

SUSTAINABILITY REPORT 2023

MADE FOR DEMANDING CONDITIONS





**THIS COMPANY IS LIKE ITS PRODUCT; IT REFLECTS
THE PASSION AND RESILIENCE OF OUR PEOPLE.**

We are made for demanding conditions.

**WE ARE NOKIAN TYRES AND HERE TO MAKE
THE WORLD SAFER BY REINVENTING TIRES, AND
HOW THEY ARE MADE, OVER AND OVER AGAIN.**



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Nokian Tyres in a nutshell

Nokian Tyres operates in the manufacturing and service sector, developing and manufacturing premium tires for people who value safety, sustainability, and predictability. Inspired by its Scandinavian heritage, Nokian Tyres crafts innovative products for passenger cars, vans, trucks, and heavy machinery, and the Vianor chain provides tire and car services.

In 2023, Nokian Tyres' net sales were 1.2 billion euros, and the company employed 3,433 people at the end of the year. The company headquarters is in Nokia, Finland, and Nokian Tyres plc is listed on Nasdaq Helsinki. You can read about the company's ownership structure on the company website at www.nokiantyres.com/company/investors/share/major-shareholders/.

Nokian Tyres' two tire factories are located in Nokia, Finland, and in Dayton, Tennessee, the US, and there's also a wheel factory in Finland. The construction of a new passenger car tire factory in Oradea, Romania started in spring 2023 and it is expected to start commercial production in early 2025. Contract manufacturing complements own production. Nokian Tyres' three test tracks are located in Nokia and Ivalo in Finland, and in Santa Cruz de la Zarza, Spain.

In 2023, Nokian Tyres' products were sold in 55 countries. The branded distribution network includes the Vianor and Vianor Partner chains and the Nokian Tyres Authorized Dealers (NAD) network.

The Nokian Tyres Group consists of the parent company in Finland, the sales companies in Sweden, Norway, the US, Canada, Czech Republic, Germany, France, Switzerland, Poland, and Ukraine, and the Vianor tire and car service chain companies in Finland, Sweden, and Norway.

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**IN 2023, NOKIAN
TYRES' PRODUCTS
WERE SOLD IN
55 COUNTRIES.**



Greetings from the President and CEO

Sustainability is deeply embedded in Nokian Tyres' strategy, and we are one of the sustainability leaders in the tire industry. To maintain that position, continuous and wide-ranging development will be done in different areas. In 2023 the highlights included starting the construction of the first zero CO₂ emission factory in the tire industry in Romania and making a commitment to achieve science-based net-zero emissions by 2050.

As we have been building the new Nokian Tyres, safety and sustainability remain at the core. As a company, we want to offer safe working conditions to our employees and safe products to our customers and end users, considering environmental friendliness all the way. The development of Nokian Tyres' sustainability is guided by the material topics that were recently updated. Our stakeholders offered us valuable views that encourage us to continue our concrete actions and work on traffic safety, climate change and environment, human rights, renewable and recycled raw materials as well as the safety and well-being of our employees.

Our growth is built on sustainability. Factors such as climate change and growing consumer and customer expectations on sustainability drive the demand for sustainably produced innovative tires. A highlight in 2023 was reaching a key emissions reduction target seven years ahead of schedule. One of Nokian Tyres' science-based greenhouse gas emissions reduction targets

was to reduce the tire factories' direct CO₂ emissions by 52 percent per production ton by 2030 compared to the emissions level in 2015, and this target was already achieved. Nokian Tyres was also included in the Dow Jones Sustainability Europe Index again – an achievement that our whole team is proud of.

One of our challenges in 2023 was workplace safety: the positive development was set back and our LTIF rose to 4.7 from the record-low level of 3.2 in 2022. The work to reduce the number of occupational injuries leading to absence continues. We are committed to the UN Global Compact, and together with other stakeholders, we are improving working conditions and human rights along the supply chain in the long term.

In 2024 the focus will be on successfully starting the production at the new tire factory in Romania during the second half of the year so that tires for commercial use can be produced there from the beginning of 2025 onwards. We continue our work to combine the tires' safety features and other properties with increased use of recycled and renewable raw materials. Safety is still our top priority, both at work and at product development so that people can drive safely and sustainably in all conditions.

JUKKA MOISIO
President and CEO

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**SAFETY
WILL CONTINUE
TO BE OUR TOP
PRIORITY.**

Highlights and challenges in 2023

Highlights

Net-zero commitment

Nokian Tyres committed to set near- and long-term emission reductions in line with the science-based net-zero targets of the Science Based Targets initiative (SBTi). The new emission reduction targets will be aligned with the SBTi's most ambitious guidelines to limit the increase in global warming to 1.5°C in line with the Paris Climate Agreement.

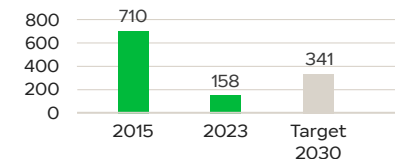
Inclusion in the DJSI

For the sixth time, Nokian Tyres was included in the Dow Jones Sustainability Index. The inclusion in the DJSI Europe means that Nokian Tyres is among the most sustainable listed companies in Europe.

Key climate target reached seven years in advance

One of Nokian Tyres' science-based greenhouse gas emissions reduction targets was to cut the tire factories' direct CO₂ emissions by 52 percent per production ton by 2030 compared to the emissions level in 2015. The target was already achieved in 2023.

Direct CO₂ emissions from the tire factories (Scope 1 and 2), kg/production ton



The target was to decrease the tire factories' CO₂ emissions intensity by

52%



Groundbreaking of the first zero CO₂ emission factory in the tire industry

The new tire factory in Romania will be the first zero CO₂ emission factory in the tire industry. This means, for instance, that the energy used at the factory comes from zero CO₂ sources and the steam needed for the tire manufacturing process is generated fully without fossil fuels.

Challenges

More occupational accidents leading to absence

Nokian Tyres' group-wide frequency of accidents leading to absence (LTIF) rose to 4.7 after being at a record low level of 3.2 in 2022. However, on the positive side, Nokian Heavy Tyres celebrated one year without accidents leading to absence in December.

Availability of recycled or renewable raw materials

Even though several alternative raw materials from either recycled or renewable resources have entered the market, sufficient availability has proven to be a challenge.

Global recognition of Nokian Tyres' sustainability in 2023

Dow Jones
Sustainability Indices

MEMBER OF
DJSI EUROPE



S&P Global Corporate
Sustainability Assessment

70

IN TOP 5
IN THE AUTOMOTIVE
COMPONENTS SECTOR

CDP
Climate Change

A-

LEADERSHIP
LEVEL

CDP Supplier
Engagement Rating

A-



Sustainalytics

12.5

LOW ESG RISK
LEVEL

EcoVadis

PLATINUM

TOP 1%

OF ASSESSED
COMPANIES

Financial Times Europe's
Climate Leaders

66.9

INCLUSION
IN THE CLIMATE
LEADERS LIST

MSCI

AAA

TOP 6% IN THE
AUTO COMPONENTS
SECTOR



**MADE FOR DEMANDING CONDITIONS:
JARMO SUNNARI**

Defending drivers' right to choose safety in demanding conditions

Creating a new Nokian Tyres tire begins years before the actual product is available for drivers and requires close teamwork across the company involving dozens of tire professionals. At the helm of the project are the global product manager and the development manager who oversee the process in terms of product concept as well as its technical and business solution.

Steering the product portfolio for tires for demanding northern conditions is a good fit for Jarmo Sunnari, Global Product Manager for the Nokian Tyres tires designed for the Nordic markets. Before becoming a global product manager, Jarmo worked within Nokian Tyres as the team leader of the standards, regulations and approval team concentrating on tasks involving laws and standards of the tire industry.

Improving the safety of driving was the overarching theme, and during Sunnari's time on the team, for example the regulations for the EU tire label went through a change – significantly impacted by the relentless effort from the Nokian Tyres team.

Introduced to consumers in 2012, the EU Tyre Label is nowadays applied to all summer, all-season and non-studded winter tires for passenger cars, SUVs, vans, trucks and buses to help European consumers make informed choices when choosing new tires. In 2021, mainly thanks to the Nokian Tyres' team and Sunnari, who coordinated the advocacy, the Ice Grip Marking and the Snow Grip Marking were finally added to the label.

"Previously the label did not give information to help drivers choose safe winter tires for winter conditions, as the classification criteria of fuel efficiency, wet grip and external rolling noise do not indicate the tire's winter safety properties," Sunnari says.

"Nokian Tyres made a big effort to develop and enhance the test methods and advocate them to the decision makers, all to defend the consumers' right for safe choices in demanding winter conditions. Getting the Ice Grip Marking and test passed took ten years of hard work. In the end the marking was included not only in EU Tyre Labelling but also in international tire regulations."

When pushing a complex issue through complex international networks, it is also necessary to be made for demanding conditions yourself. In his everyday work as Global Product Manager, Sunnari's skills are put to the test. He enjoys his role that gives both independence to execute his tasks to best of his ability but is also dependent on close teamwork and professional colleagues.



When pushing a complex issue through complex international networks, it is also necessary to be made for demanding conditions yourself.



GENERAL DISCLOSURES

MADE FOR DEMANDING CONDITIONS



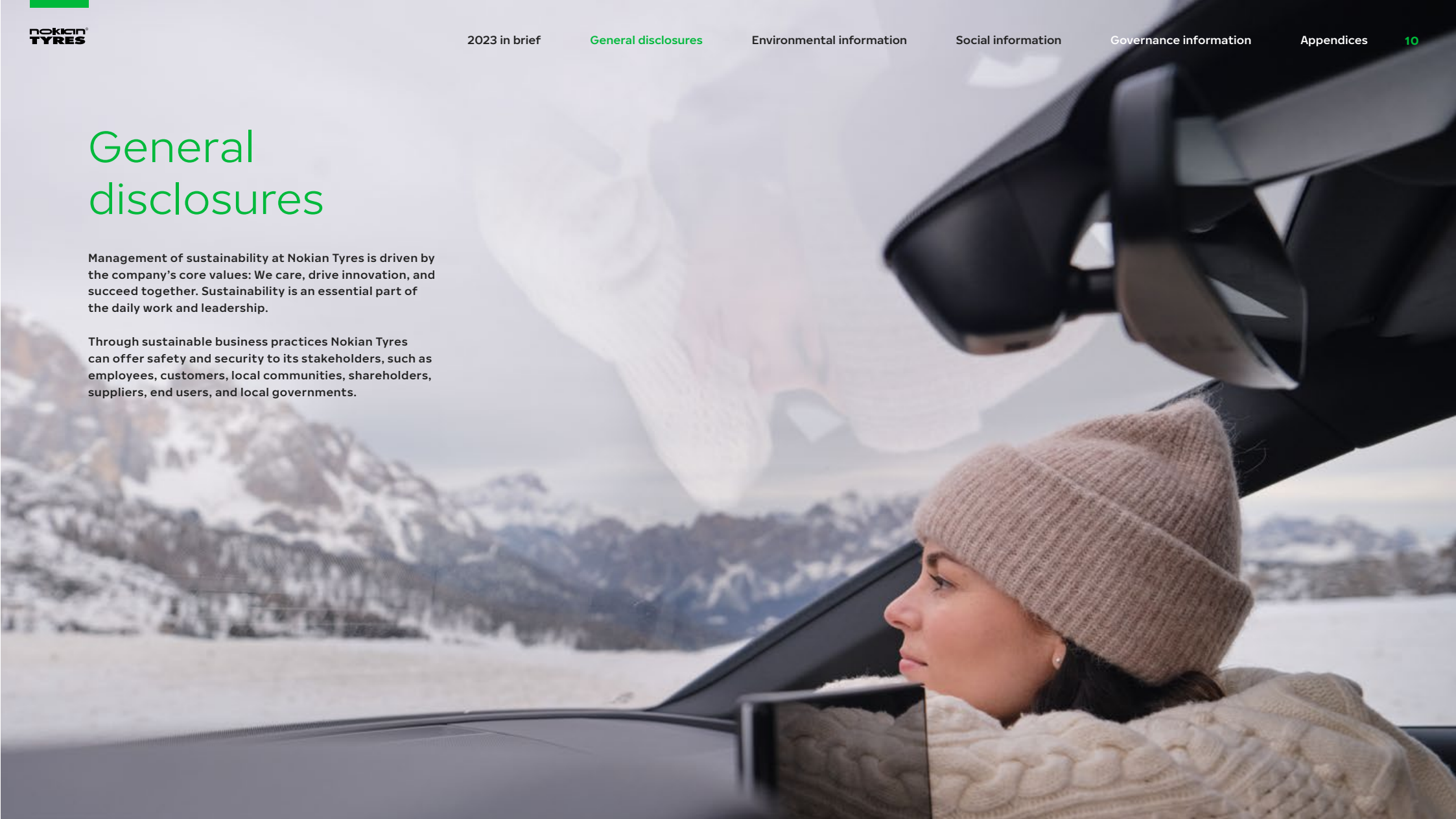
” FOR US AT NOKIAN TYRES,
A TIRE IS ONLY SAFE IF THE PEOPLE
MANUFACTURING IT ARE.

Ville Palomäki, Operator

General disclosures

Management of sustainability at Nokian Tyres is driven by the company's core values: We care, drive innovation, and succeed together. Sustainability is an essential part of the daily work and leadership.

Through sustainable business practices Nokian Tyres can offer safety and security to its stakeholders, such as employees, customers, local communities, shareholders, suppliers, end users, and local governments.



Managing sustainability

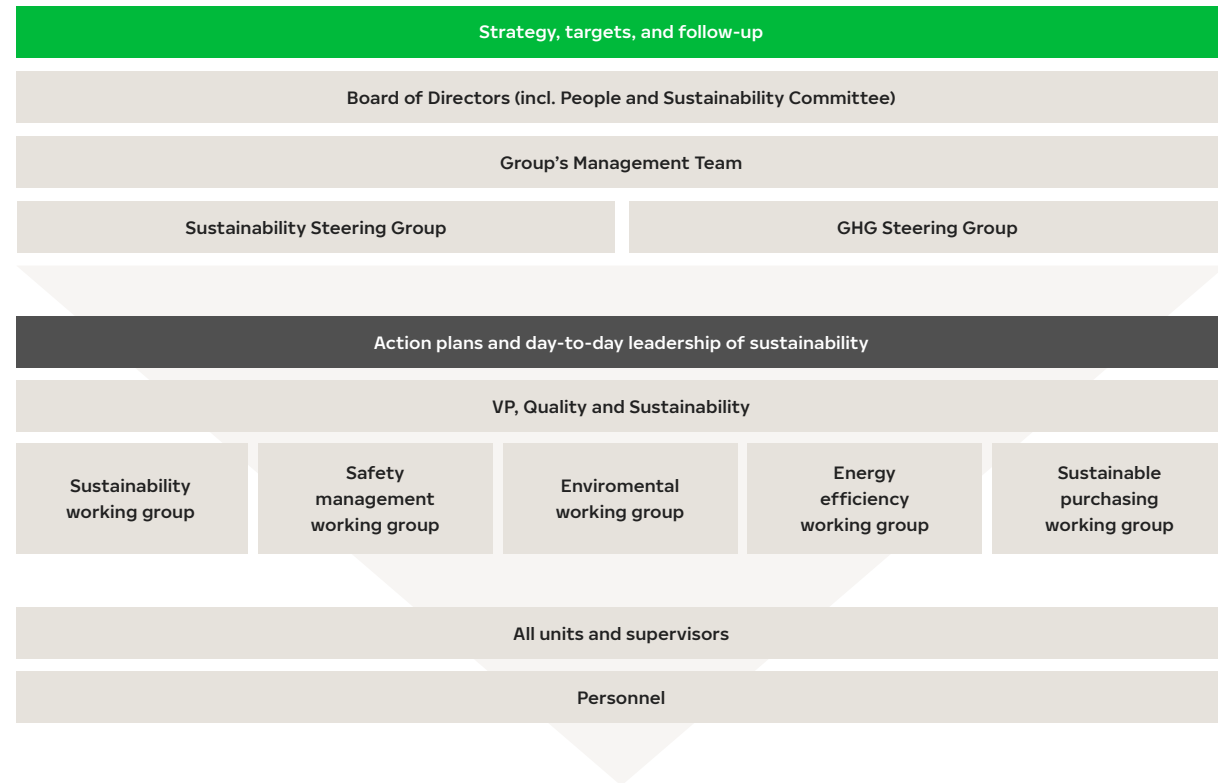
Nokian Tyres' sustainability activities are led by a member of the Group's Management Team responsible for that. Nokian Tyres Sustainability Steering Group supervises and monitors the sustainability work within the Group and comprises of senior representatives from Supply Chain, Products & Innovations, Finance, Human Resources and Communications departments. Nokian Tyres Greenhouse Gas (GHG) Steering Group supervises and monitors the progress in reducing greenhouse gas emissions within the Group. The duties of all supervisors include day-to-day leadership of sustainability.

In April 2023, the Board of Directors decided in its organizing meeting to change the name of the Board's Personnel and Remuneration Committee to Board's People and Sustainability Committee. The Committee is informed of topical sustainability matters at least three times a year by the VP, Quality and Sustainability. Among other things, the committee prepares sustainability topics for the Board and monitors developments in the operating environment and regulation relating to sustainability. All Committee members are independent of the company and of all major shareholders in the company.

The Committee has no independent decision-making power; collective decisions are made by the Board, which is responsible for carrying out the tasks assigned to the Committee.

Read more: www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/.

Managing sustainability at Nokian Tyres








Guiding principles for Nokian Tyres' sustainability

Sustainability is a part of Nokian Tyres' culture, strategy, and goals. The chart on the next page describes the areas of sustainability in the company, the guiding principles, and the most important standards and policies guiding the work.

The UN's 17 Sustainable Development Goals (SDGs) were created to promote prosperity while protecting the environment. These goals provide a tool to examine sustainable business in the long term. Nokian Tyres has determined seven SDGs that are important for the company.



Areas of sustainability

Products / R&D	People	Economy	Environment	Procurement
				
Nokian Tyres develops and manufactures safe and high-quality tires that reach their destination safely even under demanding conditions. Ecofriendliness is considered, for example, regarding rolling resistance, raw materials, and mileage and abrasion.	Nokian Tyres is committed to acting in the manner required by the UN's Guiding Principles for Business and Human Rights as well as OECD's Guiding Principles on Labour and Human Rights, and to following the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work. The company respects human rights and treats all individuals equally.	Through profitable growth, Nokian Tyres enables the further development of its operations and ensures financial security, work, and well-being for stakeholders.	Nokian Tyres considers the product's entire life cycle and all of its functions in terms of environmental responsibility and is committed to acting in a way that does not harm the environment or people. Nokian Tyres aims to show leadership in actions against climate change.	Nokian Tyres is committed to sustainable procurement and further developing sustainability in the supply chain.
Essential standards, group policies and procedures related to sustainability				
Tire/vehicle safety regulations (UN tire regulations), various tire labelling (consumer information) regulations and standards (EU Tyre Labeling regulation), chemical regulation, UN Global Compact, Nokian Tyres tire testing policy.	ISO 45001, UN Global Compact, Policies and procedures related to safety, well-being, hiring, traveling, induction, people reviews and competence development, human rights, and equality.	Stock exchange rules, IFRS, UN Global Compact, Corporate Governance, risk management, Know Your Counterparty, Tax Policy.	ISO 14001, Responsible Care program, Science Based Targets, UN Global Compact, Policies and procedures related to environmental and chemical safety management.	ISO 9001, ISO 14001, UN Global Compact, Procurement policy, Supplier Code of Conduct, Sustainable Natural Rubber Policy.
Local guidelines and procedures				

Nokian Tyres' sustainability road map and main targets

Nokian Tyres' sustainability road map guides the work on sustainability. It defines seven areas of sustainability, and there are currently over 80 projects related to the themes listed under each area.

Nokian Tyres' sustainability road map	
Climate actions	<ul style="list-style-type: none"> • Climate risks • SBT action plans and implementation • Product development • Energy efficiency • Energy mix (renewable and non-renewable)
Environmental actions	<ul style="list-style-type: none"> • Compliance • Water efficiency • Circular economy
People	<ul style="list-style-type: none"> • Occupational Health and safety • Human rights • Development of sustainability culture
Supply chain	<ul style="list-style-type: none"> • Supply chain risk management • Natural rubber sourcing
Products and services	<ul style="list-style-type: none"> • Sustainable materials • Microplastics • Services
Finance, Corporate Governance	<ul style="list-style-type: none"> • Governance and compliance • Sustainability summary to the Board • Enterprise risk management • Value creation for society
Communication and stakeholder engagement	<ul style="list-style-type: none"> • Reporting • Investor relations • Customer and consumer communication • Vianor's communication












Nokian Tyres' selected five key sustainability targets

Nokian Tyres' Board of Directors approved the updated long-term financial targets and reconfirmed the non-financial targets in April 2023. The chart describes five key Nokian Tyres' sustainability targets, with respective KPIs and results for 2023. All Nokian Tyres' sustainability targets are presented on the company website at www.nokiantyres.com/company/sustainability/fundamentals/our-targets-and-achievements/. The climate goals are aligned with the CO₂ emissions reduction targets approved by the Science Based Targets initiative.



The climate goals are aligned with the CO₂ emissions reduction targets approved by the Science Based Targets initiative.

Area	Target	KPI	Progress in 2023
Safe and eco-friendly tires: increasing the share of sustainable materials in tires  	Increase the share of recycled or renewable raw materials in tires to 50% by 2030	Report annual improvement	<ul style="list-style-type: none"> One new recycled raw material taken into production use
Climate: reducing CO ₂ emissions in line with the four science-based targets 	Reducing CO ₂ emissions from tire production (scope 1+2) by more than 50% by 2030, base year 2015	Report annual improvement	<ul style="list-style-type: none"> Target was reached in 2023, seven years in advance
Safety: securing safer and better work  	Accident frequency LTIF: Decrease from 8.3 (2018) to 1.5 by 2025	20% annual improvement in LTIF compared to the previous year	<ul style="list-style-type: none"> Negative development. LTIF increased from 3.2 to 4.7
Human rights: auditing all significant high-risk suppliers  	100% of significant high-risk suppliers audited by 2025	Annual increase in the share of audited high-risk suppliers	<ul style="list-style-type: none"> 100% audited (83% in 2022)
Personnel well-being: develop personnel well-being  	Develop personnel well-being	Report annual improvement in sentiments about equal opportunities in the personnel survey, base year 2021 (65)	<ul style="list-style-type: none"> Score on equality was 67 on a scale of 0–100 (66 in 2022)

Stakeholder engagement and material topics

Through continued focus on sustainability at Nokian Tyres, the company is committed to minimizing its negative impacts and maximizing its positive impacts on the economy, environment, and people. An essential part of driving this positive change is understanding how Nokian Tyres' stakeholders view sustainability and which sustainability topics are relevant for society and the company's business. This is done by conducting materiality assessments every three years. The assessments form the basis for sustainability work at Nokian Tyres. A chart of the five most relevant topics in the four main stakeholder groups can be seen on the company website: www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/.

Read more: www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/.

