFC controlled. There is a FSC transfer system in place to segregate non-certified material for drier in case such materials need to be used. This non-certified material is not used as input for SBP product groups nor used in drier for SBP production.

All incoming wood materials are weighted by weighbridge or measured by log receiver in case of logs, and measurement data is recorded.

Wood pellets are sold based on DAP, FOB and CIF incoterms conditions. Sale can be made through EXW Purila and Pärnu, Muuga, or Kunda ports according to DAP and Kunda, Pärnu or Muuga ports according to FOB.

Description of the scope: Production and trading of wood pellets, for use in energy production, at Warmeston OÜ, Purila and transportation to Pärnu, Muuga, and Kunda harbours. The scope of the certificate includes SBE for primary and secondary feedstock from Estonia. The scope includes communication of Dynamic Batch Sustainability Data.

Scope Item	Check all that apply to the Certificate Scope	Change in Scope (N/A for Assessments)
Approved Standards:	*SBP Standard #1 V1.0; SBP Standard #2 V1.0; SBP Standard #4 V1.0; SBP Standard #5 V1.0* https://sbp-cert.org/documents	[X]

Primary Activity:	Pellet producer				☐
Input Material Categories:	☒ SBP-Compliant Primary Feedstock	☒ SBP-Compliant Secondary Feedstock			☐
	☒ Controlled Feedstock	☐ SBP non-Compliant Feedstock			
	☒ SBP-Compliant Tertiary biomass	☒ Pre-consumer Tertiary Feedstock			
	☐ SBP-approved Recycled Claim	☐ Post-consumer Tertiary Feedstock			
Chain of custody system implemented:	☒ FSC	☒ PEFC	☐ SFI	☐ GGL	☐
	☒ Transfer	☐ Percentage	☒ Credit		☐
Points of sales **Provide name of all points of sales**	☐ Harbour (including own handling of material)	☒ Harbour (e.g. FOB incoterms) legal owner is not responsible for handling of material at the harbour	☒ Other point of sale (e.g. gate of the BP, boarder, railway station etc.)		☐
		- Pärnu Port FOB - Kunda port FOB - Muuga port FOB	- Gate of the BP (EXW) -Kunda port DAP -Muuga port DAP -Pärnu port DAP		
Use of SBP claim:	☒ Yes	☐ No			☐
SBE Verification Program:	☐ Low risk sources only	☒ Sources with unspecified/ specified risk			☐
	New districts approved for SBP-Compliant inputs: Estonia				

Sub-scopes	Only one sub-scope for SBE: Estonia – material from private forest owners	☐
Specify SBP Product Groups added or removed: -		
Comments: Instruction Doc. 5Eadded to scope		

3 Specific objective

The specific objective of this evaluation was to confirm that the Biomass Producer's management system is capable of ensuring that all requirements of specified SBP Standards are implemented across the entire scope of certification. This is first annual evaluation of SBP system.

The scope of the evaluation covered:

- Review of the BP's management procedures;
- Review of FSC system control points, analysis of the existing FSC & PEFC CoC system;
- Interviews with responsible staff;
- Review of the records, calculations and conversion coefficients;
- GHG data collection analysis
- Evaluation of mitigation measures implemented
- Evaluation of SBE monitoring results
- Evaluation of BP-s supplier audits (under SBE)

4 SBP Standards utilised

4.1 SBP Standards utilised

Please select all SBP Standards used during this evaluation. All Standards can be accessed and downloaded from https://sbp-cert.org/documents/standards-documents/standards

☒ SBP Framework Standard 1: Feedstock Compliance Standard (Version 1.0, 26 March 2015)

☒ SBP Framework Standard 2: Verification of SBP-compliant Feedstock *(Version 1.0, 26 March 2015)*

☒ SBP Framework Standard 4: Chain of Custody *(Version 1.0, 26 March 2015)*

☒ SBP Framework Standard 5: Collection and Communication of Data *(Version 1.0, 26 March 2015)*

4.2 SBP-endorsed Regional Risk Assessment

SBP-endorsed Regional Risk Assessment for Estonia (Published 22 April 2016)

https://sbp-cert.org/documents/standards-documents/risk-assessments/estonia/

5 Description of Company, Supply Base and Forest Management

5.1 Description of Company

Warmeston OÜ is one of the largest bio-fuel producers in Estonia. Founded in 2003, its principal activities include the production and wholesale of wood pellets and flinders that provide an environmentally friendly and cost effective alternative to solid fuels. Most of the products are exported to Sweden and Denmark where it is used as fuel in large boiler houses that provide central heating to the end consumers.
Warmeston OÜ has a pellet factory in Purila that was opened in 2015. Planned production capacity of the factory is 90 000 tons of bulk wood pellets per year. Company sells material to European union and Wood pellets are sold based on DAP, FOB and CIF incoterms conditions.

More detailed description is provided in SBR (www.warmston.ee).

5.2 Description of Company's Supply Base

Warmeston OÜ sources all its raw materials for pellet production through various suppliers from Estonia. The suppliers include forest harvesting companies, sawmills, planing mills, secondary producers and traders. According to the EUTR Regulation No. 995/2010 Warmeston OÜ acts as "trader" and not as "operator" as the feedstock is purchased from other organizations within EU. However the supply base may extend beyond the borders of Estonia. As such Warmeston OÜ defines its supply base, to cover all current and potential future suppliers, as follows:

- Estonia
- Latvia
- Lithuania
- Finland
- Sweden
- Belarus
- Denmark
- Italy
- Norway
- Russia (North-West region)
- Ukraine
- USA

Warmeston OÜ sources only feedstock that meets at least SBP controlled feedstock criteria. An overview of the proportions of SBP feedstock product groups from **1st December 2018 to 30th November 2019** i.e over the last 12 months (hereinafter referred to as '***Reporting Period'***) is presented in the table below:

*Table 1. Overview of Warmeston OÜ Purila Factory SBP feedstock profile '**Reporting Period'***

Feedstock product groups	Estimated Proportion	Indicative number of suppliers	*Species mix*
SBP-compliant Feedstock (Primary)	55%	14	Alnus spp: Alnus glutinosa; *Alnus incana (L.) Moench; Betula spp: Betula Pendula,* Betula verrucosa; *Picea abies; Pinus sylvestris; Populus spp: Populus tremula;*
SBP-compliant Feedstock (Secondary)	29%	11	Alnus spp: Alnus glutinosa; *Alnus incana (L.) Moench; Betula spp: Betula Pendula,* Betula verrucosa; *Picea abies; Pinus sylvestris; Populus spp: Populus tremula;*
SBP-compliant Feedstock (Tertiary)	4%	5	Alnus spp: Alnus glutinosa; *Alnus incana (L.) Moench; Betula spp: Betula Pendula,* Betula verrucosa; *Picea abies; Pinus sylvestris; Populus spp: Populus tremula;*
SBP-controlled Feedstock (Primary)	1%	8	Alnus spp: Alnus glutinosa; *Alnus incana (L.) Moench; Betula spp: Betula Pendula,* Betula verrucosa; *Picea abies; Pinus sylvestris; Populus spp: Populus tremula;*
SBP-controlled Feedstock (Secondary)	11%	12	Alnus spp: Alnus glutinosa; *Alnus incana (L.) Moench; Betula spp: Betula Pendula,* Betula verrucosa; *Picea abies; Pinus sylvestris; Populus spp: Populus tremula;*
SBP-controlled Feedstock (Tertiary)	0%	0	Alnus spp: Alnus glutinosa; *Alnus incana (L.) Moench; Betula spp: Betula Pendula,* Betula verrucosa; *Picea abies; Pinus sylvestris; Populus spp: Populus tremula;*

More detailed description is provided in publicly available SBR (https://www.warmeston.ee/).

5.3 Detailed description of Supply Base

Estonia

Estonia is a member of the European Union since 2004. The Estonian legislation is in compliance with the EU's legislative framework and directives. National legislative acts make references to the international framework. All legislation is drawn up within a democratic system, subject to free comment by all

stakeholders[1].The Estonian legislation provides strict outlines in respect to the usage of forestry land and the Estonian Forestry Development Plan 2020[2] has clear objectives and strategies in place to ensure the forestland is protected up to the standards of sustainable forest management techniques. The Ministry of the Environment coordinates the fulfilment of state duties in forestry. The implementation of environmental policies and its supervision are carried out by two separate entities operating under its governance. The Estonian Environmental Board monitors all of the work carried out in Estonia's forests whereas the Environmental Inspectorate exercises supervision in all areas of environmental protection.

The forest is defined in the Forest Act. There are three main forest categories are described in this legislation: commercial forest, protection forest and protected forests. According to the ownership, forests are also divided into private forests, municipality forests and state owned forests. The state owned forest represent approximately 40% of the total forest area[3] and is certified according to FSC and PEFC forest management and chain of custody standard in which the indicators related to forest management planning, maps and availability of forest inventory records are being constantly evaluated and addressed[4]. The state forest is managed by State Forest Management Centre (RMK) which is a profit-making state agency founded on the basis of the Forest Act and its main duty lies in a sustainable and efficient management of state forest. Overall there is 1 491 863 ha[5] of FSC certified and 1 241 612 ha[6] of PEFC certified forest.

