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Our corporate sustainability in 2016

50% Biomass power plant

A biomass power plant that supplies our Nokia factory started its full production in early April. The new plant reduces the use of fossil natural gas in favour of local energy sources. With our investment in the plant, the proportion of renewable energy sources will grow to approximately 50%, p. 79.

ATTEND CONTRACT

87%

The proportion of tyres that reduce fuel consumption through ultra-low rolling resistance was 87%, p. 36.

Renewable raw materials

In late 2016, we started using a new bio-based raw material in our production that improves the elasticity of rubber, p. 37.

Promoting sustainability among employees

Towards the end of the year, we launched a multi-lingual online training course on corporate sustainability and ethics for all of our employees.

18%

We reduced the GHG emissions of our production facilities by 18%.

100%

100% of the waste generated at our Nokia factory is utilised.

Advances

We improved our total score in the Dow Jones Sustainability Index assessment and exceeded the industry average in 17 out of 18 assessment criteria.

Nokian Tyres: An expert of demanding conditions

Nokian Tyres is the world's northernmost tyre manufacturer that promotes and facilitates safe transport under demanding conditions, while respecting environmental values. In freezing blizzards or heavy summer rain, our tyres offer reliability, performance and peace of mind. We are the only tyre manufacturer that focuses on products and customer needs for demanding conditions.

Our reliable and innovative tyres for passenger cars, trucks and heavy machinery are primarily marketed in areas where changing seasons create demanding driving and operating conditions. We design and produce our tyres for a range of different conditions, which is a unique approach in the tyre industry. The rough roads and extreme weather conditions of the north require different tyre structures and rubber compounds than the warmer climate in Southern Europe, for example.

For more than 80 years, Nokian Hakkapeliitta has been the leading winter tyre brand in the Nordic countries and Russia. Our position as the market and price leader is established by our most important competitive advantages: a quality image that is based on innovations, state-of-the-art technology and decades of user experiences as well as our strong distribution network and competence in logistics.

The group also includes Nokian Heavy Tyres, which focuses on special tyres for the heavy industry, and the Vianor tyre chain, which conducts wholesale and retail sales in Nokian Tyres' key markets.

In 2016, the company's turnover was nearly €1.4 billion, and it employed more than 4,400 people. Nokian Tyres is listed on Nasdaq Helsinki.

→ Learn more about the company's ownership structure on our website.

Excellent production and efficient distribution

Our company has three factories in Finland and Russia. In 2006–2016, we invested about €1 billion in our factories, and the facilities represent the absolute best in the industry in terms of productivity and quality. In addition to our own production facilities, we utilise contract manufacturing according to high standards of quality. In 2016, contract manufacturing accounted for approximately 3% of the total sales volume. 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 certification for our production facilities in Nokia and Vsevolozhsk as well as for the Swedish sales company.

We mainly sell our products in the aftermarket. Our key markets are the Nordic countries and Russia, where Nokian Tyres is the market leader in premium tyres. Central Europe and North America are other important markets for us in terms of profitable growth.

Turnover: €**1.4 billion** Employees:

4,400

Market: 63 countries

- Nokian Tyres' products were sold in 63 countries
- Russia, Finland, Germany, Sweden and Norway accounted for 68% of all sales
- Nokian Tyres' dealer network (Vianor, NAD and N-Tyre) comprised 3,102 outlets by the end of 2016

Nokian Tyres' growth is supported by the dealer network, which includes the Vianor and Vianor Partner chains, Nokian Tyres Authorized Dealers (NAD) and the N-Tyre network. The extensive Vianor chain spearheads Nokian Tyres' growth in key markets. At the end of 2016, the chain included a total of 1,501 outlets in 27 countries. The NAD network operated in 19 Central European countries and China with 1,481 outlets, while the N-Tyre network covered 120 outlets in Russia and the CIS countries.

Vianor: Responsible tyre sales and comprehensive service close to the customers

The Vianor chain specialises in car maintenance and tyre services and comprises a network of 1,501 outlets in 27 countries. Our strength is our expertise in challenging driving conditions which stems from our Nordic roots. Most of our outlets are located in the Nordic countries, Russia and Eastern Europe. We also have locations in Central Europe and the East Coast of the United States.

Our retail store chain and online stores serve both consumers and corporate customers. For corporate customers, Vianor has also developed digital services for fleet and tyre management which allow customers to boost their business.

The tyre selection covers all sorts of tyres for passenger cars, vans and trucks as well as heavy specialist machinery. Vianor also represents and sells many other tyre brands in addition to Nokian Tyres' products. Vianor offers tyres, tyre-related services and car maintenance to all of its customer groups; car maintenance forms an increasingly important part of Vianor's services. All of the services related to driving are conveniently available under the same roof.

Safety is part of the everyday work

Vianor's operation is guided by the company's management system, Vianor Way, which is built around understanding the customers and helping them drive as safely as possible. The sustainability management system complies with the ISO 9001, ISO 14001 and OHSAS 18001 standards. In addition, Vianor's processes have become even safer over the years, and the company's trained personnel use appropriate equipment. Responsibility is visible in the everyday work at Vianor: it is important to properly guide the customer to choose the safest tyres in the price category that the customer has selected. Enabling customers to drive safely is becoming an even more comprehensive process than before because Vianor's car maintenance services offer customers an easier and better way to take care of the entire car in just one location. The extensive network provides service everywhere.

Our tyre storage service is part of improving safety: we clean and inspect the tyres that we store and if they are at the end of their service life we notify the customer and help him or her purchase a set of new, safe tyres.

An important element of responsibility in Vianor's service is the inspection card that each customer receives after a tyre change or car maintenance. It contains safety observations made during the work, from tyre inflation pressure to technical faults.