This Sustainability Report is mainly based on the material topics identified in 2021. The materiality assessment consisted of online surveys and interviews among the most relevant stakeholders. The aim of the online survey and interviews was to ask stakeholders' opinions about the most relevant sustainability topics to Nokian Tyres. In 2021, five topics were selected material for Nokian Tyres' operations:

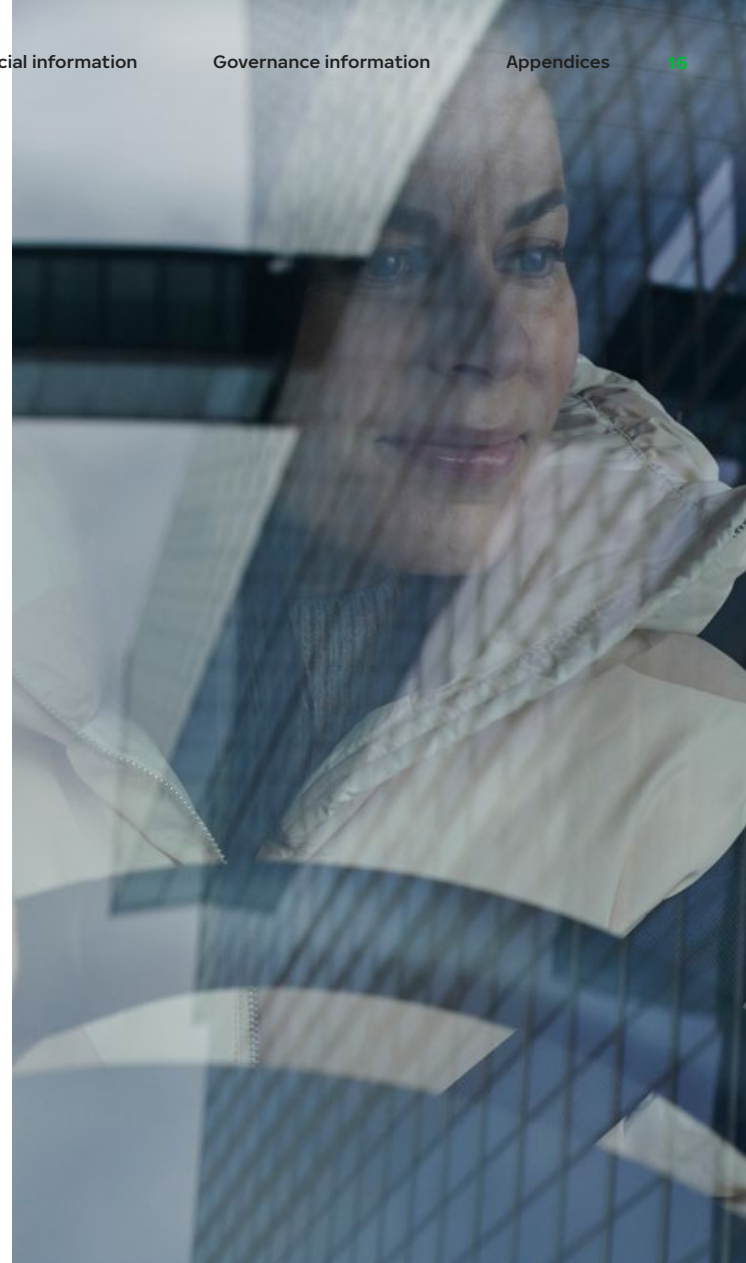
1. Sustainable raw materials
2. Actions to mitigate climate change
3. Safety and well-being at Nokian Tyres
4. Promoting human rights in all operations
5. Safety properties of tires

Additionally, four sustainability themes were identified to be of moderate significance in the materiality assessment. Those themes were:

- Good governance
- Other environmental challenges, such as tire and road wear particles, or TRWPs, biodiversity and water consumption
- Strengthening ties with local communities, and
- Customer satisfaction

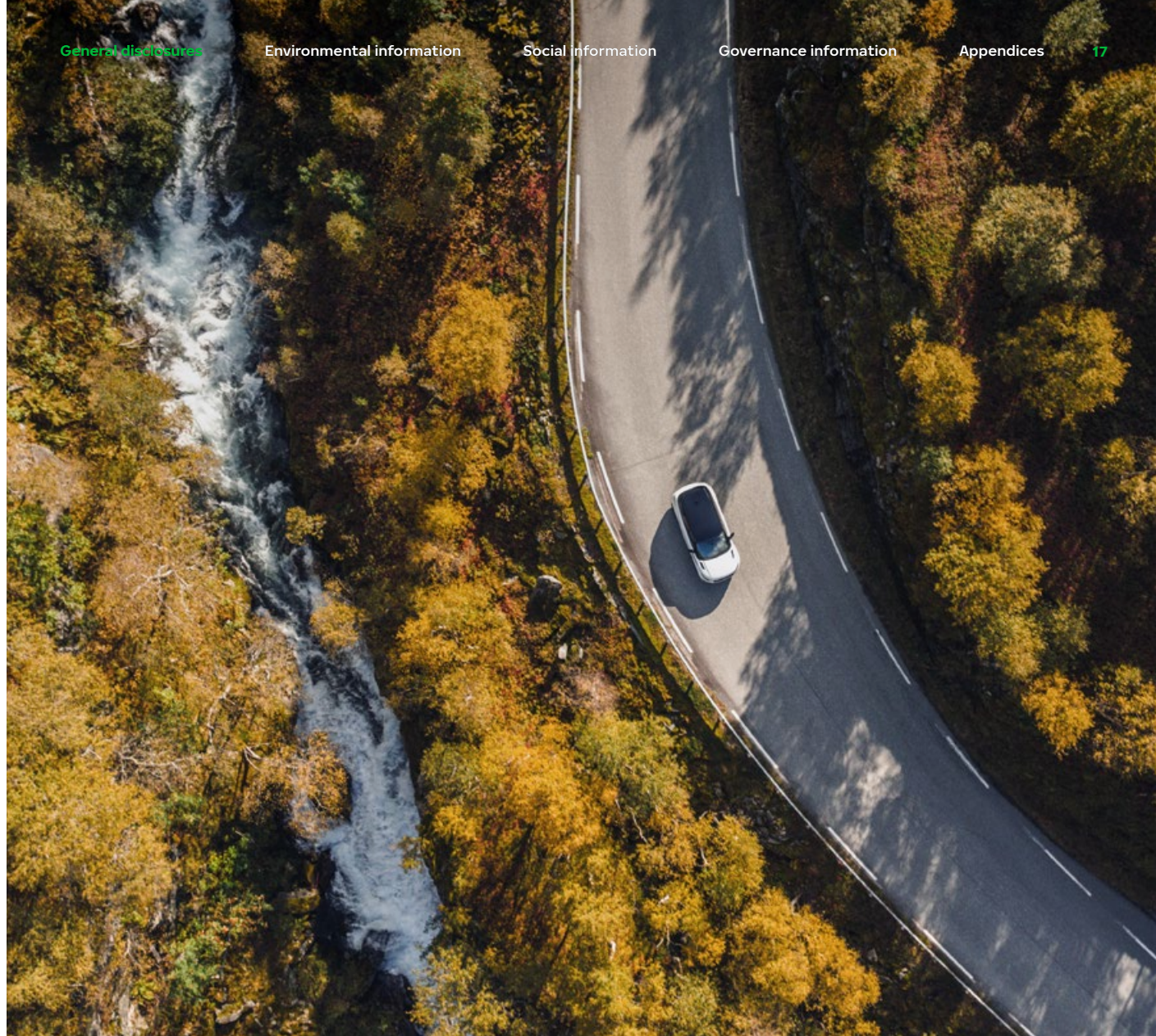


Materiality assessments form the basis for sustainability work at Nokian Tyres.



Description of the process to identify and assess new material impacts, risks, and opportunities

Nokian Tyres carried out a sustainability double materiality assessment during September 2023–February 2024. The assessment process consisted of a contextual analysis based on public and internal sources, stakeholder survey, internal assessment and working group meetings. The results were reviewed and validated by Nokian Tyres' Group Management Team, the Audit Committee, as well as the Board of Directors. The process followed the principles of internal control and risk management confirmed by Nokian Tyres' Board of Directors.



Contextual analysis

The analysis served to give an understanding of the context and a starting point for the materiality assessment. The aim of the analysis was to preliminarily identify and evaluate the potentially relevant sustainability aspects (impacts, risks, and opportunities) to the tire industry and across Nokian Tyres' value chain. The contextual analysis was based on publicly available and internal materials, looking into the larger sustainability trends in the media, an overview of relevant regulation, sector-specific frameworks, and industry publications, as well as a peer benchmark.

Identifying sustainability-related impacts, risks, and opportunities

As a result of the contextual analysis, a number of actual and potential, negative and positive impacts, as well as risks and opportunities relevant in Nokian Tyres' own operations and through its business relationships were identified and categorized as per the ESRS topic division. The key features of the value chain were considered on a general level, including the key inputs and outputs, Nokian Tyres' own functions, as well as the main stakeholders including suppliers and consumers.

The identified list of material topics served as basis for the stakeholder engagement via an online survey. Through the survey, Nokian Tyres engaged with a wide range of stakeholder representatives to understand their views and interests on relevant sustainability topics for Nokian Tyres. Participants included Nokian Tyres' employees, suppliers, business partners, corporate customers, retailers, investors, board members, authorities, media, NGOs, and industry associations. The views of these stakeholders informed the subsequent assessment of material impacts, risks, and opportunities.

Assessment and determination of material impacts, risks, and opportunities

The materiality of the identified impacts, risks and opportunities was assessed in accordance with the principles of the ESRS. The severity of the negative and positive effects (considering the scale, scope and, in the case of negative effects, also the irremediable character of the impact), the magnitude of the financial impact of the risks and opportunities, as well as the likelihood of their occurrence were each assessed on a scale of 1 to 5. For the identification and assessment of climate-related risks and opportunities, Nokian Tyres' simultaneously conducted separate climate risk assessment was utilized and integrated into the double materiality assessment process.

The result of the severity/magnitude scores and the corresponding likelihood scores formed the total materiality scores of each sustainability topic, by which a quantitative materiality prioritization of the identified items was created. The double materiality scores for the sustainability matters were determined based on both the impact and risk materiality scores. The median value of all the materiality scores was employed as the initial quantitative threshold for determining the materiality of a single sustainability topic (impact, risk, or opportunity). After further discussion and analysis in working group meetings, qualitative materiality adjustments were made for individual impacts, risks, and opportunities, resulting in the final list of material topics:

- E1 Climate change – greenhouse gas emissions, energy
- E2 Pollution – tire and road wear particles, chemicals
- E4 Biodiversity and ecosystems – biodiversity impacts, particularly in raw material sourcing
- E5 Resource use and circular economy – material use, sustainable materials, circularity and end-of-life tires
- S1 Own workforce – secure and fair working conditions, health, safety, well-being, motivation, diversity and inclusion, skills and career development
- S2 Workers in the value chain – human rights
- S4 Consumers and end users – product safety, end-user guidance and awareness, responsible communications and marketing, customer privacy
- G1 Business conduct – ethical business conduct, sustainable sourcing, responsible political engagement

Nokian Tyres as a part of society

A tire is a global product as its value chain extends throughout the world. The graph shows Nokian Tyres' impact along the value chain.

Nokian Tyres' value chain

Transportation of raw materials

Most of the raw materials for tires are transported by sea to large ports in Europe from where they are shipped to Finland and the US.



Group functions

Nokian Tyres produces passenger car, van and heavy tires in Finland, and passenger car and light truck tires in the US. In addition, there are sales companies in the key markets. Vianor chain offers tire and car services and also operates five retreading plants in Finland, Sweden and Norway.



Logistics

From the logistics centers, the tires are transported to warehouses by land and sea.



Consumers and end users

The users of Nokian Tyres' products are the most important link in the value chain. Approximately 89% of a tire's carbon footprint is generated during its use, which means that the product development efforts for reducing the tires' environmental impacts are measured during tire use.



Upstream

Operations

Downstream



Suppliers

The main raw material groups in tire manufacturing are synthetic rubber, fillers, chemicals, reinforcing materials, and natural rubber. Nokian Tyres has more than 150 different raw material suppliers and requires that all sustainability critical suppliers adhere to the Supplier Code of Conduct. Nokian Tyres Group also imports tires, machinery, and goods for tire manufacturing and car service. Supplier sustainability audits have been conducted since 2016.



Subcontractors

Nokian Tyres works globally with several subcontractors in various fields, such as construction, security, cleaning, and logistics. All new subcontractors offering their services are expected to commit to the Supplier Code of Conduct.



Society

Nokian Tyres' impact is directly seen in the factory locations as a locally significant job creator and a permanent part of the surrounding community. The purchases, salaries, and taxes as well as the dividends to shareholders contribute to well-being throughout the world.



Dealers

Nokian Tyres' products are sold globally via the branded distribution network, Vianor and Vianor Partner chains, as well as through car dealership and tire stores. Due to the extensive distribution network, Nokian Tyres' products are sold in 55 countries.



Recycling

End-of-life tires can be shredded or granulated to be utilized in various applications. Bus and truck tires can be also retreaded 2-4 times. Another way is to combust used tires for energy. Nokian Tyres uses some recycled materials in the products, such as recycled steel and carbon black.

Nokian Tyres' objective is to create value for its various stakeholders, such as consumers, customers, its personnel, and shareholders. The company wants to meet stakeholder expectations. Through sustainable business practices and financial success, Nokian Tyres can offer security, work and well-being for the personnel and contribute to the well-being of local communities.

Read more: [Annual Report 2023](#)

Nokian Tyres contributes to society and communities as a responsible employer and through the fair payment of salaries and taxes. The tire factories are significant employers in their operating areas. When all of the subcontractors are taken into account, Nokian Tyres' role as a job creator becomes even more significant. The salaries and taxes that the company pays support the structures of society and improve the quality of life for thousands of people.

The Group's effective tax rate (ETR) in 2023 was 12.3 percent (negative in 2022). The tax rate was affected by the sale of the Russian operations causing tax exempt revenues.

Nokian Tyres' Tax Policy defines the general framework and guidelines for tax matters administration and decision making in the Group. The Tax Policy is aligned with other internal key policies, manuals and instructions related to tax management, for example the Code of Conduct. The key overall goals directing Nokian Tyres' Tax Policy are continuous enhancement of shareholder value on a sustainable basis, adherence to applicable laws and regulations, and protection of Nokian Tyres' reputation and brand. Nokian Tyres is committed to paying the amount of tax legally due in any territory in accordance with rules set by the relevant authorities. Nokian Tyres maintains an open, professional, and transparent relationship with tax authorities.

Income tax expense

Region	EUR million in 2023
Nordic countries	-9.4
Other Europe	1.0
North America	4.4
Other	5.7

The company is included in the OMX GES Sustainability Finland PI index, which provides transparent, objective, and reliable information for making responsible investments. Companies are selected for the index based on their compliance with requirements that focus on the management of environmental, social, and corporate governance (ESG). Nokian Tyres is also included in the prestigious Dow Jones Sustainability Europe Index, comprised of corporate leaders in sustainability as identified by S&P Global. In 2023, Nokian Tyres also scored an AAA in the MSCI ESG rating.

Nokian Tyres has a Disclosure Policy that describes the key processes related to Nokian Tyres' external communications as well as the main principles that Nokian Tyres follows when communicating with the capital markets and media. You can read about the communication principles on the company website at www.nokiantyres.com/company/investors/investor-relations/communication-principles/.



Nokian Tyres contributes to society and communities as a responsible employer and through the fair payment of salaries and taxes. The tire factories are significant employers in their operating areas.

Risk management

Nokian Tyres' business and financial performance may be affected by several uncertainties. The Group has adopted a Risk Management Policy, approved by the Board, which supports the achievement of strategic goals and ensures business continuity. The Risk Management Policy focuses on managing both the risks pertaining to business opportunities and the risks affecting the achievement of the company's goals in the changing operating environment. The risk management process aims to identify and evaluate the risks and to plan and implement the practical measures for each risk. Nokian Tyres describes the overall business risks and risk management in its annual Corporate Governance Statement.

In this report, we concentrate on environmental risks, in particular on climate risks. You can find more information on them under the topic Climate Change. Other risks are described in the Annual Report 2023.



Corporate philanthropy is Nokian Tyres' way of giving back to its community locally, regionally, nationally, and internationally.

A global company with local impacts

Corporate philanthropy is Nokian Tyres' way of giving back to its community locally, regionally, nationally, and internationally. Donating time, products, services, and money to charities and nonprofits helps the company to build trust with its communities, consumers, and other companies, as well as to improve employee engagement.

Nokian Tyres' approach to philanthropy mirrors its purpose, entrepreneurial and inventive company culture, and sustainable way of doing business. The company does not support any political or religious entities. The company offers resources to projects based on the Nokian Tyres' Philanthropy Approach defined in 2020.

In Finland, Nokian Tyres promotes tire recycling as the founding member of Finnish Tyre Recycling. Nokian Tyres' R&D is also involved and supports several research programs, such as PoDoCo, a matchmaking program supporting long term competitiveness and strategic renewal of companies and employment of young doctors in the private sector.

In 2023, Nokian Tyres gave the Baltic Sea Action Group (BSAG) a Baltic Sea commitment for the years 2023–2026. Nokian Tyres' commitment is focused on cooperation in BSAG's Ship Waste Action initiative. The goal of the initiative is to establish an operating model in which wastewater from cargo ships is discharged in the harbor and the utilization of nutrients is enabled by circular economy solutions.

Nokian Tyres also entered a partnership with the Finnish Ski Association, becoming the main partner of Cross-Country Ski Team Finland as well as junior Cross-Country Ski Team Finland for the seasons 2023–24 and 2024–25. With the partnership, Nokian Tyres wants to support the top athletes representing Finland as well as the young future talents.

Additionally, the company continued to support the traffic safety education for local school children in Nokia, Finland, by donating books for safety education. The tire and car service chain Vianor donated to Save the Children, an international advocate of children's rights, to support low-income families and children at the risk of alienation in Finland, Sweden, and Norway.

In the US, Nokian Tyres has donations committees in Dayton, Nashville, and Colchester. The company donated to non-profit and educational organizations near its factory in Dayton, Tennessee. This included support for education and funding area sustainability efforts, such as membership in environmental business organization Thrive Regional Partnership. Throughout North America, Nokian Tyres donated tires to help charities and community organizations raise funds and serve their communities. In addition, Nokian Tyres supported Nokian Tyres Summer Nights, a summer concert series in Dayton aimed at supporting community growth.

Nokian Tyres continued its partnership with POWDR, a ski resort company in the United States and Canada. The partners planted trees for every season pass sold during a select time period at participating resorts. They also worked together to educate resort guests on the importance of driving safety.



ENVIRONMENTAL INFORMATION

MADE FOR DEMANDING CONDITIONS

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FOR INNOVATION, BEING THE
WORLD'S NORTHERNMOST TIRE
COMPANY IS A REAL DRIVER.

Jarmo Sunnari,
Global Product Manager



Environmental information

Nokian Tyres has uncompromising respect for the environment and safety, as well as for ensuring high quality and a good customer experience throughout the company's operations. Environmental responsibility is considered in the products' entire life cycle and all the company's functions, and the Precautionary Principle is followed.

The environmental impacts from tire production include greenhouse gas emissions, odor, particle emissions, noise, waste, and solvent emissions. Nokian Tyres constantly strives to reduce these impacts in the best possible ways: by improving the operations and finding efficiencies, and by correcting identified deviations. In accordance with the Environmental, Safety, and Quality Policy that can be found on the company website at www.nokiantyres.com/company/sustainability/commitment-to-quality-and-sustainability/, Nokian Tyres aims for zero defects in its activities within these areas.

Most of the annual environmental and sustainability targets are linked to the longer-term 2025 or 2030 sustainability development targets. The VP, Quality and Sustainability is involved in drawing up the annual targets together with the Senior Manager, Sustainability.

Working together with environmental experts, the Senior Manager, Sustainability prepares an annual environmental program for the factories. The program specifies the detailed targets, actions, schedules, and responsible persons. In addition, individual units have their own projects for developing the operations and processes. The development of environmental aspects and quality is reviewed monthly at unit management meetings.

Nokian Tyres also ensures that statutory requirements are implemented according to the environmental permits and legislation at the factories. Environmental awareness among the employees is increased by regular trainings and communication.

Regular audits' purpose is to ensure environmental friendliness in production and a safe working environment that meets the high standards of quality. The audits aim to verify that Nokian Tyres' operations comply with the legislation, the Environment, Safety, and Quality policy, and the instructions in the ISO 14001 certified management system. Internal environmental audits are conducted regularly according to an annual plan.

An external auditor performs an audit once a year in order to assess the company's activities' compliance with the relevant standards. Moreover, legal and regulatory compliance is supervised by the authorities and insurance companies annually or as required.



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**ENVIRONMENTAL
RESPONSIBILITY
IS CONSIDERED
IN THE PRODUCTS'
ENTIRE LIFE CYCLE.**

Key measures in 2023 and targets in 2024

Topic	Target in 2023	Status in 2023	Target in 2024	Mid-term/long-term target
Climate change	Lower tire factory GHG emissions intensity	Achieved: 158 CO ₂ kg/product ton	<195 CO ₂ kg/product ton	52% decrease in the GHG emissions intensity from 2015 to 2030. Achieved already in 2023. A new target will be set during 2024
	40 Product Carbon Footprints for raw materials from suppliers	A total of 53 Product Carbon Footprints	A total of 70 Product Carbon Footprints for raw materials from suppliers	25% decrease of raw material CO ₂ emissions by 2030 vs. 2018 base year
	CO ₂ data from 15 transportation suppliers	CO ₂ data from 15 big transportation suppliers	The CO ₂ data from suppliers covers at least 60% of transportation that Nokian Tyres purchases	25% decrease of transportation CO ₂ emissions by 2030 vs. 2018 base year
	Improving energy efficiency, no numeric intermediate target for 2023	Efficiency improved from 2.86 kWh/kg in 2022 to 2.83 kWh/kg in 2023	Reaching 2.80 kWh/kg energy efficiency	Reaching 2.75 kWh/kg energy efficiency by 2030
Pollution	Two audits by chemical specialists concentrating on the use and storage of chemicals in Nokian Tyres' factories	Implemented	Two audits by chemical specialists concentrating on the use and storage of chemicals in Nokian Tyres' factories	Two audits by chemical specialists concentrating on the use and storage of chemicals in Nokian Tyres' factories
	Applying for an updated environmental permit regarding the VOC emissions of the Finnish tire factory	Implemented	VOC emissions under the set limits in environmental permit at the factories	VOC emissions under set limits in environmental permit at the factories
	Products do not contain Substances of Very High Concern as referred to in REACH	Implemented	Products do not contain Substances of Very High Concern as referred to in REACH	Products do not contain Substances of Very High Concern as referred to in REACH
	Assuring chemical and environmental safety in the construction phase of the factory in Romania	Implemented	Assuring chemical and environmental safety in the ramp-up phase of the factory in Romania	Assuring chemical and environmental safety in all operations
Water and marine resources	Municipal (third party) water withdrawal below 2 liters/product kg in the tire factories	Not achieved: 2.18 liters/product kg	Municipal (third party) water withdrawal below 2 liters/product kg in the tire factories	Municipal (third party) water withdrawal below 2 liters/product kg in the tire factories
Biodiversity and ecosystems	Create a biodiversity plan	Achieved: the first biodiversity plan created	Implementing actions according to the biodiversity plan	Implementing recommendations of the Task Force on Nature-related Financial Disclosures (TNFD)
Resource use and circular economy	Introduce at least one new recycled or renewable raw material in production	Achieved: one renewable filler material taken into use in production	At least one of the ISCC plus certified materials taken into use in production, and at least one new recycled or renewable raw material taken into use in production	Increase the share of renewable or recycled raw materials in tires to 50% by 2030
	Zero waste to landfill from the tire factories	Achieved	Zero waste to landfill from the tire factories	Zero waste to landfill from the tire factories

Climate change

Nokian Tyres wants to show leadership in tackling climate change by setting ambitious climate targets. This involves reducing emissions from the company's own operations and from its supply chain, but also from tire use.

Approximately 89 percent of a Nokian Tyres' tire's carbon footprint is created during its use. Fuel consumption during driving is the single most significant environmental impact over a tire's service life. Tires with low rolling resistance save fuel and thus reduce CO₂ emissions.

Commitment to environmental responsibility

Nokian Tyres' Environmental, Safety and Quality Policy has been approved by the President and CEO of the company, and it states that the company commits to environmental responsibility, which includes but is not limited to reducing greenhouse gas emissions, improving energy efficiency, and preferring renewable energy. The policy also includes the commitment to setting targets to reduce environmental impacts.

Carbon dioxide (CO₂)

Nokian Tyres is committed to reducing greenhouse gas emissions from its operations in order to combat climate change. The greenhouse gas emissions from the operations are calculated annually and reduced systematically. Nokian Tyres monitors and reports its greenhouse gas emissions through the calculation of the CO₂ equivalent unit, CO₂e. Nokian Tyres' tire production's greenhouse gas (GHG) emissions from raw material purchasing to

the disposal of the product are calculated in compliance with the ISO 14064 standard and the GHG protocol.

In May 2018, the company joined the Science Based Targets (SBT) initiative with the aim of setting more precise climate targets that are assessed and validated by an external organization. The company's science-based greenhouse gas emissions reduction targets were published in May 2020, and Nokian Tyres was the first company in the tire industry to have its targets officially approved by the Science Based Targets initiative. In 2023 Nokian Tyres committed to setting targets to reach science-based net-zero greenhouse gas emissions by 2050.

In 2023 Nokian Tyres started the construction of its new factory in Romania. It will be the first zero CO₂ emissions (Scope 1 and 2) factory in the tire industry, contributing to the company's aim to reduce emissions from tire production. For instance, the energy used at the factory comes from zero CO₂ sources, and the steam needed for the tire manufacturing process is generated fully without fossil fuels. Once fully operational, the annual capacity of the factory will be six million tires with expansion potential in the future.

