

SUSTAINABILITY REPORT

2021



5 PAPER MILLS IN 4 COUNTRIES

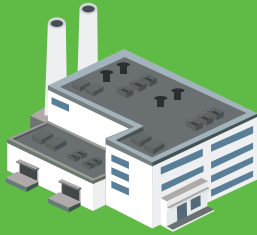
Skogn, Norway

Saugbrugs, Norway

Golbey, France

Bruck, Austria

Boyer, Australia



NORSKE SKOG SKOGN



WOOD CONSUMPTION
1 000 000 m³



WASTE PAPER
100 000 TON



POWER CONSUMPTION
1 300 GWh



TURN OVER
2 500 MNOK

MARKET

Nordic countries, Central Europe,
United Kingdom, Asia

PRODUCTION

500 000 TON PAPER

400 000 NEWSPRINT

100 000 IMPROVED NEWS



375 EMPLOYEES
25 APPRENTICES



CERTIFICATES

ISO 9001

ISO 14001

ISO 50001

FSC-C017989

2018-SKM-PEFC-254

NORDIC SWAN

EU ECOLABEL

Quality Management systems

Environmental Management systems

Energy Management systems

Chain of Custody Certification

Chain of Custody of Forest based products

Delivering to "Nordic Swan labeled pressrooms"

EU Ecolabel NOR / 011/ 002 on "Improved news"



Photo: Håvard Busklein

About Norske Skog Skogn AS' operations

Norske Skog Skogn AS was founded in 1962 and the first newsprint machine started its production in 1966. Placed in Skogn in the municipality of Levanger, Norske Skog Skogn AS is one of the largest newsprint mills in Europe. The mill is operating three paper machines, and our strength has always been our low cost – high quality profile, making us competitive in most markets. Our core markets are the Nordic countries and UK but our mill is in general serving demanding customers worldwide. Norske Skog Skogn AS has its own port facilities and operates a twice-a-week regular line combining shipments of newsprint to our main hubs in the UK and Continental Europe, normally bringing recycled paper back on the return trip to be recycled in newsprint production at the Skogn mill. Since 2018 the mill has also developed improved newsprint qualities with higher brightness, a product that has been well received and has become an increasingly important product for us.



Norske Skog Skogn AS is an important industrial player in the region of Trøndelag, currently employing 360 employees. Our operations is also an important part of the value chain for the forest industry, consuming significant volumes of locally sourced pulp wood subject to FSC and PEFC sustainable forests certification schemes.

Our industrial facilities are operating under an environmental permit administered by Miljødirektoratet. Our activity has impacts on the external environment, however within strict requirements and subject to constant surveillance and monitoring. Our consumption of fossil fuels is reduced to a minimum and by the recycling of significant amounts of by-products, the resulting carbon footprint from the production of newsprint paper in Skogn is among the lowest in the industry. In 2018, the company Biokraft AS was established inside our industrial site, producing bio-fuels partly based on shares of our bio sludges and effluent water amongst other types of organic wastes from fish-farms, thus further contributing to the sustainability and circular economy of our mill.

Bjørn Einar Ugedal
Managing Director



WE CREATE 
GREEN VALUE

Norske Skog Skogn AS and the UN Sustainable Development Goals (SDGs)

The UN Sustainable Development Goals (SDGs), adopted by world leaders in September 2015, are a call for action for all countries and businesses to promote prosperity while protecting the planet. The 17 SDGs address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. The SDGs are deeply interconnected and consist of three dimensions: biosphere, society and economy.

Norske Skog Skogn supports all the 17 SDGs but will in this report address how we relate to 7 of our most prioritized goals.



SUSTAINABLE DEVELOPMENT GOALS

During discussion and interaction amongst the members of the management team at Norske Skog Skogn, we have dealt with the following questions:

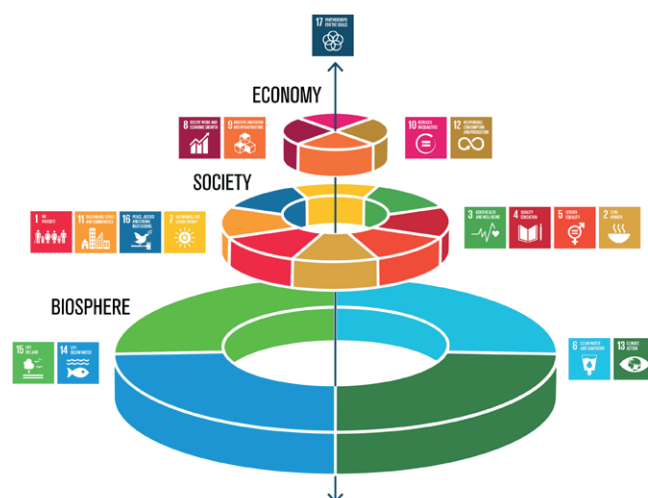
- 1) How do the SDGs affect our operations and business strategies?
- 2) How may we influence and contribute to the achievement of the specific goals?

