



**nokian<sup>®</sup>**  
**TYRES**

**CORPORATE SUSTAINABILITY  
REPORT 2021**

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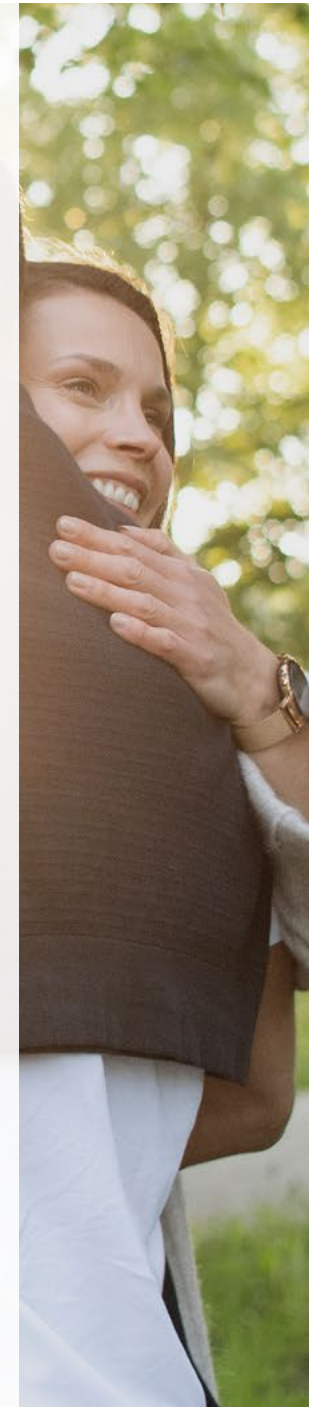
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# NOKIAN TYRES IN A NUTSHELL

Nokian Tyres operates in the manufacturing and service sector, developing and manufacturing premium tires for people who value safety, sustainability, and predictability. Our purpose is to empower the world to drive smarter. Inspired by our Scandinavian heritage, we craft innovative products for passenger cars, trucks and heavy machinery, and our Vianor chain provides tire and car services.

In 2021, the company's net sales were EUR 1.7 billion and it employed some 4,900 people. Nokian Tyres Plc is listed on Nasdaq Helsinki. You can read about the company's ownership structure [here](#) ↗.

## A global company

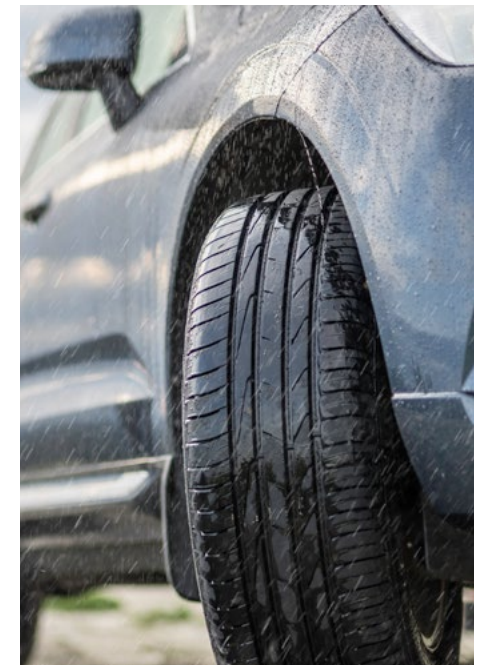
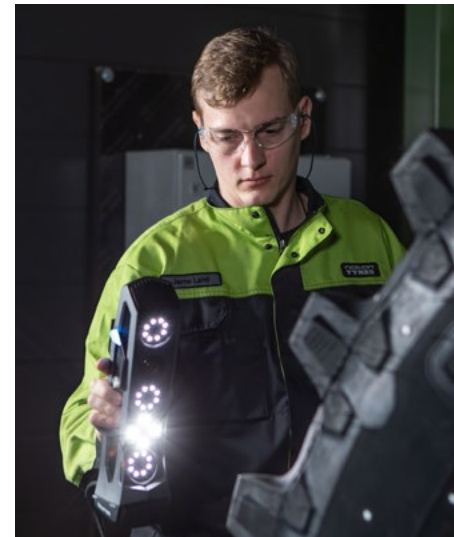
In 2021, Nokian Tyres' products were sold in 63 countries. Our growth is supported by a branded distribution network, which includes the Vianor and Vianor Partner chains, Nokian Tyres Authorized Dealers (NAD) network, and the N-Tyre network.

At the end of 2021, the Vianor network

included a total of 1,047 service centers in 14 countries. The NAD network operated in 29 countries with 2,346 stores. The N-Tyre network covered 110 stores in Russia and Kazakhstan.

Nokian Tyres has three factories: one in Finland, one in Russia, and one in the US. The company headquarters is in Nokia, Finland.

Nokian Tyres has its own sales companies in Finland, Sweden, Norway, Russia, Ukraine, Kazakhstan, Germany, Switzerland, the Czech Republic, Poland, Belarus, Spain, Canada, the US, and China.



# RESILIENCE IS NEEDED IN THE MIDST OF CHANGES



” Our work on developing our sustainability continues with new, finalized targets for 2025 and beyond.

In 2021, we showed great resilience by adapting to the fast-changing environment. Challenges were faced with the same attitude we make our tires: by driving innovations, delivering great results together, and taking care of each other. We worked hard on a concept tire made with 93% of either recycled or renewable materials, hired new people, and set up pop-up vaccination clinics to safeguard our personnel.

We consider ourselves pioneers in sustainability. We were the first tire company to give up the use of high-aromatic oils, and the first in our industry to have its Science Based Targets for reducing the CO<sub>2</sub> emissions approved. Our new material topics recognize our impacts on human rights, traffic safety, climate change, renewable raw materials as well as the safety and well-being of our personnel. Our work on developing our sustainability continues with new, finalized targets for 2025 and beyond.

Our growth is built on sustainability, and it is a vital part of the way we conduct our business. This is why we started preparations for bringing sustainability criteria into remuneration. In February 2022, Nokian Tyres Board of Directors included a climate-related goal as part of the short-term incentive targets of the Group Management Team. As part of our work to improve tire industry's impacts on human rights, we published our Sustainable Natural Rubber Policy. 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.

One of our challenges in 2021 was safety: the positive development was set back and our LTIF rose to 4.1 from 3.7 in 2020. Safety is our top priority, and the vigorous work to reduce the number of workplace injuries leading to absence continues.

This report was written before the war in Ukraine. It reflects the actions and sentiments of 2021, whereas in 2022, resilience in the midst of changes is needed maybe more than ever. Safety as a concept now has a whole new echo to it – an echo we will hear for years to come.

March 14, 2022

**Jukka Moisio**  
President & CEO


# HIGHLIGHTS AND CHALLENGES IN 2021

## THIS IS WHAT WE ARE PROUD OF

### 40% less CO<sub>2</sub> emissions from production

- We reduced our CO<sub>2</sub> emissions from production (scope 1 + scope 2 / production ton) by 40% compared to 2015. This is aligned with our SBT climate targets.

### New concept tire made of 93% recycled or renewable materials

- We published our sustainable concept tire [Green Step](#)  ahead of schedule in January 2022. The concept tire showcases our commitment to innovate new, more eco-friendly tires.

### LEED v4 Platinum for eco-friendly building

- The solar-powered Visitor Center Building at Nokian Tyres' Spain Test Center received LEED v4 Platinum certification for green building leadership. Platinum is the highest LEED certification level. We have previously announced LEED v4 Gold and Silver certifications of our administration and production facilities in the US.

## THESE ARE OUR CHALLENGES

### VOC emissions in Finland above the limit

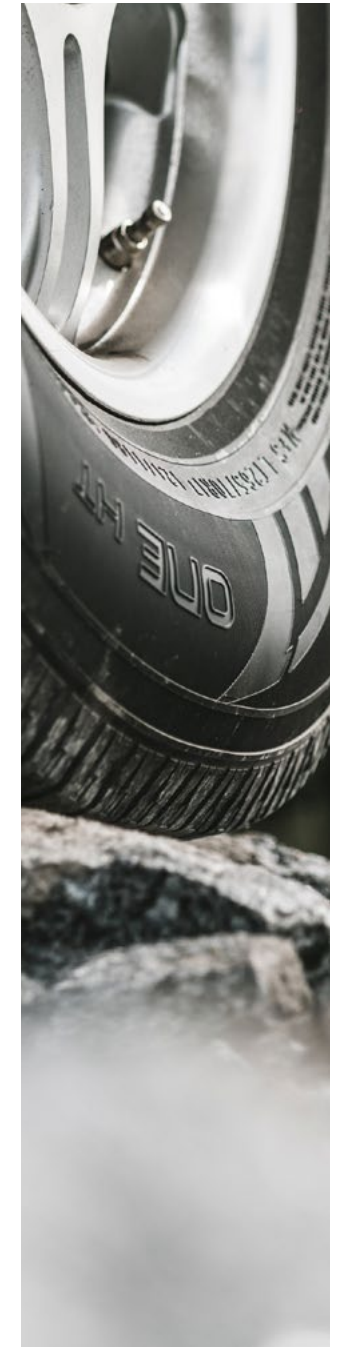
- The VOC emissions (volatile organic compounds, or solvents) of Nokian Tyres' factory in Finland are still above the maximum allowed level. Evaluation of further measures to solve the problem has been started.

### LTIF increased in 2021

- After many years of positive development in safety, our Group wide LTIF (accidents leading to absence) increased from 3.7 to 4.1. There were successes as well, as Nokian Heavy Tyres celebrated two years without accidents leading to absence in January 2022.

### Sentiments on equal opportunities below the global benchmark

- The company received a score of 66 on a scale of 0-100 in equal opportunities in the personnel survey. Developing human rights policies is one of the sustainability goals at Nokian Tyres and improving the score on equal opportunities is the KPI.





# EMPOWERING THE WORLD TO DRIVE SMARTER

## 1/10 LEADERSHIP IN SUSTAINABILITY

In 2020, we were the first tire company to have its ambitious CO<sub>2</sub> emissions reduction targets approved by the Science Based Targets initiative.

## 2/10 WE DRIVE RESULTS

Through sustainable business practices and financial success Nokian Tyres creates value for its various stakeholders, such as consumers, customers, our personnel, and shareholders.

## 3/10 WE FIGHT CLIMATE CHANGE

We have reduced our greenhouse gas emissions from production by 40% from 2015. We also expect cuts from our subcontractors and partners.

## 4/10 ZERO WASTE

Our aim is that zero waste is taken to landfill, and in 2021, our Russian factory achieved this goal for the first time. In our Finnish factory, the utilization percentage has been 100% for several consecutive years.

## 5/10 WE CARE, INSPIRE, GUIDE, AND GROW

Our leadership principles define how we want to lead our people and business by example across the whole organization.

## 6/10 GRIT AND DETERMINATION

Safety and strategic planning were clearly above the global benchmark in our Drive! engagement survey. We have clear plans on how to achieve our goals, the grit to face challenges ahead, and we all work to keep each other safe.

## 7/10 EMPOWER THE WORLD TO DRIVE SMARTER

By offering safe, eco-friendly tires that are manufactured responsibly, we offer drivers a chance to make choices for a better future.

## 8/10 SAFETY AND ECOFRIENDLINESS

Our innovations improve not only safety, but also eco-friendliness. In January we introduced our concept tire Green Step, of which 93% is either recycled or renewable raw materials. By 2030, our aim is to increase the share of either recycled or renewable materials in our tires to 50%.

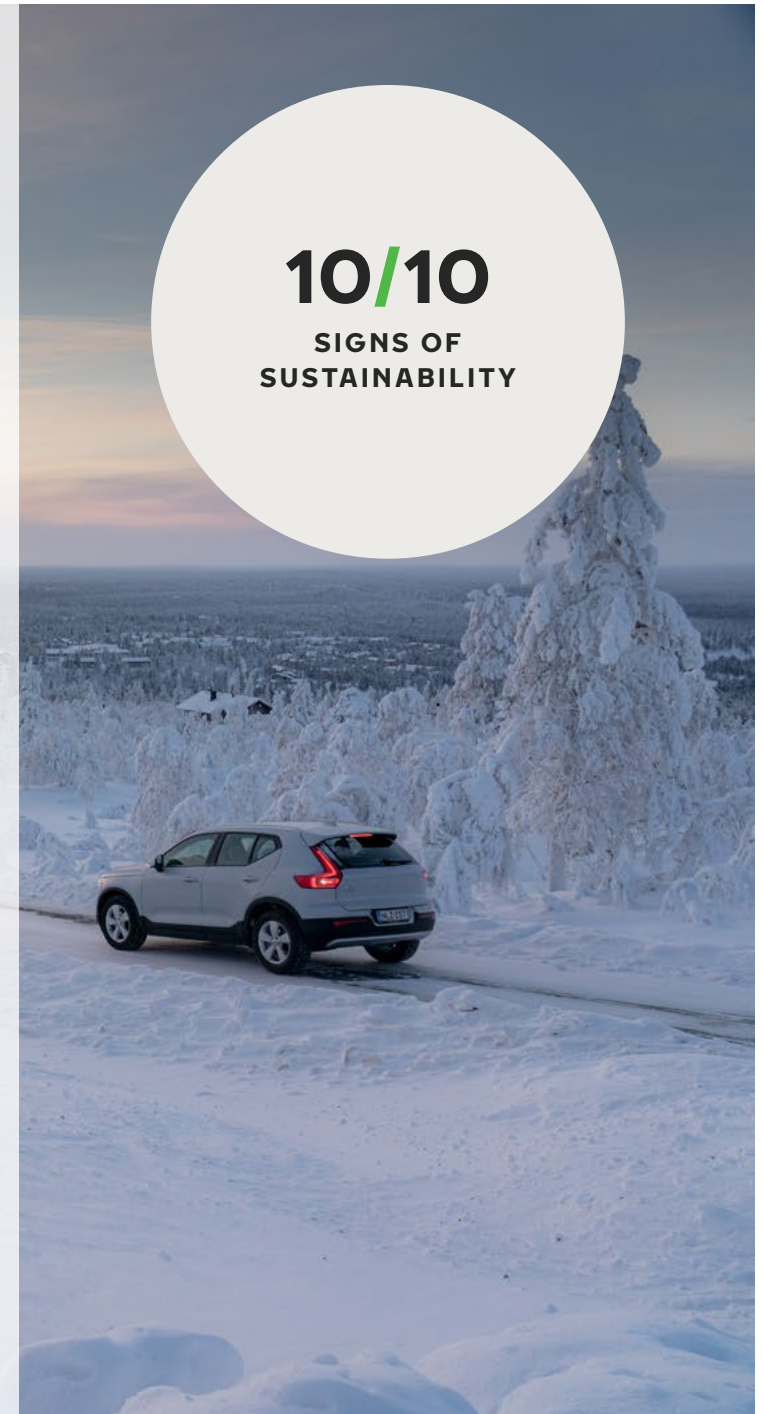
## 9/10 RESPONSIBLE SUPPLY CHAIN

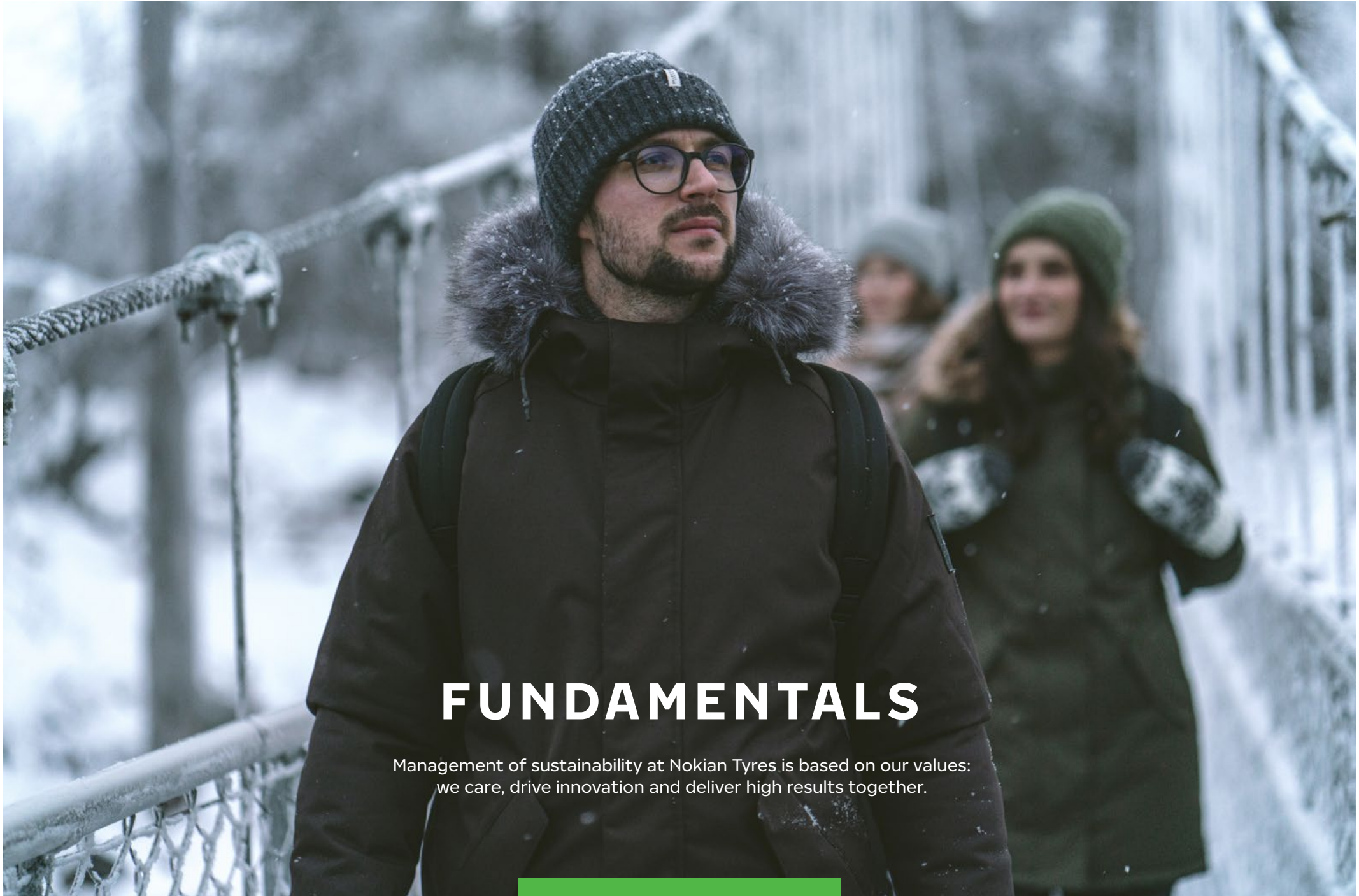
Our climate targets include the supply chain: we expect a CO<sub>2</sub> emission reduction plan from our largest raw material and transport suppliers.

## 10/10 WE COMMIT

In 2021, we published our Sustainable Natural Rubber Policy. We are committed to improving the sustainability of the natural rubber chain, where the most vulnerable stakeholder groups concerning human rights exist.

**10/10**  
SIGNS OF  
SUSTAINABILITY





# FUNDAMENTALS

Management of sustainability at Nokian Tyres is based on our values:  
we care, drive innovation and deliver high results together.



# MANAGING SUSTAINABILITY

Nokian Tyres develops and manufactures premium tires for consumers and customers who value safety, sustainability, and innovative products. Sustainability is at the core of Nokian Tyres' business and one of the five cornerstones of the company's strategy.

Management of sustainability at Nokian Tyres is based on our values: We care, drive innovation, and deliver high results together. Sustainability is an essential part of our daily work and leadership. Through sustainable business practices, we can offer safety and security to all our stakeholders, e.g. employees, customers, local communities, shareholders, the environment, our suppliers, and local governments.

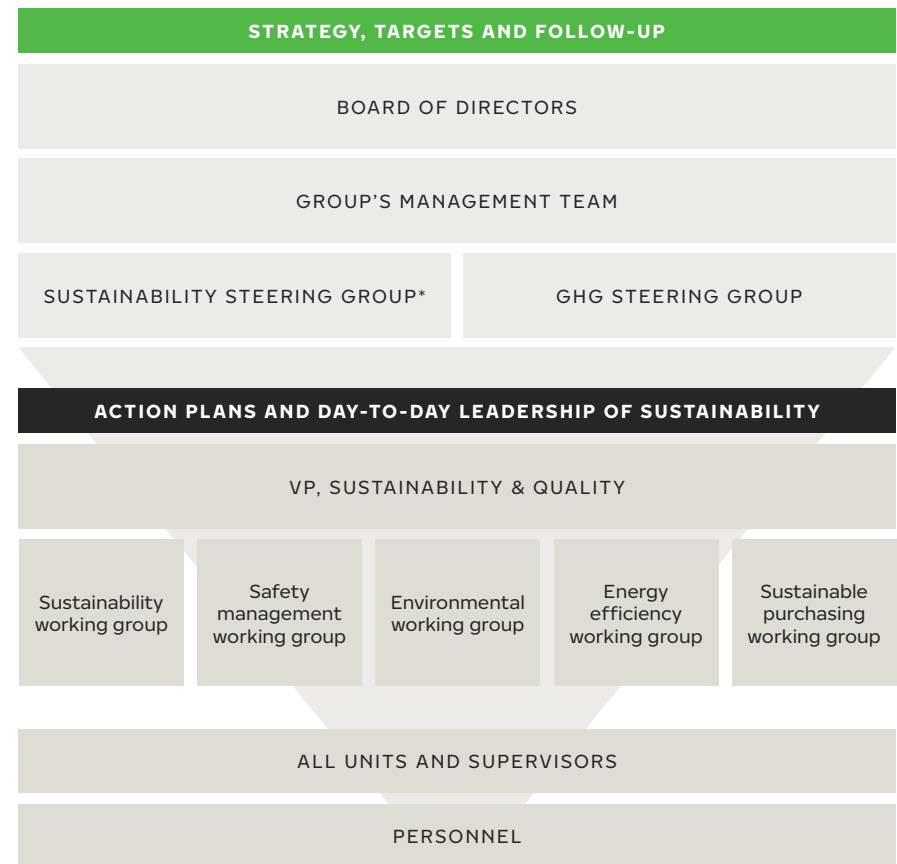
Nokian Tyres' business is guided by the ethical principles presented in the Board-approved Code of Conduct. The document specifies the principles for Nokian Tyres' business, including instructions for various matters related to ethics and anti-bribery guidelines. Nokian Tyres does not condone any form of bribery within the company's operations.