All in all, Vianor is a growing service company that differentiates itself by offering a wide range of products and services for consumers and companies and by continuously developing innovative digital services and an extensive service network. Vianor aims to be a partner that enables all of its customers to drive safely and effortlessly – and enjoy the most comfortable service.





A year in sustainability: our transparency and own example promote ethics throughout the tyre industry

Company operations on a strategic and operational level require continuous development efforts. We at Nokian Tyres have been conducting sustainable business for decades, constantly aiming for better products and business functions and a more open dialogue with our stakeholders. Starting in 2012, we have published group-level sustainability reports in line with the GRI guidelines, and before that we published several annual EMAS reports. In December 2015, we joined the United Nations Global Compact initiative, after which we have started our efforts for better meeting the initiative's requirements.

A good example of our desire to improve the practices

Our customers and consumers took the message in a constructive way, believing that this makes us an even more responsible company. the ETRMA, the European Tyre and Rubber Manufacturers' Association. Even though our proposal was not accepted at this time, we decided to apply these rules to our own business. Through our own example, we want to improve the reliability of testing and the entire industry. As a relatively small company, we only have modest means to influence the industry through our membership in various organisations. However, we have a strong history in making a difference by setting an example. By discontinuing the use of high aromatic oils faster than other companies, we contributed to the tyre industry abandoning them several years earlier than planned. With initiatives like this, we can influence tyre production positively as an industry pioneer.

Enabling consumers to drive safely has been and will always be one of our essential sustainability goals. Our tyres that succeed in transparent, reliable tests are the component of our sustainability efforts that consumers see in their everyday life. We have made winter traffic safer through each new generation of Hakkapeliitta tyres. Our work for safe driving has continued for decades and, during the fiscal period, the Hakkapeliitta tyre celebrated its 80th anniversary.

However, safety is important for our working environment as well as our products. The positive development in occupational health and safety continued in 2016: the number of accidents decreased nearly 30%, we improved the reporting rate of safety observations and we established a new kind of safety culture and enthusiasm together with the personnel. We will continue our work for ensuring a safe working environment, and the positive

in our company and the entire tyre industry is our disclosure regarding the ethics of the industry and magazine tests. This created a media stir, which ultimately focused on something other than the integrity of the ethical chain and improving sustainability in the tyre industry. Based on the media coverage, one might think that our sustainability efforts had a setback in 2016. To me, however, the situation is the exact opposite. In the past year, we took steps in the right directions in many areas. Naturally, our most visible action was our rectified approach to magazine testing, which was extensively covered by the media. I believe that our continued success despite the media reaction shows that our customers and consumers alike took the message in a constructive way, believing that this makes us an even more responsible company and a better provider of safety.

In order to improve transparency throughout the industry, we proposed consistent rules for testing practices to

trend in safety will continue in the coming years.

The agreement that we signed with our personnel in early 2016 provided more flexibility and allowed us to enjoy mutual benefits. With the new agreement, we have been able to complete the fiscal period without temporary or permanent layoffs – for the first time in years. We will continue this at least for the next couple of years. Late last year, we agreed on the details of the competitiveness pact with our Finnish personnel. The company also donated ξ 500,000 to the personnel fund as a thank you for everyone's contributions and flexibility. These actions lay a good foundation for improving the working environment and motivating our personnel in the future.

In 2016, as one main owner and investor, we helped commission a new biomass power plant in Nokia, Finland. With the plant, we took a leap forward in the use of renewable energy sources. There were also other good developments with our production: we improved productivity and reduced the amount of waste. This affects our carbon footprint as well as our consumption of natural resources. Climate change is connected with everything we do. Especially in energy production, today's business decisions will continue to affect our means to mitigate the effects of climate change for decades.

We are committed to our sustainability goals and external initiatives, which will give us an opportunity to reach an even better and sustainable future.

I hope you enjoy our report, Ari Lehtoranta President and CEO (until Dec 31st 2016)

The sustainability goals guide us in the right direction

For decades, we have worked for safer and eco-friendlier transportation and improved our social, economic and environmental responsibility. External assessments also show that we are on a good level. In the annual Dow Jones Sustainability Index assessment, for example, we once again improved our total score and exceeded the industry average in 17 out of 18 assessment criteria. However, despite the improvements and our long-term development efforts, we still have work to do.

In the near future, we will especially focus on reducing greenhouse gases through better energy-efficiency in production and lower rolling resistance of our tyres. Further improvements in terms of rolling resistance enable reducing CO₂ and other exhaust emissions from traffic by millions of kilograms per year.

Resource-efficient operation has been one of our priorities for years. In the past three years, we have managed to reduce waste generation in our production by a third. Our unit in Nokia is already now a zero landfill factory, which means that all waste generated in its production is utilised. We have set the same goal for our Vsevolozhsk factory.

In order to improve the sustainability of the purchasing chain and the coverage of our supplier assessments, we stared partnering with an external auditor. We aim for more detailed supplier assessments especially in the natural rubber purchasing chain. Moreover, all of our raw material suppliers must conduct a sustainability self-assessment in 2017. The above examples and our other corporate sustainability goals aim for improving our results in the various sustainability categories and the transparency of our operations in the future.

We also focus on our personnel and company culture,

emphasising sustainability more than before. Every day, each Nokian Tyres' employee should make decisions that ensure ethical behaviour and excellent results. One concrete example of our efforts is our online training course on sustainability, which we published in late 2016 for our personnel in several languages. Our clear sustainability goals (p. 13) act as beacons that guide the actions of our personnel.

We promise to continue promoting sustainability and ethical behaviour in the tyre industry by working hard and setting a good example.

