

The background is a wide-angle photograph of a paved road winding through a mountainous landscape. The road has white dashed lines on either side. In the distance, a runner is visible on the road. The sky is blue with scattered white clouds. The mountains are rocky with patches of snow. A large, semi-transparent circular graphic is centered over the road, containing the text 'CORPORATE SUSTAINABILITY REPORT 2018'.

**CORPORATE
SUSTAINABILITY
REPORT
2018**

**nokian[®]
TYRES**

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CORPORATE SUSTAINABILITY REPORT 2018

Nokian Tyres offers peace of mind.

Sustainability is an essential part of our daily work and leadership, which is guided by the Group strategy and values. Nokian Tyres Sustainability Road Map guides our work on sustainability. The Road Map was established in 2015 and we update it yearly.

In 2018, we conducted a sustainability survey, where our most important internal and external stakeholder groups defined their individual material topics and risks and opportunities in Nokian Tyres' sustainability. Based on the survey and our own sustainability group's analysis, we formed nine new material topics:

1. Responsibility in material choices and promoting the circular economy
2. Continuous development of the road safety of tires
3. Fighting global warming: reducing the rolling resistance of tires
4. Reducing greenhouse gas emissions from all operations – Use of renewable energy and improving energy efficiency
5. Human rights in the supply chain
6. Risk management and good governance
7. Responsible and ethical purchasing policies
8. High level of safety and health at work
9. Profitable growth and indirect economic impact

NOKIAN TYRES IN A NUTSHELL

PEACE OF MIND IN ALL CONDITIONS

Nokian Tyres develops and manufactures premium tires for people who value safety, sustainability, and innovative products. We offer peace of mind in all conditions and instill our Scandinavian heritage in every tire that we make. Our company designs tires for passenger cars, trucks, and heavy machinery and our Vianor chain provides tire and car services. In 2018, the company's net sales were EUR 1.6 billion and it employed some 4,800 people. Nokian Tyres is listed on Nasdaq Helsinki. You can read about the company's ownership structure [here](#).

OUR SUCCESS IS BUILT ON SIX DIFFERENTIATORS

1. SAFEST TIRES FOR ALL CONDITIONS

We operate within the premium passenger car tire segment and focus on the replacement tire market. We offer the world's best winter tires on all major winter tire markets. As pioneers in demanding conditions, our competitive summer tires, all-season tires, and all-weather tires take safety to a new level under all conditions.

2. CONSUMER-TRUSTED PREMIUM BRAND

Our tires are made for people who value the promise of the Nordic premium: high-tech products that are manufactured sustainably. We make good on our promise on the road, as our tires offer reliability, performance, and peace of mind from winter snowfall to heavy summer rain.

3. PREFERRED PARTNER FOR CUSTOMERS

Our partners have higher earnings potential selling our products and our customer satisfaction is high. Nokian Tyres offers premium end-to-end digital customer and consumer experiences. Our branded retail concepts support strong sell-out and deliver data, which enables us to serve our consumers better.

4. FORERUNNER IN SELECTED HEAVY TIRE PRODUCTS

In the development and manufacturing of heavy tires, we focus on carefully selected segments with high profit margins, such as tires intended for forestry, agriculture, and material handling. Our premium tires feature unique solutions that support the business of our end users, and we sell them on both the replacement and original equipment markets. We ensure the functionality of our tires by also serving our customers down in the mine or deep in the woods.

5. RESPONSIVE AND EFFICIENT SUPPLY CHAIN

We have some of the most efficient tire factories in the world. The high level of automation ensures superior productivity and product quality. Our customer-oriented supply chain ensures excellent customer service capability even during high season.

6. HIGH-PERFORMING ENGAGED TEAM

Our open and participatory company and leadership culture ensures that we work, develop, and achieve great results together. Our motivated and committed personnel have a continuous desire to develop their personal competence as well as our company as a whole.

EXCELLENT PRODUCTION AND EFFICIENT DISTRIBUTION

In 2018, Nokian Tyres' products were sold in 62 countries. Our primary brand is Nokian Hakkapeliitta. Our growth is supported by the branded distribution network, which includes the Vianor and Vianor Partner chains, Nokian Tyres Authorized Dealers (NAD) network and the N-Tyre network. Vianor's mission is to maintain Nokian Tyres' market share and to support its brand in the Nordic countries. The other purpose of our own Vianor chain is to help in the development of concepts for driving our customers' sales and to provide deeper insight about our customers' business and consumer needs.

At the end of 2018, the Vianor network included a total of 1,318 service centers in 24 countries. The NAD network operated in 26 countries with 2,162 stores, while the N-Tyre network covered 127 stores in Russia and the CIS countries.

Between 2008 and 2018 we invested approximately one billion euros in our own factories in Finland and Russia, which deliver first-class productivity and quality. Our new factory is under construction in the United States and the commercial production is expected to commence in 2020. We have our own sales companies in Finland, Sweden, Norway, Russia, Ukraine, Kazakhstan, Germany, Switzerland, the Czech Republic, Belarus, Canada, the United States, and China. We have obtained quality and environmental certifications for our production facilities in Finland and Russia as well as for the Swedish sales company.

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WE HAVE HIGH AMBITIONS FOR SUSTAINABLE GROWTH



Sustainability has been an integral part of Nokian Tyres Scandinavian values and heritage. Three years ago, we integrated it even more deeply into our daily work: we created our own sustainability road map. We set clear goals and we are happy to see some of them achieved ahead of schedule. Currently, only 195 out of 13,475 Automobiles & Parts companies have committed themselves to the principles of UNGC. We are committed and want Nokian Tyres to be seen as a sustainability benchmark in the industry.

We had a good year in 2018, achieving improved net sales and operating profit, as well as remaining on track with our corporate sustainability goals set in 2017. We received recognition for our sustainability improvements when Nokian Tyres was again selected for the Dow Jones' DJSI World sustainability index as well as for the more strictly defined DJSI Europe index. In February, we received the Silver Class distinction in the RobecoSAM Sustainability Yearbook 2019.

This international recognition shows how integrated sustainability is with our growth strategy. Another concrete example of our sustainability is our new factory, which is being built in Dayton, US. We have taken environmental and safety factors into account already in the planning phase. The new testing center in Spain, which is under construction, will be self-sufficient in energy through an environmentally friendly solar power plant on site.

WE ARE INTEGRATING UNGC PRINCIPLES AND SDG'S INTO OUR BUSINESS

Sustainability is an integral part of our everyday work and leadership, and it is at the core of our business and strategy. We have been members of the United Nations Global Compact (UNGC) initiative since 2015. At Nokian Tyres, we provide jobs and livelihoods for several thousand people, not just for our own employees, but also for our subcontractors.

In 2018, we conducted a survey to assess the most important sustainability factors for our internal and external stakeholders. Human rights in our supply chain was seen to be a key priority. Highlighting the topic is an example of our commitment to UNGC and its objectives, and we have now revised our Code of Conduct to cover sustainability in all of our procurement channels.

The use of international indicators, such as UNGC, supports our goal of improving sustainability across the tire industry. Currently, only 195 out of 13,475 Automobiles & Parts companies have committed themselves to the principles. We hope that in the future more tire companies will sign up to the Global Compact.

At Nokian Tyres, we believe that higher transparency in the industry will help stakeholders to better evaluate progress in sustainability.

WE AIM TO REACH OUR SUSTAINABILITY GOALS BY 2020

We are committed to the UN's Sustainable Development Goals (SDGs) and in 2018 we defined seven SDGs which are important for Nokian Tyres. These SDGs will provide even better guidance for our sustainable development.

We have created a sustainability road map covering seven aspects related to climate, environment, people, supply chain, economy, stakeholder engagement and products & services. We plan to reach the Group's sustainability goals by 2020.

“ We want Nokian Tyres to be seen as a sustainability benchmark in the industry.

We have already reached one of these goals in 2017. We reduced the rolling resistance of our product range by 7% compared to the 2013 baseline. This effectively lowered CO₂ emissions from traffic by 500 million kg.

In 2018, we reduced the rolling resistance of our products even further, by an average of 8% compared to 2013, resulting in a further reduction of 128 million kg of CO₂. These achievements demonstrate our determination to improve the eco-friendliness of our products, without compromising on safety.

As part of our efforts to improve supply chain sustainability, we have set a goal to audit all of Nokian Tyres' major rubber processor partners by 2020. This relates to at least 80% of our natural rubber purchasing volume.

In 2018, we audited 4 natural rubber processors, together with an external auditor, and conducted 4 follow-up audits. These audits guarantee that our requirements are followed in the best possible way, as well as providing an opportunity for the audited companies to improve their activities and occupational safety.

A high rate of waste is utilized in our production facilities: In Finland, we reached 100% utilization of all waste from sites (production and offices) and, in Russia, it was 88%. There is still room for improvement, but we are heading in the right direction.

Our customer satisfaction rates are already at a good level and we are happy to state that, in 2018, we achieved more 9 and 10 scores from our various stakeholders than in a similar survey conducted in 2017. Our Net Promoter Score (NPS) also rose further from 40 to 44.

You can read more about our sustainability goals and progress on pages 10–12 of the [Sustainability Report](#).

OUR VALUES GUIDE US IN SUSTAINABILITY

We want to act as one global team, working together and utilizing all of the expertise within the company to achieve great results. This is the way our Scandinavian values and expertise also guides us: toward growth and profitability ambitions, developing and producing the best possible tires for demanding conditions while inventing new ways to do it in an eco-friendly way. We treasure our good team spirit, wherever we work.

The importance of sustainability will continue to increase, driven by the requirements of stakeholders as well as companies' own desire to improve their activities and products. We have a long-term commitment to sustainability regarding our own products and operations as well as making a difference within the whole tire industry.

We want Nokian Tyres to be seen as a sustainability benchmark in the industry – creating added value for people, the economy, and the environment.

Hille Korhonen
President & CEO

THIS IS WHAT WE ARE PROUD OF

A SUSTAINABLE BUSINESS

IN 2018, NOKIAN TYRES WAS CHOSEN TO JOIN BOTH DOW JONES SUSTAINABILITY WORLD AS WELL AS DOW JONES SUSTAINABILITY EUROPE INDEX.

1 NEW SOLAR POWER PLANT

We have decided to build a solar power plant on the site of our new testing center in Spain.

4 FOLLOW-UP AUDITS

Reaudited natural rubber producers have made significant improvements on the weaknesses highlighted during our first sustainability audits. We have conducted sustainability audits at processing factories since 2016.

REDUCING GREENHOUSE GAS EMISSIONS

In 2018, we committed ourselves to the strict Science Based Targets program to lower greenhouse gas emissions in line with climate science.

RECYCLING

The on-site recycling rate of our factory in Finland is 100%.
When possible without weakening the quality, we use recycled material in our tires.

CLEANING ILLEGAL TIRE DUMPS IN RUSSIA

Our factory in Russia started an Eco-Challenge initiative to clean illegal tire dumps.

8% LOWER ROLLING RESISTANCE

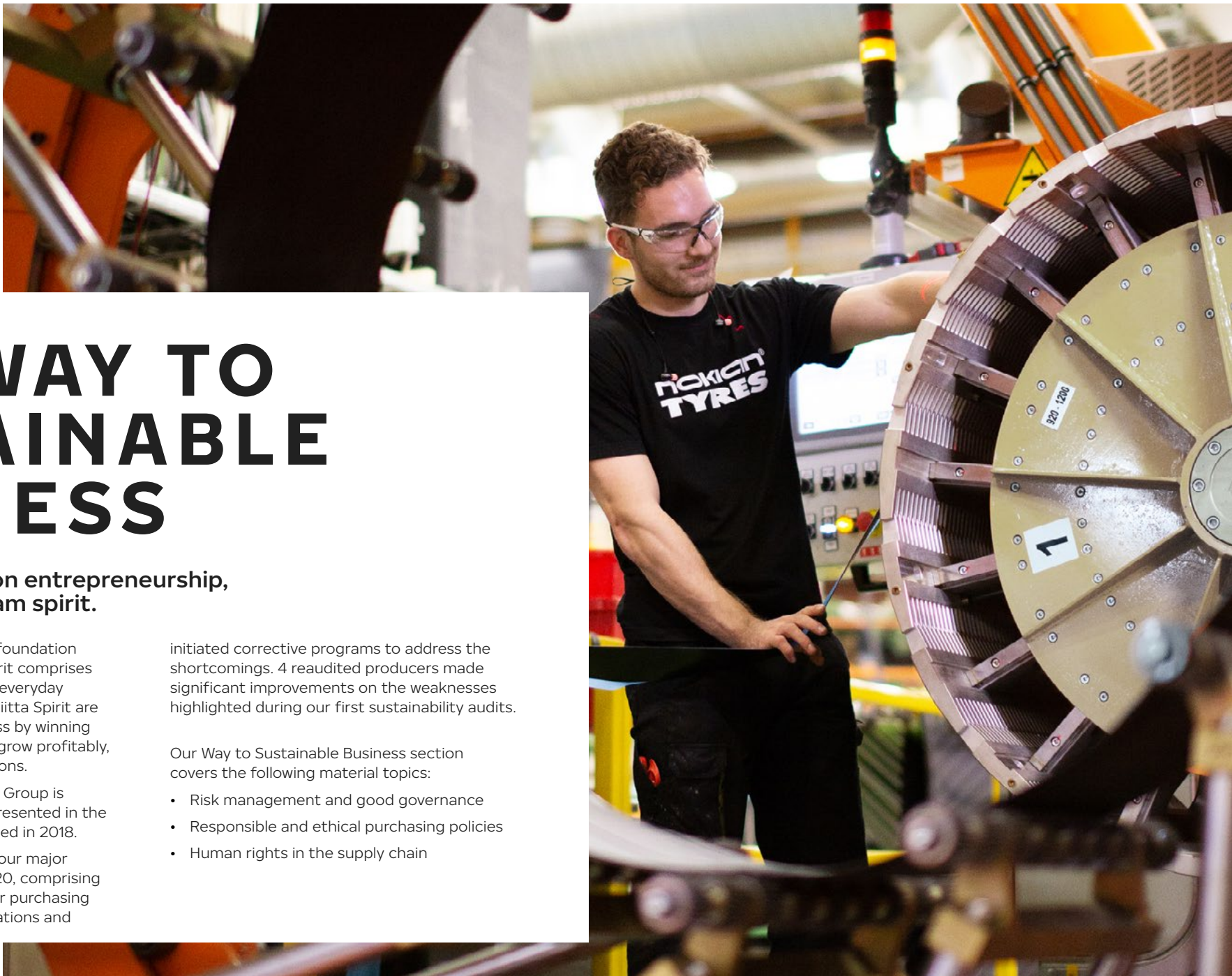
We managed to lower the rolling resistance of our tires by 8% on average between 2013 and 2018. This decreases the fuel consumption and exhaust fumes of millions of cars.

ELIMINATING HEALTH HAZARDS

Nokian Tyres has been a pioneer in eliminating possible health hazards of raw materials. We were the first in our industry to give up use of the high aromatic oils.

ROAD SAFETY

We have developed excellent grip- and handling properties for our tires to prevent road accidents.



OUR WAY TO SUSTAINABLE BUSINESS

Our business is built on entrepreneurship, inventiveness and team spirit.

Our company culture lays a solid foundation for our success. Hakkapeliitta Spirit comprises our values, goals, leadership, and everyday work. At the core of the Hakkapeliitta Spirit are our values, which drive our success by winning together, enable our business to grow profitably, and guide our day-to-day operations.

Nokian Tyres' business across the Group is guided by the ethical principles presented in the Code of Conduct, which was revised in 2018.

We have set a goal to audit all of our major rubber processor partners by 2020, comprising at least 80% of our natural rubber purchasing volume. In 2018, we audited 4 locations and

initiated corrective programs to address the shortcomings. 4 reaudited producers made significant improvements on the weaknesses highlighted during our first sustainability audits.

Our Way to Sustainable Business section covers the following material topics:

- Risk management and good governance
- Responsible and ethical purchasing policies
- Human rights in the supply chain

SUSTAINABILITY MANAGEMENT

Sustainability is a natural part of our business: it means sustainable product development, safe and eco-friendly products as well as high standards of quality in everything that we do. We ensure that our activities do not harm the environment or people. Our tires are easy on the environment and, even under difficult conditions, they will help you reach your destination.

Our business must be profitable so that we are able to offer security, work and well-being for our personnel, while also considering investors, customers, and other stakeholders. Sustainability is an essential part of our daily work and leadership, which is guided by the Group strategy and values.

The picture on the right presents our areas of sustainability as well as the essential principles, commitments, and guidelines that guide our business.

For more information about the content of the material topics, click [here](#).

OUR VALUES GUIDE US TO SUCCEED

Our company culture, the Hakkapeliitta Spirit, lays a solid foundation for our success. Hakkapeliitta Spirit comprises our values, goals, leadership, and everyday work. At the core of the Hakkapeliitta Spirit are our values, which drive our success by winning together, enable our business to grow profitably and guide our day-to-day operations.

NOKIAN TYRES' VALUES ARE:

- Entrepreneurship: We set ambitious objectives and perform our work with persistence. Customer satisfaction is our first priority.
- Inventiveness: We have the skill to survive and excel, even in the most challenging circumstances.
- Team Spirit: We work in an atmosphere of genuine joy and action. We work as a team, relying on each other.

VALUES, STRATEGY AND GOALS

Sustainability is a part of our company's culture, strategy, and goals. We manage our sustainability in five areas.

1. OUR WAY TO SUSTAINABLE BUSINESS

The principles that guide our operations throughout the Group

- Risk management and good governance
- Responsible and ethical purchasing policies
- Human rights in the supply chain

Our Group's business is guided by our Code of Conduct, whistleblowing policy; Environment, Safety and Quality policy; purchasing and communication policy, SDG's, GRI reporting and the UN Global Compact initiative.

AREAS OF OPERATIONAL SUSTAINABILITY MANAGEMENT



2. WORLD ON WHEELS

We develop and manufacture eco-friendly, safe and high-quality tires that reach their destination safely even under demanding conditions.

We emphasize the eco-friendliness of our products.



3. ECONOMY

Through profitable growth, we enable the further development of our operations and ensure financial security, work and well-being for our stakeholders.

We aim for good dividends for our shareholders.



4. PEOPLE

We develop and maintain a company culture that promotes fair and equal treatment, caring and respect.

We guarantee a safe working environment for our employees and partners.



5. PLANET

We ensure that our actions do not harm the environment or people; instead, our objective is promoting well-being in general.

We aim to be among the tire industry pioneers as regards the environmental aspects.

THE ESSENTIAL STANDARDS, GROUP POLICIES AND PROCEDURES IN TERMS OF DEVELOPING OUR OPERATIONS

Tire/vehicle safety (e.g. type approval tests), EU Tyre Labels, chemical regulation, indoor & outdoor testing to fulfil internal criteria.

Rules of the stock exchange, IFRS codes, good accounting practice, Corporate Governance system, risk management, objective decision making, credits, legal matters.

Safety and well-being, hiring, induction, people reviews, further development of personnel competence, travel, social media, privacy protection.

ISO 14001, environmental protection, control of chemicals, the Responsible Care program.

LOCAL GUIDELINES AND PROCEDURES

In addition to the categories of sustainability at Nokian Tyres, the figure visualizes the essential principles, commitments, and guidelines.

SUSTAINABILITY MANAGEMENT

“ We set ambitious goals and perform our work with persistence.

NOKIAN TYRES' STRATEGY: ENTERING OUR NEXT STAGE OF GROWTH

In November 2018, Nokian Tyres' Board of Directors decided on new financial targets for 2019–2021. In line with the strategy update earlier in 2018, Nokian Tyres has entered the next phase of growth and is looking for faster growth especially in North America and Central Europe.

Nokian Tyres' new financial targets are:

- Growing faster than the market: CAGR above 5% with comparable currencies
- Healthy profitability: EBIT at the level of 22%
- Good returns for our shareholders: Dividend above 50% of net earnings

The financial targets will guide the company in reaching its strategic ambitions, which were set in early 2018:

- We are the market leader in selected segments in the Nordic countries and Russia
- We increase our sales by 50% in Central Europe in five years
- We double our sales in North America in five years
- Our tires are available in all major winter tire markets
- We increase the EBITDA of Vianor (own) to +3% by the end of 2019
- We increase the sales of Heavy Tyres by 50% in four years

Would you like to know more about our strategic ambitions? [Here](#) you can watch Hille Korhonen, the President and CEO of Nokian Tyres, present at our Capital Markets Day in 2018.

See also our [Environmental, Safety, and Quality Policy](#) for our valued quality and sustainability promises as well as the measures for meeting them.

SUSTAINABILITY GOALS GUIDE OUR OPERATIONS

Our everyday improvement of sustainability is guided by the Group's sustainability goals and the road map plan that we update yearly. The target time for the road map projects and the Group's sustainability goals is 2020.

GROUP'S SUSTAINABILITY GOALS

The table on page 11 shows Nokian Tyres' sustainability goals for 2020 and their progress.

OUR SUSTAINABILITY ROAD MAP

In 2015, we made the Nokian Tyres Sustainability Road Map to guide our work on sustainability. The road map defines seven areas of sustainability and their related projects. The projects are led by the Corporate Sustainability working group, which is headed by the Environmental and Responsibility Manager.

The progress with the road map processes is tracked on a monthly basis. The following graph presents the areas of the road map and the related special projects.

Climate actions	Climate risks and adaptation Product development and R&D Energy efficiency Energy mix
Other environmental actions	Compliance Water efficiency Materials efficiency Dayton ramp-up
People	OHS Human rights Sustainability culture
Supply chain	Risk management Natural rubber sourcing
Products and services	Materials Micro polymers Services
Finance, Corporate Governance	Governance & Compliance Board agenda Risk management Value creation for the society
Communication & stakeholder engagement	Reporting Investor relations Climate Vianor communication

Nokian Tyres' sustainability goals for 2020 and their progress

Area of sustainability	Goal	Progress in 2018
OUR WAY TO SUSTAINABLE BUSINESS General sustainability of our business	<ul style="list-style-type: none"> We will improve our Dow Jones Sustainability Index assessment. All of our raw material suppliers will have conducted a sustainability self-assessment in 2017. We will have audited all of our major rubber processor partners (at least 80% of our natural rubber purchasing volume) by 2020. At least two thirds of our raw material suppliers will have ISO 14001 certification in 2020. 	<ul style="list-style-type: none"> We were again selected for Dow Jones' DJSI World sustainability index and to the more strictly defined DJSI Europe index. So far 86.8% of our material suppliers have responded into the self-assessment survey (85% in 2017). The audits have progressed according to plan, and we audited 4 processors in 2018 and conducted 4 follow-up audits. They showed clear improvement especially in the labor rights. In 2018, 72% of our raw material suppliers had the ISO 14001 certification, which means that we are heading in the right direction.
WORLD ON WHEELS Safe and ecofriendly products	<ul style="list-style-type: none"> Reducing the rolling resistance of the product range by 7% from 2013 to 2020, thereby creating a decrease of 500 million kg in CO₂ emissions from traffic. Each new product generation will have a lower rolling resistance compared to the previous one 	<ul style="list-style-type: none"> We reached the goal already in 2017. In 2018, we reduced the rolling resistance further, by 8% in average compared to 2013. We have launched new products with a lower rolling resistance than the previous products.
ECONOMY Profitable growth and good dividends.	<ul style="list-style-type: none"> Our financial target is to earn good returns for our shareholders: dividend above 50% of net earnings. 	<ul style="list-style-type: none"> In 2018, we paid EUR 1.56 dividend per share (EUR 1.53 in 2017).
PEOPLE Safe working environment and sustainable company culture	<ul style="list-style-type: none"> Occupational health and safety: A 70% improvement in the LTIF injury frequency rate tracking from 2015 to 2020. Everyone gets to go home healthy every day. 	<ul style="list-style-type: none"> Although new safety measures were introduced, the LTIF injury frequency rate did not improve in 2018. No severe accidents occurred in the Group during the year. During 2018 the accident frequency in the Heavy Tyres unit was halved: it came down from 9.2 to a 4.4 per million working hours.
PLANET Being a pioneer in sustainability	<ul style="list-style-type: none"> Energy efficient production: decreasing energy consumption annually by 1% from 2016 to 2020. A 20% reduction in CO₂ emissions from production (kg CO₂ kg product) from 2013 to 2020 (scope 1 and scope 2). Reducing the use of municipal water by 25% compared to the 2013 baseline (m³/product ton). Utilizing 100% of production waste and taking no production waste to landfills; Finland 2016, Russia 2020. Zero environmental accidents. 	<ul style="list-style-type: none"> The reduction of energy consumption in production was approximately 2.5% from the previous year, which means that the target was met and exceeded. The actual reduction of CO₂ emissions from production was 38% in 2018, which means that we are heading in the right direction. In 2018, the consumption of municipal water was approximately 40% lower than in 2013, which means that the target was met and exceeded. In Nokia, 100% of production waste was recycled and the recycling rate was 88% in Vsevolozhsk, which was slightly less than in 2017. No environmental accidents occurred in 2018. In 2018, we committed ourselves to the strict Science Based Targets program to lower greenhouse gas emissions in line with climate science.