We realize that achieving the 17 SDGs requires changes. “As is” will not help the world reach these goals. Going forward, we will further assess in more

detail how the Norske Skog Skogn AS’ operations and strategic approaches can contribute to achieving the SDGs. This report is prepared and approved by the Management team of Norske Skog Skogn AS.

We create green value!

Norske Skog’s core values of openness, honesty and cooperation as well as our policies and guidelines are built on the UN Universal Declaration of Human Rights and the 10 principles of UN Global Compact. These values also guide Norske Skog Skogn’s business activities and sustainability work and are, together with the leadership principles, the foundation for ethical and competitive business conduct. To demonstrate Norske Skog Skogn’s commitment we have prepared this report aligned with the UN Sustainability Development Goals (SDG’s).



The SDG “Wedding cake” showing the interconnection between biosphere, society and economy. (Source: Azote Images for Stockholm Resilience Centre).

Sustainable business strategy

Norske Skog have set ambitious targets for the development of the group, simply saying that by 2030, we shall both reduce our carbon footprint by 55% from a 2015-baseline, and convert our core business allowing 50% of our revenue stream to be generated from new business activity.

This is a challenge we have put upon ourselves and is representing a strong call for development of our operations. To guide us in our future development efforts we have expressed our ambition, as a vision-statement and motto going forward, by these few words;

“We Create Green Value”

“We”, meaning that this is a common challenge for our employees and stakeholders, working together. In our future efforts, Norske Skog Skogn will have to rely on the competence and efforts from own employees as well as cooperation with group specialists, research institutes, suppliers of technology and the local community.

“Create”, meaning that we have to be open to new ideas, to new ways of working, to develop new product categories resulting in new revenue streams that can contribute to fulfill our target by 2030

“Green”, meaning that whatever we decide to focus on and produce in the future, it has to be a sustainable business, based on a timely and environmentally friendly operation

“Value”, meaning that whatever we are engaged in, our business at Skogn mill must add value for all stakeholders, from owners and employees to the local community in Levanger.

For us, the core values of Norske Skog will certainly have their full significance and meaning during the years to come. The SDGs will provide important guidelines to our team’s efforts in order to develop Norske Skog Skogn going forward!

We
create
green
value!





Take urgent action to combat climate change and its impacts

Norske Skog uses sustainable raw materials and renewable energy in its operations, giving a low carbon footprint. Still, with climate change being our biggest global challenge, we wish to do our part to reduce emission of greenhouse gasses (GHG).

The CO₂ emissions to air from Norske Skog Skogn are mainly biogenic. Emissions of fossil CO₂ occur primarily from small amounts of oil that are used during start-up of our boilers, from burning waste from the wastepaper handling and burning of CaCO₃.

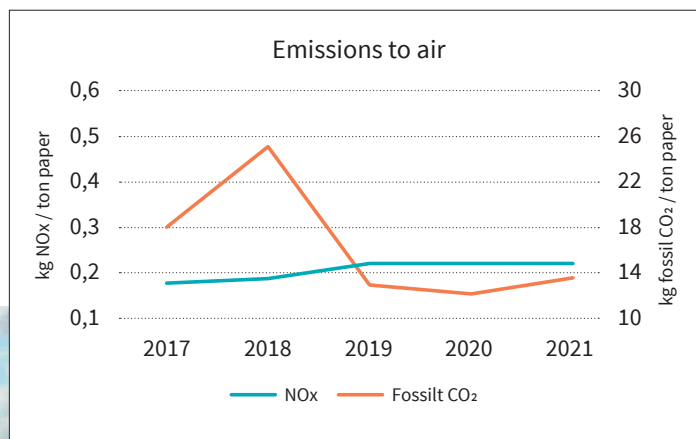
Ambition

Norske Skog group has adopted the European Union's ambitious goal of neutral societies by 2050, making reduction of greenhouse gas emissions is a key part of the business strategy. Long-term goal to achieve net zero GHG emission by 2050 and a 55% reduction within 2030 from the baseline in 2015.