Additionally, Nokian Tyres joined the Polestar 0 project that aims to create a climate-neutral car by 2030. The target of the electric vehicle manufacturer Polestar's project is that throughout the car's supply chain, manufacturing processes, and end of life, all sources of CO₂ emissions will be eliminated without offsetting them. The approach encompasses the collaboration across the entire development process and value chain, from suppliers to retailers. Each component has to be climate neutral, and so do their value chains. Nokian Tyres contributes to the project by developing climate-neutral premium tires.

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**THE NEW FACTORY
IN ROMANIA WILL
BE THE FIRST ZERO
CO₂ EMISSION
FACTORY IN THE
TIRE INDUSTRY.**



Tires' rolling resistance affects the emissions from driving

The use of fossil fuels accounts for most of human-generated carbon emissions. Carbon dioxide is the most significant greenhouse gas generated by traffic. When a tire rolls against the road surface, energy is lost mainly due to heat build-up; this is referred to as the rolling resistance. The higher the rolling resistance is, the higher the fuel consumption and CO₂ emissions will be. Fuel consumption during driving is the single most significant environmental impact over a tire's service life. Tires with low rolling resistance may save more than 0.5 liters of fuel per 100 kilometers, and thus reduce CO₂ emissions.

The level of lower rolling resistance tires (class A, B, and C tires) manufactured by Nokian Tyres is over 90 percent. The EU Tyre Label categorizes fuel efficiency on a scale from A to E. More information about the label categories is presented in the topic Consumers and end users. At the moment, class C is the most common fuel economy rating for Nokian Tyres' passenger car tires.

In the end, environmental friendliness in traffic comes down to a very simple fact: the driver has all the power to make a positive impact. Approximately 89 percent of a Nokian Tyres' tire's carbon footprint is created during its use. A wise choice of tires, the right tire pressure, and a careful driving style significantly reduce the CO₂ emissions from driving.

Energy

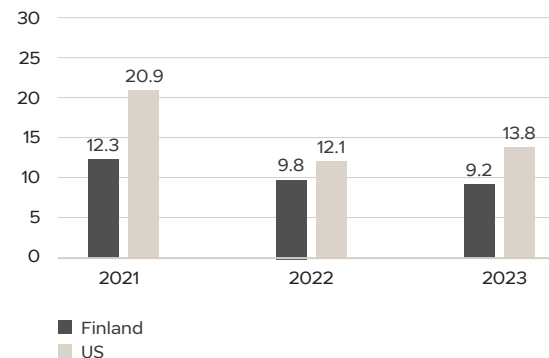
Nokian Tyres purchases energy for the factories from external suppliers, and the company also generates some of the electricity and steam that it uses. In 2023, about 49 percent of all energy used in the tire factories was produced from renewable energy sources.

In 2023 the Nordic energy company Gasum started the supply of renewable wind energy for part of the electricity used in Nokian Tyres' Finnish operations. Nokian Tyres has a 10-year agreement with Gasum, and the power is produced by a new wind farm in North Ostrobothnia. Steam is generated in a biomass power plant nearby the Finnish tire factory. Solar panels provide some of the energy for the factory and the administration building in the US, for the logistics center in Finland, and for the Visitor Center building in the test center in Spain, for example.



Fuel consumption during driving is the single most significant environmental impact over a tire's service life.

Energy intensity in tire factories,
GJ/production t



Targeting to reduce emissions from operations, energy use, and traffic

Nokian Tyres' four science-based emissions reduction targets are in line with the Paris Agreement. The base year for the first three targets is 2018 and 2015 for the fourth target. All the targets should be achieved by 2030. Nokian Tyres is currently in the process of having new, more ambitious emission reduction targets to be validated by the SBT. The new emission targets will be aligned with the 1.5 degrees pathway.

In 2023, Nokian Tyres reached one of its key emissions reduction targets seven years ahead of schedule. One of the company's science-based greenhouse gas emissions reduction targets was to cut its tire factories' CO₂ emissions by 52 percent per production ton by 2030 compared to the emissions level in 2015. The target was already achieved in 2023.

Nokian Tyres' science-based targets

Target	What it means	Examples	Actions in 2023
Reduce emissions from tire raw material production by 25%	Nokian Tyres encourages the raw material producers to implement their own actions in order to reduce emissions	Raw material producers will be transitioning to zero or low-emission energy and improving the energy efficiency of the entire production process	A study regarding suppliers' CO ₂ emissions reporting capabilities and short and long term emission reduction plans, focusing on suppliers in the highest CO ₂ emitting raw material categories. Collecting product level CO ₂ data from raw material suppliers
Reduce CO₂ emissions by 25% per ton of tires in logistics	Achieving this requires emission reductions from road, train, marine and air transportation	Increasing the share of biofuels, improving the efficiency of engines, and optimizing routes further are key methods	A study regarding suppliers' CO ₂ emissions reporting capabilities and short- and long-term emission reduction plans, focusing on biggest spend suppliers. Collecting product level CO ₂ data from transportation suppliers
Reduce CO₂ emissions from tire use by 25%	This will have the largest impact on reducing global CO ₂ emissions, as Nokian Tyres' tires are used on millions of vehicles	Overall reduction of vehicle emissions has an important role in improvements. Lowering the rolling resistance of a tire reduces the fuel consumption of the vehicle	No new A class rolling resistance tires added to product portfolio during 2023. Additions depend on product launches
Reduce tire production's CO₂ emissions by 52% per ton of tires	The CO ₂ emissions are mainly the result of the energy mix used for the factories	Most of the energy that Nokian Tyres purchases should be low-emission or zero-emission and produced with renewable forms of energy. Improvements in energy efficiency will also reduce emissions	Nokian Tyres already achieved this target in 2023. Continued purchasing electricity generated by wind and hydropower for the Finnish operations and renewable energy certificates for the factory in the US. Investigated possibilities to purchase guarantees of origin for heat in Finland

Energy consumption and mix

	2021	2022	2023
Energy use			
Energy consumption within the organization, TJ			
Tire factory in Finland	681.4	701.0	709.7
Tire factory in the US	186.1	222.8	309.5
Wheel factory in Finland	50.9	47.8	41.8
Energy intensity, GJ/production ton			
Tire factory in Finland	12.3	9.8	9.2
Tire factory in the US	20.9	12.1	13.8
Wheel factory in Finland	8.8	8.9	8.3
Total energy consumption, TJ			
Electricity			
Tire factory in Finland	292	326	337
Tire factory in the US	83	105	130
Wheel factory in Finland	19	19	17
Heating			
Tire factory in Finland	137.9	98.8	89.4
Tire factory in the US	10	11.8	18.0
Wheel factory in Finland	31.8	28.4	24.8
Steam			
Tire factory in Finland	251.7	276.3	283.1
Tire factory in the US	93.6	105.9	161.7
Wheel factory in Finland	0	0	0
Amount of renewable energy, %			
Tire factory in Finland	87.7	49.9	54.6
Tire factory in the US	12.4	11.6	34.9
Wheel factory in Finland	26.3	12.9	11.8

Gross Scope 1, 2, 3 and Total GHG emissions

	Retrospective				2030	Annual % target / Base year
	Base year	2022	2023	% 2023/2022		
Scope 1 GHG emissions	2015					
Gross Scope 1 GHG emissions, tCO ₂ eq	3,310	10,570	12,690	20%	-52% ³	-3.50%
Percentage of Scope 1 GHG emissions from regulated emission trading schemes, %	0	0	0	0		
Scope 2 GHG emissions	2015					
Gross location-based Scope 2 GHG emissions, tCO ₂ eq	37,130	27,780	30,820	11%		
Gross market-based Scope 2 GHG emissions, tCO ₂ eq	46,950	20,700	15,470	-25%	-52% ³	-3.50%
Significant Scope 3 GHG emissions	2018					
Total Gross indirect (Scope 3) GHG emissions, tCO ₂ eq	5,569,450	7,219,650	8,133,890	13%		
1 Purchased goods and services	344,520	657,410	640,670	-3%	-25% ⁴	-2.10%
2 Capital goods	28,660	54,210	96,550	78%		
3 Fuel and energy-related Activities (not included in Scope 1 or Scope 2)	6,940	13,890	15,190	9%		
4 Upstream transportation and distribution	27,190	53,540	45,930	-14%	-25% ⁴	-2.10%
5 Waste generated in operations	190	280	300	7%		
6 Business traveling ¹	N/A	N/A	N/A	N/A		
7 Employee commuting ²	370	1,060	1,240	17%		
8 Upstream leased assets	4,360	11,630	10,040	-14%		
9 Downstream transportation	150	450	330	-27%	-25% ⁴	-2.10%
10 Processing of sold products	N/A	N/A	N/A	N/A		
11 Use of sold products	5,154,290	6,422,430	7,318,260	14%	-25% ⁴	
12 End-of-life treatment of sold products	2,650	4,390	5,400	23%		
13 Downstream leased assets	N/A	N/A	N/A	N/A		
14 Franchises	N/A	N/A	N/A	N/A		
15 Investments	N/A	N/A	N/A	N/A		
Total GHG emissions						
Total GHG emissions (location-based), tCO ₂ eq	7,258,000	8,177,400		13%		
Total GHG emissions (market-based), tCO ₂ eq	7,250,920	8,162,050		13%		

¹ Excluded from reporting due to being an insignificant category and data being inaccurate.

² Includes the tire factories in Finland and the US.

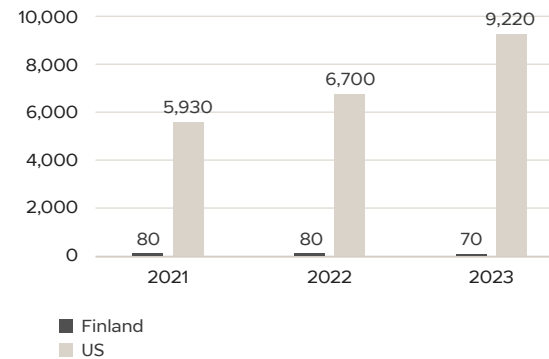
³ 2030 intensity target for Scope 1+2 is -52%.

⁴ 2030 intensity target for raw materials (part of Purchased goods and services) and for Upstream + Downstream transportation and distribution. Additional optional target -25% for Use of sold products.

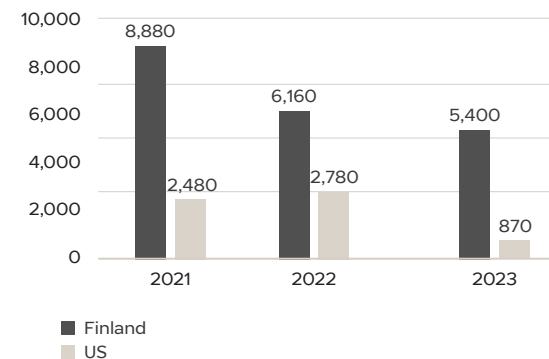
Emissions to air	2015	2021	2022	2023
Direct greenhouse gas emissions, Scope 1, tCO₂eq				
Tire factory in Finland	130	80	80	70
Tire factory in the US		5,930	6,700	9,220
Tire production total	130	6,010	6,780	9,290
Wheel factory in Finland	970	1,800	1,600	1,400
Indirect greenhouse gas emissions (market based), Scope 2, tCO₂eq				
Tire factory in Finland	34,700	8,880	6,160	5,400
Tire factory in the US		2,480	2,780	870
Tire production total	34,700	11,360	8,940	6,270
Wheel factory in Finland	550	880	890	0
Indirect greenhouse gas emissions (location based), Scope 2, tCO₂eq				
Tire factory in Finland	31,820	16,640	14,840	14,370
Tire factory in the US		6,200	8,140	10,570
Tire production total	31,820	22,840	22,980	24,940
Wheel factory in Finland	340	510	520	450
Greenhouse gas emissions intensity ratio Scope 1 + Scope 2, tCO₂eq/production ton				
Tire factory in Finland	0.71	0.16	0.09	0.07
Tire factory in the US		0.94	0.52	0.45
Tire production total	0.71	0.27	0.18	0.16
Wheel factory in Finland	0.54	0.47	0.47	0.28

In 2023, Nokian Tyres' location-based Scope 2 emissions from tire production were approximately 24,940 (22,980) tons CO₂ eq. The emission calculation is based on the average emissions intensity of power grids in the production facility countries. Nokian Tyres' market-based Scope 2 emissions from tire production were approximately 6,267 (8,940) tons CO₂ eq. In Finland, the emission calculation is based on the suppliers' certificate of the actual energy sources used. In other locations, the emission calculations are based on the emission factors of the purchased electricity.

Direct greenhouse gas emissions from the tire factories, Scope 1, tCO₂ eq



Indirect greenhouse gas emissions from the tire factories, Scope 2 (market based), tCO₂ eq



To reduce emissions from traffic, the company aims to have at least 60 products in the best rolling resistance A class by 2028. It's good to note that the number of A class tires does not increase linearly but is dependent on new product launches as well as discontinued products. During 2023, no new products were included in the rolling resistance class A of EU Tyre Labelling.

Nokian Tyres products in the rolling resistance A class*

Status in 2023	Goal for 2028
10	60

* Tires included in the EU Tyre Labelling.

Climate-related risks and opportunities

The tire industry can be subject to risks caused by the climate change, such as changes in consumer tire preferences, regulatory changes, or the impact of extreme weather events on natural rubber producers. Nokian Tyres has defined its climate-related risks and opportunities according to the recommendations of Task Force on Climate Related Financial Disclosures (TCFD). In 2023, the risks and opportunities were reassessed.

The following scales were used for severity and time horizon:

Severity:		Time horizon:	
Very low	<0.1 EUR million	Short	<2030
Low	0.2–2 EUR million	Medium	2030–2040
Medium	3–20 EUR million	Long	2040–2050
High	20–200 EUR million		
Very high	>201 EUR million		

Climate-related risks

Risk group	Subcategory	Examples of concrete risks	Time horizon	Severity (Financial impact)	Probability	Adaptation / mitigation plan
Transition risks						
Regulatory	Emerging regulation	Deforestation-related regulation (EUDR), concerning natural rubber	Short	Medium	High	Follow-up of emerging regulation
			Medium	Low	High	
			Long	Low	High	
		Green regulation on aviation and maritime fuels can significantly increase costs of logistics	Short	Low	High	
			Medium	Low	High	
			Long	Very low	High	
	Further environmental fees	Additional taxes and duties e.g. EU's CBAM for fossil raw materials can increase prices. Carbon taxes. Certification costs	Short	Medium	High	Participation in industry sector working groups
			Medium	Medium	High	
			Long	Medium	High	
	Stricter expectations to oversight	Increased verification testing of products and emission measurements, including LCA, EPD	Short	Low	Medium	Follow-up of emerging regulations
			Medium	Low	High	
			Long	Low	High	
Technological	Climate-related demands for new tire technology	A+ rolling resistance tires required for EVs	Short	Medium	Low	Anticipation of future expectations in R&D development road maps
			Medium	Medium	Low	
			Long	Medium	Low	
		150 km/h max speed for EU – demand for UHP (Ultra High Performance) tires declines	Short	Low	Low	
			Medium	Low	Low	
			Long	Low	Low	

Risk group	Subcategory	Examples of concrete risks	Time horizon	Severity (Financial impact)	Probability	Adaptation / mitigation plan
Market and reputation	Market changes	Shift from car ownership to mobility-as-a-service i.e. changing customer base	Short	Low	Medium	Update product and service offering
			Medium	Medium	Medium	
			Long	Medium	Medium	
	Tire raw materials	Replacing fossil-based raw materials with more expensive renewable and recycled materials	Short	High	High	Road map for selective use of renewable and recycled raw materials
			Medium	Medium	High	
			Long	Medium	High	
		Replacing raw materials that have a high carbon footprint with materials with a lower carbon footprint. Availability and price of materials	Short	High	High	Selective use of lower carbon footprint materials
			Medium	Medium	High	
			Long	Medium	High	
	Energy	Green energy prices go up due to strong demand	Short	Low	High	Long term power purchasing agreements
			Medium	Medium	High	
			Long	Medium	Medium	
		Raw material and transportation price increases due to higher energy prices	Short	Low	Medium	Long term contracts
			Medium	Low	Medium	
			Long	Low	Medium	
	Tire raw materials	Availability of renewable and recycled raw materials can limit plans for sustainability	Short	Low	High	Aiming for multiple sources
			Medium	Low	High	
			Long	Low	Medium	
	Tire demand	Increased demand for all-season tires, decreased demand for winter tires	Short	Low	High	Update product offering
			Medium	Low	High	
			Long	Low	Medium	

Risk group	Subcategory	Examples of concrete risks	Time horizon	Severity (Financial impact)	Probability	Adaptation / mitigation plan
Market and reputation	Reputational risk	Deforestation scandals (natural rubber)	Short	Low	Low	Co-operation with supply chain in line with GPSNR recommendations
			Medium	Low	Low	
			Long	Low	Low	
		Unintentional incorrect sustainability information	Short	Low	Low	Systematic information verification practices
			Medium	Low	Low	
			Long	Low	Low	
Physical risks						
Physical	Extreme weather events	Disruptions in logistics and force majeure situations	Short	Low	Medium	Alternative transportation routes
			Medium	Low	Medium	
			Long	Low	Medium	
		Permanent changes in logistics and/or increased force majeure situations (chronic)	Short	Low	Low	Alternative transportation routes
			Medium	Low	Low	
			Long	Medium	Low	
		Impact of extreme weather events on natural rubber producers	Short	Low	Low	Alternative sourcing locations
			Medium	Low	Low	Alternative materials
			Long	Low	Low	Alternative materials
	Extreme temperatures	Contamination/lower quality of raw materials	Short	Low	Low	Multiple supply sources
			Medium	Low	Low	
			Long	Low	Low	
	Extreme weather events	Disruption on own production and/or distribution	Short	Low	Low	Location selection and building design. Insurances
			Medium	High	Low	
			Long	High	Low	

Climate-related opportunities

Opportunity group	Subcategory	Examples of concrete opportunities	Time horizon	Severity (Financial impact)	Probability	Implementation plan
Innovation	Raw materials	Innovations with renewable / recycled / local materials	Short	Medium	High	Material development road map to reach 50% share of renewable or recycled raw materials by 2030
			Medium	High	High	
			Long	High	High	
		Innovations with low carbon footprint raw materials	Short	Medium	High	
			Medium	High	High	
			Long	High	High	
	Recycling	Cooperation with innovative recycling companies	Short	Low	High	Screening of opportunities and widening of cooperation
			Medium	Medium	High	
			Long	High	High	
	Climate-friendly technology	Lower rolling resistance products. Climate-friendly production	Short	High	High	Product development road map. New zero CO ₂ factory to Romania being implemented
			Medium	High	High	
			Long	High	High	
	Energy-efficient production	Modern machinery used in Nokian Tyres' factories	Short	Medium	Medium	New zero CO ₂ factory to Romania being implemented
			Medium	Medium	Medium	
			Long	Medium	Medium	
Product range	Competitive advantage	As an expert in demanding and challenging weather conditions, Nokian Tyres' share in winter tire markets is strong. Readiness to increase the share further, should the extreme weather phenomena increase in the future	Short	Low	High	Innovations and developing product portfolio to meet future winter conditions, increasing consumer awareness
			Medium	Medium	High	
			Long	High	High	
		Increase of all-season tire sales in Europe due to milder winters	Short	High	High	Developing product portfolio by deploying knowhow of winter conditions
			Medium	High	High	
			Long	Medium	High	

Opportunity group	Subcategory	Examples of concrete opportunities	Time horizon	Severity (Financial impact)	Probability	Implementation plan
Product range	EU's ESG regulations	Increased share of sustainable raw materials	Short	Medium	High	Innovation and early adaptation of regulations
			Medium	Medium	High	
			Long	Low	High	
		Tire regulation for wear resistance (abrasion)	Short	Medium	High	Product development
			Medium	Low	High	
			Long	Very low	High	
	Industrial (heavy) tires	Existing expertise to provide climate-friendly solutions, e.g. intelligent sensor technology	Short	Medium	High	Product development
			Medium	High	High	
			Long	High	High	
Engagement	Consumers	Increase awareness of how tires can affect safety and carbon footprint	Short	Medium	High	Consumer education through communications and marketing
			Medium	Medium	High	
			Long	Medium	High	
	Policy makers	Increased preparedness for new regulations or incentives	Short	Medium	High	Industry-wide cooperation and information sharing with decision makers
			Medium	Medium	High	
			Long	Medium	High	
	Shareholders / stakeholders	Climate-related sustainable financing and incentives	Short	Medium	High	Transparent sustainability targets, public reporting, collaboration with financial institutions, information sharing with stakeholders
			Medium	Medium	High	
			Long	High	High	
Regulatory	Renewable Energy Directive and other climate regulation	More renewable energy available in EU, prices can decrease	Short	Low	High	Own investments/partnering for green energy
			Medium	Medium	High	
			Long	Medium	High	
		Global carbon tax or similar would improve the company's competitive position	Short	Low	Medium	Further improvement of corporate carbon footprint
			Medium	Low	Medium	
			Long	Low	Medium	

Pollution

Safety is Nokian Tyres' priority, both in traffic and in production. When it comes to pollution, in practice it means responsible use of chemicals and exploring ways to reduce tire and road wear particles that are categorized as microplastics.

Nokian Tyres has shown leadership in the industry, as it was the first tire company to eliminate the use of harmful high-aromatic (HA) oils in its tire compounds, and the world's first tire manufacturer to have fully introduced low PAH content oils in its production.

Commitment to environmental responsibility

The Environmental, Safety and Quality policy states Nokian Tyres' promise that the company continuously improves the quality, safety and environmental friendliness of the products, services, and processes, taking into account the products' entire life cycle. To fulfill that promise, Nokian Tyres commits to environmental responsibility, which among other things includes, in addition to complying with laws and regulations, the commitment to preserve biodiversity as well as air and soil quality. The President and CEO has approved the policy.

VOC emissions

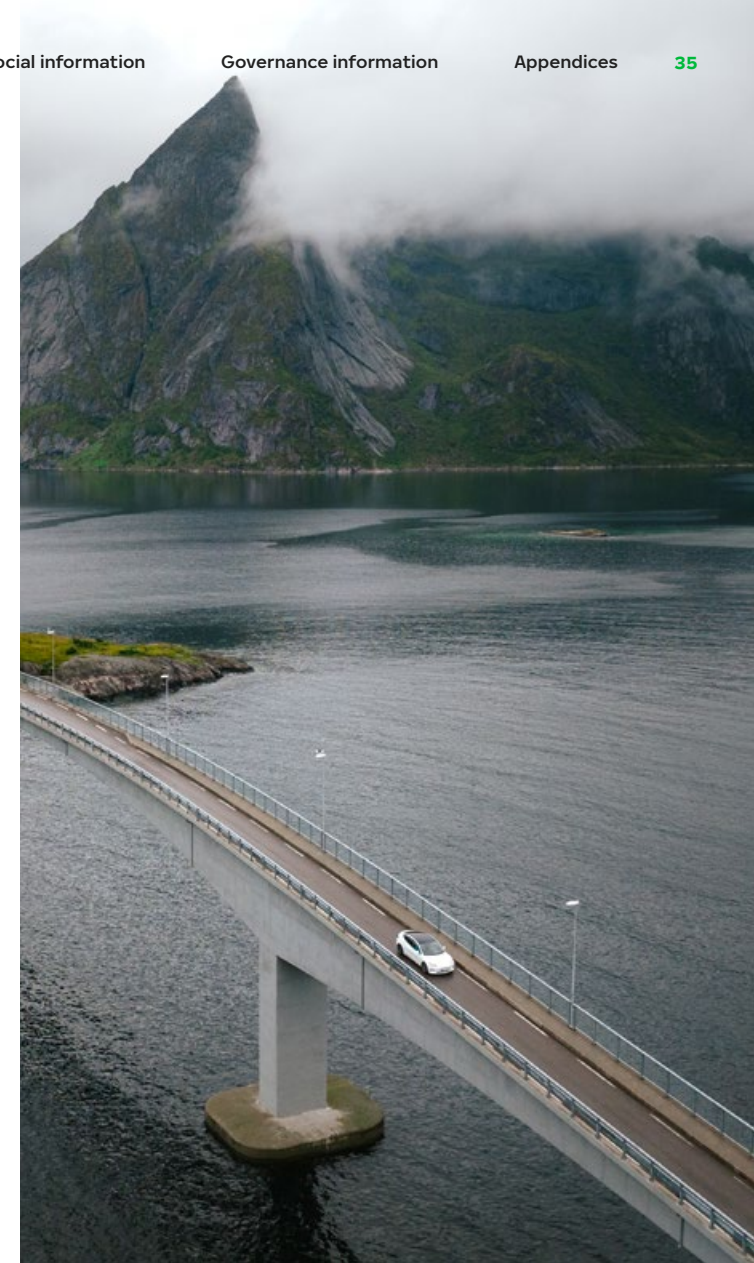
Solvents or volatile organic compounds (VOCs) form Nokian Tyres' most significant emissions into air at the factory in Finland. As the legislation concerning VOC emissions is country-specific, the calculation and reporting of VOC emissions varies by country.