SYSTEMATIC LEADERSHIP OF SUSTAINABILITY IMPROVES THE OPERATIONS AND COMPANY CULTURE

The company's sustainability activities are led by a member of the Group's management team who is ultimately responsible for meeting the goals of corporate sustainability. All supervisors' duties include day-to-day leadership of sustainability. Ambitions, targets, and other key topics are discussed by the Management Team and at least once a year by the Board of Directors.

Nokian Tyres' dedicated Corporate Sustainability working group comprises finance, purchasing, communication, environment, quality, consumer, customer service, and HR experts. The working group's main task is to design and promote measures for improving sustainability. Then, each unit's management team is responsible for implementing the measures according to their unit strategy.

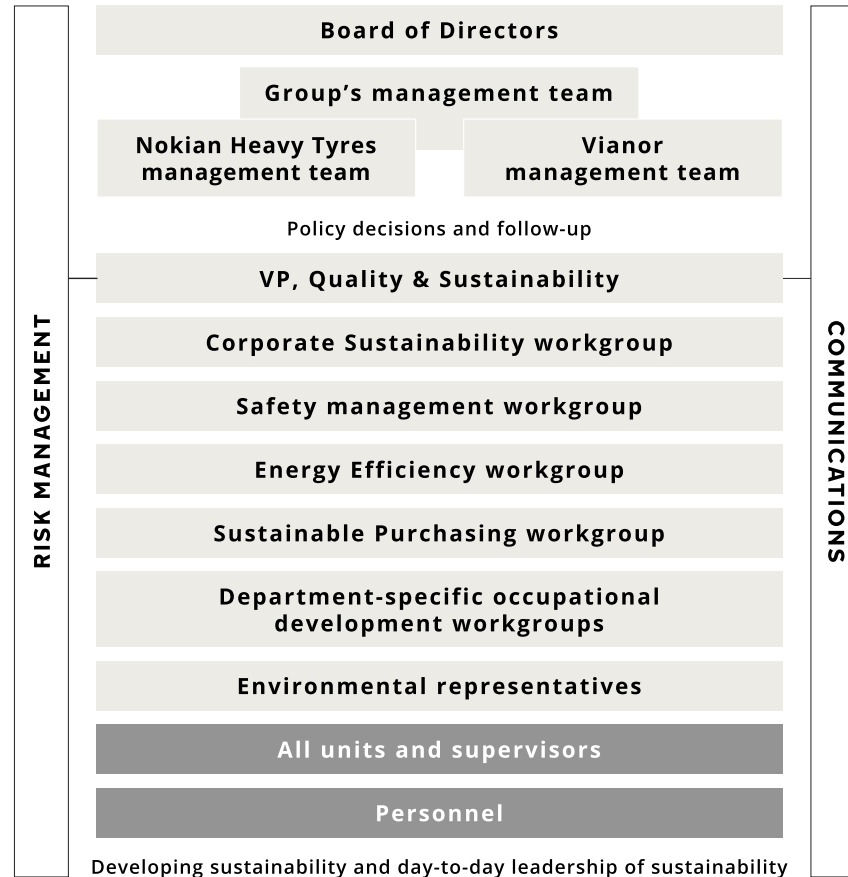
The Safety Management group, which comprises safety experts and management representatives, works on and tracks the safety aspects. Supply chain sustainability is being developed and guided by the Sustainable Purchasing working group. The Energy Efficiency working group promotes the means for improving energy efficiency throughout the group. Product Development creates safer and eco-friendlier products by reducing rolling resistance, for example.

Department-specific occupational health and safety groups, environmental representatives and other local working groups focus on improving the practical work in terms of eco-friendliness, safety, and well-being. Each Nokian Tyres' employee is responsible for working and acting ethically.

Furthermore, HR, Communication, and the Risk Management working group support the work for improving the safety culture and implementing changes in the group.

The graph on the right describes the leadership of sustainability at Nokian Tyres.

Leadership and direction of corporate sustainability within the Nokian Tyres Group



MATERIALITY ASSESSMENT AT NOKIAN TYRES

In 2018, we conducted a sustainability survey, where our most important internal and external stakeholder groups defined their individual material topics and risks and opportunities in Nokian Tyres sustainability. The survey was conducted as online and personal interviews. The interviews were conducted in eight countries. After the survey, the company's sustainability team analyzed the results and estimated Nokian Tyres' environmental, financial, and social impacts. From that process, nine topics were selected as material.

In the sustainability survey, the stakeholders raised a proposition to simplify and compact the report in order to enhance readability and make it more intelligible. This notion as a guide, our new material topics are combined from our stakeholder's views and our sustainability team's analysis. The topics are also based on risks and opportunities comments that are received in the survey.

For more information on how Nokian Tyres' impacts are positioned in our value chain, [see here](#).

NOKIAN TYRES: MATERIAL TOPICS

1. Responsibility in material choices and promoting the circular economy
2. Continuous development of the road safety of tires
3. Fighting global warming: reducing the rolling resistance of tires
4. Reducing greenhouse gas emissions from all operations – Use of renewable energy and improving energy efficiency
5. Human rights in the supply chain
6. Risk management and good governance
7. Responsible and ethical purchasing policies
8. High level of safety and health at work
9. Profitable growth and indirect economic impacts

MATERIAL TOPICS: FIVE MAIN AREAS

OUR WAY TO SUSTAINABLE BUSINESS

The Our Way to Sustainable Business category comprises three sustainability principles that are seen throughout our operations and connected to our company's strategic goals and vision.

“ We require all of our raw material suppliers to adhere to our Supplier Code of Conduct.

Human rights in the supply chain Impact: developing an open and ethically sustainable value chain

Wherever we conduct business, we follow the local laws and regulations as well as good Western business practices and the local customs. In addition to the law, our operations must follow the Group's internal rules and guidelines. We respect the privacy of our personnel, and we handle personal data in line with this principle. Employment in our Group is based on employment contracts in accordance with the local legislation and any collective agreements. Nokian Tyres' wages are always equal to or above the local statutory minimum wage. We respect our employees' right to organize and we cooperate with the appointed representatives of trade unions.

Through our commitment to our Code of Conduct, local legislation and external social responsibilities, we ensure equal opportunities for all of our employees and promote fair and equal treatment at each of our locations.

As human rights in the supply chain rose for the first time as a material topic, we are committed to finding suitable indicators to better report and manage the topic. Our procurement standards and our Code of Conduct already define the management of human rights in our supply chain, but we are now taking first steps in monitoring them more closely and measuring our impact. Information gathered from our auditing processes forms a base to more transparent reporting: we will generate indicators that represent our approach to the topic.

You can read more about our auditing process [here](#).

***Responsible and ethical purchasing policies
Impact: products that support sustainable
development, fair conduct in developing economies***

As a participant in the UN Global Compact initiative, we follow the UNGC's ethical principles as well as our own, which also address the issues of responsibility in the supply chain.

Furthermore, we require all of our raw material suppliers to adhere to our Supplier Code of Conduct. All of the raw material suppliers must, at a minimum, have an ISO 9001-certified quality management system in place. We also prefer suppliers with an ISO 14001-certified environmental management system.

One of the basic raw materials of tires is natural rubber. As an agricultural product, it is the livelihood of many families living in countries where the local legislation and working conditions have not been fully developed. We only purchase natural rubber from processors that we have approved. We supervise their activities through audits, among other things.

Read more about sustainability in our procurement [here](#).



The Code of Conduct establishes a strong foundation and we expect all our employees to follow the ethical principles of it.

“ Extreme weather phenomena caused by climate change and varying road conditions increase the importance of safe tires.

Risk management and good governance
Impact: ethically sustainable business

The basic functions of every sustainable company include risk management, which involves identifying and prioritizing the applicable risk factors and preparing for the main risks. At Nokian Tyres, Corporate Risk Management (CRM) also includes the sustainability aspects.

Nokian Tyres' business across the Group is guided by the ethical principles presented in the board-approved Code of Conduct, which was revised in 2018. The document specifies the principles for Nokian Tyres' business, instructions for various ethical issues and a procedure for all Group personnel. Furthermore, the document discusses the enforcement and supervision of the rules. While local and international documents provide additional instructions, the Code of Conduct establishes a strong foundation and we expect all employees to follow them. This ensures conducting ethical business at all levels of our operations.

An eLearning-course on all aspects of the Code of Conduct and the anti-corruption guidelines has been prepared and will be implemented on all personnel, including top management in 2019. The revised Code of Conduct has been published online on the internal company pages and all are expected to participate in the course.

We follow the law in letter and spirit in every country of operation. Our Code of Conduct provides every employee with instructions on what to do in case they see something in our operation that may conflict with the applicable legislation.

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. Based on these requirements, we aim at meeting all of the reasonable requirements that our stakeholders have on corporate sustainability. In this respect, Nokian Tyres' communication on sustainability exceeds the minimum communication requirements for public companies.

We are a member of various industrial and employer organizations. Our participation in such organizations depends on the current topics and our opportunities to offer our expertise. We are also a member of various communities and organizations that participate in the development of the legislation and political decision-making. Nokian Tyres is not involved in political activities, fundraising, or political contributions as per our Code of Conduct.

In addition to trade associations, Nokian Tyres participates in the activities of various non-profits and charities. We also offer expert services for communities free of charge. In Finland, for example, we provide the police with technical assistance in investigations of accidents that may have been caused due to the poor condition of tires and we produce various training materials on occupational safety for the rubber and tire industry together with the Centre for Occupational Safety.

WORLD ON WHEELS

Continuous development of the road safety of tires
Impact: safer transport

Product safety is the most important special area of sustainability with regard to our company as well as our customers and end users. The development and functional testing of tires' safety characteristics requires constant effort. Extreme weather phenomena caused by climate change and varying road conditions increase the importance of safe tires and drive the demand for all-season and all-weather tires. As a leading manufacturer of studded and non-studded winter tires, we have a special responsibility for

making transportation better and safer. We are responding to the changing needs by developing a more comprehensive range of non-studded winter tires and all-season tires.

Fighting global warming: reducing the rolling resistance of tires
Impact: reduced environmental impact from traffic, fighting global warming

The most significant environmental impacts during the use of a tire are caused by the vehicle's fuel consumption. Lower fuel consumption reduces the quantities of greenhouse gases released into the air. Tires with low rolling resistance can save fuel, thereby reducing CO₂ emissions. Through determined product development efforts, we have managed to reduce the rolling resistance of our tires, and our current product line includes several products with the EU tyre label's best class A rolling resistance rating. We are continuing our work on further reducing our tires' rolling resistance.

ECONOMY

Profitable growth and indirect economic impacts
Impact: investment opportunities, employee well-being, and providing added financial values for shareholders and society

In industrial operations, the positive development of productivity is a prerequisite for a company's success. In tire manufacture, capacity utilization is crucial in terms of productivity: the higher the capacity utilization is, the better the productivity becomes. The automation of machinery and process improvements also contribute to better productivity. Our indicator for measuring production efficiency is kg/effort-hour.

“ Our factory in Nokia utilizes all of the generated waste.

Furthermore, we focus our production on core products with a good margin and invest in measures for continuously improving quality, productivity, and logistics. Profitable growth requires that we continuously expand our capacity, and we invest in new production capacity according to our growth targets and the development of the market. Better productivity supports profitability that, in turn, enables higher salaries or dividends for our stakeholders, for example.

As an internationally expanding company, our impact on our surroundings is increasing and we continue to be a significant job creator and developer of local infrastructure. We support the development of local communities and the improvement of working conditions early on in our value chain, when possible.

Risk management and good governance

Impact: ethically sustainable business

See the description under Our Way to Sustainable Business on the previous page.

PEOPLE

High level of safety and health at work

Impact: arranging a safe working environment

The health, safety, and well-being of our employees and partners are important for everyone at Nokian Tyres. We are committed to arranging a safe working environment for our employees and partners and ensuring that they get to go home healthy every day. Every accident can be prevented,

and we are working toward a workplace with zero accidents. Through better working conditions and providing training for our personnel and partners, we are continuously aiming to improve workplace safety.

Our company develops and maintains a company culture that promotes fair and equal treatment and respect. Everyone contributes to our profitable growth and success regardless of their position. All of our employees have the opportunity and means to influence their own work and the working environment. Our inventiveness program is one way to support leadership and the active participation of our personnel in line with our company culture.

Producing safe and high-quality products requires a high level of professional competence. With the automation of the industrial environment, the work is becoming even more demanding. This emphasizes the need for the professional development of employees. In addition, development opportunities improve job satisfaction. We develop competence in a strategic and proactive manner that anticipates future needs.

PLANET

Responsibility in material choices and promoting the circular economy

Impact: promoting the circular economy, reducing our ecological footprint

In line with the product life cycle approach, our company pays attention to the environmental aspects in addition to safety already when buying raw materials and designing our products. We work continuously toward reducing tire noise as well as rolling resistance. Natural materials and safe, eco-friendly products that reduce fuel consumption, harmful emissions, and rolling noise will also pave the way for us in the future.

Like many other manufacturing industries, we also greatly care about biodiversity, as all the raw materials for our products come from nature. Harm to biodiversity can result in the shortage of some raw materials. We also care about maintaining the biodiversity of our local environments and preserving endangered species.

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 factory in Russia uses a closed recirculating cooling water system that minimizes water consumption.

Quantitatively, waste accounts for our highest environmental impact. Our factory in Finland utilizes all of the generated waste. The local infrastructure in Russia is not yet on par with our facilities in Finland. We are, therefore, working toward improving the safety of the waste management in our Russian factory. Our goal is for all of the waste to also be utilized in our Russian factory by 2020.

Read more about our life cycle approach in environmental protection and the tire's circular economy process from [here](#). For more information about our commitment to recycling, click [here](#).

Reducing greenhouse gas emissions from all operations -Use of renewable energy and improving energy efficiency **Impact: improving air quality in local environments, improving energy-efficiency**

We see the regulations established by the authorities as the minimum requirements. Therefore, we actively follow the development of environmental and safety regulations in Finland, the EU and Russia for anticipating the effects of the pending legislation.

Climate change is accelerated by greenhouse gas emissions, which are an essential issue for companies around the world. We are committed to reducing GHG emissions from our operations in order to combat climate change. We annually calculate the GHG emissions from our operations, including emissions from the transport of raw materials to us, and aim to reduce them systematically as planned. Furthermore, an EC directive requires corporations to carry out energy audits and other energy-efficiency measures. By increasing the proportion of renewable energy sources, we can reduce our GHG emissions from energy consumption. The biomass boiler plant commissioned in 2016 has significantly reduced our GHG emissions in Nokia.

Improved energy efficiency has also resulted in cost savings.

The senior management of the company has approved the list of the special sustainability topics as well as the GRI-compliant management system descriptions, topics, and indicators that are based on the material topics.

SCOPE AND MEASUREMENT METHODS OF THE REPORT

We publish our Corporate Sustainability Report annually on our website. This report has been prepared in accordance with the GRI Standards: Core option.

As the indicators for our Goup's environmental responsibility are compiled and calculated by the same methods as in our earlier reports, this year's results are comparable to the previous years'.

In the social responsibility indicators, the figures for the Nokian Tyres' equity-owned Vianor chain are combined to cover all of the companies in the chain, but the indicators are calculated by the same principles as in the previous reports. The reporting covers all the functions of Nokian Tyres plc, excluding the environmental responsibility indicators of Vianor service centers. The indicators for economic responsibility are based on our company's financial statement, which is prepared and presented in accordance with the IFRS standards. The indicators for environmental responsibility are divided between our factories in Finland and Russia. The EMAS reporting that was previously employed in Finland has generated the current systems for calculation and data collection.

Some of the sustainability topics that we identified go beyond our company's calculation limits. Such topics include human rights questions, whose significance is emphasized early on in the rubber purchasing chain. We do not currently employ any methods for forming clear indicators in order to track our progress with these special topics. However, through international organizations as well as our voluntary commitments and conduct, we aim to promote sustainability across the functions in our company's value chain.

REPORTING PERIOD, PUBLICATION FREQUENCY, AND EXTERNAL ASSURANCE

The contents of the Corporate Sustainability Report for the 2018 reporting period have been verified by an independent third party. Furthermore, the assurance confirms that the Finnish sustainability report matches the English original. The conclusions, findings, and recommendations are presented [here](#). The assurance was commissioned by the executive management of Nokian Tyres plc.

COMMITMENT TO EXTERNAL CORPORATE SOCIAL RESPONSIBILITY INITIATIVES AND ORGANIZATIONS

In 2018, we were again included in the Dow Jones' DJSI World sustainability index and were the second highest-ranking tire manufacturer. We were also included in the DJSI Europe, which has even tighter criteria than the DJSI World. The Dow Jones Sustainability Index (DJSI) is an annual sustainability assessment for large publicly traded companies, performed by the Swiss RobecoSAM.

We are included in the OMX GES Sustainability Finland GI index, which provides transparent, objective, and reliable information for making responsible investments. The companies are selected for the index based on their compliance with the 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.

This report is also Nokian Tyres' Communication On Progress (COP) report, which complies with the UN Global Compact (UNGC) requirements. The principles are combined with the materiality analysis and the company's value chain. For more information about the COP report, [click here](#).

We also participate in various industrial and personnel organizations whose purpose is improving work throughout the industry. Our activity in the organizations depends on the topics that they address and our opportunities to offer our expertise.

For us, the most important organizations are:

- Chemical Industry Federation of Finland
- Rubber Manufacturers' Association of Finland
- National automotive and tire industry associations in various countries
- ETRMA/European Tyre and Rubber Manufacturers' Association
- ETRTO/European Tyre and Rim Technical Organization
- STRO/Scandinavian Tire and Rim Organization
- Finnish-Russian Chamber of Commerce
- International Chamber of Commerce
- Russian Tyre Manufacturers Association
- AEB (Association of European Businesses)
- AmCham (American Chamber of Commerce in Russia)
- Tampere Business Campus
- Corporate Responsibility Network FIBS.

NOKIAN TYRES' VALUE CHAIN

FROM RAW MATERIALS TO TIRES AND ALL THE WAY TO RECYCLING: THE LIFE CYCLE IMPACTS

A tire is a truly global product whose value chain extends throughout the world: the rubber sourced from Indonesian and Malaysian rainforests is merged with industrial components in our factories, and finished tires are then shipped internationally. Extending a tire's service life by retreading is one example of the circular economy and how the product life cycle does not end with the first user.

In the diagram on the right, we have combined our material sustainability topics with our value chain. The diagram also shows how the ten UN Global Compact (UNGC) principles align with our value chain. The principles are numbered in the diagram. The impacts from the activities of Nokian Tyres and its value chain members are presented after the diagram.

1. RAW MATERIALS (UNGC principles 1, 2, 3, 4, 5, 10)

The main raw material groups in tire manufacturing are synthetic rubber, fillers, chemicals, reinforcing materials, and natural rubber, which makes up for approximately one fourth of a tire's raw materials. We use more than a hundred different raw material suppliers that all follow the same rules.

The raw materials for tires come from all over the world, and all of our suppliers are committed to our Supplier Code of Conduct, which requires compliance with international human rights, labor rights, and anti-corruption measures. All raw material suppliers must, at a minimum, have an ISO 9001-certified quality management system in place. We also prefer suppliers with an ISO 14001-certified environmental management system.

NOKIAN TYRES' VALUE CHAIN

		Natural rubber	Other raw materials	Transportation of raw materials	Subcontractors	Group functions	Society	Transportation of tires	Wholesalers	Consumers	Recycling
Our way to sustainable business	Risk management and good governance		10	10	10	3,6	●	10	10	10	
	Responsible and ethical purchasing policies	● 1,2	● 1,2	●	●	●	●	●		●	
	Human rights in the supply chain	● 1,2,4,5	● 1,2,4,5	●	● 1,2	●	●	●	●	●	
World on wheels	Continuous development of the road safety of tires					●	●		●	●	
	Fighting global warming: reducing the rolling resistance of tires					●	●			●	
Economy	Profitable growth and indirect economic impacts					●	●		●		●
People	High level of safety and health at work				●	●	●		●		
Planet	Responsibility in material choices and promoting the circular economy	●	●			● 7, 8, 9	●			●	●
	Reducing greenhouse gas emissions from all operations – use of renewable energy and improving energy efficiency					● 7,8	●				

In order to improve supply chain sustainability, we started a partnership with an external auditor in 2016. Our separate sustainability auditing process has been developed together with an expert company and it is based, among other things, on Nokian Tyres' Supplier Code of Conduct and principles that comply with the UN Global Compact goals.

We have set a goal to audit all of our major natural rubber processor partners by 2020, comprising at least 80% of our natural rubber purchasing volume. Audits support and facilitate the improvement of occupational safety and the development of activities. In addition to the audits by external parties, we track the sustainability of our raw material suppliers in connection with quality audits by our in-house personnel and raw material suppliers' self-assessments.

The cultivation of natural rubber, which mostly takes place on small farms, and its complex path to becoming a raw material for tires have a significant role in terms of the producing countries' social structure.

Here is an example of the natural rubber value chain:

1.1. Rubber production

Natural rubber forms one fourth of a tire's raw materials. As an agricultural product, its production differs from the other raw materials. Most of the natural rubber that we use comes from Malaysia and Indonesia. Natural rubber is cultivated in forests, often on small farms. 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 crude rubber. The crude rubber that Nokian Tyres purchases from traders comes from family farms and some larger plantations.

“ We have set a goal to audit all of our major natural rubber processor partners by 2020.

1.2. Wholesalers

Family farms sell crude rubber to local wholesalers. Rubber is produced on a day-to-day basis: wholesalers go around small farms to buy their daily production. To get an idea of the number of these small streams, consider that natural rubber production in Indonesia exceeded 3 million tons in 2017*. Wholesalers, in turn, sell the crude rubber to processors. (* Source: Association of Natural Rubber Producing Countries www.anrpc.org)

1.3. Processors

Processing plants purify the natural rubber, process it as specified, and pack it for further use.

