



# 2021

**Graanul Invest**  
Sustainability Report

# 21

## Graanul Invest Sustainability Report 2021

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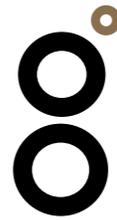


## The most important achievements of 2021

- The **carbon footprint** of our production **decreased** by 6.35%
- **We supported** more than 50 events, mainly sports activities and hobby education for young people in rural areas.
- **In 2021, we produced** 915 GWh of carbon-neutral thermal energy and 325 GWh of electricity in our CHP-s.
- **We acquired two new ships** - resulting in faster and more flexible supply chain and reduced transport chain CO<sub>2</sub> footprint.



**Raul Kirjanen,**  
CEO



**The year 2021 will remain in the history of Graanul Invest group as one of the most significant: the company's ownership changed, as U.S. strategic investor Apollo Funds acquired 80%. According to financial results, the year was excellent: despite several difficulties, we maintained high efficiency and revenues.**

**Graanul Invest is, without competition, the world's most efficient pellet producer with the smallest ecological footprint. Our key assets are the best energy-saving technological solutions and an experienced, dedicated team. 2021 was a hectic year in connection with the preparatory work for the company sale process and ensuring normal daily operations in the middle of continuous corona outbreaks. This crisis has become a daily routine.**

## **Graanul Invest's employees are the most valuable asset of our company**

One of the biggest achievements of 2021 was that, regardless of the COVID-19 pandemic, we managed to secure the work of the entire group's factories without a single stoppage. Despite the virus outbreaks, the small and efficient teams of the factories were able to replace colleagues and ensure an uninterrupted, accurate and reliable supply of environmentally friendly wood pellets to our customers. At the level of administrative management, 2021 was also special: a large part of the daily work had to be done from the home office without physical contact with colleagues. The common team spirit certainly suffered, but not the quality of the work. Thanks to all our team(s)!

## **Apollo became the largest shareholder of Graanul Invest**

In 2021, Apollo Funds, a subsidiary of the international asset management company Apollo Global Management (NYSE: APO), listed on the New York Stock Exchange, acquired a majority stake in Graanul Invest. Both for me personally and for the entire board of the group, the sale of a majority stake in a company built up with 18 years of work was, on the one hand, an exciting and unique experience, on the other hand, a new gateway to ensure the continued growth of the group and the best competitiveness in the capital markets to attract international investments supporting the company's development.

I would like to thank the Apollo team as an extremely professional partner in finalizing the sales process. As the company's manager, I am convinced that with the support of the new owner and investor, the rise of the Graanul Invest group as the world's leading producer of bioenergy and solid biofuels will continue.

## **Good economy, efficiency and reliability**

In 2021, we improved our key production indicators even further. As a result of the excellent work of our technical staff and engineers, the energy footprint of wood pellets production continues to decrease. We were able to keep the efficiency at the peak even at the end of 2021, when the prices of raw materials, but above all, the price of electricity, rose unprecedentedly in the market of the Baltic countries.

## **We sell quality and trust to our customers**

Accurate and standardized quality management, fully certified control and transparency in the procurement of raw materials give us and Graanul Invest's customers the certainty that all the wood used in the value chain has been obtained from sustainably managed forests. Unfortunately, malicious attacks and false accusations against the forestry and bioenergy sectors have intensified. We must listen to scientists and trust academic competence when making decisions. In the energy sector, the sawmill industry residues and the forest biomass unsuitable for the sawmills are the only renewable, environmentally friendly, and realistic substitutes for fossil fuels.

In 2021, we took a huge and important step to reduce the footprint of the logistics chain: we signed contracts to purchase two new ships. The group's fleet grew to 3 vessels. Ships of optimal size give Graanul Invest a good opportunity to organize the most efficient logistics and ensure delivery speed, accuracy, and quality. Most importantly, we can reduce the CO<sub>2</sub> footprint of our transport chain. The transport of pellets is the only link in the value chain where the proportion of fossil CO<sub>2</sub> is high. Therefore, increasing transport sustainability remains one of our most important priorities.

## **Leader in sustainable bioenergetics**

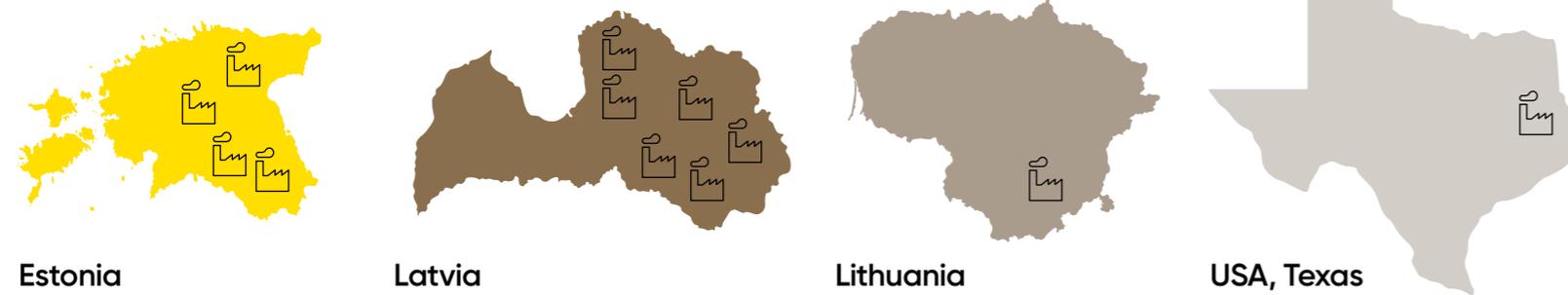
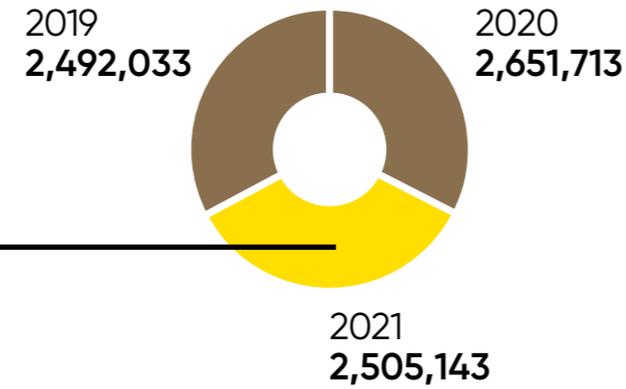
In November, as part of the UN Climate Change Conference, in partnership with other leading companies in the bioenergy sector, including our largest customers, we signed a joint declaration, formulating real goals for achieving the goals of the Paris Climate Agreement. We set realistic targets to achieve carbon-neutral and later carbon-negative goals in the energy sector. The immediate replacement of fossil fuels with sustainable biofuels is the only realistic way to reduce the pace of global warming and slow down the increase in the amount of CO<sub>2</sub> in the Earth's atmosphere.

As writing this summary today, in 2022, I cannot overlook the changes in the political situation caused by the war in Ukraine. Fossil fuels are dirtier than ever. The role of woody biomass, local biofuels, and energy independence in Europe is more important than ever before. Valuing and supporting bioresources is the only way to immediately end the funding of dictators' war machines through fossil fuel imports.

**Graanul Invest is strong, reliable, and confident in the changing world. Our leading position as a bioenergy producer gives us a unique opportunity to solve global energy-related problems.**

# Graanul Invest 2021 Overview

In 2021, we produced **2,505,143 tons** of pellets



Country	Location	Production (tons)
Estonia	Imavere	313,734
	Ebavere	101,268
	Helme	207,185
	Osula	334,250
Latvia	Inčukalns	296,038
	Launkalne	275,251
	Jaunjelgava	90,104
	Jekabpils	171,669
	Kraslava	172,988
	Gulbene	188,469
Lithuania	Alytus	84,104
USA	Woodville Pellets, Texas	270,083

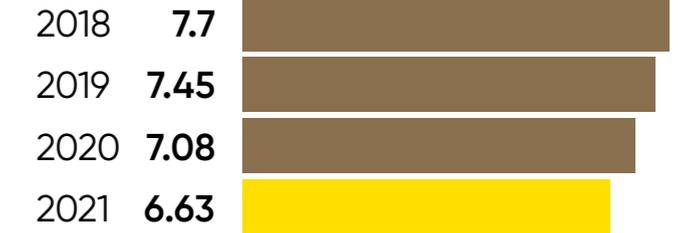
## Highlights of 2021:

- Graanul Invest Grupp started working as three separate units: Graanul Invest, Graanul Technology, and Graanul Assets. Graanul Technology is dedicated to developing biomaterials. Graanul Assets is a holding company for forestry companies.
- Apollo Funds acquired an 80% majority stake in Graanul Invest AS.
- Through dozens of cooperation projects, we supported the hobby and sports activities of young people in rural areas, research development and professional sports.
- The carbon footprint of our production has decreased for three years in a row.
- 2 new ships were added to our fleet - reliability of delivery increased and the footprint of logistics is reduced.