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

Read more: [Managing sustainability at Nokian Tyres](#) 

The company's sustainability activities are led by SVP, Supply Operations, who is a member of the Group's Management Team. The Group's Sustainability Steering Group supervises and monitors the sustainability work within the Group and comprises senior representatives from Supply Chain, Products & Innovations, Finance, Human Resources and Communications. The Group's 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.

## MANAGING SUSTAINABILITY AT NOKIAN TYRES



\*Operating from January 2022












The graph “Guiding principles for Nokian Tyres’ sustainability” describes the most important standards and policies that guide our work in sustainability (page 10).

The UN’s 17 Sustainable Development Goals (SDGs) are created to promote prosperity while protecting the environment. Nokian Tyres has determined seven SDGs, which are important for Nokian Tyres. These goals provide a tool to examine sustainable business in the long term. We have integrated these SDGs into the charts on Nokian Tyres’ sustainability targets.

## NOKIAN TYRES’ SUSTAINABILITY TARGETS

In 2021, Nokian Tyres finalized its new sustainability targets. They are presented on the company’s website [Sustainability Goals and Achievements /Nokian Tyres](#) . The climate goals are aligned with the CO<sub>2</sub> emissions reduction targets approved by the Science-Based Targets initiative. The chart below describes five of Nokian Tyres’ sustainability targets, with respective KPIs and results for 2021.

AREA	TARGET	KPI	PROGRESS IN 2021
<b>SAFE AND ECO-FRIENDLY TIRES:</b> increasing the share of sustainable materials in tires  	<ul style="list-style-type: none"> <li>Increase the share of recycled or renewable raw materials in tires to 50% by 2030</li> </ul>	<ul style="list-style-type: none"> <li>Report annual share of sustainable raw materials in selected tires*</li> </ul>	<ul style="list-style-type: none"> <li>Status in 2021: 25%</li> </ul>
<b>CLIMATE:</b> reducing CO <sub>2</sub> emissions in line with our four Science Based Targets 	<ul style="list-style-type: none"> <li>Reducing CO<sub>2</sub> emissions from tire production (scope 1+2) by more than 50% by 2030, base year 2015</li> </ul>	<ul style="list-style-type: none"> <li>Report annual improvement</li> </ul>	<ul style="list-style-type: none"> <li>Reduced CO<sub>2</sub> emissions from production by 40%.</li> </ul>
<b>SAFETY:</b> securing safer and better work  	<ul style="list-style-type: none"> <li>Accident frequency LTIF: Decrease from 8.3 (2018) to 1.5 by 2025</li> </ul>	<ul style="list-style-type: none"> <li>20% annual improvement in LTIF compared to the previous year</li> </ul>	<ul style="list-style-type: none"> <li>Negative development in 2021 vs. 2020: LTIF increased from 3.7 to 4.1</li> <li>50% improvement in three years’ period: LTIF decreased from 8.3 in 2018 to 4.1 in 2021.</li> </ul>
<b>HUMAN RIGHTS:</b> auditing all significant high-risk suppliers  	<ul style="list-style-type: none"> <li>100% of significant high-risk suppliers audited by 2025</li> </ul>	<ul style="list-style-type: none"> <li>Annual increase in the share of audited high-risk suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Status in 2021: 64% audited</li> </ul>
<b>PERSONNEL WELL-BEING:</b> developing human rights policies  	<ul style="list-style-type: none"> <li>Developing human rights policies</li> </ul>	<ul style="list-style-type: none"> <li>Report annual improvement in sentiments about equal opportunities in the personnel survey, base year 2021</li> </ul>	<ul style="list-style-type: none"> <li>Status in 2021: score on equality was 66 on a scale of 0-100**</li> </ul>






\* Scope: Tires in the EU Tyre labeling classification for rolling resistance in A or B class and with ice grip marking

\*\* Figure does not include Vianor, whose survey was conducted after the winter tire season. BU Vianor’s score was 69.

## GUIDING PRINCIPLES FOR NOKIAN TYRES' SUSTAINABILITY

Sustainability is a part of our company's culture, strategy and goals. The management of sustainability is based on our values: we care, drive innovation and deliver high results together. Our Sustainability Management is guided by Nokian Tyres Code of Conduct, Whistleblowing, Know Your Counterparty Guidelines, and policies such as Environment, Safety and Quality Policy, Group Treasury Policy, Group Credit Policy, Tax Policy, Risk Management Policy, Procurement Policy, Sustainable Natural Rubber Policy, Disclosure Policy, Information Security Policy, and Data Protection Policy.

” Sustainability is a part of our company's culture, strategy and goals.

AREAS OF SUSTAINABILITY				
				
PRODUCTS / R&D	PEOPLE	ECONOMY	ENVIRONMENT	PROCUREMENT
We develop and manufacture ecofriendly, safe and high-quality tires that reach their destination safely even under demanding conditions.	We are committed to acting in the manner required by the UN's Guiding Principles for Business and Human Rights, as well as the 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. We respect human rights and treat all individuals equally.	Through profitable growth, we enable the further development of our operations and ensure financial security, work and well-being for our stakeholders.	We are committed to acting in a way that does not harm the environment or people.	We are committed to sustainable procurement and further developing sustainability in our 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, Nokian Tyres tire testing policy, UN Global Compact.	Policies and procedures related to safety, well-being, hiring, induction, people reviews and competence development, human rights and equality. ISO 45001, Travel Policy, UN Global Compact.	Stock exchange rules, IFRS, Corporate Governance, risk management, Know Your Counterparty, Tax Policy, UN Global Compact.	ISO 14001, Environmental Management, Chemical Safety Management, Responsible Care program, Science Based Targets, UN Global Compact.	Procurement policy, Supplier Code of Conduct, Sustainable Natural Rubber Policy, ISO 9001, ISO 14001, UN Global Compact.
LOCAL GUIDELINES AND PROCEDURES				

### Critical concerns

Most disputes and suspicious situations are handled by the line organizations and the various co-operation and specialist functions in 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](mailto:whistleblow@nokiantyres.com) or by letter. In addition, 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 2021, the compliance of the company's whistleblowing process was evaluated against the EU whistleblowing guidelines as they are currently expected to be implemented in the EU countries.

The Chief Audit Executive (CAE) coordinates the whistleblowing process as well as 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. In 2021, altogether 12 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. There were no material critical concerns in 2021.

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 environmental complaints into an internal environmental incident register and takes the necessary corrective actions.

In Finland, Nokian Tyres received one environmental complaint in 2021 concerning

noise at the Finnish factory. The company was also contacted concerning odor and noise emissions from local residents in Sastamala, Finland, where our retreading unit is located. The complaints were investigated, and actions implemented. The company received no environmental complaints from the US or Russia.

Read more: [Climate and environment / Other locations](#)

In 2021, Nokian Tyres received one environmental fine for instances of non-compliance with laws and regulations in the US factory. Regular pressure indicator monitoring in the mixing department was not done for three months and that led to a fine of 3,000 USD. The deviation was corrected in the fall and monitoring is since being conducted according to the requirements.

” Nokian Tyres has had a whistleblowing channel available since 2011.



# MATERIALITY ASSESSMENT



” The aim of the online survey and interviews was to ask stakeholders’ opinions about the most relevant sustainability topics to Nokian Tyres.

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 what sustainability topics are relevant for society and our business. This is done by conducting materiality assessments every three years. The assessments form a basis for sustainability work at Nokian Tyres.

Read more: [Materiality analysis of Nokian Tyres](#) [↗](#)

Nokian Tyres conducted a new materiality assessment in 2021. The assessment consisted of online surveys and interviews among the most relevant stakeholders to Nokian Tyres. The aim of the online survey and interviews was to ask stakeholders’ opinions about the most relevant sustainability topics to Nokian Tyres.

These answers were then evaluated and summarized, and the results balanced (e.g. differences in answers between geographical

areas, the number of answers from our own employees versus other stakeholders). A chart of the five most relevant topics in the four main stakeholder groups can be seen here: [Our stakeholders](#) [↗](#).

The VP, Quality & Sustainability, presented the data to the Group Management Team and to the Board of Directors. After this, the most significant impacts were assessed and prioritized based on the data and an analysis conducted by Nokian Tyres’ sustainability experts. The new material topics are included in the [Non-Financial Information Statement](#) [↗](#), which is reviewed and approved by the Board.

In 2018, nine topics were considered material to Nokian Tyres’ operations. You can see the previous material topics [here](#) [↗](#). Based on the survey and interviews conducted in 2021, some of the topics from 2018 remained equally material, others were combined into one topic, and some were assessed as currently less relevant. The topic *Sustainability in the materials used* rose to the top of the impacts in almost all of the stakeholder groups, whereas *Enhancing economic competitiveness* was among the topics that were seen as least important.

In 2021, five topics were selected material for Nokian Tyres' operations:

### 1. Sustainable raw materials

*IMPACTS: Continuous improvement of the sustainability of raw materials in tires, zero waste to landfill from production, promoting the circular economy*

Nokian Tyres is committed to safeguarding natural resources and promoting the circular economy. The company's aim is to create tires that are both safe and more environmentally friendly, to find renewable and recycled raw materials and to replace fossil raw materials. Nokian Tyres also works to avoid the use of harmful substances, thereby minimizing risks to occupational health in production and warehousing. One promise in our Environmental-, Safety- and Quality Policy is to continuously improve the environmental friendliness of our products.

The most significant environmental impacts of our locations come from waste and energy consumption. The utilization rate of our production waste has been growing for years, and we report the amounts of waste as well as energy consumption annually in the Corporate Sustainability Report.

Scrap tires, or tires that do not meet our high standards of quality, are taken to recycling. Our aim is to increase the material recovery rate of factory waste instead of burning it for energy. We promote the recycling of end-of-life tires together with our stakeholders.

Nokian Tyres' goal is to increase the share of renewable and recycled raw materials in tires to 50% by 2030. We follow the development and report the share of sustainable tires in selected tires annually starting from 2021.

To achieve this goal, the company is in close cooperation with different raw material manufacturers and encourages innovations from different stakeholders. Nokian Tyres introduced a concept tire made almost entirely out of recycled and renewable raw materials ahead of schedule in January 2022. Some of the innovations for sustainable raw materials are already used in our tires.

Read more about the [Green Step concept tire](#) .

### 2. Actions to mitigate climate change

*IMPACTS: Reducing emissions according to our Science Based Targets, improving energy*

*efficiency, improving the rolling resistance of our tires*

Carbon dioxide, CO<sub>2</sub>, is the most significant greenhouse gas generated by traffic. Fuel consumption during driving is the single most significant environmental impact over a tire's service life and approximately 89% of a tire's life cycle CO<sub>2</sub> emissions are generated during driving in case of combustion engine vehicles. Lowering the rolling resistance of tires means less fuel and thus less CO<sub>2</sub> emissions. For electric vehicles lower rolling resistance means longer driving range and lower energy use.

By the end of 2020, Nokian Tyres had reduced the rolling resistance of tires by 8.5% in average. Our new target in developing rolling resistance is to quadruple the amount of tires included in the best A rolling resistance category of EU Tyre Labeling. The company follows this progress annually in the Corporate Sustainability Report starting from 2022.

Nokian Tyres is fighting the effects of climate change and reducing emissions according to our Science Based Targets by improving energy efficiency, increasing the proportion of renewable energy in

# 1/10

#### LEADERSHIP IN SUSTAINABILITY

In 2020, we were the first tire company to have its ambitious CO<sub>2</sub> emissions reduction targets approved by the Science Based Targets initiative.

production, and encouraging raw material suppliers and logistics partners to reduce their emissions. We were the first in our industry to have our ambitious climate targets approved by the Science Based Targets initiative. Nokian Tyres follows climate targets monthly starting from 2022 and reports the progress in achieving these targets annually in the Corporate Sustainability Report. Starting from 2022, achieving greenhouse gas reduction targets (scope 1 + scope 2) are part of Nokian Tyres' Management Team incentives.

### 3. Safety and well-being at Nokian Tyres

*IMPACTS: Safety and well-being of personnel, inclusion and equality in the workplace*

We advance an inclusive and equal working culture and empower our people to be active members in our organization. Active participation at different levels of the organization and respecting every employee's right of participation are parts of Nokian Tyres' working culture.

Nokian Tyres wants to empower our people to actively participate and collaborate, to take both ownership of their work and responsibility for everyone's safety. Our goal is to minimize the number of occupational accidents and promote occupational health. Nokian Tyres is working toward a workplace with zero accidents. In recent years, there has been a decline in work-place accidents leading to absence due to successful mitigation measures.

In 2021, the positive progress experienced setbacks: Nokian Tyres' LTIF rose to 4.1 (3.7 in 2020). The safety inspections, audits, safety observations, the number of near

misses, realization of safety walks and the implementation of the improvements based on these actions, are followed monthly in the Group Management Team meetings. The current LTIF (lost-time incident frequency) situation and corrective actions are visible to all employees on the company intranet. Nokian Tyres' goal is to lower occupational accident frequency by 20% annually.

Nokian Tyres respects human rights and treats all individuals equally. The company follows the well-being at work with global surveys conducted at least annually. The results are analyzed in team meetings and action plans are drawn based on the findings. The company reports the results in the Corporate Sustainability Report.

Read more: [Inclusion, diversity, and equality of our personnel](#)

Nokian Tyres' occupational health care is based on local legislation and our Environmental, Safety, and Quality Policy. In our factory locations in Finland and Russia, occupational health is supported and managed by our local HR team. In the US it is

managed by the EHS team with the support of HR. All factory locations organize regular monitoring of working conditions to identify potential risks to the health of workers. All employees are also offered the option to enroll in voluntary non-occupational medical or healthcare programs from their date of hire.

To support communities in the fight against the spread of the COVID-19 pandemic, the company has organized onsite vaccination clinics in all its factory locations.

” Nokian Tyres respects human rights and treats all individuals equally. The company follows the well-being at work with global surveys conducted at least annually.



#### 4. Promoting human rights in all operations

*IMPACTS: Sourcing/procurement of natural rubber in a sustainable way, promoting human rights in the natural rubber value chain*

Nokian Tyres' principles in all operations are fairness and respecting human rights, whether we are collaborating with our personnel or other stakeholders. Most of the natural rubber used by Nokian Tyres comes from Malaysia and Indonesia. With more than 85% of the world's natural rubber being produced by small farm holders, the natural rubber supply chain is both complex and fragmented. If natural rubber is cultivated, produced and processed in a sustainable way, it has the potential to bring positive social, environmental and economic impacts. Yet, at the same time, the sourcing/procurement of natural rubber in a sustainable way is considered to be the most critical area in a tire company's supply chain. Natural rubber is typically cultivated in tropical forests, often on small family-owned farms.

Nokian Tyres has conducted sustainability audits to natural rubber processing plants since 2016 to be able to address potential problems and encourage improvements.

According to audit reports, the most typical negative impacts are inadequate working conditions and insufficient labor rights. The audit reports are followed by suggestions for improvements. Improvements are monitored by follow-up audits.

In 2021, Nokian Tyres published its Sustainable Natural Rubber Policy to tackle issues associated with the natural rubber supply chain. Nokian Tyres' goal is to contribute to sustainable business practice throughout the entire natural rubber supply chain, and thereby also contribute to a more sustainable development and future. The Policy covers various commitments related to social and environmental aspects, such as human rights, labor rights, and protection of the environment and biodiversity. The Policy is further aligned with the Global Platform for Sustainable Natural Rubber's (GPSNR) policy framework and its eight core components. To facilitate the implementation of the Policy, Nokian Tyres will identify existing gaps and create action plans to support the implementation of its commitments according to the guidelines of GPSNR.

As part of Nokian Tyres' commitment towards a more sustainable business, the company has been a supporting member of the United Nations Global Compact (UNGC) initiative since 2015, and the company follows

” Nokian Tyres has not had a significant recall in 20 years.

the initiative's ten principles that covers the areas of human rights, labor, the environment and anti-corruption. Nokian Tyres is further committed to acting in the manner required by the UN Guiding Principles on Business and Human Rights.

#### 5. Traffic safety of tires

*IMPACTS: Offering safe tires for demanding conditions, continuous improvement of key safety properties like wet grip and ice grip*

Nokian Tyres is continuously improving the quality, safety and environmental friendliness of its products, services and processes. Our aim is to empower the world to drive smarter, also by educating drivers on how to get the best out of their tires by driving responsibly.

Nokian Tyres improves the safety of its products through continuous product development and testing. Our leadership and product development are guided by our Code of Conduct, the Environmental, Safety and Quality policy, and testing policies. We also comply with several requirements concerning noise, studs, chemicals, testing, and tire markings, among other things.

Wet grip means a tire's ability to stick to the road in wet weather conditions and it is also one of the EU Tyre Labelling parameters. The performance is graded between class A

to class E with higher-rated tires able to stop more quickly on wet asphalt when the brakes are fully applied. Nokian Tyres' target is that 100% of selected tires are included in the wet grip category A+B by 2025.

In 2021, The EU Tyre Labeling was renewed to also include snow and ice grip markings for relevant passenger car tires. The ice grip marking will be used for passenger car tires, whereas the snow grip marking is available also for minivans, light truck, truck and bus tires. In Central Europe, wet and snow grip are crucial for winter driving safety, while in the Nordics ice grip is more important. Nokian Tyres' goal is that by 2025 all car and SUV Hakkapeliitta tires fulfill the EU Tyre Labeling ice grip criteria.

Extreme weather phenomena caused by climate change and varying road conditions have increased the importance of safe tires even further. As a tire manufacturer, we must also ensure that the tires that we develop, produce, and market are verifiably safe to use, and that they meet the quality requirements as well as expectations of our customers and end users. Premium quality means premium safety, and Nokian Tyres has not had a significant recall in 20 years.

” Near the Spain test center, the company has preserved 25 hectares of land for wildlife protection.

### Other sustainability themes

In addition to material topics that Nokian Tyres considered most relevant to the company's sustainability reporting, we identified five sustainability themes that were of moderate significance in the material assessment.

#### *Good governance*

Nokian Tyres follows the law in letter and spirit in every country of operation. Nokian Tyres' Code of Conduct provides every employee with instructions on what to do in case they see something in the company's operations that may conflict with the applicable legislation. Nokian Tyres is not involved in political activities, fundraising, or political contributions as per our Code of Conduct.

As a public company, Nokian Tyres is bound by the statutory requirements and the rules of the stock exchange on the publicity of information, which is relevant to the company's business. In order to meet our stakeholders' expectations, we follow the requirements of the Global Reporting Initiative framework in our sustainability

reporting, and have earned several certifications in sustainability, such as the latest LEED v4 Platinum certification for the Visitor Center building in Nokian Tyres Spain Test Center.

#### *Other environmental challenges*

Tire and road wear particles, or TRWP's, are considered one of the major sources of microplastics that end up in the oceans. Understanding how and in what amounts these particles end up in bodies of water, requires further research and cooperation with different stakeholders. Factors, such as driving behavior and road and vehicle characteristics, can together have a much bigger influence on the rate at which TRWP's are formed than tire design alone. Nokian Tyres is involved in developing a test method for classification of abrasion of the tires. This addition to the EU Tyre labeling would make it easier for the consumers to choose tires that wear down more slowly.

Read more: [Microplastics and tires](#) 

With the global water shortage, we also want to reduce water consumption in our production. Tire production uses large quantities of cooling water: our factory in Finland takes the cooling water from the nearby river and our factories in Russia and the US use closed recirculating cooling water systems that minimize water consumption. Our company is proud to show leadership: we only use about 2 liters of municipal (third party) water per product kg. Renewable (potable) ground water is not used at Nokian Tyres's factories.

Biodiversity is important for us, as the raw materials for our products come directly or indirectly from nature. We care also about maintaining the biodiversity of our local environments and preserving endangered species around our factory sites and test centers. For instance, near the Spain test center, the company has preserved 25 hectares of land for wildlife protection.

#### *Strengthening ties with local communities*

Nokian Tyres deepens its community impact in factory locations through philanthropic and volunteer efforts aimed at

strengthening local areas that are important to the company. We do not support any governmental, political, or religious entities.

Read more: [Global company with local impacts](#)

#### *Customer satisfaction*

Nokian Tyres develops and tests tires so that drivers can trust that their tires meet the challenges they face in demanding conditions on the road. Nokian Tyres is dedicated to raising the bar even higher when it comes to empowering a smarter, safer driving experience now and into the future.

For its customers, Nokian Tyres delivers smart solutions to help increase their earning potential and flexibility of their business. Nokian Tyres' focus is to help our partners improve their ability to serve their customers. We follow our B2B customer satisfaction with an annual global survey.

# SUSTAINABILITY ROAD MAP

The Nokian Tyres Sustainability Road Map guides our work on sustainability. It defines seven areas of sustainability and there are currently around 80 projects related to them.