1.4. Traders

From the processors, the rubber is taken to the international market via traders from who companies, including Nokian Tyres, purchase the rubber. The price of rubber is determined, among others, by the Singapore Commodity Exchange. Nowadays, even family farms are using their mobile phones to check the daily market rate.



Natural rubber forms one fourth of a tire's raw materials. Most of the natural rubber that we use comes from Malaysia and Indonesia.

2. TRANSPORTATION (UNGC 10)

Most of the raw materials for tires are transported by sea to large ports in Europe – Hamburg and Rotterdam – from where they are shipped to Finland and Russia. Both of our factories use similar raw materials that come from the same sources. This allows us to ensure the quality of our tires regardless of the site of manufacture: we market our tires everywhere in the world, and we can only guarantee the same high level of quality to consumers anywhere in the world through consistency in terms of the raw materials and manufacturing methods.

3. SUBCONTRACTORS (UNGC 1, 2, 10)

We work globally with several subcontractors in various fields, such as construction, security, cleaning, data administration, maintenance, and logistics. Especially our factories in Finland and Russia are frequented by dozens of subcontractors. All of our subcontractors agree to comply with our sustainability policy and ethical principles. Furthermore, before subcontractors' employees are allowed to start working in our factories, they must pass induction training on safe working practices. We compare and select our subcontractors carefully. Close partnership with our subcontractors ensures strong relationships that benefit everyone.

4. GROUP FUNCTIONS (UNGC 3, 6, 7, 8, 9)

We produce tires in two locations: Nokia, Finland and Vsevolozhsk, Russia. In addition, we have sales companies in our key markets, such as the Nordic countries, Central Europe, and North America. Every day, our approximately 4,800 employees contribute to our continuous development efforts with their competence and ideas according to our way of conducting sustainable business.

5. SOCIETY

Our impact is directly seen in our factory locations of Finland and Russia. There, we are locally a significant job creator and a permanent part of the surrounding community: in Finland, we offer work practice and thesis opportunities, and the Hakkapeliitta Village is a concrete example of our impact in Russia. The financial stream in the report illustrates Nokian Tyres' economic impact. Our purchases, salaries, and taxes as well as the dividends to shareholders contribute to well-being throughout the world.

6. TRANSPORTATION (UNGC 10)

The requirements of the car market and expansion of the Vianor chain have led us to change our tire logistics and consumer insight. We used to deliver tires to large wholesalers but, nowadays, distribution is divided more into smaller product lots and smaller warehouses. As the number of individual transport operations grows, logistics planning becomes increasingly important.

7. WHOLESALERS (UNGC 10)

Nokian Tyres' products are sold globally via our branded distribution network as well as through car dealerships and tire stores. Nokian Tyres' growth is supported by the branded distribution network, which includes the Vianor and Vianor Partner chains, Nokian Tyres Authorized Dealers (NAD) network and the N-Tyre network. Vianor's mission is to maintain Nokian Tyres' market share and to support its brand in the Nordic countries. The purpose of our own Vianor chain is to help in the development of concepts for driving our customers' sales and to provide deeper insight about our customers' business and consumer needs. At the end of 2018, the Vianor network included a total of 1,318 service centers in 24 countries. The NAD network operated in 26 countries with 2,162 stores, while the N-Tyre network covered 127 stores in Russia and the CIS countries.

8. CONSUMERS (UNGC 10)

Consumers – the users of our tires – are the most important link in our value chain. The purpose of the safety, premium quality and unique innovations of our tires is to ensure consumers trouble-free and safe trips under all conditions. More than 85% of a tire's carbon footprint is generated during its use, which means that our product development efforts for improving the tires' safety and reducing their environmental impacts are measured during their use by consumers.

9. RECYCLING

A part of recycled tires is utilized for their material; they are shredded or granulated to replace rock materials in various road construction and civil engineering applications. Rubber chips are light, insulate moisture and maintain their form. They support the road surface and make asphalt quieter. The flexible properties of rubber are put to use once more when it is reused as a base material for sports venues, including horseriding arenas.

Retreading is one of the best recycling methods. If the carcass of a tire is undamaged, it can be retreaded – bus and truck tires can be retreaded up to two or even 4 times.

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. As one of the original founders of Finnish Tire Recycling Ltd we are involved in their work of looking for new ways to recycle and utilize tires.

GOOD INTERACTION WITH STAKEHOLDERS

Today, with sustainability still developing in civil society and social media enabling immediate feedback and public discussion, stakeholder engagement is more important than ever. Stakeholder engagement is part of our business, and it is guided by our internal instructions on stakeholder engagement as well as our ethical guidelines. Business unit managers, the Corporate Communications and, ultimately, the President and CEO are responsible for managing stakeholder engagement.

Our stakeholder engagement follows the principle of openness and the special requirements for public companies. We aim to address the expectations of all stakeholders, in particular concerning sustainability. We do understand, however, that different stakeholder groups may have conflicting requests, especially for corporate social responsibility.

In 2018, we conducted a sustainability survey, where our most important internal and external stakeholder groups defined their individual material topics and risks and opportunities in Nokian Tyres sustainability. The table on pages 21–22 shows the survey results with the topics prioritized by stakeholder group. We have used the results for improving our sustainability efforts and defining our material sustainability topics. Read more about the materiality analysis [here](#).

Stakeholder group	Stakeholder expectations in the order of importance	Company measures
CUSTOMERS	<ul style="list-style-type: none"> • Energy efficiency • Responsibility in material choices • Continuous development of the road safety of tires • Promoting the circular economy • Human rights in the supply chain 	<ul style="list-style-type: none"> • We constantly develop new, safe, state-of-the-art products • We provide personal service and communicate openly • We conduct business in a reliable and sustainable way • We respect the cultures and values of individuals and groups and promote equal treatment
EMPLOYEES	<ul style="list-style-type: none"> • Responsibility in material choices • Continuous development of the road safety of tires • Reducing the rolling resistance of tires • Energy efficiency • Human rights in the supply chain 	<ul style="list-style-type: none"> • We promote the well-being of our personnel by providing a safe working environment that motivates them • We commit our personnel to operational planning • We develop the personal competence of our personnel • We respect the cultures and values of individuals and groups and promote equal treatment • We regularly develop our leadership and supervisor work

CUSTOMER SATISFACTION

Customer satisfaction covers Nokian Tyres' direct customers as well as the end users of our products. We aim for the continuous improvement of customer satisfaction through innovative new products, flexible and smooth logistics, regular product testing, safe and high-quality products, and excellent service. Among other things, we measure our success with customer satisfaction surveys and use their results for developing our operations further.

We aim at continuously improving customer satisfaction in the annual customer satisfaction index by one percentage point, at a minimum. Our customer satisfaction survey was conducted over the phone in 15 markets and 297 customers responded.

In 2018, overall customer satisfaction was 8.3 on a scale of 0 to 10 (8.3 in 2017). 77% of the respondents gave us an overall score of 8, 9, or 10. The Net Promoter Score (NPS), which tracks customer loyalty, grew from 40 to 44 in 2018. This year, 57% of the respondents gave us a 10 (compared to 50% in 2017). We will improve our operations further based on the feedback.

Along with our annual customer satisfaction survey, we have introduced an online survey that focuses on our supply chain, logistics, and customer service performance. The purpose of this survey is to track customer satisfaction with our service, wherein delivery reliability is one essential component. We will continue developing our operations further based on the results. Going forward, we will conduct the survey two times per year, after each peak season.

Stakeholder group	Stakeholder expectations in the order of importance	Company measures
SUBCONTRACTORS AND SUPPLIERS	<ul style="list-style-type: none"> • Continuous development of the road safety of tires • Energy efficiency • Promoting the circular economy • Responsibility in material choices • Good governance • Human rights in the supply chain 	<ul style="list-style-type: none"> • We offer strong, long-term partnerships • We conduct business in a reliable and sustainable way • We contribute to ensuring a safe working environment for subcontractors in our units
AUTHORITIES	<ul style="list-style-type: none"> • Good governance • Energy efficiency • Responsibility in material choices • Reducing greenhouse gas emissions • Responsible and ethical purchasing policies 	<ul style="list-style-type: none"> • We comply with the laws and regulations • We maintain active, regular and open communication and reporting • We support decision making • We provide up-to-date information on corporate social responsibility on our website
MEDIA	<ul style="list-style-type: none"> • Continuous development of the road safety of tires • Responsibility in material choices • Reducing the rolling resistance of tires • Reducing greenhouse gas emissions • Energy efficiency 	<ul style="list-style-type: none"> • We communicate openly and actively • Our experts are available for comments on road safety and our products • We provide up-to-date information on corporate social responsibility on our website

SUSTAINABILITY IN PROCUREMENT

The long and complex journey from raw materials to finished premium tires involves the effort and quality assurance of thousands of professionals. It is, therefore, justified to say that all of our personnel are linked to product responsibility.

FROM RAW MATERIALS TO PREMIUM TYRES

The work of Nokian Tyres' own procurement unit is guided by the internal purchasing 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, which also address the issues of responsibility in the supply chain.

Furthermore, we require all of our raw material suppliers to adhere to our Supplier Code of Conduct, which was revised in 2018. All raw material suppliers must, at a minimum, have an ISO 9001-certified quality management system in place. We also prefer suppliers with an ISO 14001-certified environmental management system. In 2018, 72% of our raw material suppliers had the ISO 14001 certification.

EXTERNAL AUDITS HELP PARTNERS IMPROVE THEIR SUSTAINABILITY

One of the basic raw materials of tires is natural rubber. As an agricultural product, it is the livelihood of many families living in countries where the local legislation and working conditions have not been fully developed. We only purchase natural rubber from processors approved by Nokian Tyres. We supervise their activities through audits, among other things.

In order to improve supply chain sustainability, we started a partnership with an external auditor in 2016. Our separate sustainability auditing process has been developed together with a consulting company and it is based, among other things, on Nokian Tyres' Supplier Code of Conduct and principles that comply with the UN Global Compact goals.

We have set a goal to audit all of our major rubber processor partners by 2020, comprising at least 80% of our natural rubber purchasing volume. The audits enable the processor companies to improve their occupational safety and develop their operations further.

In 2018, we audited 4 more locations and initiated corrective programs to address the shortcomings identified in the process. Four reaudited producers have made significant improvements on weaknesses highlighted during our first sustainability audits.

“ In order to improve supply chain sustainability, we started a partnership with an external auditor in 2016.

Here are some highlights of successful improvements:

- 3 out of 4 companies have a Health & Safety system implemented, 4th company in progress (one in 2017)
- 3 out of 4 have legal working hours, 4th company in progress (one in 2017)
- All 4 companies have created an ethical policy and 1 has trained employees accordingly (none in 2017)
- Metal scrap management implemented in all locations (one in 2017)
- In 2 companies, employment contracts translated to indigenous languages (one in 2017)
- Enhanced first-aid training
- Amended employee dormitory cleanliness

SELF-ASSESSMENTS AND QUALITY AUDITS FOCUS THE ATTENTION ON OCCUPATIONAL SAFETY, QUALITY, AND HUMAN RIGHTS

In addition to the audits by external parties, we track the sustainability of our raw material suppliers in connection with quality audits by our in-house personnel and raw material suppliers' self-assessments. The supplier self-assessments discuss sustainability topics important to Nokian Tyres, including human rights and occupational safety. The assessments also seek to determine whether the supplier has set targets for developing their operations, the progress of the goals is tracked, and they are supervising their own suppliers' activities.

During the quality audits, we review the supplier's production and evaluate the company's quality management system. The audits specifically focus on the quality of the activities and raw materials. The need to perform quality audit is based on our supplier evaluation. Furthermore, our purchasing personnel conduct smaller-scale supplier visits that include an assessment of the working conditions, among other things.



AUDITS HELPED IMPROVE LABOR RIGHTS IN THE SUPPLY CHAIN

Nokian Tyres has conducted social sustainability audits at natural rubber processing factories since 2016. In 2018, we made 4 new audits and 4 follow-up audits. They were carried out externally by a third party.

In our sustainability audits, five different areas are being investigated: human rights, labor rights, health & safety, business practices, and environment.

After the initial audits, a commonly agreed corrective plan is drawn. The follow-up audits in Malaysia and Indonesia showed significant improvement especially in labor rights: workers no longer did grueling 12–14 hour-shifts and had resting days required by the law.

The follow-up audits also showed significant improvement in creating health & safety systems as the factories have arranged education on safety issues. The recycling of metallic waste was also well organized after the initial audits. However, some

governments still lack a proper recycling program for hazardous waste.

Business practices also showed improvement: education on code of conduct had been arranged and one factory owner had also visited his suppliers to educate them on safety issues and discuss ethical business practices.

No critical risks were found concerning human rights. However, the high recruitment and work permit fees for the foreign workers in Malaysia remain problematic. Workers are forced to loan money, which creates the pressure to work excessive hours. Revisited factories are in the process of defining whether a government-run recruitment agency would be a solution to the problem and one has helped a worker with the fees.

THE PRINCIPLES AND GOALS OF SUSTAINABLE DEVELOPMENT FACILITATE THE WORK ON CORPORATE SUSTAINABILITY

In late 2015, we joined the United Nations Global Compact (UNGC) initiative as a supporting member. The initiative's principles on human and labor rights, environmental protection, and anti-corruption measures help us further improve the sustainability of our business and evaluate our activities annually.

Our company's commitment to international sustainable development goals helps us improve our corporate sustainability and support sustainable development globally.

COMMUNICATION ON PROGRESS REPORT FOR 2018

With the Communication on Progress (COP) report, we communicate how the Global Compact principles have been joined with the group's business. We have integrated the COP report in the annual Corporate Sustainability Report in line with the GRI and UNGC instructions. We estimate that this COP report meets the requirements of the "GC Active" level.

In the [message from the President & CEO](#), you can read more about the importance of the UNGC principles and our commitment to their continuous development and integration with our business.

KEY CHANGES IN 2018 TO THE MANAGEMENT SYSTEMS THAT GUIDE THE GLOBAL COMPACT PRINCIPLES

In 2018, we conducted a sustainability survey, where our most important internal and external stakeholder groups defined their individual material topics and risks and opportunities in Nokian Tyres sustainability. After the survey, company's sustainability team analyzed the results and estimated Nokian Tyres environmental, financial, and social impacts. From that process, 9 topics were selected as material and one of them is "Human rights in the supply chain".

This was the first time that human rights were selected as one of the principle topics in Nokian Tyres. This describes our commitment to the subject in a world of long supply chains and natural raw materials with its labor intense production mechanisms.

“ This was the first time that human rights were selected as one of the principle topics in Nokian Tyres.

Nokian Tyres' business across the group is guided by the ethical principles presented in the board-approved Code of Conduct, which was revised in 2018.

In order to improve supply chain sustainability, we started a partnership with an external auditor in 2016. Our separate sustainability auditing process has been developed together with a consulting company and it is based, among other things, on Nokian Tyres' Supplier Code of Conduct and principles that comply with the UN Global Compact goals.

We have set a goal to audit all of our major rubber processor partners by 2020, comprising at least 80% of our natural rubber purchasing volume. The audits enable the processor companies to improve their occupational safety and develop their operations further. In 2018, we audited 4 more locations and initiated corrective programs to address the shortcomings identified in the process. Four reaudited producers have made significant improvements on the weaknesses highlighted during our first sustainability audits.

In environmental sustainability, we committed to set up Science Based Targets (SBT) to our operations. SBT initiative is collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), and the World Wide Fund for Nature (WWF) and one of the We Mean Business Coalition commitments. The targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions in order to meet requirements of limiting GHG emissions to keep global temperature increase below 2 degrees Celsius.

In Russia, we have actively participated in discussions for improving tire recycling. In 2017, together with some other major tire manufacturers, we established the Eco tire association that manages tire recycling for actors in the tire industry. Our goal in 2018 was to achieve a 20% recycling percentage of all our tire sales in Russia, which we attained.

In 2018, the most important areas of focus in human resources were the development of a leadership and work culture, strengthening of safety culture, and steps toward global leadership practices.

To enhance our employee equal rights and non-discrimination, we introduced the Workday HR information system throughout the Group in early 2018. With the new system, we can harmonize our employment life cycle, reward policies, global workforce mobility management, and development discussions.

COP AND NOKIAN TYRES' GRI REPORTING

In the report, the GC principles are combined with our materiality analysis and value chain. This enables using the GRI Standards reporting indicators for tracking the completion of the GC principles and highlighting the areas in our business where the principles have the largest impact. The GRI Standards table presents the indicators that also track our progress with the GC principles. You can read more about the materiality analysis [here](#) and about our value chain [here](#).

SUSTAINABLE DEVELOPMENT GOALS PROVIDE A LONG-TERM PERSPECTIVE

In 2016, the United Nations published 17 Sustainable Development Goals (SDGs) for 2030 to address the global challenges that we face all around the world. They are created to promote prosperity while protecting the environment.

In 2018, we determined 7 SDG's, which are important for Nokian Tyres. These seven sustainability development goals provide a tool to examine sustainable business in the long term.

Our Seven Sustainability Development Goals



In 2018 we determined seven SDG's out of the 17 defined by the UN. These seven sustainability development goals are important for Nokian Tyres and provide a tool to examine sustainable business in the long term.

OUR SEVEN GUIDES IN SUSTAINABLE DEVELOPMENT

SDG	Targets by the UN	Our actions
<p>3 Good health and well-being</p>	<p>By 2020, halve the number of global deaths and injuries from road traffic accidents. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.</p>	<p>We improve road safety through continuous development of wet and ice grip. We were the first in our business to stop the use of high aromatic oils.</p>
<p>5 Gender equality</p>	<p>End all forms of discrimination against all women and girls everywhere. Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making.</p>	<p>We have several women in high decision-making posts, for instance our CEO, Hille Korhonen. We have updated our Code of Conduct and do regular audits to ensure our policies are followed in the supply chain as well.</p>
<p>8 Decent work and economic growth</p>	<p>Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p>The follow-up audits that we conducted in 2018 showed significant improvement especially in labor rights.</p>
<p>9 Sustainable industry, innovation and infrastructure</p>	<p>By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.</p>	<p>We have managed to reduce our yearly energy consumption by 2,5% per production ton. A scrubber was installed in the power plant that provides our energy in Nokia, Finland. Three months after the installment it had already reduced the need for fuel by 20 GWh, which equals approximately 185 truckloads of fuel.</p>
<p>11 Sustainable cities and communities</p>	<p>By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety. By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.</p>	<p>We have reduced the rolling resistance of our tires by 8% in average compared to 2013 levels, which brings lower CO₂ emissions and thus improves air quality.</p> <p>We improve road safety by producing tires with enhanced wet grip and handling.</p>
<p>12 Responsible consumption</p>	<p>By 2030, achieve the sustainable management and efficient use of natural resources.</p> <p>By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. By 2030, substantially reduce waste generation.</p>	<p>Almost 100% of used tires are recycled in the Nordic countries and around 95% in Europe.</p> <p>In Russia our factory launched an Eco-Challenge to empty illegal tire dumps. Waste management is also being developed in the natural rubber processing plants that we audit.</p>
<p>13 Climate action</p>	<p>Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.</p>	<p>In 2018, we committed ourselves to set Science Based Targets and we aim to achieve approval by 2020. We continuously improve energy efficiency in our operations and exceeded our target of reducing our yearly energy consumption by 1% per production ton, with a 2.5% reduction versus the previous year.</p>

WORLD ON WHEELS

As a tire manufacturer, we are responsible for the safety of our products.

We improve our products through continuous product development and testing because we want to improve road safety. We also work for better eco-friendliness through lowering our tires' rolling resistance.

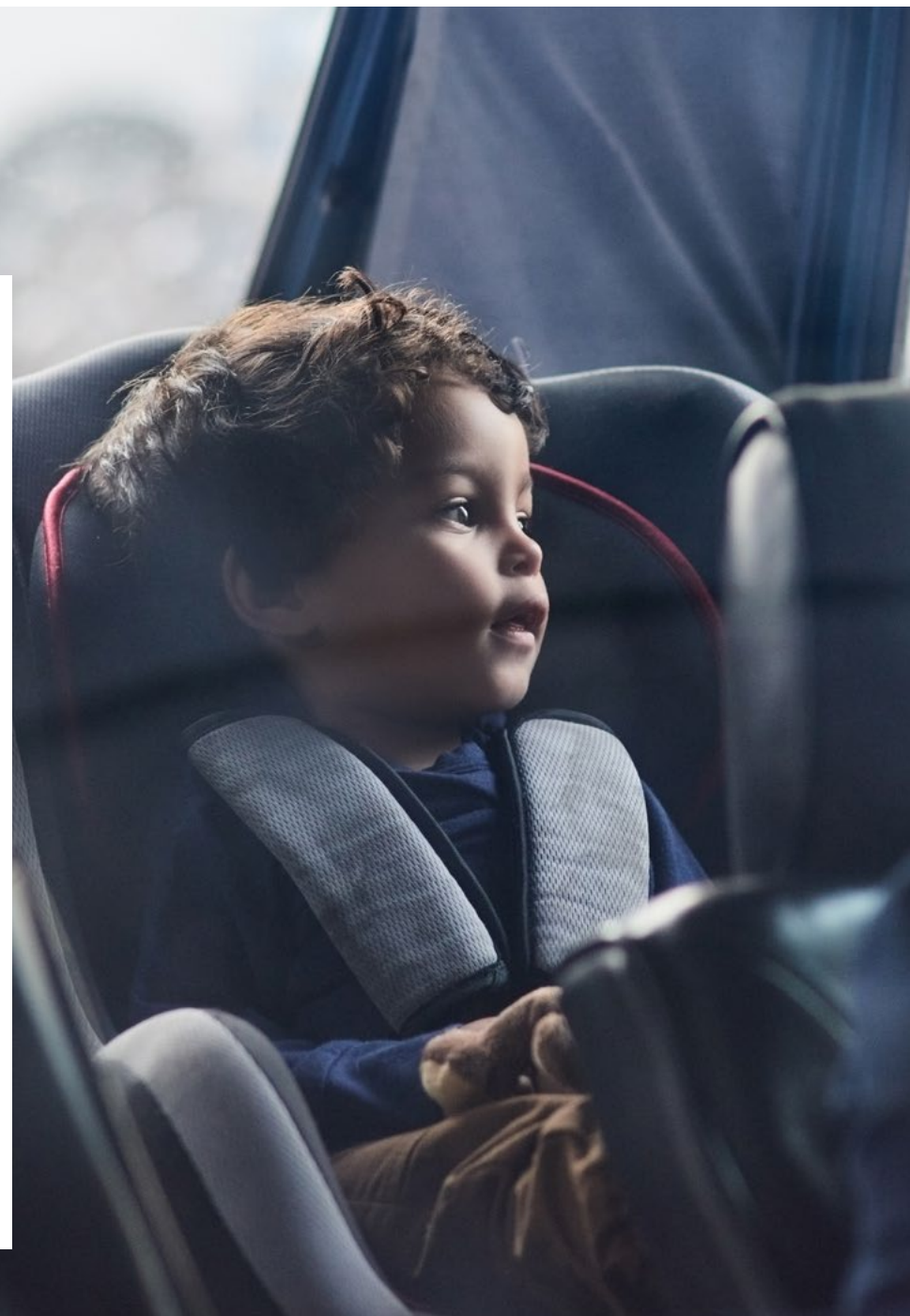
Our goal each year is to produce a new product generation with a lower rolling resistance compared to the previous one. This reduces the fuel consumption of the car and the CO₂ emissions.

The use of fossil fuels accounts for most human-generated carbon emissions. Fuel consumption during driving is the single most significant environmental impact over a tire's service life.