We produced 915 GWh of heat and 325 GWh of electricity from carbon-neutral woody biomass in our CHP-s.

The carbon footprint in production is 6.63 g CO<sub>2</sub>eq/MJ per ton of pellets.



CO<sub>2</sub> footprint of pellet production g/MJ



# Graanul Invest

## Graanul Invest group is the world's leading producer of biomass and bioenergy

The company was established in Estonia in 2003. Today, in 18 years, we have grown into an international group, being one of the world's most efficient and environmentally friendly producers of wood pellets.

## The group operates 12 pellet factories

4 of our pellet factories are located in Estonia, 6 in Latvia, 1 in Lithuania, and 1 in the U.S. state of Texas. The group has a total of 500 employees.

In the first half of 2021, the Graanul Invest group was divided into three separate entities - Graanul Invest, Graanul Technology, and Graanul Assets. Separated from the group, Graanul Technology is dedicated to the development of biomaterials. Graanul Assets is a holding company for forestry companies.

In August 2021, Apollo Funds, a subsidiary of Apollo Global Management (NYSE: APO), an international asset management company listed on the New York Stock Exchange, acquired an 80% majority stake in the Graanul Invest group. The transaction was approved by the Competition Authority and was completed in October.

Apollo is an experienced strategic investor whose primary goal is to ensure the continued growth and profitability of the companies in the portfolio.

## Carbon-neutral fuel with high energy value

Wood pellets is a carbon-neutral fuel with high energy value. They are produced from sawmill- and forestry industry residues, which can be used to replace natural gas, oil, or coal products. When we burn fossil fuels, we continuously introduce new carbon from the earth's crust into the atmosphere, resulting in anthropogenic climate change. If we can replace fossil fuels, it will be a big step toward solving man-made climate issues. Graanul Invest's leading role in the development of bioenergetics and the most efficient energy recovery from wood residues helps to achieve the climate goals set in the global Paris Agreement.

## Sustainable raw materials

Only the use of sustainably grown woody biomass can help to mitigate the human-caused environmental impact in the energy sector. Without exception, all biomass used by Graanul Invest is certified and controlled. It has been produced sustainably, preserving the biodiversity of the forests, and the biomass has been processed with maximum efficiency. The electricity, heat energy, and wood pellets produced in our factories are at the absolute top level of the bioenergy industry in terms of production and energy efficiency.

Pellets made from sustainably produced woody biomass are one of the best practical examples of a real-life industrial scale circular bioeconomy. More than half of the raw material used for pellets is sawmill residues: sawdust and wood planing chips. The second part of the raw material is the residues of the forest industry: the lowest quality stemwood and wood residues that other industries do not compete for and cannot monetize.

## Science-based and innovative

Sustainable, scientifically proven and effective management of forests allows to bind carbon from the atmosphere more efficiently than in forests without human intervention. The high-quality wood from a well-managed forest enables to bind carbon in construction and furniture industry wood products with potentially a century-long lifespan. The circular economic valorization of sawmill residues allows to effectively use all biogenic carbon in the biomass to the highest value before emitting it back to the atmosphere. This is an environmentally friendly replacement for fossil fuel and for keeping fossil carbon below ground.

The greater the synergy between industries, the closer we are to a waste-free economy and a balanced carbon cycle.



# Graanul Invest group is the world's leading producer of biomass and bioenergy

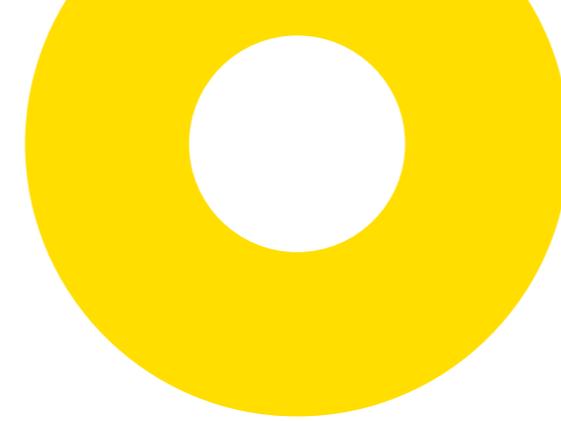


# Apollo Funds acquired a majority stake in Graanul Invest

**In August 2021, funds managed by affiliates of Apollo (NYSE: APO), a global alternative asset manager, agreed to acquire a majority stake in Graanul Invest AS. The transaction was approved by the Competition Authority and completed in October.**

As a leading alternative manager, Apollo aims to offer its clients strong risk-adjusted returns and its Private Equity business has a long track record of working with management teams to transform companies and build better businesses. Apollo helps drive meaningful change across Environmental, Social and Governance (ESG) measures at fund portfolio companies like Graanul Invest through its rigorous and longstanding ESG program. The Firm believes that strong ESG practices drive growth, generate attractive returns for its investors, and create positive outcomes for workers and communities.

Graanul Invest's activities have always been, and will continue to be, focused on creating a globally sustainable and renewable energy system to replace fossil fuels. Our team and people, as well as the structure and operations of our company, are a strong foundation for continued growth with Apollo. The additional capital and global network offer Graanul Invest and the company's employees new international opportunities and develop its current achievements and continue its global expansion jointly.



**Geoffrey Strong,**  
Apollo Partner and Co-Head of Natural Resources and Infrastructure:

"We believe that Graanul Invest has a tremendous platform to help facilitate the transition to renewable energy. Based on this, it is possible to change the types of energy consumed in Europe and replace them with sustainable alternatives. We look forward to working with Graanul Invest's team to further the company's success and continue to grow the business organically, and find attractive opportunities in the biomass market."



**Brad Fierstein,**  
Apollo Partner:

"With the accelerating Energy Transition in Europe and globally, baseload renewable energy sources such as biomass are a critical and enabling piece of the puzzle, providing dispatchable electricity and heat to must-run facilities. The Graanul Invest team has done an excellent job scaling and positioning the business to play a leading role supporting this energy transition, as a reliable, more sustainable supplier to its customers."

For more information, visit [www.apollo.com](http://www.apollo.com)



# The Glasgow Declaration: A Roadmap to a Carbon-Negative Future

Graanul Invest signed the Glasgow declaration of sustainable bioenergy together with other leaders of the sustainable bioenergy industry.

In November 2021, Graanul Invest and many other bioenergy industry leaders signed the Glasgow Sustainable Bioenergy Declaration. We must act now to slow the growth of fossil carbon dioxide emissions. Wood pellets, as a 100% renewable natural resource and sustainable energy source, are the most reasonable substitute for fossil fuels in energy.

The declaration was signed by a thirteen-member global coalition of companies and organizations in the bioenergy sector. Graanul Invest's vision formulated in the document is the ambitious growth of the industry to support countries and communities globally to achieve the goal of zero CO<sub>2</sub> emissions realistically.

The declaration also sets a detailed framework of sustainability principles that already helps deliver sustainable woody biomass-based energy today and continues to support the emission reduction targets of the growing industry internationally. The framework includes accurate carbon accounting and supply chain transparency, resource management, biodiversity conservation, and support for communities.

The Glasgow Declaration Signatory Group calls on all other organizations involved in the bioenergy sector, including industry, civil society, academia, and governments, to join the signatories and help achieve the full potential of sustainable bioenergy to reach zero emissions globally.



The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future

**The main points of the declaration: At the heart of the Glasgow Declaration is a global industry standard for sustainability, which sets out the principles of sustainable bioenergy, how wood-based bioenergy can combat climate change.**

Sustainable wood-based bioenergy is projected to reduce net global CO<sub>2</sub> emissions by 600 million tons per year by 2030 and one billion tons of CO<sub>2</sub> by 2050 – more than the entire world's aviation industry emitted in the pre-corona period.

Earth's governments have stated in the United Nations Climate Change Charter: "Biofuels have a significant role to play in reducing carbon emissions from the energy sector to keep global warming below 1.5°C. With or without industrial carbon sequestration (BECCS)."

The declaration establishes a global sustainability standard for the industry, intending to launch a cross-sector dialogue on how wood bioenergy can maximize its potential as an irreplaceable resource.