Performance

A dedicated cooperation with Ocean Geoloop has been initiated with the goal of establishing a pilot at Norske Skog Skogn for CO₂ capture from our exhaust gas. The aim is to proceed with a large scale CCU/S solution based on the results from the pilot.

We have taken action to limit our CO₂ -footprint related to transport by shifting more wood logistics over to rail. In 2022 the goal is that about 1/3 of timber transport will done by train.

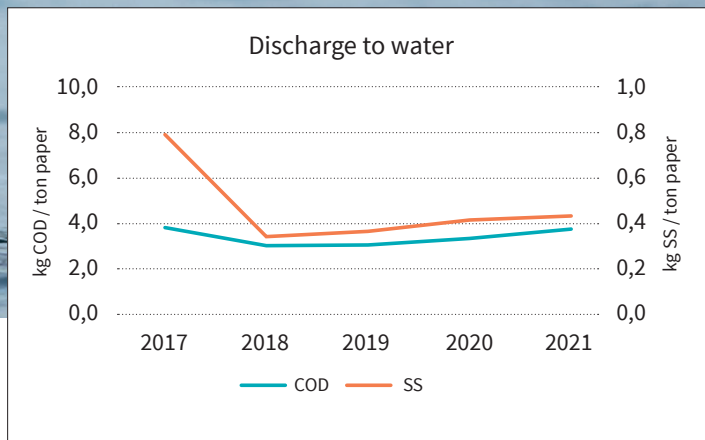




Conserve and sustainably use the oceans, seas and marine resources for sustainable development



Photo: Valter Kristensen



Ambitions

Life below water should be unaffected by discharged water from Norske Skog Skogn. The fjord areas should be attractive for fishing and outdoor activities.

Performance

Good operation of the wastewater plant is necessary to obtain low levels of discharge of nutrients and solid suspension from the mill. Close monitoring and follow-up of the plant is crucial. From April 2022 a new permit is applicable, with stricter limits for release of nutrients and solid suspension to the sea.

We will explore measures to use nutrients discharged into sea in a circular way. Biokraft uses our waste-

water and sludge in their production of biogas. We cooperate with Biokraft in further optimizing these operations.

Since the mill started, the environment in the fjord around the mill has been monitored. Recent studies were conducted in 2021 and 2022 by an external water environmental specialist. The studies were conducted in accordance with the requirements of the water regulations and to document the condition of the fjord. Good conditions for fauna have been shown at all measuring stations and the entire area seems to stay at a stable level with small changes over time.

Biological diversity, forest certification



Norske Skog Skogn wish to contribute to protection of life on land through ensuring sustainable forestry and through protection of wildlife around the mill.

Ambitions

All timber shall be delivered from sustainable forestry. Establishment of new industry at Fiborgtangen shall not negatively affect life on land. It is a goal that new activities around the mill shall contribute to Norske Skog Skogn's strategy of circularity and green values.



Performance

Timber and wood chips are our most important resource. Norske Skog recognizes that we have a responsibility to use timber from sustainable forestry only. Through dialogue with foresters, we aim to contribute to increase competence and involvement within the whole value chain. We require that all our wood comes from sustainable forestry, and the fiber raw material can be traced from harvesting to the consumer. The proportion of trees planted after harvesting should be higher than what is harvested. Planting trees is a very important contribution to carbon capture. In 2021 > 90% of the purchased timber and wood chips were certified to international forestry standards. The rest comes from controlled areas where we have insight into operations. In addition, we use recycled paper, which also is a part of the traceability certification.

In 2021 Norske Skog Skogn sold about 200 decares of wetland - originally intended for industrial development - to the Norwegian Environment Agency. This is to contribute to protection of a unique nesting area for many bird species.

Area south of Hotran river sold to the Norwegian Environment Agency.



