



2023 SUSTAINABILITY REPORT

**Weaving for the future:
Sustainability in every fiber**

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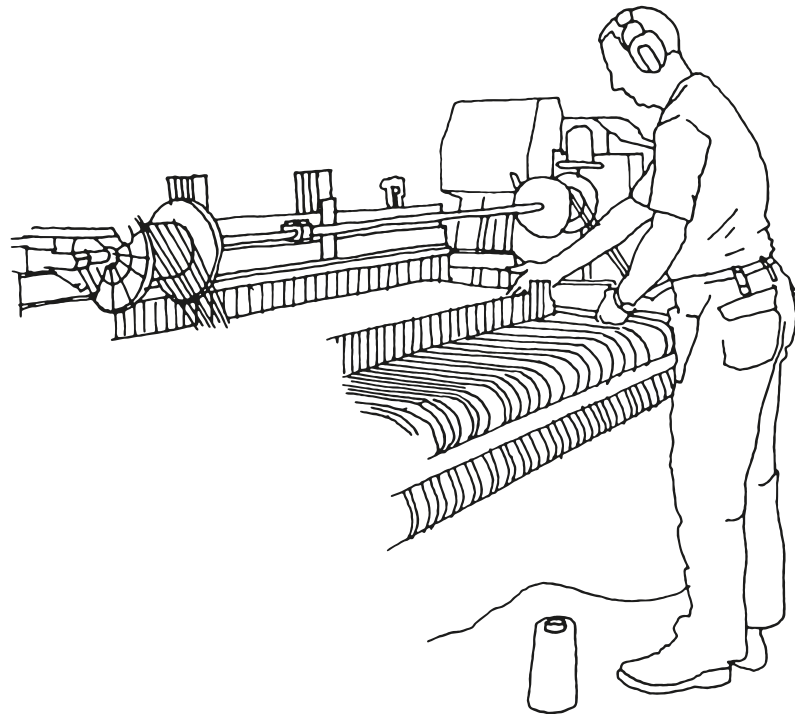
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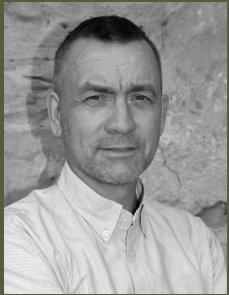
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1.0 MESSAGE FROM OUR CEO

At Gudbrandsdalens Uldvarefabrik, we have a remarkable foundation for the green transition. As one of few textile manufacturers, we are vertically integrated, with all processes under one roof, allowing us unique control over our value chain. Our focus has always been on producing durable products that stand the test of time. Our national costumes fabrics are a perfect example, as they are often passed down through generations. However, we recognize that we are not yet where we want to be; there is still much work to be done.

We have started by addressing the areas of our operations with the largest footprint: propane consumption in production and textile waste. In 2023, we invested over 1 million euros in two water-to-water heat pumps that harness energy from our wastewater to heat new production water and for general heating. This initiative will reduce our propane consumption by half. Additionally, at the start of 2024, we began sending our textile waste to Norsk Tekstilgjenvinning in Sandefjord for recycling instead of incineration.

These efforts, along with many other initiatives detailed in this document, reflect our unwavering commitment to sustainability and innovation. We are excited to share our journey and the steps we are taking toward a greener future. Thank you for being a part of this important journey with us.

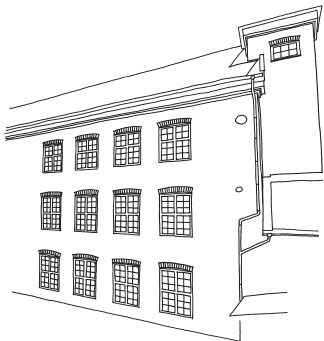
Bjørn Krekke
CEO, Gudbrandsdalens Uldvarefabrik

Baseline year: 2021
Target year: 2025

Contact person: Bjørn Krekke
Email: bjorn.krekke@gu.no



OUR KEY STAKEHOLDERS



External

- Customers
- Suppliers
- Government
- Trade associations
(Industry associations)

Internal

- Owners
- Board
- Managers
- Trade Union



2.0 WHO WE ARE

At Gudbrandsdalens Uldvarefabrik we have been practicing responsible production since 1887. We are a textile mill situated in Lillehammer that produce wool fabrics for upholstery and Norwegian national costumes

WHAT WE DO

In contrast to many other textile manufacturers, Gudbrandsdalens Uldvarefabrik has the entire production process, from freshly shorn and scoured wool to finished fabrics, gathered under one roof in Lillehammer. We know how the slightest of adjustments can improve quality throughout our production line.

For us, the future of wool-based textiles, inspired by our raw material's sustainable qualities, lies in our focus on research and development. The team consists of wool experts from all stages of the production. This gives us great control over the process, and opportunities for customer adaptations. We always design with sustainability, superior quality and longevity as main pillars; Wool for generations.