Carbon-neutral energy from sustainably produced woody biomass is seen as essential to achieving our climate goals by organizations that have formulated the guiding principles for tackling climate change, including the UN's Intergovernmental Panel on Climate Change (IPCC), the International Energy Agency (IEA) and the UK's Climate Change Committee.

# The Glasgow Declaration on Sustainable Bioenergy has two main parts:

○ A vision for the sustainable growth of the global wood bioenergy sector over the next 10 to 30 years, based on pathways set out by the International Energy Agency and IPCC.

○ A framework of sustainability principles already helping deliver sustainable woody biomass-based bioenergy and must continue to underpin the entire industry as it grows.

## Sustainable use of natural resources

We promote sustainable farming and forestry.

We increase the carbon sequestration capacity of forests.

We use only sustainably produced and sourced raw materials.

We avoid deforestation and the reduction of forest land.

## Transparency and science-based carbon accounting

We follow internationally recognized carbon measurement methods

We ensure compliance with strong and independent certification systems

We ensure transparent and independent audits of data

We account for carbon throughout the entire product life cycle

## Protection of biological diversity

We contribute to the preservation of a complete forest ecosystem

We respect conservation restrictions

We support the protection of unique communities

## Protecting and supporting communities

We contribute to the local community and provide support

We offer support to landowners. to increase sustainability

We guarantee occupational safety

We ensure the implementation of industry best practices throughout the value chain

We respect the rights of indigenous peoples

There are excellent examples where sustainably sourced biomass has completely replaced the use of coal in thermal power plants. As a substitute for fossil fuels in electricity and cogeneration plants, biomass provides significant support in the energy sector for stabilizing the output fluctuations of solar and wind energy generating plants.

"Net-Zero Scenario" of the International Energy Agency (IEA) recommends that sustainable bioenergy from wood must triple to provide 4% of the world's energy supply by 2050. This would reduce emissions by one billion tonnes of CO<sub>2</sub>e per year compared to 2020 – more than the carbon footprint of the global aviation industry.

Emissions become negative when sustainable bioenergy is combined with carbon capture and storage technologies (known as BECCS). Carbon drawn from the atmosphere and released during combustion is captured and permanently buried underground, thereby helping to offset emissions from hard-to-decarbonize sectors such as aviation and agriculture.

Graanul Invest's activities and operations have always been – and will continue to be – aimed at creating a globally sustainable and renewable energy system to replace fossil fuel emissions.

Net-Zero goals can only be achieved if we can replace fossil fuels today, not tomorrow. Biomass is the only sustainable and readily available fuel for traditional power plants to replace coal or natural gas.

**Wood pellet production is a unique example of a sustainable and truly functioning circular economy on an industrial scale. Audited, sustainable, durable, yet realistic and affordable.**

# The sustainable raw material of wood pellets

The raw material for our wood pellets is four categories of forestry and sawmill-industry wood residues and low-quality stemwood.



## Dry sawdust and planing chips

come from companies that process lumber into wooden products, for example, furniture or parquet. Processing residues, dry sawdust, or wood shavings have a low moisture level and fine fraction. This material is straightforward to process for us. We can only use chemical-free raw materials. We cannot use any post-treatment residues treated with chemicals, which may also contain varnishes and glues. Sawdust entering the energy sector must be chemical-free, so it is important to closely monitor and understand the materials' supply chains and production processes.



## Wet sawdust

is the main by-product of the sawing process in sawmills. It is historically the most common material for producing pellets, which requires very little processing because it already has a fine fraction and is of uniform quality.



## Wood bark

from both the debarking lines of our factories and neighboring sawmills. The bark is mechanically removed from the stemwood. Instead of the former composting in the landfill, it is sent to on-site renewable energy production to make the most out of every gram of valuable wood.



## Wood chips

are divided into sawmill chips and forest chips. Forest chips mainly consist of fine branches and other residues from the logging process, which in most cases cannot be processed mechanically, as the material contains soil and sand. Sawmill chips are different in content and appearance from forest chips. They are produced in the sawmill while processing already peeled logs and have uniform fraction and purity. The wood chips from the sawmill industry are used to produce pellets. The forest chips are mainly used for producing carbon-neutral electricity and heat energy in our cogeneration plants and dryers.



## Low-quality stemwood, the traditional firewood,

is the lowest-quality assortment of the forest industry, with no alternative application for long-term carbon-sequestering industries. A significant part of the firewood processed into pellets consists of fast-growing or unsuitable tree species for the sawmill industry, such as grey alder, rowan, hazel, etc. Another important assortment of the wood pellet that is generated by the forestry industry and used as wood pellet feedstock is stemwood from thinnings and selective cuttings. This material is usually too thin to be used by the sawmill industry. The third type of feedstock in this assortment class is tops and limbs of trees left over from sawlog extraction. These are often not uniform enough in shape or diameter, rotten, deformed or damaged by bark-beetles or fungus.

To a small extent, we also use rejected timber from sawmills, seemingly "good logs" with damage, containing dangerous metal objects, mainly from the Second World War, or cracks or have internal tensions (bent) unsuitable for processing.

Up to 50 different assortments are distinguished in Boreal mixed forests. Only the lowest priced firewood from hardwood and softwood is sold as raw material for pellet industries.



## 100% chemical-free natural wood biomass

Graanul Invest's pellet factories and CHP-s do not process any waste from the construction industry or any wood residues treated with chemicals.

# Raw materials used for pellet production

In 2021, Graanul Invest sourced raw materials from Estonia, Latvia, Lithuania, Sweden, Belarus, and Poland. Through the local sawmills operating in the Baltic countries, the “stump level” raw material origins can be traced to the whole of Scandinavia, Central Europe, and Russia.

Graanul Invest carefully monitors international sanctions and restrictions on the procurement of biomass to ensure full compliance of the product with the certificates issued to us at any time and without any exceptions.

Before entering a new market or using raw materials from new origins, we carefully consider whether the related sector and possible cooperation with partners align with our guiding principles and sustainability requirements.

In 2021, the raw materials used in our factories were divided into: 55.72% of sawmill industry residues, the largest part of which was wood chips - 26.82% of the total material used. Sawdust and planing chips accounted for 21.48% and 6.92%, respectively. The share of logs rejected from the sawmills was 0.5%. The share of residual flows from forest management i.e. low-quality stem wood unsuitable for other industries, was 45.48% of our feedstock basket.

**The share of stemwood in our raw material basket has decreased by more than 10% compared to 2019.**

## The experience of our production managers guarantees the highest quality of the pellets and a carefully combined recipe

To achieve uniform quality, all five groups of raw materials are mixed in the production of industrial wood pellets. In order to achieve resource efficiency and to properly follow the waste hierarchy, the energy sector cannot pick and choose raw materials. Therefore, we use all the mentioned categories of raw materials and all common local tree species. Everything left over from the sawmill industries, or forestry sector close to the factory must be accepted and processed by the energy industry.

The long-term experience of the production managers of the factories allows them to achieve the best quality wood pellets, which ensures that the requirements of length, hardness, particle size, and calorific value are met even with constantly changing material and weather. We regularly analyze the quality of production in the laboratory of each factory several times a day; In addition, the quality of the pellets is regularly checked by independent laboratories both in intermediate warehouses and on-site at customers' premises.



**Kert Kruusimägi,**  
biomass purchasing manager:

“2021. In 2018, the Baltic timber market faced major challenges due to the tightening of sanctions against Belarus and in the spring due to unexpectedly imposed cutting restrictions. The entire forestry and related industries were affected. The flow of raw materials necessary to ensure stable and optimal operation was seriously disrupted. Due to the sanctions, the exceptionally cold December, and the sharp increase in the use of wood chips in power plants due to the high price of electricity, at the end of 2021, a sharp increase in the price of low-quality stemwood, which had remained stable for many years, began.”



**Haralds Vigants,**  
head of SIA Graanul Invest:

“According to the circular economy principles, we cannot sort out wood species that are more convenient for the pellet industry from the residual wood of the forest industry. Spruce, aspen, and alder have very different properties, and thus we have to combine different raw materials wisely based on years of experience in production. We mix hardwood and softwood together on the production lines to ensure the maximum quality of the pellets and the trouble-free operation of the production equipment. We can convert practically all biomass into environmentally friendly biofuel, which is unsuitable for the wood industry, into environmentally friendly biofuel. As a producer of wood pellets, we are a vital partner for neighboring sawmills and enable environmentally friendly reprocessing of all residues generated during production of sawn material, which until relatively recently was simply transported to a landfill for composting, with minimal logistics and transport costs.