Teppo Huovila

Vice President, Quality, Sustainability and ICT

Hakkapeliitta Way

SUSTAINABILITY MANAGEMENT • MATERIALITY ASSESSMENT • VALUE CHAIN • STAKEHOLDER ENGAGEMENT



HAKKAPELIITTA WAY

Sustainability management

Sustainability is a natural part of our business: sustainable product development, safe and eco-friendly products and high standards of quality in what we do. We ensure that our actions do not harm the environment or people. Our tyres 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, and also consider investors, customers and other stakeholders. Sustainability is an essential part of our daily work and leadership, which is mainly guided by the group strategy.

Our group strategy in a nutshell

We have combined our values, strategy, goals and Must-Wins into one picture that visualises how we build our success sustainably and continuously improve our operations together.



Our values guide us to succeed

Our company culture, the Hakkapeliitta Spirit, lays a solid foundation for improving our company and building success. The basic elements of the Hakkapeliitta Spirit are our values, which guide and support the implementation of our strategy.

- Inventiveness: We develop and create things and boldly question the existing practices!
- Entrepreneurship: We want to be the best and most sustainable tyre company!
- **Team spirit:** We respect and support each other!

Our strategy and goals provide the guidelines for our business

Our strategy of focus areas builds around our role as an expert in challenging conditions: we ensure that our customers receive a safe, high-quality and eco-friendly tyres as well as the excellent service in the industry. Our unique work community develops and manufactures premium tyres whose clever innovations provide added value in different applications, from forestry work to safe driving on highways. A committed and extensive distribution network and effective logistics help us ensure the good availability of our products throughout the peak season. We focus on regions where the driving conditions are demanding due to the changing seasons, and sell the majority of our products in the aftermarket.

The values and strategy form our short-term roadmap (Must-Wins) and the goals that keep us on the path to profitable growth. We want to be the leader in premium tyres in our key markets and a tyre technology pioneer. We aim to grow faster than the market each year and provide the best products and services in the industry. We intend to offer a stable dividend policy for shareholders and an excellent and inspiring work community for our personnel. We want to be the top consumer choice and our customers' number one partner.

Systematic leadership of sustainability improves the operations and company culture

Our strategy of focus areas also guides our choices in terms of sustainability. We work hard together for improving the sustainability of our company, functions and products.

We take into account the entire product lifecycle and all of our business functions, and intend to go beyond the minimums required by the law and applicable standards. We emphasise the management of sustainability in every function and all of our supply chains. We want to be the most sustainable and ethical tyre company and an industry pioneer.

Our sustainability functions are led by Vice President of Quality, Sustainability and ICT, who is ultimately responsible for meeting the goals of corporate sustainability. This person is also part of the group's management team.

All supervisors' duties include day-to-day leadership of sustainability. Larger topics and guidelines are discussed by the management team and, if necessary, by the Board of Directors.

The Nokian Tyres' dedicated Corporate Sustainability workgroup comprises finance, purchasing, communication, environment, quality, consumer, customer service and HR experts. The workgroup's main task is to design and promote measures for better 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. Sustainability of the purchasing chain is being developed and guided by the Sustainable Purchasing workgroup. The Energy Efficiency workgroup promotes means for improving energy efficiency throughout the group. Product Development creates safer and more eco-friendly products by reducing rolling resistance, for example.

Department-specific occupational health and safety groups, environmental representatives and other local

We take into account the entire product lifecycle and all of our business functions, and intend to go beyond the minimums required by the law and applicable standards.

Board of Directors Group's management team Day-to-day leadership of sustainability Corporate Sustainability workgroup Nokian Heavy Tyres Nokian Tyres Vianor management team management team management team Risk management **Product Development** Safety Management workgroup Sustainable Purchasing workgroup Energy Efficiency workgroup Day-to-day work on sustainability and ethical behaviour by the personnel Department-specific occupational health and safety groups **Environmental representatives**

workgroups focus on improving 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 workgroup support the work for improving the safety culture and implementing changes in the group.

The graph above describes the leadership of sustainability at Nokian Tyres.

Leadership of sustainability at Nokian Tyres

SUSTAINABILITY MANAGEMENT

Five areas of sustainability

We have divided corporate sustainability into five clear categories: Hakkapeliitta Way in corporate sustainability, Economy, Planet, People and World on Wheels – product liability.

The Hakkapeliitta Way category comprises five sustainability principles in our group that are connected with our strategy:

- Transparent and comprehensive reporting: As a public company, we follow the statutory requirements and the rules of the stock exchange on the publicity of information that is relevant to our business. We also follow the principle of transparency in line with the Global Reporting Initiative guidelines. We aim at meeting all of our stakeholders' reasonable requirements.
- Business ethics and compliance with the laws and regulations: We follow the board-approved Ethical Guidelines in our business. They specify the ethical principles for our business, instructions for ethical issues and a code of conduct. We follow the law and the group's internal guidelines and respect the spirit of the law in every country of operation.
- Responsible purchasing of raw materials, goods and services: We follow the UN Global Compact principles as well as our own ethical guidelines, which also address the issues of responsibility in the purchasing chain. Furthermore, we require all of our raw material suppliers to adhere to our Supplier Code of Conduct and to have an ISO 9001 certified quality management system in place. Our goal is for all suppliers to have valid ISO 14001 environmental certification.
- Good corporate citizenship: We are committed to supporting good corporate citizenship, sustainable development and continuous improvement. We want to take care of our stakeholders, financial standing and environment as well as to produce premium products and offer first rate service.
- Active stakeholder engagement: Active stakeholder engagement helps us to better understand our stakeholders' expectations.
 Different stakeholders may have conflicting expectations for our operations. This poses a challenge in active stakeholder engagement and communication.