Currently more than 2 232 000 ha, equal to 49,3%[7] of the Estonian land territory, is covered by forest. Forestry Development Plan 2012-2020 and Yearbook Forest 2017, that gives annual reports and facts about the forest in Estonia, state that during last decade the cutting rate in Estonian forests is from 7 to 14 mill m³ per year[8]. The amount is in line with sustainable development principle when the cutting rate doesn't exceeds the annual increment and gives the potential to meet the long-term the economic, social and environmental needs. According to the Forestry Development Plan 2012-2020 the sustainable cutting rate is 12-15 mil ha per year.

The distribution of growing stock by tree species in Estonia is shown in *Figure 1*.

[1] http://europa.eu/about-eu/countries/member-countries/estonia/index_en.htm
[2] Original title: „Eesti metsanduse arengukava aastani 2020"; approved by Estonians parlament decision nr 909 OE 15.February 2011.a http://www.envir.ee/sites/default/files/elfinder/article_files/mak2020vastuvoetud.pdf
[3] http://www.rmk.ee/organisation/operating-areas
[4] http://www.rmk.ee/organisation/environmental-policy-of-rmk/certificates
[5] FSC Facts and Figures, March 1, 2019
[6] PEFC Global Statistics SSFM & CoC Certification, December 2018
[7] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[8] Yearbook Forest 2017 https://www.keskkonnaagentuur.ee/sites/default/files/mets2017.pdf (all key figures, graphs and tables are bilingual)

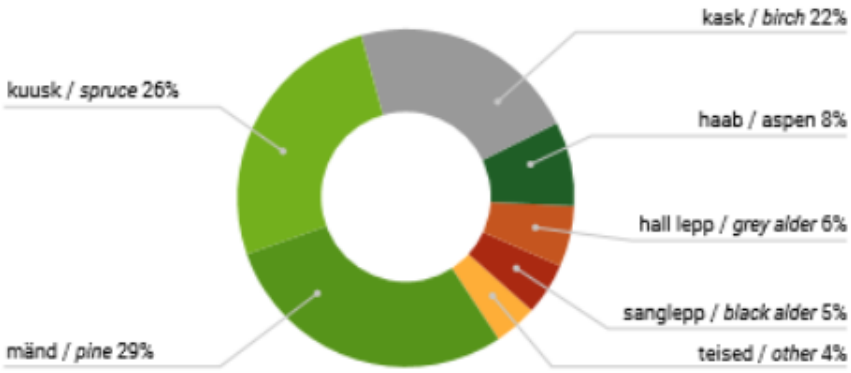

Figure 1 The distribution of growing stock by tree species (Yearbook Forest 2017).

For logging in any type of forest, it is required that a valid forest inventory or forest management plan, along with a felling permit issued by the Environmental Board, is available. All issued felling permits and forest inventory data is available in the public forest registry online database[9].

Area of protected forests accounts to 25.3% of the total forest area whereas 10% is considered to be under strict protection. The majority of protected forests is located on state property. The main regulation governing the preservation of biodiversity and the sustainable use of natural resources is the Nature Conservation Act[10]. Estonia has signed the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1992[11] and joined the International Union for Conservation of Nature (IUCN) in 2007[12]. There are no CITES or IUCN protected tree species naturally growing in Estonia.

According to the Forestry Yearbook 2017 the wood, paper and furniture industry (823,7 million euro) contributed 25.7% to the total sector providing 4.0% of the total value added. Forestry accounted for 1.5% of the value added.

In Estonia, it is permitted to access natural and cultural landscapes on foot, by bicycle, skis, boat or on horseback. Unmarked and unrestricted private property may be accessed any time and pick berries, mushrooms, medicinal plants, fallen or dried branches, unless the owner forbids it. On unmarked and unrestricted private property camping is allowed for 24 hours. RMK creates exercising and recreational opportunities in nature and in recreational and protection zones and provides education about the natural environment which are free to access.[13]

Latvia

Latvia is a parliamentary republic that joined the EU in 2004. In Latvia, forests cover area of 3 356 000 hectares equal to 54,0%[14] of the land territory. According to the data of the State Forest Service (concerning the surveyed area allocated to management activities regulated by the Forest Law), woodenness amounts to

[9] http://register.metsad.ee/avalik/
[10] https://www.riigiteataja.ee/en/eli/517062015004/consolide
[11] http://www.envir.ee/et/cites
[12] http://www.envir.ee/et/iucn
[13] https://www.eesti.ee/eng/topics/citizen/keskkond_loodus/maa/metsandus_1
[14] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid

55.8%. The Latvian State owns 1 755 000 ha of forest, while 1 594 000 ha is privately owned. The area covered by forest is increasing. The expansion happens both naturally and by afforestation of infertile land unsuitable for agriculture. Within the last decade, the timber production in Latvia has fluctuated between 9 and 13 million cubic metres.

Distribution of forests by the dominant species:

- Pine 34.3%;
- Spruce 18.0%;
- Birch 30.8%;
- Black alder & grey alder 10.0%;
- Aspen 5.4%

The field of forestry In Latvia is supervised by the Ministry of Agriculture, which in cooperation with stakeholders of the sphere develops forest policy, development strategy of the field, as well as drafts of legislative acts concerning forest management, use of forest resources, nature protection and hunting.

Implementation of requirements of the national law and regulations issued by the Cabinet of Ministers notwithstanding the type of tenure is carried out by the State Forest Service under the Ministry of Agriculture.[15]

Management of the state-owned forests is performed by the public limited company Latvijas Valsts Meži, established in 1999.[16] The enterprise ensures implementation of the best interests of the state by preserving value of the forest and increasing the share of forest in the national economy. The share of forestry, wood-working industry and furniture production amounted to 6 % GDP in 2012.

For the sake of conservation of natural values, a total number of 674 protected areas have been established. Part of the areas have been included in the European network of protected areas Natura 2000. Most of the protected areas are state-owned. In order to protect highly endangered species and biotopes located without the designated protected areas, if a functional zone does not provide that, microreserves are established. According to data of the State Forest Service (2015), the total area of micro reserves is 40 595 ha. Identification and protection planning of biologically valuable forest stands is carried out continuously. On the other hand, for preservation of biological diversity during forest management activities, general nature protection requirements binding to all forest managers have been developed. They stipulate that at felling selected old and large trees, dead wood, undergrowth trees and shrubs, land cover around micro-depressions are to be preserved, thus providing habitat for many organisms. Latvia has been a signatory of the CITES Convention since 1997. CITES requirements are respected in forest management, but there are no CITES tree species naturally growing in Latvia.

Areas where recreation is one of the main forest management objectives add up to 8 % of the total forest area or 293 000 ha (2012). Observation towers, educational trails, natural objects of culture history value, picnic venues: they are just a few of recreational infrastructure objects available to everyone free of charge. Special attention is devoted to creation of such areas in state-owned forests. Recreational forest areas include national parks (excluding strictly protected areas), nature parks, protected landscape areas, protected dendrological

[15] https://www.vmd.gov.lv
[16] https://www.lvm.lv

objects, protected geological and geomorphologic objects, nature parks of local significance, the Baltic Sea dune protection zone, protective zones around cities and towns, forests within administrative territory of cities and towns. Management and governance of specially protected natural areas in Latvia is co-ordinated by the Nature Conservation Agency under the Ministry for Environmental Protection and Regional Development.

All forest area of Latvijas valsts meži as well as some part of forests in private and other ownership are FSC and PEFC certified. All together there is 1 083 567 ha[17] FSC certified and 1 707 039 ha[18] PEFC certified forest in Latvia.

Lithuania

Lithuania is a parliamentary republic that joined the EU in 2004. Forested land consists of about 34.8%, with 2.18 million ha[19]. Approximately 837 000 ha of the forest is privately owned. The south-eastern part of the country is most heavily forested, and here forests cover about 45% of the land. The total value added in the forest sector (including manufacture of furniture) reached LTL 4.9 billion in 2013 and was 10% higher than in 2012.

Forest land is divided into four protection classes: reserves (2%); ecological (5.8%): protected (14.9%); and commercial (77.3%). In reserves all types of cuttings are prohibited. In national parks, clear cuttings are prohibited while thinnings and sanitary cuttings are allowed. Clear cutting is permitted, however, with certain restrictions, in protected forests; and thinnings as well.

Lithuania has been a signatory of the CITES Convention since 2001. CITES requirements are respected in forest management. Lithuania is situated within the so-called mixed forest belt with a high percentage of broadleaves and mixed conifer-broadleaved stands. Most of the forests - especially spruce and birch - often grow in mixed stands. The dominant forest composition is the following:

- Scots pine 37.6%,
- Spruce 24.0%,
- Birch 19.5%,
- Alder 11.2%,
- Ash 2.7%;
- Aspen 2.6%,
- Oak 1.8%,

There are no CITES tree species naturally growing in Lithuania.