# The “recipe” of our wood pellets



# Graanul Invest pellet production in 2021

Graanul Invest's factories in 2021 produced 2,505,143 in 2021 tons of wood pellets: 38% in Estonia, 48% in Latvia, 11% in the USA, and 3% in Lithuania. The production volume was 5.5% (145,572 t) less than the previous year when our absolute record was achieved.

Production volumes fell in all countries. Production units that had a decline in volume experienced region-specific or technical issues. A common overarching factor in 2021 was of course feedstock supply which had obstacles in usually stable material flows.

Graanul Invest produces most of its pellets from sawmill residues. Our production is at the end of the wood sourcing and processing value chain of our local circular economy. We can feel the effects of all parties affected by positive and negative developments in the value chain without having a role in the first part of the chain.

The behavior of the undemocratic government of Belarus brought the majority of the products of their forest and timber sector under the sanctions of the European Union.. The opportunity to export wood to the Baltic market was preserved only for a few companies owned by EU parents. Sanctions also reduced the volume of waste streams from previously imported Belarusian wood industries in Graanul Invest's raw material basket.

In terms of the group, the decrease in Belarusian imports was summed up in the production volume, which fell by a few percentage points. At the same time, in the case of some individual factories, 10-20% of raw materials disappeared from the market, which had to be promptly replaced with new raw materials and supply chains in 2021.

Graanul Invest suppliers and physical supply chains are stable, optimized, and built over a long period. Rapid changes are possible but inevitably lead to inefficiencies.

The forest and wood sector supply chain still begins in the forest. The planning and success of the work there determine the key parameters of the entire wood industry, the construction sector, and bioenergy production. This is both in terms of energy efficiency and financial results.

Forestry operations are planned long in advance, and since wood is cut in small quantities in the Baltic countries, any sudden restrictions and obstacles are very painful for the sector.

In the Baltic countries, forest operations suspended as part of spring-

time felling restrictions - "bird peace" - definitely had a big impact on the sector's performance and the supply chain's efficiency. At the forest level, forest owners and managers are the only implementers of nature conservation measures - they are the real guardians of biodiversity. It is almost impossible to operate and comply if the restrictions are enforced in the middle of the work season or a few days in advance, immediately canceling the work that required half a year of planning.

This kind of practice does not have a noticeable supporting effect on the species richness of birds or nesting sites. However, it has a devastating effect on the Estonian forest and wood sector and, through it, on the construction sector, residential heating, and green electricity prices.

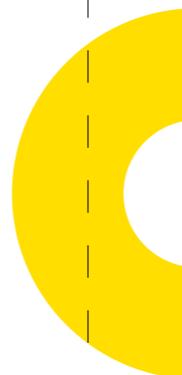
Forest managers and the entire timber sector take nature conservation restrictions very seriously, but their long-term and desired results will only be achieved if temporary and permanent restrictions are followed consistently and systematically.

As a result of forest works that were suspended and prohibited at short notice, in the second quarter, the raw material warehouse of several wood industries was empty, and the workers were on forced leave. These gaps also spilled over into the wood sector's waste streams and became the second main reason for our lower production volume.

At the individual plant level, the largest drop in production volume was at our Woodville plant in the USA. Changes in structure, technology, and logistics have disrupted routine operations to the extent that production fell by nearly 14%. The effects on production would have been even greater. However, the quick and efficient response of our group's employees and cooperation partners has ensured production stabilization.

## Factory production by country

Estonian production	956,437	38 %
Latvian product	1,194,519	48 %
Made in USA	270,083	11 %
Lithuanian production	84,104	3 %



# Our environmental life cycle and production footprint

Graanul Invest evaluates its overall environmental benefits on a lifecycle basis. Although wood pellets make it possible for energy producers to prevent more than 90% of fossil emissions without compromising energy production output, a fully transparent value chain can lead to additional efficiencies and continue to support global climate challenges.

Since 2018 we have calculated, monitored, and verified our environmental footprint based on the lifecycle approach methodology established in the renewable energy directive. This has been one of our most important KPIs since it considers the performance of our feedstock sourcing chain, production footprint, and the logistics of the finished product. Our footprint is already the best in class, but we need to improve all links in the value chain to speed up our positive impact on the climate challenge.

We have managed to improve this KPI every year since we started calculating it in 2018, but 2021 has been our biggest improvement yet! The carbon intensity of our GHG footprint has reduced 6.35% to 6.63 grams of CO<sub>2</sub>-eq for every MJ of pellet energy. That is a significant reduction, considering the footprint is a weighted average of 12 production units with their sourcing and supply chains.

Keeping this parameter under control and in continuous improvement requires a comprehensive approach in all business areas. In brief, the action plan is as follows:

**1. Sourcing chain** – Working in partnership with our suppliers to optimize the production phase to improve their overall carbon footprint – monitoring the weighted average sourcing distances would not exceed historic levels, monitoring that feedstock transportation fuel consumption would not increase and that feedstock load packing efficiencies remain high.

**2. Production chain** – Increasing the share of renewable electricity used by the Group and improving the assets' energy efficiency, upgrading and installing state-of-the-art emissions controls to reduce volatile organic compounds.

**3. Supply chain** – Working in partnership with our supplies to increase the use of large volume bulk carrier vessels with a lower footprint per ton kilometer.

**4. Value chain** – Actively promote and support the use of higher fuel efficiency and seek ways to convert to renewable fuels.

The biggest influence on the reduction of the footprint was the reduction of raw material flows outside the Baltics and the improvement of energy efficiency in several factories.

It is also important to point out that partially our footprint reduction was due to low production volumes in our Woodville pellet plant. It is the production unit with the biggest life cycle footprint, and in 2021

they produced fewer pellets than originally planned. This contributed to the reduction of our weighted average footprint. We have set our KPI targets are based on complete production plans at optimal efficiencies.

Sustainability-linked instruments will enable the Group to commit to specific sustainability and environmental outcomes as part of our effort to fight climate change and protect biodiversity. The instruments will leverage ambitious timelines to achieve sustainability and environmental performance that is relevant, core and material to its business. Aligning financing to Graanul Invest's sustainability performance signals a strong commitment to implement the Group's sustainability agenda.

Graanul Invest has thus established a Sustainability-Linked Financing Framework (the "Framework"). Graanul Invest's instruments under this Framework will be focused on contributing to SDG\* 12 (responsible consumption and production) and SDG 13 (Take urgent action to combat climate change and its impacts), relating to climate change or environmental degradation.

\* The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

## CO<sub>2</sub> footprint of pellet production g/MJ

7.08      **6.63** gCO<sub>2</sub>-eq/MJ



## Certified and controlled quality

A certified, controlled, and continuously monitored supply chain provides a full guarantee that the raw materials used for the production of pellets come from sustainably managed forests. Our goal is to introduce the highest and strictest standards on the market in raw material procurement, production, and transportation to guarantee our customers pellets with the smallest possible environmental footprint.

Our controlled and precise supply chain ensures that the journey of every load of wood entering the factory is described and traced back to the specific forest property from which the original biomass originated.

Internationally recognized certification systems make our work transparent and reliable for our partners. Nowadays, the use of certificates is no longer just for forestry purposes, but the ecological footprint of production, the efficiency and transparency of supply chains, and the amount of green energy used for production are just as important.

Both compliance with the requirements of the certificates and the quality of the standards of the management system, are checked and audited by independent auditors several times a year. The auditors are quality assessors commissioned by major international clients, controllers of certification and management systems and standardization organizations, as well as our own regular partners providing auditing services.

**The state-of-the-art quality, standards and control systems implemented by Graanul Invest are not an obligation set by the market. Our goal is to ensure complete transparency of the group's sourcing process and supply chains and our desire to be the world's most progressive sustainable biofuel producer.**

## Graanul Invest certificates:



- **SBP** – Sustainable biomass and value chain certification held by all our factories.  
It is the most important, recognized, and positively influential certification in our sector. This is because the detailed requirements and supervision extend to the entire chain. From storing raw materials to shipping goods and from the carbon cycle of forestry to the energy sources of production.
- **PEFC** – sustainable and transparent supply chain, which defines the requirements for the transparent supply of certified raw materials and helps identify and mitigate potential risks in supply chains. All our factories have this certificate.
- **ISO 9001** – quality management system certificate extends to the product's physical quality, company procedures, operating environment, and customer satisfaction. All European factories have this certificate.
- **ISO 14001** – environmental management system certificate ensures that the company maps and manages its environmental aspects and engages in monitoring that exceeds the requirements. All European factories have this certification.
- **ISO 45001** – occupational safety and – health management system certificate held by all our European factories.
- **ISO 50001** – energy management and performance certificate ensures systematic and effective energy consumption in our ten factories in Estonia and Latvia.
- **FSC (R)** – sustainable and transparent supply chain, which defines the requirements for the transparent supply of certified raw materials. All European factories have this certificate.
- **FSC CW (R)** – a certified wood certificate that helps identify and mitigate potential risks in supply chains. All European factories have this certification.
- **ENplus (R)** – assurance of physical product quality and standardized laboratory procedures for measuring it. Six factories in Europe have this certification.