The figure beside presents our areas of sustainability as well as the essential principles, commitments and guidelines that guide our business.

- → Read also our Commitment to Quality and Sustainability on our website. It comprises our valued quality and sustainability promises and the measures for meeting them.
- → Learn more about the different areas of sustainability management and their materiality on page 17.



Sustainability goals guide our operations

The corporate sustainability goals act as beacons that clearly guide the development of our operations.



Sustainability goals for 2017–2020

Hakkapeliitta Way General sustainability of our business

- We will improve our Dow Jones Sustainability Index assessment by two points each year from 2015 to 2020
- All of our raw material suppliers will have conducted a sustainability selfassessment in 2017
- All of our natural rubber processors in Asia will have been audited by 2020
- At least two out of three of our raw material suppliers will have ISO 14001 certification in 2020

World on wheels Safe and eco-friendly products

Environment

- We will cut CO₂ emissions from traffic by 500 million kg annually by reducing the rolling resistance of our products by 7% from 2013 to 2020
- Each new product generation will have a lower rolling resistance compared to the previous one

We will continuously improve customer satisfaction – by one percentage point,

Economy High customer satisfaction and profitable growth

Being a pioneer in environment responsibility

People Safe working environment and sustainable company culture

 Occupational health and safety: 70% improvement in the LTI1 accident frequency tracking from 2015 to 2020

at a minimum, in the annual customer satisfaction index

- Everyone gets to go home healthy every day
- Everyone in our group will have completed the online course on sustainability in 2017

More energy-efficient prediction

- Energy efficient production: we will cut our energy consumption annually by 1% from 2016 to 2020
 We will cut our CO₂ emissions from production by 20% (kg CO₂/kg product kg)
 - We will cut our CO_2 emissions from production by 20% (kg CO_2 /kg product kg) from 2013 to 2020 (scope 1 and scope 2)
 - We will cut the use of municipal water by 25% compared to the 2013 baseline
 - We will utilise 100% of our production waste and take no production waste to landfills; Nokia 2016, Vsevolozhsk 2020
 - Zero environmental accidents

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HAKKAPELIITTA WAY

Materiality assessment at Nokian Tyres

Identifying and assessing the material topics

During the reporting period, we applied the materiality analysis that was compiled based on the responses to the 2015 sustainability survey and comments by business unit leaders. We did not modify the 22 special sustainability topics that were determined by the analysis or their priorities.

We moved two special sustainability topics, "Rolling resistance of tyres" and "Developing innovative and eco-friendlier products", to the World on Wheels category. We want to clarify the reporting concerning product liability and communicate our commitment to develop eco-friendlier products for consumers. In order to enable better assessment of material topics regarding sustainability, this report also discusses how relevant risks and opportunities and the megatrends in sustainability impact our business.

This report is also Nokian Tyres' first Communication On Progress (COP) report in line with the UN Global Compact (UNGC) requirements. The principles are combined with the materiality analysis and the company's value chain.

→ You can read more in the Value chain section on page 22.

Scope, changes and measurement methods of the report

We publish our Corporate Sustainability Report annually online and as a PDF document. Our Corporate Sustainability Report meets the CORE level requirements of the GRI G4 guidelines. The GRI comparison table allows for easy navigation of the online report and especially its General Standard Disclosures section.

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

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

Some of the special sustainability topics identified by Nokian Tyres go beyond the company's calculation limits. Such topics include "Business ethics and compliance with the laws and regulations" and human rights questions, whose significance is emphasised early on in the rubber purchasing chain. At the moment, the company does not employ any methods for obtaining clear indicators for tracking progress with these special topics. However, through international organisations, our voluntary commitments and our own conduct, we aim to promote sustainability throughout the functions in our company's value chain.

Reporting period, publication frequency and external assurance

The contents of the Corporate Sustainability Report from the 2016 reporting period have been assured by an independent third party, KPMG Oy Ab. Furthermore, the English sustainability report has been checked for consistency with the Finnish original. KPMG's conclusions, findings and recommendations are presented in the assurance statement (p. 89). The assurance was an assignment from the executive management of Nokian Tyres plc. As the indicators for our group's environmental responsibility are compiled and calculated by the same methods as in our earlier reports, this year's results are comparable to our previous reports.

Prioritisation of the material topics

The prioritisation of special topics enables us to further develop our business, define the focus areas for sustainability reporting and improve our communication on sustainability to stakeholders. The identified special GRI G4 Topics are presented in the table below. The horizontal axis indicates the significance of a topic to Nokian Tyres and the vertical axis indicates the significance to stakeholders. Different stakeholder groups may have diverse and conflicting requests and demands and, likewise, their expectations for the company operations may vary. Instead of looking for synergies, the table separates stakeholders' expectations from those of the company. This avoids prioritising topics that are only important for both parties.

Validation of the material topics

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

→ On page 12 you can see a graph of the relationships between the company's special topics and the topics from the GRI reporting framework.

Hakkapeliitta Way in corporate sustainability

The Hakkapeliitta Way category comprises five sustainability principles that are seen throughout our operations and connected to our company's strategic goals and vision.



Transparent and comprehensive reporting

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.

Business ethics and compliance with the laws and regulations

We follow the board-approved Ethical Guidelines in operations throughout the Nokian Tyres group. The document has been published in several languages, and it specifies the ethical principles for Nokian Tyres' business, instructions for ethical issues and a procedure for the group personnel. Furthermore, the document discusses the enforcement and supervision of the rules. While local and international documents provide additional instructions, the ethical guidelines establish a strong foundation and we expect all employees to follow them. This ensures conducting ethical business at all levels of our operations.

We follow the law in letter and spirit in every country of operation. Our ethical guidelines provide every employee with instructions in case they see something in our operation that may conflict with the applicable legislation.