CERTIFICATIONS

- ISO 9001 - Quality Management
- ISO 14001 - Environmental Management
- EU Ecolabel
- DNV MED certificates

OUR MARKET SEGMENTS

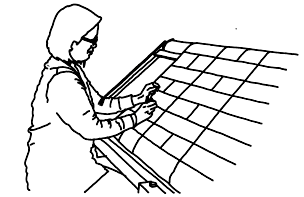
- Wool based fabrics for:
- National Costumes
 - Contract Furniture
 - Home Furniture
 - Cruise Ships & Ferries
 - Trains & Busses

NACE CODE

1320 - Textile weaving

LEGAL FORM

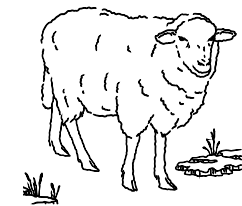
Gudbrandsdalens
Uldvarefabrik AS
NO996 131 491 MVA



NUMBER OF EMPLOYEES

72

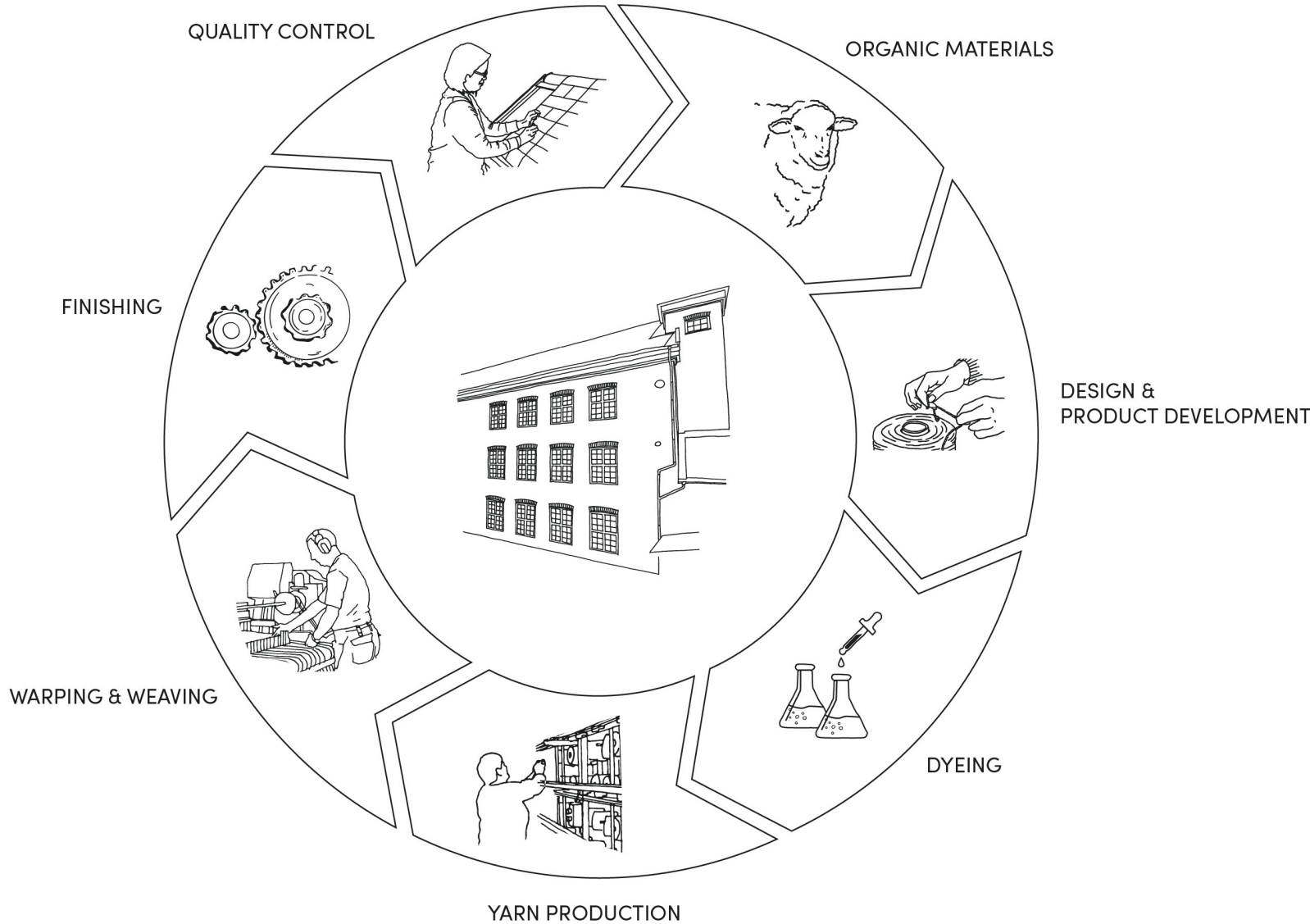
41 MEN / 31 WOMEN



KEY SUPPLIERS

- Norilia (Wool NO)
- Bloch & Behrens (Wool NZ)
- Wagenfelder / Vlnap (Yarn)
- Filatura C4 (Yarn)
- Bodo Möller / (Archroma) & Skandinavisk Textil Kemi Aps / (DyStar) (Dye stuff & chemicals)

OUR PRODUCTION PROCESS



3.0 HOW WE OPERATE

Transparency is the foundation of sustainability reporting. We here invite our stakeholders to understand how we run our organisation by providing insight into our core values, internal management structure and level of sustainability integration.

HOW WE GOVERN SUSTAINABILITY

At Gudbrandsdalens Uldvarefabrik, we are deeply committed to integrating sustainability into every aspect of our operations. To ensure this, we have established a dedicated sustainability working group that meets regularly to monitor progress and set new goals. The working group is comprised of key members of our leadership team.

Sustainability Comittee:

- CEO
- Quality Manager
- Senior Designer & Product Developer
- Sales- and Marketing Manager

Together, we collaborate to ensure that sustainability remains at the forefront of our business strategy, from product development to marketing and sales. Our goal is to foster a culture of continuous improvement, making sure that every decision we make is aligned with our commitment to a more sustainable future.