## 1 CLIMATE ACTIONS

- Climate risks
- SBT action plans and implementation
- Product development
- Energy efficiency
- Energy mix (renewable and non-renewable)

## 2 OTHER ENVIRONMENTAL ACTIONS

- Compliance
- Water efficiency
- Circular economy

## 3 PEOPLE

- Occupational Health & Safety
- Human rights
- Development of sustainability culture

## 4 SUPPLY CHAIN

- Risk management
- Natural rubber sourcing

## 5 PRODUCTS AND SERVICES

- Sustainable materials
- Microplastics
- Services

## 6 FINANCE, CORPORATE GOVERNANCE

- Governance & Compliance
- Sustainability summary to the Board
- Risk management
- Value creation for society

## 7 COMMUNICATION & STAKEHOLDER ENGAGEMENT

- Reporting
- Investor relations
- Climate-related topics
- Vianor communication

### OUR VALUES GUIDE US

We are proud of our Hakkapeliitta heritage and spirit as a foundation for our culture and values.



#### WE CARE

We respect and take care of each other, our consumers, customers, partners and the globe.



#### WE INNOVATE

We are proud of our heritage and have courage to break new ground.



#### WE DELIVER HIGH RESULTS TOGETHER

We team up to continuously improve and succeed together.



# NOKIAN TYRES' VALUE CHAIN

A tire is a global product whose value chain extends throughout the world. We have included the ten principles of the UN Global Compact initiative in the graph to show our impact along the value chain.



## RAW MATERIALS

The main raw material groups in tire manufacturing are synthetic rubber, fillers, chemicals, reinforcing materials, and natural rubber. We use more than 250 different raw material suppliers and we require that all our sustainability critical suppliers adhere to our Supplier Code of Conduct. We have conducted sustainability audits in rubber procurement factories since 2016. (UNGC 1, 2, 4, 5, 10)



## 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, Russia and the US. (UNGC 10)



## SUBCONTRACTORS

We work 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 our Supplier Code of Conduct. (UNGC 1, 2, 10)



## GROUP FUNCTIONS

We produce tires in three countries: Finland, Russia, and the US. In addition, we have sales companies in our key markets. (UNGC 1-10)



## SOCIETY

Our impact is directly seen in our factory locations as a locally significant job creator and a permanent part of the surrounding community. Our purchases, salaries, and taxes as well as the dividends to shareholders contribute to well-being throughout the world. (UNGC 3, 6)



## RECYCLING

End-of-life tires can be shredded or granulated to replace rock materials in road construction, for example. Bus and truck tires can be also retreaded 2-4 times. Another way is to combust used tires for energy. We are already using some recycled materials in our products, such as recycled steel. (UNGC 8, 9)



## CONSUMERS

The users of our tires are the most important link in our value chain. Approximately 89% of a tire's carbon footprint is generated during its use, which means that our product development efforts for reducing their environmental impacts are measured during their use by consumers. (UNGC 7, 8, 9)



## WHOLESALE

Nokian Tyres' products are sold globally via our branded distribution network, Vianor and Vianor Partner chains, as well as through car dealerships and tire stores. Due to our extensive distribution network, our tires are sold in more than 60 countries. (UNGC 10)



## TRANSPORTATION OF TIRES

We used to deliver tires to large wholesalers, nowadays distribution is divided more into smaller product lots and smaller warehouses. (UNGC 10)

# NOKIAN TYRES AS A PART OF SOCIETY

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

Read more: [Financial Review 2021](#) ↗

Nokian Tyres contributes to society and communities as a responsible employer and through the fair payment of salaries and taxes. We directly employ some 4,900 people around the world. When we include all of our subcontractors, our role as a job creator becomes even more significant. Our tire factories are significant employers in their operating areas. The salaries and taxes that we pay support the structures of society and improve the quality of life for thousands of people.

The Group's effective tax rate (ETR) in 2021 was 20.1% (18.9% in 2020). Tax rate was affected by one-off write downs which are non-tax deductible. Adjusted effective tax rate was 19.1%.

The operational tax rate is expected to be at the level of 19% for 2022.

## INCOME TAX EXPENSE

Region	MEUR 2021
Nordic countries	20.8
Russia and Asia*	24.0
Other Europe	2.6
North America	3.1
Other	1.4

\*Belarus included in the Russia & Asia area

In 2021, Nokian Tyres finalized its Tax Policy, which was approved by the Board in February 2021. The Tax Policy defines 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 the tax management, e.g. 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 pay 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.

In May 2019, Nokian Tyres U.S. Finance Oy, a former subsidiary of Nokian Tyres plc

(ownership: 100% of the shares), received a negative ruling from the Hämeenlinna Administrative Court regarding the company's appeal against a reassessment of EUR 18.5 million concerning the years 2007–2013. The company has paid and recorded the amount in full in the financial statements and results for 2013, 2014, and 2017. The company's appeal against the court decision was rejected by Supreme Administrative Court in February 2021.

In April 2021, Nokian Tyres received a decision from the Tax Administration concerning a tax audit for the tax years 2015–2016, according to which the company was obliged to pay a total of EUR 1.9 million additional taxes, punitive tax increase and late payment interest. Taxes have been paid and recognized in receivables. Nokian Tyres considers the tax authority's view unfounded and has appealed against the decision.

## GENERATION OF ADDED VALUE

<b>+</b>	<b>CUSTOMERS</b> Sales <b>MEUR 1,714.1</b>
<b>-</b>	<b>SUPPLIERS</b> Cost of goods, materials, and services purchased <b>MEUR 841.3</b>
<b>=</b>	<b>ADDED VALUE</b> <b>MEUR 872.8</b>


Economic  
value retained in  
the company  
**MEUR 265.2**

## DISTRIBUTION OF ADDED VALUE

<b>EMPLOYEES</b> Wages and salaries <b>MEUR 263.9</b>
<b>PUBLIC SECTOR</b> Direct taxes <b>MEUR 52.0</b>
<b>SHAREHOLDERS</b> Dividends <b>MEUR 165.9</b>
<b>GROSS INVESTMENTS</b> <b>MEUR 119.6</b>
<b>FINANCIAL INSTITUTIONS</b> Net Financing Payments <b>MEUR 6.2</b>

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/](http://www.cgfinland.fi/en/) .

The company is included in the OMX GES Sustainability Finland GI 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). We are also included in the STOXX Global ESG Leaders and FTSE4Good indices.

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 our communication principles [here](#) .

### 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 of Directors, which supports the achievement of strategic goals and ensures business continuity. The Group's risk management policy focuses on managing both the risks pertaining to business opportunities and the risks affecting the achievement of the Group'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.

For example, the following risks could potentially have an impact on Nokian Tyres' business:

- Nokian Tyres is subject to risks related to consumer confidence and macroeconomic and geopolitical conditions. Political uncertainties may cause serious disruption and additional trade barriers and affect the company's sales and credit risk.

Economic downturns may increase trade customers' payment problems and Nokian Tyres may need to recognize impairment of trade receivables.

- The tire wholesale and retail landscape is evolving to meet changing consumer needs. New technologies are fueling this with increasing digitalization. Failure to adapt to the changes in the sales channel could have an adverse effect on Nokian Tyres' financial performance.
- Nokian Tyres' success is dependent on its ability to innovate and develop new products and services that appeal to its customers and consumers. Despite extensive testing of its products, product quality issues and failure to meet demands of performance and safety could harm Nokian Tyres' reputation and have an adverse effect on its financial performance.
- Nokian Tyres' production facilities are located in Finland, Russia and the US. Any unexpected production or delivery breaks at these facilities would have a negative impact on the company's business. Interruptions in logistics could have a significant impact on production and peak

# 2/10


### WE DRIVE RESULTS

Through sustainable business practices and financial success Nokian Tyres creates value for its various stakeholders, such as consumers, customers, our personnel, and shareholders.

- season sales.
- Significant fluctuations in raw material prices may impact margins. Nokian Tyres sources natural rubber from producers in countries such as Indonesia and Malaysia. Although Nokian Tyres has policies such as the Supplier Code of Conduct and established processes to monitor the working conditions, it cannot fully control the actions of its suppliers. Nokian Tyres continues to expand its supplier portfolio to mitigate risks related to single source supplying. The non-compliance with laws, regulations or standards by raw material producers, or their divergence from practices generally accepted as ethical in the European Union or the international community, could have a material adverse effect on Nokian Tyres' reputation.



” Tire industry can be subject to risks caused by climate change, such as changes in consumer tire preferences, regulatory changes or impact of extreme weather events on natural rubber producers.

- Tire industry can be subject to risks caused by climate change, such as changes in consumer tire preferences, regulatory changes or impact of extreme weather events on natural rubber producers. Nokian Tyres is committed to reducing GHG emissions from its operations in order to combat climate change. Nokian Tyres calculates the GHG emissions from its operations annually and reduces them systematically. More detailed analysis on Nokian Tyres' climate change related risks and opportunities is provided at [www.nokiantyres.com/company/sustainability/environment/climatechange-related-risks-and-opportunities/](http://www.nokiantyres.com/company/sustainability/environment/climatechange-related-risks-and-opportunities/) .
- Foreign exchange risk consists of transaction risk and translation risk. The most significant currency risks arise from the Russian ruble, the Swedish and Norwegian krona, and the US and Canadian dollar. Approximately 65% of the Group's sales are generated outside of the euro-zone.
- The availability of supporting information systems and network services is crucial to Nokian Tyres. Unplanned interruption

in critical information systems or network services may cause disruption to the continuity of operations. Such systems and services may also be exposed to cyber attacks that could cause a leakage of confidential information, violation of data privacy regulations, theft of know-how and other intellectual property, production shutdown or damage to reputation.

- In May 2017, the Finnish Financial Supervisory Authority filed a request for investigation with the National Bureau of Investigation regarding possible securities market offences. In October 2020, the prosecutor announced the decision to press charges against a total of six persons who acted as Board members and the President & CEO of Nokian Tyres in 2015–2016. The prosecutor also requests a corporate fine of a maximum of EUR 850,000 to be imposed on the company. The prosecutor has also decided to press charges for suspected abuse of insider information against four persons who were employees of Nokian Tyres in 2015. All persons charged deny their involvement in any criminal activity. The trial related to these events started at the District Court

of Helsinki in January 2022.

- The COVID-19 pandemic represents a short-term risk to Nokian Tyres' business and operating environment. The company has proactively taken preventive actions to minimize the impacts of the pandemic and to ensure business continuity. Despite these efforts, the uncertainty over the duration of the pandemic, the containment measures and the resulting slowdown in economic activity can have a negative impact on Nokian Tyres' operations and supply chain as well as the demand and pricing for the company's products.
- Nokian Tyres' risk analysis also pays special attention on corporate sustainability risks, the most significant of which are related to product quality, safety, environment, and human rights. Analyses and projects related to information security, data protection, and customer information are continuously a special focus area.



### A global company with local impacts

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

Our purpose is to empower the world to drive smarter. 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 governmental, political, or religious entities. The company offers resources to projects based on the Nokian Tyres' Sponsoring and Philanthropy Policy, which will be updated in 2022.

In Finland, we promote 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, and The Finnish ENOMA research and development

consortium, whose aim is to develop techniques and methods that enable devices to operate independently without an external power source.

In 2021, Nokian Tyres continued to support the traffic safety education for local school children in Nokia, Finland, and donated books for safety education. Vianor supported Save the Children, an international advocate of children's rights.

In the US, the company has donations committees in Dayton, Nashville, and Colchester. In 2021, the Dayton committee gave two college scholarships to high school graduates in order to support educational efforts. In partnership with Powdr Ski Resort, the company also supported One-Tree-Planted, a non-profit organization, and planted 50k trees.

In Russia, Nokian Tyres donated tires to ambulances in the Moscow and St. Petersburg regions to help hospitals cope with the ongoing COVID-19 pandemic. The company continued Eco Challenge, a campaign for emptying illegal tire landfills.

To support communities in the fight against the spread of the pandemic, the company has organized onsite vaccination clinics in all its factory locations.



An aerial photograph of a winding asphalt road that curves through a valley. The road is flanked by dense forests of evergreen trees, some of which are covered in a light layer of snow. To the right of the road, a calm lake reflects the surrounding landscape and the sky. The hills in the background are also covered in forest and snow. The overall scene is serene and natural.

# CLIMATE AND THE ENVIRONMENT

We are committed to saving winters  
for the future generations.

# OUR GOAL IS TO MINIMIZE THE ENVIRONMENTAL IMPACTS

Nokian Tyres has uncompromising respect for the environment and safety, as well as for ensuring high quality and a good customer experience throughout our operations. We consider the product's entire life cycle and all of its functions in terms of environmental responsibility and follow the Precautionary Principle.

Our environmental and sustainability targets are specified in the company's Sustainability strategy, which is drawn up for a period of five years. The Vice President for Quality & Sustainability is involved in drawing up the strategy along with the Environmental and Responsibility Manager.

Working together with environmental experts, the Environmental and Responsibility Manager prepares an annual environmental program for the factories. The program specifies the detailed targets, actions, schedules, and responsible persons for the goals presented in the strategy. 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 the management meetings.

## KEY MEASURES IN 2021

OBJECT	TARGET IN 2021	STATUS IN 2021	TARGET IN 2022
<b>STATUTORY REQUIREMENTS</b>	Implementation according to the Nokian Tyres environmental permits and legislation at the factories.	Partially implemented.	Implementation according to the Nokian Tyres environmental permits and legislation at the factories.
<b>VOC EMISSIONS</b>	Compliance with the new environmental permit of the factory in Finland.	Not implemented. Exceeded the emission limit for VOC emissions.	Started evaluation of further measures to solve the problem.
<b>ENERGY</b>	Our target for reducing energy consumption by 10% (base year 2015) will be a part of our 2025 sustainability targets. We report the annual progress.	Positive development, 5.9% from 2015.	Reduce energy consumption further.
<b>CLIMATE</b>	Finalizing and implementing roadmaps for CO <sub>2</sub> reduction.	Implemented.	Green electricity procured for the Finnish factory. Started implementing actions for the suppliers' CO <sub>2</sub> reduction plans.
<b>CHEMICAL SAFETY</b>	Two factory audits by chemical specialists concentrating on the use and storage of chemicals.	Implemented.	Two factory audits by chemical specialists concentrating on the use and storage of chemicals.
<b>MATERIALS DEVELOPMENT</b>	Ensuring that no Substances of Very High Concern as referred to in REACH are contained in the products.	Implemented.	Ensuring that no Substances of Very High Concern as referred to in REACH are contained in the products.
<b>INCREASING ENVIRONMENTAL AWARENESS AMONG THE PERSONNEL</b>	Regular trainings and environmental communication.	Implemented.	Regular trainings and environmental communication.
<b>BUILDING PROJECTS</b>	The Spain test center: assuring chemical and environmental safety in ramp-up phase.	Implemented.	No new building projects for 2022.



“ Regular audits are an important part of our efforts related to environment, safety, and quality.

### Control of chemicals

Control of chemicals aims at ensuring the safest possible use of chemicals for our employees, the environment and end users. Our company meets all of the requirements of the European (the REACH and CLP regulations) and local legislation concerning chemicals.

We do not use carcinogenic chemicals or SVHC chemicals (Substances of Very High Concern) as per the EU's REACH regulation in our production. Our products do not contain any conflict minerals.

Moreover, all of our products meet the EU REACH requirements concerning PAHs (Polycyclic aromatic hydrocarbons). We also intend to ensure that no products sold in Vianor service centers now or in the future contain any such chemicals.

No auxiliary chemicals are taken into use at Nokian Tyres factories before our 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.

We require all of our chemicals suppliers to provide us with chemical safety data sheets (SDS) in compliance with the valid legislation prior to the purchasing of chemicals. The SDSs of the chemicals that we use are registered in a database that all employees can access. We also organize regular trainings on chemicals for our employees.

### Audits

Regular audits are an important part of our efforts related to environment, safety, and quality. Their purpose is to ensure eco-friendliness in production and a safe working environment that meets high standards of quality. The audits aim to verify that our operation complies with the legislation, Environment, Safety, and Quality policy, and the instructions in the activity management system. We carry out internal environmental and quality audits according to an annual plan, so that each area of the activity management system is audited at least once every three years. We draw up the annual plan on the basis of a five-year plan, taking into account the findings of the previous audits.

In production, we audit the environmental aspects and chemical safety through regular safety walks at individual departments, and once every six months, through inspection rounds by chemicals experts. Audits include the audits carried out by our customers and partners, such as automotive industry representatives. An external auditor performs an audit once a year in order to assess our activities' compliance with the relevant standards.

Legal and regulatory compliance is supervised by the authorities and insurance companies annually or as required.

### Permits and complaints

Our 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.


The company actively monitors the trends in environmental and safety regulations within the EU and in all of the countries where Nokian Tyres operates: Finland, Russia, and the US. The company also 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 the necessary corrective actions. Complaints can be done via our company website on a contact form, by emailing the company directly, or sending regular mail or contacting the company on the phone.

In Finland, Nokian Tyres received one environmental complaint in 2021 concerning noise at the Finnish factory. The company was also contacted concerning odor and noise emissions from local residents in Sastamala, Finland, where our retreading unit is located. The complaints were investigated, and actions implemented, read more [here](#). The company received no environmental

complaints from the US or Russia.

In 2021, Nokian Tyres received one environmental fine for instances of non-compliance with laws and regulations in the US factory. Regular pressure indicator monitoring in the mixing department was not done for three months and that led to a fine of 3,000 USD. The deviation was corrected in the fall and monitoring is since being conducted according to the requirements.

You can read more about our environmental complaint mechanism [here](#) .

### Environmental costs

In addition to personnel and technology, we allocate financial resources to environmental responsibility. During the fiscal period, our environmental management costs amounted to approximately EUR 470,000.

Other environmental costs amounted to approximately EUR 1,572,000. This figure includes the expenses and investments that are related to air, soil, and water protection and waste management.

# CLIMATE-RELATED RISKS AND OPPORTUNITIES

The company has defined its climate-related risks and opportunities according to the recommendations of Task Force on Climate-Related Financial Disclosures (TCFD). In 2021, the risks and opportunities were reassessed using two different scenarios.

## CLIMATE-RELATED RISKS

RISK GROUP	SUBCATEGORY	EXAMPLES OF CONCRETE RISKS
REGULATORY	Emerging regulation	Deforestation-related regulation, mostly concerning natural rubber.
		Green regulation on aviation and maritime fuels can significantly increase costs of logistics.
	Further green labeling	Additional taxes and duties e.g. EU's CBAM for fossil raw materials can increase prices.
	Stricter expectations to oversight	
PHYSICAL	Extreme weather events	Disruptions in logistics.
	Extreme temperatures	Contamination of raw materials.
TECHNOLOGICAL	Climate-related demands for new tire technology	A+ rolling resistance tires required for EVs.
		150 km/h max speed for EU – demand for UHP (Ultra High Performance) tires fall.
	Materials technology	Requirements for non-renewable material replacements.
MARKET AND REPUTATION	Market changes	Shift from car ownership to mobility-as-a-service i.e. changing customer base.
		Green energy prices go up due to strong demand.
		Availability of renewable and recycled raw materials can limit plans for sustainability.
		Increased demand for year-round tires and less winter tires.
	Reputational risk	Deforestation scandals (natural rubber).

## CLIMATE-RELATED OPPORTUNITIES

OPPORTUNITY GROUP	SUBCATEGORY	EXAMPLES OF CONCRETE OPPORTUNITIES
INNOVATION	Raw materials	Innovations with renewable materials.
	Recycling	Recycling system of tires still missing in many countries, Scandinavian system can be used as an example.
	Climate-friendly technology	Lower rolling resistance.
	Energy-efficient production	Modern machinery used in Nokian Tyres' factories.
PRODUCT RANGE	Competitive advantage	Nokian Tyres designs and manufactures tires for challenging conditions. Typically, electric vehicles have larger and more expensive tires. Ensuring a good offering in this product segment.
	EU further labeling for sustainable tires	Existing focus on sustainable natural rubber and developing wear resistance.
	Industrial (heavy) tires	We have existing expertise to provide climate-friendly solutions.
ENGAGEMENT	Consumers	
	Policy makers	Increased preparedness for new regulations or incentives.
	Shareholders/stakeholders	
REGULATORY	Renewable Energy Directive	More renewable energy available in EU, prices can decrease.
		Global carbon tax or similar would improve NT's competitive position.

# ENERGY, EMISSIONS, WATER AND WASTE

The environmental impacts from tire production include odor, dust emissions, noise, waste, and solvent emissions (VOC emissions). The most significant of these impacts are the VOC emissions and local odor. We constantly strive to reduce these impacts in the best possible ways: we improve our operations and find efficiencies, and correct identified deviations. In accordance with our Environmental, Safety, and Quality Policy, we aim for zero defects in our activities within these areas.

All the statistics can be found also on the [Performance in figures section](#).

## Environmental impacts from other locations

Our sales companies, Vianor service centers, and other subsidiaries always comply with the local regulations. We sort the waste and deliver it for reuse whenever technologically and economically feasible.

The most significant environmental impacts of our locations come from waste and energy consumption. Furthermore, our sales companies and Vianor service centers pay attention to the efficiency of product transports.

In 2021, we were contacted by local residents concerning odor and noise emissions from the retreading unit in Finland. As an environmental remediation, Nokian Tyres organized a scent panel in August 2021 and invited local residents who live near the unit and local authorities to attend. The goal of the scent panel was to collaborate and identify the strongest places of unpleasant odor in the vicinity of the unit. The main results of the scent panel were that odors are minor most of the time. In certain rare wind conditions and with a certain atmospheric pressure, the odor can become more pronounced.