In 2015 we set a goal to lower the rolling resistance of our tires by 7% compared to the levels of 2013. Our aim was to do this by 2020, but we achieved our goal ahead of schedule in 2017. In 2018, we succeeded in lowering it further and our tires now have an 8% lower rolling resistance on average compared to the 2013 levels.

World on Wheels covers the following material topics:

- Fighting global warming: reducing the rolling resistance of tires
- Continuous development of the road safety of tires



MANAGEMENT OF PRODUCT ADVANCEMENTS, PRODUCT SAFETY, AND PRODUCT LIABILITY

As a tire manufacturer, we must 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. Our product development is guided by the principle of sustainable safety: the tire must be safe throughout its life cycle.

We are committed to continuous improvement. We develop advanced solutions for our products, for instance in terms of rolling resistance that impacts fuel consumption and CO₂ emissions or soil compaction in agriculture and forestry.

We ensure the technical quality of our products by testing and studying each raw material used in tire manufacture and by continuously improving our rubber compounds. We are actively looking for and testing sustainable raw materials, such as recycled materials.

Product responsibility is connected with everything we do, including product safety, quality, and compliance. Responsibility covers our processes from research and product development to testing, production, and procurement and purchasing as well as all of the stages and functions of our supply chain. Our product responsibility also includes product marketing and communication to consumers.

For information about the effects of the material topics on the Nokian Tyres' value chain and their scope, see [the materiality analysis](#).

The management of product advancements, product safety and product liability is guided by the following principles, operating models and policies:

- Our leadership and product development are guided by our ethical guidelines, 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.
- The basic principles of quality in our supply chain follow best practices based on the UNECE and EU regulations, efficiency, and functionality of the processes, safety and consistency of products as well as delivery reliability.

- Our research and development functions comply with the legislation that guides our industry, regulations and instructions by the authorities and the principles described in our ethical guidelines. Our activities are supervised by the authorities in various countries. Everything that we do is guided by the legal and regulatory requirements whose primary purpose is to ensure the safety and environmental aspects from production to the use of final products.
- Our activities are directed by work instructions and operating models, which apply to processes and work stages as well as individual tasks. Individual employees, supervisors, unit managers and top management are all responsible for our activities. We revise our instructions as necessary, e.g. the Code of Conduct was revised in 2018.
- Product responsibility is connected to unit-specific and personal performance targets. Unit-specific targets are tracked in real time, whereas personal targets are discussed annually during People Reviews.



SNAPSKAN REVEALS THE DANGERS TO ROAD SAFETY

SnapSkan is the world's first tire scanning service that is fully automatic and available at a public location to everyone. The free-of-charge digital service was developed with one goal in mind: to improve road safety for millions of people worldwide.

Tires directly impact a car's safety, but they only work if they are in good condition. Unfortunately, many drivers neglect to check the condition of their tires, and thousands of dangerous vehicles are on the roads every day. SnapSkan makes tire condition checking simple without any extra cost: by using a drive-over ramp, it scans the tread depth of the tires and sends the information to the driver's mobile device as an easy-to-read report. The service points are located in places where drivers visit frequently, such as parking lots.

The feedback from the drivers has been positive, with 80% of the customers interviewed willing to recommend the service to others.

- Many people have commented on how they didn't have any idea of how bad the condition of their tires was. If we get even one set of dangerous tires off the roads, we feel that SnapSkan has proven its efficiency as a safety-inducing service, says Ville Nikkola, the Program Manager responsible for the SnapSkan service at Nokian Tyres.

SnapSkan was first introduced in 2016. In 2018, the SnapSkan network expanded by five new service points in Finland and opened one in Oslo, Norway. In 2019, SnapSkan service is expanding further and aims to enter completely new markets too.

In 2018, over 700,000 vehicles drove through the SnapSkan service point or were scanned at Vianor. Out of all the measured cars, almost 11% drove with tires that are not safe on the roads. 4% of the cars measured from June to August still had winter tires on, although they are not safe during the summer months. In December, 4% of the drivers had not changed from summer tires to winter tires.

- These numbers remind us why we need to educate people on the importance of ensuring they use appropriate tires and the impacts of their condition on road safety: some may simply not know, and we want to change that, Nikkola says.

Our product development is also guided by the following policies, procedures, and regulations:

- UN/ECE E regulations 30, 54, 106, 109 and 117
- EC/661/2009; General Safety Regulation
- TP TC 018/2011; Technical regulation on the safety of wheeled vehicles
- Decree 408/2003 as amended by Decree 466/2009; Stud Decree
- U.S. DOT NHTSA Standards 571.119, 571.139, 575.104
- CCC Chinese Compulsory Certification standards GB/T 9743, GB/T 4502, GB/T 521
- GSO Standards 51, 52, 53, 645, 646, 647, 1783, 1784

Following product responsibility

We use the following indicators for tracking leadership and product responsibility development:

- 416-1 Assessment of the health and safety impacts of product and service categories
- Extent of mitigation of the environmental impacts of products and services (non-GRI)
- Reducing the rolling resistance (non-GRI)

Tire labels

- EC/1222/2009; European Tyre Labelling Regulation
- GSO

Chemicals Decree

- EC/1907/2006; REACH Directive

Product testing

- ISO 17025 accreditation
- Agreement on production consistency with EU Directive 2007/46/EC and the UN/ECE 1958 Agreement

FIGHTING GLOBAL WARMING: REDUCING THE ROLLING RESISTANCE OF TIRES

We improve the safety of our products through continuous product development and testing as we want to improve road safety. We also work for better eco-friendliness through lowering our tires' rolling resistance. Our goal is that each new product generation will have a lower rolling resistance compared to the previous one thereby lowering the fuel consumption of the car and the CO₂ emissions.

In 2015, we set a goal for 2020 to reduce the rolling resistance of our product range by 7% compared to the 2013 baseline, thereby creating a decrease of 500 million kg in CO₂ emissions from traffic. We reached this goal clearly ahead of schedule. We also made progress in 2018 and have reduced the rolling resistance by 8% on average since 2013.

The proportion of tires that reduce fuel consumption through low rolling resistance, tires that are in the rolling resistance category A, B or C, was 91% (90% in 2017), which translates to an annual decrease of approximately 100 million kg in CO₂ emissions. The rolling resistance category of the most common passenger car tire label in the market was E ([ETRMA analysis, October 2018](#)).

THE LOWER THE ROLLING RESISTANCE IS, THE LOWER THE FUEL CONSUMPTION WILL BE

The use of fossil fuels accounts for most of human-generated carbon emissions. Carbon dioxide is the most significant greenhouse gas generated by traffic. When a tire rolls against the road surface, the generated friction is called the rolling resistance. The higher the rolling resistance is, the higher the fuel consumption will be. The tire, therefore, has a direct effect on fuel consumption and emissions from

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

Rolling resistance may vary greatly between different tires: tires with low rolling resistance may save more than 0.6 liters of fuel per 100 kilometers and reduce CO₂ emissions by 14 g/km.

The tire's deformation and the amount of energy it requires can be influenced with structural and material choices in tire design. Examples of factors that affect energy consumption include the temperature of the tire, inflation pressure, wheel load and tire wear as well as drag and turbulence due to the driving speed.

Improving the fuel economy of tires is one of our most significant product development targets in the near future. Through determined and long-term product development, we have managed to reduce the rolling resistance of our new tires even further. We have achieved this by improving tire constructions and compounds, among other things. We are also utilizing the latest functionalized polymers to reduce hysteresis losses and rolling resistance.

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 according to the EU tyre label. Class B is the second most common class. A difference of approximately 40% in rolling resistance results, on average, in a difference of 5–6% in fuel consumption. Such a difference may occur, for example, between tires with a class A a CO₂ and class F fuel efficiency rating. A wise choice of tires and a careful driving style significantly reduce the CO₂ emissions from driving.

“ A wise choice of tires and a careful driving style significantly reduce the CO₂ emissions from driving.

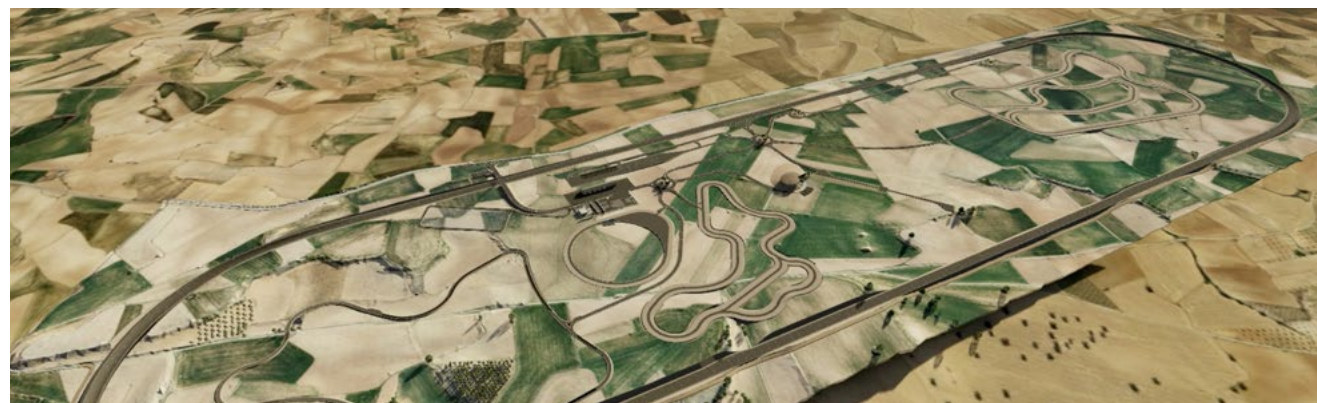
TRACKING RESPONSIBILITY – FROM RAW MATERIALS TO PREMIUM TIRES

The journey from raw materials to finished premium tires involves the effort and quality assurance of thousands of professionals. It is, therefore, justified to say that all of our personnel are linked to product responsibility, which starts from raw material purchasing.

The work of our procurement department is guided by the internal purchasing policy, which provides an overview of sustainable procurement. Based on our ethical guidelines, we have prepared the Supplier Code of Conduct. It was revised in 2018.

Among other things, the document addresses human rights, working conditions, and environmental protection. Suppliers of natural rubber are a special target group of our procurement. All of the raw materials we use in production go through an approval process. We also use process controls during production for ensuring the quality of tires. Each finished tire passes through the production quality control, which includes the tire's force variation, out-of-round and run-on measurement as well as visual inspection. When we release a new product for dispatch, we use our internal quality requirements that are in some ways stricter than the authorities' requirements, for ensuring compliance.

Safety is connected to understanding and managing the risks related to tires. We track the safety of our tires throughout the product life cycle. During product development, our tires go through wear and performance testing, for example. We wear tires completely out in order to understand their wear and any changes in their characteristics.



RENEWABLE ENERGY POWERS OUR NEW TESTING CENTER IN SPAIN

Our new testing center is currently under construction in Santa Cruz de la Zarza, Spain. The center will be used for testing summer tires with a high speed rating as well as winter tires.

The testing center is scheduled to be completed by 2020. The center employs 200 people at the construction stage and will employ some 40 employees after it is finished. It will also have a significant indirect employment impact on the transportation, service and logistics industries. The potential environmental impacts at the construction stage are minimized, among other things, by taking the nesting of birds into consideration, planting trees, and landscaping the area.

We have approved a plan to build a solar photovoltaic power plant inside the area of the testing center. In the first stage, the installed power capacity will be 500 kW. The construction of the photovoltaic plant will imply relevant energy savings to the testing center. A number of 1,600 photovoltaic panels are installed to provide the site with energy. The solar panels are oriented to maximize the energy production and will provide the testing center with all of the power that it needs. The plant has the capacity to sell surplus energy to the local electrical company. This will most likely happen during the weekends when there is little activity on the site itself.

We have also installed solar panels to help power our distribution facility located in Colchester, Vermont, USA. Currently, the total annual output of the facility is approximately 427,500 kWh, which covers over 110% of the facility's annual usage. This allows the solar array to send excess energy to the renewable power grid.

The assessments and measures are carried out by specialized and trained experts. Our activities are based on our procedures in line with our quality management system and the requirements by the authorities. We agree with the authorities on any measures that we take.

PROMOTING THE CIRCULAR ECONOMY

Our product responsibility continues until the tires are recycled for material. If tires are not appropriately recycled, they will end up in the environment or pile up in garages.

In Europe, tire manufacturers have arranged for tire recycling as a joint effort. In Finland, nearly 100% of all tires are recycled, whereas in Europe the figure is approximately 95%. In Russia, the recycling rate of tires has been quite low.

We have actively participated in the discussions for driving recycling. The discussions led to the completion of relevant legislation in 2015. Together with other large manufacturers, Nokian Tyres has established a recycling association, the EcoTyresUnion, in Russia for tire companies. In 2017, a tire recycling organization was put to use for the collection and utilization of end-of-life tires. The goal set in the recycling regulation is to achieve a 25% level in 2019 in recycling of used tires in Russia.

One challenge is the lack of tire recycling stations in Russia, which is why there are many illegal tire dumps. Our factory in Russia has launched an Eco-Challenge to empty some of these illegal dumps and to spread awareness of the problems that they pose for the environment.

AUDITS ENSURE THE QUALITY OF OPERATIONS

Our company's operations are annually audited by our customers, car manufacturers, and the parties behind various standards. In connection with the permit procedure, regulatory authorities have verified that we have the necessary prerequisites for conducting business and

that the tires we put on the market meet the applicable requirements.

The national regulatory authorities on tires and authorities regulating methods and equipment carry out periodic inspections in order to supervise and evaluate Nokian Tyres' research and work on ensuring the quality and safety of our tires. Furthermore, we use internal controls for ensuring the high quality and compliance of our operations. We systematically conduct internal audits and management reviews and continuously improve our procedures.

Our ability to comply with the regulations and take care of our contractual obligations is also evaluated each year by our customers and partners. Their own audits verify whether our tire manufacturing processes and R&D functions are appropriate.

The annual FINAS (Finnish Accreditation Service) audits of our ISO 17015 accredited Testing Laboratory ensure that we can conduct part of the regulatory testing. The type approvals of the relevant national authority are issued based on these audits. Part of regulatory testing is ordered from external, accredited laboratories. We also carry out other audits at our factories, for instance in connection with our quality and environmental management system and the Chinese CCC Certification.

Our internal audits focused on product quality and safety. This was done in preparation for the new version of the automotive industry's IATF 16 949 quality management system, which includes product safety. The internal audits reviewed the entire manufacturing process and identified the risks and the required measures. The possibility of materials mixing up was identified as the most significant risk to product quality. To address this, we implemented a system that prevents the possibility of human error in choices of materials. We also created a new product safety procedure that covers manufacturing in both of our factories. In the

“ The best progress has been made in the use of renewable raw materials with bio-based oils.

future, our factories will have appointed people responsible for product safety.

In addition to our own activities, we supervise the quality of operations and compliance concerning our subcontractors, suppliers and partners. In addition to assessments based on written surveys, we also carry out our own audit visits in order to ensure that the other parties involved in the production and the development of tire components also meet the prerequisites and the obligations set in the partner agreements. We follow up on and supervise the implementation of any necessary corrective actions. By the end of 2018, The Nokian Tyres has made 4 audits and 4 follow-up audits.

Want to read more about our processing factory audits? [Click here.](#)

WE RESEARCH RENEWABLE RAW MATERIALS AND MATERIAL EFFICIENCY

In line with our strategy, we actively look for and test renewable raw materials. Our aim is to find bio-based raw materials for various raw material groups, create eco-friendlier tires, and replace fossil raw materials. We will also reduce the use of harmful substances, thereby improving occupational safety in production. We were the first in our industry to give up the use of high aromatic oils.

Renewable raw materials are also used for improving tires' properties and performance by modifying 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.

The best progress has been made in the use of renewable raw materials with bio-based oils. They are used in order to replace synthetic oils that are based on crude oil. The winter tires that we launched in 2017 use a rubber

compound with a bio-based softener that improves the tires' safety characteristics.

For the new products of 2018, we developed new kinds of grip particles, whose raw material comes from a secondary flow in bio-industry. We conduct research in order to investigate the use of recycled rubber sourced from used tires as a replacement for fossil carbon black.

The use of renewable raw materials has not required us to change our production processes or had any significant effects on the energy consumption in production. However, renewable raw materials often increase the raw material costs of tires.

FINDING REPLACEMENT FOR NATURAL RUBBER

A new testing center is currently under construction in Santa Cruz de la Zarza, Spain. We also sponsor a project by a local university and farmers in Santa Cruz de la Zarza that tests growing guayule, a possible replacement for natural rubber in tire manufacture. The EU has included natural rubber on the list of critical raw materials. Guayule is an opportunity not only for Nokian Tyres but also for the local agriculture and industry.

27 different species of guayule that can withstand drought, cold, and heat are cultivated in a half-hectare area. For the local farmers, the new crop, which can survive in harsh conditions, is a suitable alternative for the unprofitable cereal farming. The cultivation of guayule will also develop local seedling production and the use of biomass by industry, improve logistics and create parallel industries.

PRODUCT DEVELOPMENT FOR BETTER ROAD SAFETY

At the beginning of 2018, we moved the product management and product development functions under the new Products and Technologies unit. The unit facilitates closer collaboration between the functions and brings the innovations and product development closer to consumers. The head of the unit is a member of the company's management team and reports directly to the President & CEO.

The product development organization comprises three key functions and their support departments:

1. Materials development focuses on tires and retreading materials. New raw materials and innovations are developed through research projects, often in collaboration with raw material suppliers.
2. Structural design focuses on the different tire components that affect, among others, handling, tire noise, and rolling resistance. Reducing the rolling resistance is one of our key goals in product development as low rolling resistance reduces the fuel consumption of vehicles and therefore CO₂ emissions.
3. Tread model design creates the tread models for new tires. The tread model affects the tire's aquaplaning properties, grip, and handling, for example.

These three functions are supported by the testing department and tire technology department:

The testing department tests the high-speed durability, wear durability and rolling resistance of tires in laboratory conditions. Only the best tires pass through to track testing under actual conditions. Our test drivers test the selected tires several times in order to gain as much information as possible about their performance.

The tire technology department tests new ideas for tires, provides feedback to the product development departments and takes new products to production.

The work related to product responsibility is also carried out by cross-organizational working groups, which enable us to ensure extensive competence at the development of a tire as well as during commercial production.

KEY MEASURES IN 2018

- In 2018, Nordic winter tires that deliver high ice grip amounted to 53% of our entire winter tire range (53% in 2017).
- The proportion of tires that are in the rolling resistance category A, B or C was 91% (90% in 2017).
- Of our summer tire products, 100% were in the wet grip category A, B or C (100% in 2017).
- Our premium tires with low rolling resistance and high wet grip correspond to categories A, B and C of the EU tyre label. The share of ABC tires was 66.6% of all our tires with EU labeling.
- We reduced rolling resistance by 8% on average from 2013 to 2018 (7% from 2013 to 2017).

Every product that we launched in 2018 has some innovation to improve safety and eco-friendliness. We set the targets for safety features such as wet and ice grip already at the concept stage.

RAW MATERIALS ENTER PRODUCTION THROUGH THE LABORATORY

In addition to rubber compounds, we use steel, textiles, and other reinforcing materials in tire production. Rubber compounds contain natural rubber, synthetic rubber, oils, and fillers, such as carbon black and silica as well as sulfur and various chemicals. A tire typically contains 50% polymers, 30% fillers, and 20% reinforcing materials, softeners, and chemicals.

In our production, we only use raw materials that have been approved by our laboratory. Before raw material batches can be used in rubber compounds, they must wait until our laboratory clears them for production.

PROCEDURE IN CASE OF A FAULT

We employ a quality management system for tracking our products over their entire life cycle and ensuring that all of the tire lots that are cleared for sale comply with the applicable decrees and regulations. We systematically track product quality and our quality assurance results and swiftly take the necessary measures for ensuring safety.

Our group has not had any major product recalls in more than 18 years. Furthermore, Nokian Tyres has not been involved in any legal proceedings regarding product liability.

“ Lighter rolling saves fuel and extends the range of electric vehicles.

Our systems enable us to initiate a tire recall process and communicate quickly and accurately. The procedure for taking tires off the market is specified in our quality instructions and internal instructions, which cover both customer complaints and dangers caused to customers. The essential instructions apply to handling customer complaints, limitation of sale, and recalling a sales batch. We have the capability to recall the products from the wholesale and retail level or, in addition, from end consumers and to immediately report all such events to the authorities in the countries where the affected tires are being sold. Our instructions also cover country-specific guidelines, such as the reporting required by the NHTSA in the United States. All group personnel are instructed to report any quality deviations that they become aware of.

We follow the EU product safety database that records all of the recall events in the industry. The data helps us anticipate the likelihood of similar risks in our own processes.

RIGOROUS STANDARDS GUIDE OUR INNOVATIONS

The principle of sustainable safety in our product development includes a promise of developing eco-friendly products and production technologies. The development process of a new tire takes 2 to 4 years. Consumers' tire choice should be based on the tire's suitability for their use scenario and driving style. For example, a contractor who operates heavy machinery requires a different type of tire than someone who drives a passenger car. In line with our global product policy, we offer tailored products and precision innovations for various circumstances and markets.

Our tires undergo several tests to examine the tire's behavior in a range of conditions as well as its durability and eco-friendliness. Communities, regions, and organizations (such as EU and UN) have all specified standards that a tire must meet before entering the market. Our large markets use a total of 28 tire tests that examine the properties of finished products. The amount of testing is increasing as more tests and more stringent requirements are being put in place.

The wet grip requirement in the European market tightened in 2018 and applies to all van and light truck tires on the market. In addition, stricter rolling resistance limits for passenger car, van, and light truck tires became effective in 2018. We were well prepared for them all and reached our target in lowering the rolling resistance ahead of schedule.

THE MOST SIGNIFICANT PRODUCT INNOVATIONS IN 2018

The tires that we launched in 2018 are designed to deliver better safety, driving comfort, eco-friendliness and precise handling. We also pay constant attention to ensuring that our studded winter tires cause minimal road wear.

Nokian Hakkapeliitta R3 and Nokian Hakkapeliitta R3 SUV

We launched the Nokian Hakkapeliitta R3 and R3 SUV non-studded winter tires for passenger cars and SUVs in Spring 2018. Their rubber compound contains particles that optimize the safety of the tire and are made of renewable biomaterial. The Cryo Crystal 3 particles are designed to boost optimal lateral and longitudinal grip on ice.

Low rolling resistance impacts the environment and the society

Lighter rolling saves fuel and extends the range of electric vehicles. According to the KPMG Report 1/2018: "Nokian Tyres: True Value pilot study on low rolling resistance tyres", cars using the Nokian Hakkapeliitta R3 consumes 2% less fuel compared to similar premium winter tires. In Finland, for example, in four years a driver can save on average of up to 35 liters of fuel, which decreases CO₂ emissions by approximately 80 kg. Four years is the estimated life cycle of a winter tire.

Low rolling resistance tires also have a positive impact on society. If, for example, all passenger cars in Finland, Sweden and Norway used the Nokian Hakkapeliitta R3 tires over the product's life cycle, the fuel savings would be 297 million liters and carbon dioxide emissions would decrease by some 710,000 tons according to the abovementioned KPMG report. Benefits to the society of this carbon dioxide reduction is estimated at 28.4 million euros based on the estimated social cost of carbon of EUR 40 per ton.



Reduced rolling resistance enhances fuel-efficiency and supports eco-friendly driving.