OUR CORE VALUES

VISION

Market-leading manufacturer in sustainable production of quality fabrics.

MISSION

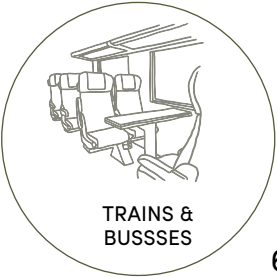
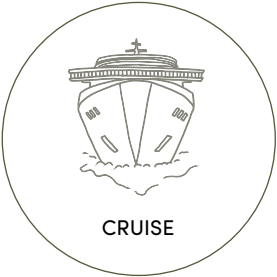
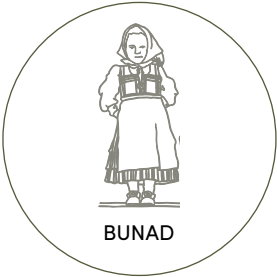
Wool for generations

VALUES

- Quality
- Knowledge & Expertise
- Responsibility

CUSTOMER PROMISE

"Our weave is our word".



4.0 SUSTAINABILITY DEVELOPMENT GOALS (SDGs)

We are always striving to improve. On the next pages you will find our our Sustainable Development Goals (SDGs), both from the UN and internally, in the next years to come.

In addition to wool's unique, sustainable characteristics, our complete control of the value chain allows us to push for evermore sustainable processes and products. Our use of chemicals is minimal, as wool fabrics can achieve a large proportion of the technical requirements in the industry quite naturally.

Sheep's grazing contribute to CO2 capture in the soil and in the sheep fleece itself. The fact that wool is bio-degradable and does not shed microplastics is increasingly important – as the majority of water pollution stems from plastic based fast-fashion and threatens every part of our biosphere. We are convinced that wool is the safer choice for the environment and are committed to ensuring the longest lifespan for our textiles as well as reducing our footprint.





OUR CLIMATE COMMITMENT

We are committed to producing with the least possible harmful impact on the environment. We continuously invest in technology, development and people. We live and breathe to create high quality, long-lasting, sustainably designed and produced wool-based textiles. Our textiles come from nature and last as nature intended, for generations.

SUSTAINABLE DEVELOPMENT GOALS

A Global To-Do List The Sustainable Development Goals (SDGs) were adopted by all United Nations Member States in 2015. They provide a plan of action for addressing the world's most pressing challenges. Even if just starting our sustainability journey, the SDGs remind us that our efforts are part of something bigger – that we together contribute to the peace and prosperity of people and planet.

Here is an overview of the SDGs that we have focused on throughout this reporting cycle.



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Make cities and human settlements inclusive, safe, resilient and sustainable.