In Finland, the VOC emissions are calculated according to the EU's VOC directive, which is based on the used solvents. At Nokian Tyres, no solvents are used in passenger car tire manufacturing, but only in the production of heavy tires (also known as industrial tires). The VOCs from the assembly of heavy tires are collected and conveyed to a catalytic incineration plant. However, collecting the solvent emissions from the production of heavy tires poses a challenge, because it is not possible to seal the emission sources in such a way that all the emissions could be collected and conveyed for incineration.

Nokian Tyres aims to comply with the total emission limit set in the environmental permit, which is 60 percent of the solvents used in the factory in Finland. In 2023 the total solvent emissions were 81 percent of used solvents.

In the spring 2022 the company started discussions with environmental authorities related to the VOC emissions requirement in the environmental permit. The key topic in the conversations was the environmental effects of the VOC emissions. As a result, in the fall 2022 a spread modelling of the VOC emissions was conducted to estimate the impacts of the VOCs in the nearby surroundings of the factory in Finland. According to the modelling, the VOC concentrations and environmental effects are minor. Furthermore, absolute solvent use has decreased over 40 percent compared to 2018. An application for updating the environmental permit was submitted to authorities during 2023.

The VOC emissions from other locations are calculated according to the local legislation based on the amount of raw materials used.



Other air emissions

According to the surveys conducted, Nokian Tyres' odor emissions are momentary. The mastication process for softening natural rubber causes discharges of compounds during the precipitation and dehydration phases of rubber milk, which may result in an unpleasant odor in the near surroundings. Nokian Tyres uses droplet separators to reduce the odors from mastication, and the company has lowered the number of separate mastication processes. In addition, the tire factories' odor control equipment represents the best available technology. Some odor is generated also during the tire curing process. The quantity of the curing fumes released in the process is directly proportional to the amount of cured rubber.

Particle emissions are caused by the processing of powdery chemicals in the compound mixing department. The mixing equipment is fitted with effective ventilation and dust collection devices, and in the Finnish tire factory the best separation rates achieved by water cleaners exceed 99 percent. Particle emissions are measured with particle concentration and differential pressure gauges.

Outside experts carry out regular particle concentration measurements. The measured particle concentrations comply with the permit limits at the factories. The dust that passes through the filter system mainly causes an aesthetic inconvenience and poses no harm to the environment or health.

An independent company also measures the nitrogen and sulfur emissions from Nokian Tyres' own energy production plants. The nitrogen and sulfur emissions are below the set emissions limits.

Nokian Tyres' production facilities also have noise limits subject to their environmental permits. Noise emissions are regularly tracked and measured. According to the measurements, the factories are below the noise limits.

Control of chemicals

The control of chemicals aims at ensuring the safest possible use of chemicals for the employees, the environment, and end users. Nokian Tyres meets all the requirements of the European (the REACH and CLP regulations) and local legislation.

No auxiliary chemicals are taken into use at Nokian Tyres' factories before the company's chemical control team has issued a department-specific usage permit for the substance in question. The purpose of this practice is to harmonize the use of chemicals throughout the company and, whenever possible, to replace harmful chemicals with safer ones.

Nokian Tyres requires all of its chemical suppliers to provide chemical safety data sheets (SDS) in compliance with the valid legislation prior to the purchasing of chemicals. The SDSs of the chemicals that the company uses are registered in a database that all employees can access. Nokian Tyres also organizes regular trainings on chemicals for its employees.

Permits and complaints

Nokian Tyres' production facilities have valid environmental permits as well as chemical handling and storage permits. These permits and other environmental and safety activities are supervised by several authorities according to the local laws. Nokian Tyres immediately notifies the authorities of any disruptions, accidents, and major deviations from permit requirements.

Nokian Tyres actively monitors the trends in environmental and safety regulations within the EU and in all of the countries where the company operates, and anticipates the effects of pending regulations on its operations.

Nokian Tyres documents the annual environmental impacts of its tire factories and reports them to the local authorities as required by the laws and regulations in each country. The company records complaints into an internal environmental incident register and takes necessary corrective actions. Complaints can be made via the company website on a contact form, by emailing the company directly, or by sending regular mail or contacting the company on the phone.

Nokian Tyres received one environmental complaint in 2023 concerning odor at the tire factory in Finland. The company received no other environmental complaints. You can read more about the company's environmental complaint mechanism on the company website at www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/.

Nokian Tyres received a \$1,500 fine for a minor air permit recordkeeping violation in the factory in the US in 2023.

Tire and road wear particles

The friction between tire and road is essential to ensure drivers' safety. However, the friction also leads to abrasion of both the tire and the road. The particles generated, known as Tire and Road Wear Particles (TRWP), are a mixture of tire tread fragments and road surface elements. These particles are commonly considered microplastics because of their size and composition.

TRWP generation and levels in the environment do not depend on tire design only. Several external factors, such as driving behavior, road and vehicle characteristics, and weather, can together have a bigger influence on the rate at which TRWP are formed. Therefore, to consider all these factors, solutions for TRWP require a holistic, science-based, and stakeholder-driven approach.

An emission standard called Euro 7 is under development with the purpose of reducing air pollution from new motor vehicles sold in the EU to meet the European Green Deal's zero-pollution ambition. Euro 7 is expected to be implemented from 2025. The Euro 7 emission standards will be the first worldwide ones to move beyond regulating exhaust pipe emissions. The standards will set additional limits for particulate emissions from brakes and rules on wear particle emissions from tires. Euro 7 is expected to utilize the development work done in UNECE (United Nations Economic Commission for Europe), which aims to develop a test method to determine tire abrasion.

Nokian Tyres is a full member of the European Tyre and Rim Technical Organisation (ETRTO) and participates in global standardization work. ETRTO is deeply involved in UNECE's tire abrasion test method development work. The target of the method is to have a feasible tire abrasion rate test method with the following characteristics: repeatable, reproducible, cost efficient and practicable, representative of real driving environment, usable for regulation purpose and open to all worldwide.

Parallel to the regulatory work, Nokian Tyres is developing further in-house testing capabilities to fulfill the future demands of creating durable tires.

To help build the scientific knowledge as well as develop practical solutions for reducing the levels of these particles found in the environment, the European Tyre and Rubber Manufacturers' Association (ETRMA) launched the multi-sectorial TRWP Platform in July 2018. As a member of ETRMA, Nokian Tyres contributes to this work as well.

Targets and figures related to pollution

Nokian Tyres' target is to decrease the VOC emissions below 60 percent of the solvents used in its tire factory in Finland. The target for the particle emissions after the filters and droplet separators is maximum 5 mg/m³ in normal cubic meter in the tire factory in Finland. At the factory in the US the target is to operate below the set air permits limits.

Nokian Tyres' target is not to use carcinogenic chemicals or SVHC chemicals (Substances of Very High Concern) as per the EU's REACH regulation in the tire production.

Pollution of air, water, and soil

Tire manufacturing processes use large quantities of cooling water. In Nokian Tyres' operations, municipal water is mainly used for process cooling in a circular system, and after usage it is delivered to a wastewater treatment plant. In the tire factory in Finland, surface water is taken from the nearby Nokianvirta river for cooling, and it is discharged back into the river after use. The cooling water has no contact with production chemicals at any stage and, therefore, does not become contaminated.

Tire manufacturing does not cause contamination of soil in normal operations. Pollution of soil could be possible in case of chemical leakages. During 2023 there was an oil spill at the factory in the US, the effects of which were limited to the factory area. The spilled oil was recovered and did not cause soil contamination.

The emissions to the atmosphere are presented in the table Emissions to air.

Emissions to air

	2021	2022	2023
NOx, t			
Tire factory in the US	1.79	1.99	2.82
SOx, t			
Tire factory in the US	0.03	0.40	0.47
Particles, t			
Tire factory in Finland	1.0	2.0	2.0
Tire factory in the US	36.8	56.1	56.3
VOC emissions, t			
Tire factory in Finland	55.4	51.5	48.3
Tire factory in the US	5.4	13.7	11.8

Substances of concern and substances of very high concern

Nokian Tyres does not use carcinogenic chemicals or SVHC chemicals (Substances of Very High Concern) as per the EU's REACH regulation in tire production. All Nokian Tyres' products also meet the EU REACH requirements concerning PAH's (Polycyclic aromatic hydrocarbons). The company also intends to ensure that the products sold in Vianor service centers now or in the future do not contain any such chemicals. Nokian Tyres' products do not contain any conflict minerals.

Water and marine resources

Nokian Tyres aims to reduce water consumption in the tire factories, as large quantities of cooling water are needed in the production process. The company is proud to show leadership: only about two liters of municipal water is used per product kilogram. Renewable ground water is not used at Nokian Tyres' factories.

Water risk assessments for production sites have been made using the WWF's water risks filters, and they are updated every three years. The assessments confirm that Nokian Tyres' water-related risks are minor and that the company does not operate in water-stressed areas. However, as water shortage is a global issue, Nokian Tyres aims to improve also in this matter even though it is not a material topic for the company.



To reduce the environmental burden of sea transport in its supply chain, Nokian Tyres gave the Baltic Sea Action Group a Baltic Sea commitment for the years 2023–2026.

Water and wastewater

Nokian Tyres' Environmental, Safety and Quality Policy has been approved by the President and CEO of the company, and it states that the company commits to environmental responsibility, which includes but is not limited to consuming and managing water and other resources sustainably. The policy also states the commitment to setting targets to reduce environmental impacts.

Tire manufacturing processes use large quantities of cooling water. In Nokian Tyres' operations, municipal water is mainly used for process cooling in a circular system, and after usage it is delivered to a wastewater treatment plant. In the tire factory in Finland, surface water is taken from the nearby Nokianvirta river for cooling and discharged back into the river after use. The cooling water has no contact with production chemicals at any stage and, therefore, does not become contaminated.

Taking action to reduce the environmental burden from sea transport

To reduce the environmental burden of sea transport in its supply chain, Nokian Tyres gave the Baltic Sea Action Group (BSAG) a Baltic Sea commitment for the years 2023–2026. The commitment is focused on cooperation in the BSAG's Ship Waste Action initiative. The goal of the initiative is to establish an operating model in which wastewater from cargo ships is discharged in the harbor and the utilization of nutrients is enabled by circular economy solutions.



The discharge of wastewater from cargo ships into the sea is still legal, and Nokian Tyres wants to contribute to changing this practice. With the commitment, Nokian Tyres requires that the cargo ships under direct shipping company contracts discharge wastewaters in the reception facilities in Finnish ports. Nokian Tyres also advises the forwarding agents to follow the same principle when handling the company's cargo. Ship Waste Action is one of the criteria influencing the selection of freight carriers in the future freight tenders.

With its commitment, Nokian Tyres increases shipping companies' and forwarding agents' awareness about the possibilities of discharging wastewater not only in Finnish ports, but also in other ports in the Baltic Sea. In addition, as Nokian Tyres transports cargo on all the world's most important shipping routes, the company increases its own contractual partners' awareness about the possibilities of circular economy regarding ship waste also in its sea transports outside the Baltic Sea.

The Baltic Sea Action Group is a non-profit foundation founded in Finland in 2008, and its goal is to restore the good ecological balance of the Baltic Sea under changing climate conditions.

Targeting to maintain the industry-leading water efficiency

Nokian Tyres' target regarding renewable ground water and municipal (third party) water use in the factories is to maintain the industry-leading water efficiency below two liters per product kilogram and improve it with minimum one percent annually. Unfortunately, in 2023 Nokian Tyres did not meet this target, as the water withdrawal was 2.18 liters per product kilogram.

Water withdrawal and discharge are described in the following table.



The discharge of wastewater from cargo ships into the sea is still legal, and Nokian Tyres wants to contribute to changing this practice.

Water consumption

	2021	2022	2023
Cooling water (surface water), Tire factory in Finland, 1,000 m³			
Withdrawal, Nokianvirta river	8,062.2	9,064.9	9,004.2
Discharge, Nokianvirta river	8,017.4	9,052.8	8,950.8
Municipal water, 1,000 m³			
Tire factory in Finland	65.4	67.7	75.1
Tire factory in the US	76.2	75.8	142.2
Wheel factory in Finland	6.0	8.5	6.3
Water discharge, sewage, 1,000 m³			
Tire factory in Finland	110.3	79.8	128.5
Tire factory in the US	76.2	74.1	97.3
Wheel factory in Finland	6.0	8.5	6.3

Biodiversity and ecosystems

As the raw materials for Nokian Tyres' products come directly or indirectly from nature, biodiversity has always been taken into account in the company's operations. The direct effects of Nokian Tyres' normal operations on biodiversity are minor, yet the goal is to take biodiversity into account even better in the future.

The biggest biodiversity impacts take place in the value chain. There are biodiversity risks caused by deforestation and land use change that mainly come from cultivation of natural rubber.

Commitment to preserve biodiversity

Nokian Tyres' Environmental, Safety and Quality Policy has been approved by the President and CEO of the company, and it states that the company is committed to preserving biodiversity as well as air and soil quality and to causing no deforestation in its own operations.



Nokian Tyres is a member of the Global Platform for Sustainable Natural Rubber, an international organization promoting responsible natural rubber procurement.

As a tire manufacturer, Nokian Tyres' operations depend on natural rubber and other raw materials, the production of which requires extensive cultivation or production areas. The company therefore indirectly affects the use of land areas outside of its own locations.

Nokian Tyres is a member of the GPSNR (Global Platform for Sustainable Natural Rubber), an international organization promoting responsible natural rubber procurement. The company is committed to a sustainable natural rubber policy, which covers, among other things, safeguarding healthy and functioning ecosystems and preventing deforestation. The policy can be found on the company website at www.nokiantyres.com/company/sustainability/sustainable-natural-rubber-policy/.

Caring for the species in the vicinity of the operating sites

The examination of natural diversity and the factors affecting it started at the Finnish tire factory site and has since been extended to the factory in the US, the test tracks, and the Vianor service centers owned by the company. According to the assessments, the Nokian Tyres' current production activities have no direct effects on biodiversity.

However, the start of operations, such as construction of factories and other establishments in a certain area, has long-term effects on the area's original biodiversity. That is why the species, especially endangered or otherwise protected species living in the operating areas have been mapped. The requirements of the species living in the vicinity of the company's operating environments have been considered, and the aim is to develop the company's operations so that these requirements are taken into account.



Nokian Tyres is also a part of the Finnish Chemical Industry's biodiversity working group. In 2022 the working group created the Finnish Chemical Industry's biodiversity vision 2045, and during 2023 the implementation actions of the vision have been developed.

In 2023, Nokian Tyres' biodiversity plan was created, and during the summer two local nature conservation projects were carried out as volunteer work by the employees. One of the local actions was to remove lupins from the garden in the Finnish tire factory area, as lupin is a harmful alien species in Finland. This also offered the opportunity to engage employees in biodiversity work, as they were able to volunteer in the project during their workday. In addition, the factory site's biodiversity was increased by replacing some lawn areas with wildflowers.

To preserve the habitat of native Finnish flowers and other plants, Nokian Tyres adopted a meadow located about 50 km from the company headquarters. The meadow is an endangered traditional biotope, and the company is committed to taking care of it in support of the local region's biodiversity program. Traditional meadows are disappearing, as they have been turned into forests or built on, or because they are not taken care of. A volunteering event for employees was organized in August to scythe the meadow.



Guayule-based natural rubber is one of the active initiatives that Nokian Tyres has been working on for several years.

The main biodiversity impacts are related to the cultivation of natural rubber

During summer 2023, the biodiversity risks of Nokian Tyres' supply chain were assessed using the WWF's biodiversity risk filter. According to the assessment, the biggest and the broadest biodiversity impacts in the raw material chain come from pollution, deforestation, and land use change.

In Nokian Tyres' raw material chain, natural rubber cultivation impacts biodiversity the most, as the biodiversity risks caused by deforestation and land use change mainly come from the cultivation of natural rubber.

In the assessment, the most important supplier locations and industry sectors were prioritized based on how high their physical versus reputational risk scores were. 32 sites were considered to be most impactful on biodiversity and thus selected to be assessed further. Of the 32 sites, 23 are natural rubber farmers and manufacturers, three metal cord manufacturers, two textile/belt manufacturers, one is an oil company, and one is a chemical manufacturer. Regarding biodiversity risks, the most important countries for Nokian Tyres are Indonesia and Malaysia.

Researching guayule, the European source of natural rubber

Guayule-based natural rubber is one of the active initiatives that Nokian Tyres has been working on for several years. As guayule originates from the desert, it can survive in very dry and poor soil conditions. It is a plant that does not exploit areas of any other vegetation or food production; on the contrary, it makes use of wastelands.

Nokian Tyres is collaborating with local farmers, universities, research institutes, and companies in Spain. Guayule is an opportunity not only for Nokian Tyres but also for the local agriculture and industry.

Nokian Tyres has been testing the suitability of different guayule varieties for cultivation in Central Spain, near the test center in Santa Cruz de la Zarza, together with local universities and farmers. Studies have been continued mainly on the Parthenium Argentatum variety of the plant. Researchers have developed a sustainable way of managing the plant where no synthetic biocides are needed. The experiments with cultivating the plants on poor soils in total absence of irrigation have also been promising.

MIDAS is a four-year EU-financed project of marginal agricultural lands, climate-resilient and biodiversity-friendly industrial crops for innovative bio-based value chains. The project started in the end of 2022, aiming to develop innovative renewable products following a biorefinery concept and circular use of biomass. During the MIDAS project, Nokian Tyres' target is to further explore the use of guayule-based natural rubber in tires.

You can read more about Nokian Tyres' work on guayule on the company website at www.nokiantyres.com/company/sustainability/products/tires-and-renewable-raw-materials/.

Resource use and circular economy

Nokian Tyres continuously improves the quality, safety and environmental friendliness of its products, services, and processes.

While Nokian Tyres works on ways to replace fossil-based materials with renewable or recycled ones, the shift must be conducted in a controlled way, by gradually substituting fossil-based materials with alternative ones. The use of new raw materials requires a great deal of product development efforts and testing to find the best combination of properties for a tire, as new raw materials can modify the compound properties. The use of renewable materials must not alter a tire's safety characteristics.

Commitment to sustainable resource use and waste reduction

The Environmental, Safety and Quality policy states Nokian Tyres' promise to continuously improve the quality, safety and environmental friendliness of the products, services, and processes, taking into account the products' entire life cycle. To fulfill that promise, Nokian Tyres commits to environmental responsibility, which among other things includes consuming and managing resources sustainably, and reducing waste. The President and CEO has approved the policy.

Recycled and renewable raw materials

Nokian Tyres uses high-quality raw materials that contribute to the safety and high quality of the tires. The technical quality and safety of the products is ensured by testing and studying each raw material used in tire manufacturing and by continuously improving the rubber compounds.

Tires are made of over 100 different raw materials, and the sustainability of these materials is another important factor when evaluating the environmental friendliness of tires. Many recycled and renewable raw materials are regarded as particularly sustainable ones. Nokian Tyres is committed to increasing the share of renewable or recycled raw materials in its tires to 50 percent by 2030.

As a step toward the long-term target, Nokian Tyres is in the process of getting an internationally recognized ISCC plus certification during the year 2024 to support circular economy and bioeconomy. The plant certification makes it possible to trace use of certified raw materials from sustainable sources.

The development of high-performance and eco-friendly tires requires active collaboration with raw material suppliers, research institutes, and other stakeholders. Nokian Tyres currently participates in several research projects, such as MIDAS (more details under the topic Biodiversity and ecosystems), a project related to recycled carbon black, and Polestar O (more details in the topic Climate change) to support the in-house research work. The company is also actively searching for new collaboration opportunities for the coming years.



Nokian Tyres already uses several raw materials either from recycled or renewable resources in the rubber compounds. The use of new raw materials requires a great deal of product development efforts and testing to find the best combination of properties for a tire, as new raw materials can modify the compound properties. There are several research programs ongoing for each tire material category. Mainly but not solely the new raw materials are introduced in use through new product launches.

Fillers, mainly carbon black and silica, are one of the main raw material groups in a tire. The share of fillers is around 28 percent in a tire, meaning that, in theory, it should be possible to increase the ratio of recycled or renewable raw materials significantly by substituting fossil-based fillers with ones from either recycled or renewable sources.

One type of recycled filler material source is rubber retrieved from used tires. Nokian Tyres has also actively researched the use of recycled carbon black in tires. Securing the availability and research of several grades of recycled carbon black has proven to be a task that needs effort, but there are now more raw material providers on the market, and Nokian Tyres has several ongoing projects on the matter. An example of a successful project was when, in line with the company's goals, recycled carbon black was included in a commercial product line during 2022.

Nokian Tyres is a founding member of the Finnish Tyre Recycling. The new plant that was opened in 2023 enables the collection of recycled materials to be further refined for industrial use. The recycling of used tires in Finland is at the level of 100 percent, so raw material for recycled material options is readily available for various applications.

Nokian Tyres' tire materials and their alternatives

Material	% of a tire (approximately)	Sources	Replacements and alternatives
Synthetic rubber	23	Crude oil	<ul style="list-style-type: none"> Renewable-sourced polymers Mass-balance approach Recycled rubber crumbs
Natural rubber	22	Natural rubber	<ul style="list-style-type: none"> Guayule as an alternative for natural rubber Recycled rubber crumbs
Fillers	28	Silica, carbon black	<ul style="list-style-type: none"> More extensive use of recycled carbon black is under investigation Active research of different renewable fillers, for instance forest industry's side stream-based materials
Reinforcement materials	15	Steel, textile	<ul style="list-style-type: none"> Recycled steel is used in reinforcement materials Increasing the share of recycled steel in reinforcement materials is being researched Researching the use of renewable or recycled sources for textiles
Chemicals	12	Several sources	<ul style="list-style-type: none"> Increasing renewable or recycled oil and resin content in tires Reduction and elimination of harmful chemicals and search of alternative options from either recycled or renewable resources

CASE

Exploring recycled carbon black

One of Nokian Tyres' sustainability targets is to increase the share of recycled and renewable raw materials in tires to 50 percent by 2030. As steps forward in reaching that target, Nokian Tyres included recycled carbon black in a commercial product line in 2022, and in 2023 the company signed a research agreement for an international project aiming to improve the quality and yield of recycled carbon black from end-of-life tires.

Carbon black is used as a reinforcing filler in tires to enhance their physical properties such as strength and resilience. As virgin carbon blacks are fossil-based, replacing them partly with recycled carbon black helps make tires more sustainable. Recycled carbon black is made with pyrolysis from end-of-life tires.

"The use of recovered carbon black has several sustainability-related benefits. It reduces the use of virgin raw materials and increases the share of recycled ones. The emissions from recovered carbon black are significantly lower than those from virgin carbon blacks. More extensive use of recycled carbon black in manufacturing tires and other rubber products is also in line with the EU's sustainable development goals, according to which the material recovery of used tires is to be increased," explains **Heini Siekkinen**, Senior Manager, Research and Sustainability at Nokian Tyres.

The target of the research project that Nokian Tyres participates in is to improve the properties of recycled carbon black so that it could be used more extensively in rubber compounds, benefiting tire and rubber product manufacturers in creating more sustainable products. Nokian Tyres' role in the project is to define the target properties for the improved recycled carbon black and test the materials produced.

"Nokian Tyres has worked on more sustainable tires for years, and as a company, we want to increase our understanding about recycled carbon black. Getting production scale volumes of improved recycled carbon black enables testing it in tires and comparing it to both virgin carbon black and regular recycled carbon black," Siekkinen says.

The two-year development project is coordinated by WindSPACE Group A/S and co-financed by the Danish Eco-Innovation Program and the participants that in addition to Nokian Tyres include Environmental Waste International, Kiso A/S and Danish Technological Institute.



**THE USE OF
RECOVERED CARBON
BLACK HAS SEVERAL
SUSTAINABILITY-
RELATED BENEFITS.**

Tire retreading

Nokian Tyres' retreading units offer retreading for trucks and buses as well as for heavy machinery. Tire retreading allows fleet operators to save money, resources, and the environment. A good tire carcass can easily be retreaded two times, which cuts tire costs by approximately 30 percent.