## Controlled raw materials and discussion with stakeholders

In the supply chain, we control certified forest management and the movement of woody biomass from the forest through all production chains up to our factories. As each load of timber is linked to an exact property, we always double-check against all environmental restrictions to rule out the use of controversial timber from protected and prohibited areas.

The assortments and quantities of wood used for production are checked and confirmed to the nearest 10 kg. All information is also transferred to the next user of biomass, i.e., the end consumer, who can ensure the same top-level audited transparency for local stakeholder groups and regulators.

There are few value chains worldwide where verification is so detailed and requirements are regulated as precisely as in bioenergy sector.

### Discussion with interest groups and independent control of criticism

The forest industry affects and includes interest groups from both big cities and rural areas, where the majority of raw materials come from and where it is produced.

We take public criticism seriously and, if necessary, investigate all claims and accusations with the help of independent experts. If the production of pellets can be made more transparent or the environmental impact can be further reduced, we will do it.

During 2021, no violations were detected in relation to the group's sourcing of raw materials. There was and continues to be a regular debate with European environmental organizations about bioenergy, often based on indiscriminate criticism towards globally recognized forest management practices.

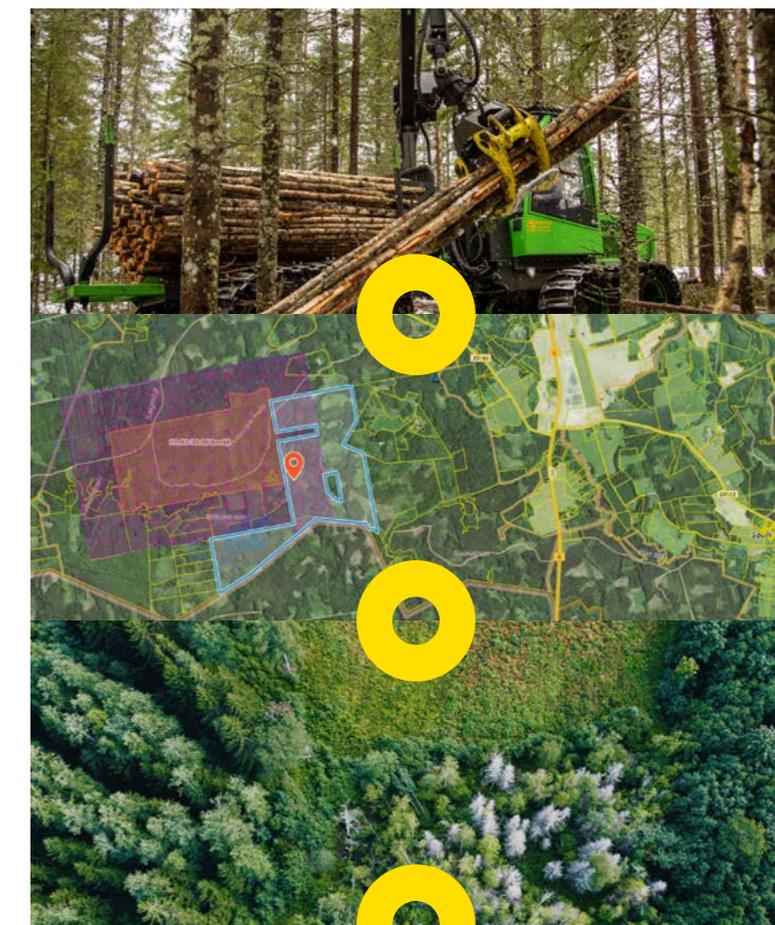
Unfortunately, there are still malicious misrepresentations about which feedstock reaches Graanul Invest factories and that the sole purpose of forest harvesting is to source biomass for the production of pellets.

The process of recording, investigating, and acting on claims and allegations made by different stakeholder groups is also a regulated and audited process. In the "problematic" cases brought to the public in 2021, the forest management details, harvest conditions, volumes and connections with the bioenergy sector were created

without any evidence. The criticism failed to mention the fact that forest management is always carried out to produce the highest value product and to supply the timber industry with high-quality saw logs.

In a circular economy, the pellet industry uses only that part of the material, which is either directly the waste from the processing industry or is the lowest quality wood from the forestry sector. This material does not have any application in the production of long-term carbon-sequestering products.

We are always open to direct and immediate feedback from interest groups, so that we can immediately deal with the questions and potential problems at hand. After careful verification of stakeholder input and, if necessary, independent auditing, we are always open to sharing the topic with the public and the media.



## Electricity usage

Graanul Invest's cogeneration plants (CHP) produce green energy with the highest possible efficiency. The well-optimized energy system supplies our pellet plants with thermal and electrical energy and partially supplies the local power grid with green electricity. All six cogeneration plants of the group are located near factories in Estonia and Latvia.

The key to cogeneration technology's efficiency is using both produced electricity and thermal energy with as few leaks and losses as possible. In both our current and new development projects, we ensure that the input energy is produced from biomass with a minimal carbon footprint and that energy efficiency is at the best possible level.

The efficiency of Graanul Invest's cogeneration plants is ensured by our factories' high heat energy requirement. The stations are designed considering the pellet plant's heat load, which allows the production of electricity and heat from biomass with the best possible efficiency throughout the year. It is noteworthy that even in the summer period, we can use a significant part of the steam left over from electricity production as an energy input for pellet raw material dryers.

**In 2021, Graanul Invest produced more than 14% of all renewable bioelectricity in Estonia (217.5 GWh / 1536.5 GWh; source: Elering).**

**Compared to 2020, this share has decreased by 3%. Our factories' production is stable, but the total amount of electricity produced from biomass, mainly wood chips, increased by ~ 22% on the market, thanks to the high price of electricity in the Baltics market.**

**In 2021, the Estonian market's electricity produced from biological sources accounted for 59% of all renewable electricity production and 24.2% of all electricity produced.**

## 325 GWh

In Estonian cogeneration plants, we produced a total of **217.5 GWh** of carbon-neutral electricity in 2021 and 325 GWh in the Baltics, which is marginally less than the previous year. If there are no major technological downtimes, all of our cogeneration plants work close to maximum load, and the amount of energy produced fluctuates very little on an annual basis.

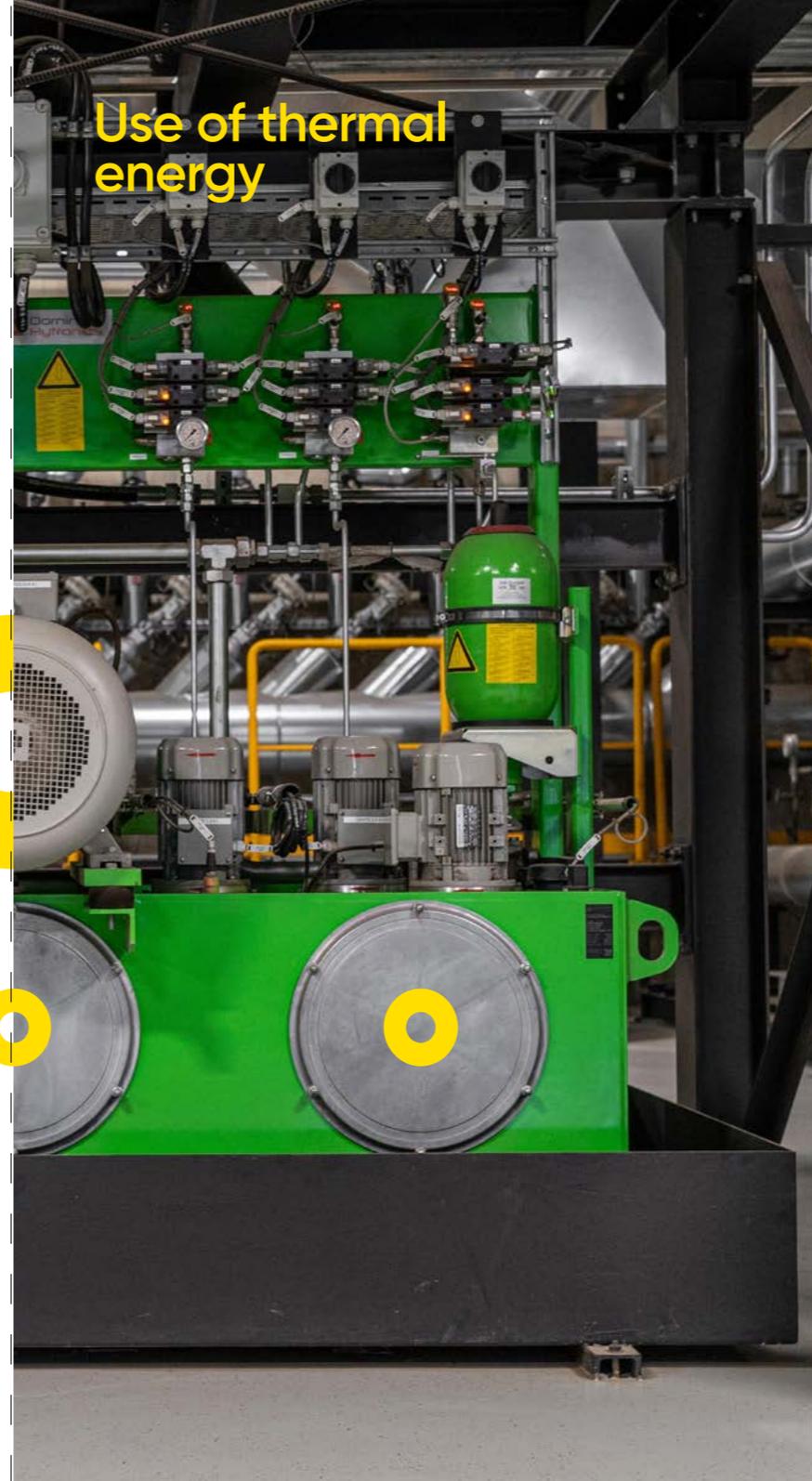
Bioelectricity, i.e., electricity produced mainly from wood-based biomass, accounts for more than 56% of the renewable electricity produced in the Estonian grid and 26% of the electricity in the entire Estonian grid. In the Baltics, we produced 325 GWh of fossil-free green electricity in 2021. This is 12 GWh less than on a year before.