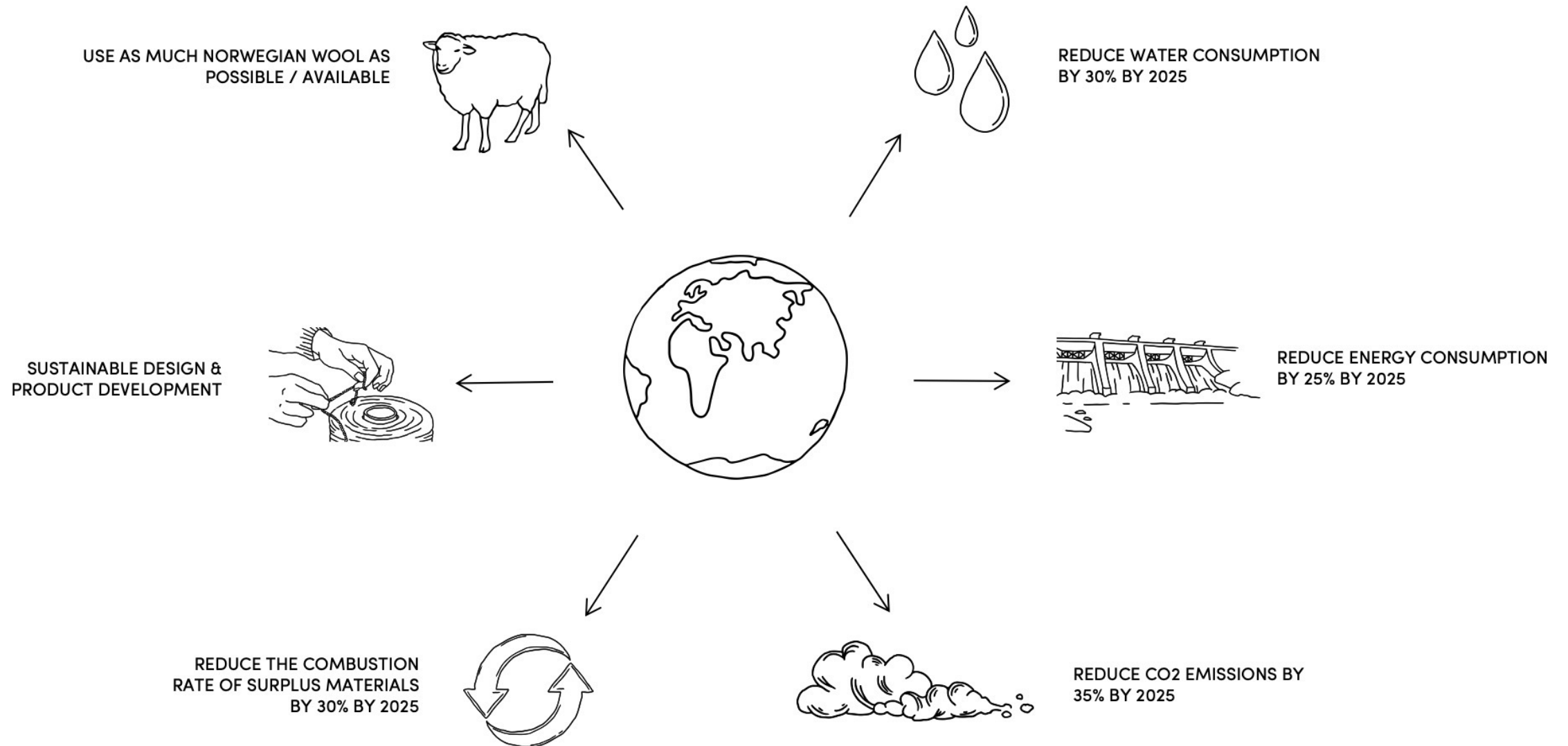


Ensure sustainable consumption and production patterns.



Take urgent action to combat climate change and its impacts.

OUR INTERNAL SUSTAINABILITY DEVELOPMENT GOALS





1. REDUCE WATER CONSUMPTION

Pure water in – pure water out! In our production we use water from the Mesna river that flows next to the mill. This means that we have strict requirements from the Norwegian Environmental Agency for our discharge water, which in turn goes through a treatment plant and into Norway's largest lake, which is a source of drinking water.

We are working to reduce water consumption by 30% during 2025. In 2019, we invested in a new Ultra Sonic washing machine which reduced overall water consumption by 10%. In the process of fiber stuffing we obtained a 33% saving in water consumption by introducing water-saving shower in 2023. We are also evaluating different ways to reuse water in our production line.



2. REDUCE ENERGY CONSUMPTION

We are working to reduce energy consumption by 25% during 2025. The new heat pumps installed in 2024 will be an important tool to reach this objective, and might alone contribute to reach a reduction of 25% in energy consumption in 2025.

Our company has a high level of awareness of consumption, such as looking at which facilities should run when, such as ventilation, heating fans, etc. We look after all small energy thieves such as light and heat, and work towards increased use of renewable energy. In 2022, we carried out an energy survey with subsequent proposed measures which are implemented on an ongoing basis.



3. REDUCE CO2 EMISSION

We are working to reduce CO2 emissions by 35% during 2025. Until 2024 we have used electricity based on hydropower and petroleum gas (LPG) for the steam boiler in production. The propane boiler historically has generated approx. 900 tonnes of CO2 per year. In 2023 and 2024 13 million NOK were invested in a water to water heat pump to decrease the amount of LPG. Instead we are reusing the energy in our waste-water to heat new process water, with the ambition to cut LPG consumption in half. This should alone decrease our overall CO2 emissions by 35%.

In 2024 we entered into a new purchasing agreement with ENEAS, providing us with guarantees that our electricity is fossil free or renewable.



4. REDUCE THE COMBUSTIONS RATE OF SURPLUS MATERIALS

The goal is to reduce the combustion rate by 30% during 2025. Our surplus material consists of production left overs in the form of selvages, yarn scraps and loose fibres.

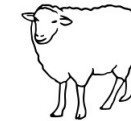
In 2024 we started a collaboration with Norsk Tekstilgjenvinning to recycle our textile waste. Our ambition is to launch a new product with recycled content, based on our own production waste. With this project we should be able to cut combustion of textile waste by a much higher degree than 30%.



5. SUSTAINABLE DESIGN & PRODUCT DEVELOPMENT

The most important thing for us when it comes to design & product development is to use our expertise in wool to design and develop new, sustainable products that have a low environmental impact and that stand the test of time. Our motivation is to produce textiles that can last for generations, both for national costumes and upholstery.

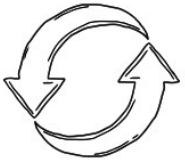
All our new fabrics are EU Ecolabel certified. We have completed a research project with SINTEF Norway to evaluate LCA (Life Cycle Analysis) for woolen textiles with Norwegian wool produced at Gudbrandsdalens Uldvarefabrik. Our ongoing project using surplus materials from our own production in new products and discovering how to find the equilibrium between recycled content and high quality/longevity.



6. USE AS MUCH NORWEGIAN WOOL AS POSSIBLE / AVAILABLE

In our production we use close to 100% organic raw materials from sheep and wood (viscose). The wool is high quality wool from Norway and New Zealand. We use as much Norwegian wool as is available in the quality we need in our production.

There is a challenge with the availability of sufficient quantities of Norwegian wool, which makes us dependant on continuing our sourcing also from New Zealand. Wool from New Zealand are always transported by sea on full containers, thus giving a very small footprint in terms of kg CO2 eq.



OUR CIRCULAR BUSINESS MODELL

At GU we are continuously working towards reshaping our future through circular economy. A circular economy reduces material use, redesigns materials and products to be less resource intensive, and recaptures “waste” as a resource.

We already use natural fibers – wool – that are bio-degradable and renewable. Our products are of the highest quality in the industry, and are known to have a long life, often lasting through generations.

Until the end of 2023, our textile waste was incinerated at the local waste station. At the close of the year, we began collecting textile waste for shipment to a new company in Sandefjord, Norsk Tekstilgjenvinning, which allows us to recycle our waste into new products. They process the waste into fiber, which, when blended with new wool, can be transformed into new textiles.