New summer tires: Nokian Wetproof and Nokian Powerproof

Our new summer tires have innovations that are designed to improve safety and are more environmentally friendly. The Dual Zone Safety concept ensures balanced road contact. The driver can feel how the tire grips, adapts to surface roughness, and immediately reacts to steering especially on wet and dry roads. This safety zone technology offers security and driving confidence in all conditions while reduced rolling resistance enhances fuel-efficiency and supports eco-friendly driving. The Silent Groove Design is an innovation on the tire walls that improves driving comfort, controlling both the interior and exterior rolling noise. The Silent Sidewall technology filters noise and vibration from the road surface, which makes driving more comfortable.

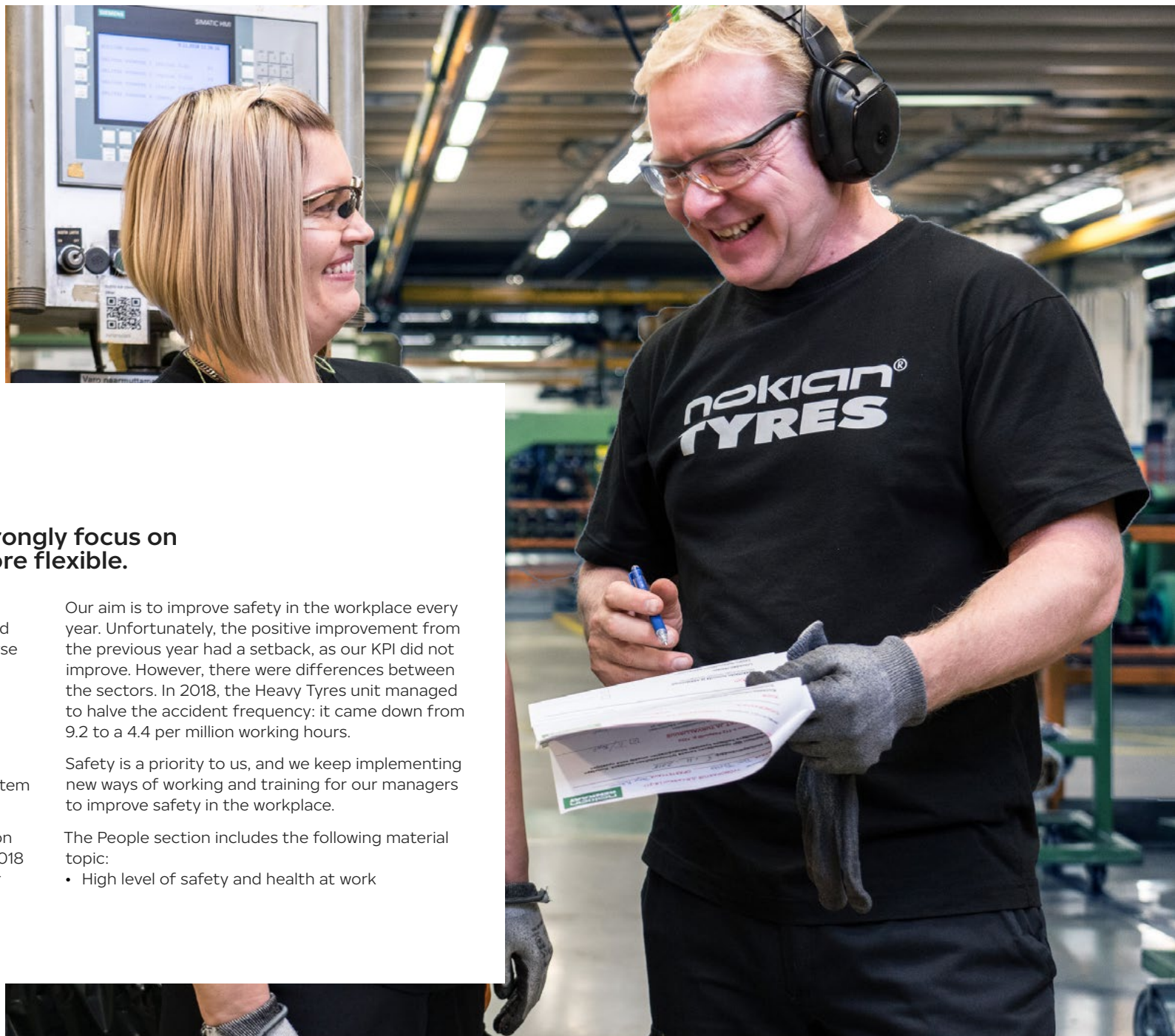
Dynamic Grip compound of Nokian Powerproof maximizes safe grip on wet and dry roads. The functional molecule chains and polymers form a dense and flexible mesh-like structure that ensures reliable grip even at high speeds. The multi-layered structure also reduces the rolling resistance. Aqua Hybrid compound is a new-generation rubber compound, which provides high wet grip and lower fuel costs due to low rolling resistance for Nokian Wetproof.

INFLUENCING THE INDUSTRY AND RAISING DISCUSSION

Nokian Tyres is involved in furthering the tire industry by participating in the work of relevant organizations and discussions in the industry.

For example, we have promoted the demand for an ice grip marking in public discussion. In northern conditions, ice grip is the most important property for winter tires. Currently, consumers in the market for new winter tires do not have any means of comparing tires in terms of ice grip, as the current markings only include a wet grip rating. Nokian Tyres has called for a mandatory ice grip marking for winter tires. The growth of online tire sales, used car imports, increase in low-cost products and emergence of new tire categories (all-season and all-weather tires) make it more difficult for consumers to know what kind of ice grip their winter tires provide.

As a result of years of work, the inclusion of the ice grip marking into the EU Tyre Label is currently being prepared in the European Union. The new regulation should be ready by summer 2019. The International Organization for Standardization (ISO) is also finalizing the standardized ice grip test method.



PEOPLE

As a global company, we will strongly focus on making our working culture more flexible.

Our goal is to be an attractive employer globally that is known for its sustainability, leadership, and truly international working community with diverse teams around the world.

We implemented a new global HR system throughout the Group in early 2018. The new system enables us to harmonize our processes concerning the employee life cycle, rewarding, global mobility, and People Reviews. The new system makes data management safe, simple, and fast.

Nokian Tyres has a Group wide hazard notification system, which is open to all employees. During 2018 our employees made more than 4,300 hazard or near miss observations.

Our aim is to improve safety in the workplace every year. Unfortunately, the positive improvement from the previous year had a setback, as our KPI did not improve. However, there were differences between the sectors. In 2018, the Heavy Tyres unit managed to halve the accident frequency: it came down from 9.2 to a 4.4 per million working hours.

Safety is a priority to us, and we keep implementing new ways of working and training for our managers to improve safety in the workplace.

The People section includes the following material topic:

- High level of safety and health at work

PEOPLE MANAGEMENT AND IMPROVEMENTS

The main goal of People management is to create a working community and teams where the employees feel well, are committed, and constantly improve their competence.

Our principles in all of our operations are equality, fairness, and respecting human rights, whether we are dealing with our personnel or other stakeholders. Equal treatment and inclusion are essential elements of our operations. Our diversity management grows out of the idea of fair treatment and equal working conditions. Diversity is important for the company's international success as people with various backgrounds and competence play an essential role in developing the company and new innovative solutions.

In our internationally growing company, leadership that aims at top results and strategy implementation is founded on a strong company culture – the Hakkapeliitta Spirit – which is built on our values of entrepreneurship, inventiveness, and team spirit. We are bringing our leadership, working environment, and practices up to speed with today's global working and operating culture. This will be visible on our premises and in our digital tools, which will strengthen our internal collaboration as well as sharing of information and developing of competencies. This will boost employee motivation and engagement, thereby improving innovation and productivity.

Our goal is to be an attractive employer globally that is known for its sustainability, leadership, and truly international working community with diverse teams around the world. We also want to set an example in occupational safety as a tire industry pioneer.

The company's People management is based on the following principles and operating models:

- Our leadership is guided by the strategy, which is the President & CEO's responsibility as well as our values and leadership principles.
- Leadership is also guided by the Code of Conduct, human rights principles, and international and local legislation.
- For the leadership of people, we have defined guidelines, e.g. for safety and recruitment, onboarding, People Reviews, and People development. The guidelines apply across the entire organization, and they are reviewed and revised as necessary.

KEY MEASURES IN 2018

In 2018, our key focus areas were improving our leadership and working culture, strengthening our safety culture, and taking steps toward global leadership practices. The development of safety culture continued, and more than 12,000 safety actions were created. A number of technical improvements were carried out to improve the safety of the operators. However, the main KPI on safety success did not improve. Accident frequency (LTIF) was 8.3 in 2018 (7.5 in 2017).

Several training events focused on better manager work by discussing team development and the People Reviews, among other things. Trainings influence manager skills, occupational well-being and safety, employee engagement, and harmonized leadership practices.

As part of developing our leadership and working culture, we launched a project for renewing our working environment and tools. Our modern activity-based solution will result in an environment that promotes collaboration and sharing of information and talent, thereby improving user comfort, employee well-being, innovation, and efficiency. The new digital tools will facilitate efficient working, collaboration, and engagement.

In 2018, 86.2% of our global personnel responded to our Drive! personnel survey (in 2017, the response rate was 91.3%). We implemented manager training sessions in order to ensure that the survey results were reviewed throughout the organization. We also arranged workshops on the Drive! results to engage teams in planning improvements.

The EU General Data Protection Regulation (GDPR) became effective in May 2018 and, during the year, we implemented the required practices and created the necessary documentation. With these actions we aim to ensure safe and appropriate processing of the personal data of our customers and employees alike. In addition, we drove the awareness of data protection and data security among our personnel in 2018.

We implemented a new global HR system, Workday, throughout the Group in early 2018. The new system enables us to harmonize our processes concerning the employee life cycle, rewarding, global mobility, and People Reviews. The system enables the use of real-time data and analytics to support business decisions. The new system makes data management safe, simple, and fast.

GOALS IN 2019

HARMONIZED GLOBAL HR PROCESSES AND A GLOBAL HR SYSTEM

In line with our company's global operational model, we have defined the harmonized global HR processes: Employee Life Cycle, Rewarding and Global Mobility, and Talent Management. In the course of 2019, we will continue developing our harmonized practices concerning recruitment, induction training, and performance management, among others, in order to promote fair and equal treatment and the enforcement of human rights in all of our locations.

The Workday HR system that we implemented in 2018 supports the development and application of harmonized and transparent leadership practices, thereby promoting the equal treatment of employees across our organization.

In 2019, we will continue to develop our harmonized tracking and reporting of employee KPIs and promote well-being at work. This will help us ensure the desired development across our organization even better.

RENEWED REWARDING SYSTEM: IMPLEMENTATION AND COMMUNICATION

We are in the process of ensuring that fairness and the incentive effect are present in all the elements of the rewarding system. Our rewarding system is based on work complexity assessments, consistent goal setting, and relevant comparisons of rewarding practices in different markets. We will apply them globally in a consistent and system-supported way.

During 2018, we revised our long and short-term rewarding and the models for determining base pay and the related development and market benchmarking, which will be introduced as of early 2019. We will communicate to our personnel about the goals and elements of overall rewarding, including non-monetary compensation which has a clear impact on employee engagement. We are focusing on things such as manager work and leadership approach, competence development, career opportunities, and working culture as these are important elements that contribute to long careers.

MAKING OUR WORKING CULTURE MORE FLEXIBLE

Our global operating model requires employees to be able to work more flexibly than before: independent of a specific time or place. Improving the prerequisites for such flexible work is one of our priorities in 2019.

Work will increasingly take place as teamwork across organizational borders and time zones; without physical presence, the sharing of work and interactive communication become basic requirements.

In order to support the development of our working culture, we will be introducing new digital tools in 2019 that will enable us to work even more flexibly. At the same time, supervisors and managers will get access to new channels for keeping in touch with their working community more actively and openly than ever before. Our employees will be able to do work on our premises wherever they come from, which will contribute to flexibility, a sense of belonging, and the experiences of fairness. We are aiming at higher flexibility in terms of working hours, which will be first piloted at our headquarters in Nokia.

For many years, our culture has been based on our Hakkapeliitta values, which are strongly built around succeeding together and our will to win and overcome the impossible. They will lay the foundation for the future development of our culture.

As part of our engaging communication about strategy, we will carry out an assessment of our values' practical implementation in 2019. This will help us determine the relevant focus areas for the coming years regarding the company values. We want our values to guide our company further through our everyday choices.

REDUCING INJURIES THROUGH HIGHER SAFETY AWARENESS

We encourage our employees to make safety observations and carry out safety actions with the goal of 2 safety actions per employee on average – resulting in 10,000 safety observations in 2019. Driving safety observations helps everyone focus on safety in order to keep themselves and their colleagues safe every day. Increased awareness prevents accidents from occurring.

In addition to safety awareness, our focus areas include strengthening managers' and teams' safety competence, analyzing injuries even more carefully, and ensuring the implementation of corrective actions at the team level. Our goal is to reduce the number of workplace injuries by 35% compared to the 2018 level.

GLOBAL TALENT MANAGEMENT PRACTICES PAVE THE ROAD FOR FUTURE SUCCESS

The continuous development of professional skills and competence is still strongly linked to on-the-job learning, and we support it by developing a multi-skilled workforce and introducing new technology, among other things. In 2019, we will further reinforce our global talent management practices, focusing on identifying talent and the development of future leadership. We will bring together our experts working in global roles in order to create even stronger shared practices and a shared vision for leadership. At the same time, we are developing their competence to better suit future needs.

Our rewarding philosophy



ORGANIZATION AND GOVERNANCE

At Nokian Tyres, our need to develop leadership processes and practices always arises from a business perspective, and their implementation is based on our strategy and organizational culture. Our aim is to establish consistent and truly global HR operations that are based on efficient decision-making and project management as well as open interaction and information sharing. These elements help us implement fair, transparent, clear, and need-based People management in our different units and locations. Good People management enables us to ensure that energized and competent people are committed to the company's goals and, in turn, to its successful business.

HANDLING ISSUES AND COMPLAINTS

We handle any issues and complaints locally within our company. Our aim is to maintain a leadership culture that makes it very easy to raise concerns.

The primary channel for raising issues goes from managers and experts up to the top management, as necessary. Any questions and observations are handled as appropriate in accordance with the law and our company's guidelines. All reports are investigated, and each case is handled based on the results of the investigation.

Nokian Tyres' people management organization and governance



As part of our Code of Conduct, we have issued a reporting procedure that instructs all of our employees to report any identified or suspected internal or external misuse or violation. It also describes the communication channels established for this purpose. The purpose of the instructions is to encourage our personnel to report any potential violations of ethical guidelines and laws that they encounter, so that we can investigate and handle each case. It is also possible to make an anonymous report through the Whistleblow channel. The same channel is available to external stakeholders by email at whistleblow@nokiantyres.com.

We also employ protocols, e.g. for bullying and harassment. There are subject-specific instructions that specify who to contact and how to deal with the situation with the appropriate sensitivity.

We encourage everyone to make safety observations that they can direct to whoever they want inside the organization. After the root cause is identified, the matter is communicated to the relevant person. The entire process is documented in order to ensure it follows the protocol.

All of our employees have the opportunity to raise issues or give feedback about important matters through our company intranet. We will respond in a transparent manner through the same channel, and everyone in the organization can see the dialog.

TRACKING SOCIAL RESPONSIBILITY

We use the following indicators for tracking leadership and HR development:

- 102-8 Total number of employees by employment type and employment contract, with a breakdown by region and gender
- 102-41 Percentage of total employees covered by collective bargaining agreements
- 102-10 Significant changes to the organization's size, structure, supply chain, or ownership
- 401-1 Total number and rate of new employee hires and employee turnover, with a breakdown by age group, gender, and region
- 403-2 Number of lost days, absentees, injuries & types of injury, occupational disease rate, lost days, and work-related fatalities, with a breakdown by region and gender
- 404-2 Programs for upgrading employee skills and transition assistance programs
- 404-3 Performance reviews
- 405-1 Percentage of individuals within the organization's governance bodies and percentage of employees per employee category, with a breakdown by gender, age group, minority group, and other diversity categories.

A COMMON SAFETY CULTURE YIELDS RESULTS

In 2018, Nokian Tyres introduced a new Group wide risk assessment tool to identify work related hazards. During 2019, this safety project will continue to have updated risk assessments in place for all of our workplaces and tasks. Openness is the driving force to ensure the quality of the hazard assessments as well as corrective actions. The factory managers make repeated safety walks to address the importance of safety at workplace. In 2018, managers reported 1,901 safety walks.

Nokian Tyres has a Group wide hazard notification system in place. The system is open to all of the employees. During 2018, our employees made more than 4,300 hazard or near miss observations.

Every observation is assigned to a person responsible for coordinating the investigation and corrective actions, if needed. This person forms an investigation team based on the type of hazard or accident. Our incident investigation process will guide the person to take the right approach to the investigation.

In our reporting tool, close to 3,300 separate corrective tasks were created. Altogether, more than 12,000 safety actions were created by our employees.

Every employee has a right to stop their work if they come to a point where they believe that the task requested or the situation at hand will create a hazard for their safety or health.



HEALTHY NEWS FROM HEAVY TYRES: SICK LEAVES DECREASED BY 50%

The Nokian Heavy Tyres unit is one of our most challenging environments: it involves a considerable amount of manual labor and lifting heavy objects. By the occupational safety numbers, Heavy Tyres used to be among the most poorly performing units, but management development through education has elevated it to the top of the safe working environments at Nokian Tyres.

From 2016 to the end of 2018, the rate of work related accidents has decreased by over 90%. During the last four years, sick leaves have decreased by 50% in the unit. During 2018 the accident frequency was halved: it came down from 9.2 to a 4.4 per million working hours.

- The biggest change has happened in people's attitudes. Now, everybody thinks that safety is important and they are ready to work on further improving it. The positive trajectory is a result

of determined development and increased awareness of safety issues, says the Heavy Tyres plant director **Pasi Antinmaa**.

The presence of occupational health care and health care coordinators in everyday work helped create a safe sense of working. Also listening to employees and regularly measuring work satisfaction are important factors when trying to decrease sick leaves.

Factory workers are now encouraged to speak up about all of the possible health hazards. As a result, a bit over 1,600 safety actions were reported by the end of the year in the Heavy Tyres unit.

- It has been great to see how all of the personnel are motivated to improve safety issues and the long-term work is paying off. Safety first is a phrase that we all know, but I feel that it excellently describes the attitude of our entire personnel toward work now, Antinmaa says.

Accident rate (more than 1 day absence/million working hours)

	2016	2017	2018
Nokian Tyres Finland	20.2	8.6	5.3
Nokian Tyres Russia	3.0	3.2	5.0
Vianor	15.2	12.6	15.0
The ratio of all listed companies	11.2	7.5	8.3

The accident rate in Nokian Tyres Finland was **74% lower** than in 2016.

Absenteeism by company

	Nokian Tyres (FI)	Nokian Heavy Tyres	NT Tyre Machinery*		
Nokian Tyres Finland					
Sick absences % (total)	2.93%	3.95%	5.93%		
Nokian Tyres Russia					
Sick absences % (total)			4.32%		
Vianor Nordic					
	Nordic Wheels	Vianor Holding Oy	Vianor Oy	Vianor AB	Vianor AS
Sick absences % (total)	1.57%	0.17%	5.15%	4.55%	6.0%

* Information of absenteeism by gender is not available

“ A number of technical improvements were carried out to improve the safety of the operators. However, the main KPI on safety success **did not improve.** ”

GREAT PEOPLE MANAGEMENT ENSURES COMPETENCE, WELL-BEING, AND EQUAL TREATMENT

WE SUPPORT OUR EMPLOYEES' DEVELOPMENT

Great people management helps us ensure the competence, well-being, and equal treatment of our committed, motivated, and professional personnel. This way, we are implementing our company and leadership culture in our everyday work in a natural and consistent way.

We support our employees' development with an internal job rotation, on-the-job learning, and various talent development solutions following the 70–20–10 principle (70% of the development comes through the current position, 20% through learning from others, and 10% through traditional training). Personal People Reviews play a key role in personnel development and performance management.

We have revised and harmonized our People Review practice across the company. We go through the goals for the upcoming year with each employee and agree with them on their personal goals and competence development plans. This way, we can ensure that all of the employees know our company strategy and understand their role in its implementation. The People Reviews assess how well the previously set goals have been reached and look at the overall performance in line with our values. As of early 2019, we also started to use the global HR system Workday for the documentation of People Reviews. This way, we can better track and support the goals and development plans.

At the turn of 2018 and 2019, we organized manager training on the revised People Review process and tool. Furthermore, we offered all of the personnel a new People Review training session and supported the use of the new tool with various support materials and measures.

People reviews (realization, %)

	2016	2017	2018
Nokian Tyres Finland	97.4%	99.7%	89.4%
Nokian Tyres Russia	100.0%	100.0%	100.0%
Sales companies	75.1%	87.0%	72.3%
Vianor	69.8%	56.3%	59.5%
Nokian Tyres Group	86.0%	83.4%	82.2%

The further development of manager work and leadership is a priority in 2019. In 2018, we particularly focused on change management. To support manager work, we developed a harmonized, global change management model that can be applied to various situations involving change. We have also used this model for improving managers' change management skills. The implementation of the model was supported with training.

Our work for changing the operational model and implementing the strategy continued in 2018. In early 2018, we organized a global event for our managers and middle managers from various countries. The essential content of this event included the company strategy, operating model, and renewed brand. Later in the fall, we organized an event for key personnel in global functions with the aim of continuing the implementation of our strategy and providing tools for the new kind of leadership.

We are in the process of planning online training on the company strategy for all of the personnel, and its implementation will begin in early 2019. In addition to the online training, we will discuss the strategy in teams by utilizing a gamified assignment.

If necessary, we can also tailor our training content based on individual units' development needs, the business strategy, and business goals. For example, when implementing our marketing processes, we implemented a global training program for the marketing function personnel in order to drive awareness of the recently introduced global processes that guide our marketing activities and to improve the related competence. Based on engaging team learning, the gamified training program challenged the participants to actively solve assignments derived from practical situations. The training supported the transformation of our marketing into a more process-driven activity.

LEADERSHIP PRINCIPLES AS THE BASIS FOR SUPERVISOR WORK

Our leadership principles will continue to function as a practical tool for all managers, and they are used as a basis for developing and tracking leadership. This way, all managers know how we are assessing manager work, how they should improve as managers, and how they should develop their own team.

Lead by example. Be a role model who promotes the Hakkapeliitta culture!

Develop your team. Seek and offer your team opportunities to develop!

Show the way forward. Set engaging goals and support your team's will to win!

Encourage continuous improvement. Contribute to an innovative and open atmosphere!

Take responsibility for quality and results. Inspire your team toward an entrepreneurial mindset!

We have linked these mutually agreed leadership principles to managers' 360-degree assessments, which we continue to use in order to develop manager work further. We also apply coaching and other solutions for improving manager work.

THE DRIVE! PERSONNEL SURVEY IS A CHANCE TO MAKE A DIFFERENCE

The Drive! personnel survey in May was very well received. At 86.2%, the response rate remained good overall in the Group (compared to 91.3% in 2017). The questions in this year's survey were particularly geared toward our important strategic themes. The survey mapped out how the company personnel feel about their own work, immediate working community, leadership, and the functionality of the organization.

Despite a slight decline, our Group's results remained even higher compared to benchmarked companies. Our employees believe in our future success and consider our company values worth pursuing (91% of all employees). 90% of all employees feel that the manager trusts their team. This lays a good foundation for building a future together. Out of all the respondents, 89% considered that our company handles corporate social responsibility and environmental responsibility well. 87% believed that we can reach zero accidents in the following 6-month period.