Retreading has a significant impact on the carbon footprint of tires: manufacturing a new truck tire results in approximately 220 kilograms of CO₂ emissions, whereas the figure for retreading is only approximately 40 kilograms. Furthermore, each retreading operation saves 40 kilograms of rubber and 70 liters of oil per tire when compared to manufacturing new tires.

Where do tires end up after use?

Luckily for the environment, discarded tires are not worthless and can serve various purposes when reused or recycled. In line with the EU's sustainable development goals, material recovery of used tires is to be increased.

Nokian Tyres is a member of the Finnish Tyre Recycling Ltd and the US Tire Manufacturers Association (USTMA) to promote the centralized collection and utilization of tires nationally.

The recycling rate of Nokian Tyres' passenger car tires was 99 percent of the tires sold in 2023 (87).

Waste

Waste is generated both in Nokian Tyres' tire production and in the support functions. All production waste is weighted, and the department-specific volumes are recorded on a daily basis. For other types of waste, the volumes are monitored monthly.

All generated waste at the factories is sorted in accordance with separate waste management instructions. Scrap tires, or tires that do not meet Nokian Tyres' high standards of quality, are taken to recycling. Non-vulcanized scrap rubber is generated in the production stages preceding vulcanization or curing.

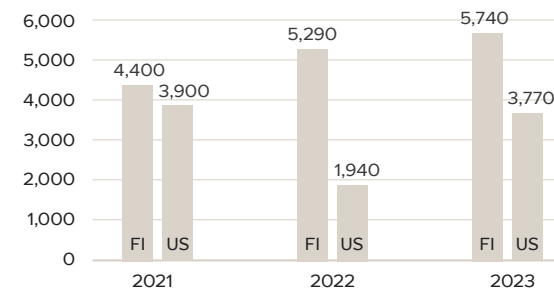
Waste is sorted and delivered for reuse whenever technologically and economically feasible. The utilization rate of Nokian Tyres' production waste has been growing for years, and 2022 was the first year when 100 percent of the tire factories' production waste was sent for utilization and there was no waste to landfill from tire production. The information on waste disposal methods and quantities is provided by the waste disposal contractors.

Targets related to resource use and circular economy

Nokian Tyres is committed to increasing the share of renewable or recycled raw materials used in its tires to 50 percent by 2030. The company has systematically followed its roadmap towards the target. The target for the year 2023 was to introduce at least one new raw material for these categories, and this was achieved as a new filler material from renewable resources was taken into use in production.

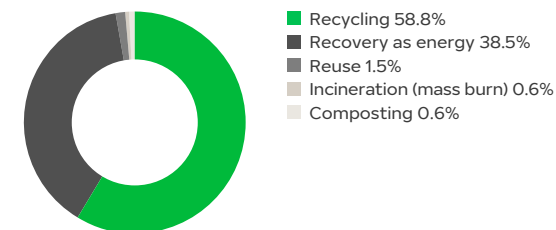
Regarding waste, Nokian Tyres' target is that 100 percent of the tire production waste is sent for utilization and there is no waste to landfill from tire production.

Amount of utilized waste from the tire factories in Finland and in the US, t



In addition, there was also six tons of landfill waste from the tire factory in the US in 2021.

Total waste by disposal method, tire factories 2023, %





Resource inflows and outflows

Nokian Tyres is known as a pioneer in environmental matters. This concerns the entire life cycle of a tire. Respect for the environment is part of the product development philosophy. The company aims to pay increasing attention to environmental issues in the design of new products, starting from ethical raw material acquisition all the way to a well-functioning recycling system. All Nokian Tyres' products (tires and wheels) are recyclable.

You can read more about the recyclability of tires and tire recycling on the company website at www.nokiantyres.com/company/sustainability/environment/circular-economy/.

Inflows and outflows

	2021	2022	2023
Raw materials, kt			
Tire factory in Finland	58.3	98.3	62.7
Tire factory in the US	12.1	21.0	21.0
Wheel factory in Finland	10.8	15.0	6.7
Products, kt			
Tire factory in Finland	54.8	71.4	77.4
Tire factory in the US	8.9	18.4	22.5
Wheel factory in Finland	5.7	5.7	5.0

Waste

	2021	2022	2023
Hazardous waste, t			
Tire factory in Finland	226.2	233.7	280.0
Tire factory in the US	0.0	0.0	0.0
Wheel factory in Finland	266.3	421.0	408.8
Hazardous waste by disposal method, Tire factory in Finland, %			
Recycling	11.0	63.0	78.0
Incineration (mass burn)	0.0	0.0	0.0
Recovery as energy	89.0	37.0	22.0
Landfill	0.0	0.0	0.0
Hazardous waste by disposal method, Wheel factory in Finland, %			
Recycling	98.0	96.6	96.6
Incineration (mass burn)	0.0	0.0	0.0
Recovery as energy	2.0	3.4	3.4
Landfill	0.0	0.0	0.0
Non-hazardous waste, t			
Tire factory in Finland	4,216.8	5,053.1	5,459.7
Tire factory in the US	4,017.8	2,027.0	3,822.5
Wheel factory in Finland	1,545.4	2,362.7	1,667.4
Utilized waste, t			
Tire factory in Finland	4,443.0	5,286.7	5,739.6
Tire factory in the US	3,861.1	1,942.8	3,768.3

	2021	2022	2023
Waste by disposal method, Tire factory in Finland, %			
Reuse	1.0	2.7	2.5
Recycling	28.2	39.5	36.0
Composting	1.2	1.4	1.0
Recovery as energy	69.7	56.4	60.4
Landfill	0.0	0.0	0.0
Waste by disposal method, Tire factory in the US, %			
Reuse	7.7	0.0	0.0
Recycling	82.1	86.7	92.9
Composting	0.0	0.0	0.0
Recovery as energy	6.3	9.2	5.7
Incineration (mass burn)	3.7	4.2	1.4
Landfill	0.2	0.0	0.0
Waste by disposal method, Wheel factory in Finland, %			
Reuse	0.0	0.0	0.0
Recycling	96.5	95.9	96.2
Composting	0.0	0.0	0.0
Recovery as energy	1.4	1.9	2.1
Incineration (mass burn)	0.3	0.7	0.2
Landfill	1.8	1.5	1.5

	2021	2022	2023
Total waste by disposal method, Tire factories*			
Reuse			
t	352.7	144.1	144.5
%	4.2	2.0	1.5
Recycling			
t	4,550.5	3,843.5	5,618.4
%	53.8	52.6	58.8
Composting			
t	51.5	75.7	59.4
%	0.6	1.0	0.6
Recovery as energy			
t	3,349.3	3,166.2	3,685.6
%	39.6	43.3	38.5
Incineration (mass burn)			
t	150.4	84.2	54.2
%	1.8	1.2	0.6
Landfill			
t	6.3	0.0	0.0
%	0.1	0.0	0.0
Total waste amounts, Tire factories*			
Total waste, t	8,460.7	7,313.7	9,562.1
Total non-recycled waste, t	3,506.0	3,250.4	3,739.8
Non-recycled waste, %	41.4	44.4	39.1

* 2021 and 2022 figures restated to include only the tire factories in Finland and in the US.

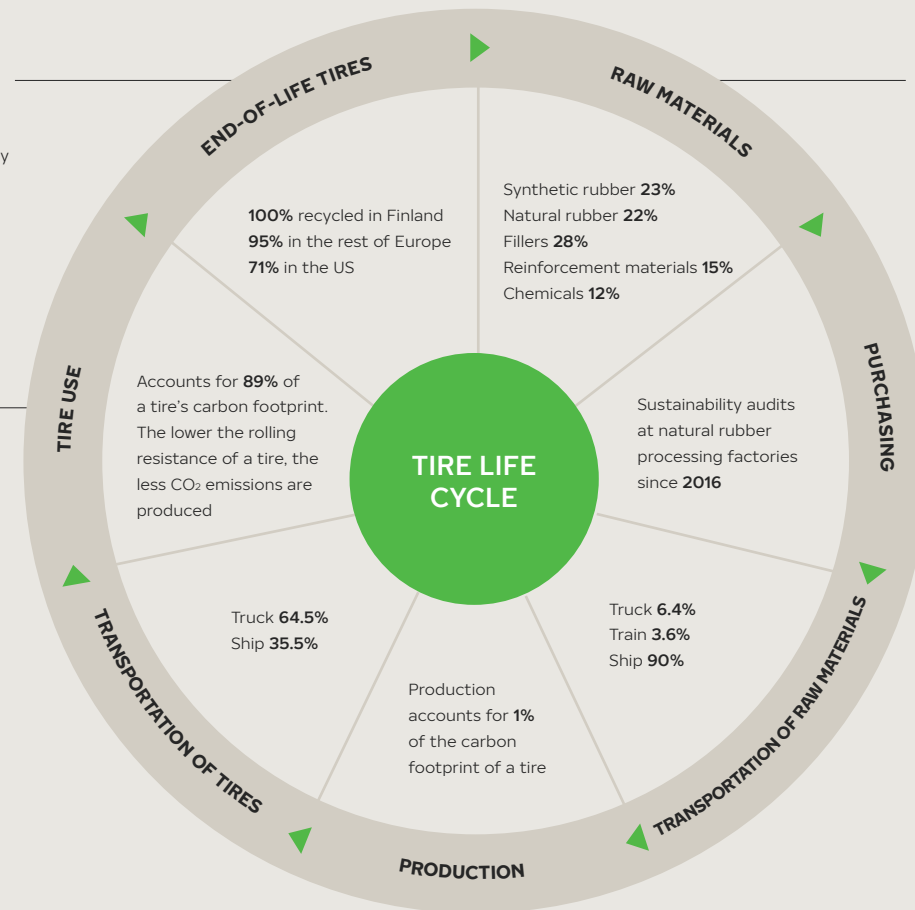
Tire life cycle

Nokian Tyres has adopted a life cycle approach, taking responsibility for the environmental impacts of the activities and products from raw materials to end-of-life tires. Most of the environmental impacts during a tire's life cycle are generated during its use.

Used tires can be

- granulated to serve various purposes
- used in waste-to-energy applications
- used for recycling materials, e.g. recycled carbon black

The impacts of tire and road wear particles (TRWP) are being researched



- Several ongoing projects to find alternative raw materials to fossil-based materials

- Raw materials account for 8% of the carbon footprint of a tire



SOCIAL INFORMATION

MADE FOR DEMANDING CONDITIONS



” A LICENSE TO LEARN, DEVELOP, AND
MAKE A DIFFERENCE – THAT’S WHAT
A SUCCESSFUL COMPANY IS BUILT ON.

Tracy Careathers,
Components Maintenance Supervisor

Social information

At Nokian Tyres, it all comes down to the company's core value: we care. That means respecting and taking care of each other, the customers, consumers, and partners.

Nokian Tyres has been a member of the United Nations Global Compact (UNGC) initiative since 2015 and is committed to developing its business in a sustainable way. In the human rights evaluations, the company considers, among other things, its own employees, the supply chain, as well as customers and end users.

Nokian Tyres' Code of Conduct outlines the company's principles: We respect human rights and treat all individuals equally. We value diversity and do not allow any form of discrimination, harassment, or bullying. Everyone is responsible for acting fairly and creating a pleasant, inspiring work atmosphere.

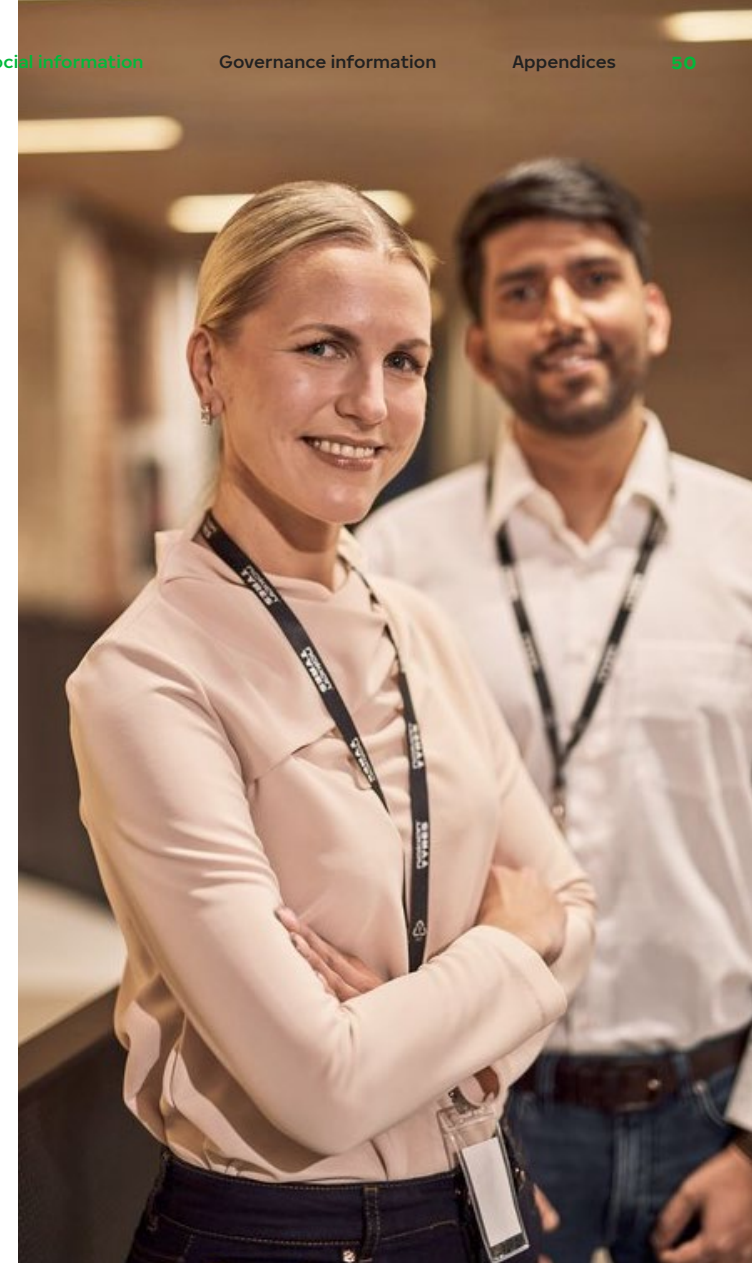
Developing a safe working culture inside Nokian Tyres is a continuous, prioritized topic. All aspects, including psychological and physical safety, must be in place to have a solid safety culture. This guides the development of the safety of the work environment as well as of the procedures and management models. Nokian Tyres embraces diversity and advances an inclusive and equal working culture and aims to empower the employees to be active members in the organization.

Nokian Tyres also expects its suppliers to share the aspiration for a more socially sustainable supply chain and for promoting decent working conditions. To drive these topics in the supply chain, Nokian Tyres has a Supplier Code of Conduct. Actions that support its implementation include supplier assessments and audits.

Finally, when it comes to the consumers and end users of the products, safety is Nokian Tyres' priority. Creating the safest tires for all conditions is one of Nokian Tyres' five strategic cornerstones. As a tire manufacturer, Nokian Tyres must ensure that the tires that the company develops, produces, and markets are verifiably safe to use and that they meet the quality requirements as well as the expectations of customers and end users.



**NOKIAN TYRES
HAS BEEN A MEMBER
OF THE UNITED
NATIONS GLOBAL
COMPACT INITIATIVE
SINCE 2015.**



Key measures in 2023 and targets in 2024

Topic	Target in 2023	Status in 2023	Target in 2024	Mid-term/long-term target
Own workforce	Decrease the lost-time accident frequency 20% annually, LTIF target 2.6	LTIF 4.7	LTIF 2.6	Decrease the lost-time accident frequency LTIF from 8.3 in 2018 to 1.5 in 2025
	70% of employees have completed safety management self-evaluation	Achieved	100% of tire factory and wheel factory employees have completed safety management self-evaluation	
	5 safety actions per employee (average)	4.6 per employee	5 safety actions per employee (average)	
	Developing leadership together for building the new Nokian Tyres	All employees were invited to discuss the company culture to promote collaboration and open dialog	Develop leadership skills	Develop leadership and company culture
	Developing employer brand and talent acquisition	Internal working group formed, and road map created. Recruitment actions started in Romania	Develop employer brand and accomplish successful recruitments in Romania	Develop employer brand and talent acquisition
	Defining the human rights approach and needed actions	Internal working group formed, and road map created	Review Human Rights Commitment, define and describe the due diligence process	Actions according to the due diligence process
	Continuous improvement of the sentiment of equal opportunities	Sentiment improved according to Drive! Engagement survey 2023	Improve the sentiment of equal opportunities	Improve continuously the sentiment of equal opportunities
Workers in the value chain	5 sustainability audits performed	11 sustainability audits performed	Uphold the status of 100% sustainability high-risk suppliers audited	2025: 100% of sustainability high-risk suppliers audited
	Uphold the status of 100% of natural rubber processor suppliers either being GPSNR members or having signed Nokian Tyres' sustainability commitment	100%	Uphold the status of 100% of natural rubber processor suppliers either being GPSNR members or having signed Nokian Tyres' sustainability commitment	Uphold the status of 100% of natural rubber processor suppliers either being GPSNR members or having signed Nokian Tyres' sustainability commitment
	Perform a natural rubber traceability study	Performed		
Consumers and end users	Including 100% of premium tires in the best wet grip A or B class in the EU Tyre Labelling by 2025. Selected scope: Tires in price category A and included in the EU Tyre Labelling, the latest generation. Does not include Nordic winter tires.	Target achieved already in 2023	To maintain the level	

Own workforce

An inspired, innovative, and caring team is one of Nokian Tyres' strategic cornerstones. The company's success is built on collaboration, inviting diverse perspectives, and achieving things together.

Nokian Tyres actively promotes occupational health, and the goal is to minimize the number of occupational accidents. The company encourages its employees to think that occupational accidents can be avoided by the choices they make.

Policies guiding the work

Nokian Tyres' Code of Conduct is the basis for the operations

Nokian Tyres' principles in all operations are fair treatment and respect of human rights when collaborating with its employees and other stakeholders. Nokian Tyres empowers a culture where employees actively participate in their own work development and take responsibility for everyone's safety and well-being.

The company is committed to acting in the manner required by the UN's Guiding Principles for Business and Human Rights, and to following the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work. Nokian Tyres is a supporting member of the UN's Global Compact initiative and follows the ethical principles of the initiative.

Nokian Tyres' business is guided by the ethical principles presented in the Board-approved Code of Conduct that can be found on the company website at www.nokiantyres.com/company/sustainability/code-of-conduct/.

Every employee needs to adhere to the Code that, among other things, gives guidance on matters that affect employee well-being, including equality, working conditions, participation, and terms of employment:

Equality

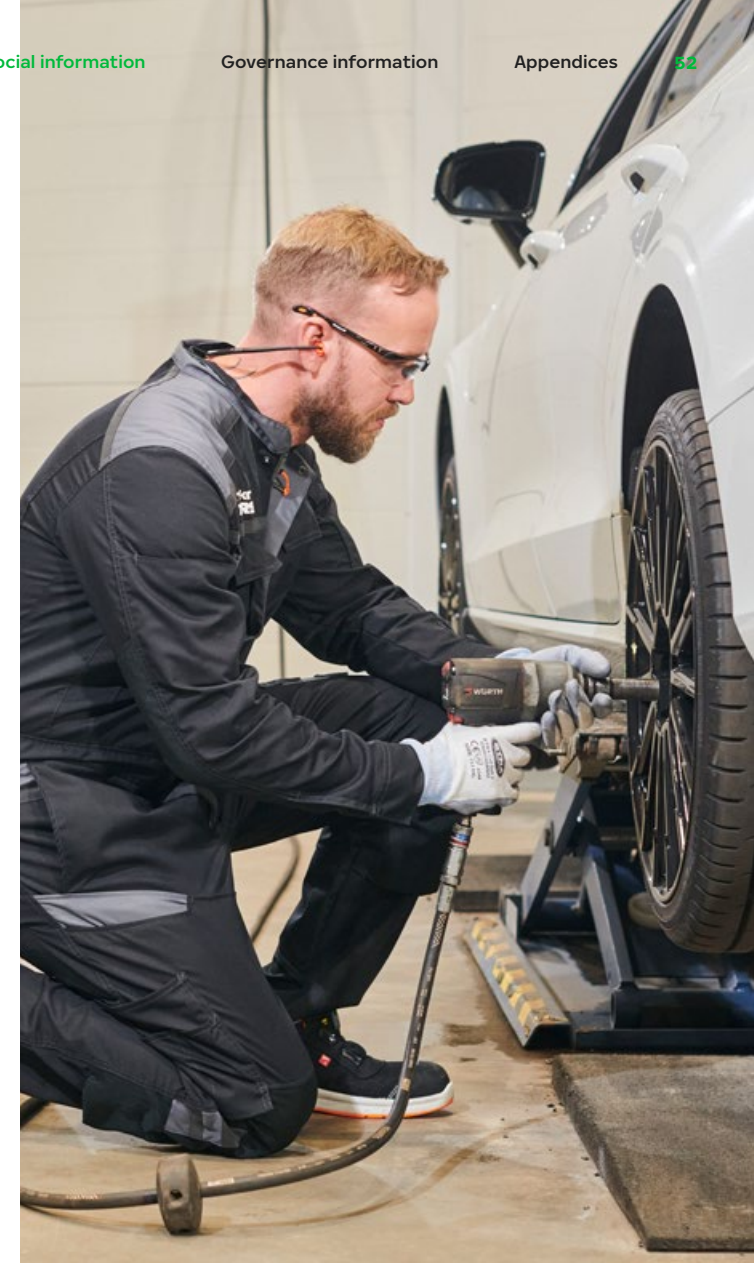
- We respect human rights and treat all individuals equally.
- We value diversity and do not allow any form of discrimination, harassment or bullying at the workplace. Everyone is responsible for acting fairly and creating a pleasant, inspiring work atmosphere. Everyone has the freedom of expression, but everyone is also responsible for their own expression.

Working conditions

- Our goal is to minimize the number of occupational accidents and promote occupational health. Occupational health and safety are an integral part of our daily management. Everyone is responsible for adhering to occupational safety guidelines, observing defects and shortcomings, and removing hazards. In our activities, we emphasize the prevention of occupational accidents in order to avoid hazardous situations.

Participation and terms of employment

- Active participation at different levels of the organization and respecting the right of participation are parts of our working culture. Nokian Tyres respects the freedom of association and the freedom of workers to organize.
- We do not approve of forced labor, human trafficking, or child labor. Employment contracts are drawn up in writing and in adherence with the local legislation. We comply with local legislation and regulations relating to working hours and overtime work. Nokian Tyres will never pay anyone less than the minimum wage defined in the local legislation.



In addition, Nokian Tyres has more detailed guidelines and procedures regarding safety, well-being, traveling, induction, performance management, competence development, human rights, and equality.

Leading global safety with Safety Management Standards

Nokian Tyres actively promotes occupational health, and the goal is to minimize the number of occupational accidents. The company encourages its employees to think that occupational accidents can be avoided by the choices they make.

Nokian Tyres' Environmental, Safety and Quality policy, approved by the President and CEO of the company, states that Nokian Tyres is committed to creating healthy and safe work conditions. The dangers in the working environment are identified and the risks minimized. The company strives toward efficiency, zero errors and zero accidents in all operating areas, to protect both the employees and the environment.

Nokian Tyres' Safety Management Standards describe the company mindset for safety work and set the bar for common practices. The 16 global standards are implemented to be a part of local practices, procedures and everyday decision making. The standards are also a tool for continuous improvement for departments and operations.

Nokian Tyres' departments self-assess their safety work. Based on the self-assessments, the departments identify their maturity level and needs for improvement. The departments can focus on the safety aspects that they have identified to be the most relevant for them. With the Safety Management Standards and the evaluation practice, the departments' ownership on safety improvements is emphasized.

The 16 standards listed below all have a clear purpose, toolset, and the Nokian Tyres' approach to the topic described.

1. Leadership, Commitment and Responsibilities
2. Planning, Goals and Targets
3. Employee engagement
4. Safety Risk and Opportunity Management
5. Legal Safety Requirements and Other Commitments
6. Safety Training, Competency and Awareness
7. Behavior and Observation
8. Employee Safety Communication
9. Monitoring and Measurement
10. Accident/Incident Reporting and Investigation
11. Workplace Inspections and Audits
12. Emergency Preparedness and Response
13. Contractor Selection and Management
14. Management of Change
15. Preventative and Corrective Actions
16. Other Operational Procedures



Nokian Tyres actively promotes occupational health, and the goal is to minimize the number of occupational accidents.

Engaging about impacts with own workforce

In the Nordic countries, regular meetings are held with workers' representatives. The frequency of those meetings varies based on country and legal company.

There are no formal employee representatives enacted in Central Europe due to the size and setup of the regional operations (a low number of employees in each country) and local legislations. Also in North America the company works directly with own workforce.