To secure and maintain SFM both state and private forests are monitored and inspected by the Lithuanian State Forest Department, which also develops the main forestry management rules. Before commercial activities in the forests can commence, the State Forest Department requires a long-term forest management plan for every forest unit and owner. After acceptance of the plan, the State Forest Department issues a Harvesting License for separate sites. The Harvesting Licence determines what kind of forest felling system is allowed and which species and in what amount can be harvested in the area. It also determines the forest

[17] FSC Facts and Figures, March 1, 2019
[18] PEFC Global Statistics SSFM & CoC Certification, December 2018
[19] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid

regeneration method at each harvesting site. The Harvesting Licence (licence number) is the main document for suppliers to track the supply chain and secure sustainable log purchases.

Total annual growth comes to 11 030 000 m^3 and current harvest has reached some 9.0 million m^3 per year. The consumption of industrial wood in the domestic forest industry, including export of industrial wood, is estimated to be less than 2.0 million m^3. The remainder is used for fuel or stored in the forests, with a deteriorating quality as a result. The potential future annual cut is calculated at 5.2 million m^3, of which 2.4 million m^3 is made up of sawn timber and the remaining 2.8 million m^3 of small dimension wood for pulp or board production, or for fuel. The figures refer to the nearest 10-year period. Thereafter a successive increase should be possible if more intensive and efficient forest management systems are introduced.

The total value added in the forest sector (including manufacture of furniture) reached EUR 1.2 billion in 2011 and was 25% higher than in 2010. Its share in the total national value added has increased from 3.7% (2010) to 4.2% (2011). The biggest share (EUR 520 million) of the value added in the sector was generated by the furniture industry.

There is ca 819 269 ha[20] FSC certified forest in Lithuania, but no PEFC certified forest area.[21]

Finland

Finland is a parliamentary republic that is a member of the EU since 1995.

Forests cover 73.1% of Finland's land are which accounts to ca 22 218 000 ha[22]. Almost half of the volume of the timber stock consists of pine (*Pinus sylvestris*). The other most common species are spruce (*Picea abies*) downy birch (*Betula pubescens*) and silver birch (*Betula pendula*). These species make for 97% of total timber volume in Finland.[23]

The Forest Act regulates the felling of timber in Finland. Regional Forestry Centres control the implementation of the forestry legislation and accept forest use declarations in which forest owners inform about the stand characteristics, intended measures, regeneration and ecological concerns on the site before the felling can take place. Regional Environment Centres control the implementation of Nature Conservation Act. The Finland's National Forest Programme also states the importance of legal wood and lists measures to promote sustainable wood and to control illegal logging both nationally and internationally.[24]

Private forest owners (mostly families) own the majority (60%) of Finnish forests. Owner needs to get acceptance for forest use declaration from regional forest centres. The state owns 26% of the Finnish forests, private industries, such as forest industry companies 9% and other bodies 5%. The state forests are mainly situated in the north of Finland, and 45% of them are under strict protection. State lands are managed by Metsähallitus.

[20] FSC Facts and Figures, March 1, 2019
[21] PEFC Global Statistics SSFM & CoC Certification, December 2018
[22] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[23] http://www.smy.fi/en/forest-fi/finnish-forests-resources/
[24] http://fsc.force.com/servlet/servlet.FileDownload?file=00P3300000YU8ihEAD

Certification is voluntary for the forest owner however around 75% of Finnish forests have been certified under the PEFC certification system (Programme for Endorsement of Forest Certification). Certification criteria are stricter than decrees or legislation, which means that in practise, certification determines the standard of silviculture in Finland. Some Finnish forests have also been certified under the Forest Stewardship Council (FSC), however this forms only approximately 6% of the total forest area.

There is ca 1 623 863 ha[25] FSC certified forest and 18 037 840 ha[26] PEFC certified forest in Finland.

According to a report by UNECE[27] the amount of illegal logging in Finland is negligible. An extensive national forest inventory, national forest programme and regional forest programmes, widely spread individual forest management plans and large share of private non-industrial ownership of forests contribute to almost non-existence of markets for illegal timber and negligible amount of illegal logging in Finland.

Finland joined CITES in 1976. Nowadays the national legislation for the implementation of CITES and relating EU regulations is the Nature Conservation Act (1096/1996), which came into force in the 1st of January 1997. IUCN National Committee of Finland was approved by IUCN Council in 1999.

The forest sector is one of key supporters of Finland's economy. In 2011 it employed directly about 70,000 people in Finland, which was 2.8% of all employees. One fifth of Finland's export income comes from forest industries. More than 60% of the value added generated by the forest industries came from pulp and paper industries and the rest from wood products industries in 2011. Regionally, the importance of the forest sector is largest in southeastern corner of Finland and in Etelä-Savo and Central Finland regions, where the sector produces some 10% of the regional GDP.

Similar to Estonia, Finland has a relatively rare concept of Everyman's rights (Jokamiehenoikeus) which gives everyone, Finns and other nationalities alike, the right to move freely outdoors. Picking berries and mushrooms is permitted even on privately owned land; thus free forest access provides, in addition to products for local or family consumption, income-earning opportunities for those who sell non-wood forest products. Everyman's right has traditionally been exercised with due concern for the environment and common courtesy to the landowner or those living in the vicinity.

A group considered as an indigenous people in Finland is the Sámi. Their rights have been secured in many laws e.g. the Constitution, the Sámi Parliament Act, the Act on the Finnish Forest and Park Service and the Act on Reindeer Husbandry. The Sámi Parliament is the supreme political body of the Sámi in Finland. The Sámi Parliament represents the Sámi in national and international connections, and it attends to the issues concerning Sámi language, culture, and their position as an indigenous people. The Sámi Parliament can make initiatives, proposals and statements to the authorities. The Sámi Parliament Act also states that the authorities have an obligation to negotiate with the Sámi Parliament for all important measures that concern the Sámi people. These include for example the use of state land and conservation areas.

[25] FSC Facts and Figures, March 1, 2019
[26] PEFC Global Statistics SSFM & CoC Certification, December 2018
[27] http://www.unece.org/fileadmin/DAM/timber/docs/sem/2004-1/full_reports/Finland.pdf

Sweden

Sweden is a parliamentary constitutional monarchy that joined the EU in 1995.

The Swedish Forest Agency is the national authority responsible for matters relating to the forest. It strives to ensure that the nation's forests are managed in such a way as to yield an abundant and sustainable harvest while at the same time preserving biodiversity. Its most important tasks are to give advice on forest-related matters, supervise compliance with the Forest Act, provide services to the forest industry, support nature conservation efforts and conduct inventories.

Sveaskog is Sweden's largest forest owner and is owned by the State. Sveaskog owns 14% of forest land in Sweden, spread across the entire country.

Sweden has Europe's second biggest afforested area after Russia. Sweden's productive forests cover about 28.073 million hectares which is 68.4% of land area in Sweden[28]. Spruce and pine are by large the predominant species in Swedish forests. These two species count for more than 80% of the timber stock. In northern Sweden pine is the most common species, whereas spruce, mixed with some birch, dominates in southern Sweden.

Due to effective and far-sighted forest management the timber stock in Sweden has increased by more than 60% in the last one hundred years and it is now 3000 million m3. In recent years felled quantities have been between 85 and 90 million m^3, whereas annual growth amounts approximately to 120 million m^3.

The amount of protected forests in Sweden amounts to circa 1.9 million hectares. A great extent, about 90% of these forests are the kind of forests in which minor interventions are allowed. The share of strictly protected forests, where no human interventions are allowed is 0.3 % from the forest area. National parks, nature reserves and nature conservation areas cover an area of 4.2 million hectares, i.e. 10% of Sweden's land area. There are at least 220.000 hectares of protected forests which still in terms of forest growth are productive. In addition, there are about 12.000 hectares of protected habitat types and 25.000 hectares of wood land set aside and protected by environment conservation agreements. Large forest areas are also protected through forest owners' voluntary activities. Sweden signed the Convention on International Trade in Endangered Species of Wild Fauna and Flora in August 1974 and the convention entered into force in July 1975. Sweden has also established an IUCN National Committee.

Private forest owner families hold about 50% of Swedish forests, privately owned forestry companies about 25% and the State and other public owners have the remaining 25%. The ownership of forests in Sweden varies between regions. In Southern parts of the country forests are mainly owned by private persons whereas in Northern Sweden companies own more significant amounts of forests.

FSC certified forests amount to 13 370 511 ha[29] and PEFC certified to 15 927 847 ha.[30]

[28] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[29] FSC Facts and Figures, March 1, 2019
[30] PEFC Global Statistics SSFM & CoC Certification, December 2018

The forest products industry plays a major role in the Swedish economy, and accounts for between 9-12% of Swedish industry's total employment, exports, sales and added value.