One of the most important key indicators of our economy is the specific cost of electricity. The electricity consumption of European factories for the production of a ton of pellets has remained stable for years, barely exceeding the limit of 140 kWh/t. Our technical teams work consistently to reduce the special electricity consumption of the Woodville plant in America below the 150 kWh/t limit. We have been monitoring this for years and have set goals for reducing power consumption.

Despite the stable and well-optimized production process, electricity consumption became into sharper focus in the Baltic countries in the second half of 2021. In the deficit electricity market of the region, the price started to rise sharply in the last quarter, and due to the exceptionally cold beginning of December, the hourly electricity prices on the stock exchange exceeded € 1,000/MWh in some hours. Against the background of a significant price increase and high volatility of hourly prices, we are looking for measures to manage the production process of the Baltic factories flexibly based on the hourly exchange price of electricity.

All the electricity of Graanul Invest's cogeneration plants is exclusively produced from environmentally friendly and carbon-neutral biomass. In terms of purchased grid electricity, the share of renewable energy in the Baltic market is gradually increasing. This is primarily due to the increase in the profitability of energy from wood biomass due to the increase in the electricity market price. Paradoxically, this made one of our main inputs - electricity - even more environmentally friendly, but at the same time, the sudden increase in the share of wood chips in Eesti Energia's electricity production shook the market for low-quality stemwood, which had remained stable for many years, and also led to a sharp price increase of this important feedstock.

## Use of thermal energy



## 915+922 GWh

Thermal energy is the most important input for pellet production. Using heat, we reduce the water content in the raw material in dryers from the initial 50% to near 5% in the final product. The energy cost for extracting moisture is high, and as a result, we only use the energy produced locally from carbon-neutral biomaterial to produce thermal energy.

Cogeneration plants and drum dryers are fueled by the lowest quality biomass that cannot be used for pellet production - for example, tree bark or chopped branches.

The thermal energy produced by Graanul Invest comes from a 100% renewable source. For us, a big technological advantage are the six cogeneration plants belonging to the group, which enable production of heat and electricity with maximum energy efficiency. At the same time, modern plants have high-tech filters that capture most of the air emissions, making our pellet production the best in the market in terms of CO<sub>2</sub> and other pollutants (fine particles, aromatic compounds, etc.).

**In 2021, we produced 915 GWh of heat energy in cogeneration plants, the same magnitude as the previous year 2020, when we produced 4 GWh more heat.**

The amount of thermal energy produced in biomass boilers is significantly dependent on the weather and the temperature of the winter period: we use as much additional heat energy as necessary and as little as possible to dry the raw materials.

Graanul Invest continues to be an example among industrial companies, producing 100% of the thermal energy consumed in our process on-site from local carbon-neutral and renewable raw materials. The average share of thermal energy produced from renewable sources in the European industrial sector is more than four times smaller, only 22%.

Wood pellets and biomass, in general, continue to have great potential to be an energy carrier for all thermal energy intensive industries and to replace energy produced from fossil fuels, mainly gas and plastic-rich waste fuel.

## The use of water

Our factories use water only for operational support functions. The production of wood pellets does not require adding water, and there is also no dilution or cooling with water in the production process. Rather, our process spends significant time and resources on removing the naturally occurring water from the woody biomass, the raw material for making wood pellets. Our company uses water for domestic purposes, for washing equipment, and as a heat energy carrier in a closed system.

Since the production volumes in 2021 were smaller than the previous year, it is logical and expected that the total water consumption also decreased. In improving production performance and reducing the environmental footprint, the most important parameter is the specific water consumption, i.e., how much water was used for each ton of pellets produced.

**In 2021, the specific consumption of primary water was 0.096 m<sup>3</sup> per ton of production. This is 0.004 m<sup>3</sup> more than the previous year (0.092 m<sup>3</sup>/t), equivalently 4 liters less than in 2019 (0.10 m<sup>3</sup>/t).**

The amount of water consumed is affected by several factors over which we have no control (climate and characteristics of raw materials). However, it is still important in the group to ensure that the fluctuations are small and that the specific consumption remains close to the set goals. If the specific consumption of water increases as a percentage more than the annual pellet production decreases, then you must find the reason and start monitoring and improving it.

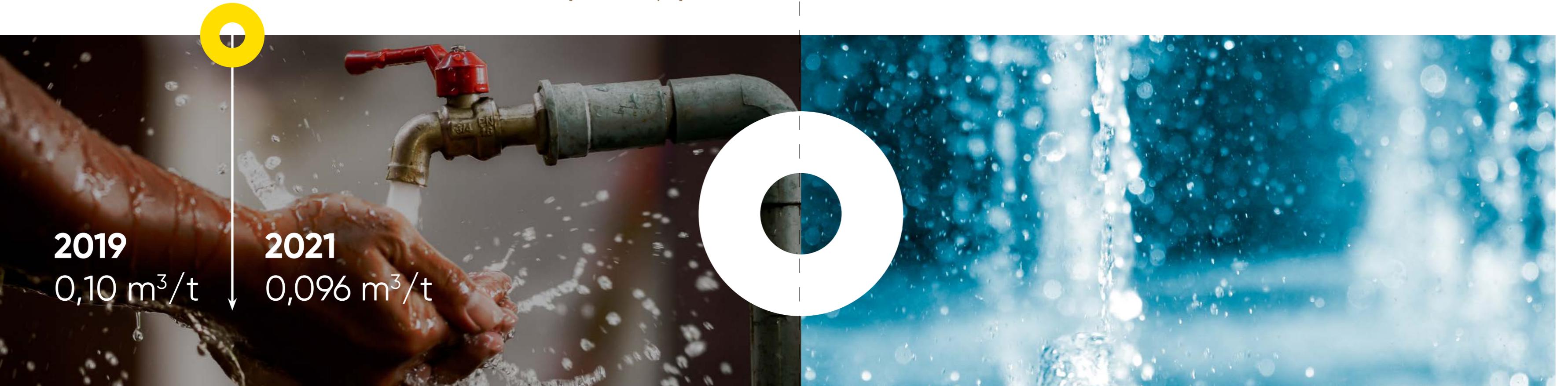
The production volume in 2021 was 5.5% lower than in 2020, while the specific consumption of water increased by 4.1%. This shows that the specific water consumption remains within similar limits compared to previous years, and there is no need to conduct a more detailed internal audit.

Considering the scale of the company, our specific water consumption is minimal in the context of the processing industry. However, the continued reduction of primary water use will remain

our goal despite the low consumption. Every factory strives to find ways to reduce consumption. Improvement activities across the group range from reusing routine water samples and changing equipment cleaning habits and tools to implementing meter-based monitoring in different parts of production.