Noise and odor emissions are within the limits of the environmental permit in the retreading unit. Nokian Tyres has reported actions related to odor issues monthly to the authority and continues to do so until May 2022.

FINLAND	RUSSIA	US
<b>EMISSIONS</b>	<b>EMISSIONS</b>	<b>EMISSIONS</b>
Solvent emissions VOCs 55 t	Solvent emissions VOCs 79 t	Solvent emissions VOCs 7,4 t
Particle emissions 1 t	Particle emissions 9,8 t	Particle emissions 42,1 t
CO <sub>2</sub> 170 kg CO <sub>2</sub> eq/ production t	CO <sub>2</sub> 500 kg CO <sub>2</sub> eq/ production t	CO <sub>2</sub> 900 kg CO <sub>2</sub> eq/ production t
Noise <50 dB	Noise <55 dB	
<b>INPUT</b>	<b>INPUT</b>	<b>INPUT</b>
Energy 682 TJ	Energy 1,640 TJ	Energy 187 TJ
Municipal water 65,000 m <sup>3</sup>	Municipal water 248,000 m <sup>3</sup>	Municipal water 76,000 m <sup>3</sup>
Surface water 8,062,000 m <sup>3</sup>		
Raw materials 58,000 t	Raw materials 175,000 t	Raw materials 12,100 t
<b>PRODUCTS</b>	<b>PRODUCTS</b>	<b>PRODUCTS</b>
Tires 51,000 t	Tires 172,200 t	Tires 8,900 t
<b>WASTE</b>	<b>WASTE</b>	<b>WASTE</b>
Landfill 0 t	Landfill 0 t	Landfill 6,3 t
Utilized 4,400 t	Utilized 10,300 t	Utilized 3,900 t
Hazardous 230 t	Hazardous 1,210 t	Hazardous 0 t
Wastewater 110,000 m <sup>3</sup>	Wastewater 246,000 m <sup>3</sup>	Incineration 150 t
Surface water discharge 8,017,000 m <sup>3</sup>		Wastewater 76,000 m <sup>3</sup>

**Energy**

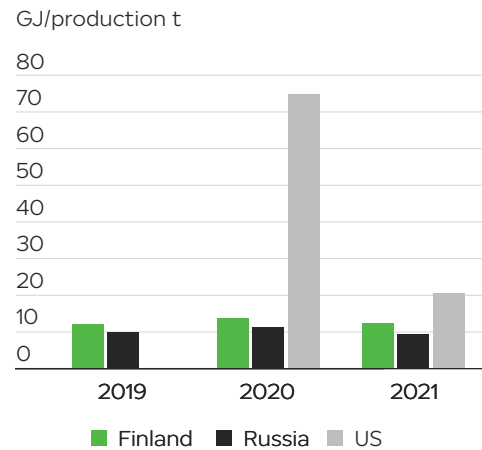
The energy we use can be divided into electricity, heating and steam. We purchase energy for our factories from external suppliers. We generate some of the electricity and steam ourselves.

In our factories, about 26% of all used energy is produced from renewable energy sources.

In 2021, only electricity generated by wind and hydropower was procured for the Finnish factory. Steam is generated in the nearby biomass power plant. In the US factory, solar panels provide energy to our administration building. In the Nokian Tyres Spain test center, solar panels provide energy for the electricity in Visitor Center building, among other things.

Our Energy efficiency workgroup continued its activities in 2021. Starting from 2021, our target for reducing energy consumption by 10% (base year 2015) will be a part of our 2025 sustainability targets. We will report the progress annually. In 2021, the reduction was 5.9% compared to 2015.

**ENERGY INTENSITY**



” Only electricity generated by wind and hydropower was procured for our Finnish factory. In the US factory, solar panels provide electricity for the administration building.



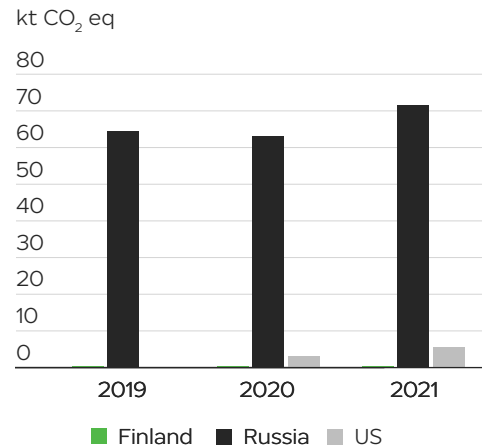
**Emissions**

*Emissions from energy production*

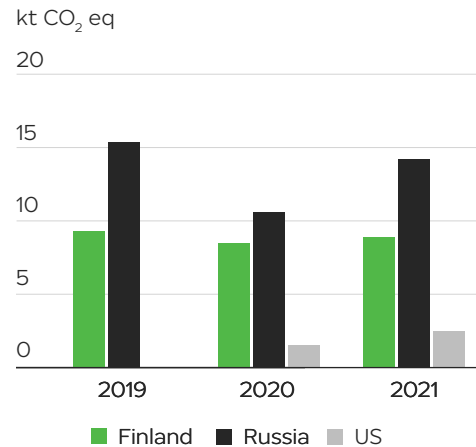
An independent company annually measures the nitrogen and sulfur emissions from energy production at our factory in Russia. Our nitrogen and sulfur emissions are below the set emission limits.

As the environmental permit for the US factory is still being processed by the authorities, we operate under the air permit for the construction phase. This is why the emissions are not being measured at the moment.

**DIRECT GREENHOUSE GAS EMISSIONS, SCOPE 1**



**INDIRECT GREENHOUSE GAS EMISSIONS, SCOPE 2 (MARKET BASED)**



**INDIRECT GREENHOUSE GAS EMISSIONS, SCOPE 3**


Category	Emissions t CO <sub>2</sub> eq
Purchased goods and services	546,400
Capital goods	n.a
Fuel and energy related activities	10,500
Upstream transportation and distribution	33,700
Waste generated in operations	1,600
Business travel	340
Employee commuting	1,400
Leased assets	750
Downstream transportation and distribution	43,800
Use of sold products	6,042,300
End-of-life treatment of sold products	16,100
Franchises	50
Investments	n.a
<b>Total</b>	<b>6,696,950</b>

n.a = not applicable

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**WE FIGHT CLIMATE CHANGE**

We have reduced our greenhouse gas emissions from production by 40% from 2015. We also expect cuts from our subcontractors and partners.

Nokian Tyres wants to contribute to tackling climate change by setting ambitious science-based climate targets. In May 2018, Nokian Tyres joined the Science Based Targets initiative with the aim of setting more precise targets that are assessed and validated by an external organization. The climate goals, Science Based Targets, were published in May 2020. The four targets are in line with the Paris Agreement, and the base year for the first three targets is 2018 and 2015 for the fourth target. All the targets should be achieved by 2030. You can see the targets [here](#) .

**NOKIAN TYRES' SCIENCE BASED TARGETS**

TARGET	WHAT IT MEANS	EXAMPLES	ACTIONS 2021
REDUCE EMISSIONS FROM TIRE RAW MATERIAL PRODUCTION BY 25%	We encourage our 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.	We began a study of the CO <sub>2</sub> emission reporting capabilities of our suppliers and we started short and long term emission reduction plans, which focus on suppliers in the highest CO <sub>2</sub> emitting raw material categories.
REDUCE CO <sub>2</sub> EMISSIONS BY 25% PER TON OF TIRES IN LOGISTICS	Achieving this requires emission improvements from road, train, marine and air transportation.	Increasing the share of biofuels, improving the efficiency of engines, and optimizing routes further are key methods.	We began a study of the CO <sub>2</sub> emission reporting capabilities of our suppliers and we started short and long term emission reduction plans, which focus on the biggest spend suppliers.
REDUCE CO <sub>2</sub> EMISSIONS FROM TIRE USE BY 25%	This improvement will have the largest impact on reducing global CO <sub>2</sub> emissions, as our tires are used on millions of vehicles.	Overall reduction of vehicle emissions plays a big part in improvements. Lowering the rolling resistance of a tire also reduces the fuel consumption of the vehicle.	Adding new tires to the best A class of rolling resistance in the EU Tyre labeling.
CUT CO <sub>2</sub> EMISSIONS FROM THE ENERGY THAT IS PURCHASED AND PRODUCED BY 52% PER TON OF TIRES	We have already achieved a part of this target with the changes made in recent years.	Most of the energy that we purchase should be low-emission or zero-emission and produced with renewable forms of energy. Improvements in energy efficiency will also reduce emissions.	In 2020, only electricity generated by wind and hydropower was procured for the Finnish operations. This was continued in 2021. We investigated possibilities to purchase green electricity in Russia and the US.

*Carbon dioxide (CO<sub>2</sub>)*

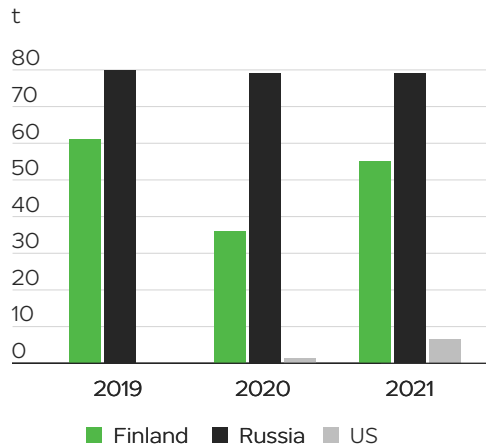
We calculate our tire production's greenhouse gas (GHG) emissions from raw material purchasing to the disposal of the product in compliance with the ISO 14064 standard and GHG protocol. Our Russian and US factories use own power stations for generating part of the energy needed. Therefore, the factories' direct GHG emissions exceed those of the factory in Finland.

In 2021, our location-based scope 2 emissions from tire production were approximately 51,900 tons CO<sub>2</sub> eq. The emission calculation is based on the average emissions intensity of power grids in Finland, Russia, and the US.

Market-based scope 2 emissions were approximately 25,600 tons CO<sub>2</sub> eq. In Finland, the emission calculation is based on the suppliers' certificate of the actual energy sources used. In Russia and the US, emission calculations are based on emission factors of purchased electricity.

“ Our factories have introduced new odor control equipment that represents the best available technology.

**VOC EMISSIONS**



*VOC emissions*

Solvents or volatile organic compounds (VOCs) form our most significant emissions into air. As the legislation concerning VOC emissions is country-specific, our calculation and reporting of VOC emissions varies by country.

In Finland, we calculate the VOC emissions according to the EU VOC directive, which is based on the used solvents. We use solvents in our factory 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 solvent emissions from the production of heavy tires poses a challenge. In the production of heavy tires, it is not possible to seal the emission sources in such a way that all emissions could be collected and conveyed for incineration.

In Finland, we aim to comply with the total emission limit set in the environmental permit, which is 60% of the solvents used. In 2021, we installed new target suction for VOC vapors in the heavy tire building machines to increase the share of collected VOCs for incineration. Despite these corrective actions, the total solvent emissions were 81% of used solvents.

Evaluation of further measures to solve the problem has been started.

No solvents are used in tire manufacture at our Russian and US factories. According to the local legislation, emissions are calculated based on usage of raw materials. VOC emissions are generated due to the raw materials used in the processes.

*Odor*

According to the surveys that we have commissioned, our odor emissions are momentary. The mastication process for softening natural rubber causes discharges of compounds during the precipitation and dehydration phases of rubber milk that results in an unpleasant odor in the near surroundings. We use droplet separators to reduce the odors from mastication.

Our factories have introduced new odor control equipment that represents the best available technology. In our Russian and US factories, the technology covers all the mixing lines and all master batch mixing lines in Finland. We have also managed to lower the number of separate mastication processes, thereby reducing the related odors.

Some odors are generated during the tire curing process. The quantity of the curing

fumes released in the process is directly proportional to the amount of cured rubber. The concentrations of individual substances in the fumes are very small.

*Particle emissions (dust)*

Particle emissions are caused by the processing of powdery chemicals in our compound mixing department. The mixing equipment is fitted with effective ventilation and dust collection devices, and the best separation rates achieved by water cleaners exceed 99%. We measure particle emissions with particle concentration and differential pressure gauges. In addition, outside experts carry out regular concentration measurements.

The measured particle concentrations have complied with the permit limits at our factories. The dust that passes through the filter system mainly causes an aesthetic inconvenience and poses no harm to the environment or health.

*Noise*

Our production facilities have noise limits subject to their environmental permits. We regularly track and measure noise emissions. According to the measurements, we are below the noise limits.

### Water and wastewater

Our tire manufacturing processes use large quantities of cooling water. In our Finnish factory, we take surface water for cooling from the nearby Nokianvirta river and discharge it back into the river after use. The Russian and US factory use municipal water for cooling and then convey it to a wastewater treatment plant. The cooling water has no contact with production chemicals at any stage and, therefore, does not become contaminated.

### Materials

Our production uses high-quality raw materials that contribute to the safety and high quality of our tires. We are continuously exploring the utilization of recycled materials.

You can read more on Sustainable raw materials in tires [here](#).

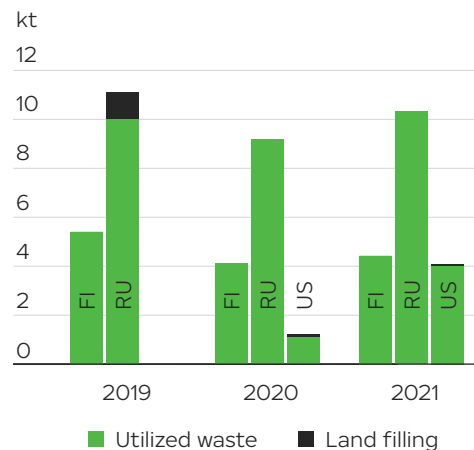
### Waste

Waste is generated both in our actual production and in the support functions. The generated waste can be roughly divided into three categories: landfill waste or non-recyclable waste, recyclable waste, and hazardous waste.

We weigh all production waste and record the department-specific volumes on a daily basis. For other types of waste, we prepare reports monthly or annually. All of our production waste is sent for reutilization.

Information on waste disposal methods and quantities is provided by the waste disposal contractors. We sort the generated waste at our factories in accordance with separate waste management instructions.

### AMOUNT OF WASTE, FINLAND, RUSSIA AND THE US





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**ZERO WASTE**

Our aim is that zero waste is taken to landfill, and in 2021, our Russian factory achieved this goal for the first time. In our Finnish factory, the utilization percentage has been 100% for several consecutive years.

*Recyclable waste*

The utilization rate of our production waste has been growing for years. Scrap tires, or tires that do not meet our high standards of quality, are taken to recycling.

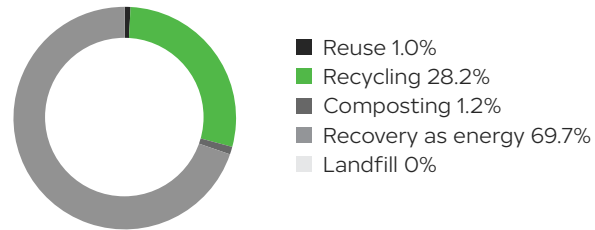
Non-vulcanized scrap rubber is generated in the production stages preceding vulcanization or curing.

These materials' reuse applications include impact padding, conveyor belts, and other rubber products that have less strict material requirements than tires. Other generated recyclable waste categories include combustible waste, plastics, scrap iron and steel, wood, paper, biodegradable waste, cardboard, glass, and electrical and electronic equipment.

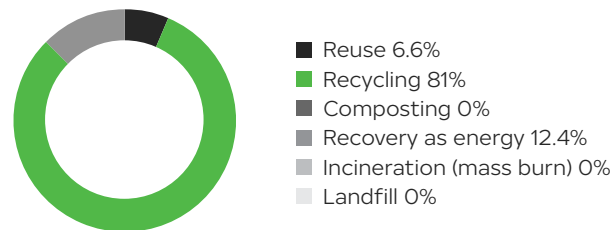
*Landfill waste*

Mixed waste that cannot be utilized or recycled is taken to a landfill. We aim to further reduce the amount of landfill waste by sending the waste that we generate to recycling and reutilization. Our goal for 2021 was that no waste generated in production sites is taken to a landfill. In 2021, 100% of factory waste in Finland and Russia, and 96.1% in the US was sent to reutilization.

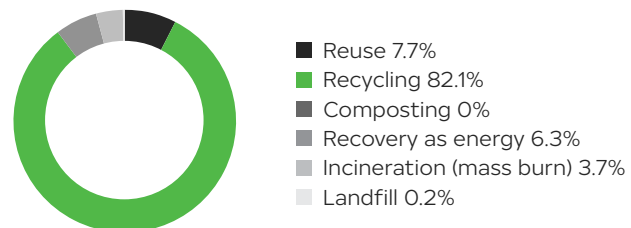
**WASTE BY DISPOSAL METHOD, FINLAND**



**WASTE BY DISPOSAL METHOD, RUSSIA**



**WASTE BY DISPOSAL METHOD, UNITED STATES**

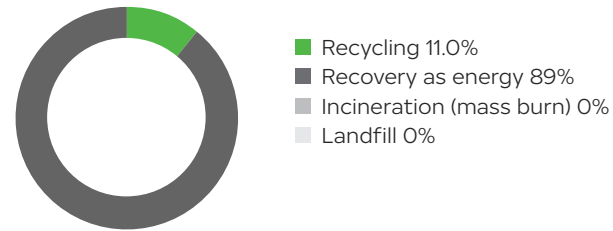


*Hazardous waste*

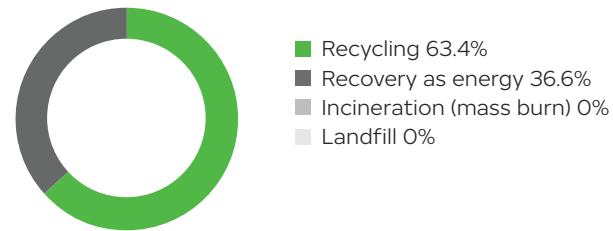
We take all hazardous waste to an authorized processing plant. Roughly a third of this waste is seal oil from compound mixing machines, whose consumption is directly proportional to the manufactured rubber compound volumes. All hazardous waste generated in our Finnish factory is utilized as energy or as raw materials.

According to US legislation, no materials that could be classified as hazardous were produced at the US factory.

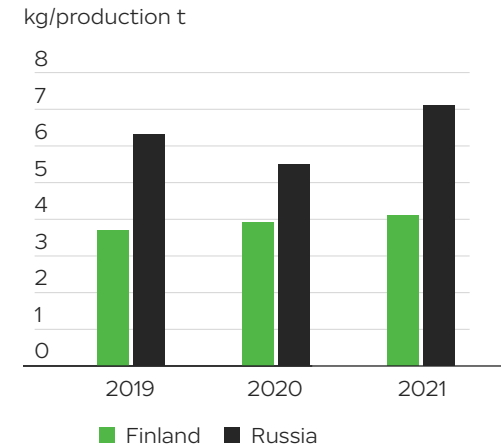
**HAZARDOUS WASTE BY DISPOSAL METHOD, FINLAND, %**



**HAZARDOUS WASTE BY DISPOSAL METHOD, RUSSIA, %**



**HAZARDOUS WASTE PER PRODUCTION TONNE**



# TIRE RECYCLING

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

CO<sub>2</sub> emissions are generated during tire production as well as while driving. Retreading has a significant impact on the carbon footprint of tires: manufacturing a new tire results in approximately 220 kg of CO<sub>2</sub> emissions, whereas the figure for retreading is only approximately 40 kg. Furthermore, each retreading operation saves 40 kg of rubber and 70 liters of oil per tire when compared to new tires.

## Where do tires end up after use?

Approximately 3.3 million metric tons of used tires are discarded each year in Europe. Luckily for the environment, discarded tires are not worthless and can serve various purposes when reused or recycled. Among other things, the tires can be used in noise barriers along motorways, or as an elastic base material in horseback riding arenas.

The recycling rate of tires in Finland is

high compared to many other countries. In Finland, nearly 100% of tires are recycled. In all of Europe, for example, the figure is 95%. The rest of the tires are taken to landfills.

The recycling rate of our passenger car tires was 80% of our total sales in 2021 (2020: 85%).

In Russia, the tire recycling rate is low. According to the local legislation, in 2021, our tire recycling had to be equivalent to 30% of our total sales in Russia, and we met that target. In the US, the tire recycling rate of collected tires is 76%.

Another way to utilize recycled tires is to combust them for energy, as the heating value of tires is close to that of oil. The use of recycled tires as an energy source has been growing for years and, today, approximately half of the tires recycled in Europe are used in waste-to-energy applications. In line with the EU's sustainable development goals, the material recovery of used tires is to be increased and incineration reduced.

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



## A CAMPAIGN IN RUSSIA TO EMPTY ILLEGAL TIRE LANDFILLS

In 2018, Nokian Tyres launched a major recycling campaign in Russia: the Eco Challenge. The goal was to empty illegal tire landfills and raise awareness of recycling. The campaign is carried out together with EcoShinSoyuz (EcoTyresUnion). In 2021, the Eco Challenge resulted in

more than 268 tons of used tires being taken to recycling from illegal landfills. Since the start of the campaign, we have emptied over 1,100 tons of used tires from illegal landfills. The campaign continues in 2022.