Similar to Estonia and Finland, Sweden everyone has the Right of Public Access to roam the Swedish countryside including walking, camping, climbing and picking flowers.

Belarus

Some of the tertiary feedstock from spruce and pine used by Warmeston OÜ may originate from Belarus.

The Republic of Belarus has vast forest land areas and rich historical traditions in the area of forestry, as well as a high level of forest management and multiple-use of forest resources.[31] In Belarus forests cover area an of 9,23 million hectares which is 44.5% of land area.[32] According to the data of the Ministry of Forestry of the Republic of Belarus the area covered by forest is increasing. The expansion happens both naturally and by afforestation of infertile land unsuitable for agriculture.

Distribution of forests by the dominant species:

- Pine 50,4%;
- Spruce 9,2%;
- Birch 23,1%;
- Black alder 3,3%;
- Grey alder 3,3 %:
- Aspen 2,1%;
- Other species 3,3%.

Forest industry input accounts for 1.5 to 2% of national GDP.[33] For 2016 in the system of the Ministry of Forestry from all kinds of cuttings 15.1 million cubic meters of wood were harvested with a planned volume of 12.5 million cubic meters. From January-December 2016 exported forest products and rendered services amounted to 140 million USD. 2.6 million cubic meters of timber and 324 thousand cubic meters of sawn timber was exported.[34]

In Belarus the basic principles of the organization of forest exploitation are defined by the state program of development of forestry of Republic of Belarus, National strategy of sustainable development of Republic of Belarus and the Forest Code of Republic of Belarus. Forest management legislation of Belarus is based on the Constitution of the Republic of Belarus and includes: the Forestry Code, Presidential Decrees and other legal acts of the Republic of Belarus regulating the utilization, protection and reproduction of forests. The legal status of the forest regulation is defined in the Forest Code, e.g licences and harvest permits in Belarus. Forest use carries out on the base of the felling license, the order and/or the forest license.

Belarus have forest management plans for all their forests.[35] According to the Forestry Code, forestry management and forest utilization without carrying out of the forest regulation, are forbidden. The information about the forest fund of the Republic, monitoring of the changes in forest under every jurisdiction, planning and

[31] Atlas of the forest sector in Belarus of the Finnish Forest Research Institute; http://www.metla.fi/julkaisut/workingpapers/2010/mwp170.pdf
[32] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[33] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[34] http://www.mlh.by
[35] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid

estimation of the rational, long-term and sound forest utilization are the responsibility of the Republic Unitary Forest Regulation enterprise “Belgosles”.

In the Republic of Belarus all the forests belong to the state, and most forests (>85%) are managed by the Ministry of Forestry, within which there are more than 95 forest-management enterprises. The ministry is responsible for the rational forest utilization and their protection and regeneration. This is done keeping in mind the preservation of biodiversity, environmental protection, recreational functions and scientific purposes.[36]

Forest land in Belarus is distributed among two groups: 51% belongs to forests of group I, and 49% belongs to forests of group II. Forests of group II are exploitable forests and are meant for wood harvesting, while forests of group I are protected forests and conservation and recreation areas where commercial clear cutting is prohibited.[37]

In Belarus can be found large areas of forests undisturbed by man, i.e. over 100,000 ha. There are large forest areas of active conservation management for biodiversity (MCPFE Class 1.3)[38]. There are two strictly protected Nation reserves and four National parks present in Belarus at the moment. Area of National reserves accounts 2,98 million ha and area of National parks is 3,98 million ha. Belarus has been a signatory of the CITES Convention since 1995. CITES requirements are respected in forest management, although there are no species included in the CITES lists in Belarus.

Forest certification is realized according to the schemes of the Forest Stewardship Council (FSC) and within the framework of the Forest Certification System of the National Conformity Approval System of the Republic of Belarus recognized by Pan European Forest Council (PEFC). 2011 the Forest Certification System of the National Conformity Approval System of the Republic of Belarus was accredited by PEFC regarding the certification of forestry products or their derivatives on the origin. There are 8 934 866 ha FSC certified forests and 67 forest enterprises are certified according to the requirements of the FSC, for Chain of Custody, there are 173 certificates issued.[39] For PEFC, there is 8 595 160 ha certified forest area and 104 enterprises are certified according to the Chain of Custody PEFC schemes in Belarus.[40]

Denmark

Some of the tertiary feedstock used by Warmeston OÜ may originate from Denmark.

Denmark has about 615,000 ha of forest (2013 data). This is equivalent to approximately 14% of the total area of Denmark. About 72% of the Danish forest area is forest reserves (fredskov), which includes all public forest. The Forest reserves are used for timber production, but nature and recreational values are also important. Forest reserves are covered by the Forest Act and shall be managed according to the law. Forest outside forest reserves can also be used for forest management, but management activities of these forests are covered by the Nature Protection Act.

[36] http://www.mlh.by
[37] Forest Code of Republic of Belarus, http://naviny.org/2000/07/14/by58851.htm
[38] State of Europe’s Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[39] FSC Facts and Figures, March 1, 2019
[40] PEFC Global Statistics SFM & CoC Certification, December 2018

Forests in Denmark are divided into private forests (70%), and State and Municipal owners, 24%, trust funds or foundations, 4%, and unknown owners, 2%.

Danish forestry is primarily regulated through the Forest Act. The Danish Nature Agency under the Ministry of the Environment and Food is responsible for monitoring of Danish forests. A forest inventory was carried out in 2013 and, prior to that, in 2000 and 1990. This inventory describes statistical data for forest resources, forest health, biodiversity, and demography of the forestry.[41] Conifers take up 50% of the total forest land, while deciduous trees account for 46.4%. Most species of deciduous tree, such as oak and beech, are indigenous to Denmark, while conifers have been imported over the past 200-300 years. For example, the most common tree species in Denmark is the Norway spruce, imported from other European countries like Sweden and Germany, while other species such as Sitka spruce and Douglas fir have been imported from North America.[42]

Forests classified as Natura 2000 forests (13% of the Danish forest area) require a harvest notification. Notification is made to the Danish Nature Agency, who then decides whether permission can be granted; with the decision taken on the proviso that the natural condition of the forest will not deteriorate. For other types of forest harvest, permits are not required by law. In 2012 the Danish Nature Agency adopted a series of action plans for implementation of Natura 2000. Article 19 of the Forest Act regulates international nature protection, including Natura 2000 areas. The Species Conservation Notice 4 lists protected reptiles, amphibians, fish, invertebrates and plants in Denmark. The forest manager is obliged to protect protected species if he is aware of their presence in his forest. He will then make sure that the prescribed care is taken. This is especially relevant for birds nesting in the trees and for woodpeckers and bats. The Forest Act describes all requirements for the protected species. There are no tree species classified as CITES species in Denmark. [43]

There are 306 FSC Chain of Custody certificates issued. FSC certified forest area is 214 859 ha and number of certificates issued is 4.[44] For PEFC, there is 274 325 ha certified forest area and 100 enterprises are certified according to the Chain of Custody PEFC schemes in Denmark.[45]

Denmark has a total harvest of 4.3 million cubic meters per year and the forest industry input accounts for less than 1 % of national GDP. [46]

Italy

Some of the tertiary feedstock used by Warmeston OÜ may originate from Italy.

The area of the Italian Republic is 301,338 km². Italian forests cover more than 9.2 million ha (Mha), equivalent to about one-third of Italy's total national area. Only 93,000 ha are classified as primary forests, while 8.5 Mha are considered as naturally regenerated forests and almost 0.64 Mha are forest plantations (mostly Poplar). Italian forests are mostly located in hilly or mountainous areas: 65% of them are situated above 500 m altitude.[47]

[41] FSC-CNRA-DK V1-0
[42] https://eng.mst.dk/trade/forestry/
[43] FSC-CNRA-DK V1-0
[44] FSC Facts and Figures, March, 2019
[45] PEFC Global Statistics SFM & CoC Certification, December 2018
[46] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[47] FAO Global Forest Resources Assessment 2015

About 42% of forests are managed as coppice, whereas stand (high) forests represent 36%, and the remaining proportion consists of riparian or rupicolous forests and shrubs. In particular, coppices predominate in Central-Southern Italy, whereas most of the productive high forests (mainly coniferous ones) are in the north-eastern part of the country. Broadleaved species such as beech, oak, poplar and chestnut make up two-thirds of the total growing stock at national scale, while the main coniferous species are pine, spruce and larch.[48] In Italy, over 80% of the forests were regenerated by natural means.

At national level, the Ministry of Agricultural, Food and Forestry Policies is responsible for defining the strategic objectives for forest policies, but competences and responsibilities for agriculture and forestry matters (including issuing of harvesting permits and approval of management plans) have been transferred to regional administrations. Each regional administration has defined forest legislation, therefore planning and harvesting procedures are defined and related permits are issued according to regional laws.

About 66% of Italian forests are privately owned, mostly by individuals (79%). The remaining 34% forests are public, with a prevalent role played by local municipalities (65.5%). Forest areas with a valid forest management plan in place represent only 16% of total national forest area, with significant differences among regions.