Responsible purchasing of raw materials, goods and services

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 purchasing chain. Furthermore, we require all of our raw material suppliers to adhere to our Supplier Code of Conduct that both parties sign, and all suppliers must, at the minimum, have an ISO 9001 certified quality system in place. We also prefer suppliers with valid ISO 14001 certification. The basic raw material for tyres 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. Nokian Tyres only purchases natural rubber from processors that we have approved. We supervise their activities through audits and collaboration with local parties.

Nokian Tyres participates in the Sustainable Natural Rubber Initiative (SNR-i, IRSG), which promotes sustainable development throughout the supply chain of natural rubber and commits everyone in the supply chain to mutual goals.

Good corporate citizenship

We are a member of various industrial and employer organisations. Our participation in such organisations depends on the current topics and our opportunities to offer our expertise. Nokian Tyres is also a member of various communities and organisations 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 ethical guidelines.

In addition to trade associations, Nokian Tyres supports 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 tyres and we produce training materials on occupational health and safety for the rubber and tyre industry together with the Centre for Occupational Safety. 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. Product safety is the most important area of sustainability with regard to our company as well as our customers and end users. We support the development of local communities and the improvement of working conditions at the start of our value chain, when possible.

Active stakeholder engagement in corporate sustainability

Active stakeholder engagement helps us to better understand our stakeholders' expectations. Different stakeholders may have conflicting expectations towards sustainability in our operations. This poses a communication challenge in stakeholder engagement.

World on Wheels

Product safety

Product safety is the most important area of sustainability with regard to our company as well as our customers and end users. We improve safety through continuous product development and testing. Extreme weather phenomena that are caused by climate change increase the importance of tyre safety and especially contribute to the increased use of winter tyres. As a leading manufacturer of winter tyres, we have a special responsibility for making transportation better and safer.

Rolling resistance of tyres

The most significant environmental impacts during the use of a tyre are caused by the vehicle's fuel consumption. Lower fuel consumption reduces the quantities of greenhouse gases released into the air. Tyres 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 tyres, and our current product line includes several products with the best A class rolling resistance according to the EU tyre label. We are continuing our efforts on further reducing the rolling resistance of our tyres.

Developing innovative and eco-friendlier products

In line with the product life cycle approach, our company pays attention to environmental aspects already when buying raw materials and designing our products, in addition to safety. We work continuously towards reducing tyre 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.

Economy

Ensuring profitable growth and maintaining a good profit level

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

Furthermore, we focus our production on core products with a good margin and invest in measures for continuously developing 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, which enables higher salaries or dividends for our stakeholders, for example.

Customer satisfaction

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

Using corporate sustainability for improving competitiveness

As a manufacturer of high-quality, innovative premium tyres designed for demanding conditions, we want to be an industry pioneer also in terms of sustainability. We invest in eco-friendly products and processes. We have developed tyres with the best A class rolling resistance according to the EU tyre label and use eco-friendly raw materials in their production. The more often our brand is associated with sustainability in addition to safety and high quality, the more we can attract sustainability-conscious customers. Improved competitiveness also in terms of sustainability supports our primary goal of profitable growth.

Systematic business risk management, including sustainability

The basic functions of every sustainable company include risk management, which involves identifying and prioritising the applicable risk factors and preparing for the main risks. At Nokian Tyres, Corporate Risk Management (CRM) also includes sustainability aspects. In 2016, we conducted in-depth assessments of sustainability risks in accordance with our roadmap, and included detailed assessments of sustainability risks.

→ Read more about our risk management on page 64.

As a manufacturer of high-quality, innovative premium tyres designed for demanding conditions, we want to be an industry pioneer also in terms of sustainability.



People

Human rights in Nokian Tyres' business operations

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 information according to this principle. Employment in our group is based on employment contracts in accordance with the local legislation and any collective agreements. Nokian Tyres' salaries are always equal to or above the local statutory minimum wage. We respect our employees' right to organise and we co-operate with the appointed representatives of trade unions.

Promoting equal treatment of people

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

High level of occupational health and safety in all operations

The health, safety and well-being of our employees and partners are essential matters for everyone at Nokian Tyres. We are committed to arranging a safe work environment for our employees and partners and ensuring that they get to go home healthy every day. We believe that every accident can be prevented and work towards a workplace with zero accidents. Through better working conditions and arranging training for our personnel and partners, we are continuously improving occupational health and safety.

Ensuring employee satisfaction and motivation

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 his or her position. All of our employees can influence their own work and the working environment. Our inventiveness programme is one way to support leadership and the active participation of our personnel in line with our company culture.

Professional development of employees

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

Planet

Reducing the use of water in tyre production

With the global water shortage, we also want to reduce the use of water in our production. Tyre production uses high volumes of cooling water: Our factory in Nokia takes the cooling water from the nearby river and our factories in Vsevolozhsk use a closed recirculating cooling water system that minimises water consumption.

Preserving and improving biodiversity at the production sites

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 surrounding environments and preserving endangered species such as the asp, freshwater pearl mussel and red-throated loon.

Eco-friendliness, energy efficiency and emissions in production

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

We are committed to reducing GHG emissions caused by our operations in order to combat climate change. Furthermore, an EC directive requires corporations to carry out energy efficiency measures, such as energy audits. By increasing the proportion of renewable energy sources, we can cut down our greenhouse gas emissions from energy consumption. Improved energy efficiency will also result in cost savings.

Reducing greenhouse gas emissions in transport and production

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 caused by our operations. We calculate the GHG emissions from our operations annually, including emissions from the transport of raw materials to us, and aim to reduce them systematically as planned. The new biomass power plant is a joint venture that will significantly reduce our GHG emissions in Nokia.