Chain of custody certificates for traceability in the value chain for fiber raw materials:

FSC® License code: FSC-CO17989

PEFCTM License code: PEFC/03-31-08



Ensure healthy lives and promote well-being for all at all ages

Ambition

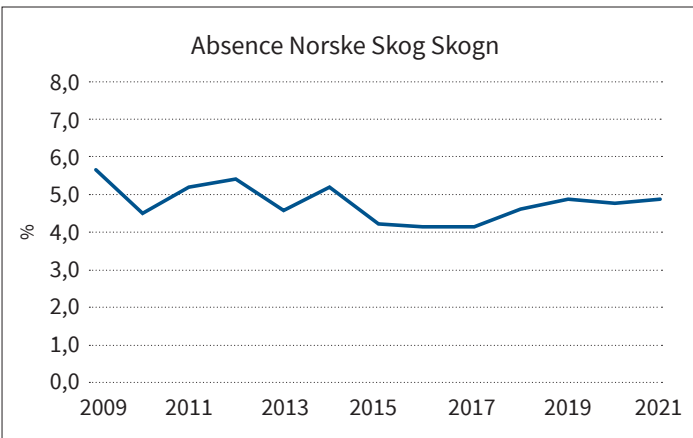
Norske Skog Skogn is committed to provide a safe working environment for our employees, contractors and visitors. We shall facilitate for employees and their families to take care of their own health.

We work to increase job attendance for all employees, and we have a “zero vision”; a clear goal to have zero injuries at our mill.

Performance

Health and safety considerations are integrated into our day-to-day business, and this applies to every activity carried out by our employees and contractors. We see a decrease in the number of accidents and the risk level in general. In 2021 we had no serious injuries at our mill. We still believe that we can improve our performance by continuing the systematic work with our safety barriers. We have company sports activities and other activities to help employees being active and social. We also sponsor local sports activities with focus on children and youth.

Our occupational health service helps us achieve our ambitious goals on HES. They assist managers with sick leave follow-up and health care arrangements. This has helped us bring down the sick leave rate to a good level. The rate of absence was 4.9 % in 2021. Goal for 2022 is < 4.0 %.



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



Operator Tonje Carlsson. Photo: Adresseavisen Brand Studio

Ambition

Our ambition is to attract and keep top talents. We have a goal to have 15-20 new apprentices annually, and 1-3 trainees in 2022/2023.

Our employees are our most important resource and an important strategic solution to ensure the best possible result at every stage. We shall invest in our people through training and development throughout the entire career.

Performance

For many years, we have had a large number of apprentices. Our aim is that 10 % of our total workforce are apprentices, including both genders. This is our most important recruitment channel. We have a good collaboration with the school administration – especially vocational education.

Training and development of employees is a high priority task and is part of each department's work with annual goals. This includes:

- **Apprenticeship in various disciplines**
- **Documented and certified training**
- **Internal and external courses**
- **Continuous job training/rotation for all employees**

On average, all personnel attend a minimum of 40 hours formal training each year, regardless of gender, race, ability and age.

The training is increasingly IT-driven, for example we have implemented a new digital HES basic training (SSG) for both employees and contractors. We have also produced an 8-episode podcast series to increase the employee's awareness and knowledge about Norske Skog and sustainable operations.



Contribute to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Ambitions

Our vision is that the mill area – Fiborgtangen - shall be a hub for circular economy for both green and blue businesses. Through Norske Skog Skogn's growth company, Fiborgtangen vekst, we are committed to develop the area and innovation activities in alignment with the company's strategies.

We have clear strategy to attract partners that can coexist with Norske Skog Skogn in a circular way, utilizing biproducts from Norske Skog as well as exchange of other synergies.

FIBORGTANGEN VEKST
Rein utvikling!

Performance

The industrial infrastructure around the mill is ideal for new establishments, with clean energy and water, and availability by ship, railroad and trucks.

“Green” companies like Retura, Biokraft and Ocean Geoloop are established at Fiborgtangen and more companies have shown an interest for settling in the industrial area.

In 2022 we will hire a CEO in Fiborgtangen vekst that should be able to see new possibilities and advocate the potential of the area to businesses and ensuring that the potential is realised.

We will continue the work of making our premises more attractive. Some of our logistics have been shifted from road over to railroad, with room for further increase. A traffic group is working on improving the general traffic infrastructure facilitating for more and safer traffic activity in the area.

Our cooperation with both local and regional authorities has grown with regular discussions on how we can make Norske Skog and Fiborgtangen as a center for innovation and growth within green, blue and sustainable industries. We are in close dialogue with universities and other research institutions – always looking for the best available technology.



Ensure sustainable consumption and production patterns

Ambition

We work towards optimizing our operations with respect to sustainable raw materials and energy as well as reducing waste and emissions from our production.

In order to ensure a sustainable production for the future, we wish to investigate possible new uses of our renewable raw materials, such as wood and clear water. We also aim to utilize our side streams such as fiber sludge and ash for new products and a more circular business.