Managers have discussed the results with their own units and departments. HR has also actively supported the process of reviewing the results. We identified teams that need special support. All of the managers have received training on the survey and the discussion of the results. Teams have designed concrete improvements together, agreed on the responsibilities and schedules, and recorded the appropriate actions on the shared Cixtranet platform.

A shared tool will facilitate tracking and supporting the progress of the plans. The identified improvements were particularly focused on information flow and decision making.

WORKDAY BRINGS HR PROCESSES TO THE DIGITAL ERA

The new global HR system, Workday, was implemented throughout the Group in early 2018. The different processes concerning the employee life cycle, rewarding, global mobility, and People Reviews, are integrated into our new global HR system. This harmonization of practices is part of the new operating model that we launched in 2018.

The new system helps us harmonize our HR processes, and it will support business decision-making with real-time data and analytics. It is in this way we can support the formation of global teams and international rotation as well as business management.

After its implementation, Workday will promote equal treatment and transparency in our company. Workday compiles all of the employee data into a single location, which simplifies data management and speeds up the flow of information. Each employee can check and update their information in the system. Furthermore, we have trained managers on using the system and processes.

Result of Drive! Personnel survey (overall result measured with People Power index 1–100)

	Drive! 2015/2016	Drive! 2017	Drive! 2018
Global Functions	66.2	71.1	68.2
Nokian Tyres Americas	72.7	74.6	68.9
Nokian Tyres Europe	78.0	78.3	77.7
Nokian Tyres Russia and Asia	73.7	74.9	73.7
Nokian Heavy Tyres	61.9	64.3	65.8
Vianor	72.8	70.3	70.3
Nokian Tyres Group	70.8	71.8	71.0

CHANGE IN THE WORKING CULTURE STARTED AT THE NOKIA SITE

In late 2017, we communicated the changes in our company's operating and leadership models. Accordingly, our leadership and working culture has undergone changes throughout the year. In Nokia, we renovated the employee cafeteria to match our new brand and started to use the space for work as well. We are also trying out modern workspaces with a new pop-up office. Many departments have carried out a Clean Desk project for cleaning out clutter from workspaces. Desks are kept tidy by clearing them at the end of the day.

Both the large and small changes are part of Nokian Tyres' growth and change process. In addition to efficiency and profitability, we want our company to be even more caring, easily approachable, casual, and open. The changes improve our leadership and working culture and promote our desired employer brand, thereby supporting our business & brand goals.

OUR WORK IS GUIDED BY THE PRINCIPLE OF ONE COMPANY – ONE PURPOSE – ONE GLOBAL TEAM

Our internationalization emphasizes the importance of effortless interactions, functional virtual meetings, and closer collaboration. Furthermore, global operations require common operating models and tools as well as flexibility in terms of the time and workplace. Our aim is to create a more open, flexible, and versatile working environment by using new workspace solutions and digital tools that make working easier. For example, when planning the upcoming facilities in Dayton, TN, we are already addressing the future needs for engaging and open work.

THE FIRST STEPS OF THE WORKING CULTURE CHANGE AT NOKIA

CLEAN DESK PROJECT AND PILOT FACILITIES

Many departments have cleaned their cabinets and desks. The principle behind the Clean Desk project is to clear out the clutter in order to make room for thoughts. One essential part of it is keeping the workspace tidy by cleaning your desk at the end of each day. We will also be renovating our office premises in accordance with the new concept during 2019.

POP UP OFFICE

Last Fall, pilot teams from various departments tried out a pop up office. The teams have shared their experiences in discussions and through a survey, and we have used their feedback when developing the workspace concept further. We received positive feedback for the open and modern premises as well as for the versatile workstations and soundproof workspaces.

WORKING TIME PILOT PROJECT

In 2018, we launched a pilot project relating to the time and workplace. It was designed together with our personnel, and the aim is to guide goal-driven work rather than focus on the working time. In the project, each person has more freedom to decide when to complete their daily working hours within an agreed window in a way that is appropriate for their work. The pilot project brings us one step closer to a modern and flexible working and leadership culture, which is also a requirement for our increasingly international business.

The participating teams and their managers have received coaching on the new working and leadership culture as well as new working time practices. It is essential to establish transparent communication practices and principles within teams and to collect feedback on the employees' experiences. The different ways of leadership and teamwork have been discussed within teams.

OUR PERSONNEL

End-year headcount reporting is based for the first time on the data in our new global HR system Workday. Unlike previous years, we are now reporting the number of all employees including also those on a long leave of absence.

Due to the change of system and more accurate absence reporting, our 2018 headcount numbers aren't fully comparable with previous years' numbers.

At the end of the year 2018, we employed a total of 4,767 (+3%) own employees. 154 (3.2%) of those were on a long leave. Taking the part-time work into account, our FTEs (full-time equivalent) were 4.719 at the end of 2018.

The external workforce is mainly used for ad hoc workforce needs. At the end of 2018 we had 35 external workers, most of them working in Finland.

During 2018, we employed a total of 936 seasonal employees in Vianor.

52.9% of our employees are covered by collective bargaining.

Total workforce by employment type, employment contract, and region, broken down by gender

	Nordic	Russia and Asia	CE and Eastern Europe	Americas	Total
Total number of own employees	2,719	1,640	217	191	4,767
Women	435	276	90	23	824
Men	2,284	1,364	127	168	3,943
Permanent	2,437	1,559	196	186	4,378
Full-time	97.3%	100.0%	95.9%	97.8%	98.2%
Part-time	2.7%	0.0%	4.1%	2.2%	1.8%
Women	15.8%	14.5%	38.8%	12.4%	16.2%
Men	84.2%	85.5%	61.2%	87.6%	83.8%

98.2% of our permanent employees work full-time.

During 2018, we employed a total of **936** seasonal employees in Vianor.

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

	Nordic	Russia and Asia	CE and Eastern Europe	Americas	Total
Total number of new employees	430	241	42	33	746
Number of women	87	55	19	8	169
Number of men	343	186	23	25	577
Number of those under 30 years old	203	163	12	8	386
Number of those 30–50 years old	194	77	24	19	314
Number of those over 50 years old	33	1	6	6	46
New employee hires rate (Total)	15.8%	14.7%	19.4%	17.3%	15.7%
Percentage of women	3.2%	3.4%	8.8%	4.2%	3.5%
Percentage of men	12.6%	11.3%	10.6%	13.1%	12.1%
Percentage of under 30 years old	7.5%	9.9%	5.5%	4.2%	8.1%
Percentage of 30–50 years old	7.1%	4.7%	11.1%	9.9%	6.6%
Percentage of over 50 years old	1.2%	0.0%	2.8%	3.1%	1.0%

Our new hires rate in 2018 was **15.7%**

Of our new hires **42%** were 30–50 years old

	Nordic	Russia and Asia	CE and Eastern Europe	Americas	Total
Total number of terminated employees* (fixed terms not included)	267	135	17	37	456
Number of women	26	23	8	3	60
Number of men	241	112	9	34	396
Number of under 30 years old	77	76	2	12	167
Number of 30–50 years old	129	58	14	15	216
Number of over 50 years old	61	1	1	10	73
Turnover rate (Total)*	9.8%	8.2%	7.8%	19.4%	9.6%
Percentage of women	1.0%	1.4%	3.7%	1.6%	1.3%
Percentage of men	8.9%	6.8%	4.1%	17.8%	8.3%
Percentage of those under 30 years old	2.8%	4.6%	0.9%	6.3%	3.5%
Percentage of those 30–50 years old	4.7%	3.5%	6.5%	7.9%	4.5%
Percentage of those over 50 years old	2.2%	0.1%	0.5%	5.2%	1.5%

*Our voluntary turnover in 2018 was 8.2%

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

	Nordic	Russia and Asia	CE and Eastern Europe	Americas	Total
Number of individuals within the top management*	12	1	1	1	15
Number of women	5	0	0	0	5
Number of men	7	1	1	1	10
Percentage of women	41.7%	0.0%	0.0%	0.0%	33.3%
Percentage of men	58.3%	100.0%	100.0%	100.0%	66.7%
Number of those under 30 years old	0	0	0	0	0
Number of those 30–50 years old	6	1	1	0	8
Number of those over 50 years old	6	0	0	1	7
Percentage of those under 30 years old	0.0%	0.0%	0.0%	0.0%	0.0%
Percentage of those 30–50 years old	50.0%	100.0%	100.0%	0.0%	53.3%
Percentage of those over 50 years old	50.0%	0.0%	0.0%	100.0%	46.7%
Number of white collar employees	1,134	550	216	105	2,005
Number of women	281	227	90	23	621
Number of men	853	323	126	82	1,384
Percentage of women	24.8%	41.3%	41.7%	21.9%	31.0%
Percentage of men	75.2%	58.7%	58.3%	78.1%	69.0%
Number of those under 30 years old	101	160	37	17	315
Number of those 30–50 years old	710	371	147	52	1,280
Number of those over 50 years old	323	19	32	36	410
Percentage of those under 30 years old	8.9%	29.1%	17.1%	16.2%	15.7%
Percentage of those 30–50 years old	62.6%	67.5%	68.1%	49.5%	63.8%
Percentage of those over 50 years old	28.5%	3.5%	14.8%	34.3%	20.4%
Number of blue collar employees	1,573	1,089	0	85	2,747
Number of women	149	49	0	0	198
Number of men	1,424	1,040	0	85	2,549
Percentage of women	9.5%	4.5%	0.0%	0.0%	7.2%
Percentage of men	90.5%	95.5%	0.0%	100.0%	92.8%
Number of those under 30 years old	421	390	0	19	830
Number of those 30–50 years old	806	667	0	41	1,514
Number of those over 50 years old	346	32	0	25	403
Percentage of those under 30 years old	26.8%	35.8%	0.0%	22.4%	30.2%
Percentage of those 30–50 years old	51.2%	61.2%	0.0%	48.2%	55.1%
Percentage of those over 50 years old	22.0%	2.9%	0.0%	29.4%	14.7%

*Includes only members of Nokian Tyres Management Team

Composition of the Board	8
Number of women	2
Number of men	6
Percentage of women	25.0%
Percentage of men	75.0%
Number of under 30 years old	0
Number of 30–50 years old	2
Number of over 50 years old	6
Percentage of under 30 years old	0.0%
Percentage of 30–50 years old	25.0%
Percentage of over 50 years old	75.0%



ECONOMY

Sustainability improves our competitiveness.

For us, profitable growth, good HR management, and environmental aspects along with product safety and quality are important for the development of sustainable business operations.

In 2018, we were again included in the Dow Jones' DJSI World sustainability index and were the second highest-ranking tire manufacturer. We were also included in the DJSI Europe, which has even tighter criteria than the DJSI World.

As a good corporate citizen, we focus on supporting special community and environment projects in the areas where we operate. In the US

Nokian Tyres has set up a donations committee in each of the company's office locations.

Nokian Tyres' financial targets for 2019–2021 are:

- Growing faster than the market: CAGR above 5% with comparable currencies
- Healthy profitability: EBIT at the level of 22%
- Good returns for our shareholders: Dividend above 50% of net earnings

The Economy section covers the following material topics:

- Profitable growth and indirect economic impacts
- Risk management and good governance



FINANCIAL MANAGEMENT

Our financial responsibility is based on our company's financial success and ability to create value for stakeholders. Nokian Tyres conducts active and result-oriented financial management. Our Finance function collects extensive information on the operating environment as well as the different stages and results of our company's business processes to analyze it and with obtained knowledge instigate better business practices into company operations.

Good financial management enables planned activities and forecasting. In 2018, Nokian Tyres performed well in all of its key business areas.

Product and customer profitability guide our operations, which we develop in a cross-organizational way, together with the business units. Following our growth, our Finance function is actively involved in developing common processes and systems that enable the best possible service for Nokian Tyres' customers and other stakeholders.

Major investments are discussed by the regularly convening Investment Board.

CORPORATE GOVERNANCE

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 2015 for listed companies. Nokian Tyres complies with the code without exceptions. The code is published at www.cgfinland.fi/en/.

The [Corporate Governance Statement](#) has been prepared pursuant to the Finnish Corporate Governance Code 2015 for listed companies and the Securities Markets Act (Chapter 7, Section 7) and it is issued separately from the Board of Directors' report. The Board of Directors has reviewed the Corporate Governance Statement, and the auditor KPMG has verified that the Statement has been issued and that the description of the main features of the internal control and risk management systems relating to the financial reporting process is consistent with the financial statements.

You can read more from our [Corporate Governance –section](#).

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 the 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. At Nokian Tyres, Corporate Risk Management (CRM) also includes the sustainability aspects. The risk management process aims to identify and evaluate the risks, and to plan and implement the practical measures for each risk.

Nokian Tyres detailed the overall business risks and risk management in the 2018 Corporate Governance Statement.

“ Good financial management enables planned activities and forecasting.

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

- 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 the impairment of trade receivables.
- The tire wholesale and retail landscape is evolving to meet the changing consumer needs. New technologies are fueling this with increasing digitalization. A 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 on 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 and Russia. Any unexpected production or delivery breaks at these facilities would have a negative impact on the company's business. A new factory is under construction in the US in order to diversify the manufacturing footprint. Interruptions in logistics could have a significant impact on peak 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. The violation of the 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.

- 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 60% of the Group's sales are generated outside of the eurozone.
- In May 2017, the Finnish Financial Supervisory Authority filed a request for investigation with the National Bureau of Investigation regarding possible securities market offences. The National Bureau of Investigation has initiated a preliminary investigation into the matter.

The risk analysis conducted in 2018 also focused special attention on corporate social responsibility risks, the most significant of which are related to the company's reputation and product quality. Analyses and projects related to information security, data protection, and customer information were a special focus area.

RISKS RELATED TO CLIMATE CHANGE

Climate change is accelerated by greenhouse gas (GHG) emissions, which is an essential issue for companies around the world. We are committed to reducing GHG emissions from our operations in order to combat climate change. We calculate the GHG emissions from our operations annually and we reduce them systematically as planned.

In May 2018, Nokian Tyres joined the Science Based Targets initiative. The new climate goals will be linked to the company's value chain as well as the environmental impacts of products.

COMMUNICATION PRINCIPLES

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. The purpose of the disclosure policy is to ensure that appropriate procedures are set up to properly identify, process, and make decisions regarding the information required to be disclosed, and, in this way, ensure the fair disclosure of information to the public in a consistent and timely manner. Nokian Tyres' website (www.nokiantyres.com) is the main channel for up-to-date information (financial, strategic, other investor relations

“ Nokian Tyres' success is dependent on its ability to innovate and develop new products and services.

“ In 2018, we were again included in the Dow Jones' DJSI World sustainability index.

information), providing all of the market participants equal access to it.

To ensure the fulfillment of the Company's disclosure obligations, a Disclosure Committee has been established to monitor and set guidelines for preparing stock exchange releases. The Disclosure Committee addresses the general content of stock exchange releases and corporate level press releases issued by the Company as well as the timely delivery of these releases and their compliance with the regulatory requirements.

Nokian Tyres' management regularly meets investors, analysts, and the media. All investor, analyst and press meetings are solely based on information Nokian Tyres has previously disclosed or that is otherwise publicly available.

SUSTAINABILITY IMPROVES OUR COMPETITIVENESS

In addition to our corporate sustainability goals and road maps, our externally assured GRI Standards-compliant Corporate Sustainability Report guides the development of sustainability in our company. For us, profitable growth, good HR management and environmental aspects, along with product safety and quality, are important for the development of sustainable business operations.

In 2018 we were again included in the Dow Jones' DJSI World sustainability index and were the second highest-ranking tire manufacturer. We were also included in the DJSI Europe, which has even tighter criteria than the DJSI World. The Dow Jones Sustainability Index (DJSI) is an

annual sustainability assessment for large publicly traded companies, performed by the Swiss RobecoSAM.

We are included in the OMX GES Sustainability Finland GI index, which provides transparent, objective and reliable information for making responsible investments. The companies are selected for the index based on their compliance with the 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.

We track financial management with the following indicators:

- 102-18 Governance structure of the organization
- 201-1 Direct economic value generated and distributed
- 203-2 Significant indirect economic impacts
- 102-43 Approach to stakeholder engagement

PROFITABLE GROWTH BENEFITS EVERYONE

Nokian Tyres' ambition is to continue to be the market leader in the Nordic countries and Russia and to grow faster than the market in other main markets. Over a five-year period of 2018–2022, the target is to grow by 50% in Central Europe and double sales in North America.

Heavy Tyres' ambition is to grow by 50% in four years. With own Vianor, we wanted to increase the EBITDA to +3% by the end of 2019. This target was reached ahead of schedule in 2018.

In November 2018, Nokian Tyres' Board of Directors decided on new financial targets for 2019–2021. They are:

- **Growing faster than the market:** CAGR above 5% with comparable currencies
- **Healthy profitability:** EBIT at the level of 22%
- **Good returns for our shareholders:** Dividend above 50% of net earnings

You can read more from our [Financial Review 2018](#).

Key figures, EUR million

	2018	2017	Change %	CC* Change %
Net sales	1,595.6	1,572.5	1.5	5.7
Operating profit	372.4	365.4		
Operating profit %	23.3	23.2		
Profit before tax	361.7	332.4		
Profit for the period	295.2	221.4		
Earnings per share, EUR	2.15	1.63		
ROCE, %	23.3	22.4		
Equity ratio, %	71.0	78.2		
Cash flow from operating activities	536.9	234.1		
Gearing, %	-21.2	-14.2		
Interest-bearing net debt	-315.2	-208.3		
Capital expenditure	226.5	134.9		

* Comparable currencies

The previous financial targets for 2016–2018 were:

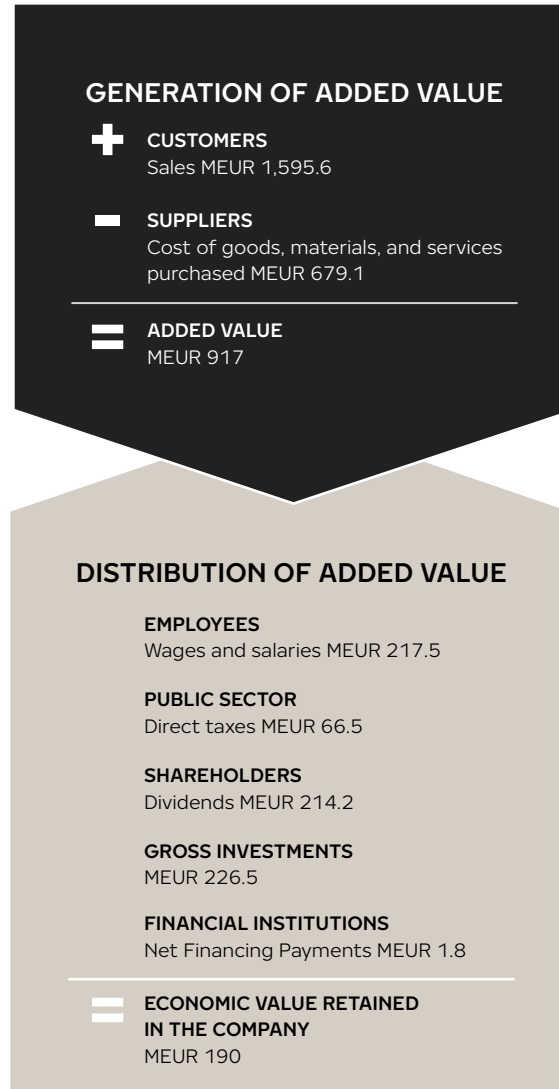
- **Growing faster than the market:** Average annual sales growth of 4–5% at a minimum (at stable currency exchange rates)
- **Healthy profitability:** The best operating profit level in the industry, a minimum of 22%
- **Good returns for our shareholders:** Dividend of at least 50% of net earnings.

In 2018, net sales increased by 5.7% with comparable currencies. Operating profit percentage was 23.3%. For 2018, Nokian Tyres Board of Directors proposes a dividend of EUR 1.58 per share, representing 73.9% of net earnings.

NOKIAN TYRES AND THE CASH FLOW BETWEEN STAKEHOLDERS

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

The graph on the right shows Nokian Tyres' economic footprint in terms of its stakeholders.



IMPACT ON SOCIETY AND COMMUNITIES

Nokian Tyres contributes to society and communities through the payment of salaries and taxes. We directly employ around 4,800 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. The salaries and taxes that we pay support the structures of society and improve the quality of life for thousands of people.

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 mission is to offer peace of mind in all conditions. Our approach to philanthropy mirrors our mission, entrepreneurial and inventive company culture, and sustainable way of doing business. We do not support any governmental, political, or religious entities.

We offer our resources (finances, employees' time, facilities or our own products and services) to selected projects based on the following three categories:

1. ROAD SAFETY

As an expert in challenging conditions and premium tires, we believe it is our responsibility to promote safe and smooth transportation.

2. LOCAL COMMUNITIES

As a good corporate citizen and a global company, we focus on supporting special community and environment projects in the areas where we operate, including together with our employees. In Christmas 2018, we sold our stock of leftover business presents in our headquarters and donated the profits to a local branch of Hope, a Finnish charity that provides support to underprivileged children.

3. INVENTIVENESS & ENTREPRENEURSHIP

For improving the equal opportunities for youth, we support entrepreneurial and inventive projects with educational institutions of various levels, in line with our company culture, the Hakkapeliitta Spirit.

We choose the focus areas and the number of projects that we support annually based on our strategic focus. By selecting a limited number of projects, we ensure better results.

“ We donated the profits of our office Christmas-sale to a local branch of Hope, a Finnish charity that provides support to underprivileged children.

“ The company has set up a donations committee in each Nokian Tyres office location in the US

As a life driven company, Nokian Tyres is also committed to supporting the local communities in North America through product donations, employee volunteerism, or financial contributions. The company has set up a donations committee in each Nokian Tyres office location in the US and has called for support requests on the company website. Preferential consideration will be given to organizations that promote road safety, support local sustainability or organizations where our employees are active.

PARTNERSHIPS AND SPONSORING

We locally assist and support organizations and events that suit our company culture and brand. We continuously work with various organizations in places where we employ people. Many small actions – from our dialog with our neighborhood and work with educational institutions to minor contributions for local sports clubs – have an effect on individuals and communities.