In addition to the workers' representative meetings there are several events for sharing information regarding financial results and business development, safety issues, strategy, vision, values, and other matters to all employees. There are multiple channels for ensuring that employees are well informed about the relevant company developments. The channels also enable reacting and being heard. There are regular annual and quarterly events, and events are also organized on the needs base. In all these events employees are encouraged to share their comments, questions, or concerns at any time. The effectiveness of communication and collaboration is measured through internal surveys.

If an employee observes or suspects a procedure that violates the company Code of Conduct, the first point of contact is always his/her manager. Employees can also contact internal audit, the legal affairs unit, or the HR unit. Suspected violations can also be reported by email to whistleblow@nokiantyres.com or regular mail.

When it comes to safety, each employee of the group has the right and the duty to refuse or stop unsafe or unhealthy work. It is a right that the company strongly supports, and there are no negative consequences for the employee. In cases where an employee stops a work phase, supervisors will assess the situation, define possible corrective actions, and look for an alternative way to perform the task.

Supporting well-being and active participation

In 2023 Nokian Tyres' management invited all employees to discuss the culture and future direction of the company in cross-functional vision discussions. In the discussions everyone had an opportunity to share opinions in small groups and to get to know colleagues across the organization.

Two rounds of vision discussions were held, and a total of more than 200 voluntary team members took part in them. The discussions highlighted the importance of sharing and valuing different opinions, ideas, and experiences. Based on the outcome of the discussions, the management approved a new purpose and vision, which were externally published in Nokian Tyres Annual Report 2023. The outcomes of the discussions are utilized in building and strengthening the culture of Nokian Tyres. You can read more about the discussions [on page 55](#).

During 2023, Nokian Tyres continued the hybrid way of working. The management team fully supports the hybrid way of working, including flexible working time and arrangements when possible. The company follows local legislation related to flexible working

hours, part-time working options, and paid parental and family leave. The modern working environment with digital tools helps teams to flexibly organize their work and supports the individual well-being of employees. Teams have discussed and agreed on the best working practices.

To support the modern and flexible way of working and employee well-being, Nokian Tyres promotes collaboration and open dialog throughout the entire organization. In 2023, the company organized trainings for all employees, covering the elements of successful 1-on-1 discussions and meaningful dialog. Successful 1-on-1 discussions at Nokian Tyres are based on equal dialog, laying the foundation for an open, safe, and inspiring work environment that promotes the success of both employees and the organization. These trainings enhanced the participants' communication skills, enabling them to have meaningful 1-on-1 discussions, and provided managers and employees with tools for high-quality discussions. Altogether more than 350 employees participated in these trainings. According to Drive! engagement survey 2023, employees felt that the communication flow had improved.

In 2023, Nokian Tyres also developed its performance management process called People Review to strengthen the feedback culture and foster continuous dialog. This change enabled more flexible and agile performance management practices. Instead of one annual goal setting and performance evaluation discussion, regular 1-on-1's are now recommended to take place throughout the year. Those discussions can also be held with the team, not only with individuals.

In 2023, a total of 87 percent (92) of employees took part in a People Review. People Reviews have a key role in personnel development, goal setting, and achievement review. Internal job rotation, on-the-job learning, project work, and different training solutions continued to be an essential part of personnel competence development. To promote internal job rotation opportunities for learning and development, the company shared career stories on the intranet. The company's 360 evaluation tool is also available for development purposes, and it has been renewed and tailored according to company's leadership principles.

Nokian Tyres also organized a training program for project teams to develop skills in self-leadership, wise working methods, well-being, and recovery. This program pilot was targeted at 30 Process Experts and Concept Owners. The training consisted of three modules.

Throughout November, internal strategy communication actions took place. A letter from the President and CEO was sent to all employees to outline the company strategy. The strategic cornerstones were communicated and discussed through stories and podcasts highlighting what they mean in practice for the employees. To continue strengthening collaboration, people across the company were invited to weekly virtual coffee breaks to meet colleagues and discuss together. In the 2023 Drive! engagement survey the satisfaction with own work team continued to be the one of the company's strengths.

As digital has become the primary way of working, the need for information security management and skills has grown. The company has continued developing information security capabilities and employee awareness.

CASE

Nokian Tyres Vision discussions

The idea to work on the Nokian Tyres' vision was raised up in the Leaders' event in December 2022, where the leaders discussed how to succeed in building the new Nokian Tyres together. In 2023 the Nokian Tyres' team had an opportunity to voluntarily sign up for the discussions about the company's future vision and direction. In the discussions employees were able to freely share their thoughts on what type of company culture would best support the work.

"It was a nice and motivating experience to speak with colleagues from different parts of the world, with different perspectives to life and experiences, but with a shared feeling, which is caring for the well-being of the company. We should continue this project."

Almost 40 group discussions gathered employees across the organization together to share their opinions and views on what kind of a company Nokian Tyres is now and in 10 years, what is meaningful, and what are the things that impact the work and future position. 14 employees across the organization from different locations and with different backgrounds were trained to act as inhouse facilitators. In addition to information about how to lead the discussion and what the role of facilitator is, the trainings included themes like handling demanding situations and questions, fostering a safe atmosphere, and giving space for participants.

Factors for a successful discussion were articulated based on company values:

- **We care:** We care for each other and participate with an open and enthusiastic mind. We give space for all to participate in the discussion in a safe environment.
- **We drive innovation:** We value others' opinions, ideas, and experiences. We do not need to find right answers or a single conclusion in the Vision discussions.
- **We succeed together:** We build trust and have an opportunity to share different opinions, we do not judge or criticize. The facilitator's role is to support the group and mind the schedule so that participants can focus on the conversation.

119 employees signed up for the discussions in the first round, and 91 employees in the second round. During the discussions they had a chance to try out inclusive tools that could be used in everyday work to support collaboration. Most of the discussions were held in English, but also local discussions were arranged. The participants were able to answer the pre-survey either in English or in their own language and translate others' comments. The comments were open to all participants.

"Incorporating this kind of dialog into other projects would be great. Also, showcasing the fact that Nokian Tyres is full of people ready to talk so in-depth about even quite difficult topics is something we should value and keep trying to use for good. I hope we continue with these kinds of practices and start using them even more."

The Nokian Tyres' team highlighted the following things in the discussions:

- Sustainability and green thinking
- New technologies and AI
- People and diversity as a competitive advantage
- Clear strategy and values
- Transparency in leadership and communication
- Cross-organizational communication and co-operation

As a result, key factors of the Nokian Tyres' business were identified, and that led to formulating the company's new vision and purpose. Based on the discussions, Nokian Tyres defined topics the employees highlighted as the most important aspects or development needs of the common organization culture. Further actions will be implemented during 2024 on company, team, and individual level.

"We should use the strength of our people and their ideas to get ahead of the competition, encourage people to come up with ideas. To be innovative and creative, try new things and make mistakes. It is important to give everyone a safe environment where they can try to succeed. It is about creating psychological safety that boosts innovativeness and drives sustainability. Our people are our competitive advantage."

Inclusion, diversity, and equality of the employees

The engagement survey Drive! was conducted for all employees in November 2023. The survey included 19 questions and received a 79 percent response rate. The response rate increased and was above the global benchmark, which is 75 percent. The overall engagement score was at the same level as in 2022, being 73 on a scale of 0–100 (global benchmark value 75). 72 percent (71) of responses to engagement questions were positive (4 or 5 on a scale of 1–5).

The first measurement regarding diversity, equality and inclusion was made as a part of the Drive! engagement survey in 2021. The measurement was repeated in 2022 and 2023, with three questions specifically measuring the topics. The scores, development and the global benchmarks for those questions can be seen in the table.

The Drive! engagement survey results are discussed in teams and actions are agreed on together. Trainings on discussing the engagement survey in teams (Leading Drive! result discussions with impact – how to initiate real changes?) are available for all managers globally.

Drive! engagement survey: Inclusion, diversity, and equality

Question	2023 score on a scale of 0–100	Vs. 2022	Vs. external global benchmark
I feel a sense of belonging at our company	69	+1	-4
Diverse perspectives are valued at our company	63	0	-10
Regardless of background, everyone at our company has an equal opportunity to succeed	67	+1	-7



Safety is a choice

Occupational health and safety are an integral part of the daily management and operations. During 2023 safety development continued by following the slogan "Safety is a choice". This means that everyone is responsible for safety and all choices matter: adhering to occupational safety guidelines, observing defects and shortcomings, and reporting and removing hazards.

To bring leadership in safety closer to everyday operations, managers have been utilized as safety trainers. This has supported the global safety messaging, as it forces the teams to integrate safety as a part of their daily practices.

Nokian Tyres collects safety data through a global reporting system that is accessible to all employees. The collected data includes safety observations, occupational hazards, and accidents in the workplace. The reporting system covers Nokian Tyres' own employees, agency workers, and subcontractors. Starting from 2022, agency workers were also included in the LTIF goal.

Training on occupational health and safety is based on the local laws and specific job training requirements are described in Nokian Tyres' safety training matrix. Supervisors are responsible for following training completion and the training requirements needed for daily tasks. The implementation of training is followed in the people management system.

Internal safety inspections are performed by supervisors and employees. These are all reported in the global safety reporting tool.

Safety actions include safety incident reports (such as safety observations, near-miss reports, safety walks and toolbox meetings), safety inspections, risk evaluation, and the implementation of the improvements based on these. Every non-conformity in safety is investigated and if needed, corrective actions are taken according to the hierarchy of controls.

The lost-time accident frequency and the number of safety actions per employee form the safety KPI's. All employees can see the current LTIF situation on the company's intranet.

In 2023 the LTIF developed negatively. To improve the situation in 2024, Nokian Tyres will strengthen safety culture implementation by engaging the employees even more actively than before, as well as by improving procedures and safety management according to the Nokian Tyres' Safety Management Standard.

You can read about occupational health at Nokian Tyres on the company website at www.nokiantyres.com/company/sustainability/people/health-and-safety/.

Targeting for an accident-free workplace

Nokian Tyres' management sets goals pertaining to health and safety, monitors their implementation and reserves sufficient resources to meet and maintain these goals. On the way to an accident-free workplace, Nokian Tyres' long-term goal is to decrease the lost-time accident frequency LTIF from 8.3 in 2018 to 1.5 in 2025. However, in 2023 the group-wide accident frequency increased to 4.7 (3.2). On the positive side, Nokian Heavy Tyres celebrated one year without accidents leading to absence in December.

Employees are encouraged to make safety observations and carry out safety actions with the goal of five safety actions per employee on average. This resulted in over 18,200 safety actions in 2023, which amounts to 4.6 (3.8) actions per employee. Both tire factories, the wheel factory and Vianor achieved this target. The overall participation percentage of employees in those units was 77 percent. At the passenger car tire production unit in Finland almost everyone (97 percent) participated in safety work.

In 2024, Nokian Tyres also targets that 100 percent of the tire factory and wheel factory employees have completed the safety management self-evaluation.

As for employee well-being, development actions are related to developing leadership, employer brand and talent acquisition, to defining the Human rights approach and needed actions, and to continuously improving the sentiment of equal opportunities.

Nokian Tyres' employees

Nokian Tyres' goal is to be a globally attractive employer known for its sustainability, leadership, and international working community. Nokian Tyres reports the number of all employees, also including those on a long leave of absence. At the end of 2023, the company employed a total of 3,433 (-24.4 percent) employees with different skills and backgrounds. In the first quarter of 2023, Nokian Tyres completed the sale of the operations in Russia, which affected the headcount decrease. The company increased production in Finland and in the US, and in North America the headcount increased by a hundred employees in 2023.

Own employees

Employee head count by gender

Gender	Number of employees (head count)
Male	2,788
Female	645
Total employees	3,433

Employee head count in countries where Nokian Tyres has at least 50 employees representing at least 10% of its total number of employees

Country	Number of employees (head count)
Finland	1,766
United States of America	547
Norway	493
Sweden	419

Employees by contract type, broken down by gender (head count)

	Female	Male	Total
Number of employees (head count)	645	2,788	3,433
Number of permanent employees (head count)	615	2,658	3,273
Number of temporary employees (head count)	30	130	160
Number of non-guaranteed hours employees (head count)	7	19	26
Number of full-time employees (head count)	599	2,734	3,333
Number of part-time employees (head count)	46	54	100

Employees by contract type, broken down by region (head count)

	Nordics	Other Europe	North America	Total
Number of employees (head count)	2,678	197	558	3,433
Number of permanent employees (head count)	2,518	197	558	3,273
Number of temporary employees (head count)	160	0	0	160
Number of non-guaranteed hours employees (head count)	26	0	0	26
Number of full-time employees (head count)	2,587	188	558	3,333
Number of part-time employees (head count)	91	9	0	100



Nokian Tyres' goal is to be a globally attractive employer known for its sustainability, leadership, and international working community.

Total number and rate of new employee hires and employee turnover by gender, age group, and region 2023

	Nordics	Other Europe	North America	Total
Total number of new employees	476	33	202	711
Number of women	92	13	49	154
Number of men	384	20	153	557
Number of under 30 years old	204	6	84	294
Number of 30–50 years old	216	26	87	329
Number of over 50 years old	56	1	31	88
New employee hires rate (Total)	17.8%	16.8%	36.2%	20.7%
Percentage of women	19.3%	39.4%	24.3%	21.7%
Percentage of men	80.7%	60.6%	75.7%	78.3%
Percentage of under 30 years old	42.9%	18.2%	41.6%	41.4%
Percentage of 30–50 years old	45.4%	78.8%	43.1%	46.3%
Percentage of over 50 years old	11.8%	3.0%	15.3%	12.4%

	Nordics	Other Europe	North America	Total
Total number of terminated employees (fixed terms not included)	271	34	101	406
Number of women	28	10	17	55
Number of men	243	24	84	351
Number of under 30 years old	61	4	37	102
Number of 30–50 years old	136	23	53	212
Number of over 50 years old	74	7	11	92
Turnover rate (Total)	10.1%	17.3%	18.1%	11.8%
Percentage of women	10.3%	29.4%	16.8%	13.5%
Percentage of men	89.7%	70.6%	83.2%	86.5%
Percentage of under 30 years old	22.5%	11.8%	36.6%	25.1%
Percentage of 30–50 years old	50.2%	67.6%	52.5%	52.2%
Percentage of over 50 years old	27.3%	20.6%	10.9%	22.7%

Numbers based on the official headcount.

Nokian Tyres' external workforce is mainly used in production. At the end of 2023, there were 383 external workers (head count), most of them working in the Finnish factory production as private employment agency workers (274).

During 2023, a total of 1,285 seasonal employees were employed in Nordics at Nokian Tyres' tire and car service chain Vianor. There are two tire changing seasons in a year when the headcount increases temporarily with approximately 500–700 employees.

Supervised workers (non-employees)

Non-employee head count by gender

	Female	Male	Total
Number of supervised workers (non-employees)	131	252	383

Non-employee head count by region (head count)

	Nordics	Other Europe	North America	Total
Number of supervised workers (non-employees)	292	18	73	383

Total workforce including own employees and supervised workers (non-employees)

Total workforce by gender

	Female	Male	Total
Head count of total workforce	776	3,040	3,816

Total workforce by region (head count)

	Nordics	Other Europe	North America	Total
Head count of total workforce	2,970	215	631	3,816

Numbers are based on the official headcount on Dec 31, 2023.

Collective bargaining coverage and social dialog

73.0 percent of Nokian Tyres' employees were covered by collective bargaining. If there is no collective labor agreement available, the company follows the employment regulations that are available. Nokian Tyres complies with the country-level legislation and regulation in each country.

Collective bargaining coverage and social dialog

Coverage Rate	Collective Bargaining Coverage		Social dialog
	Employees – EEA (for countries with >50 empl. representing >10% total empl.)	Employees – Non-EEA (estimate for regions with >50 empl. representing >10% total empl.)	Workplace representation (EEA only) (for countries with >50 empl. representing >10% total empl.)
0–19%		North America	
20–39%			
40–59%			
60–79%	Norway		
80–100%	Finland, Sweden		Finland, Sweden, Norway

Diversity metrics

Composition of governance bodies and breakdown of employees per employee category according to gender and age group 31.12.2023

	Nordics	Other Europe	North America	Total
Number of individuals within the top management	9	1	0	10
Number of women	4	0	0	4
Number of men	5	1	0	6
Percentage of women	44.4%	0.0%	0.0%	40.0%
Percentage of men	55.6%	100.0%	0.0%	60.0%
Number of under 30 years old	0	0	0	0
Number of 30–50 years old	2	0	0	2
Number of over 50 years old	7	1	0	8
Percentage of under 30 years old	0.0%	0.0%	0.0%	0.0%
Percentage of 30–50 years old	22.2%	0.0%	0.0%	20.0%
Percentage of over 50 years old	77.8%	100.0%	0.0%	80.0%
Number of white collars	1,227	193	181	1,601
Number of women	341	68	38	447
Number of men	886	125	143	1,154
Percentage of women	27.8%	35.2%	21.0%	27.9%
Percentage of men	72.2%	64.8%	79.0%	72.1%
Number of under 30 years old	89	8	17	114
Number of 30–50 years old	765	151	103	1,019
Number of over 50 years old	373	34	61	468

	Nordics	Other Europe	North America	Total
Percentage of under 30 years old	7.3%	4.1%	9.4%	7.1%
Percentage of 30–50 years old	62.3%	78.2%	56.9%	63.6%
Percentage of over 50 years old	30.4%	17.6%	33.7%	29.2%
Number of blue collars	1,442	3	377	1,822
Number of women	117	0	77	194
Number of men	1,325	3	300	1,628
Percentage of women	8.1%	0.0%	20.4%	10.6%
Percentage of men	91.9%	100.0%	79.6%	89.4%
Number of under 30 years old	316	0	118	434
Number of 30–50 years old	736	3	185	924
Number of over 50 years old	390	0	74	464
Percentage of under 30 years old	21.9%	0.0%	31.3%	23.8%
Percentage of 30–50 years old	51.0%	100.0%	49.1%	50.7%
Percentage of over 50 years old	27.0%	0.0%	19.6%	25.5%

Distribution of all employees by age group

Number of under 30 years old	548
Number of 30–50 years old	1,945
Number of over 50 years old	940
Percentage of under 30 years old	16.0%
Percentage of 30–50 years old	56.7%
Percentage of over 50 years old	27.4%

Composition of the Board

Number of women	2
Number of men	7
Percentage of women	22.2%
Percentage of men	77.8%
Number of under 30 years old	0
Number of 30–50 years old	1
Number of over 50 years old	8
Percentage of under 30 years old	0.0%
Percentage of 30–50 years old	11.1%
Percentage of over 50 years old	88.9%

Number based on the official headcount.

Adequate wages and social protection

Nokian Tyres will never pay anyone less than the minimum wage defined in the local legislation and follows the local market practice as well as collective agreements when applicable.

All employees are covered by social protection, through public programs or through benefits offered by the company, against loss of income due to any of the following major life events: sickness, unemployment starting from when the own worker is working for the undertaking, employment injury and acquired disability, parental leave, and retirement.

Training and skills development

Nokian Tyres' learning culture promotes:

- Moving away from traditional classroom training
- Making full use of digital tools
- Offering a portfolio of modular solutions
- A pick-and-choose approach to the content and method
- Opportunities to combine common and personalized learning paths
- Piloting new ways of learning together (e.g. learning circle, peer coaching)
- Enabling learning that is independent of time and space (mobile, on-the-go)
- Tightly integrating learning with business targets ('on-demand' learning)

Nokian Tyres' people development philosophy supports employees' development with internal job rotation, on-the-job learning, and various development solutions, and follows the 70–20–10 principle: 70 percent of the development through learning on the job, 20 percent through learning from others, and 10 percent through training.

In 2023 the company's e-learning management system was renewed, and a group of employees was trained to create online courses based on business needs.

Percentage of Nokian Tyres' employees that participated in the people review process

	Female	Male	Total
Nokian Tyres Group	89%	86%	87%
	Blue collar	White collar	Total
Nokian Tyres Group	83%	89%	87%

Average training hours per employee in 2023, excluding onboarding type of training

Gender	Average training hours per employee	Employee category	Average training hours per employee	Age group	Average training hours per employee
Female	6.2	Blue collar	4.0	Under 30	2.4
Male	3.2	White collar	3.5	30–50	4.1
				Over 50	3.8
Total	3.8	Total	3.8	Total	3.8

Health and safety metrics

The whole Nokian Tyres' workforce is covered by the company's health and safety management system. The tire factories in Finland and in the US are certified pursuant to the international ISO 45001 occupational health and safety standard.

Lost time Accident frequency (LTIF)*

	2021	2022	2023
Nokian Tyres Finland	3.1	0.7	2.4
Nokian Tyres US	3.5	1.1	4.5
Vianor	6.5	7.6	7.8
Nokian Tyres Group	4.1	3.2	4.7

* Number of incidents / 1,000,000 hours worked.

Recordable accident frequency (rec. F)*

	2021	2022	2023
Nokian Tyres Finland	6.3	7.1	8.9
Nokian Tyres US	8.7	15.7	24.5
Vianor	12	12.1	14.6
Nokian Tyres Group	7.4	7.7	12.2

* Number of incidents / 1,000,000 hours worked.

Absenteeism by company*

	Nokian Tyres Finland				Vianor				
	Nokian Tyres (FI)	Nokian Heavy Tyres	NT Tyre Machinery	Levypyörä	Nordic Wheels AB	Vianor Holding Oy	Vianor Oy	Vianor AB	Vianor AS
Sick absences % (total)	3.5%	6.0%	4.8%	4.5%	0.0%	0.0%	5.0%	5.9%	5.7%

* The table does not include the US, as sick absences are not tracked separately from total absences in the US.

Recordable accidents

	2021	2022	2023
Nokian Tyres Finland	14	20	26
Nokian Tyres US	5	14	22
Vianor	37	38	45
Nokian Tyres Group	69	79	93

Occupational illness frequency (OIFR)*

	2021	2022	2023
Nokian Tyres Group	0.2	0.7	0.99

* Work-related ill health cases / 1,000,000 hours worked.

Fatalities as a result of work-related injuries

	2021	2022	2023
Nokian Tyres Group	0	0	0

Work-life balance

All employees are entitled to family-related leave through social policy and/or collective bargaining agreements.

Remuneration

Nokian Tyres' Total Rewards Guideline was created by the Management Team and Board of Directors in 2018. It forms the basis for the rewarding principles in the company. The principles have been defined to support the company goal of being an engaged and high-performing organization. The guidelines form a consistent framework for recognizing, rewarding, and promoting employees.

The overall objective of the guidelines is to align rewarding with the company's strategy and value generation. The aim of the rewarding philosophy is to provide locally competitive pay, and to attract, retain and motivate the best talent. The decisions on rewards are made in accordance with the globally consistent reward guidelines that have been designed to ensure the fair and equal treatment of Nokian Tyres' employees, as well as to allow countries and units to provide locally competitive pay to attract, retain, and motivate the best talent. It is based on position evaluation, consistent goal setting, and benchmarking of rewarding practices in relevant markets as well as applicable laws and collective agreements.

Nokian Tyres' Rewarding Philosophy

The rewarding philosophy and guiding principles are built around four elements. Rewarding is to be:

Strategic	Performance and value based	Competitive	Transparent and consistent
To ensure successful execution of Nokian Tyres' strategy	To drive and reward group, business unit, team and individual performance and customer & value-based behavior	To attract, motivate and retain talent by offering competitive total reward packages	To strive for transparency and consistency in reward program design, implementation and communication

Nokian Tyres has several incentive plans in use to measure performance in both the short and long term. The company has two share plans that are intended to align the long-term goals of Nokian Tyres' shareholders and key personnel. The current performance criteria in the company's main long-term incentive plan, the Nokian Tyres Performance Share Plan, are cumulative EBITDA, increase in passenger car tire production volume, and reduction of direct CO₂ emissions. Nokian Tyres' Restricted Share Plan serves as a complementary long-term incentive tool, used for the retention of Nokian Tyres President and CEO, the Management Team, and other selected key employees.

Both plans were resumed during 2023 with changes in Nokian Tyres' Performance Share Plan for the performance period 2023–2024. The change was from a three-year performance period to a two-year performance period and one-year additional retention. Nokian Tyres' Restricted Share Plan for a restriction period between 2023–2024 remained as earlier.

As short-term incentives, there are several different plans in use and all employees are eligible for some of them. These plans are designed to drive the company's strategy and reward for the achievement of stretching performance goals. All short-term plans are based on criteria measured on either Group, business area/unit, team and/or individual performance.