# TIRE LIFE CYCLE

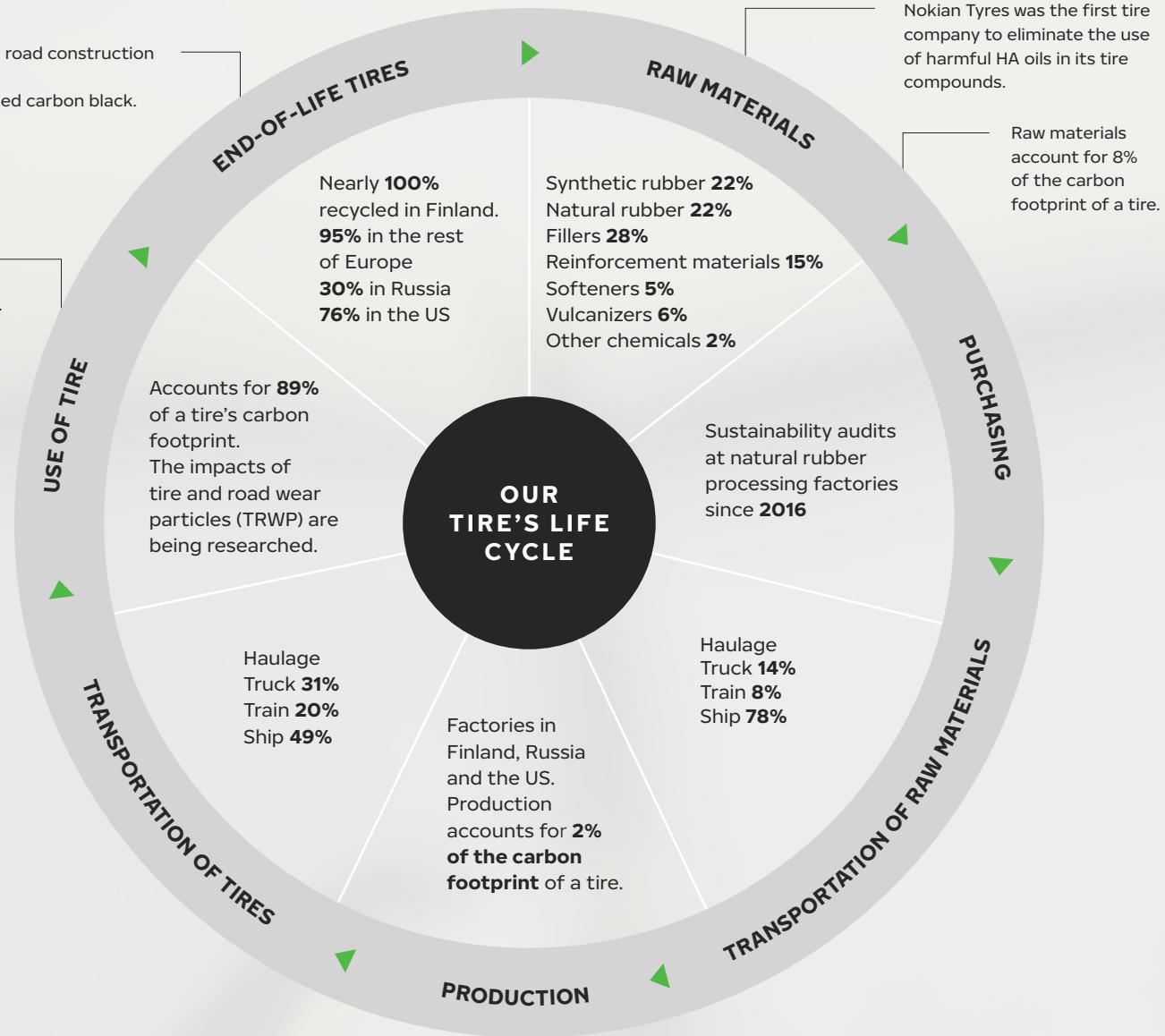
## Nokian Tyres has adopted a life cycle approach:

We take responsibility for the environmental impacts of our 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 replace rock materials in road construction
- used in waste-to-energy applications
- used for recycling materials, e.g. recycled carbon black.

Lower tire rolling resistance means lower CO<sub>2</sub> emissions.







# PEOPLE

Nokian Tyres empowers a culture where employees actively participate in their own work development and take responsibility for everyone's safety and well-being.

# ONE GLOBAL TEAM

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**WE CARE, INSPIRE, GUIDE, AND GROW**  
Our leadership principles define how we want to lead our people and business by example across the whole organization.

In 2021, Nokian Tyres continued to keep its personnel safe during the COVID-19 pandemic. Most of the white-collar employees were working remotely, and factories were protected by strict rules and guidelines. Also, pop-up vaccination clinics were set up in the factory locations and incentives introduced to protect the health and safety of the personnel.

Based on the feedback from employees, Nokian Tyres developed flexible ways of working further whenever possible. Teams were encouraged to discuss the best working practices for them in a changing working environment. The global modern working environment with digital tools and renewed intranet helped teams to organize their work and collaborate in a flexible way while supporting their well-being.

To support further business growth and a modern way of working, Nokian Tyres' company values and leadership principles were redefined as part of the strategy process. The company listened to its people and engaged global and local teams in discussions and giving feedback on the values.

The values, *we care, drive innovation and deliver high results together*, reflect how we work and behave. The leadership principles, *we care, inspire, guide and grow*, define how we want to lead our people and business by example across the whole organization.

The global engagement survey Drive! was conducted in fall 2021. To offer our people a channel to tell broader view on engagement, the survey included 17 questions including equality, diversity and inclusion. Results and action plans will be discussed in the teams.

## KEY MEASURES IN 2021

Negative development in LTIF: rose 11% to 4.1 (3.7 in 2020).

Increased the level of safety actions to the level of 4.8 / employee (3.5 in 2020).

Increased the participation percentage of safety actions to 50.0% of the workforce (38.2% in 2020).

Started two new talent development programs, renewed company leadership principles and launched new manager onboarding concept.

Developed the flexible way of working further based on the feedback from our employees.

Published our approach regarding Human Rights.

Conducted the Global Engagement Survey Drive! including topics like equality, diversity and inclusion.

Evaluated and decided needed actions concerning our talent development programs.

## TARGETS FOR 2022

Starting the Leadership principles program

Employer brand and talent acquisition development

LTIF: 2.9, including our own and for the first time also agency employees

Recordable (recF) accidents: 5.2

Safety actions/employee: 5

Participation percentage in safety actions: 70%

Equality: Continuous improvement of sentiments about equal opportunities in the personnel survey. Starting score: Nokian Tyres 66, BU Vianor 69 (weighted average 66.7) on a scale of 0-100.

# INCLUSION, DIVERSITY, AND EQUALITY OF OUR PERSONNEL

The company’s principles in all operations are fair treatment and respect of human rights when collaborating with its personnel or other stakeholders.

During 2021 Nokian Tyres defined and published the company’s approach regarding Human Rights as below.



Our principles in all operations are fairness and respecting human rights, whether we are dealing with our personnel or other stakeholders.

We respect human rights and treat all individuals equally whether we are dealing with our personnel or other stakeholders. We do not allow any form of discrimination, harassment or bullying. Everyone is responsible for acting fairly and creating a pleasant, inspiring work atmosphere. We want to ensure the psychological and physical safety of our employees. Everyone must have an equal opportunity, and nobody is treated differently or discriminated against because of their personal characteristics. We embrace diversity that means acceptance, respect and understanding that each individual is unique. It is about taking account of the differences between people and groups of people and placing a positive value on those differences.

We advance an inclusive and equal working culture and empower our people to be active members in our organization. Everyone has the freedom of expression. Active participation at different levels of the organization and respecting every employee’s right of participation are parts of our working culture.”

The first measurement regarding diversity, equality and inclusion was done as a part of the Drive! engagement survey. We included three questions to specifically measure diversity, equality and inclusion, and the scores and the global benchmarks for those questions can be seen in the table on this page.

## DRIVE! ENGAGEMENT SURVEY: INCLUSION, DIVERSITY, AND EQUALITY

QUESTION	NOKIAN TYRES' SCORE ON A SCALE OF 0-100	VS. GLOBAL BENCHMARK	BU VIANOR'S SCORE ON A SCALE OF 0-100	VS. GLOBAL BENCHMARK
I feel a sense of belonging at Nokian Tyres	72	-2	67	-7
Diverse perspectives are valued at Nokian Tyres	66	-8	65	-9
Regardless of background, everyone at Nokian Tyres has an equal opportunity to succeed	66	-6	69	-3

Drive! workshops are held globally where our employees are involved in creating local and global development actions including diversity, equality and inclusion. The aim is to improve the Nokian Tyres culture so that it brings together people, perspectives and ideas to create stronger bonds among individuals, stronger organization and business. Based on the workshops and input from our employees during first half of 2022, Nokian Tyres Group Management team will publish global actions for developing engagement further.



# SAFETY IS A CHOICE

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

On the way to accident-free workplace, Nokian Tyres set the intermediate target to have an LTIF of less than 2.9 by the end of 2021. Unfortunately, this goal was not met, and the group wide accident rate (LTIF) increased by 11% to 4.1 (3.7 in 2020). At the same time, the Nokian Heavy Tyres celebrated two years without accidents leading to absences in January 2022. Work to improve safety continues by minimizing the possibilities for human errors.

Despite not having met our goal in 2021, our LTIF has improved during the last 5 years. Compared to 2017, the LTIF has decreased by over 45%.

We encourage our employees to make safety observations and carry out safety actions with the goal of 3 safety actions per employee on average: this resulted around 24,000 safety actions in 2021. This amounts to 4.8 actions per employee.

Occupational health and safety are an integral part of our daily management and

operations. During 2021, we continued our safety campaign to globally communicate our slogan "Safety is a choice". This means that everyone is responsible for safety and all choices matter regarding safety development: adhering to occupational safety guidelines, observing defects and shortcomings, and reporting and removing hazards.

In order to bring leadership in safety closer to everyday operations, we have utilized our own managers as safety trainers. This has supported our global safety messaging as it forces the teams to integrate safety as a part of their daily practices. Developing a safe working culture continues in 2022 with the focus on removing possibilities for human errors.

Nokian Tyres has a global system for reporting all 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 are also included in the LTIF goal of 2.9.

Training on occupational health and safety is based on the local laws and in specific job descriptions in the safety training matrix.

Supervisors are responsible for providing adequate training and the qualifications required for daily tasks. The implementation of training is followed in the people management system.

Internal audits and safety inspections are performed by all employees, the supervisors perform safety walks, and the safety systems are audited by the Nokian Tyres' safety organization professionals. Safety walks are reported in the global safety reporting tool.

The safety inspections, audits, safety observations, the number of near misses, realization of safety walks and the implementation of the improvements based on these actions, are all being followed. These actions together form the KPI for safety actions. Every non-conformity in safety is investigated and if needed, corrective actions are taken according to the hierarchy of controls defined in the ISO 45001 standard. The current LTIF situation and corrective actions are visible to all employees on the company's intranet.

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 we guarantee that there will be no negative consequences for

“ We encourage our employees to make safety observations.

the worker. In cases where a work phase is stopped by an employee, supervisors will assess the situation, define possible corrective actions and look for an alternative way to perform the task.

Nokian Tyres' commitment and ongoing efforts related to data protection continued throughout the year. In particular, Nokian Tyres Data Protection Policy was updated, and the Data Protection eLearning content renewed. The renewed eLearning course will be made available for all Nokian Tyres employees during 2022.

You can read about occupational health at Nokian Tyres [here](#) .

## ACCIDENT FREQUENCY

	2017	2018	2019	2020	2021
<b>Lost Time Incident Frequency (LTIF)*</b>					
Nokian Tyres Finland	8.6	5.3	3.7	3.4	3.1
Nokian Tyres Russia	3.2	5.0	2.0	1.0	3.0
Nokian Tyres US			1.6	1.7	3.5
Vianor	12.6	15.0	7.8	7.1	6.5
<b>NT Group</b>	<b>7.5</b>	<b>8.3</b>	<b>4.3</b>	<b>3.7</b>	<b>4.1</b>

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

<b>Recordable Accident Frequency (rec. F)*</b>					
Nokian Tyres Finland	12.6	8.7	8.3	6.8	6.3
Nokian Tyres Russia	3.9	5.3	4.0	2.1	4.4
Nokian Tyres US			6.2	3.5	8.7
Vianor	19.5	21.6	13.9	9.8	12.0
<b>NT Group</b>	<b>11.2</b>	<b>11.6</b>	<b>8.2</b>	<b>5.8</b>	<b>7.4</b>

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

<b>Recordable accidents</b>					
Nokian Tyres Finland	24	18	18	16	14
Nokian Tyres Russia	11	16	12	6	13
Nokian Tyres US			4	2	5
Vianor	62	72	48	33	37
<b>NT Group</b>	<b>97</b>	<b>106</b>	<b>82</b>	<b>57</b>	<b>69</b>

<b>Occupational illness frequency OIFR*</b>					
<b>NT Group</b>		1.4	1.2	0.7	0.2

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

” We encourage our employees to make safety observations and carry out safety actions with the goal of 3 safety actions per employee, on average.

## ABSENTEEISM BY COMPANY\*

	Nokian Tyres Finland				Nokian Tyres Russia		Vianor Nordic				
	Nokian Tyres (FI)	Nokian Heavy Tyres	NT Tyre Machinery	Levypöytä	OOO Nokian Shina	OOO Nokian Tyres	Nordic Wheels AB	Vianor Holding Oy	Vianor Oy	Vianor AB	Vianor AS
Sick absences % (total)	2.8	5.0	7.0	4.2	2.4	8.4	0.0	0.6	4.1	4.4	4.6

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



# OUR PEOPLE

Our goal is to be a globally attractive employer that is known for its sustainability, leadership, and international working community with teams around the world. We employ some 4,900 people with different skills and backgrounds.

At the end of 2021, we employed a total of 4,915 (+6.8%) employees. We report the number of all employees, including also those on a long leave of absence.

Our external workforce is mainly used for production workforce needs. At the end of 2021, we had 294 external workers (head count), most of them working in the Finnish factory production as private employment agency workers (180).

During 2021, we employed a total of 1,227 seasonal employees at Vianor. We have two seasons in a year when headcount increases temporarily with approximately 400-600 employees.

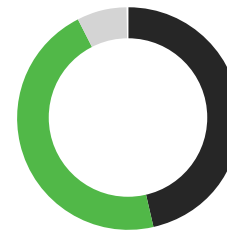
51.0% of our employees are covered by collective bargaining (53.2% in 2020). If there is no CLA available, the company follows the employment regulations that are available. We comply with the country level legislation and regulation in each country.

## Increasing production capacity to respond to growing demand

Nokian Tyres increased its production capacity in Finland and North America. Passenger car tire production in Nokia, Finland, switched to four shifts six days a week in August 2021. From the beginning of 2022, the factory is running five shifts seven days a week. The total number of recruitments at the Finnish factory in 2021 was approximately 120 contingent workers. As a result of the new recruitments, Nokian Tyres created a total of approximately 200 new jobs in Nokia, Finland, in just over a year.

Nokian Tyres took the next growth steps at the US factory, adding third and fourth production shifts at its US factory to increase output capacity to 24/7 production at the facility, in response to rising demand. The company launched its third production shift in May 2021 and added the fourth shift in July 2021. The expansions nearly doubled the factory's workforce in the first half of 2021, and the company now employs approximately 300 team members in Dayton.

## NEW EMPLOYEE HIRES RATE



■ Percentage under 30 years old 46.7%  
■ Percentage 30-50 years old 46.0%  
■ Percentage over 50 years old 7.4%  
**New employee hires rate (Total) 22.4%**

## TURNOVER RATE



■ Percentage under 30 years old 26.1%  
■ Percentage 30-50 years old 57.5%  
■ Percentage over 50 years old 16.4%  
**Turnover rate (Total) 11.1%**

## TOTAL NUMBER OF OUR OWN EMPLOYEES



■ Women 17.4%  
■ Men 82.6%  
**Total 4,915**

# OUR WAY OF WORKING

During 2020, we leaped to the next level in digital working and learned new skills. In 2021, we have utilized these learnings and developed our working practices even further.

The feedback from our employees has been very clear and consistent: they want to continue the hybrid, flexible way of working. The management team fully supports the hybrid way of working when possible. The modern working environment with digital tools helps teams to flexibly organize their work while supporting the individual wellbeing of our employees. All teams have been encouraged to discuss the best working practices for their own team.

As digital has become the primary way of working, the need for information security skills has grown. During 2021, the company continued to develop information security capabilities and published an Information security eLearning course targeted to everyone at Nokian Tyres. With the eLearning course the company drives to build information security skills and therefore to enhance both Nokian Tyres' and our employees' personal information security.

Nokian Tyres also actively communicated about information security in its internal

channels. The company produced webinars, published multiple articles with current information security topics and launched its first podcast episode in which its own people discussed information security topics.

Nokian Tyres continued to follow-up and measure real-time atmosphere and well-being in the organization by conducting a pulse survey in April. 89% of employees gave positive or neutral responses when asked about the overall feeling at the moment (in November 2020 the result was 86%). In November 2021, the company brought back the annual engagement survey Drive! which had not been implemented in 2020 due to the pandemic. The engagement survey gives a broader view not only on engagement but also on topics such as inclusion, diversity, equality, belonging, collaboration, leadership, growth, and communication.

The engagement survey Drive! was conducted for Nokian Tyres' employees in November 2021 and for employees of the Vianor Business Unit in January 2022, after the winter tire season. The survey had 17 questions and received a strong response rate of 83%, which is 3 points above the global benchmark. The overall engagement score was 76 at Nokian Tyres and 75 at Vianor

on a scale of 0-100 (global benchmark value 75). The results have been discussed in our teams, where actions have also been agreed on together.

The company continued the Working Well concept to support its employees in the exceptional environment. As part of the concept, the company organized global and local-level activities:

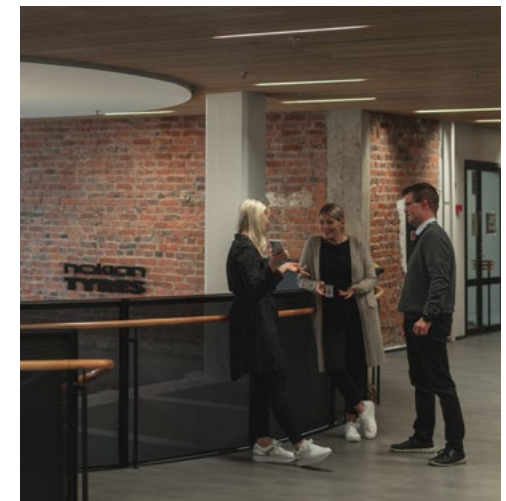
- webinars and workshops for leaders to learn and share best practices
- trainings for employees about well-being when working remotely and during the COVID-19 pandemic
- how to lead own work: practical tips for organizing and creating structure to the working day, tools and channels to support remote work
- individual coaching sessions available for all employees in Finland.

The company also continued the personal development discussions, People Reviews. The People Reviews focus on managing performance and personal goals and development.

## 6/10

### GRIT AND DETERMINATION

Safety and strategic planning were clearly above the global benchmark in our Drive! engagement survey. We have clear plans on how to achieve our goals, the grit to face challenges ahead, and we all work to keep each other safe.



” During 2021, the company values and leadership principles were redefined as part of the strategy process.



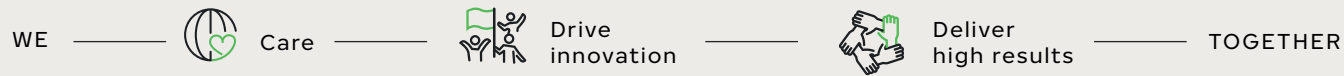
In 2021, a total of 96.3% of our personnel took part in a People Review (93.0% in 2020). Personal People Reviews have a key role in personnel development. Internal job rotation, on-the-job learning, and different training solutions continued being essential part of personnel development.

During 2021, the company values and leadership principles were redefined as part of the strategy process. Nokian Tyres organized several focus groups to engage its employees. Based on those discussions our company values are: We care, innovate and deliver high results together. Our leadership principles are: We care, inspire, guide and grow. These values were first launched as part of strategy communication in the fall.

After that, teams continued to discuss how they put the values into practice in daily work. The leadership principles will be implemented more thoroughly in 2022.

In 2021, the company also renewed its intranet to ensure easy access to company information wherever the person may be, on the go, in the factory, or working remotely. The new intranet is a channel to communicate with employees and enables everyone to participate, for example, in creating content, giving feedback and commenting on company news. Content is updated regularly, and all Nokian Tyres' people process materials can be accessed via the intranet.

**NOKIAN TYRES' COMPANY VALUES**



WE ARE PROUD OF OUR HAKKAPELIITTA HERITAGE AND SPIRIT AS A FOUNDATION FOR OUR CULTURE AND VALUES

“ All Nokian Tyres employees are covered and rewarded for the company’s overall performance.

## Learning and Development

We have introduced a new learning culture that is based on the following approach:

- 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 piloted two new development programs for selected leader groups. The company’s new learning approach was followed in these programs. One pilot program, the Virtual Acceleration Program, included individual learning through digital learning solutions, regular learning circles, mentoring and strategic project work. The other was a mentoring program for senior leaders. Nokian Tyres also arranged separate mentoring trainings for mentors and mentees before and during the process. Both programs were followed up and structured feedback from participants

was collected during and at the end of the programs. Feedback will be utilized for further development of programs.

For new managers the company has created a concept for onboarding that is available on the intranet. The onboarding is built on the company’s values and leadership principles and consists of both global and local information and sparring for the managers.

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

## Pay for performance

A Global Total Rewards Philosophy and Guideline was created by Nokian Tyres’ Management Team and Board of Directors in 2018 and communicated to all employees in 2019. The objective of the established guideline was to align and harmonize the company’s rewarding practices globally. The guideline has been complied with during 2021 and further implemented in Nokian Tyres’ rewarding practices. The guideline is 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.