The latter is necessary when all the obvious improvements have been made, and additional information will be collected to identify new water-saving opportunities through data analysis.

The lowest specific water consumption is at our Alytus plant in Lithuania (0.02 m<sup>3</sup>/t, and the highest is at the Helme plant in Estonia (0.183 m<sup>3</sup>/t. Although these factories are technologically very different, and it would be far-fetched to compare them, Helme Graanul still has a long way to go for improvements in the context of the group's average special cost. The team there is serious about the challenge and showing constant progress.



**2019**  
0,10 m<sup>3</sup>/t

**2021**  
0,096 m<sup>3</sup>/t

# Environmental impact of logistics

Considering our wood pellets life-cycle environmental impact, the two most significant influencers in the logistics are our partner-related transport of raw materials and shipping, the marine fuels used to transport our pellets to the customer.

The majority of raw materials, both sawmill industry residues, and low-quality stemwood are transported to the factories by trucks. If possible, e.g., when importing sawmill residues from Belarus, we have also used rail transport with a significantly lower tonne-kilometer footprint than is in truck transport. It is essential to highlight that today in 2022, all imports from Belarus have entirely stopped due to the war in Ukraine.

Years ago, we set a 70 km limit for an average woody biomass procurement radius. This range has been stable between 53 and 58 km for many years and remained in the same range in 2021. The raw material collection radius came under sharper focus at the end of 2021. The timber and woody biomass market, which had remained stable for more than five years, suddenly faced significant turbulence. The Belarus import restrictions and rapidly increased use of woody biomass for electricity production resulted in a shortage of wood chips and low-quality stemwood on the Baltic market, and a sharp price increase. An exceptionally cold December amplified the rising problems even further, depleting local heating companies biofuel reserves at incredible speed, resulting in even higher demand on an already overheating market.

Due to these circumstances, we had to quickly find alternatives for the highly efficient supply chains we had fine-tuned for years to achieve the best long-term efficiency. Setting up new woody biomass sourcing partnerships can temporarily affect the footprint of logistics in a negative direction.

One substitute for the local biomass in Baltics is to ship it in from



Scandinavia. The overseas sawmill residues would increase the procurement radius. However, thanks to the very efficient ton-kilometer shipping value and relatively short shipping distances, it shouldn't result in a negative effect on the carbon footprint of the logistics chain in the future.

A significant part of the raw material is transported with large front loaders inside our production unit territories. We pay active attention to fuel consumption and regularly train drivers to ensure safe, smooth, and fuel-efficient operation.

We measure every load of woody biomass entering and leaving the factory with an accuracy of 10 kg-s.

We work very actively with our transport partners to achieve the smallest possible carbon footprint for the transport chain. The best solution is to load trucks to the maximum permissible limit in road transport.

We use a high-precision and innovative measurement solution Loadmon. It can measure both logs and bulk loads, providing accurate metrics about the load. Large cavities and errors in loading quality are detected, missing bulk-trailer capacity is also measured. All of the above is done without human intervention. The modern automatic digital measurement system is incomparably more accurate than the still standard indirect estimation methodology of human operators. The software solution also involves completely paperwork-free logistics with digital procedures.

Our goal is simple: to ensure that both inbound and outbound trucks are loaded with biomass closest to 100% of the permissible weight of the cargo and thereby ensure the best possible ton-kilometer CO<sub>2</sub> footprint.

In 2021, the share of transport in our overall CO<sub>2</sub> footprint compared to the energy equivalent of 1 MJ delivered to the end customer dropped significantly by 8.6%, to 2.55 grams.

**Olari Tiide**, Logistics manager, Graanul Invest

"Sustainability and reducing the ecological footprint of our products has always been a priority of Graanul Invest. All our customers expect the product's carbon footprint to be as small as possible at the expense of the energy used in transport and production. The demand for environmentally friendly biofuels is growing. Optimally sized vessels are a good opportunity for our group to organize logistics in the best way and to control the price of transportation of the wood pellets in the long term. In addition, the carbon footprint of transport is also significantly reduced. Investing in a new ship is a direct benefit for both the environment and the company."



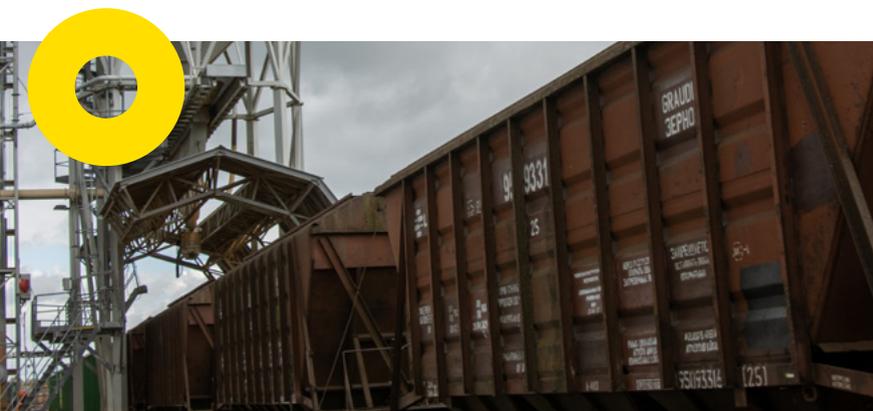
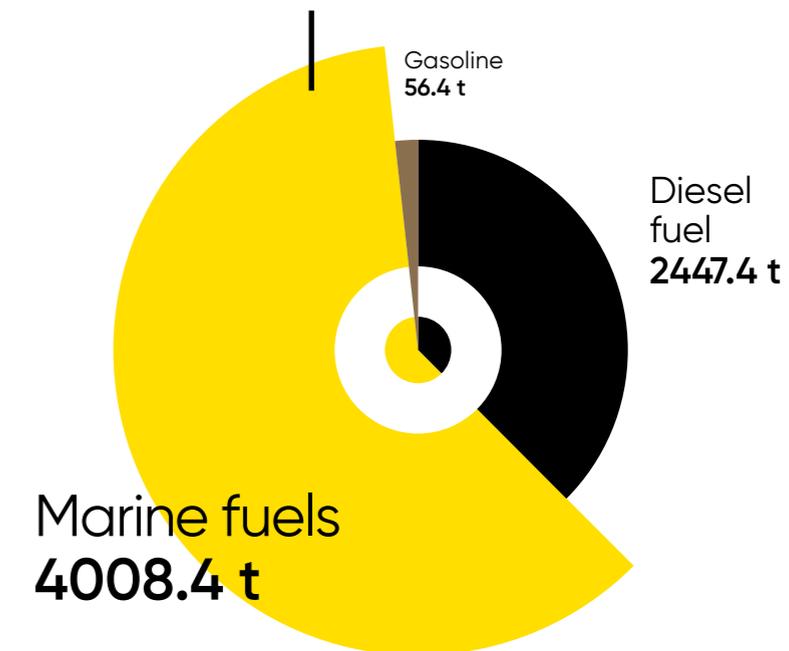
## We purchased two new ships

Delivering wood pellets by sea to the large Energy companies across Europe is the most crucial part of our logistics.

To increase the accuracy of deliveries and reduce the cost of both shipping and the environmental footprint, we bought two new ships in 2021. In addition to our bulk carrier "Imavere", we acquired its sister ship, the 186-meter, 36,000 t "Alytus," and in the last month of the year, we signed a contract to purchase the smaller, 133 m ship "Launkalne" with 8100 t carrying capacity.

Considering the use of marine fuels, it is noteworthy that 93.3% of the total fuel used by our ships, 4008.14 t, was fuel with very low sulfur content. Almost all the transport activities concerning our vessels are done inside the SECA shipping area. It covers the Baltic Sea and the North Sea east of the British Isles, where the marine sector's strictest environmental requirements apply to marine fuels. The permitted sulfur content in the fuel is up to 0.1%, five times less than is permitted in the oceans under the IMO2020 regulation.

## Distribution of transport fuels in the Graanul Invest group in 2021:



## Footprint of CHP-plants

### Our 6 heat and power cogeneration plants (CHP) in Estonia and Latvia use exclusively renewable biomass as the fuel.

For local heat and electricity production, we can use the lowest quality biomass from forestry that is unsuitable for wood pellet production: wood bark and fine branches. Most of the bark comes from our de-barking process next to the CHP and wood pellet factory with minimal transport or from the neighboring sawmill.

Forestry is one of the few industrial circular economy examples where no waste is generated when the woody biomass moves between industries.