Reducing waste volumes in tyre production

Quantitatively, waste accounts for our highest environmental impact. Our factory in Nokia utilises all of the generated waste. The local infrastructure in Russia is not on We also care about maintaining the biodiversity of our surrounding environments and preserving endangered species. par with our facilities in Nokia. We are, therefore, working towards ensuring the safety of waste management in our Russian factory.

Impact on the value chain

The GRI G4 reporting model requires the company to evaluate its sustainability footprint throughout the value chain of its business. In the following diagram, we have combined our special sustainability topics with our value chain.

Commitment to external CSR initiatives and organisations

Nokian Tyres has been a member of the OMX GES Sustainability Finland Index since 2012. The index offers objective and reliable information for making responsible investments. The index comprises the 40 leading companies listed on NASDAQ Helsinki in terms of sustainability, and the index criteria are based on the international guidelines for environmental, social, and governance (ESG) issues.

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

For us, the most important organisations are the following:

- Chemical Industry Federation of Finland
- Rubber Manufacturers' Association of Finland
- National automotive and tyre industry associations in several countries

[→] You can view our value chain closer on page 22.

- ETRMA/European Tyre and Rubber Manufacturers' Association
- ETRTO/European Tyre and Rim Technical Organisation
- 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.

Communication on Progress: Nokian Tyres and UNGC

On 23 December 2015, Nokian Tyres became a participant in the United Nations Global Compact (UNGC) initiative. The initiative's ten principles cover the areas of Human Rights, Labour, Environment and Anti-Corruption measures. The voluntary initiative guides companies in integrating the principles as part of their business. Joining the UN Global Compact initiative is a significant milestone in our work on sustainability internationally. By signing the initiative, our group is even further committed to conducting profitable business in a sustainable way.

The Communication on Progress (COP) report is a tool for communicating how the Global Compact principles have been joined with the company's business. Nokian Tyres has integrated the COP report in the annual Corporate Sustainability Report in line with the GRI and UNGC instructions^{*}. Nokian Tyres estimates that this first COP report meets the requirements of the "GC Active" level.

In the greetings from the management on page 6, you can read more about the importance of the UNGC principles and how the company is committed to their continuous development and integration.

Based on the materiality analysis, Nokian Tyres has determined the special sustainability aspects. These aspects determine the sustainability management descriptions that are presented in the report. Two of them, descriptions of the management systems for personnel and environment, cover the Labour and Environment themes of the GC principles. Nokian Tyres does not have any specific management descriptions for human rights or anti-corruption measures. Rather, these areas are covered in the company's Ethical Guidelines. The Ethical Guidelines and the management systems that direct them are presented in the Sustainability management section on page 9. Based on the materiality analysis, Nokian Tyres has determined the special sustainability aspects. These aspects determine the sustainability management descriptions that are presented in the report.

In the report, the GC principles are combined with the materiality analysis and the company's value chain. This enables using the GRI G4 reporting indicators for measuring the completion of the GC principles and highlighting the areas in the company's business that are impacted the most by the principles. On page 90 of the report, the GRI G4 table presents the indicators that also measure the company's progress on the GC principles.

- → Learn more about the company's materiality analysis on p.14
- → Learn more about the company's value chain on page 23.

* Making the Connection: Using the GRI G4 Guidelines to Communicate Progress on the UN Global Compact Principles

HAKKAPELIITTA WAY

The Nokian Tyres' value chain: from raw materials to tyres and all the way to recycling

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

In the following diagram,
we have combined our
special 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 items marked with * are the topics of special significance in the Nokian Tyres' materiality analysis.

		Natural rubber	Other raw materials	Transportation of raw materials	Subcontractors	Group functions	Society	Transportation of tyres	Wholesalers	Consumers	Recycling
	Business ethics and compliancewith laws and regulations st	2 • 4 5	• 10	• 10	• 10	٠	•	•	• 10	٠	٠
	Transparent and comprehensive reporting				٠	•	•		٠	٠	
Hakkapeliitta Way	Responsible purchasing of raw materials, goods and services	• 10	٠	٠	٠	٠		•	٠	•	
Way	Good corporate citizenship					•	•			٠	
	Active stakeholder engagement in corporate sustainability	٠	٠	•	٠	•	•	•	٠	•	•
	Product safety *					•				•	•
World on wheels	Developing innovative and eco-friendlier products *					• ⁷ ₉					•
WIECIS	Rolling resistance of tyres		٠			•				٠	
	Ensuring profitable growth and maintaining a good profit level st	٠	٠	٠	٠	٠	•	•	٠		
Freedomy	Customer satisfaction *					•			٠	٠	
Economy	Sustainability as a competitive factor				٠	•	•		٠	٠	
	Systematic business risk management, including sustainability				٠	•	٠		٠		
	High level of occupational health and safety in all operations st				٠	•					
	Ensuring employee satisfaction and motivation st					6					
People	Professional development of employees *					•			٠		
	Promoting equal treatment of people					•					
	Human rights in Nokian Tyres' business operations	• ¹ ₃	• 3	3	• 3	• ¹ ₃	•			•	
	Reducing the use of water in tyre production *					8					
	Preserving and improving biodiversity at the production sites					•	•				
Planet	Eco-friendliness, energy efficiency and emissions in production					•	•				
	Reducing greenhouse gas emissions in transport and production			٠		•		•			
	Reducing waste volumes in tyre production				• 8	8					

1. Raw materials

(UNGC principles 1, 2, 3, 4, 5, 7, 10)

The main raw material groups in tyre manufacturing are synthetic rubbers, fillers, chemicals, reinforcing materials and natural rubber, which forms one fourth of a tyre's raw materials. We use more than a hundred different raw material suppliers that all follow the same rules. All our suppliers must pass the company-specified approval process. The raw materials for tyres come from everywhere in the world, and all our suppliers are committed to our purchase terms that require compliance with international human rights, labour rights and anti-corruption measures. In 2016, 67% of our raw material suppliers had the ISO14001 certification. In order to improve the sustainability of the purchasing chain and the coverage of our supplier assessments, we stared partnering with an external auditor. We aim for more detailed supplier assessments especially in the natural rubber purchasing chain. Moreover, all of our raw material suppliers must conduct a sustainability self-assessment in 2017. Here is an example of the natural rubber value chain.