As for protected forest area, Natura 2000 sites make up 22.2% (1.9 Mha) of the Italian forest area, 15% of which (1.3 M ha) also lies within national or regional parks, and 1% (0.11 Mha) is comprised of natural reserves or other protected areas. The forest area included within national or regional parks shall be managed according to mandatory park management plans, while activities in areas falling within Natura 2000 sites must comply with management plans defined at site-scale. According to laws, forest management activities shall not compromise forest continuity and therefore not involve unauthorized land use changes. In Italy there are two forest-occurring species listed in the IUCN Red List categories as “critically endangered”: Abies nebrodensis and Zelkova vasicula.[49]

There are 2,332 FSC Chain of Custody certificates issued. FSC certified forest area is 65,433 ha and number of certificates issued is 18.[50] For PEFC, there is 819,017 ha certified forest area and 719 enterprises are certified according to the Chain of Custody PEFC schemes in Italy.[51]

The nominal value added in the forest sector by Italy was EUR 18.5 billion in 2010 and the forest industry input accounted for less than 1 % of national GDP.[52]

Norway

Some of the tertiary feedstock used by Warmeston OÜ may originate from Norway.

Norway, officially the Kingdom of Norway, has a total area of 385,252 square kilometres. Norway provides a wide diversity of land-forms, nature-types and biodiversity, and forests covering approximately 40 % of the land areas. The main forest types used for commercial forestry are spruce forest, pine forest, birch forest, and (marginally) oak forest. Boreal deciduous forests, beech forests and termophilous deciduous forests are

[48] NEPCon Timber Legality Risk Assessment, version 1.1; August 2017
[49] State of Europe’s Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[50] FSC Facts and Figures, March 1, 2019
[51] PEFC Global Statistics SFM & CoC Certification, December 2018
[52] State of Europe’s Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid

currently in minor degree relevant areas for forestry. 96.3 % of the wood products from Norwegian forests are traded as certified products (mainly PEFC, some both PEFC and FSC), which is a large proportion compared to most countries.

There are ca. 127.500 properties with productive forests in Norway. 231 properties are larger than 2 000 hectares, covering 19 % of these forests, and 90 % of the forest properties are smaller than 100 hectares. Most of the forests are owned by private forest owners (77 %), while the state owns 7 % (Statskog SF). The rest is owned by companies, the church, forest-commons and municipalities.

Norwegian forests are mainly managed as areas for the purpose of agriculture, nature and outdoor activities and reindeer herding) according to each municipality's masterplan for area classification. In most of the forest areas, no permits are needed before logging however in *Protective Forests* bordering the mountains, in selected areas along the coast and in some other regions various notification forms or applications must be sent to, and approved by local forest authorities prior to logging. The Forestry Act was renewed in 2005, and forestry has relatively few regulations in Norway. Each municipality has authorities responsible for the management of forestry and forest-owners. Harvesting is regulated by the Ministry of Agriculture and Food. Most of the logging, thinning and planting is conducted by professional entrepreneurs on contracts for timber buyers.

3,2 % of all the productive forests are strictly protected within nature reserves and national parks in Norway. Protected areas where forestry is allowed are controlled through specific regulations made for each applicable area. These regulations specify whether a management plan or harvesting plan is mandatory for the area in question. Management plans are approved by the Norwegian Environment Agency, and conducted at county- or municipality level depending on the given authority. Norwegian Nature Inspectorate has the task to ensure that the rules are followed in accordance with regulations and management plans.

There are 2355 species classified as threatened according to the latest version (2015) of the Norwegian Red List for species (Henriksen & Hilmo 2015d). Of these, 241 species are categorized as Critically Endangered (CR), 879 are Endangered (EN), and 1237 are Vulnerable (VU). 1122 threatened species (47,6 % of all threatened species) live fully or partly in forest habitats.[53]

There are 59 FSC Chain of Custody certificates issued. FSC certified forest area is 641 003 ha and number of certificates issued is 5.[54] For PEFC, there is 7 380 750 ha certified forest area and 73 enterprises are certified according to the Chain of Custody PEFC schemes in Norway.[55]

Forest industry input accounts for less than 1% of national GDP.[56]

Russia (North-West region)

Some tertiary feedstock from spruce and pine may originate from Northwest Russia (appr. 60 million ha). Russian forests are semi-natural managed forests with native tree species. Plantation is not a form of forest management widely practiced in Russia. Forest area has favourable environment for natural regeneration of coniferous species (pine and spruce).

[53] FSC-NRA-NO V1-0
[54] FSC Facts and Figures, March 1, 2019
[55] PEFC Global Statistics SFM & CoC Certification, December 2018
[56] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid

Figure 2. Northwester Russia

The Russian Federation has the world's largest forests, comprising 1/5 of the Earth's total forest cover, 71% of which are coniferous. Half of the country's territory is covered with forests; however, only 50% of these forests are economically accessible. Russian forests are usually divided into four major geographic regions: European Russia, Western Siberia, Eastern Siberia, and the Russian Far East.

The total area of forest land in Russia is approximately 809.090 million hectares which is 49.4% of land area.[57] Annual allowable forest cut in Russia is 597 million cu. m, less than 30% of which is annually utilized.

Most Russian forests are represented by boreal forest ecosystems dominated by pine, larch, spruce and fir. The most widespread tree species in Russia is larch, which grows primarily in Siberia and the Russian Far East. The mostly prevalent broad-leaved species are aspen and birch. Relatively small areas are covered with oak, elm, beech, walnut and hornbeam. Overall, more than 180 aboriginal tree and shrub species are found in Russia.

Considerable forests, especially in Siberia, remain undeveloped due to the absence of the necessary infrastructure. Development of roads is difficult due to climatic (esp. permafrost) and financial challenges. On the one hand, this makes it possible to keep large areas of virgin boreal forests intact; on the other hand, this situation results in a shortage of good-quality timber in accessible forests.

Over 40% of Russian forests have very low productivity due to climatic conditions and low economic accessibility. However, these forests have important protective functions, necessary to balance the climate, regulate water flow and prevent soil degradation. They are also of key importance to biodiversity preservation. To ensure these protective functions of forests, 204 federal protected areas have been established in Russia

[57] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid

with a total area of about 58 million hectares and several thousands of regional protected areas. There are 43 517 194 ha[58] FSC certified forests and of PEFC certified 20 694 095 ha[59] in Russia.

Virtually all of the forests in the Russian Federation remain state-owned and are referred to by Russians as belonging to the 'Forest Fund.' A small percentage of forests do exist outside this Fund and include city forests, forests controlled by the Ministry of Defence, forests of protected areas, and former forests of rural municipalities. The Forest Code of the Russian Federation is the foundational body of laws and regulations outlining the management and use of forests. The new version of the Forest Code was approved in December 2006 and put into force on January 1, 2007. The Ministry of Agriculture of the Russian Federation has overall responsibility to develop government policy and forest legislation. Russian Federal Forest Agency implements state forest policy and has control functions over forest agencies in Russia's region to supervise their progress with respect to forest management and control.

Forest management units ('lesnichestvo') and forest parks are responsible for forest management at the local level. However, they only have functions of management. Forestry activities are implemented either by leaseholders on their leased forest lands or by contracted organizations selected through a competitive basis by auction and paid for by the state budget.

The right to harvest timber is provided either by rent agreements, or by forest stand sale agreements in cases when the forest land is not actually rented. There are several principle differences between these two legal norms: a rent agreement is valid for 10 to 49 years, whereas a forest stand sale agreement is valid for 1 year or less. Moreover, a renter is responsible for all activities regarding forest protection and regeneration, and must provide documents regarding planning and actual fulfilment of activities. Due to unwillingness or inability of renters to fulfil these obligations, more than 50 % of timber in Russia is harvested through short terms for forest stands sale agreements.[60]

Russia accounts for over 20 percent of the world forests, but its share in the world forest products trade is below 4 percent. Semi-processed roundwood and sawnwood make up over 54 percent of its exported wood products. The share of the forest sector in the gross domestic product (GDP) is only 1.3 percent; in industrial production, 3.7 percent; in employment, 1 percent; and in export, revenue 2.4%.

Illegal logging is a serious problem in the Russian Federation. There is no single reliable figure to describe its scale, but comparison of data from various sources of information and experts' estimations suggests that 10 to 35 % of all timber logged in Russian is illegal.

According to Russian Federation law regarding the Red Data Book, any use of or damage to listed species is considered a crime, including the damaging of environment where these species grow. In addition to the Red Data Book, the Government of the Russian Federation has approved The List of Tree and Shrub Species for which Timber Harvesting is forbidden in the Russian Federation. There are 5 CITES listed tree species naturally growing in Russia.[61]

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[58] FSC Facts and Figures, March 1, 2019
[59] PEFC Global Statistics SSFM & CoC Certification, December 2018
[60] "Keep It Legal Country Guide: Practical Guide for Verifying Timber Origin Legality" Russia. 2010, WWF Russia, available at http://www.wwf.ru/resources/publ/book/eng/409).
[61] "The Russian Federation Forest Sector Outlook Study to 2030" 2012, FAO, available at: http://www.fao.org/docrep/016/i3020e/i3020e00.pdf

Ukraine

Some of the tertiary feedstock used by Warmeston OÜ may originate from Ukraine.