Performance-based rewarding supports the achievement of results by creating motivation and commitment. Different people are motivated by different things, and while rewarding helps to build motivation, it is not based only on monetary rewards. The aim is to drive performance and support employee motivation and commitment by offering competitive total reward packages, which consist of both monetary and non-monetary reward elements.

Nokian Tyres' reward structure is monitored based on the prevailing market conditions to secure the best possible future performance as well as employee commitment.

Employee remuneration, average EUR*

Wages and salaries (excl. President and CEO), EUR million	191.779
Number of Group employees on average during financial year	3,754
Wages and salaries on average, k EUR	51.09

* Employee remuneration, average EUR calculated based on average number of employees during financial year, divided by total amount of wages and salaries paid to employees (excl. President and CEO) during corresponding financial year.

President and CEO remuneration, EUR

Wages and salaries, EUR million	1.421
Wages and salaries, k EUR	1,421
Ratio to average employee wages and salaries*	27.82

* Ratio to average employee wages and salaries calculated by dividing total fees paid to President and CEO during financial year 2023, by Wages and salaries paid on average to other employees, excl. President and CEO. More information about President and CEO remuneration in Nokian Tyres Remuneration Report 2023.

Increase in annual total compensation*

President and CEO remuneration increase, %	-5.4
Employee remuneration average increase, %	-8.9
Ratio of President and CEO compensation increase to average employee compensation increase*	0.61

* Increase in annual total compensation. Calculated so that the Employee remuneration average increase comparison figure from 2022 does not include Russia.

Gender pay gap*

Gender pay gap, %*	-2.8
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* Defined as the difference of average gross hourly pay levels between female and male employees (percentage of the average pay level of male employees).

Workers in the value chain

The life cycle of Nokian Tyres' products begins in a tropical forest, probably on a small natural rubber tree farm in Southeast Asia. Natural rubber is the livelihood of hundreds of thousands of families living in countries where the local legislation and working conditions have not been fully developed.

Promoting and ensuring decent working conditions is an essential aspect of sustainable and responsible development. Decent working conditions involve, for example, opportunities for work that is productive and delivers fair income, security in the workplace and social protection for families, and better prospects for personal development.

Policies that guide sustainable procurement

The work of Nokian Tyres' Procurement unit is guided by the Group's Procurement Policy, which establishes the general principles of sustainable procurement. As a participant in the UN Global Compact initiative, Nokian Tyres follows the UNGC's ethical principles as well as its own. The company requires that all the suppliers that it has identified to be sustainability critical adhere to Nokian Tyres' Supplier Code of Conduct that can be found on the company website at www.nokiantyres.com/company/sustainability/supplier-code-of-conduct/. The Supplier Code of Conduct expects the suppliers to commit to respecting human rights and prohibits discrimination and the use of child labor or forced labor, among other things.

Nokian Tyres is committed to conducting its business operations in a manner that respects all internationally recognized human rights, understood as, at a minimum, those expressed in the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work and expects the same of its suppliers.

Nokian Tyres expects its suppliers to share the strive towards a more socially sustainable supply chain, where decent working conditions are promoted. Nokian Tyres is committed and further expects its suppliers, for example, to:

- Actively prevent child labor
- Provide its employees at least with the minimum wage as required by local laws
- Provide its employees with a safe working environment
- Respect the rights of migrant and foreign workers and promote ethical recruitment practice and take reasonable steps to ensure that recruitment fees and other associated costs are not born by employees
- Provide decent living conditions (e.g. adequate housing, access to drinking water and the right to food and food security) for employees working and living on site, and to support the same for local communities
- Ensure that labor rights related safeguards apply to all employees, with no distinction being made on discriminatory grounds or employment status.

Tracking the sustainability of the suppliers

Nokian Tyres' supply chain consists of approximately 3,500 suppliers, including more than 150 raw material suppliers. Most of the supply chain suppliers are located around the factory areas, and raw material suppliers are located globally.

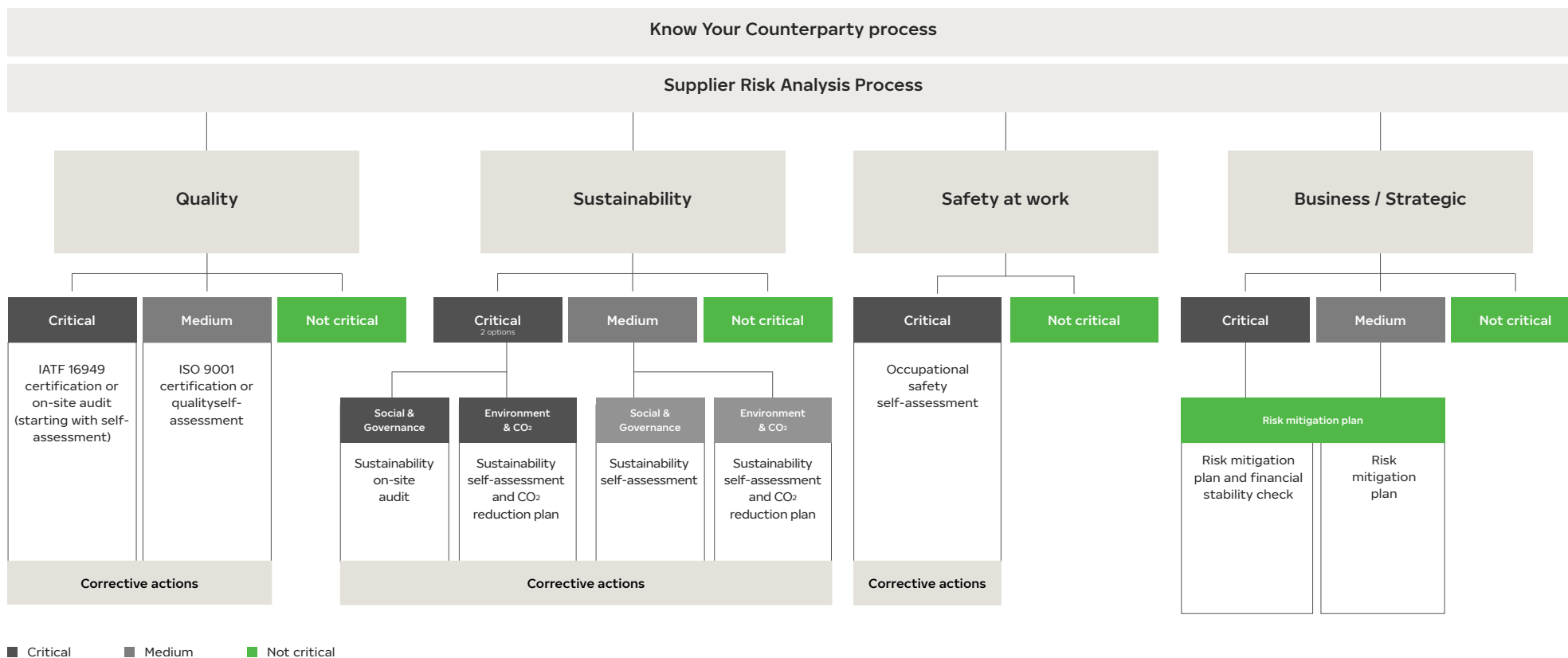
The backgrounds of all new suppliers are checked according to Nokian Tyres' Due Diligence process before supplier approval. Nokian Tyres assesses the possible risks attached to the suppliers. The assessment model has four different categories: quality, sustainability (environmental, social & governance), business/strategic criticality, and safety at work.

Actions are taken with all new suppliers that are classified as critical or medium critical in any of the four categories in the classification model. The actions are, for example, sustainability on-site audits, desk assessments and requesting a management system certification in terms of quality, environment, or safety. Potential risks identified with desk assessments are additionally confirmed and verified through on-site audits.



Nokian Tyres expects its suppliers to share the strive towards a more socially sustainable supply chain, where decent working conditions are promoted.

Supplier process



Critical suppliers

Supplier Screening	2023
Total number of Tier 1* suppliers	3,533
Total number of significant suppliers in Tier 1	33
% of total spend on significant suppliers in Tier 1	25
Total number of significant suppliers in non-Tier 1	23
Total number of significant suppliers (Tier 1 and non-Tier 1)	56

Supplier Assessment	Target for 2023	2023
Total number of suppliers assessed via desk assessments/on-site assessments	15	18
% of significant suppliers assessed		32
Number of suppliers assessed with substantial actual/potential negative impacts		18
% of suppliers with substantial actual/potential negative impacts with agreed corrective actions/improvement		44
Number of suppliers with substantial actual/potential negative impacts that were terminated		0

Corrective action plan support	2023
Total number of suppliers supported in corrective action plan implementation	5
% of suppliers assessed with substantial actual/potential negative impacts supported in corrective action plan implementation	28

* Tier 1 suppliers directly supply goods, materials, or services to Nokian Tyres. Non-tier 1 suppliers provide their products and services through Tier 1 suppliers to the company.

Nokian Tyres' sustainability risk evaluation model considers the country-, sector- and commodity-specific risks. As a tire manufacturer, Nokian Tyres purchases significant amounts of natural rubber. The sustainability aspects of natural rubber are related to countries of origin, biodiversity, and complex and fragmented supply chains.

Natural rubber is mainly grown in countries where sustainability risks are higher compared to, for example, European countries. The world's leading natural rubber producing countries are Thailand, Indonesia, and Vietnam. There are also country-specific overall sustainability risks, such as the high number of migrant workers in Malaysia.

Natural rubber as a sector has historically contributed to deforestation and biodiversity loss due to turning natural forests into natural rubber farms. Therefore, it is a high sustainability risk sector.

In addition, natural rubber as a commodity includes complex and fragmented supply chains with multiple layers of smallholders, dealers, processing plants and traders. More than 85 percent of the world's natural rubber is produced on farms smaller than two hectares in size, and their daily output may be just a couple of kilograms of latex. There are approximately 3–6 million farmers of natural rubber who collect the milky latex or cup lumps and sell them to local dealers. The local dealers collect the latex from several farmers and then sell the latex forward to processing plants. This means that the traceability chain can be broken, and, for example, the processing facilities might not know where their purchased rubber originates from. In these cases, there is no contact between the processor and the farmer, and a tire manufacturer's visibility to the livelihood of the farmer is very limited or non-existent.

On the other hand, roughly 73 percent of the world's natural rubber is consumed in tire production, so Nokian Tyres and the whole tire industry have a positive impact in creating and ensuring jobs in the natural rubber processing countries. As a member of the Global Platform for Sustainable Natural Rubber (GPSNR) Nokian Tyres is committed to a shared responsibility towards improving the social, environmental, and economic sustainability of the global natural rubber value chain.

In 2021, Nokian Tyres adopted a Sustainable Natural Rubber Policy that is fully aligned with the policy framework of the GPSNR. The policy was approved by a member of the Group's Management Team, who is responsible for sustainability, and the company's sustainability in natural rubber is developed through the framework of this policy. The policy can be found on the company website at www.nokiantyres.com/company/sustainability/sustainable-natural-rubber-policy/, and it includes eight major components:

- Commitment to legal compliance
- Healthy functioning ecosystems
- Respecting human rights
- Community livelihoods
- Increased production efficiency
- Supply chain assessment and traceability
- Monitoring and reporting, and
- Driving effective implementation of all these components.

In 2023, 100 percent of Nokian Tyres' approved natural rubber processors were either members of the GPSNR or committed to develop their operations according to Nokian Tyres' Sustainable Natural Rubber Policy.

During the audits conducted by Nokian Tyres, a certain percentage of employees from different levels of the workforce are confidentially interviewed to gather views of the workers. In case value chain workers have concerns or suspect infringements, they also have the possibility to contact Nokian Tyres through the whistleblowing channel that is available by email or regular mail.

However, as the natural rubber supply chain is fragmented, all value chain workers do not know which company will eventually utilize the commodities they produce. To provide redress and remedy to any party that has suffered negative impacts from the actions of the GPSNR members, the GPSNR Grievance Mechanism (sustainablenaturalrubber.org/grievance-procedure/) offers a possibility for stakeholders to express concerns they have about a GPSNR member or the GPSNR Secretariat and find optimal ways to resolve disputes. Grievances can be submitted by email to info@gpsnr.org or through an online form.

In Norway, the Transparency Act (Åpenhetsloven) requires enterprises that meet certain requirements and operate in Norway to conduct due diligence assessments. The aim is to ensure that human rights and working conditions are respected and followed throughout the value chain. This means that companies must examine their own business, their supply chain, and their business partners to find out where the biggest risks are. Nokian Tyres has a sales company and a Vianor tire chain company in Norway, and the accounts required by the Transparency Act can be accessed on the company websites at www.nokiantyres.no/bedriften/baerekraftighet/apenhetsloven and www.vianor.no/bedriftskunder/om-oss/apenhetsloven, respectively.

Audits help identify the topics to be improved

Nokian Tyres started a partnership with an external auditor in 2016 to improve sustainability in its natural rubber value chain. The natural rubber sustainability auditing process has been developed together with a consulting company, and it is based on Nokian Tyres' Supplier Code of Conduct and principles that comply with the UN Global Compact goals. In 2022 the audit model was updated so that it also evaluates the suppliers' alignment with Nokian Tyres' Sustainable Natural Rubber Policy.

Nokian Tyres exclusively purchases rubber processed in the plants that the company has approved. In 2023, Nokian Tyres conducted eight new sustainability audits of natural rubber processing plants that are its suppliers.

After the audit, the full report is shared with the supplier to show their shortcomings and to highlight the positive findings. This gives valuable information for the supplier about how they can improve their operations.

A common problem identified during the audits is the language and content of the employment contracts. The contract is not necessarily available in the employees' mother tongue, or the translated content differs from the original. In several cases the records of working hours, rest times and holidays are missing or are only partial. In some audits it has also been identified that rest times and holidays are not always granted in accordance with the local law.

In some countries, the recruitment of foreign workers is a problematic topic. Foreign workers are recruited through a recruitment agency network, and the amount of recruitment costs to the employee can be as much as a year's salary. As the agencies are often approved by local governments, it is

difficult to improve the process. However, Nokian Tyres requires its suppliers to improve also on this issue. The suppliers have requested support from the local officials, but the progress is slow.

Nokian Tyres requires the suppliers to provide corrective action plans to improve on the shortcomings. Many suppliers have, for example, introduced several different language versions of employment contracts. This shows that matters can be improved once an external party reviews the processes and indicates need for improvement.

Nokian Tyres aims to perform follow-up audits every three years on the high sustainability risk suppliers' sites. Currently Nokian Tyres has mitigation plans from eight audited supplier sites and is monitoring the closing of the corrective actions until the next follow-up audits.

In 2023 Nokian Tyres had several key performance indicators that were related to the sustainability of the supply chain. The most important ones were the following:

- Minimum five sustainability audits performed
- 100 percent of natural rubber processor suppliers are either GPSNR members or signed Nokian Tyres sustainability commitment
- Traceability study performed.

All KPIs were achieved. Nokian Tyres performed 11 sustainability audits in total.

In 2024 Nokian Tyres aims to uphold the status of having 100 percent of sustainability high-risk suppliers audited, and also to uphold the status of 100 percent of natural rubber processor suppliers either being GPSNR members or having signed Nokian Tyres' Sustainable Natural Rubber Policy.

Consumers and end users

In terms of technical characteristics, a car tire is an extremely demanding product that needs to ensure that the driver retains control of the vehicle under all conditions. At the same time, the tire needs to be energy efficient, be produced in an environmentally friendly manner, reduce road wear and noise – and have an impressive design.

Nokian Tyres continuously improves the quality, safety and environmental friendliness of its products, services, and processes. Creating the safest tires for all conditions is one of Nokian Tyres' five strategic cornerstones.

Safety is Nokian Tyres' priority

Extreme weather phenomena caused by climate change and varying road conditions have increased the importance of safe tires even further. Tires that enable safe driving also in demanding conditions have an impact on end users' and other people's safety in traffic. As a tire manufacturer, Nokian Tyres must ensure that the tires that the company develops, produces, and markets are verifiably safe to use and that they meet the quality requirements as well as expectations of the customers and end users.

Sustainability has been at the core of product development for a long time, as Nokian Tyres has strived to create energy-efficient, safe, and durable premium tires. Traditionally, tire development has been balancing between three main cornerstones: grip, durability, and rolling resistance. Enhancing one property affects

the other properties and may lead to diminishing their effect. Developing safety properties like the wet grip of a tire further affects the rolling resistance. The fourth main cornerstone of tire development at Nokian Tyres is sustainability. With the new zero CO₂ emission factory that Nokian Tyres is currently building in Romania, the company has new possibilities to influence the sustainability of its products.

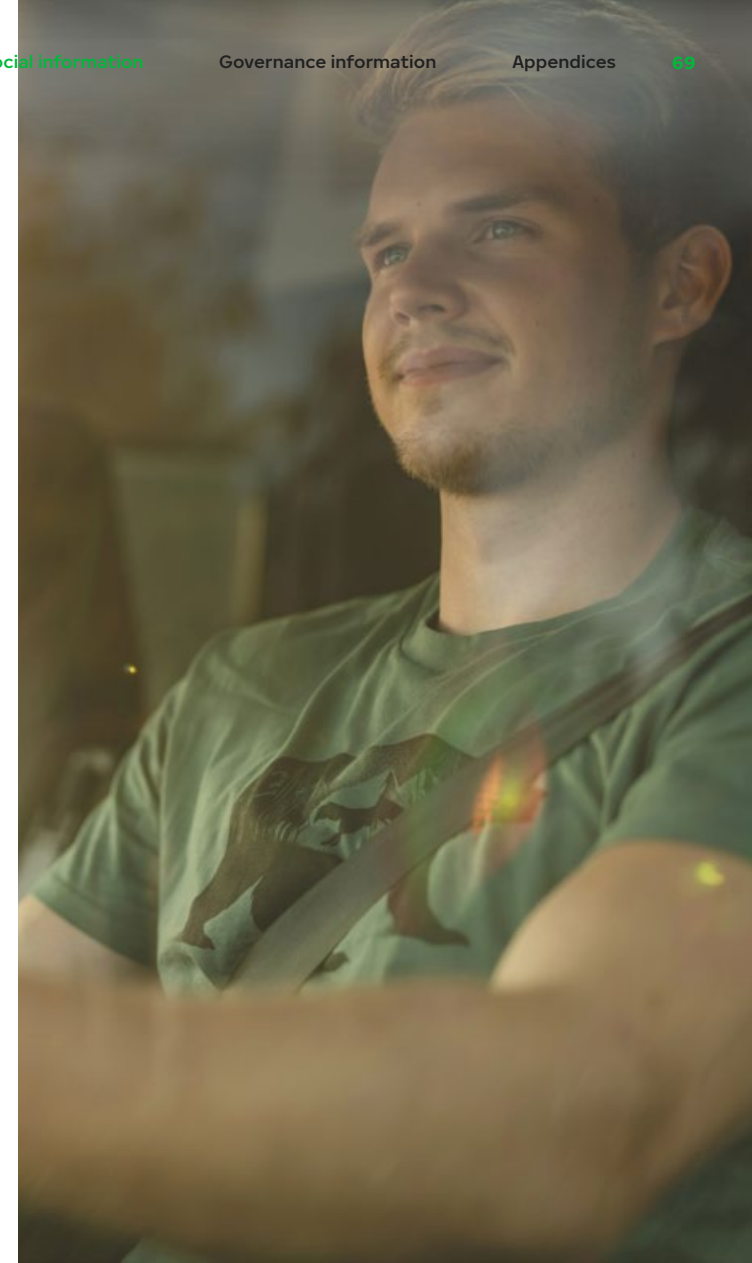
Nokian Tyres has set key measures to cover the safety aspects of the tires in wet and icy conditions without compromising other important tire properties, such as handling and dry braking.

Policies and requirements that guide the work

Nokian Tyres' leadership and product development are guided by the Code of Conduct, the Environmental, safety and quality policy, and testing policies. Nokian Tyres also complies with several requirements concerning noise, studs, chemicals, testing, and tire markings, among other things. The tires that are in the scope of the EU Tyre Labelling Regulation sold in the EU are included in the EU Tyre Labelling.

Nokian Tyres is also a full member of the European Tyre and Rim Technical Organisation (ETRTO) and participates in global standardization work. Currently ETRTO is contributing to the creation of tire abrasion test method development, which is explained in more detail under Pollution in Environmental information.

Nokian Tyres is also committed to data protection, and the efforts related to it continued throughout the year.



Reliable and helpful tire information for consumers and end users

EU Tyre Labelling helps consumers make an informed purchase decision when they replace their tires, as the label highlights the performance of the tire on issues relating to fuel efficiency, wet grip, and noise, and now with the latest addition for tires made for Nordic conditions, snow and ice grip. All Nokian Tyres' products in the scope of the EU Tyre Labelling Regulation sold in the EU come with the label, and the company also offers information about the tires' labeling classes on the website.

Grip

Regarding tire safety, wet grip, snow grip and ice grip are the most important performance indicators. The EU Tyre Labelling rates the wet grip of tires from A to E, indicating how well the tire will perform in wet conditions. The higher the grade, the shorter the braking distance on a wet road.

As of May 2021, the EU Tyre Labelling has also included the possibility to inform about the snow grip and ice grip performances of the product with respective markings. A tire that is approved for severe snow conditions has the snow grip marking, and a tire that passes the international ice grip test has the ice grip marking on their label. The ice grip marking is not applicable for truck and bus tires.

The label also includes a QR code that can be scanned to see more information about the tire in EPREL, European Product Registry for Energy Labelling. The tire label is also available for download and print out in EPREL.

Noise level

Road and tire interaction generates noise, which affects both the people inside the vehicle and outside. The EU Tyre Labelling classifies the pass-by noise of tires from A to C, A being the highest class for the lowest external noise levels of tires. Pass-by noise is affected by several factors, such as the model and type of the vehicle, rims, tire type and size, road surfaces, driving speed, and climate conditions.

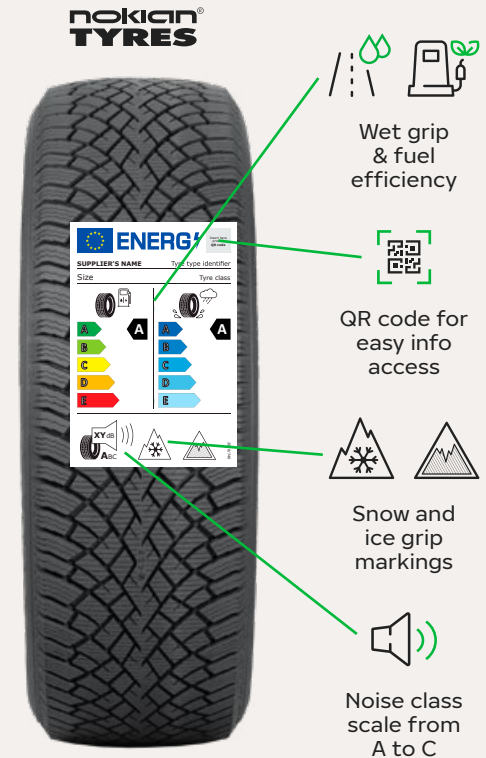
Safe and sustainable tire use

Nokian Tyres wants to lead the world to drive smarter, also by educating drivers on how to make the best out of their tires by driving responsibly, with tires that produce less emissions with lower rolling resistance. Predictable driving style and proper, well-maintained tires increase safety in traffic. In addition to the information included in the EU Tyre Label, Nokian Tyres offers consumers and end users information and guidance on tires and tire use on the company website and regularly communicates on topics related to tire maintenance, such as the importance of correct tire pressure.

Dialog with end users

Premium quality means premium safety: Nokian Tyres has not had significant product recalls in 22 years. However, when the end users wish to give feedback on the products or some other topic, they can contact Nokian Tyres through the local website, or in case of product reclaims contact the Nokian Tyres' dealer where they have purchased the tires.

If the end users feel that these primary channels are not sufficient, they can also contact Nokian Tyres' main offices through various channels, including info@nokiantyres.com. If these channels have not satisfactorily closed the matters, or if there are major concerns or suspected infringements, Nokian Tyres' whistleblowing channel is also available for all third parties by email or regular mail.



Creating tires for safe and comfortable driving in all conditions

Nokian Tyres participates actively in developing the EU Tyre Labelling test methods for regulatory purposes, such as wet grip and ice grip. Wet grip and ice grip performances are critical safety features as they relate to how quickly a tire can stop on wet or icy roads, respectively.

Nokian Tyres uses high-quality raw materials that contribute to the safety and premium quality of the tires. The technical quality and safety of the products is ensured by testing and studying each raw material used in tire manufacturing and by continuously improving the rubber compounds. Process controls are also used during production for ensuring the quality of tires. Each finished tire passes through production quality control, which includes the tire's force variation, out-of-round and run-on measurement as well as a visual inspection.