1.1 Rubber production

Natural rubber forms one fourth of a tyre'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 kilogrammes of crude rubber. The crude rubber that Nokian Tyres purchases from traders comes from family farms and some larger plantations.

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 tonnes in 2016^{*}. Wholesalers, in turn, sell the crude rubber to processors. (* Source: Association of Natural Rubber Producing Countries http://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 whom Nokian Tyres purchases its 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.

2. Transportation

(UNGC 10)

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



Supervising the production of crude rubber and the UNGC principles

We supervise the activities of our raw material suppliers by audits and require all the suppliers to commit to our purchasing terms. We set specific terms for the chain up until the raw material processors.

The large number of wholesalers and family farms and their operating model prevent us from applying to them the same terms that we apply to other suppliers in our value chain. The crude rubber sourced from various farms is mixed together already at the wholesaler level, which makes it practically impossible to trace its origin before the processing stage. Especially the UNGC principles that apply to human rights and labour play a key role in all the stages of crude rubber production. We recognise the challenges with the process and are developing our purchasing practices and auditing processes for complying with the principles better. At the same time, we help the processors improve their own operation and promote compliance with the UNGC principles through international partnership with the International Rubber Study Group (IRSG).

3. Subcontractors

(UNGC 1, 3, 8, 10)

We work globally with several subcontractors in various fields, such as construction, security, cleaning, data administration, maintenance and logistics. Especially our factories in Nokia and Vsevolozhsk are frequented by dozens of subcontractors. All of our subcontractors agree to comply with our sustainability policy and ethical principles. Moreover, all subcontractors that work in our factories in Nokia or Vsevolozhsk undergo induction training on safe working practices. We compare and select our subcontractors ensures strong relationships that benefit everyone.

4. Group functions (UNGC 1, 3, 6, 7, 8, 9)

We produce tyres 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 more than 4,4000 employees contribute to our continuous development efforts with their competence and ideas according to the Hakkapeliitta Way, our way of doing business.

5. Society

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

6. Transportation

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

7. Dealers

(UNGC 10)

Our group-owned Vianor tyre chain is the largest and most comprehensive dealer in the Nordic countries, Russia and the CIS countries. By the end of 2016, it comprised a total of 1,501 outlets: 212 Nokian Tyres-owned outlets in addition to partner and franchising outlets. The Vianor chain has expanded to 27 countries in Nokian Tyres' main markets. Vianor builds a foundation for the permanent market share of the group's products and spearheads the group's growth along with our Nokian Tyres Authorized Dealers (NAD) network. Our tyres are also sold by car dealerships and tyre outlets around the world.

8. Consumers

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

Our purchases, salaries and taxes and the dividends to shareholders contribute to well-being all over the world.

9. Recycling

Most of the recycled tyres are utilised 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 arenas, such as horse riding arenas.

Retreading is one of the best recycling methods. If the carcass of a tyre is undamaged, it can be retreaded – bus and truck tyres up to two or even four times. Another way to utilise recycled tyres is to combust them for energy, as the thermal value of tyres is close to that of oil. We are constantly looking for new ways to recycle and utilise tyres.

HAKKAPELIITTA WAY

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, Communication department 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.

During the reporting period, we used the stakeholder study carried out by key persons in 2015 and the stakeholder survey about the material aspects. The table below shows the survey results with the topics prioritised by stakeholder group. We have used the results for improving our sustainability efforts and defining our material sustainability topics

\rightarrow Read more about the materiality analysis on page 14.

Better reporting on the results of stakeholder engagement is part of our sustainability topic "Transparent and comprehensive reporting", with the objective of even more open and comprehensive interaction with our stakeholders.

Stakeholder group	Stakeholder expectations in the order of importance	Company measures	Investors' etcuision
Customers	 Customer satisfaction Product safety Developing innovative and eco-friendlier products Professional development of employees, employee satisfaction and motivation 	 We constantly develop new, safe, state-of-the-art products. We provide personal service and communicate openly. Our products offer good value for money. Our experienced points of contact provide excellent service. 	Carlos a construction of the second s
Consumers	 Customer satisfaction Product safety Business ethics and compliance with the laws and regulations Developing innovative and eco-friendlier products High level of occupational health and safety in all operations 	 We constantly develop new, safe, state-of-the-art products We provide excellent service and communicate openly. Our products offer good value for money. We continuously offer new services and programmes, such as the Hakka Guarantee and Aramid Guarantee. 	R VITO VITO VITO VITO VITO VITO VITO VITO
Shareholders, investors and financing	 Profitable growth and a good profit level Transparent and comprehensive reporting Business ethics and compliance with the laws and regulations Systematic business risk management, including sustainability Product safety 	 We pay out a minimum of 35% of our net profit as dividends. We serve investors according to our promises. We manage our risks and follow our procedures. We conduct business in a reliable and sustainable way. 	Hakkapeliit.
Personnel	 Customer satisfaction Employee satisfaction and motivation High level of occupational health and safety in all operations Product safety Business ethics and compliance with the laws and regulations 	 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. 	Hakkapeliitta Christnas Hig
Subcontractors and suppliers	 Business ethics and compliance with the laws and regulations Customer satisfaction High level of occupational health and safety in all operations Employee satisfaction and motivation Responsible purchasing of raw materials, goods and services 	 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. 	