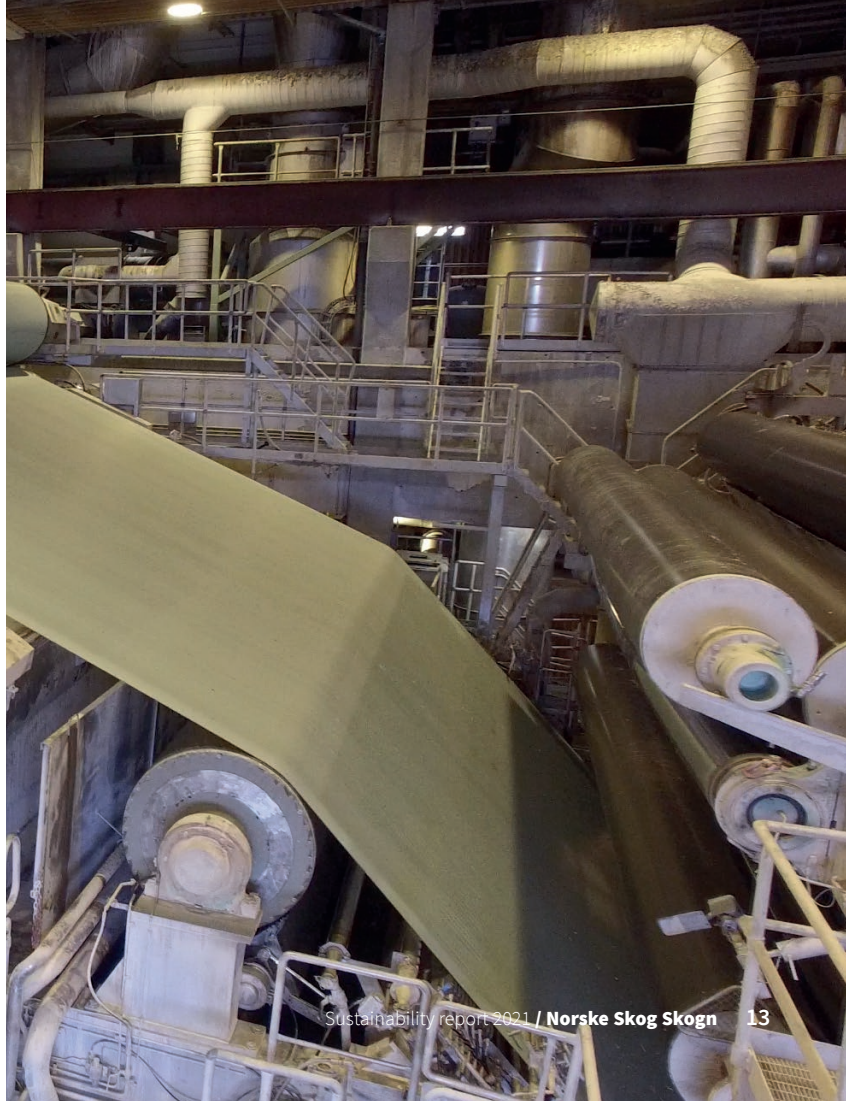
Performance

A new department dedicated to development is established and consists of resources dedicated to improving performance, find new future possibilities and make better use of side streams containing nutrients, organic residues and energy. As examples, both fiber sludge and ash have superior characteristics for different applications and use. Regional and national industries, universities/research institutions and funding instruments are involved in these projects.

We are also involved in projects that are in both trial and implementation phase when it comes to carbon catching. Ocean Geoloop has established a pilot rig capturing CO₂ from our exhaust.

In 2021 we adjusted one of our paper machines to produce production of cardboard components for the packaging market. This is a good example of how to use our main raw material, wood, to make new products. We are continuing our trials and have strengthened our capacity towards new products by adding a full time position to focus on this work.

We have several continuous improvement groups working on reducing input, energy- and water consumption.