In 2019, the company also renewed its short and long-term incentive plans. As long-term incentives, 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 segments Earnings Per Share (EPS) and segments Return on Capital Employed (ROCE). Nokian Tyres Restricted Share Plan serves as a complementary long-term incentive tool, used selectively for retention of Nokian Tyres key employees. Both plans were resumed during 2021, Nokian Tyres Performance Share Plan for a performance period between 2021–2023 and Nokian Tyres Restricted Share Plan for a restriction period between 2021–2023. The company also has a profit-sharing plan for employees not eligible to participate in the share plans. With these plans, all Nokian Tyres employees are covered and rewarded for the company’s overall performance.

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. For the year 2020, Nokian Tyres launched a new Global Sales Incentive plan structure, intended for direct sales roles across several locations. The Sales Incentive Plan was continued in 2021, in order to support performance among the eligible sales employees. 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. At Nokian Tyres, we want 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.

We have made significant progress during the past years, and we have been able to sustain our re-established rewarding process. We will continue to develop and assess aspects of our rewarding structure to make sure we are complying with the prevailing market conditions and securing the best possible future performance.

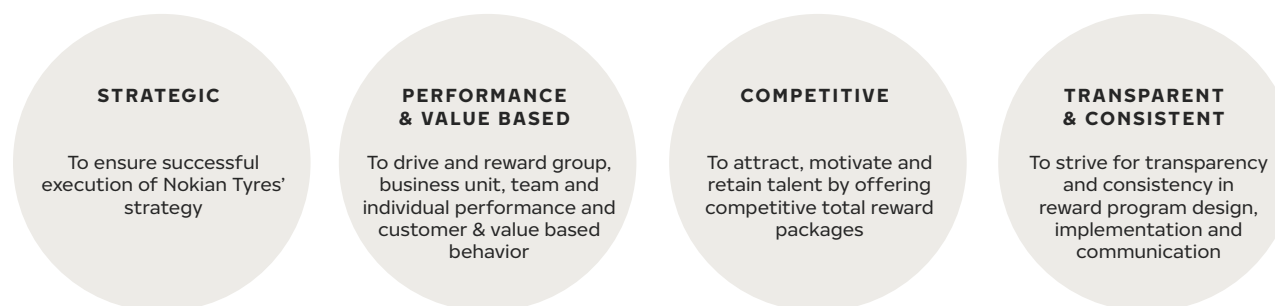
### Our rewarding philosophy

The Total Rewards Guidelines forms the basis for our reward principles in Nokian Tyres. The principles have been defined to support our goal of an engaged and high performing organization. Our guidelines form a consistent framework for recognizing, rewarding and promoting our employees.

The overall objective of Nokian Tyres' rewarding and the guidelines is to align rewarding with the company's strategy and value generation. We want to provide locally competitive pay, to attract, retain and motivate the best talent. We are to operate in accordance with globally consistent reward guidelines, to ensure fair and equal treatment of all our employees.

## NOKIAN TYRES' REWARDING PHILOSOPHY

THE REWARDING PHILOSOPHY AND GUIDING PRINCIPLES ARE BUILT AROUND FOUR ELEMENTS. OUR REWARDING IS TO BE:



### EMPLOYEE REMUNERATION, AVERAGE EUR\*

Wages and salaries (excl. President and CEO) M EUR	214.6
Number of Group employees on average during financial year	4,941
<b>Wages and salaries on average k EUR</b>	<b>43.43</b>

\* 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 M EUR	1.158
Wages and salaries k EUR	1,158.0
<b>Ratio to average employee wages and salaries*</b>	<b>26.66</b>

\* Ratio to average employee wages and salaries calculated by dividing total fees paid to President and CEO during financial year 2021, 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 2021.





# PRODUCTS

A tire needs to save fuel, be produced in an environmentally safe way, reduce road wear and noise – and look good.



# SAFETY IS A PRIORITY

Safety is our first priority, both on the road and in production. Nokian Tyres 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.

Nokian Tyres is continuously improving the quality, safety and environmental friendliness of its products, services and processes. We want to empower 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.

The development and functional testing of tires' safety characteristics requires constant effort. Extreme weather phenomena caused by climate change and varying road conditions have increased the importance of safe tires even further. As a tire manufacturer, we must also ensure that the tires that we develop, produce, and market are verifiably safe to use, and that they meet the quality requirements as well as expectations of our customers and end users.

Tire development is a constant balancing between three main properties: grip, durability and rolling resistance. Enhancing one property affects other properties and may lead to diminishing their effect. Developing safety properties like the wet grip of a tire further affects the rolling resistance. Concerning sustainability, this is the dilemma in developing the perfect tire that is both A class in safety and A class in fuel efficiency, to reduce emissions from traffic.

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 save fuel, be produced in an environmentally safe way, reduce road wear and noise – and look good.

We ensure the technical quality and safety of our products by testing and studying each raw material used in tire manufacturing and by continuously improving our rubber compounds. We also use process controls 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.

## KEY MEASURES IN 2021

We developed our concept tire Green Step made almost entirely of either recycled or renewable materials. The concept tire was introduced in January 2022.

Our new goal for the winter tire safety performance level is that 100% of Nordic Hakkapeliitta winter car and SUV tires fulfill the new 2021 EU ice grip criteria. In 2021, 99.5% fulfilled the criteria.

We continued researching the use of recycled carbon black but were not able to include it in a product line in 2021.

## TARGETS FOR 2022

We aim to have 10 new products included in the rolling resistance class A of EU Tyre Labeling.

We aim to include 100% of our premium tires in the best wet grip A or B class in the EU Tyre labeling (89% in 2021) by 2025\*. We report the progress annually.

We aim to increase the share of recycled or renewable materials in tires to 50% by 2030. We report the progress in selected tires\*\* annually (Status in 2021: 25%).

\* Scope: Tires in price category A and included in the EU Tyre labeling, the latest generation. Does not include Nordic winter tires.

\*\* Scope: Tires in the EU Tyre labeling classification for rolling resistance in A or B class and with ice grip marking


# 7/10

## EMPOWER THE WORLD TO DRIVE SMARTER

By offering safe, eco-friendly tires that are manufactured responsibly, we offer drivers a chance to make choices for a better future.

At Nokian Tyres' test tracks in Nokia and Ivalo in Finland, and Santa Cruz de la Zarza, Spain, we test tire behavior 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.

Our leadership and product development are guided by our [Code of Conduct](#) , the Environmental, safety and quality policy, and testing policies. We also comply with several requirements concerning noise, studs, chemicals, testing, and tire markings, among other things. Our tires sold in the EU are also included in the EU Tyre labeling. EU Tyre labeling rules help 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.

You can read more about managing sustainability in product development [here](#) .

## Developing wet grip and ice grip

Nokian Tyres participates actively in developing the EU Tyre labeling test method standards, such as wet grip and ice grip. Wet grip is a critical safety feature of a tire as it relates to how quickly a tire can stop on wet roads. The EU Tyre labeling rates the wet grip of tires from A to E: A being the shortest braking distances in the wet, E being the longest braking distance.

Wet grip is one of Nokian Tyres' R&D's continuous development targets. This is aligned with one of our material topics: traffic safety of tires. Nokian Tyres' goal for 2025 is to include 100% of the company's premium tires in the best wet grip A or B class in the EU Tyre labeling. We will report the progress annually.

The safety of winter tires is one of our top priorities in traffic safety of tires. As of May 2021, the EU Tyre labeling includes a new label for snow grip marking as well as ice grip marking. A tire that is approved for severe snow conditions has the snow grip marking, and a tire that passes the international ice grip test method has the ice grip marking on their label. Our new goal for the winter tire safety performance level is that 100%

“Wet grip is one of Nokian Tyres' R&D's continuous development targets.”



of Nordic Hakkapeliitta winter car and SUV tires fulfill the new 2021 EU ice grip criteria. In 2021, 99.5% fulfilled the criteria.

# WE DEVELOP THE ECO-FRIENDLINESS OF OUR TIRES

The use of fossil fuels accounts for most of human-generated carbon emissions. Carbon dioxide, CO<sub>2</sub>, is the most significant greenhouse gas generated by traffic. When a tire rolls against the road surface, energy is lost due mainly to heat build-up; this is referred to as the rolling resistance. The higher the rolling resistance is, the higher the fuel consumption and CO<sub>2</sub> emissions will be. Fuel consumption during driving is the single most significant environmental impact over a tire's service life.

By 2020, Nokian Tyres had reduced the rolling resistance of its product range by 8.5% on average compared to the 2013 baseline and exceeded the target set for 2020. This reduction target is no longer followed as the company set new sustainability targets for 2025.

## New goal for developing rolling resistance

Tires with low rolling resistance may save more than 0.5 liters of fuel per 100 kilometers, and thus reduce CO<sub>2</sub> emissions.

As the auto industry is going through a radical realignment, the design of tires is also shifting towards the demands of electric vehicles or EV's. The lower the rolling resistance, the further the EV can go without recharging the battery. In addition to rolling resistance, noise is also a factor

when designing tires for EV's. As the engine does not provide as much cabin noise in EV's as the fuel engines, tire noise levels are expected to be low as well.

The level of lower rolling resistance tires (class A, B, and C tires) manufactured by Nokian Tyres has settled to around 90%. The EU Tyre Label reports fuel efficiency on a scale from A to G. At the moment, class C is the most common fuel economy rating for Nokian Tyres' passenger car tires.

In 2021, Nokian Tyres set a new sustainability goal concerning rolling resistance. The company aims to further develop its work on rolling resistance by having 10 new products included in the best rolling resistance class A of the EU Tyre Label in 2022. Our goal is to have over 60 products in the best rolling resistance A class by 2025 (status in 2021: 14).

## Tire abrasion

Nokian Tyres is involved in developing a test method for an international standard to measure the tire abrasion rate. Work is progressing in ETRMA/ETRTO working groups. Tire abrasion refers to the total weight loss of the tire due to interaction with the road per unit of distance travelled. Tire abrasion will eventually be included in the EU Tyre Label.

Developing a standard to measure tire abrasion is a part of tire and road wear

particle (TRWP) mitigation. Reliable field and laboratory tests for understanding the nature, routes of entry, and harmful impacts of the particles are required because many of the current estimates are based on mathematical models and calculations.

Read more about microplastics and tires from [ETRMA's tire and road wear particles platform](#). [↗](#)

## Noise emissions

Road and tire interaction generates noise emissions, tires alone do not generate noise. The EU Tyre Labeling 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.

According to the European Tyre Manufacturers Association ETRMA, tire manufacturers have halved the noise emissions from tires in 15 years, but these efforts have been negatively affected by the trend for bigger cars with bigger tires.

Nokian Tyres is constantly developing tires with less noise emissions. The new 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.

In Hakkapeliitta 10 EV, a studded winter tire designed especially for electric vehicles, an innovation to reduce noise includes a layer of foam, which has reduced the noise both on the inside of the vehicle and on the outside.

## The most important factor

In the end, eco-friendliness in traffic comes down to a very simple fact: the driver has all the power to make a positive impact. Approximately 89% of a 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 CO<sub>2</sub> emissions from driving.

Also, adopting more eco-friendly driving practices such as constant speeds, slow acceleration and deceleration as well as best practices for optimal tire maintenance can reduce the amount of tire and road wear as well as reduce noise emissions.

# SUSTAINABLE RAW MATERIALS

Low rolling resistance alone does not define the eco-friendliness of a tire. Tires are made of over 100 different raw materials, and the sustainability of these materials is another important factor when evaluating the eco-friendliness of tires. Sustainable raw materials can be roughly divided into recycled raw materials and renewable raw materials. One approach employed is to replace non-renewable raw materials with recycled and renewable materials and thus enable more sustainable tire manufacturing.

Nokian Tyres is committed to increasing the share of renewable or recycled raw materials in its tires to 50% by 2030. As a KPI, the company selected a group of premium tires (tires in the rolling resistance class A+B, and tires with ice grip marking) and will report annually on the progress of sustainable raw material development in this product group. In 2021, the status of sustainable raw materials in this group was 25%.

Developing sustainable raw materials is something that Nokian Tyres cannot succeed in alone. To be able to increase the share of sustainable raw materials in tires, we need active collaboration with

external stakeholders and new innovations from different sectors. For example, the global research of bio-based elastomers to replace synthetic rubbers is active, but their commercial availability is still limited in the tire industry.

As the research into alternative raw materials is ongoing, the mass balance approach is relevant also in the tire industry. While we work on ways to replace fossil materials with renewable or recycled materials, the shift must be conducted in a controlled way, by gradually substituting fossil materials with alternative ones.

## Recycled materials

Nokian Tyres has been actively researching the use of recycled carbon black in tires, but the quality and availability pose challenges. Our aim was to include recycled carbon black in a commercial product line during 2021, but we were not yet able to do this as the availability and quality still poses a challenge.

Another type of recycled material for use in tires could be rubber retrieved from used tires. However, securing a stable recycled raw material has proved to be a demanding

task, as the performance between different feedstocks of used tires and their raw materials varies.

Nokian Tyres is a founding member of the Finnish Tyre Recycling, which is currently building a new recycling plant in Loppi, Finland. The new plant is expected to be ready in 2022 and operational in 2023. The plant 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% so raw material for recycled material options is readily available for various applications.

## 8/10

### SAFETY AND ECOFRIENDLINESS

Our innovations improve not only safety, but also eco-friendliness. In January we introduced our concept tire Green Step, of which 93% is either recycled or renewable raw materials. By 2030, our aim is to increase the share of either recycled or renewable materials in our tires to 50%.





### Renewable materials

Renewable raw materials are used to improve tire properties and performance, and they can modify the compound property balance at varying temperatures. The use of new raw materials requires a great deal of product development efforts and testing in order to find the best combination of properties for a tire. In materials development, the use of renewable materials must not alter a tire's safety characteristics.

Nokian Tyres was the first tire company to give up the use of harmful HA (high-aromatic) oils in production. The global research of bio-oils and bio-resins to replace the low PAH content oils is active, but their commercial availability is still limited in the tire industry. Nokian Tyres has an active role in this constantly evolving research and industrialization process. We are already using bio-oils such as canola oil and tall oil

in our rubber compounds and we continue to research them. Our work to increase the bio-oil content in our rubber compounds is aligned with our goal of increasing the share of renewable and recycled raw materials in our tires to 50% by 2030. In 2021, we more than doubled the share of bio-oils used in tire manufacturing compared to previous year.

Fillers, mainly carbon black and silica, are one of the main raw material groups in a tire. The amount of fillers is around 28% of the tire, meaning that, in theory, it should be possible to increase the bio-based portion of the tire significantly by substituting fossil-based fillers with ones from renewable sources. There are several bio-filler research programs ongoing, for instance researching materials based on forest industry side streams.

### NOKIAN TYRES' TIRE MATERIALS AND THEIR ALTERNATIVES

MATERIAL	% OF A TIRE	SOURCES	EXAMPLES
SYNTHETIC RUBBER	22	crude oil	<ul style="list-style-type: none"> <li>Needs active engagement from raw material producers.</li> <li>Mass-balance approach being discussed inside the industry</li> <li>Recycled rubber crumbs</li> </ul>
NATURAL RUBBER	22	natural rubber	<ul style="list-style-type: none"> <li>Guayule as an alternative for natural rubber which is currently cultivated in South East Asia and some parts of Africa.</li> <li>Recycled rubber crumbs</li> </ul>
FILLERS	28	silica, carbon black	<ul style="list-style-type: none"> <li>Recycled carbon black to replace fossil-based carbon black</li> <li>Active research of different biobased fillers, for instance from forest industry side stream-based materials.</li> <li>Potential to use silica produced from rice husk in some products.</li> </ul>
REINFORCEMENT MATERIALS	15	steel, textile	<ul style="list-style-type: none"> <li>Recycled steel is being used in our reinforcement materials</li> <li>Increasing the share of recycled steel in reinforcement materials is being researched.</li> <li>Researching the use of biobased or recycled sources for textiles.</li> </ul>
SOFTENERS	5	low PAH oils	<ul style="list-style-type: none"> <li>Increase bio-oil and bioresin content in tires. Canola oil and tall oil already in use, various vegetable oils researched.</li> </ul>
VULCANIZERS	6		<ul style="list-style-type: none"> <li>Reduction &amp; elimination of harmful chemicals</li> </ul>
OTHER CHEMICALS	2		<ul style="list-style-type: none"> <li>Reduction &amp; elimination of harmful chemicals</li> </ul>



” We have been testing the suitability of different guayule varieties for cultivation in central Spain, near our new test center in Santa Cruz de la Zarza.

### 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. We have been testing the suitability of different guayule varieties for cultivation in central Spain, near our new test center in Santa Cruz de la Zarza, together with local universities and farmers.

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.

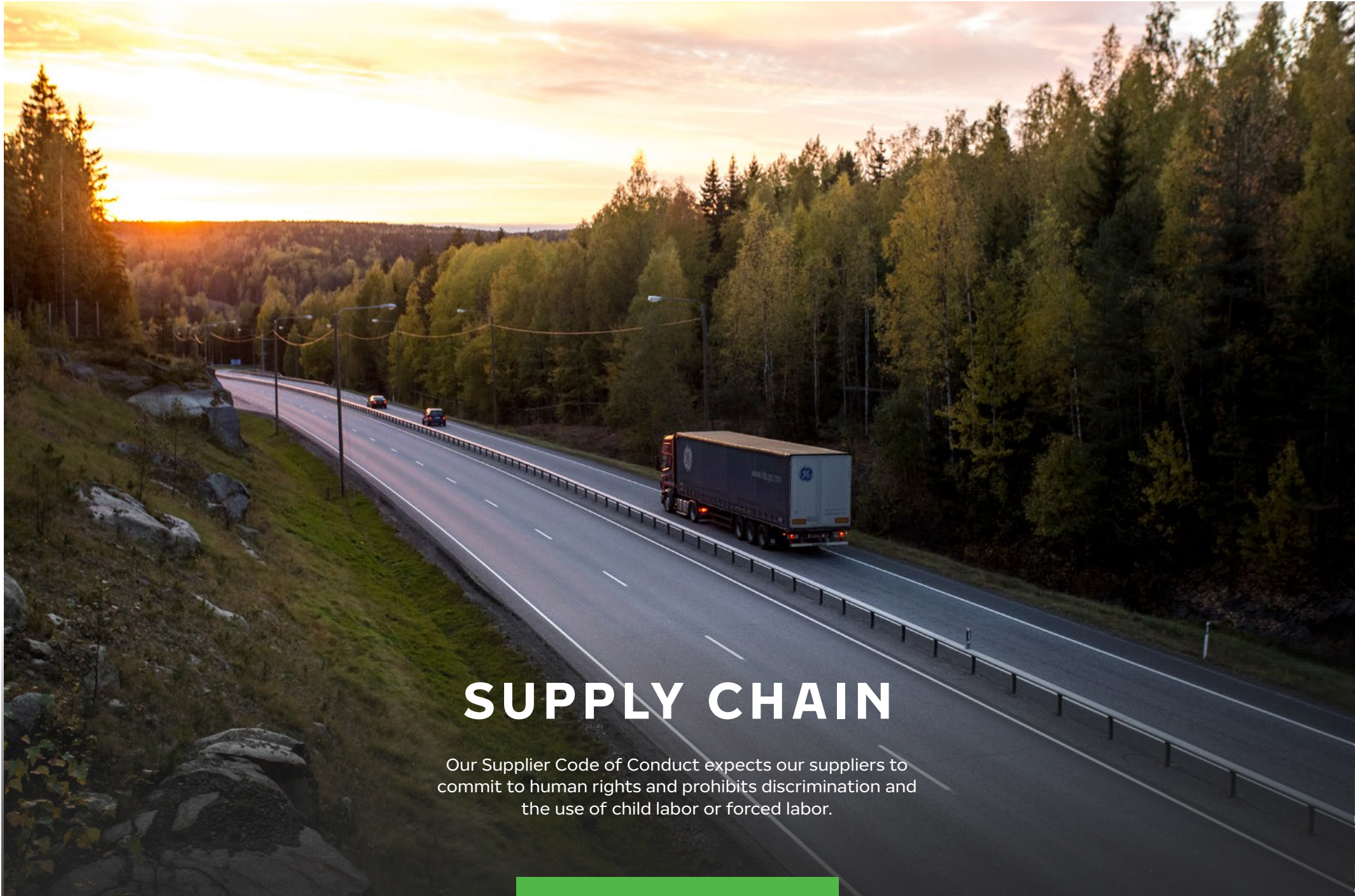
Studies have been continued mainly on the *Parthenium argentatum* variety of the plant. Researchers have developed a sustainable way of managing the plant where no synthetic biocides are needed. Experiments with cultivating the plants on poor soils in total absence of irrigation have also been promising.

In January 2021, there was unusual snowfall in the region due to the Filomena storm and the Madrid region recorded the heaviest snowfall in several decades. Despite the heavy snowfall, most of the plants survived and only some replanting was necessary. The exceptional weather phenomenon provided us with important knowledge on the survival of the plant in low temperatures and the effects it has on different varieties of the guayule plant.

As the cultivation of the plant has proved to be successful, research has been concentrated on extraction tests and studies on how the extraction could be performed in the most effective and environmentally friendly way. Also, data gathering of seed collection, cleaning, processing and seed planting optimization has been going on actively. The focus of the work is now in our own laboratory where we have been examining different options to find the most favorable compounding alternatives for several tire components.

Nokian Tyres is examining different ways of expanding the guayule research further. You can read more about our work on guayule [here](#) .





# SUPPLY CHAIN

Our Supplier Code of Conduct expects our suppliers to commit to human rights and prohibits discrimination and the use of child labor or forced labor.