Ukraine is a country in Eastern Europe with total area of 603,628 km^2. The total land area of the forest fund of Ukraine is 10.4 million hectares. About 50% of forests have mostly ecological significance and a limited forest management regime. The total forest cover of Ukraine is 15,9%. Forests are distributed within the country very unevenly. They are concentrated mainly in Polissya and in the Ukrainian Carpathians. Forests of Ukraine are divided into 4 categories according to their primary functions as shown in the table below:[62]

Category	**Area (million hectares)**
Exploitation forests	3.9
Protective forests	3.4
Recreational and health-improving forests	1.6
Forests of environment-protective, scientific and historical and cultural purpose	1.4

The composition of forests by tree genus: [63]

- Pine 34,7%
- Oak 26,3%
- Spruce 9,9%
- Beech 9,3%
- Birch 5,4%
- Alder 4,2%
- Hornbeam 3,7%
- Fir 1,4%
- Ash 1,4%
- Aspen 1,2%
- Other 2,5%

Ownership rights and land tenure rights for forestry lands are clearly regulated by Forest code and Land code. Forests of state ownership is subordinated to the State Agency of Forest Resources of Ukraine (SAFRU) which is responsible for forest management on an area of 7.6 mln ha (73% of all the forests of Ukraine).

Forest inventory and monitoring are conducted at the national level. Planning of forest management and harvest by forestry enterprises must be conducted on the basis of forest inventory materials. The limit of wood harvest is determined by the allowable cut and a plan of sanitary and forest health improvement measures. On the basis of forest inventory materials and appropriate inspections, annual volumes of final harvest and forest tending harvests are planned. They must not exceed the volumes specified in the annual allowable cut. For state enterprises which are not subordinated to SAFRU there are no uniform legal requirements on setting land tenure and management rights.

The last edition of the Red Book of Ukraine (2009) contains information on 826 species of flora and 542 species of fauna. According to national data of Ukraine, the amount of threatened forest species, according to the

[62] FSC-NRA-UA V1-0 NATIONAL RISK ASSESSMENT FOR UKRAINE 2017
[63] http://www.encyclopediaofukraine.com/display.asp?linkpath=pages%5CF%5CO%5CForest.htm

categories of the IUCN Red List, is 533 species of fauna, 487 species of vascular plants and 147 species of fungi.

In addition to national legislation that protects biodiversity, international laws on biodiversity conservation are relevant in Ukraine, namely the Convention on Protection of Biological Diversity, the Berne Convention, [89-93], the Ramsar Convention and others. As of January 2017, the country had 8,245 Nature Reserve Fund (NRF) objects with a total area of 4,318 million hectares of land territory and 402 500 hectares of water area within the limits of Black and Azov seas. Among the protected areas in Ukraine, forest landscapes prevail, covering a third of all protected areas. In most regions, the share of protected areas within the forest fund is higher than the share of forests throughout the country. It should be noted that over the past 30 years the area of protected forests has increased by 3.8 times. In particular, the share of protected forests managed by the State Agency of Forest Resources of Ukraine has increased from 14.7% to 17.3% since 2009. In addition, since 1961, the proportion of forests with a limited forest management regime has increased from 34% to almost 50%. Final felling in the NRF territories and objects is forbidden in 40% of Ukraine's forests. Any forest management measures (harvesting, sanitary felling etc.) that are planned to be conducted in protected forests must be agreed on with the state environmental authorities.[64]

There are 256 FSC Chain of Custody certificates issued. FSC certified forest area is 4 281 168 ha and number of certificates issued is 108.[65] For PEFC, there is no certified forest area yet and 1 enterprise is certified according to the Chain of Custody PEFC schemes in Ukraine.[66]

Forest industry input accounted for less than 1 % of national GDP in 2010.[67]

USA

Some of the tertiary feedstock used by Warmeston OÜ may originate from the United States of America.

The total area of the USA is 9,833,520 km^2. According to the 2012 Statistical Abstract of the United States, the country had roughly 303 million hectares of forestland. About 174 million hectares were in private ownership. Government, mainly the federal government, owned about 128 million hectares of forest.[68]

Forests dominate the north-eastern, south-eastern, great lakes, western, and mountain regions of the US. The forested areas are split nearly evenly by the central non-forested plains. The North-eastern forested region includes forests that are primarily dominated by deciduous species. Conifers are found in these forests, but are not as dominant as deciduous trees. Great Lakes forests are dominated by conifers in the north, with more hardwoods mixed in as the lakes extend south. The South-eastern forests contain both pines and hardwoods. The Western forests and mountain regions are dominated by conifers.[69]

70% of U.S. forest lands are classified as timberlands. Timberlands are defined as forest lands used for the production of commercial wood products. Commercial timberland can be used for repeated growing and harvesting. Federal, State, and local governments own 22 percent and non-industrial private entities own 78

[64] FSC-NRA-UA V1-0 NATIONAL RISK ASSESSMENT FOR UKRAINE 2017
[65] FSC Facts and Figures, March 1, 2019
[66] PEFC Global Statistics SFM & CoC Certification, December 2018
[67] State of Europe's Forests 2015. Published by: Ministerial Conference on the Protection of Forests in Europe FOREST EUROPE Liaison Unit Madrid
[68] NEPCon Timber Legality Risk Assessment, version 1.1; August 2017
[69] FSC-NRA-USA V1-0 DRAFT 3-0

percent of timberlands. Private timberlands are mostly on small tracts of forest land. Native American tribes are considered to be Sovereign Nations and accorded rights to independently manage their land and affairs. Out of a total of 556 federally recognized tribes, 48 have significant timberland resources in 21 of the hardwood-producing states. While some tribes have sawmill and other production facilities, they account for only a very small share of US hardwood production (estimated at less than 1%).

The U.S. forest products industry's annual harvest was 446 million m3 in 2015, exceeding the 445 million m3 harvested in 2014 and is expected to grow.[70] The forestry sector's contribution to GDP in the country has gradually decreased, from around 1 percent in 2000 to 0.6 percent in 2011.[71]

The Protected Areas Database of the United States (PADUS) is the official inventory of public parks and other protected open space with more than 12 000 000 km^2 in 150,000 holdings. Amongst other useful data, it includes and International Union for the Conservation of Nature (IUCN) categories.[72]

There number of FSC Chain of Custody certificates issued is 2 437. FSC certified forest area is 14 059 948 ha and number of certificates issued is 100.[73] For PEFC, there is 33 353 888 ha certified forest area and 241 enterprises are certified according to the Chain of Custody PEFC schemes in USA.[74]

5.4 Chain of Custody system

Warmeston OÜ (including Purila production unit) holds valid FSC CoC certificate since 3rd of February 2015, certificate code is NC-COC-02433 and *PEFC CoC certificate no NC-PEFC/COC-024339 covering also PEFC Controlled Sources part from 07.06.2018.*

Warmeston is using FSC credit system and FSC transfer system for heating material and for trading chips that was added to their scope during previous audit. BP does not buy any uncertified material. Company has enforced procedures and system update that they will buy FSC certified or FSC Controlled material (including heating material). They also buy PEFC certified and PEFC Controlled Sources material. Also they implement supplier audits for secondary and tertiary feedstock (PEFC system).

Warmeston is using PEFC certification system for material receiving and FSC certification requirements for volume control and sales.

Their product groups for the FSC CoC certification include fuel wood (W1.2), wood chips (W3.1), sawdust (W3.2), wood shavings (W3.3), wood pellets (W3.6), sawdust briquettes (W3.7); offcuts (W19) and bark (N1).

In PEFC system company has following product groups: 01030 – chips and particles (sawdust, chips), 02010 - Fuel Wood (pellets) and 01050 Other industrial Roundwood.

[70] https://www.fpl.fs.fed.us/documnts/fplrn/fpl_rn348.pdf
[71] http://www.fao.org/3/a-i4248e.pdf
[72] https://gapanalysis.usgs.gov/padus/viewer/
[73] FSC Facts and Figures, March 1, 2019
[74] PEFC Global Statistics SFM & CoC Certification, December 2018

6 Evaluation process

6.1 Timing of evaluation activities

Annual audit was carried out on 9-13.12.2019 and it included Warmeston OÜ Purila factory visit, supplier audits and port visits.

Total of 5 days were used for this evaluation – 1 day of preparations, 3 day for on-site auditing and 1 day on reporting.