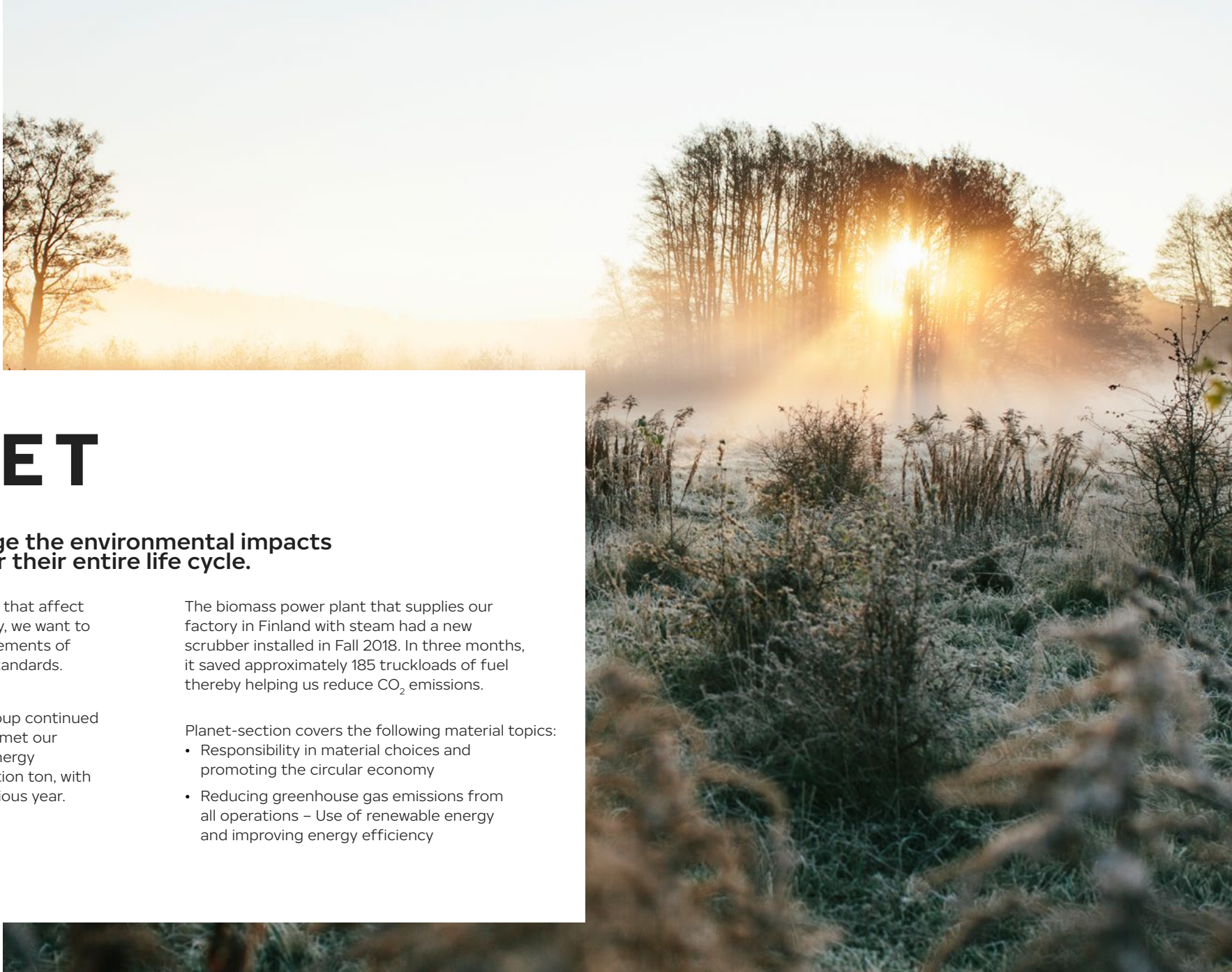
We continued our local support for the global FIA Action for Road Safety in Finland, where it is organized by Finnish AKK under the name of “Turvassa tiellä”. We also continued our long-term partnership with the International Orienteering Federation. Our agreement with the International Orienteering Federation provides us with high visibility during the annual World Orienteering Championships and World Cup events.

Nokian Tyres became the title sponsor for the first ever Finnish IRONMAN race. The Nokian Tyres IRONMAN 70.3 Finland -event took place in Lahti, Finland on June 30, 2018. This high-energy sport matches our values that promote mobility and an active lifestyle while supporting the company’s brand visibility in Finland as well as internationally.

Succeeding under exceptionally demanding conditions through cleverness and relentlessness is also something found in the Swamp Soccer World Championships, which take place in Hyrynsalmi, Finland annually. Nokian Tyres has been the title sponsor of the championships for more than 10 years.

Our brand ambassador Mika Häkkinen, the two-time Formula 1 world champion, participated in a number of our customer events and also in the Nokian Tyres IRONMAN 70.3 Finland race as part of the “Turvassa tiellä” youth road safety action team.

As a registered participant in the UN Global Compact Initiative, we annually support the initiative and its efforts to promote corporate sustainability.



PLANET

Our goal is to manage the environmental impacts of our products over their entire life cycle.

When developing the functions that affect our environmental responsibility, we want to go beyond the minimum requirements of the legislation and applicable standards.

Our Energy Savings working group continued its activities in 2018. We clearly met our target of reducing our yearly energy consumption by 1% per production ton, with a 2,5% reduction from the previous year.

The biomass power plant that supplies our factory in Finland with steam had a new scrubber installed in Fall 2018. In three months, it saved approximately 185 truckloads of fuel thereby helping us reduce CO₂ emissions.

Planet-section covers the following material topics:

- Responsibility in material choices and promoting the circular economy
- Reducing greenhouse gas emissions from all operations – Use of renewable energy and improving energy efficiency

MANAGEMENT OF ENVIRONMENTAL RESPONSIBILITY AND IMPROVEMENTS

The outset of our operations includes uncompromising respect for the environmental and safety aspects as well as ensuring high quality and a good customer experience. They are an integral part of the Scandinavian way of doing business and our company culture, and they apply globally throughout our Group.

We want to be an international industry leader also in terms of environmental matters. The awards and good reviews that our company and products have received demonstrate that the environmental aspects, quality, and safety are important for our customers and stakeholders. Our successful development projects, therefore, guide improvements across the industry.

When developing the functions that affect our environmental responsibility, we want to go beyond the minimum requirements of the legislation and applicable standards. Our activities aim for continuous improvement and are based on the corporate social responsibility that we recognize as well as our strategic business goals. We also consider the entire product life cycle and all of our functions in terms of environmental responsibility.

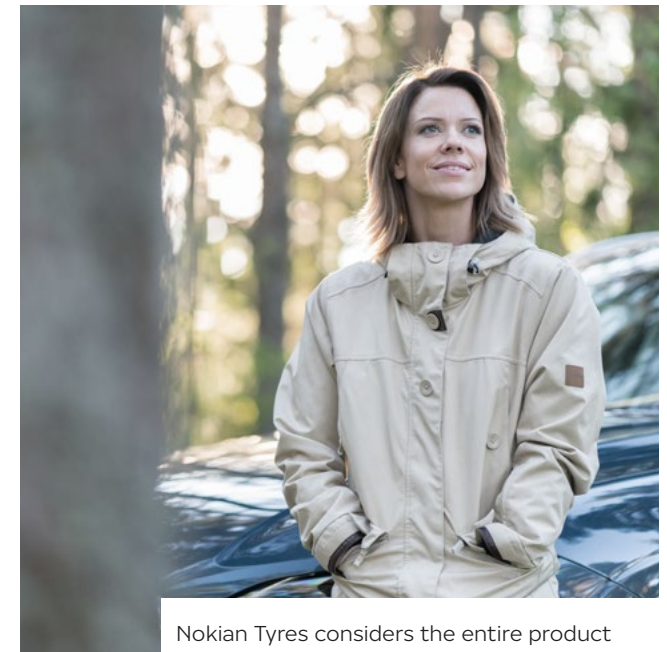
Environmental management is guided by the following policies: The Environmental, Safety, and Quality Policy guides environmental aspects in our Group. The policy has been approved by the President & CEO, and it was revised the previously in Spring 2017. The environmental aspects are also discussed in our Code of Conduct that we updated in 2018.

Our activity management system is based on the ISO 9001, IATF 16949, ISO 14001, OHSAS 18001, and ISO 17025 standards and meets the applicable regulations and customer demands. We are also committed to following the UN Global Compact principles.

MANAGEMENT SYSTEMS

Our goal is to manage the environmental impacts of our products over their entire life cycle and address the safety and quality aspects of our operations in a comprehensive and systematic manner. The activity management system that covers the environmental aspects, safety, and quality serves as a key tool for this purpose. Our operations manual is ISO 14001 compliant in terms of the environmental aspects and ISO 9001 compliant as regards quality. The key document that guides our environmental protection efforts is the Environmental Protection procedure. Our production facilities and Swedish sales company Nokian Däck are also covered by the joint environmental and quality system and included in our ISO 14001 and ISO 9001 certifications.

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



Nokian Tyres considers the entire product life cycle and all of our functions in terms of environmental responsibility.

“ In production, we audit the environmental aspects and chemical safety through regular Safety Walks.

president. 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. This leadership covers all the aspects of the environmental management system. In addition, individual units have their own projects for developing the operations and processes.

The development of environmental aspects and quality is reviewed each quarter at the management meetings. The senior management provides direct feedback to the responsible persons, as needed.

AUTHORITIES AND PERMITS

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. We maintain continuous dialog with various authorities in order to take any official requirements and requests into account in a timely manner. We immediately notify the authorities of any disruptions, accidents and deviations from permit requirements.

We see official permits as minimum requirements and consider eco-friendliness to be much more than simply complying with the permit limits. We are committed to being a part of genuinely sustainable development. We actively monitor the trends in environmental and safety regulations in the EU and all of the countries where we have or are going to have production: Finland, Russia, and the US. We also anticipate the effects of pending regulations on our operations.

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 chemicals legislation.

In our production, we never use carcinogenic chemicals or SVHC chemicals (Substances of Very High Concern) as per the EU's REACH regulation. Our products do not contain any so-called "conflict minerals". Moreover, all of our products meet the EU REACH requirements concerning PAHs. We also intend to ensure that no products sold in Vianor service centers now or in the future contain any such chemicals.

New raw materials for rubber compounds are tested in Nokia for quality assurance and suitability for production both in laboratory and production conditions. We maintain a list of raw materials that are approved for the manufacture of rubber compounds, and our procurement personnel are only allowed to purchase these raw materials for our production plants.

No auxiliary chemical is taken into use at the Nokia factory before our chemical control team has issued a department-specific usage permit for the substance in question. The team includes the Environmental and Responsibility Manager, an environmental engineer, a chemist from the R&D laboratory and an occupational physician. 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 valid legislation prior to the purchasing of chemicals. The SDSs of the chemicals that we use are registered in a database that all personnel can access. We also organize regular trainings on chemicals for our employees.

AUDITS

Regular audits are an important part of our environmental, safety and quality efforts. 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 if our operation complies with the legislation, Environment, Safety, and Quality policy as well as the instructions in the activity management system.

We carry out internal environmental and quality audits according to an annual plan such 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 every six months through inspection rounds by chemicals experts.

Internal audits also include the audits carried out by our customers and partners, such as automotive industry representatives. The audit conducted in connection with the weekly management review is also considered an internal audit.

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.

ORGANIZATION FOR ENVIRONMENTAL MANAGEMENT

Our Group's sustainability efforts are coordinated by the Environmental and Responsibility Manager. Environmental and chemical safety and sustainability aspects belong to the Quality and Sustainability unit, and the overall efforts are coordinated globally by Vice President, Quality & Sustainability together with Senior Vice President Supply Operations. The goals of quality and sustainability management are accident prevention, uninterrupted production, ensuring high quality and good corporate citizenship in all areas of operation.

Environmental engineers take care of practical environmental coordination and training, for instance regarding chemicals, emissions, and waste. Furthermore, in Nokia, the environmental representatives and supervisors of individual departments address environmental responsibility alongside their other duties. The environmental representatives act as their departments' environmental experts and points of contact in the interaction between departments. They also coordinate the appropriate handling of chemicals and waste in their departments.

KEY MEASURES IN 2018

A summary of the essential goals of Nokian Tyres' 2018 environmental program and their completion is presented in the table on this page.

ENVIRONMENTAL COSTS

In addition to personnel and technology, we allocate financial resources to environmental responsibility. In the fiscal period, our environmental management costs amounted to approximately EUR 450,000. Other environmental costs amounted to approximately EUR 1,000,000. This figure includes the expenses and investments that are related to air, soil, and water protection and waste management.

COMPLAINT MECHANICS IN ENVIRONMENTAL RESPONSIBILITY

We document the annual environmental impacts of our tire factories and report them to the local authorities as required in each country. We record feedback to a register and take the necessary corrective actions. We quickly assess and respond to all complaints and address them as appropriate. Our factories' environmental experts are responsible for these records. The purpose of this practice is to collect the feedback on the status of our environmental aspects and consider our stakeholders' related requests and opinions.

Object	Target in 2018	Status in 2018
STATUTORY REQUIREMENTS	Implementation according to the Nokian Tyres' environmental permits and legislation at the factories.	Completed according to plan. Nokian Tyres recognizes that the VOC emissions are over the total emission limit of the European VOC Directive. The issue is being handled in close co-operation with the local environmental authorities.
VOC EMISSIONS	Compliance with VOC-directive at the Nokia factory, finding new solutions for achieving target level.	Incinerator in use, operating faultlessly. Still exceeding total emission limit of VOC directive, emission 29% (limit 25%).
ENERGY	Implementing energy saving actions. Decrease in energy usage by 1%/production ton at the factories.	Implemented.
ODOR	Investigating new odor reduction possibilities for factories, including smelly ingredients in rubber mixtures and their possible replacements.	Implemented as planned. Investments in odor reduction equipment during future extension projects.
CHEMICAL SAFETY	Two factory audits concentrating on the use of chemicals done by chemical specialists.	Implemented.
MATERIAL EFFICIENCY	Pilot material efficiency audit done at the Nokia factory.	Not implemented.
MATERIALS DEVELOPMENT	Ensuring that no Substances of Very High Concern as referred to in REACH are contained in the products.	Implemented. No Substances of Very High Concern are used in production.
INCREASING ENVIRONMENTAL AWARENESS AMONG THE PERSONNEL	Regular trainings and environmental communication.	Implemented.
BUILDING PROJECTS	US factory and Spanish testing center permissions and assuring chemical and environmental safety.	Implemented.

Object	Target in 2019
STATUTORY REQUIREMENTS	Implementation according to the Nokian Tyres' environmental permits and legislation at the factories.
VOC EMISSIONS	Compliance with VOC-directive at the Nokia factory, finding new solutions for achieving target level.
ENERGY	Implementing energy saving actions. Decrease in energy usage by 1%/production ton at the factories.
CLIMATE	Setting Science Based Targets for approval.
CHEMICAL SAFETY	Two factory audits concentrating on the use of chemicals done by chemical specialists.
MATERIALS DEVELOPMENT	Ensuring that no Substances of Very High Concern as referred to in REACH are contained in the products.
INCREASING ENVIRONMENTAL AWARENESS AMONG THE PERSONNEL	Regular trainings and environmental communication.
BUILDING PROJECTS	US factory and Spanish testing center: assuring chemical and environmental safety.

We have taken a two-tiered approach to the management of environmental complaint procedures. If the complaint is minor in the scope of Nokian Tyres' production, an environmental expert can handle it independently and/ or the manager decides on the necessary course of action. In case of a larger event, the decision to escalate the matter is taken in Nokia by Vice President, Quality & Sustainability and in Vsevolozhsk by the production manager and then, if necessary, by the line management.

Nokian Tyres has had zero non-compliance situations during the fiscal year.

TRACKING ENVIRONMENTAL RESPONSIBILITY

We track our environmental responsibility with the following indicators:

- 301-1 Materials used by weight or volume
- 301-2 Recycled input materials used
- 302-1 Energy consumption within the organization
- 302-3 Energy intensity
- 303-1 Water withdrawal
- 304-2 Significant impacts of activities, products and services on biodiversity
- 305-1 Direct GHG emissions
- 305-2 Energy indirect GHG emissions
- 305-4 GHG emissions intensity
- 305-7 Nitrogen oxides, sulfur oxides and other significant air emissions
- 306-1 Water discharge by quality and destination
- 306-2 Waste by type and disposal method
- 307-1 Non-compliance with environmental laws and regulations

ENVIRONMENTAL IMPACTS OF PRODUCTION

Our goal is to manage the environmental impacts of our products throughout their life cycle. We take a comprehensive and systematic approach to environmental aspects in our activities.

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

Nokia	
EMISSIONS	
Solvent emissions VOCs	41 t/a
Particle emissions	1,4 t/a
CO ₂	370 scope 1+2 kg CO ₂ eq/production (t)
Noise	<50 dB
INPUT	
Energy	640 TJ
Municipal water	61,000 m ³
River Nokianvirta	7,587,700 m ³
Raw materials	57,100 t
PRODUCTS	
Tires and materials	53,200 t
WASTE	
Landfill	0 t
Utilized	5,300 t
Hazardous	180 t
Water into the sewage	100,900 m ³
Water into the Nokianvirta river	7,547,700 m ³

Vsevolozhsk	
EMISSIONS	
Solvent emissions VOCs	62 t/a
Particle emissions	9 t/a
CO ₂	530 scope 1+2 kg CO ₂ eq/production (t)
Noise	< 50 dB
INPUT	
Energy	1,600 TJ
Municipal water	303,200 m ³
Raw materials	170,500 t
PRODUCTS	
Tires	161,000 t
WASTE	
Landfill	1,100 t
Hazardous	1,200 t
Water into the sewage	272,100 m ³
Storm water	111,200 m ³

CONSIDERING BIODIVERSITY

We have always considered biodiversity as part of our environmental efforts. We have assessed our factories, test tracks and retreading plants in terms of biodiversity. Our company has little direct impact on biodiversity. Nevertheless, we make an effort to track and minimize the impact of our operations on our immediate surroundings.

ENERGY

We purchase energy for our factory in Finland from an external supplier. The required energy can be divided into electricity, heating and steam. Renewable energy sources account for approximately 13% of the electricity that we purchase.

We use biomass and natural gas as the energy sources for heating and steam generation. A biomass power plant that supplies our factory in Finland started its full production in April 2016. The new plant reduces the use of fossil fuels – natural gas – in favor of local energy sources in the region.

In Nokia, Finland about 47% of all used energy is produced with renewable energy sources.

Our Russian factory uses natural gas as an energy source. We buy the electricity from an external supplier but we use our own power station for the energy required for heating and steam.

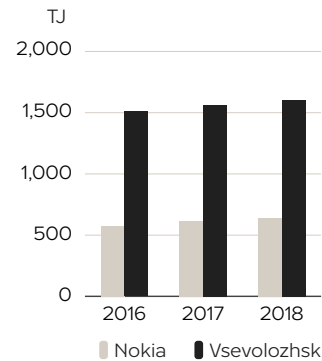
Our Energy Savings working group continued its activities in 2018. We exceeded our target of reducing our yearly energy consumption by 1% per production ton, with a 2.5% reduction from the previous year.

EMISSIONS

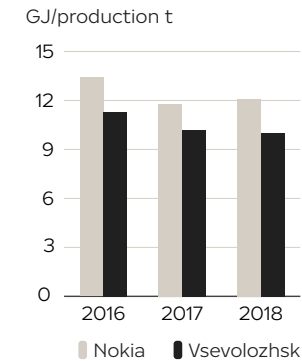
EMISSIONS FROM ENERGY PRODUCTION

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.

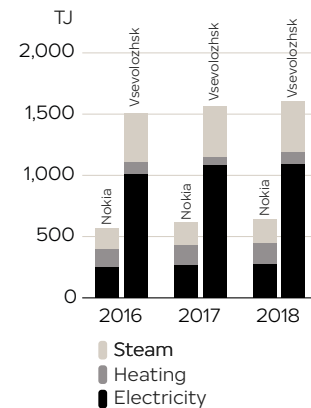
Energy consumption within the organization



Energy intensity



Energy usage



CARBON DIOXIDE (CO₂)

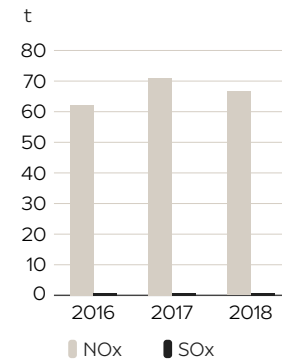
We calculate our tire production GHG emissions from raw material purchasing to the disposal of the product in compliance with the ISO 14064 standard. Our Russian factory uses its own power station for generating most of the energy it needs. Therefore, the factory's direct GHG emissions exceed those of the factory in Finland.

We are seeking a 20% reduction in CO₂ emissions by 2020 and a 30% reduction by 2030. The point of reference comprises our 2013 Scope 1 and Scope 2 emissions in relation to production. The actual reduction from 2013 was 38% in 2018, which means that we met and clearly exceeded the target. In 2017, our market-based Scope 2 emissions were approximately 47,600 tons CO₂ eq. The emission calculations are based on Finland's residual mix of electricity production, the emission data provided for us by Nokiavirran Energia and location-based emission factor of Russian factory's energy consumption. We could not access market-based (source and/or supplier-specific) emission factors related to our Russian factory.

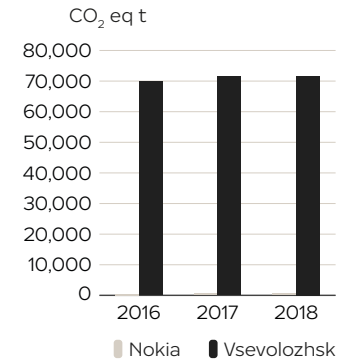
Nokian Tyres wants to contribute to tackling climate change by setting ambitious science-based climate targets. In May 2018, Nokian Tyres joined the Science Based Targets initiative with the aim of setting more precise targets that are assessed and approved by an external organization. Nokian Tyres reached its previously set targets to reduce CO₂ emissions well ahead of schedule. The new climate goals will be linked to the company's value chain as well as the environmental impacts of products. The company targets to achieve approval for Science Based Targets by 2020.

Scope 3 emissions has partly been included in our previous CO₂ emission calculations. In order to set SBTs we need to understand and manage all CO₂ emissions in all our operations. In 2018, we started screening downstream emissions and, in 2019, we will calculate our scope 3 emissions.

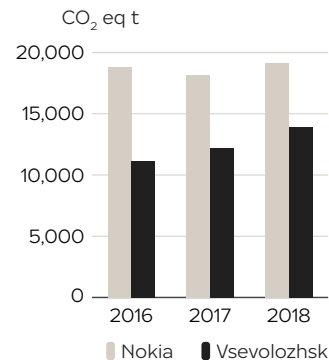
NOx and SOx emissions, Vsevolozhsk



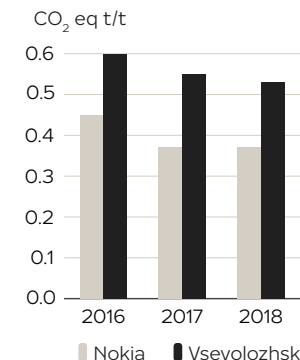
Direct greenhouse gas emissions, Scope 1



Indirect greenhouse gas emissions, Scope 2



Greenhouse gas emissions intensity ratio, Scope 1 + Scope 2/production ton



VOLATILE ORGANIC COMPOUNDS, VOCs

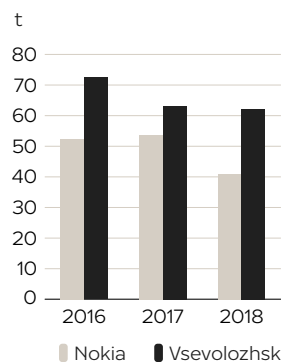
Solvents, or volatile organic compounds (VOCs), form our most significant emissions into air. As the legislation concerning VOC emissions is country-specific, our calculation and reporting of VOC emissions varies by country.

In Finland, we follow the European VOC Directive, which stipulates that emissions are calculated based on the used solvents. We use solvents in our factory only in the production of heavy tires and retreading material for improving adhesion. The VOCs from retreading material production and the assembly of heavy tires are collected and conveyed to a catalytic incineration plant. 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 such that all emissions could be collected and conveyed for incineration.

In Finland, we aim to comply with the total emission limit of the European VOC Directive, which is 25% of the solvents used. In 2018, the total solvent emissions was 29% of used solvents.

No solvents are used in tire manufacture at our Russian factory. According to the local legislation, emissions are calculated based on emission measurements. VOC emissions are generated due to the raw materials used in the processes.

VOC emissions



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 both of our factories. The dust that passes through the filter system mainly causes an aesthetic inconvenience and poses no harm to the environment or health.

ODOR

According to surveys that we have commissioned, 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 for reducing the odors from mastication. 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.