Sustainability goals overview



Biodiversity			
SDG	FOCUS AREA	TARGET	PLANNED ACTIVITIES
	Reduce greenhouse gas (GHG) emissions	Reduce CO ₂ emission kg/ton paper by 55 % in 2030	- Cooperation with Ocean Geoloop, program dedicated to establishing a pilot for CCU/S
		To have net zero CO ₂ emission kg/ton paper in 2050	- Cooperation with Ocean Geoloop, program dedicated to exploiting results from pilot for CCU/S, with the aim to proceed with a large scale CCU/S solution
		CO ₂ -footprint related to logistic operations	- Develop rail logistics to have higher share of wood logistics on rail, show the effect of this in form of reduced climate footprint from emissions in connection with timber transport. - Replacing internal fossil-based vehicles with electric vehicles
		To reduce emissions of SO ₂ and NO _x from our operations	- To remain in compliance with current and future emission permits at the Skogn Mill. New equipment for monitoring exhaust gasses.
	Handle climate risk and business opportunity understanding	To have performed Climate risk and business opportunity assessments in 2022	- Performing an annual climate risk and opportunity analysis
	Improve water quality through effluent treatment	Reduce discharge of phosphor, nitrogen, solid suspensions and COD to meet requirements in new emission permit by 2024	- Measures to ensure good operation of the wastewater treatment plant. Optimize the ECSB reactor in cooperation with Biokraft
	Biodiversity in the fjords should be unaffected by discharge from the mill	To continuously monitor the conditions in the fjord	- Regular fjord examinations performed by independent part
	Contribute to sustainable forestry	To ensure all wood consumption to be 100% controlled wood	- Maintaining all FSC- and PEFC certificates - Maintaining dialog with all wood supplier and implement external forest audits

Economy			
SDG	FOCUS AREA	TARGET	PLANNED ACTIVITIES
	To align innovation activities with the long-term group strategy	Developing the industrial infrastructure at Skogn mill. Attracting new industrial partners to Fiborgtangen Bio-park	- Developing infrastructure at Fiborgtangen Bio-Park in order to attract new and future industrial partners
	To commercialize promising and profitable innovation results	Investigate and explore new possibilities in Bio-char and energy production at Skogn mill	- Establish and develop own competence on the relevant topics through allocation of new and existing internal resources. - Establish regular contact and facilities at Skogn mill dedicated to R&D-partners (i.e. RISE PFI, Ocean GeoLoop, Sintef)
	To ensure sustainable use of materials and energy in our operations	Utilize all waste streams, sludge, bark, RP-waste, production waste in the energy production and recirculation	- Produce green turbine power from the steam turbine - Utilize fibre sludge and develop a commercialized future product within agriculture - Ash; Zero ash to landfill by 2030 by finding new use of ash in concrete- and cement products - Gain 40 GWh through utilizing hot discharge water from the mill operations by 2025
	To operate mills with high energy efficiency	Measuring Capex used on energy source improvements equal to 170 GWh by 2025	- Produce green turbine power from the steam turbine - Gain 40 GWh through utilizing hot discharge water from the mill operations by 2025
	To reduce waste from our operations	To have no ash delivered to landfill in 2030	- Cooperation with several players in the cement industry in order to utilize ash in cement- and concrete products - Cooperate with research-organisations in order to develop the use of ash in soil-stabilization and road construction
	To ensure responsible supplier value chain handling.	To ensure supplier adherence to Norske Skog code of conduct within 2023.	- Supply department establishes questionnaire list, and carry out external audits

Society			
SDG	FOCUS AREA	TARGET	PLANNED ACTIVITIES
	To increase job attendance for all employees.	Absenteeism rate < 4,0%	- Present the absenteeism in trends. Cooperate closely with local health service. Maintaining close dialogue with everyone who is on sick leave.
	To ensure a healthy and safe working environment.	Target 2022: H1 = 0, H2=0	- Present and implement a "zero vision". New Synergi, ongoing training program. - Implementation of electronic solution for annual safety course for all employees and contractors
	To attract and keep top talent	work certificate share of + 95% among operators by 2030 15-20 new apprentices annually 1-3 bachelor's degree trainee 2022/2023	- Participate in local program for internships - Establish an own educational program for "adult trainee certificates".
	To invest in our people through training and development	100 % completed employee performance reviews with focus on training and responsibilities	- Focus on i.a. digital competence - Continuing education; Objectives for the addition of candidates who want further education and career development - Corporate social responsibility; Job training for external candidates with the goal of providing education and new job!
	To invest in our people through training and development	Offering training and supplementary education for all through their entire job career to attract and contain highly skilled employees	- Develop podcasts addressing sustainability and digitization - Establish annual training plans - Annual review of roadmap to sustainability and strategy - Highlight the importance of development talks and competency plans - Leadership training programs.

We create green value



Norske Skog
Skogn

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