11.12.2019 Warmeston OÜ Purila production unit; visiting port of Muuga and supplier audit

Activity	Location	Auditor(s)	Time
Opening meeting*	Office - Warmeston OÜ Purila production unit	TTA, EP, GSA	09:00 – 09:15
SBP supplier audit	Kohila Vineer OÜ	TTA, EP, GSA	10:00 – 11:00
Interview with SBP, PEFC & FSC responsible person; other responsible staff *Overview of FSC-SBP-PEFC procedures and management system, SBP Risk Assessment, implementaiton of mitigation measures, review of GHG data, interviews with responsible personnell.*	Office - Warmeston OÜ Purila production unit	TTA, EP, GSA	09:15 - 11:30
Roundtrip in production facilities, interviews with responsible staff, Interview with Purchasing department representative, reception of the material; review of purchase & sales documentation	Production facilities/Office	TTA, EP, GSA	11:30 - 13:30
Lunch and travel to Muuga			13:30 – 15:15
Visiting Port of Muuga	Muuga Port	TTA, EP, GSA	15:15 - 15:45
Summary of day 2	Muuga Port	TTA, EP, GSA	15:45 – 16:00

09.12.2019 visiting port of Kunda and supplier audit

Activity	Location	Auditor(s)	Time
Visiting Port of Kunda and Supplier audit (primary processor)	Kunda Port, JELD-WEN Eesti AS	TTA, EP, GSA	11:00-13:00

13.12.2019 Warmeston OÜ Sauga production unit; visiting port of Pärnu

Activity	Location	Auditor(s)	Time
Visiting Port of Pärnu; Savi street for back up storage site	Pärnu Port; Storage in Savi street	TTA, EP, GSA	11:00-12:00
Final closing meeting for all BP factories	Office – Warmeston OÜ Sauga	TTA, EP, GSA	16:00 – 17:00

6.2 Description of evaluation activities

Current evaluation was carried out as an onsite audit in Warmeston OÜ Purila production site.

Separate supplier SBE audits were conducted by the BP – JELD-WEN Eesti AS, Alconet Trade OÜ, Kohila Vineer OÜ offices, supplier audits were witnessed by the CB. Audits focused on WKH mitigation measures. The auditor applied following sampling method – 0.6 x $\sqrt{z}$ (where z is number of suppliers). The BP has in total 16 SBE secondary feedstock suppliers which gives 3 suppliers to be visited. Also review of procedures and other preparations were done prior to onsite audit.

Evaluation started with an opening meeting, where auditors described the audit criteria, principles, standards and audit agenda.

Audit was conducted by 2 auditors who split during the audit.

This was followed by review of updated Supply Base Report and company's PEFC, SBP and FSC procedures. During the review, company demonstrated IT solution, which is used to collect, store and report on all data. Also, data represented in the Supply Base Report was compared with data entered into the program.

Next, review of implementation of Supply Base Evaluation was evaluated, including review of supplier audit protocols, monitoring results, review of updated supplier declarations and communication with agency issuing databases with WKH cadastre units as a part of mitigation measure taken by the company.

Review of SAR documents that were prepared by the BP together with standard 5 check-list was evaluated next. This included review of data presented and evaluating the sources of information for this.

After that purchase and sales documentation was reviewed and evaluated. Random sampling was implemented for purchase documentation and origin documents, for SBP sales documents, 100% sampling was implemented.

This was followed by roundtrip in production and storage areas and facilities. Interviews during the round-tour were conducted with responsible staff, also pictures of main processing units were taken.

After lunch supplier audit in Kohila Vineer OÜ was witnessed.

After that Muuga port was visited.

Audit day ended with summary of the day.

Supplier audits were witnessed on Monday, Wednesday and Thursday.

BP has 4 permanent storage sites in total and all of them were visited during the audit.

Requirements regarding ID5E were also evaluated.

Composition of audit team:

Auditor(s), roles	Qualifications
Toomas Tammeleht, Lead auditor/audit team. Verification of SBP-compliant feedstock. Chain of Custody	BSc in forestry and MSc in industrial ecology. Toomas has been working in NEPCon as an auditor since 2016. He has passed NEPCons forest management and chain of custody leadauditors training. Has participated in over 10 FSC forest management audits and has conducted over 100 Chain of Custody audits. He has previously worked for Environmental Inspectorate. Toomas successfully completed SBP training course and he has practical experience with carbon footprint certification.
Eveli Pind Audit team member. Verification of SBP-compliant feedstock, Chain of Custody, SBP-compliant feedstock.	M.Sc in Environmental Engineering and Management from Tallinn University of Technology. Previous work experience from wooden window manufacturing. Working in NEPCon as auditor since 2017.
Georg Sten Andrejev Auditor in training	BSc in Forest Industry. Works for NEPCon since august 2019. Has working experience in timber industry.

6.3 Process for consultation with stakeholders

According to standard 2 p13 stakeholder consultation is not required for annual audits. Stakeholder consultation was conducted prior first assessment and before SBE scope change audit.

SBR is publicly available on company`s web page but no stakeholders have sent company any comments regarding to that.

7 Results

7.1 Main strengths and weaknesses

Main strengths: all processes have been very well documented; main database for material balances is very well maintained and all relevant information can be reported.

Weaknesses: See the non-conformities below.

7.2 Rigour of Supply Base Evaluation

The Supply Base Evaluation was implemented for primary and secondary feedstock sourced from Estonia only. Warmeston OÜ has implemented SBE for primary feedstock (forest products) that are originating from Estonia and is sold without SBP-approved Forest Management Scheme claim, SBP-approved Forest Management partial claim, SBP-approved Chain-of-Custody (CoC) System claim. Risk mitigation measures will also be applied for secondary feedstock (e.g. sawdust from local sawmills) that originates from Estonian forest and is delivered with a SBP-approved Controlled Feedstock System claim. This will be used in the production of SBP-compliant biomass.

The scope of the SBE was chosen based on the availability of the SBP-endorsed Regional Risk assessments whereas the possibility to mitigate the identified “specified risk” with reasonable efforts was considered.

Prior to scope change audit in 2016, the stakeholder consultation process for Warmeston’s SBE was undertaken from 4th May 2016 to 3rd June 2016 by e-mail message to local municipalities, state institutions and authorities, State Forest Management Centre, Foundation Private Forest Centre, Estonian Private Forest Association, FSC Estonia, PEFC Estonia and the Estonian Forest and Wood Industries Association and to Loodusaeg’s mailing list covering app 1000 subscribers including various nature conservation and protection organisations. No comments from the stakeholders were received. No additional stakeholder consultation process was initiated before third annual audit.

The risk assessment used by the organization is the Approved Regional SBP Risk Assessment for Estonia available at the SBP website. One indicator is identified as specified risk in this risk assessment and the organization has implemented mitigation measures (see section 9 of SBR).

7.3 Collection and Communication of Data

BP has a system to gather and record Greenhouse Gas emissions. During the initial audit, BP made detailed overview of the systems and databases to gather and record such data. Evidence was provided to auditors.

7.4 Competency of involved personnel

Overall responsible person for implementing SBP together with SBE is quality and environmental manager. Supply Base Evaluation was performed by internal personnel and the SBR with SBE was reviewed by third independent and competent party.

BP has maintained written qualification requirements for personnel involved in SBP system, these are described in SBP-24 (internal procedure).

Minimum qualification requirements for main SBP system responsible staff is as follows:

- Higher education (Forestry/Environmental)
- Fluent in Estonian and English
- Minimum of 3 years working experience in related sector
- Experience in FSC/PEFC systems
- Experience in reporting, conducting risk assessments
- Good teamwork skills
- Familiar with relevant regulations

According to the interviews, review of biomass producer quality manager's CV and set of procedures and documents that were composed for the SBP system, auditors evaluated the competency of main responsible staff to be sufficient.

7.5 Stakeholder feedback

No comments or concerns were received during the Biomass Producer's stakeholder notification period that was conducted before main assessment and before SBE scope change audit.

7.6 Preconditions

See the open NCRs.

8 Review of Company's Risk Assessments

Describe how the Certification Body assessed risk for the Indicators. Summarise the CB's final risk ratings in Table 1, together with the Company's final risk ratings. Default for each indicator is 'Low', click on the rating to change. Note: this summary should show the risk ratings before AND after the SVP has been performed and after any mitigation measures have been implemented.

SBP-endorsed Regional Risk Assessment for Estonia was used by the Biomass Producer. Risk ratings in table 1 are taken from the approved risk assessment, where one indicator has been evaluated as specified risk (indicator 2.1.2)

Table 1. Final risk ratings of Indicators as determined BEFORE the SVP and any mitigation measures.