# WE TRACK THE SUSTAINABILITY OF OUR SUPPLIERS

Nokian Tyres' supply chain consists of approximately 2,000 suppliers, including more than 250 raw material suppliers. Most of our supply chain suppliers are located around our factory areas (Nokia, Finland, Vsevolozhsk, Russia, and Dayton, US), and raw material suppliers are located globally.

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, we follow the UNGC's ethical principles as well as our own. We require that all our Sustainability Critical suppliers adhere to our [Supplier Code of Conduct](#) , which expects the suppliers to commit to human rights and prohibits discrimination and the use of child labor or forced labor, among other things.

In 2021, we updated our Supplier Code of Conduct. The earlier version of Nokian Tyres' Supplier Code of Conduct was from 2019 and when it reviewed, the need to update internationally recognized good practices arose. Details related to several topics were also added in the update.

Examples of new topics: local communities and surrounding societies, emergency preparedness and prevention, conflict minerals, fair competition, traceability, monitoring and auditing.

Examples of topics with more details: rights of vulnerable groups, grievance mechanisms, employee rights and diversity, and supplier impacts on environment and biodiversity.

## KEY MEASURES IN 2021

Finalized and published Nokian Tyres Sustainable Natural Rubber Policy.

Performed sustainability risk mitigation actions, 100% of suppliers with identified sustainability risks have filled out the sustainability self-assessment.

Re-started audits after they were temporarily halted due to COVID-19: conducted 2 follow-up audits and 2 new sustainability audits.

Updated our Supplier Code of Conduct.

## TARGETS FOR 2022

The sustainability audit model will be updated to evaluate suppliers' alignment with the Nokian Tyres Sustainable Natural Rubber Policy.

Expected to have a record year in the quantity of natural rubber supplier sustainability audits.

New sustainability KPI: Expect a CO<sub>2</sub> emission reduction plan from at least 40 raw material and 20 transport suppliers focusing on biggest emission sources during 2022.

Expect an annual increase in the share of audited high-risk suppliers: 64% audited in 2021.

## Despite COVID-19, most of our suppliers were able to operate in a normal way



Nokian Tyres tracks the sustainability of its suppliers by conducting third-party sustainability audits, and by requiring a supplier sustainability self-assessment from all the new suppliers that are critical in terms of sustainability.

Our purchasing personnel conduct smaller-scale supplier visits that include an assessment of the working conditions. Due to COVID-19, all sustainability audits planned for 2020 had to be postponed.

We were able to continue them in 2021 and expect the year 2022 to be a record year in the number of sustainability audits.

Despite COVID-19, most of our suppliers were able to operate in a normal way and raw material availability was secured for 2021 volumes. During the year 2021, we saw some delays in deliveries as well as in transportations.

We have taken extra risk management measures to mitigate the risk in the supply chain. They include increased safety stock of certain raw materials, volume re-allocation to suppliers in lower risk areas, and active follow up of the situation.

Adrian Kaczmarczyk  
SVP, Supply Operations

All raw material suppliers must, at a minimum, have an ISO 9001 certified quality management system in place. In addition, we prefer suppliers with an ISO 14001 certified environmental management system.

In 2021, we created new KPI's to assess our sustainability risk mitigation actions in our supply chain. 100% of suppliers with identified sustainability risks have filled out the sustainability self-assessment.

Nokian Tyres has developed a classification model to assess the possible risks attached to our suppliers, globally. The model has four different categories: quality, sustainability, business/strategic criticality and safety at work.

In 2021, we created a risk mitigation plan for new suppliers that were classified as critical or medium critical in any of the four categories in the classification model.

The plan includes actions such as sustainability on-site audits, requesting a management system certification in terms of quality, environment or safety, responding to self-assessments, for example.

The procurement category managers also created risk mitigation plans for existing suppliers who have been identified as having risks. The backgrounds of all new suppliers are checked according to Nokian Tyres' Know Your Counterparty process before supplier approval.

# 9/10

### RESPONSIBLE SUPPLY CHAIN

Our climate targets include the supply chain: we expect a CO<sub>2</sub> emission reduction plan from our largest raw material and transport suppliers.



# SUSTAINABLE SOURCING OF NATURAL RUBBER

The life cycle of our tires begins in a tropical forest, probably on a small natural rubber tree farm in Malaysia or Indonesia. 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.

Natural rubber is a renewable resource and one of the main ingredients of tires. Sourcing natural rubber in a sustainable way is considered to be the most critical stage in a tire company's supply chain. 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 September 2021, Nokian Tyres adopted a Sustainable Natural Rubber Policy that is fully aligned with the policy framework of the GPSNR. The company's sustainability in natural rubber is now developed through the framework of this policy.

The policy 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 & reporting and
- driving effective implementation of all these components.

To make sure that companies have adequate support to implement these commitments, GPSNR is working on an implementation guidance document and baseline reporting requirements. Nokian Tyres has already started mapping the next steps to implement improvements along the natural rubber procurement supply chain.

Traceability of natural rubber remains problematic as the supply chain is fragmented. There are approximately 3–6 million farmers of natural rubber who collect

the milky latex or cup lumps and sell them to local dealers. More than 85% of the world's natural rubber is produced on farms smaller than two hectares in size whose daily output may be just a couple of kilograms of latex. The local dealers collect the latex from several farmers and then sell the latex forward to processing plants.

Processing plants purify the natural rubber, process it as specified, pack it for further use, and sell it to the global traders or customers. Nokian Tyres exclusively purchases rubber processed in the plants our company has approved.



## 10/10

### WE COMMIT

In 2021, we published our Sustainable Natural Rubber Policy. We are committed to improving the sustainability of the natural rubber chain, where the most vulnerable stakeholder groups concerning human rights exist.

# HUMAN RIGHTS IN THE SUPPLY CHAIN

Nokian Tyres has conducted a human rights assessment for all 32 human rights listed in the UN's document "Relationship between businesses and human rights", which was used as a normative document. The rights to health, right to privacy and right to family life were defined as being exposed to the most evident risks.

Promoting and ensuring decent work 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. Nokian Tyres is committed to conducting its business operations in a manner upholding the principles on 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.

Nokian Tyres started a partnership with an external auditor already 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. The audit model will be updated in 2022 to evaluate the suppliers' alignment with the Nokian Tyres Sustainable Natural Rubber Policy.

## Audits help improve labor rights

In 2021, Nokian Tyres was able to re-establish sustainability audits after a break due to the pandemic. The company conducted two follow-up audits and two new sustainability audits of natural rubber processing plants that are suppliers of Nokian Tyres.

The most common problem remains the same in most of the places: the recruitment of foreign workers. Foreign workers are recruited through a recruitment agency network, and the amount of recruitment costs to the employee can be significant: up to a year's salary. As the agencies are often approved by local governments, it is difficult

to improve the process. However, we require our suppliers to improve also on this issue. The suppliers have requested support from the local officials, but the progress is slow.

Another common problem is the language and contents of the employment contracts. The contract is not necessarily available in the employees' mother tongue, or the translated content differs from the original.

After the audit results from Nokian Tyres, most suppliers have introduced several different language versions of employment contracts. This shows that many things can be improved once an external party reviews the processes and indicates improvements.

” Many things can be improved once an external party reviews the processes.

# REPORTING PRINCIPLES

## Accuracy

The majority of the reported environmental data is based on measurements, with the exception of VOC and CO<sub>2</sub> emissions. VOC emissions are a combination of measurements provided by an external consultancy and our calculations. CO<sub>2</sub> emissions calculations are based on energy consumption measurements or estimations, and the calculations are made using general emission factors.

In 2021, the emission calculation of the location-based scope 2 emission calculation is based on Finland's, Russia's and the US' 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 Russia and the US, emission calculations are based on the emission factors of the purchased electricity.

Information regarding waste disposal methods and quantities is provided by the waste disposal contractors. Social data concerning our employees and top management is compiled via our HR system Workday. Safety data is compiled via our OHS system Keto.

In the 2021 sustainability report, the calculations for the transportation of raw materials have been changed to improve the accuracy by using more accurate data and less assumptions. 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 half of the transportation was by truck and half by train. Hence, the figures cannot be directly compared with the figures from 2020.

The share of haulage in the transportation of tires is based on estimates. As there are thousands of transportation lanes, the exact route can only be verified for a very small portion of the transportation. The volumes of transported tires come from our operating system.

The majority of the disclosures for economic responsibility are based on our company's financial statements, which are prepared and presented in accordance with the IFRS standards. The scope of GRI environmental responsibility is divided between our factories in Finland, Russia and the US.

The scope of GRI social disclosures is Group-wide, excluding the subcontractors if not specifically mentioned in the report. In 2021, GRI disclosures are reported using the GRI: Universal Standard 2021 update.

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 on p. 19 of this report.

## Balance

In the report, we consistently follow previously set indicators, be they favorable or unfavorable. The indicators are consistent with our mid-term and long-term sustainability targets. The emphasis has been put on topics that are material to our business.

## Clarity

We publish our Corporate Sustainability Report annually on our 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

Disclosures for our Group's environmental responsibility are mainly compiled and calculated according to the same methods as in our earlier reports. As our new factory in the US was included in figures since 2020, the report only includes figures from the US from two consecutive years. Therefore, the Group-wide figures before 2020 are not fully comparable.

Some of the sustainability indicators followed by Nokian Tyres have been changed from 2020 as new sustainability goals have been set for 2025 and beyond. The status of the previous sustainability goals was reported in Nokian Tyres' 2020 Corporate Sustainability Report. In the 'Performance in figures' section we present figures from three consecutive years, and the base year, when they are included in our mid- and long-term sustainability goals. This mainly concerns our climate-related goals.

” Nokian Tyres reports its impacts on a year-to-year basis.

### 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% 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 [Financial review / Related party transactions](#) [↗](#). The safety figures are reported according to the existing division in managing these business areas.

Reporting on the company's Drive! engagement survey has been simplified to be aligned with the global benchmarks. Nokian Tyres no longer reports the different business units or business areas, but Group level scores. The Group level score does not include BU Vianor, as their survey was conducted separately, after the winter tire season of 2021. BU Vianor's score is mentioned separately in our reporting. Also, the survey partner has changed since the previous survey. Hence, engagement index scores from previous years are not fully comparable.

As tire manufacturing is considered as having the biggest impacts environmentally in Nokian Tyres' operations, the

environmental indicators cover all three factory locations: Nokia, Finland; Vsevolozsk, Russia; and Dayton, US. The smaller units of NT Tyre Machinery and the retreading production unit in Sastamala are reported separately in the 'Performance in figures' section. Sales companies are included in the climate targets reporting but excluded from other environmental reporting as their meaning is not as significant as the factory sites. Both the environmental responsibility disclosures and supply chain disclosures exclude the Vianor service 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, but the company also addresses impacts in the long term. In 2019, we conducted a climate change workshop aligned with the recommendations of TCFD. The results were published in the 2019 sustainability report as well as on our website. In 2021, we updated our climate change related risks by conducting a scenario analysis in December. The results are presented in the Corporate Sustainability Report 2021.

### 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. The previous analysis was conducted in 2018, and in 2021, a new materiality analysis was executed by Nokian Tyres in cooperation with an independent third party.

### NOKIAN TYRES' NEW MATERIAL TOPICS ARE:

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. Traffic safety of tires

In 2020, we were the first tire company to have our climate targets officially approved by the Science Based Targets initiative. The GHG reduction targets are aligned with the United Nations Framework Convention on Climate Change, the Paris Agreement.

### Timeliness

Nokian Tyres publishes the Corporate Sustainability Report annually on its website after the financial results of Q1 but before the financial results of Q2. The reported period covers 1.1.- 31.12.2021 and is thus aligned with the company's financial reporting.

### Verifiability

The contents of the Corporate Sustainability Report for the 2021 reporting period have been verified by an independent third party. The assurance was commissioned by the executive management of Nokian Tyres plc.

# PERFORMANCE IN FIGURES

## CLIMATE AND THE ENVIRONMENT

	2015*	2019	2020	2021
<b>Emissions into the air</b>				
<b>Direct greenhouse gas emissions, Scope 1, t CO<sub>2</sub> eq</b>				
Finland	1,500	470	310	360
Russia	62,500	64,500	63,100	71,690
US			3,200	5,620
Retreading			300	320
Levvyörä			0	0
<b>Tire production total</b>	<b>64,000</b>		<b>66,610</b>	<b>77,660</b>
<b>Indirect greenhouse gas emissions (market based), Scope 2, t CO<sub>2</sub> eq</b>				
Finland	34,600	9,300	8,500	8,880
Russia	24,700	15,400	10,600	14,220
US			1,500	2,480
Retreading			940	1,110
Levvyörä			1,300	2,650
<b>Tire production total</b>	<b>59,300</b>		<b>20,600</b>	<b>25,580</b>
* base year for emission reduction targets				
<b>Indirect greenhouse gas emissions (location based), Scope 2, t CO<sub>2</sub> eq</b>				
Finland		21,400	18,000	19,500
Russia		34,300	22,200**	29,830
US			2,000	2,600
Retreading			1,000	1,080
Levvyörä			1,900	2,460
Others (own Vianor, warehouses, sales companies)		11,300	6,600	6,450
<b>Tire production total</b>			<b>42,000</b>	<b>51,930</b>
**calculations have been specified				
<b>Greenhouse gas emissions intensity ratio Scope 1 + Scope 2, t CO<sub>2</sub> eq /production t</b>				
Finland		0.19	0.24	0.17
Russia		0.53	0.57	0.5
US			3.0	0.91
Retreading			0.3	0.38
Levvyörä			0.2	0.39
<b>Tire production total</b>			<b>0.53</b>	<b>0.44</b>

	2019	2020	2021
<b>Indirect greenhouse gas emissions, Scope 3, t CO<sub>2</sub> eq</b>			
Purchased goods and services	462,600	396,600	546,400
Capital goods	n.a	n.a	n.a
Fuel and energy related activities	8,900	9,000	10,500
Upstream transportation and distribution	20,700	25,300	33,700
Waste generated in operations	1,700	1,300	1,600
Business travel	1,500	400	340
Employee commuting	1,800	2,000	1,400
Leased assets	500	540	750
Downstream transportation and distribution	44,300	31,700	43,800
Use of sold products	5,415,400	4,486,500	6,042,300
End-of-life treatment of sold products	3,200	9,800	16,100
Franchises	60	50	50
Investments	n.a	n.a	n.a
<b>Total</b>	<b>5,960,660</b>	<b>5,059,800</b>	<b>6,696,950</b>
n.a = not applicable			
<b>NOx, t</b>			
Russia	42	58	62
US		0.02	0.09
<b>SOx, t</b>			
Russia	1.8	1.0	1
US		0.04	0.18
<b>Particles, t</b>			
Finland	1.4	1.0	1
Russia	13.2	9.6	9.8
US		5.7	42.1
<b>VOC emissions, t</b>			
Finland	61	36	55
Russia	80	79	79
US		1.4	7.4
Retreading		6.7	8.4



# PERFORMANCE IN FIGURES

	2019	2020	2021
<b>Energy use</b>			
<b>Energy consumption within the organisation, TJ</b>			
Finland	624	556	682
Russia	1,510	1,468	1,640
US		120	187
Retreading		16	18
Levypyörä		40	51
<b>Energy intensity, GJ/production t</b>			
Finland	12.1	13.9	12.3
Russia	10.0	11.3	9.5
US		74.9	20.7
Retreading		4.7	4.9
Levypyörä		9.3	8.8
<b>Amount of renewable energy %</b>			
Finland	42	86	88
Russia	2.3	0	2.5
US		15	12.4
Retreading		8.5	6.5
Levypyörä		28	26
<b>Water</b>			
<b>Cooling water (surface water), Finland, 1,000 m<sup>3</sup></b>			
Withdrawal, Nokianvirta river	6,552	7,087	8,062
Discharge, Nokianvirta river	6,530	7,051	8,017
<b>Municipal water, 1,000 m<sup>3</sup></b>			
Finland	67	63	65
Russia	287	268	248
US		8.2	76
Retreading		0.5	0.4
Levypyörä		4.7	6
<b>Water discharge, sewage, 1,000 m<sup>3</sup></b>			
Finland	89	98	110
Russia	280	260	246
US		8.2	76
Retreading		0.5	0.4
Levypyörä		4.7	6
<b>Raw materials</b>			
<b>Renewable raw materials, kt</b>			
Finland	12.0	9.5	12
Russia	39	33	38
US		0.9	2

	2019	2020	2021
<b>Non-renewable raw materials, kt</b>			
Finland	43	34	46
Russia	121	103	137
US		3.1	10
<b>Percentage of materials used that are recycled input materials, %</b>			
Finland	5.6	7.1	8.1
Russia	8.7	9.0	9.1
US		7.4	11
<b>Waste</b>			
<b>Hazardous wastes, t</b>			
Finland	194	158	226
Russia	955	713	1,214
US		0	0
Retreading		0.5	0.8
Levypyörä		288	258
<b>Hazardous wastes by disposal method, Finland, %</b>			
Recycling	17.5	9.4	11.0
Incineration (mass burn)	0	0	0
Recovery as energy	82.5	90.6	89
Landfill	0	0	0
<b>Hazardous wastes by disposal method, Russia, %</b>			
Recycling	1.3	66.3	63.4
Incineration (mass burn)	2.4	2.5	0
Recovery as energy	25.1	31.2	36.6
Landfill	71.2	0	0
<b>Hazardous wastes by disposal method, Retreading, %</b>			
Recycling		0	0
Incineration (mass burn)		0	0
Recovery as energy		100	100
Landfill		0	0
<b>Hazardous wastes by disposal method, Levypyörä, %</b>			
Recycling		96.9	97.1
Incineration (mass burn)		0	0
Recovery as energy		3.1	2.9
Landfill		0	0

# PERFORMANCE IN FIGURES

	2019	2020	2021
<b>Wastes by disposal method, Finland, %</b>			
Reuse	8.2	1.8	1.0
Recycling	73.8	34.7	28.2
Composting	1.9	1.5	1.2
Recovery as energy	16.1	62	69.7
Landfill	0	0	0
<b>Wastes by disposal method, Russia, %</b>			
Reuse	5.1	8.5	6.6
Recycling	76.4	75.5	81
Composting	0	5.2	0
Recovery as energy	8.5	10	12.4
Incineration (mass burn)	0.2	0.2	0
Landfill	9.8	0.7	0
<b>Wastes by disposal method, United States, %</b>			
Reuse		0	7.7
Recycling		80.4	82.1
Composting		0	0
Recovery as energy		18.6	6.3
Incineration (mass burn)			3.7
Landfill		1	0.2
<b>Wastes by disposal method, Retreading, %</b>			
Reuse		0	0
Recycling		96.8	97.7
Composting		0	0
Recovery as energy		3.2	2.3
Landfill		0	0
<b>Wastes by disposal method, Levypyörä, %</b>			
Reuse		1.5	0.6
Recycling		96.5	97.4
Composting		0	0
Recovery as energy		0.4	0.8
Landfill		1.5	1.2
<b>Total waste by disposal method, FI + RUS + US</b>			
Reuse			
t	1,000	850	1,036
%	6.1	5.9	5.5
Recycling			
t	12,400	9,300	12,900
%	75.5	64.2	68.8
Composting			
t	103	540	51.5
%	0.6	3.7	0.3
Recovery as energy			
t	1,800	3,700	4,600
%	11	25.5	24.6

	2019	2020	2021
<b>Incineration (mass burn)</b>			
t	23	18	150
%	0.1	0.1	0.8
<b>Landfill</b>			
t	1,100	72	6.3
%	6.6	0.5	0
<b>Total waste amount</b>			
t	16,430	14,480	18,780
<b>Amount of wastes, FI, RUS and US</b>			
<b>Utilization, %</b>			
Finland	100	100	100
Russia	90	99	100
US		99	96
<b>Utilized wastes, t</b>			
Finland	5,400	4,100	4,440
Russia	10,000	9,100	10,320
US		1,100	3,860
<b>Landfilling, t</b>			
Finland	0	0	0
Russia	1,100	80	0
US		10	6.3
<b>Total energy consumption, TJ</b>			
<b>Electricity</b>			
Finland	274	251	292
Russia	1,007	1,048	1,111
US		60	82.5
Retreading		3.8	4.1
Levypyörä		16	19.1
<b>Heating</b>			
Finland	101	100	137.9
Russia	97	72.4	83.2
US		13	10
Retreading		5.4	1.4
Levypyörä		24	31.8
<b>Steam</b>			
Finland	250	204	251.7
Russia	406	347.6	445.3
US		47	93.6
Retreading		7.6	12.97
Levypyörä		0	0

# PERFORMANCE IN FIGURES

## PEOPLE

### DRIVE! PERSONNEL SURVEY (ENGAGEMENT INDEX)

	2018	2019	2021*
Nokian Tyres Group, %	76	77	76**

\* Drive! survey not conducted in 2020, instead we conducted global pulse surveys

\*\* BU Vianor not included due to survey being conducted separately after winter tire season; their score was 75

### 96.3% OF NOKIAN TYRES EMPLOYEES TOOK PART IN PEOPLE REVIEW PROCESS

	2015	2016	2017	2018	2019	2020*	2021
Nokian Tyres Group, %	82.8	86.0	83.4	82.2	92.2	93.0	96.3

\*Not including Levvyyörä Oy which was integrated to Nokian Tyres people processes in stages during 2020

### ABSENTEEISM BY COMPANY\*

	Nokian Tyres Finland				Nokian Tyres Russia		Vianor Nordic				
	Nokian Tyres (FI)	Nokian Heavy Tyres	NT Tyre Machinery	Levvyörä	OOO Nokian Shina	OOO Nokian Tyres	Nordic Wheels AB	Vianor Holding Oy	Vianor Oy	Vianor AB	Vianor AS
Sick absences % (total)	2.8	5.0	7.0	4.2	2.4	8.4	0.0	0.6	4.1	4.4	4.6

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

### ACCIDENT FREQUENCY

	2017	2018	2019	2020	2021
<b>Lost time Accident frequency (LTIF) *</b>					
Nokian Tyres Finland	8.6	5.3	3.7	3.4	3.1
Nokian Tyres Russia	3.2	5.0	2.0	1.0	3.0
Nokian Tyres US			1.6	1.7	3.5
Vianor	12.6	15.0	7.8	7.1	6.5
<b>NT Group</b>	<b>7.5</b>	<b>8.3</b>	<b>4.3</b>	<b>3.7</b>	<b>4.1</b>

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

	2017	2018	2019	2020	2021
<b>Recordable Accident Frequency (rec. F)*</b>					
Nokian Tyres Finland	12.6	8.7	8.3	6.8	6.3
Nokian Tyres Russia	3.9	5.3	4.0	2.1	4.4
Nokian Tyres US			6.2	3.5	8.7
Vianor	19.5	21.6	13.9	9.8	12.0
<b>NT Group</b>	<b>11.2</b>	<b>11.6</b>	<b>8.2</b>	<b>5.8</b>	<b>7.4</b>

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

	2017	2018	2019	2020	2021
<b>Recordable accidents</b>					
Nokian Tyres Finland	24	18	18	16	14
Nokian Tyres Russia	11	16	12	6	13
Nokian Tyres US			4	2	5
Vianor	62	72	48	33	37
<b>NT Group</b>	<b>97</b>	<b>106</b>	<b>82</b>	<b>57</b>	<b>69</b>

**Occupational illness frequency OIFR\***

<b>NT Group</b>		1.4	1.2	0.7	0.2
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\* Work-related ill health cases / 1,000,000 hours worked

# PERFORMANCE IN FIGURES

## TOTAL NUMBER AND RATE OF NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER BY GENDER, AGE GROUP, AND REGION

	Nordics	Russia and Asia	Other Europe	North America	Total
<b>Total number of new employees</b>	<b>501</b>	<b>312</b>	<b>49</b>	<b>239</b>	<b>1,101</b>
Number of women	79	61	21	37	198
Number of men	422	251	28	202	903
Number of under 30 years old	238	174	7	95	514
Number of 30–50 years old	216	138	37	115	506
Number of over 50 years old	47	0	5	29	81
<b>New employee hires rate (Total), %</b>	<b>18.8</b>	<b>19.1</b>	<b>21.7</b>	<b>61.1</b>	<b>22.4</b>
Percentage of women, %	15.8	19.6	42.9	15.5	18.0
Percentage of men, %	84.2	80.4	57.1	84.5	82.0
Percentage under 30 years old, %	47.5	55.8	14.3	39.7	46.7
Percentage 30–50 years old, %	43.1	44.2	75.5	48.1	46.0
Percentage over 50 years old, %	9.4	0.0	10.2	12.1	7.4

Numbers based on the official headcount.