In the past two years, our factories have introduced new odor control equipment that represents the best available technology (BAT). In Vsevolozhsk, the technology covers all the mixing lines, whereas in Nokia the technology is being implemented gradually.

In 2018, we were contacted twice concerning odor emissions in our Russian factory. Investment plan for more comprehensive odor reduction equipment is under evaluation.

NEW SCRUBBER SAVED 185 TRUCKLOADS OF FUEL

The energy company Nokianvirran energia installed a new scrubber in its power plant in Fall 2018. The Nokian Tyres is the second biggest owner of the company, which provides all of the steam and hot water energy to our factory in Finland.

The installment of the scrubber was a successful investment in saving energy and reducing CO₂ emissions. According to calculations of the energy company, it saved approximately 185 truckloads of fuel in the three first operating months alone. Altogether the scrubber has been estimated to save up to 50,000 MWh of energy in a year.

In the scrubber system the gas stream is brought into contact with a water-based liquid allowing the heat to pass from the gas to the liquid. The liquid is then forwarded into the district heating system.

The energy company invested around 3 million euros in the scrubber. It reduces the low levels of the emissions even further and saves the company an estimated 400 fuel truckloads in a year. This also means less heavy traffic and emissions from fuel trucks.

- The new scrubber confirms the importance of sustainable choices in everyday work. It is an investment in cleaner air and energy, says Vice president, Quality and Sustainability Teppo Huovila.

The power plant of Nokianvirran energia is a new biomass plant, which began operating in 2016. It has been estimated to reduce CO₂ emissions up to 60,000–80,000 tons a year. The new plant enabled the company to give up the use of natural gas and to use domestic bioenergy sources. It also utilizes the secondary flows of the Essity Finland paper factory.

NOISE

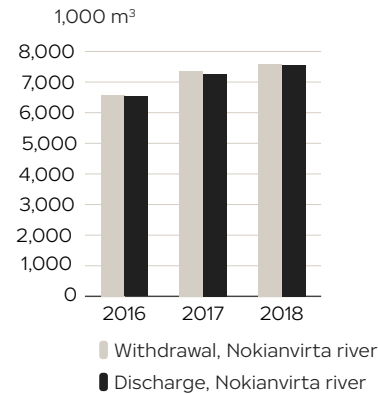
Our production facilities have noise limits subject to their environmental permits. We regularly track and measure noise emissions. According to the measurements, we are below the noise limits.

WATER AND WASTEWATER

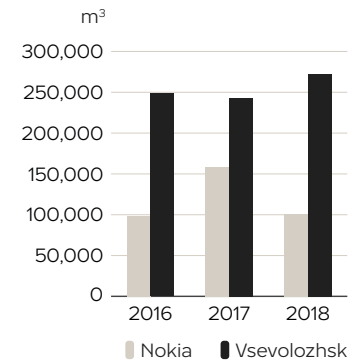
Our tire manufacturing processes use large quantities of cooling water. In Nokia, we take cooling water from the nearby Nokianvirta river and discharge it back into the river after use. The Russian factory uses municipal tap water for cooling and then conveys it to a wastewater treatment plant. The cooling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

In Nokia and Vsevolozhsk, we take annual samples from the cooling water and from the wastewater conveyed to the municipal treatment plant in order to verify the water quality. The wastewater conveyed into the municipal sewage system and the cooling waters have been practically clean. We aim to reduce the consumption of municipal water by 25% by 2020 compared to the 2013 baseline. In 2018, our consumption of municipal water (m³/ton of products) was approximately 40% lower than in 2013.

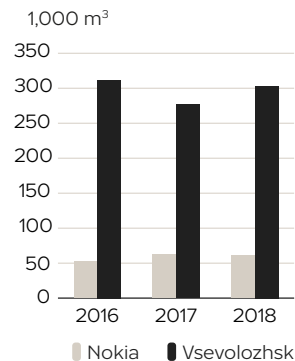
Cooling water, Nokia



Water discharge, Sewage



Total water withdrawal
Municipal water



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 but, in general, recycled materials contain impurities that would degrade our products' safety characteristics. This is why we primarily use virgin raw materials in our production.

WASTE

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

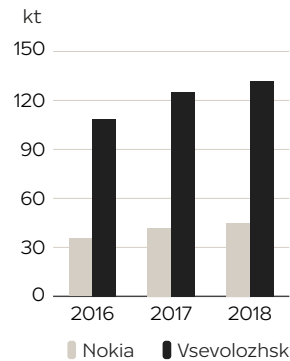
We weigh all production waste and record the department-specific volumes on a monthly basis. For other types of waste, we prepare reports annually. The waste volumes are determined in weighing by waste management companies. We sort the generated waste at our factories in accordance with separate waste management instructions. Most of the production waste is taken directly to be utilized. We store hazardous waste separately at the collection points in containers that carry warning labels.

RECYCLABLE WASTE

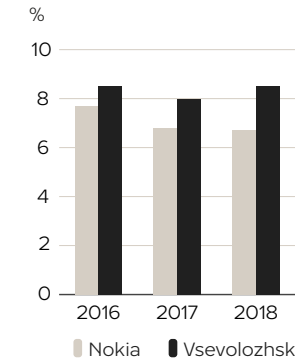
The utilization rate of our production waste has been growing for years.

Scrap tires, or tires that do not meet our high standards of quality, are taken to recycling directly from production. Non-vulcanized scrap rubber is generated in the production stages preceding vulcanization or curing. These material's reuse applications include impact padding, conveyor belts, and other rubber products that do not have as critical material requirements as 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.

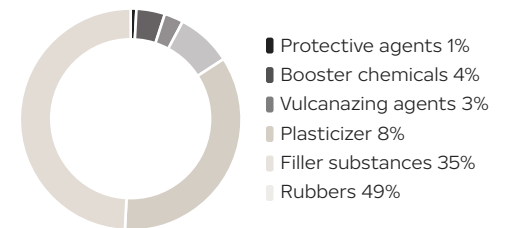
Raw materials
Non-renewable raw materials



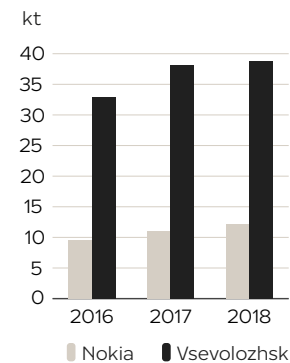
Raw materials,
Percentage of materials used
that are recycled input materials



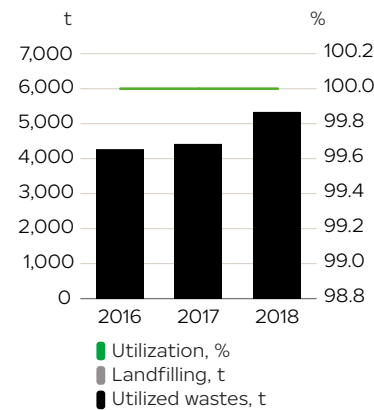
Raw material composition of rubber
compound of passenger car tire



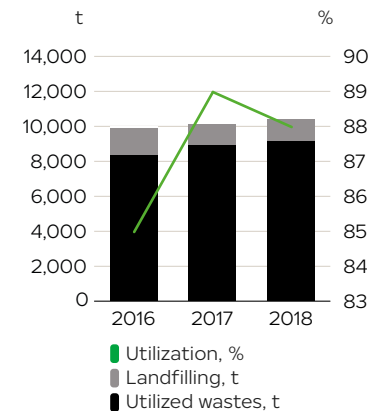
Raw materials,
Renewable raw materials



Amount of wastes,
Nokia



Amount of wastes,
Vsevolozhsk



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 utilization. Our goal for 2020 is that no waste generated in production is taken to a landfill. In 2018, 100% of factory waste in Nokia and 88% in Vsevolozhsk was sent to utilization, so we are heading in the right direction.

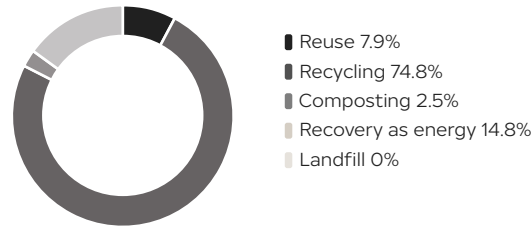
HAZARDOUS WASTE

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 Nokia factory is utilized for energy or as materials.

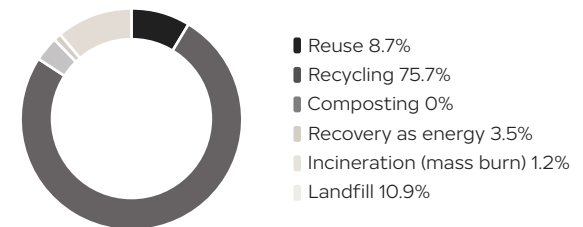
OTHER LOCATIONS

Our sales companies and Vianor stores 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. In connection with our group's energy-efficiency audits, we carried out energy efficiency assessments in two Vianor service centers during 2018. Furthermore, our sales companies and Vianor service centers pay attention to the efficiency of product transports.

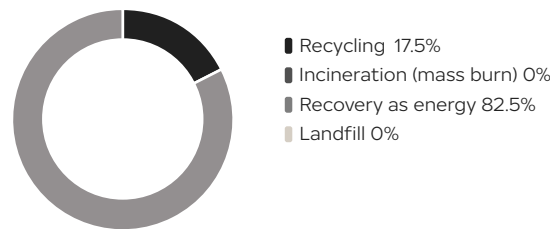
Wastes by disposal method, Nokia*



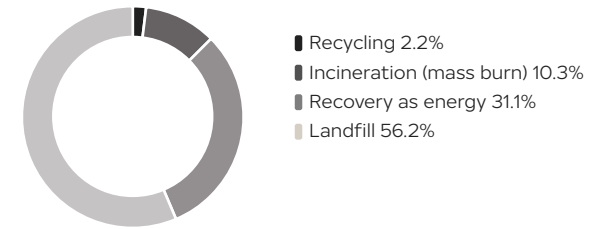
Wastes by disposal method, Vsevolozhsk*



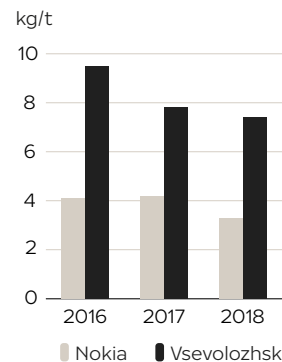
Hazardous wastes by disposal method, Nokia*



Hazardous wastes by disposal method, Vsevolozhsk*



Hazardous wastes*



Total waste by disposal method Nokia + Vsevolozhsk*

Disposal method	2016		2017		2018	
	t	%	t	%	t	%
Reuse	1,736	12.2	1,611	10.8	1,330	8.4
Recycling	10,056	70.9	10,884	73.1	11,898	75.4
Composting	26	0.2	42	0.3	131	0.8
Recovery as energy	830	5.9	862	5.8	1,162	7.4
Incineration (mass burn)	128	0.9	317	2.1	122	0.8
Landfill	1,398	9.9	1,180	7.9	1,132	7.2

*Information of waste disposal methods are provided by the waste disposal contractors.

A TIRE'S LIFE CYCLE AND RECYCLING

We use "life cycle" to refer to the different stages a product undergoes from manufacture to use and, ultimately, recycling. The life cycle of a tire begins with a rubber tree in the southern hemisphere, for example in Indonesia or Thailand. The following stages of life cycle include the manufacture of raw materials and products, storage and several rounds of transportation. The tire's actual life cycle ends, for instance, when the tire is crushed and used as construction material.

The life cycle can be roughly divided into four parts:

1. Purchasing and manufacture of production inputs, such as raw materials and energy
2. Tire manufacture
3. Use of tire
4. Utilization of used tires.

The outset of our environmental protection is the life cycle approach. This means that we take responsibility for the environmental impacts of our activities and products throughout their life cycle. In accordance with our purchasing policy, our product procurement process includes determining our suppliers' commitment to the environmental aspects. In 2018, 72% of our raw material suppliers had the ISO 14001 certification. We require all of our contract partners, including suppliers and contractors, to commit to our principles.

Most of the environmental impacts during a tire's life cycle are generated during its use. The single most important factor is the vehicle's fuel consumption. Fuel consumption can be decreased by reducing the tire's weight and rolling resistance, thereby cutting the exhaust gas emissions and the formation of greenhouse gases. However, the most significant factor affecting the level of exhaust gas emissions is the driving style. Economic driving can lower fuel consumption by 10–20%.

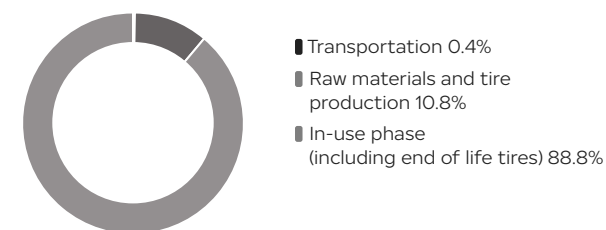
Since the most significant environmental impact over a tire's life cycle comes from fuel consumption during use, the following diagram presents a tire's environmental impacts as the carbon footprint.

WE PARTICIPATE IN THE RESEARCH ON THE POTENTIALLY HARMFUL EFFECTS OF MICRO POLYMERS

Motor vehicles have been brought up as one of the sources of microplastics that are ending up in seas and other bodies of water. In the context of tires, the term "microplastics" is somewhat misleading because tires contain rubber rather than plastic. However, plastic and rubber are both polymers.

Many publications include the dust created during tires' contact with the road – i.e. wear particles from the tire and road surface – under micro polymers or microplastics. Out of the particles that are generated, roughly one half comes from the tire and the other half from the road surface. As the particles are quite heavy, most of them settle along

Carbon footprint over a tire's life cycle



roads, a small fraction of them remains airborne and only 2% to 5% of released particles may reach the estuaries.

As a tire manufacturer, we are responsible for the safety of our products. The friction between the tire and the road is a significant safety factor and it is required for a tire to grip properly. Friction also causes tire and road wear, resulting in wear particles. In tire design, we aim for the best combination of wear durability, on the one hand and grip and safety characteristics, on the other hand, in order to optimize the tire in terms of road safety and eco-friendliness.

ADDITIONAL RESEARCH IS REQUIRED

The current research has noted that, in fresh water areas, particles in sediments may pose a low risk to some aquatic organisms. However, additional research is required in order to determine whether the particles that enter bodies of water pose harm to the ecosystem or human health.

One important aspect of reducing the harmful impacts of driving is how we can prevent particle emissions from traffic or control them in an eco-friendlier way from the infrastructure perspective. Such areas for improvement could include sewer systems, ditch embankments or water purification.

We are actively following the studies on this topic and [participate in external studies ordered by ETRMA](#) and other organizations. Reliable field and laboratory tests for understanding the nature, harmful impacts and routes of entry of the particles are required because many of the current estimates are based on mathematical models and calculations.

We are committed to continuous improvement and are developing our products and functions to be even more eco-friendly. We take human safety and health very seriously.

Environmental impacts during a tire's life cycle

INPUT	PRODUCTION	USE	END OF LIFE
Raw materials ●●●	VOC ●●	Fuel consumption ●●●	Impacts on scenery ●
Energy ●●	Particles ●	Tire noise ●	Tire incineration ●
Water ●	Odor ●●	Impacts on terrain ●	Utilization of used tires ●
	Noise ●	Road erosion ●	Retreading ●
	CO ₂ ●	Tire particles ●	
	Utilized waste ●		
	Hazardous waste ●		
	Landfill waste ●		
	Cooling water ●		

- Low
- Moderate
- Substantial

- Global
- Regional
- Local

If future research indicates that micro polymers are harmful, we will react accordingly and look for new solutions.

RETREADING OFFERS ECO-FRIENDLY DRIVING

The Nokian Noktop retreading complements our service range and brings cost savings and more ecofriendly kilometers to professional driving. 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%.

CO₂ emissions are generated during tire production as well as driving. Retreading has a significant impact on the carbon footprint of tires: manufacturing a new tire results in approximately 220 kg of CO₂ 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 compared to new tires. Our new Nokian E-tread product family provides even higher raw material and energy savings. As a result of our product development efforts, we are able to recycle our tires' excellent tread rubber compound even more efficiently without compromising on quality.

Our winter tires for trucks and buses and our Noktop retreading materials use a Cap/Base structure that is optimized for the seasons in the north. Its tread is composed of two layers. When a tire is fitted in the Fall, the softer top layer (Cap) provides winter grip. The top layer will wear out by the spring, revealing the harder rubber compound (Base), which ensures that the tire delivers sturdy performance in the following summer.

WHERE DO TIRES END UP AFTER USE?

Approximately 3.3 million tons of used tires are discarded each year in Europe. Luckily for the environment, discarded tires are not worthless and can serve various reuse or

recycling applications. Among other things, the tires can be used in noise barriers along motorways or as an elastic base material in horseback riding arenas.

If tires are not appropriately recycled, they will end up in the environment or pile up in garages. The recycling rate of tires in Finland is high compared to many other countries. In 1995, Nokian Tyres and other companies in the tire industry established the Finnish Tire Recycling Ltd in order to promote the centralized collection and utilization of tires nationally. 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. In Russia, the tire recycling rate is low. According to local legislation, in 2018, our tire recycling had to be equivalent to 20% of our total sales in Russia, and we met that target. Our tire recycling rate was 81% of our total sales in 2018.

Part of recycled tires is utilized for material; they are shredded or granulated to replace rock materials in various road construction and civil engineering applications. Rubber chips are light, insulate moisture, and maintain their form. They support the road surface and make asphalt quieter. The flexible properties of rubber are put to use once more when it is reused as a base material for sports venues.

Retreading is one of the best recycling methods. If the carcass of a tire is undamaged, it can be retreaded. Bus and truck tires, for example, can be retreaded up to 2–4 times.

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. As one of the original founders of Finnish Tire Recycling Ltd we are involved in their work of looking for new ways to recycle and utilize tires.

INDEPENDENT ASSURANCE REPORT TO THE MANAGEMENT OF NOKIAN TYRES PLC

We were engaged by the Management of Nokian Tyres plc (hereafter Nokian Tyres) to provide limited assurance on corporate sustainability information presented in Nokian Tyres' Corporate Sustainability Report 2018 (hereafter the Corporate Sustainability Information) for the year ended Dec 31, 2018.

Management's responsibilities

The Management of Nokian Tyres is responsible for the preparation and presentation of the Corporate Sustainability Information in accordance with the GRI Sustainability Reporting Standards, and the information and assertions contained within it; for determining Nokian Tyres' objectives in respect of 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. These procedures included for example:

- Interviews with members of Nokian Tyres senior management;
- An assessment of conformity with the reporting principles of GRI Standards in the presentation of the Corporate Sustainability Information;
- An assessment of coverage of the material aspects selected for the Corporate Responsibility Information and the definition of reporting boundaries in the context of Nokian Tyres' business operations and sector;
- An assessment of data management processes, information systems and working methods used to gather and consolidate the Corporate Sustainability Information;
- A review of the presented Corporate Sustainability Information with an assessment of information quality and reporting boundary definitions;
- Assessment of data accuracy and completeness through a review of the original documents and systems on a sample basis and;
- A site visit conducted to one 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

Based on the procedures performed and the evidence obtained, 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 reporting criteria GRI Sustainability Reporting Standards.

Helsinki, 8 March 2019
KPMG OY AB

Lasse Holopainen
Authorised Public Accountant

Tomas Otterström
Partner, Advisory

GRI CONTENT INDEX

All Standards according to 2016.					
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102-2	Activities, brands, products, and services	4			
102-3	Location of headquarters	4			
102-4	Location of operations	4			
102-5	Ownership and legal form	4			
102-6	Markets served	4			
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102-8	Information on employees and other workers	49–51	6	8	
102-41	Collective bargaining agreements	49	3	8	
102-9	Supply chain	18–19	1, 2, 4, 5, 10		
102-10	Significant changes to the organization and its supply chain				No changes.
102-11	Precautionary Principle or approach	14–15, 54	7		
415-1	Political contributions	15	10		
102-12	External initiatives	17			
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102-45	Entities included in the consolidated financial statements	The Financial Review 2018			All units of the Group are included.
102-46	Defining report content and topic Boundaries	17			
102-47	List of material topics	13			
103-1	Explanation of the material topic and its Boundary	18, 9–12			
103-2	The management approach and its components				
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102-48	Restatements of information	17			
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All Standards according to 2016.					
Disclosure Number	Disclosure Title	Page Number	UNGC	SDG	Omissions/ more information
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102-44	Key topics and concerns raised	21–22			
102-50	Reporting period	17			
102-51	Date of most recent report	17			2018
102-52	Reporting cycle	17			Report is published annually.
102-53	Contact point for questions regarding the report	4			
102-54	Claims of reporting in accordance with the GRI Standards	17			
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102-56	External assurance	75			
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102-16	Values, principles, standards, and norms of behavior	9–10, 43	10		
103-1	Explanation of the material topic and its Boundary	18, 28–30		5, 8	
103-2	The management approach and its components	18, 28–30			
103-3	Evaluation of the management approach	18, 28–30			
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103-1	Explanation of the material topic and its Boundary	18, 39–42	1, 2, 3, 4, 5, 7, 8, 9		
103-2	The management approach and its components	18, 39–42			
103-3	Evaluation of the management approach	18, 39–42			
301-1	Materials used by weight or volume	69–70	7, 8	8, 12	
301-2	Recycled input materials used	70–71	7, 8	8, 12	
302-1	Energy consumption within the organization	65–66	7	8, 12, 13	
302-3	Energy intensity	66	8	8, 12	
303-1	Water withdrawal by source	69	7, 8		
305-1	Direct (Scope 1) GHG emissions	67	7, 8	3, 12, 13	
305-2	Indirect (Scope 2) GHG emissions	67	7, 8	3, 12, 13	
305-4	GHG emissions intensity	67	8		
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	67	7, 8	3, 12, 13	
306-1	Water discharge by quality and destination	69	8	3,12	

All Standards according to 2016.					
Disclosure Number	Disclosure Title	Page Number	UNGC	SDG	Omissions/ more information
306-2	Waste by type and disposal method	70–71	8	3	
307-1	Non-compliance with environmental laws and regulations	63, 64			
103-1	Explanation of the material topic and its Boundary	18, 53–55	6		
103-2	The management approach and its components	18, 53–55	6		
103-3	Evaluation of the management approach	18, 53–55	6		
401-1	New employee hires and employee turnover	50	6	8	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	11, 45		8	
404-2	Programs for upgrading employee skills and transition assistance programs	46, 48		3, 8, 13	
404-3	Percentage of employees receiving regular performance and career development reviews	46	6	3, 5, 8	
405-1	Diversity of governance bodies and employees	51			
205-2	Communication and training about anti-corruption policies and procedures	15, 23	10		Training percentage will be reported in 2019 when the new training programme of personnel will be fully applied.
103-1	Explanation of the material topic and its Boundary	18, 29–30	7, 8, 9	13	
103-2	The management approach and its components	18, 29–30			
103-3	Evaluation of the management approach	18, 29–30			
416-1	Assessment of the health and safety impacts of product and service categories	35–37	7		
NT1	Extent of mitigation of the environmental impacts of products and services	35	7, 8, 9	11, 13	The material topic does not represent the GRI standards and therefore its indicators cannot be presented. The company will develop measurement and management of the topic.
NT2	Reducing the rolling resistance of tires	31, 36	7, 8, 9	11, 13	The material topic does not represent the GRI standards and therefore its indicators cannot be presented. The company will develop measurement and management of the topic.

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