One challenge with wool is that this processing can produce shorter fibers, which may result in weaker products with reduced durability and lifespan. Therefore, we are currently working to find the optimal balance between recycled and new wool fibers. Our goal is to maintain the high quality and durability of our products without compromise.

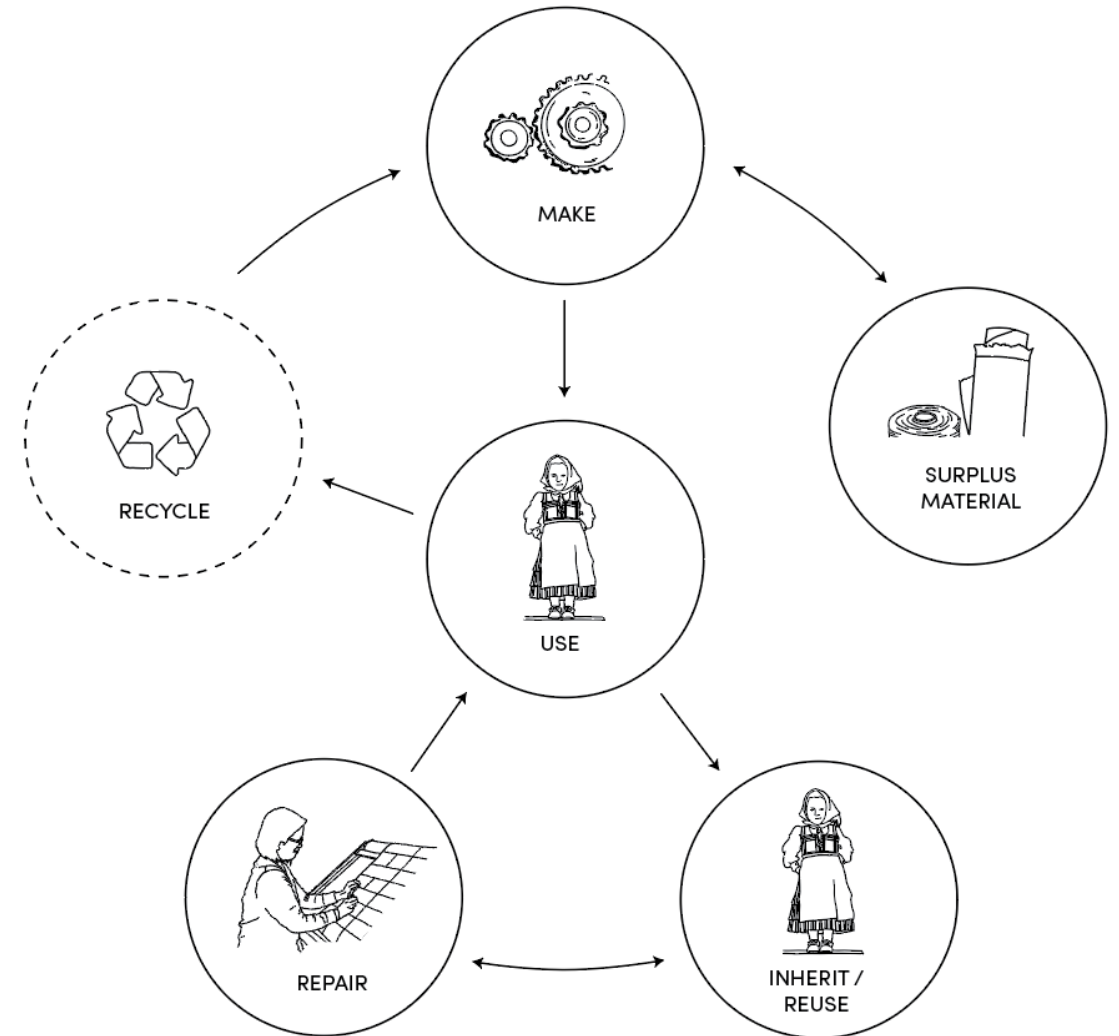




BUNAD (NATIONAL COSTUMES)

Bunad, Norway's traditional folk costume, embodies centuries of cultural heritage woven into each intricate stitch and pattern. Often inherited from generation to generation, these garments carry stories of family and tradition, extending their lifespan and reducing the need for new resources.

Made primarily from wool, a natural and renewable material, a bunad represents a deep connection to sustainability. The use of locally-sourced materials and traditional craftsmanship further minimizes environmental impact. By preserving age-old techniques and supporting local artisans, bunad not only honors Norway's rich past but also promotes sustainability, ensuring that cultural heritage and environmental responsibility go hand in hand.