At Nokian Tyres' test tracks in Nokia and Ivalo in Finland, and Santa Cruz de la Zarza, Spain, tire behavior is tested in a wide range of circumstances: wet and dry asphalt, ice, snow and slush, uphill and downhill, as well as corners and straights, and even cobble stones. The tires are tested during acceleration and braking, in aquaplaning conditions, and on the handling track, when the weather is freezing cold or sizzling hot.

Nokian Tyres constantly develops tires with less noise emissions. The state-of-the-art test center in Santa Cruz de la Zarza, Spain, has a 1.9-kilometer "comfort road" track that allows for testing on different types of asphalt and rough roads, as well as crossing cobblestone streets.

Nokian Tyres' flagship winter tires, the Nordic non-studded Nokian Tyres Hakkapeliitta R5 EV and studded Nokian Tyres Hakkapeliitta 10 EV, are especially designed for electric vehicles. In both of them there are innovations designed to reduce noise, including a layer of foam, which has reduced the noise on the inside of the vehicle.

Nokian Tyres has designed and tested tires with electric cars in mind for more than 10 years. To help electric vehicle drivers find compatible tires, in 2023 Nokian Tyres introduced the new ELECTRIC FIT™ symbol for its full portfolio of existing and future premium products. The symbol indicates that Nokian Tyres® tires can be equally fitted on internal combustion engine and electric cars providing safe and high-quality product performance regardless of the car's powertrain.



Wet grip and ice grip performances are critical safety features as they relate to how quickly a tire can stop on wet or icy roads, respectively.

Aiming for premium safety

Wet grip and ice grip are Nokian Tyres' R&D's continuous development targets. As for wet grip, Nokian Tyres' goal for 2025 was to include 100 percent of the company's premium tires in the best wet grip A or B class in the EU Tyre Labelling. During the year 2023 Nokian Tyres already achieved the target that hundred percent of the company's premium tires in the selected scope were either A or B class.

As for ice grip, the safety of winter tires is one of Nokian Tyres' top priorities in traffic safety of tires. The target for the winter tire safety performance level was that 100 percent of Nordic Nokian Tyres Hakkapeliitta products fulfill the performance requirements of the EU ice grip marking by 2025. In 2022, the target was achieved.

Nokian Tyres continues the development work to ensure that also the company's future products will fulfill the high standards of safety.

Percentage of selected tires* in wet grip class A or B

Status in 2023	Goal for 2025
100%	100%

* Selected scope: Tires in price category A and included in the EU Tyre Labelling, the latest generation. Does not include Nordic winter tires.

**MADE FOR DEMANDING CONDITIONS:
MIKKO LEHTINEN**

Safety and sustainability as part of business development at Vianor

“Sustainability is not separate from other operations, but a part of business development and taken into account in everything we do,” says Mikko Lehtinen, who heads Vianor’s consumer (B2C) and customer (B2B) business areas and their development.

“The significance of sustainability in consumers’ purchasing decisions is becoming an increasingly important criterion when choosing products and services, as we see in all other sectors. Large corporate customers expect sustainability from their suppliers, and also concrete actions that show it,” Lehtinen says.

“I believe that by investing in sustainability, we will build prerequisites for success in the long run. Sustainability also affects employee satisfaction and the company’s employer image. At its best, sustainability can be a competitive advantage for us as part of the product and service offering,” Lehtinen says.

Safety is at the core of the Vianor brand and operations. Internally it means, for example, continuous improvement of occupational safety. When it comes to end users, Vianor aims to guarantee safe journeys by offering products and services that help people stay safe on the road.

In recent years, one of the things that Vianor has invested in is digital car and tire condition inspection, which aims to provide information to consumers, improve the service experience, and ensure that consumers drive with safe cars and tires.

“In the big picture, this also affects traffic safety. Our long-term goal is to predict tire wear based on data, which allows us to proactively inform the consumer that the tires may be at the end of their service life,” Lehtinen says.

”

When it comes to end users, Vianor aims to guarantee safe journeys by offering products and services that help people stay safe on the road.





GOVERNANCE INFORMATION

MADE FOR DEMANDING CONDITIONS

” QUALITY COMES FROM A
THOUSAND COMPONENTS AND
ACTIONS DONE RIGHT ACROSS
OUR ENTIRE VALUE CHAIN.

Marion Guillemet,
Supply Planning Manager



Governance information

Nokian Tyres is a Finnish limited liability company, and its registered place of business is Nokia, Finland. The parent company Nokian Tyres plc and its subsidiaries form the Nokian Tyres Group. The administrative bodies of the parent company, i.e. the General Meeting, the Board of Directors and the President and CEO, are responsible for the administration and operation of the Nokian Tyres Group.

In its corporate governance and management, Nokian Tyres complies with the Finnish Limited Liability Companies Act, laws and regulations relating to publicly listed companies in Finland, the Articles of Association, the charters of the Board of Directors and the committees, the company's policies and practices as well as the rules and regulations of the Nasdaq Helsinki, the European Securities and Markets Authority, and the Financial Supervisory Authority.

In its decision-making and administration, Nokian Tyres adheres to the Finnish Limited Liability Companies Act, the Finnish Securities Markets Act and the rules issued by Nasdaq Helsinki Ltd, Nokian Tyres' Articles of Association, and the Finnish Corporate Governance Code 2020 for listed companies. Nokian Tyres complies with the code without exceptions. The code is published at www.cgfinland.fi/en/.



Business Conduct

The governance actions at Nokian Tyres are described in the Corporate Governance Statement annually. At the heart of the corporate culture at Nokian Tyres are the key policies defined within the compliance framework of Nokian Tyres, and annually reviewed by The Board of Directors and the management of Nokian Tyres.

These policies include financial policies, such as tax Policy and Risk Management Policy, as well as policies targeting for good corporate ethics, such as Code of Conduct, Anti-Bribery and Conflict of Interest Code of Conduct, Data Protection Policy, and the Supplier Code of Conduct, among the others. The Policies present the principles to be followed in the Nokian Tyres' business, as well as further operative guidelines and controls to ensure the policies are followed.

Code of Conduct guides Nokian Tyres' business

Nokian Tyres' business is guided by the ethical principles presented in the Board-approved Code of Conduct that can be found on the company website at <https://www.nokiantyres.com/company/sustainability/code-of-conduct/>. The document specifies the principles for Nokian Tyres' business, including instructions for various matters related to ethics and anti-bribery guidelines. Nokian Tyres does not condone any form of bribery within the company's operations.

Every employee needs to adhere to the Code, and Nokian Tyres has an online training for all personnel. The majority of employees conducted the training in 2019 when it was introduced, and the training is included in the induction for new employees.

Critical concerns

At Nokian Tyres, the general controls, including handling any possible suspicious situations or disputes, are the responsibility of the line organization and the various specialist functions as part of their normal operative work. In addition, Nokian Tyres has had a whistleblowing channel available since 2011. The same channel is available to external stakeholders by email at whistleblow@nokiantyres.com or by letter. In addition, any complaints can be made via the company website on a contact form, emailing the company directly, sending a regular letter or contacting the company on the phone.

The whistleblowing process was last updated in 2018 and is reviewed annually. Nokian Tyres' Whistleblowing committee was formed in 2019. The committee consists of persons responsible for internal audit, legal affairs, and HR matters within the Nokian Tyres Group. In 2022–2023, the compliance of the company's whistleblowing process was evaluated against the EU whistleblowing directive.

In 2023, the Chief Audit Executive (CAE) coordinated the whistleblowing process as well as the handling of any compliance breaches found during the investigations or in other related processes at the Group level. All material findings and general statistics are reported to the Audit committee of the Board of Directors.



**NOKIAN TYRES DOES
NOT CONDONE ANY
FORM OF BRIBERY.**

In 2023, altogether seven suspected cases of misconduct were reported via the official channel or brought to the attention of the CAE via other channels. One of the cases resulted in internal disciplinary actions. In the other cases, no misconduct was identified, with two cases open at the end of the year. No whistleblows or compliance breaches were noted regarding corruption or bribery, or any subjects referred into in the EU whistleblowing directive. There were no material critical concerns in 2023.

Political influence, lobbying activities, and trade associations

Nokian Tyres' business is guided by the ethical principles presented in the Board-approved Code of Conduct, which states that Nokian Tyres does not provide monetary support to political parties or groups or individual politicians. Every employee must adhere to the Code. Participation in interest representation through memberships is conducted only in strict compliance with applicable laws, the Code of Conduct and related policies and procedures. Nokian Tyres is registered with the European Transparency Register.

For the management of the company's lobbying activities and trade association memberships, the guiding principles are the following: lobbying work is transparent and characterized by accurate contribution of the company's technical expertise and knowledge concerning the industry and other related sectors, with a focus on products, safe and sustainable mobility, and innovation.

Memberships, contributions, and other expenditures

Nokian Tyres is a member of some industry and other associations, and of national and international advocacy organizations. These relations also help Nokian Tyres identify new product development and business opportunities early on and create competitive business conditions that are sustainable over the long term.

In 2023, the company's membership fees for trade associations and contributions to lobbying activities totaled about EUR 0.98 million globally. The three largest fees were paid to USTMA, Finnish Rubber Manufacturers' Association and Chemical Industry Federation of Finland. Two biggest contributions for lobbying topics were related to tire abrasion and tire noise. The project related to tire abrasion aims for reducing road transport emissions by setting global tire abrasion limits that are based on a reliable, meaningful, and robust tire test method. The indoor drum method project aims to reduce measurement uncertainty of the pass-by noise field test by transferring testing to indoor facilities.

	EUR in 2023
Political funding and in-kind giving provided to parties and politicians, and spending related to ballot measures or referendums	0
Three largest membership fees of trade associations, including industry associations and business associations:	
USTMA (U.S. Tire Manufacturers' Association)	243,371
Finnish Rubber Manufacturers' Association	104,222
Chemical Industry Federation of Finland	101,423
Membership fees of trade associations (total)	858,716
Two largest contributions for particular topics:	
ETRMA: Tire abrasion validation	45,351
ETRT0: Indoor drum method	44,491
Total contributions for lobbying and interest representation	118,199

Matters after the reporting period

Nokian Tyres informed on January 30, 2024 that the European Commission had at the same day initiated an unannounced inspection at Nokian Tyres plc's headquarters in Nokia, Finland. The European Commission has expressed its concerns that the inspected tire manufacturing companies may have violated EU antitrust rules that prohibit cartels and restrictive business practices. Nokian Tyres does not have information on the outcome of the inspection, and it cannot comment on the ongoing investigation. Nokian Tyres is fully co-operating with the authorities.

nokian[®]
TYRES

APPENDICES

MADE FOR DEMANDING CONDITIONS

”

WE TAKE CARE OF THE
VEHICLE AS IF IT WAS OUR
OWN TO ENSURE SAFE AND
COMFORTABLE DRIVING IN
ALL CONDITIONS.

Sami Sakari, Car Mechanic



Reporting principles

Accuracy

The majority of the reported environmental data is based on measurements, with the exception of the VOC and CO₂ emissions. The VOC emissions are a combination of measurements provided by an external consultancy and Nokian Tyres' calculations. Nokian Tyres monitors and reports its greenhouse gas emissions through the calculation of the CO₂ equivalent unit, CO₂e. The CO₂ emissions calculations are based on mainly energy consumption measurements or estimations, and the calculations are made using emission factors provided by suppliers when available, and general emission factors. In the GHG calculation, Nokian Tyres uses mostly DEFRA emissions libraries. In the Scope 3 category 11 Use of sold products, the passenger car tire use phase emissions are calculated using the formulas described in the Product Category Rules for Tires. Nokian Tyres has developed its own formula for the use phase emissions calculation for heavy tires. The developed formula estimates how much of machinery fuel consumption is related to tires and calculates the emissions from the fuel consumption. Nokian Tyres will publish the emissions calculation principles on the company website later in 2024.

In 2023, the calculation of the location-based Scope 2 emissions is based on the factories' average emissions intensity of grids. In Finland, the market-based emission calculation is based on the suppliers' certificate of the actual energy sources used. In other locations, the emission calculations are based on the emission factors of the residual grid mix.

The information regarding waste disposal methods and quantities is provided by the waste disposal contractors. The social data concerning Nokian Tyres' employees and top management is compiled via the HR system Workday. The safety data is compiled via the internal reporting system Keto.

The tire transportation emission data was partly received directly from the transportation service suppliers. As there are hundreds of transportation lanes, it is not always possible to verify the exact route. When the exact inland route could not be verified, the calculation is based on the assumption that truck transportation was used.

The majority of the disclosures for economic responsibility are based on the company's financial statements, which are prepared and presented in accordance with the IFRS standards. The scope of GRI environmental responsibility is divided between Nokian Tyres' factories. The scope of GRI social disclosures is Nokian Tyres Group wide, excluding the subcontractors if not specifically mentioned in the report.

As taxes were not identified as a material topic for Nokian Tyres by stakeholders in the 2021 materiality analysis, the company has not included full disclosures as described in the GRI 207: Tax 2019 in the sustainability report. However, tax information is available in the General Disclosures section of this report.

Balance

In the report, Nokian Tyres consistently follows previously set indicators, be they favorable or unfavorable. The indicators are consistent with the company's mid-term and long-term sustainability targets. The emphasis has been put on topics that are material to Nokian Tyres' business.

Clarity

The Sustainability Report is published annually on the company website in English and in Finnish. Where applicable, Nokian Tyres uses graphics and consolidated data tables to make the information more accessible and understandable.

Comparability

The disclosures for environmental responsibility are mainly compiled and calculated according to the same methods as in the earlier reports. The greenhouse gas emissions calculations have been renewed: Nokian Tyres completed the sale of operations in Russia during the first quarter, so the emissions from the Russian factory are not included in the calculations anymore and the figures from the past years have been recalculated so that they are comparable. Additionally, the greenhouse gas emissions from the tire and car service chain Vianor, the wheel factory Levypyörä, and imported tires have been included in the GHG inventory, and they have also been included in the figures from the past years to make them comparable. These changes affect all the greenhouse gas Scope categories. The emissions figures are presented from at least two consecutive years and the base year, when they are included in the mid- and long-term sustainability goals. Because of the sale of the Russian operations, all 2023 figures in the topic Own workforce exclude BA Russia and Asia.

Completeness

The figures in the People section cover the same companies as the financial reports for Nokian Tyres plc. Companies with no actual employees (e.g. holding companies for administrative purposes and real estate companies) and companies with less than 50 percent share of ownership are not included in the reporting. The list of companies included in the financial reporting and their relations to the Group can be found in the [Annual Report 2023](#). The safety figures are reported according to the existing division in managing these business areas.

As tire manufacturing is considered to have the biggest environmental impacts in Nokian Tyres' operations, the environmental indicators cover the tire factory locations. The indicators for the wheel manufacturing plant Levvyöyö are reported separately. The sales companies and Vianor service centers are included in the climate targets reporting but excluded from other environmental reporting as their impact is not as significant as the factory sites. Both the environmental responsibility disclosures and supply chain disclosures exclude the test centers. In the environmental reporting, Nokian Tyres uses accepted international metrics as required by the applicable GRI standards. The company provides contextual information where certain numbers may not be directly applicable.

Nokian Tyres reports its impacts on a year-to-year basis, and also addresses impacts in the long term. In 2023, the climate change related risks were updated and aligned with the recommendations of TCFD in November. The results are presented in this report.

Sustainability context

Nokian Tyres conducts a materiality analysis every three years to better understand the sustainability context and the impacts of the company's operations. A double materiality analysis was conducted in September 2023–February 2024 in cooperation with an independent third party, but the content of this report is mainly based on the materiality analysis conducted in 2021. The GHG reduction targets are aligned with Nokian Tyres' Science Based Targets and United Nations Framework Convention on Climate Change, the Paris Agreement.

Timeliness

Nokian Tyres publishes the Sustainability Report annually on its website before the Annual General Meeting in the spring. The reported period covers 1.1.–31.12.2023 and is thus aligned with the company's financial reporting.

Verifiability

The contents of the Sustainability Report for the 2023 reporting period have been verified by an independent third party. The assurance was commissioned by the executive management of Nokian Tyres plc.



GRI content index

Nokian Tyres has reported in accordance with the GRI Standards for the period January 1–December 31, 2023.

GRI standards	Disclosure	Location	Omission			Additional information
			Requirement(s) omitted	Reason	Explanation	
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	4, www.nokiantyres.com/company/contact/				
	2-2 Entities included in the organization's sustainability reporting	78-79				
	2-3 Reporting period, frequency and contact point	80				The report is published annually. The 2023 report was published on March 28, 2024. Contact point: sustainability@nokiantyres.com
	2-4 Restatements of information	47, 64, 78				
	2-5 External assurance	85				
	2-6 Activities, value chain and other business relationships	4, 19, 65-67, www.nokiantyres.com/company/sustainability/fundamentals/our-value-chain/				
	2-7 Employees	58-64				
	2-8 Workers who are not employees	59				
	2-9 Governance structure and composition	www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/ , www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/diversity-policy-for-the-board-of-directors/				
	2-10 Nomination and selection of the highest governance body	www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/board-cg/				
	2-11 Chair of the highest governing body	www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/member/jukka-hienonen/				
	2-12 Role of the highest governing body in overseeing the management of impacts	11				

GRI standards	Disclosure	Location	Omission			Additional information
			Requirement(s) omitted	Reason	Explanation	
	2-13 Delegation of responsibility for managing impacts	11				
	2-14 Role of the highest governance body in sustainability reporting	www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/				
	2-15 Conflicts of interest	Financial Statement 2023				
	2-16 Communication of critical concerns	75-76				
	2-17 Collective knowledge of the highest governing body	11, www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/				
	2-18 Evaluation of the performance of the highest governance body	Corporate Governance Statement				
	2-19 Remuneration policies	63-64, www.nokiantyres.com/company/investors/corporate-governance/salaries-and-remunerations/				
	2-20 Process to determine remuneration	63-64, www.nokiantyres.com/company/investors/corporate-governance/salaries-and-remunerations/				
	2-21 Annual total compensation ratio	64	Median annual total compensation	Information incomplete	The annual total compensation is calculated as an average and not median. An average is also reported for similar purposes in Nokian Tyres' remuneration report, hence presenting an average is in line and fitting with the approach of the remuneration report.	
	2-22 Statement on sustainable development strategy	5				
	2-23 Policy commitments	11, 13, 52, 65-67, Nokian Tyres Code of Conduct, Nokian Tyres Sustainable Natural Rubber Policy, Environmental, Safety and Quality Policy				
	2-24 Embedding policy commitments	11, 65-67				
	2-25 Processes to remediate negative impacts	23, 75-76				
	2-26 Mechanisms for seeking advice and raising concerns	75-76, www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/				
	2-27 Compliance with laws and regulations	36, 75-76, www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/				

GRI standards	Disclosure	Location	Omission			Additional information
			Requirement(s) omitted	Reason	Explanation	
	2–28 Membership of associations	76, www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/				
	2–29 Approach to stakeholder engagement	16–19, 68, www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/ , www.nokiantyres.com/company/sustainability/fundamentals/our-value-chain/				
	2–30 Collective bargaining agreement	60				
Material topics						
GRI 3: Material topics 2021	3–1 Process to determine material topics	16–18				
	3–2 List of material topics	16–18				
Material topic 1: Sustainable raw materials						
GRI NT: Company and industry specific GRI	3–3 Management of material topics	www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/				
	NT–1 Extent of mitigation of the environmental impacts of products and services	26, 36–37, 42–43, 45, www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/				
Material topic 2: Actions to mitigate Climate Change						
GRI 305: Emissions	3–3 Management of material topics	www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/				
	305–1 Direct (Scope 1) GHG emissions	28, 29				
	305–2 Energy indirect (Scope 2) GHG emissions	28, 29				
	305–3 Other indirect (Scope 3) GHG emissions	28				
	305–4 GHG emissions intensity	29				
	305–5 Reduction of GHG emissions	25–27				
	305–7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	37				
GRI 302: Energy	302–1 Energy consumption within the corporation	26, 28				
	302–3 Energy intensity	26, 28				
	302–4 Reduction of energy consumption	24, www.nokiantyres.com/company/sustainability/fundamentals/our-targets-and-achievements/				

GRI standards	Disclosure	Location	Omission			Additional information
			Requirement(s) omitted	Reason	Explanation	
GRI NT: Company and industry specific GRI	NT-2 Reducing the rolling resistance of tires	26, 29				
Material topic 3: Safety and well-being at Nokian Tyres						
GRI 403: Occupational health and safety 2018	3-3 Management of material topics	www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/				
	403-1 Occupational health and safety management system	63				
	403-2 Hazard identification, risk assessment, and incident investigation	53, 57				
	403-3 Occupational health services	www.nokiantyres.com/company/sustainability/people/health-and-safety/				
	403-4 Worker participation, consultation, and communication on occupational health and safety	53, 57				
	403-5 Worker training on occupational health and safety	53, 57				
	403-6 Promotion of worker health	www.nokiantyres.com/company/sustainability/people/health-and-safety/				
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	53, 57				
	403-8 Workers covered by an occupational health and safety management system	63, www.nokiantyres.com/company/sustainability/people/health-and-safety/				
	403-9 Work-related injuries	53, 57, 63				
	403-10 Work-related ill health	53, 57, 63				
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	62				
	404-2 Programs for upgrading employee skills and transition assistance programs	54, 62				
	404-3 Percentage of employees receiving regular performance and career development reviews	54, 62				

GRI standards	Disclosure	Location	Omission			Additional information
			Requirement(s) omitted	Reason	Explanation	
Material topic 4: Promoting human rights in all operations						
GRI 412: Human Rights Assessment	3-3 Management of material topics	www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/				
	412-1 Operations that have been subject to human rights reviews or impact assessments	65-68				
	412-2 Employee training on human rights policies or procedures	75				
GRI 414: Supplier Social Assessment	414-2 Negative social impacts in the supply chain and actions taken	65-68				
Material topic 5: Safety properties of tires						
GRI 416: Customer health and safety	3-3 Management of material topics	www.nokiantyres.com/company/sustainability/products/labels-and-standards/ , www.nokiantyres.com/company/sustainability/products/our-test-policy/				
	416-1 Assessment of the health and safety impacts of product and service categories	69-71, www.nokiantyres.com/company/sustainability/fundamentals/materiality-analysis-of-nokian-tyres/ , www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/				
Other key topics						
GRI 303: Water and effluents 2018	303-3 Water withdrawal	38-39				
	303-4 Water discharge	38-39				
GRI 306: Waste 2020	306-3 Waste generated	45, 47				
	306-4 Waste diverted from disposal	45, 47				
GRI 307: Environmental compliance 2016	307-1 Non-compliance with environmental laws and regulations	35-36				

Independent practitioner's assurance report

(Translated from the original report in Finnish language)

To the Management of Nokian Tyres plc

Scope

We have been engaged by Nokian Tyres plc (hereafter "Nokian Tyres") to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements, here after referred to as the engagement, to report on sustainability on Nokian Tyres' Sustainability Report 2023 (the "Subject Matter") for the period 1.1.-31.12.2023.

Criteria applied by Nokian Tyres

In preparing the Subject Matter, Nokian Tyres applied the Global Reporting Initiative (GRI) Sustainability Reporting Standards (the "Criteria"). As a result, the Subject Matter information may not be suitable for another purpose.

Nokian Tyres' responsibilities

Nokian Tyres' management is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are

relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000'), and the terms of reference for this engagement as agreed with Nokian Tyres on 20.12.2023. Those standards require that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our independence and quality management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or

procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information, and applying analytical and other appropriate procedures.

Our procedures included:

- a) Development of our knowledge and understanding of Nokian Tyres' material sustainability reporting topics, organization and activities,
- b) Interview with senior management to understand Nokian Tyres' sustainability management,

c) Interviews with personnel responsible for gathering and consolidation of the Subject Matter to understand the systems, processes and controls related to gathering and consolidating the information,

d) Assessing sustainability data from internal and external sources and checking the data to reporting information on a sample basis to check the accuracy of the data,

e) Virtual site visits to Nokia, Finland, and Dayton, USA, sites where we assessed reporting practices.

We also performed such other procedures as we considered necessary in the circumstances.

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the Subject Matter in Nokian Tyres' sustainability report for the period 1.1.-31.12.2023, in order for it to be in accordance with the Criteria.

Helsinki, 26.3.2024

Ernst & Young Oy

Authorized Public Accountant Firm

Mikko Järventausta

Authorized Public Accountant

Nathalie Clément

Leader of Sustainability Services

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