Even though we use exclusively renewable biomass in the natural carbon cycle, direct CO<sub>2</sub> emissions related to energy production still occur due to the fossil fuels used in logistics. The carbon footprint of CHP-s is, therefore, directly related to the logistics sector, and we devotedly work to reduce the amount of fuel used in transporting biomass. There are two key actions for this: we purchase CHP hog fuel from the nearest possible sources and we also monitor the moisture content of this fuel to avoid unnecessary hauling of water.

The radical timber felling restrictions in spring and summer, implemented in 2020, have made it significantly more challenging to stockpile the biomass for all CHP plants during the summer period. The woody biomass cut in the second half of the summer cannot be sufficiently dried before being chipped and transported. Transporting wood chips with high moisture content directly increases the CO<sub>2</sub> footprint of the entire forestry sector, as well as the energy sector.

All of our CHP-s are equipped with state-of-the-art electric filters that capture 99% of solid particles in flue gases. Modern biomass boilers with high-tech cleaning systems are the best technological solution for supplying industrial processes with sustainable energy.

The wood ash produced in CHPs is also not waste but is increasingly used as fertilizer. The ash from our boilers is suitable for organic agriculture, providing essential micro-nutrients, potassium, and lime.

Thanks to the rising prices of mineral fertilizers and import sanctions from Belarus and Russia, the potential for agricultural use of wood ash will increase even more. In total, our factories generate about **2,500 t** of ash per year. Considering that all our production units are located in rural regions with intensive agriculture, it is organically and circularly possible to return all the minerals and nutrients to the neighboring fields and nature. Wood ash is also suitable fertilizer in forestry and in granular form in the horticulture sector and greenhouses.



All of our CHP-s are equipped with state-of-the-art electric filters that capture 99% of solid particles in flue gases. Modern biomass boilers with high-tech cleaning systems are the best technological solution for supplying industrial processes with sustainable energy.



# Occupational safety

In 2019, we implemented an interactive and intelligent software solution for occupational safety monitoring and reporting in all our production units worldwide.

The main goal is prevention: we can detect deviations and violations of safety requirements before they lead to an accident.

Regular safety training of employees plays the biggest role in prevention. The increasing awareness and attentiveness help to keep safe both the employee himself and his colleagues.

Safety controls in pellet plants are carried out quarterly, four times a year. The best units of the group have a **safety index of 0.41, the average is 0.86.**

In 2021, we had five accidents per 500 employees in the group.

**Mitigation of the risks of COVID-19** was an integral and pervasive theme of 2021. Our factory teams are small, and the risk of production interruption due to a pandemic virus infection was always present through the waves of virus outbreaks. At the peak of the pandemic, we avoided any traveling of employees between production units to

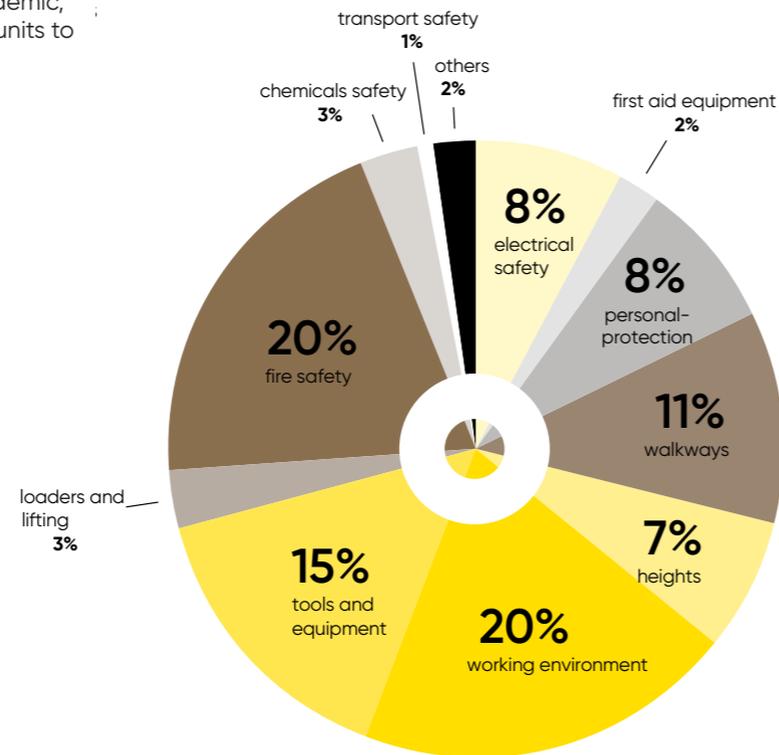
avoid the risk of cross-infection between different collectives and to avoid unnecessary close contact.

Thanks to continuous communication, careful assessment of each case and the possibility of free testing, we managed to avoid production interruptions in all of the factories.

At the end of 2021, the US Woodville plant started active cooperation and practical training with the local firefighting team. The aim is to increase the employees' awareness and skills in behaving in the event of an accident and to enable rescuers to get a better knowledge of the complex production site, its territory, and its risks.

## Risks and dangers

	%	Number of occurrences
Electrical safety	8	28
First aid equipment	2	6
Protective equipment	8	29
Walkways	11	41
Working at heights	7	24
Working environment	20	74
Tools	15	54
Loaders and lifting	3	12
Fire safety	20	72
Chemical safety	3	10
Transport safety	1	2
Others	2	11



The main goal is prevention – so that we can detect deviations and also violations of safety requirements before they lead to an accident.



The overarching theme of 2021 was mitigating the risks of COVID-19.



## Contribution to society

All Graanul Invest factories are located in rural regions with a strong sense of community. Our production units are everywhere among the most important employers in the municipality, offering professional applications for engineers, specialists, and also positions that do not require special education but allow them to start working after training on the spot.

For empowering the local community, we have focused on projects and charity financing related to local stakeholder groups.

**We support over 50 projects in Estonia, Latvia, Lithuania, and in Texas, U.S.**

On a larger scale, we support professional and youth sports at the national level in Estonia and Latvia, where we have the most production units. The jointly sponsored sport is volleyball.

Recently we have shifted our focus to supporting local young volleyball players and local clubs to help and motivate the best local players to progress to the best sports schools and to develop at the highest possible level.

In Estonia, we also support the best Nordic Combined athletes and the national juniors cycling team.

The biggest number of support and cooperation projects are smaller contributions and grants to the local community. In the Baltics, we support education-related projects that are focused on the youth. In Texas, our team has actively contributed to the well-being of local underprivileged community members: we donated 100 duffle backpacks to the homeless. In Woodville, we support knowledge-sharing on the energy efficiency of homes in cooperation with the local government.

**graanul**  
invest



**Hanno Pevkur,**  
President of the Estonian Volleyball Association

"Graanul Invest has supported club volleyball and the national team for many years. With the support of the main sponsor, we want to focus more on the next generation, to guarantee the best conditions for young people to play and practice."



## Policy making and raising awareness of the work of the forestry sector

As one of the largest wood processing companies in the region, we are in an active dialogue with state- and municipality-level political working groups and as well with the local community, NGO-s, and other stakeholders related to the forestry sector.

In October 2020, the CEO of Graanul Invest, Raul Kirjanen, was elected as the CEO of the Estonian Forestry and Wood Industry Association. The role of our company in forestry-related communication and in different stakeholder expert groups was more significant than usual.

We actively participate in the work of the international SBP (Sustainable Biomass Program) standards committee. The organization is divided 50:50 between representatives of the civil society and the industry. The committee's purpose is to set standards for the sustainable use of biomass, and to advise other SBP committees and the board.

In November 2021, Graanul Invest and many other bioenergy industry leaders signed the Glasgow Sustainable Bioenergy Declaration. Graanul Invest's vision formulated in the document is the ambitious growth of the industry to support countries and communities globally to achieve the goal of zero CO<sub>2</sub> emissions and to set a realistic roadmap.

The framework includes accurate carbon accounting and supply chain transparency, resource management, biodiversity conservation, and support for communities.

The Glasgow Declaration Signatory Group calls on all other organizations involved in the bioenergy sector, including industry, civil society, academia, and governments, to join the signatories and help achieve the full potential of sustainable bioenergy to reach zero emissions globally.

To increase general awareness of the forestry sector, we actively cooperate with NGO-s and forestry sector stakeholder groups in the Baltic countries. Despite Covid-19, we opened our factories to the local community and schools through various events to introduce and explain our production-related specifics.



**Haana Zuba-Reinsalu,**  
President of the Estonian Forest Society and director of Forest People's Day

"Today, there is not a single county without a forestry event taking place. The country's best-known forestry leaders and their teams have specially prepared programs that offer guests a genuine emotion and the joy of acquiring new knowledge."

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