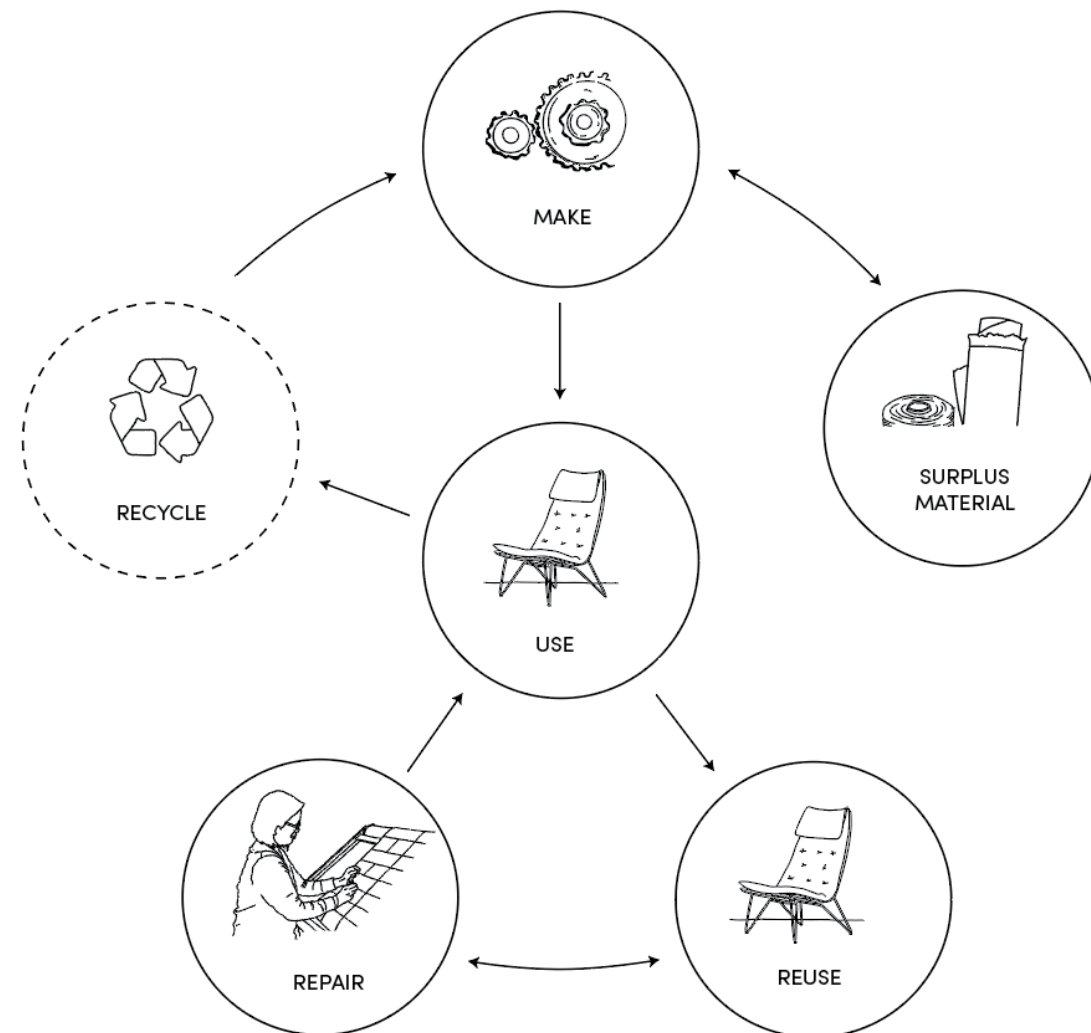




UPHOLSTERY

Our wool-based upholstery fabrics combine exceptional quality, durability, and sustainability. Wool is a naturally resilient material that offers excellent insulation, making it ideal for furniture, as it provides comfort and regulates temperature throughout the year.

As a renewable and biodegradable fiber, wool breaks down naturally over time, leaving no harmful impact on the environment, making it a perfect fit for eco-conscious design. At Gudbrandsdalens Uldvarefabrik we are committed to sustainable production practices. The textiles not only reflect our commitment to sustainability but also stand out for their rich texture and natural aesthetic appeal, making them an attractive choice for interiors that prioritize both beauty and environmental responsibility.



5.0 OUR CLIMATE IMPACT

We aim to play our part in the green and sustainable transition. That means steering our efforts towards the areas where we can contribute the most – that is, where our climate impact is greatest.



HOW TO CALCULATE EMISSIONS

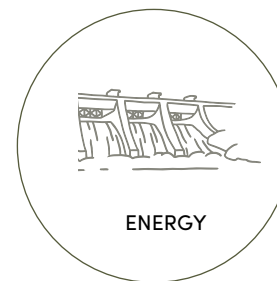
Greenhouse gas emissions are categorised into three groups or 'Scopes' by the most widely-used international accounting tool, the Greenhouse Gas (GHG) Protocol. We have specified which Scope each material topic covers in this report.

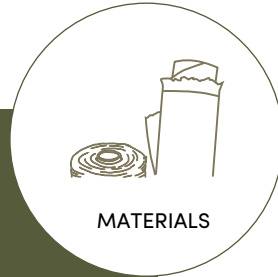
SCOPE 1 covers all direct emissions from the activities of an organisation or under their control. Examples: Fuel combustion, company vehicles, fugitive emissions.

SCOPE 2 covers indirect emissions from electricity purchased and used by the organisation. These physically occur at the facility where electricity is generated. Examples: Purchased electricity, heat and steam.

SCOPE 3 covers all other indirect emissions. Scope 3 emissions are a consequence of the activities of the organisation, but occur from sources not owned or controlled by the organisation. These are usually by far the greatest share of the carbon footprint (Source: Science-based targets).

Examples: purchased goods and services, business travel, employee commuting, waste disposal, water use, use of sold products, transportation and distribution (upstream and downstream), investments, and leased assets and franchises





Materials

Our fabrics are made from wool, viscose, linen and a small amount of cotton. In addition, we use dye stuffs and chemicals for dyeing.

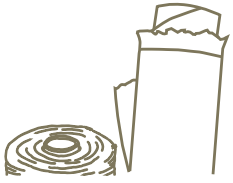
All new upholstery fabrics should obtain EU Ecolabel certification giving strict requirements to the materials we use in our products.