	Nordics	Russia and Asia	Other Europe	North America	Total
<b>Total number of terminated employees (fixed terms not included)</b>	<b>266</b>	<b>182</b>	<b>28</b>	<b>68</b>	<b>544</b>
Number of women	38	27	17	8	90
Number of men	228	155	11	60	454
Number of under 30 years old	44	73	3	22	142
Number of 30–50 years old	150	108	23	32	313
Number of over 50 years old	72	1	2	14	89
<b>Turnover rate (Total), %</b>	<b>10.0</b>	<b>11.2</b>	<b>12.4</b>	<b>17.4</b>	<b>11.1</b>
Percentage of women, %	14.3	14.8	60.7	11.8	16.5
Percentage of men, %	85.7	85.2	39.3	88.2	83.5
Percentage under 30 years old, %	16.5	40.1	10.7	32.4	26.1
Percentage 30–50 years old, %	56.4	59.3	82.1	47.1	57.5
Percentage over 50 years old, %	27.1	0.5	7.1	20.6	16.4

Numbers based on the official headcount.

## TOTAL WORKFORCE BY EMPLOYMENT TYPE, EMPLOYMENT CONTRACT AND REGION, BROKEN DOWN BY GENDER 2021

	Nordics	Russia and Asia	Other Europe	North America	Total
<b>Total workforce on 31.12.2021</b>	<b>2,848</b>	<b>1,701</b>	<b>226</b>	<b>434</b>	<b>5,209</b>
Women	466	262	85	75	888
Men	2,382	1,439	141	359	4,321
<b>Total number of our own employees 31.12.2021</b>	<b>2,668</b>	<b>1,630</b>	<b>226</b>	<b>391</b>	<b>4,915</b>
Women	443	258	85	67	853
Men	2,225	1,372	141	324	4,062
<b>Number of supervised workers 31.12.2021</b>	<b>180</b>	<b>71</b>	<b>0</b>	<b>43</b>	<b>294</b>
Women	23	4	0	8	35
Men	157	67	0	35	259
<b>Total number of seasonal employees in Vianor during 2021</b>	<b>1,227</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,227</b>
<b>Permanent employees 31.12.2021</b>	<b>2,471</b>	<b>1,571</b>	<b>223</b>	<b>389</b>	<b>4,654</b>
Women	406	221	83	67	777
Men	2,065	1,350	140	322	3,877
<b>Fixed-term employees 31.12.2021*</b>	<b>197</b>	<b>59</b>	<b>3</b>	<b>2</b>	<b>261</b>
Women	37	37	2	0	76
Men	160	22	1	2	185
<b>On-call employees 31.12.2021</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>
Women	8	0	0	0	8
Men	37	0	0	0	37
<b>Full-time employees 31.12.2021</b>	<b>2,536</b>	<b>1,629</b>	<b>215</b>	<b>390</b>	<b>4,770</b>
Women	411	257	74	67	809
Men	2,125	1,372	141	323	3,961
<b>Part-time employees 31.12.2021**</b>	<b>132</b>	<b>1</b>	<b>11</b>	<b>1</b>	<b>145</b>
Women	32	1	11	0	44
Men	100	0	0	1	101

\*Fixed-term employees are mainly temporary replacements (e.g. for maternity leaves), project workers and trainees. They include also on-call employees, who work on need-only basis mainly in the tire and car service chain Vianor.

\*\*Part-time workers include on-call employees, other need-only basis resources and leaves defined in local legislation (e.g. part-time childcare leaves)

Numbers based on the official headcount.

# PERFORMANCE IN FIGURES

## COMPOSITION OF GOVERNANCE BODIES AND BREAKDOWN OF EMPLOYEES PER EMPLOYEE CATEGORY ACCORDING TO GENDER AND AGE GROUP 31.12.2021

	Nordics	Russia and Asia	Other Europe	North America	Total
<b>Number of individuals within the top management</b>	<b>12</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>15</b>
Number of women	5	0	0	0	5
Number of men	7	1	2	0	10
Percentage of women, %	41.7	0.0	0.0	0.0	33.3
Percentage of men, %	58.3	100.0	100.0	0.0	66.7
Number under 30 years old	0	0	0	0	0
Number 30-50 years old	4	1	1	0	6
Number over 50 years old	8	0	1	0	9
Percentage under 30 years old, %	0.0	0.0	0.0	0.0	0.0
Percentage 30-50 years old, %	33.3	100.0	50.0	0.0	40.0
Percentage over 50 years old, %	66.7	0.0	50.0	0.0	60.0
<b>Number of white collars</b>	<b>1,195</b>	<b>514</b>	<b>222</b>	<b>147</b>	<b>2,078</b>
Number of women	318	213	85	32	648
Number of men	877	301	137	115	1,430
Percentage of women, %	26.6	41.4	38.3	21.8	31.2
Percentage of men, %	73.4	58.6	61.7	78.2	68.8
Number under 30 years old	94	67	13	17	191
Number 30-50 years old	742	419	173	86	1,420
Number over 50 years old	359	28	36	44	467
Percentage under 30 years old, %	7.9	13.0	5.9	11.6	9.2
Percentage 30-50 years old, %	62.1	81.5	77.9	58.5	68.3
Percentage over 50 years old, %	30.0	5.4	16.2	29.9	22.5
<b>Number of blue collars</b>	<b>1,461</b>	<b>1,115</b>	<b>2</b>	<b>244</b>	<b>2,822</b>
Number of women	120	45	0	35	200
Number of men	1,341	1,070	2	209	2,622
Percentage of women, %	8.2	4.0	0.0	14.3	7.1
Percentage of men, %	91.8	96.0	100.0	85.7	92.9
Number under 30 years old	317	199	0	79	595
Number 30-50 years old	782	863	2	126	1 773
Number over 50 years old	362	53	0	39	454
Percentage under 30 years old, %	21.7	17.8	0.0	32.4	21.1
Percentage 30-50 years old, %	53.5	77.4	100.0	51.6	62.8
Percentage over 50 years old, %	24.8	4.8	0.0	16.0	16.1

Numbers based on the official headcount.

<b>Composition of the Board</b>	<b>9</b>
Number of women	2
Number of men	7
Percentage of women, %	22.2
Percentage of men, %	77.8
Number under 30 years old	0
Number 30-50 years old	1
Number over 50 years old	8
Percentage under 30 years old, %	0.0
Percentage 30-50 years old, %	11.1
Percentage over 50 years old, %	88.9

Numbers based on the official headcount.

## PRODUCTS

### NOKIAN TYRES PRODUCTS IN THE ROLLING RESISTANCE A CLASS\*

	Status in 2021	Goal for 2022	Goal for 2025
NT passenger car tires with EU labeling	14	24	60

\* Tires included in the EU Tyre labeling

### PERCENTAGE OF SELECTED TIRES\* IN WET GRIP CLASS A OR B

	Status in 2021	Goal for 2025
	89	100

\* Tires in price category A and included in the EU Tyre labeling, the latest generation. Does not include Nordic winter tires.

### SHARE OF SUSTAINABLE RAW MATERIALS IN SELECTED TIRES\*

	Status in 2021	Goal for 2030
	25%	50%

\* Tires in the EU Tyre labeling classification for rolling resistance in A or B class and with ice grip marking



# GRI + UNGC CONTENT INDEX

Statement of use

Nokian Tyres has reported in accordance with the GRI Standards for the period January 1 - December 31, 2021.

GRI 1 used

GRI 1: Foundation 2021

GRI Standard	Disclosure	Location	UNGC	Omission			Additional information
				Requirement(s) omitted	Reason	Explanation	
<b>General disclosures</b>							
GRI 2: General Disclosures 2021	2-1 Organizational details	3, <a href="https://www.nokiantyres.com/company/contact/">https://www.nokiantyres.com/company/contact/</a>					
	2-2 Entities included in the organization's sustainability reporting	60					
	2-3 Reporting period, frequency and contact point	67					The report is published annually. The 2021 report published on April 6, 2022. Contact point: <a href="mailto:media@nokiantyres.com">media@nokiantyres.com</a>
	2-4 Restatements of information	50, 59-60					
	2-5 External assurance	72					
	2-6 Activities, value chain and other business relationships	3, 18, 55	1, 2, 4, 5, 10				
	2-7 Employees	42, 65-66	3, 6				
	2-8 Workers who are not employees	42, 65	3, 6				
	2-9 Governance structure and composition	Board of Directors / Nokian Tyres, <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/">https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/</a>					
	2-10 Nomination and selection of the highest governance body	<a href="https://www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/board-cg/">https://www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/board-cg/</a>					
	2-11 Chair of the highest governance body	<a href="https://www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/member/jukka-hienonen/">https://www.nokiantyres.com/company/investors/corporate-governance/board-of-directors/member/jukka-hienonen/</a>					

GRI Standard	Disclosure	Location	UNGC	Omission			Additional information
				Requirement(s) omitted	Reason	Explanation	
	2-12 Role of the highest governance body in overseeing the management of impacts	8, 12					
	2-13 Delegation of responsibility for managing impacts	8, 12-15					
	2-14 Role of the highest governance body in sustainability reporting	12					
	2-15 Conflicts of interest	Financial Statement 2021; <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/">https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/</a>					
	2-16 Communication of critical concerns	11					
	2-17 Collective knowledge of the highest governance body	8, 12, <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/">https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/</a>					
	2-18 Evaluation of the performance of the highest governance body	Corporate Governance Statement					
	2-19 Remuneration policies	45-46, <a href="https://www.nokiantyres.com/company/investors/corporate-governance/salaries-and-remunerations/">https://www.nokiantyres.com/company/investors/corporate-governance/salaries-and-remunerations/</a>					
	2-20 Process to determine remuneration	45-46, <a href="https://www.nokiantyres.com/company/investors/corporate-governance/salaries-and-remunerations/">https://www.nokiantyres.com/company/investors/corporate-governance/salaries-and-remunerations/</a>					
	2-21 Annual total compensation ratio	46		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 our company's remuneration report, hence presenting an average is in line and fitting with the approach of our remuneration report.	
	2-22 Statement on sustainable development strategy	4					
	2-23 Policy commitments	8, 10, 12-15, 39, 57-58, NT Code of Conduct, NT Sustainable Natural Rubber Policy, Environmental-, Safety- and Quality Policy	1, 2, 4, 5, 6, 10				
	2-24 Embedding policy commitments	8, 12-15, 57-58					
	2-25 Processes to remediate negative impacts	11, 27					
	2-26 Mechanisms for seeking advice and raising concerns	11, <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/">https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/</a>					
	2-27 Compliance with laws and regulations	11, 21, 25, 40, 58 <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/">https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/</a>					

GRI Standard	Disclosure	Location	UNGC	Omission			Additional information
				Requirement(s) omitted	Reason	Explanation	
	2-28 Membership associations	<a href="https://www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/">https://www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/</a>					
	2-29 Approach to stakeholder engagement	12-15, 18, 55, <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/">https://www.nokiantyres.com/company/sustainability/fundamentals/our-stakeholders-and-memberships/</a>					
	2-30 Collective bargaining agreements	42	3				
<b>Material topics</b>							
GRI 3: Material topics 2021	3-1 Process to determine material topics	12					
	3-2 List of material topics	13-15, 60	10				
<b>Material topic 1: Sustainable raw materials</b>							
	3-3 Management of material topics	13					
GRI 301: Materials 2016	301-1 Materials used by weight or volume	62					
	301-2 Recycled input materials used	33, 62	9				
GRI NT: Company and industry specific GRI	NT-1 Extent of mitigation of the environmental impacts of products and services	15, 48-51	7, 8, 9				
<b>Material topic 2: Actions to mitigate Climate Change</b>							
	3-3 Management of material topics	13					
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	29, 61	7, 8				
	305-2 Energy indirect (Scope 2) GHG emissions	29, 61	7, 8, 9				
	305-3 Other indirect (Scope 3) GHG emissions	29, 61	7, 8, 9				
	305-4 GHG emissions intensity	61	8				
	305-5 Reduction of GHG emissions	30	7, 8, 9				
	305-7 Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	61	7, 8				
GRI 302: Energy 2016	302-1 Energy consumption within the corporation	27, 62	7, 8, 9				
	302-3 Energy intensity	28, 62	7, 8, 9				

GRI Standard	Disclosure	Location	UNGC	Omission			Additional information
				Requirement(s) omitted	Reason	Explanation	
GRI NT: Company and industry specific GRI	NT-2 Reducing the rolling resistance of tires	50	9				
<b>Material topic 3: Safety and well-being at Nokian tyres</b>							
	3-3 Management of material topics	<a href="https://www.nokiantyres.com/company/sustainability/people/health-and-safety/">https://www.nokiantyres.com/company/sustainability/people/health-and-safety/</a>					
GRI 403: Occupational health and safety 2018	403-1 Occupational health and safety management system	40-41, <a href="https://www.nokiantyres.com/company/sustainability/people/health-and-safety/">https://www.nokiantyres.com/company/sustainability/people/health-and-safety/</a>	1				
	403-2 Hazard identification, risk assessment, and incident investigation	40-41	6				
	403-3 Occupational health services	<a href="https://www.nokiantyres.com/company/sustainability/people/health-and-safety/">https://www.nokiantyres.com/company/sustainability/people/health-and-safety/</a>	6				
	403-4 Worker participation, consultation, and communication on occupational health and safety	40-41	6				
	403-5 Worker training on occupational health and safety	40-41	6				
	403-6 Promotion of worker health	<a href="https://www.nokiantyres.com/company/sustainability/people/health-and-safety/">https://www.nokiantyres.com/company/sustainability/people/health-and-safety/</a>	6				
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	40-41	6				
	403-8 Workers covered by an occupational health and safety management system	40-41, <a href="https://www.nokiantyres.com/company/sustainability/people/health-and-safety/">https://www.nokiantyres.com/company/sustainability/people/health-and-safety/</a>	6				
	403-9 Work-related injuries	40-41	6				No fatalities as a result of work-related injuries.
	403-10 Work-related ill health	40-41	6				No fatalities as a result of work-related ill health.
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	<a href="#">Our way of working / Nokian Tyres</a>					
	404-2 Programs for upgrading employee skills and transition assistance programs	43-45					

GRI Standard	Disclosure	Location	UNGC	Omission			Additional information
				Requirement(s) omitted	Reason	Explanation	
	404-3 Percentage of employees receiving regular performance and career development reviews	64	6				
<b>Material topic 4: Promoting human rights in all operations</b>							
	3-3 Management of material topics	15, 39, 58					
GRI 412: Human Rights Assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments	15, 58, <a href="https://www.nokiantyres.com/company/sustainability/people/human-rights/">https://www.nokiantyres.com/company/sustainability/people/human-rights/</a>	1, 2				
	412-2 Employee training on human rights policies or procedures	8, 9, 39	1, 2				Training on human rights included in the Code of Conduct e-Learning course, also the supply chain managers are trained to categorize suppliers with tools that include human rights topics.
GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	9, 55-58	1, 2				
<b>Material topic 5: Traffic safety of tires</b>							
	3-3 Management of material topics	15, 48-49, <a href="https://www.nokiantyres.com/company/sustainability/products/labels-and-standards/">https://www.nokiantyres.com/company/sustainability/products/labels-and-standards/</a> ; <a href="https://www.nokiantyres.com/company/sustainability/products/our-test-policy/">https://www.nokiantyres.com/company/sustainability/products/our-test-policy/</a>					
GRI 416: Customer health and safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	15, <a href="https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/">https://www.nokiantyres.com/company/sustainability/fundamentals/managing-sustainability/</a>	7				
<b>Other key topics</b>							
GRI 303: Water and effluents 2018	303-3 Water withdrawal	27, 32, 62	8				
	303-4 Water discharge	27, 32, 62	8				
GRI 306: Waste 2020	306-3 Waste generated	32-34, 62-63	8				
	306-4 Waste diverted from disposal	32-34, 62-63	8				
GRI 307: Environmental compliance 2016	307-1 Non-compliance with environmental laws and regulations	11, 27, 31					



# INDEPENDENT ASSURANCE REPORT

This document is an English translation of the Finnish report

We have been engaged by the Management of Nokian Tyres plc (hereafter “Nokian Tyres”) to provide limited assurance on corporate sustainability indicators presented in Nokian Tyres’ Corporate Sustainability Report 2021 (hereafter “Corporate Sustainability Information”) for the year ended 31 Dec 2021.

## Management’s responsibilities

The Management of Nokian Tyres is responsible for the preparation and presentation of the Corporate Sustainability Information in accordance with the reporting criteria, i.e. GRI Sustainability Reporting Standards, and the information and assertions contained within it. The Management is also responsible for determining Nokian Tyres’ objectives with regard to sustainable development performance and reporting, including the identification of stakeholders and material issues, and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

## Our responsibilities

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed. We conducted our assurance engagement on the Corporate Sustainability Information in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board IAASB. That Standard requires that we plan and perform the engagement to obtain limited assurance about whether the Corporate Sustainability Information is free from material misstatement.

KPMG Oy Ab applies International Standard on Quality Control ISQC 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory

requirements.

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants IESBA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

## Procedures performed

A limited assurance engagement on Corporate Sustainability Information consists of making inquiries, primarily of persons responsible for the preparation of information presented in the Corporate Sustainability Information, and applying analytical and other evidence gathering procedures, as appropriate.

In the engagement, we have performed the following procedures, among others:

- Interviewed the members of Nokian Tyres’ senior management and relevant staff responsible for providing the Corporate Sustainability Information;
- Assessed the application of the GRI Sustainability Reporting Standards reporting principles in the presentation of the Corporate Sustainability Information;
- Assessed data management processes, information systems and working methods used to gather and consolidate the Corporate Sustainability Information;
- Reviewed the presented Corporate Sustainability Information and assessed its quality and reporting boundary definitions;
- Assessed the Corporate Sustainability Information’s data accuracy and completeness through a review of the original documents and systems on a sample basis and;
- Conducted site sessions to review the Corporate Sustainability Information on Nokian Tyres’ sites.
- Sustainability Information on three of Nokian Tyres’ sites.

The 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.

## Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and estimating such data.

## Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusions.

Based on the procedures performed and the evidence obtained, as described above, nothing has come to our attention that causes us to believe that the information subject to the assurance engagement is not prepared, in all material respects, in accordance with the GRI Sustainability Reporting Standards.

Helsinki, 5 April 2022

KPMG Oy Ab

**Mari Säynätjoki**  
Authorized Public  
Accountant

**Tomas Otterström**  
Partner, Advisory

**nokian<sup>®</sup>**  
**TYRES**

[www.nokiantyres.com](http://www.nokiantyres.com)