Indicator	Risk rating (Low or Specified)	
	Producer	CB
1.1.1	Low	Low
1.1.2	Low	Low
1.1.3	Low	Low
1.2.1	Low	Low
1.3.1	Low	Low
1.4.1	Low	Low
1.5.1	Low	Low
1.6.1	Low	Low
2.1.1	Low	Low
2.1.2	Specified	Specified
2.1.3	Low	Low
2.2.1	Low	Low
2.2.2	Low	Low
2.2.3	Low	Low
2.2.4	Low	Low
2.2.5	Low	Low
2.2.6	Low	Low
2.2.7	Low	Low
2.2.8	Low	Low

Indicator	Risk rating (Low or Specified)	
	Producer	CB
2.3.3	Low	Low
2.4.1	Low	Low
2.4.2	Low	Low
2.4.3	Low	Low
2.5.1	Low	Low
2.5.2	Low	Low
2.6.1	Low	Low
2.7.1	Low	Low
2.7.2	Low	Low
2.7.3	Low	Low
2.7.4	Low	Low
2.7.5	Low	Low
2.8.1	Low	Low
2.9.1	Low	Low
2.9.2	Low	Low
2.10.1	Low	Low

2.2.9	Low	Low
2.3.1	Low	Low
2.3.2	Low	Low

Table 2. Final risk ratings of Indicators as determined AFTER the SVP and any mitigation measures.

Indicator	Risk rating (Low or Specified)	
	Producer	CB
1.1.1	Low	Low
1.1.2	Low	Low
1.1.3	Low	Low
1.2.1	Low	Low
1.3.1	Low	Low
1.4.1	Low	Low
1.5.1	Low	Low
1.6.1	Low	Low
2.1.1	Low	Low
2.1.2	Low	Low
2.1.3	Low	Low
2.2.1	Low	Low
2.2.2	Low	Low
2.2.3	Low	Low
2.2.4	Low	Low
2.2.5	Low	Low
2.2.6	Low	Low
2.2.7	Low	Low
2.2.8	Low	Low
2.2.9	Low	Low
2.3.1	Low	Low
2.3.2	Low	Low

Indicator	Risk rating (Low or Specified)	
	Producer	CB
2.3.3	Low	Low
2.4.1	Low	Low
2.4.2	Low	Low
2.4.3	Low	Low
2.5.1	Low	Low
2.5.2	Low	Low
2.6.1	Low	Low
2.7.1	Low	Low
2.7.2	Low	Low
2.7.3	Low	Low
2.7.4	Low	Low
2.7.5	Low	Low
2.8.1	Low	Low
2.9.1	Low	Low
2.9.2	Low	Low
2.10.1	Low	Low

9 Review of Company's mitigation measures

The mitigation measures described below will only be applied for feedstock that is in the scope of the SBE as described in section 4.1. The responsible person for the implementation of the SBE is the Quality and Environmental manager of Warmeston OÜ who is also the overall responsible person for the company's FSC, PEFC and SBP certification systems.

Primary feedstock

Warmeston OÜ will verify all deliveries of primary feedstock which have been harvested in Estonia and are sold without an FSC or PEFC certified claim, whether they have been sourced from WKHs. All feedstock subject to SBE must meet prior the evaluation at least SBP-approved Controlled Feedstock System requirements.

Warmeston OÜ will use the delivery documents, a list of approved suppliers and publicly available databases *(e.g. maps at:* https://register.metsad.ee/ or at least biannually renewed databases from competent authorities[75]*)* to verify that the delivered primary feedstock has not been sourced from WKHs. During the reception and registration of primary feedstock the assistants will carry out the following control procedure within the SBE:

1. Has the supplier signed a code of conduct?

1.1 If yes, go to 2.

1.2 If no, the products cannot be sourced.

2. Can the products be traced back to the logging site in forest?

2.1 If yes, go to 3.

2.2 If no, the products cannot be sourced.

3. Is there a felling permit issued?

4.1 If yes go to 5

4.2 If no go to 4.

4. Fellings without felling permit (according to forest act).

4.1 If there is no WKHs on the FMU according to available information: the products can be sourced.

4.2 If there is a WKHs on FMU the products cannot be sourced as SBP-compliant.

5. Does the logging site defined in the felling permit, provided with the supplied material, match with the WKH location using the available information resources (updated maps or databases)?

[75] An inquery has been sent to the Environmental Agency of Estonia (the responsible authority responsible for updating the WKH databases) to clarify the of changes on the WKH register. If significant a more frequent update rate of the WKH database will be implemented. These databases will be shared with the suppliers who are included in the SBE.

5.1 If yes: the products cannot be sourced as SBP-compliant

5.2 If no: the products can be sourced as SBP-compliant.

All instances were primary feedstock from WKHs has been offered will be recorded.

Secondary feedstock

To mitigate the risks associated with secondary feedstock subject to SBE, Warmeston OÜ will:

i) train its suppliers to apply the risk mitigation measures described above in points 2-5 and

ii) verify during supplier audits that the mitigation measures 2-5 have been properly implemented.

The trainings and supplier audits are the responsibility of Warmeston OÜ's Quality and Environmental manager who is also responsible for collecting and analysing suppliers' monitoring results of the WKHs.

The supplier audits will cover the following aspects:

- the scope of the suppliers FSC and/or PEFC certification
- demonstration of the control procedure carried out by the supplier's responsible person(s);
- demonstration of recorded monitoring data (screenshots or printouts of the databases etc.);
- random selection of a sample of primary feedstock deliveries and the verification of the recorded monitoring results;
- demonstration of the supplier's WKH register and corrective actions taken;
- feedstock storage conditions;

All audit findings and results will be documented.

Warmeston OÜ will accept the delivered secondary feedstock only as "low risk" if:

- the supplier has been trained;
- the supplier has been audited (supplier audit) and no substantial issues in the WKH control procedures have been raised during the supplier audits;
- the delivered feedstock can be traced back to an Estonian forest where no WKH are present at the felling site.
- If a supplier is sourcing its feedstock from different countries a mass balance approach for determining the proportion of Estonian feedstock will only be accepted if
    - the supplier holds a valid SBP-approved chain of custody certificate and
    - all primary feedstock of the supplier meets at least the requirements of an SBP-approved Controlled Feedstock System
    - The supplier must demonstrate during the supplier audit, that this information is monitored and recorded on a regular bases.

  If this information is not available the material will not be accepted as SBP-compliant feedstock.

Frequency of supplier audits

Warmeston OÜ has 2 supplier groups in the SBE system to determine the frequency of the SBE supplier audits:

1. Suppliers without an FSC CoC certificate are audited annually
2. Suppliers with a FSC CoC certificate and selling the material at least with a FSC Controlled Wood claim are audited sample based. The minimum number of audits carried out each year (y) is calculated according to the formula $y=0,5\sqrt{x}$, where x is the number of suppliers in the SBE supplier group 2.

Warmeston OÜ has considered sample based audits for SBE group 2 sufficient for the following reasons:

- The FSC's Centralised National Risk Assessment for Estonia[76] has determined sourcing material from WKH as a spefcified risk (indicator 3.3 HCV 3).
- Companies that sell material which has been harvested in Estonia with a valid FSC claim must mitigate the risk associated with WKH's.
- FSC certified companies are in addition to the supplier audits audited annually by an independent FSC cerfication Body.

[76] https://fsc.org/en/document-centre/documents/resource/309

10 Non-conformities and observations

Identify all non-conformities and observations raised/closed during the evaluation (a tabular format below may be used here). Please use as many copies of the table as needed. For each, give details to include at least the following:

- *applicable requirement(s)*
- *grading of the non-conformity (major or minor) or observation with supporting rationale*
- *timeframe for resolution of the non-conformity*
- *a statement as to whether the non-conformity is likely to impact upon the integrity of the affected SBP-certified products and the credibility of the SBP trademarks.*

NC number 01/20	**NC Grading:** Minor
Standard & Requirement:	SBP Std 4 p 5.2.5
Description of Non-conformance and Related Evidence:	
During the review of supplier declarations and comparing them to organisations database, it turned out that in one case the percentages didn't match for secondary material, therefore the input records did not match. Responsible person was not aware of it but promised to update the data and update the procedures. Other supplier declarations data matched the information in the organisations database. Auditors decided to raise a minor non-conformity, NCR 01/20.	
Timeline for Conformance:	By the next surveillance audit, but no later than 12 monhts from report finalisation date
Evidence Provided by Company to close NC:	Pending
Findings for Evaluation of Evidence:	Pending
NC Status:	Open

NC number 01/19	**NC Grading:** Minor
Standard & Requirement:	SBP Std 4 p 6.3.1
Description of Non-conformance and Related Evidence:	

During the Pärnu port visit it was observed that BP workers did not follow fully ports H&S requirements. Port requires that everybody who enters their territory wear high visibility wests and helmets. BP worker wore only wests.	
Timeline for Conformance:	By the next surveillance audit, but no later than 12 monhts from report finalisation date
Evidence Provided by Company to close NC:	E-mail confirmation of procedures from port, interviews, on-site visit to ports.
Findings for Evaluation of Evidence:	Auditor read the procedures sent by port and it was written that only safety vest is needed. The signs in ports indicated that only vests are strictly required. This was confirmed also during interviews.
NC Status:	Closed

11 Certification decision

Based on the auditor's recommendation and the Certification Body's quality review, the following certification decision is taken:	
Certification decision:	Certification approved
Certification decision by (name of the person):	Asko Lust
Date of decision:	10/Mar/2020
Other comments:	-