Waste

Our waste consists of waste for recycling, waste for incineration and special industrial waste.

We generate waste from wool-based production, cardboard (sorted), wood, plastic (mixed) and unsorted residual waste.



Method used to retrieve data:

Data for material input is extracted from our ERP-system.

Data uncertainty:

Data for material input is converted from meters to kg based on average weight per meter.



Method used to retrieve data:

We have analysed our waste generation by using waste-data provided by our waste-management company.

Data uncertainty:

The data can be regarded as high quality and accurate data.

Our Material Input

Non-renewable materials

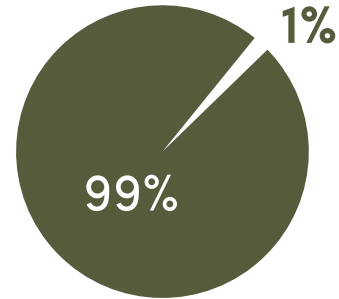
4,9 tons

Renewable materials

286 tons

Total material input in 2023

290,9 tons



99% of our material input is renewable.

Our Waste Generation

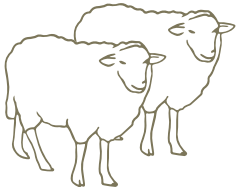


Total waste generated in 2023

92,5 tons

Improvement target:

Use of Norwegian Wool depends on actual availability. We strive to use as much Norwegian Wool as possible.



How we are going to achieve the improvement target:

Collaborate with our wool-supplier Norilia to secure access to larger quantities of Norwegian wool. We are currently working on a project using recycled fiber into our yarn production.



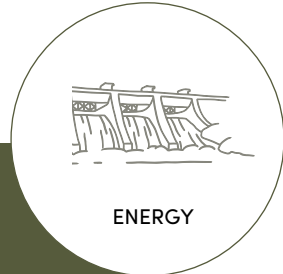
Improvement target:

We aim to reduce the combustion rate by 30% by 2025.

30%

How we are going to achieve the improvement target:

Recycle production waste into raw material, product development with recycled raw material, business development with a focus on surplus material.



Energy Sources

We use electricity based on clean hydropower for our production machines and buildings. During 2024 we will re-use energy from our waste-water in two new water to water heat pumps, thus cutting our use of Liquefied Petroleum Gas (LPG) in half. The LPG is burned in a boiler for steam production as an energy source for several production machines.



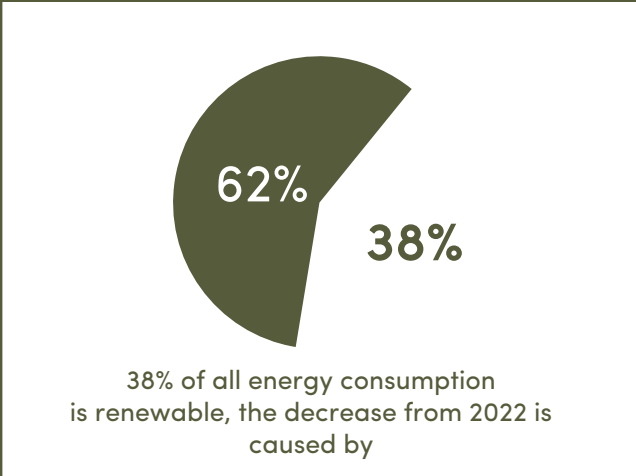
Greenhouse gases GHG

When we burn the Liquefied Petroleum Gas (LPG), we create carbon dioxide (CO₂). Our investment in two new water to water heat pumps will reduce our CO₂ outlet. Other sources with CO₂ outlet comes mainly from transporting goods in and out of our factory area.

	<p>Method used to retrieve data:</p> <p>Electrical power is sourced from El-Hub. Non-renewable energy is purchased LPG.</p>	<p>Data uncertainty:</p> <p>Because we have used actual numbers in our calculation the data uncertainty should be minimal.</p>	<p>Method used to retrieve data:</p> <p>LPG is calculated based on the purchased quantity. For electric power, the CO2e figure is calculated on the basis of 17g CO2e/kWh.</p>	<p>Data uncertainty:</p> <p>Outlets are based on calculation from energy consumption.</p>
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Our Energy Consumption

Non-renewable energy sources	4 014 299 kWh
Renewable energy sources	2 497 394kWh
Total energy consumption 2023	6 511 693 kWh



Our GHG Emissions



Total GHG emission in 2023

859 060 kg CO2e

Improvement target:

Reduce our Energy Consumption 25% by 2025.

25%

How we are going to achieve the improvement target:

With the investment of 1 million Euro in 2023/24 we aim to reuse energy from our wastewater to heat new process water and for heating of our facility. This will be the main contributor to reaching this objective.



Improvement target:

Reduce CO2 emissions 35% by 2025.

35%

How we are going to achieve the improvement target:

In 2024, we will repurpose energy from our wastewater through two new water-to-water heat pumps, significantly reducing our reliance on Liquefied Petroleum Gas (LPG) and cutting emissions.

6.0 PREPARING FOR THE FUTURE: CLIMATE RISK

Climate change affects us in different ways. While some are becoming more vulnerable to flooding, others will experience disruptions to their global value chains.

The Nordic climate will become warmer, wetter and wilder. At the same time, climate change has resulted in climate policies – on National and EU level – to reduce greenhouse gas emissions and adapt society to climate change.

These regulations also pose a risk. Climate change will also affect us, and we have to be prepared for it.



HOW WE ESTIMATE CLIMATE RISKS

We have made a careful analysis of our own operations and predicted how these may be affected by climate change in the short-, medium-, and long term. In the process, we identified what climate risks and opportunities are expected to have the greatest impact on our activities and intend to prioritize topics strategically in line with our findings. Our estimations are self assessment based and should be viewed as a first step towards making more comprehensive climate risk assessments in the future.

CLIMATE RISKS

Here is an overview of the climate risks that are expected to have the greatest impact on our operations in the short-, medium-, and long term. Please note that besides the time-frame they are not listed in any particular order.

NSRS Index:		PRIORITY LEVELS BASED ON RELEVANCE AND IMPACT – KNOWLEDGE MEASURED BY AVERAGE		
		Short term perspective	Long term perspective	Knowledge level (om 1 to 10, where 1 is lowest and 10 is highest)
Transition Risks	Increased pricing of GHG emissions	Low	High	8,5
	Enhanced emission-reporting obligations	Low	High	7,5
	Mandates on and regulation of existing products and services	Low	High	6,5
	Substitution of existing products and services with lower emissions options	Low	Low	8,0
	Costs to transition to lower emissions technology	High	Medium	7,0
	Changing customer behavior	Medium	Medium	6,0
	Uncertainty in market signals	Medium	Medium	7,0
	Increased cost of raw materials	High	High	9,0
	Shifts in consumer preferences	High	High	8,0
	Stigmatization of sector	Low	Low	10,0
	Increased stakeholder concern or negative stakeholder feedback	Medium	Medium	8,0
Physical	Increased severity of extreme weather events such as cyclones and floods	Low	Low	5,0
	Changes in precipitation patterns and extreme variability in weather patterns	Medium	Medium	5,0
	Rising mean temperatures	Low	Low	5,0
	Rising sea levels	Low	Low	5,0

CLIMATE OPPORTUNITIES

Here is an overview of the climate opportunities that are expected to have the greatest impact on our operations in the short-, medium-, and long term. Please note that besides the time-frame they are not listed in any particular order.

NSRS Index:		PRIORITY LEVELS BASED ON RELEVANCE AND IMPACT – KNOWLEDGE MEASURED BY AVERAGE		
		Short term perspective	Long term perspective	Knowledge level (om 1 to 10, where 1 islowest and 10 is highest)
Resource efficiency	Increased pricing of GHG emissions	High	High	10,0
	Use of more efficient modes of transport	High	High	6,0
	Use of more efficient production and distribution processes	High	High	8,0
	Use of recycling	Medium	High	8,0
	Move to more efficient buildings	Medium	Medium	8,0
	Reduced water usage and consumption	High	High	9,0
Energy source	Use of lower-emission sources of energy	High	High	10,0
	Use of supportive policy incentives	High	High	10,0
	Use of new technologies	Low	Low	10,0
	Participation in carbon market	Low	Low	3,0
	Shift toward decentralized energy generation	Low	Low	8,0
Products and services	Development and/or expansion of low emission goods and services	Low	High	8,0
	Development of climate adaptation and insurance risk solutions	Low	Low	7,0
	Development of new products or services through R&D and innovation	High	High	9,0
	Ability to diversify business activities	Medium	Medium	5,0
	Shift in consumer preferences	High	High	8,0
Markets	Access to new markets	High	High	6,0
	Use of public-sector incentives	High	High	8,0
	Access to new assets and locations needing insurance coverage	Low	Low	8,0
Recilience	Participation in renewable energy programs and adoption of energy- efficiency measures	High	High	8,0
	Resource substitutes / diversification	Low	Low	6,0



7.0 WHAT'S NEXT?

Using 2021 as our base year, we established our first sustainability goals for 2025. Today, we are diligently working towards achieving these objectives. The two key initiatives, as previously mentioned, are our investment of 1 million euros in 2023 for two new water-to-water heat pumps, aimed at halving our LPG consumption, and the recycling of our textile waste into new upholstery fabrics. Alongside these initiatives, we have numerous other activities that will guide our focus through to 2025.

However, time is passing quickly, and as we assess our progress, it will soon be time to set new goals. We also anticipate that EU regulations and directives will significantly impact all textile producers in the coming years, a development we welcome. While we acknowledge there is still much to improve also for us in terms of sustainability, we pride ourselves on being one of the textile manufacturers farthest removed from the "fast fashion" industry.

WE WELCOME YOUR FEEDBACK

As we gain experience with time and learn from the process, we will also raise our ambitions. We welcome any feedback, input or ideas you might have.

Contact: gu@gu.no

EUs TAXONOMY: One of the most pressing regulatory risks in the Nordic region, also for SMEs.

The EU Taxonomy is a new classification tool for sustainable private sector activities. By providing a set of industry-specific technical screening criteria, the Taxonomy dictates whether a specific private sector activity is sustainable or not.

It is designed to counter greenwashing and to steer finance in a sustainable direction. While directly targeting large companies and financial actors, smaller organizations may be affected indirectly through its financial sponsors and upstream customers as they need the non-financial data from their SME customers to report on the taxonomy

Are we targeted by the Taxonomy?

As for today, we are not targeted by the EU Taxonomy, but we will continue our sustainability work towards the same rules and regulations.



**Nordic
Sustainability
Reporting
Standard**



**GUDBRANDSDALENS
ULDVAREFABRIK**