Stakeholder group	Stakeholder expectations in the order of importance	Company measures	Visit from our so.
Authorities	 Business ethics and compliance with the laws and regulations High level of occupational health and safety in all operations Product safety Responsible purchasing of raw materials, goods and services Reducing greenhouse gas emissions in transport and production 	 We comply with the laws and regulations. We maintain active, regular and open communication and reporting. We support decision making. 	Visit from our spo
Non-governmen- tal organisations	 Business ethics and compliance with the laws and regulations High level of occupational health and safety in all operations Responsible purchasing of raw materials, goods and services Reducing greenhouse gas emissions in transport and production Product safety 	 We communicate openly and actively. We provide up-to-date information on corporate social responsibility on our website. 	
Universities and research institutes	 High level of occupational health and safety in all operations Business ethics and compliance with the laws and regulations Product safety Preserving and promoting biodiversity at the production sites Reducing waste volumes in tyre production 	 We offer strong, long-term partnerships. We offer students trainee positions, thesis collaboration and expert knowledge. 	Click
Media	 Product safety Developing innovative and eco-friendlier products Business ethics and compliance with the laws and regulations Customer satisfaction Employee satisfaction and motivation 	 We communicate openly and actively. Our experts are available for comments on road safety and our products. 	Customer,
Neighbours	 Business ethics and compliance with the laws and regulations Transparent and comprehensive reporting Reducing waste volumes in tyre production Human rights in Nokian Tyres' business operations Responsible purchasing of raw materials, goods and services 	 We are a good employer and neighbour. We communicate openly and actively. We support local communities. We follow our procedures and ensure good risk management. 	

IN THE SPOTLIGHT

Maintaining dialogue with stakeholders

We communicate with our stakeholders in many different ways, from sharing information to personal meetings, enquiries and events. Our efforts include issuing notices to the neighbourhood, collaborating with educational institutions, organising personnel events for the whole family, listening to consumers and taking care of investor relations.

In 2016, we ordered the only special shape hot air balloon in Finland – "the world's largest car tyre" – for celebrating the 80th anniversary of the Hakkapeliitta. In Nokia, hundreds of people came to see the balloon, talk with us and enjoy the event. Although the weather conditions prevented the maiden flight of the balloon, the event was a success, and it allowed us to engage in fruitful dialogue with consumers and the people living near our factory in Nokia.

During the reporting period, we arranged various themes and events related to well-being for our personnel and offered an opportunity to bring their whole family to learn more about our production. We offered a range of activities, and also organised memorable events for our customers, investors and the media in our key markets. Our work with educational institutions includes other levels in addition to universities. In late 2016, we were delighted by a visit from a school that we sponsor in Nokia. Among other things, pupils from classes 1 to 6 learnt about the properties of rubber and raw materials on activity checkpoints.

In addition to the annual general meeting and other investor meetings, we offered our Finnish investors an opportunity to attend a trip to our Russian factory. Some 50 small investors accepted our offer and visited our modern factory's tyre manufacturing process and facilities in Vsevolozhsk.



World on Wheels

MANAGEMENT OF PRODUCT SAFETY AND PRODUCT LIABILITY INNOVATION IMPROVES ECO-FRIENDLINESS AND SAFETY • YOUR TYRE CHOICE MATTERS



WORLD ON WHEELS

Management of product safety and product liability

As a tyre manufacturer, we are responsible for the safety of our products. Product liability, therefore, comprises a significant part of our corporate social responsibility. We are committed to continuous improvement, with the aim of developing and manufacturing the safest, highest-quality and most eco-friendly tyres in the world. Our product development is guided by the principle of sustainable safety: the safe characteristics of a tyre must remain virtually unchanged throughout the life cycle of the product.

As a tyre manufacturer, we must ensure that the tyres that we develop, produce and market are verifiably safe to use and that they meet the quality requirements and the expectations of our customers and end users. It is also important to educate people on how to correctly use and store our products.

Product liability is connected with everything that we do. The responsibility for the safety, quality and compliance of a product extends to research and development, testing, production, procurement and purchasing, all the stages of the supply chain and the marketing and communication activities.

Our product liability management and product development are guided by our quality and sustainability principles and test policy as well as our ethical guidelines. We also comply with several requirements concerning noise, studs, chemicals, testing and tyre markings, for example.

→ Learn more about this topic under Sustainability managemenet on page 9.

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 lots that are cleared for sale comply with the applicable decrees and regulations. We systematically track product quality and swiftly take any necessary actions for ensuring safety.

We immediately take off the market any tyres that do not meet the quality requirements and might pose a risk in the traffic or cause severe harm to end consumers. Depending on the severity of the case, we may recall the products from the wholesale or retail level or, additionally, from end consumers. We immediately report all such events to the authorities in all countries where the affected tyres are being sold.

Our systems enable us to initiate a tyre recall process and communicate quickly and accurately. The procedure for taking tyres 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. They also cover country-specific instructions, such as the reporting required by the NHTSA in the United States. Our group's personnel should report any quality deviations that they become aware of.

Our group has not had any major product recalls in more than 16 years. Furthermore, our company has not been involved in any legal proceedings regarding product liability.

Key measures in 2016

Our pioneering role and desire to make a difference are reflected in our product range. Every product that we launched in 2016 has some innovation that improves safety. We set the targets for safety features, such as wet and ice grip, already at the concept stage. In 2016, we expanded our product range with new sizes and products, such as the Nokian zLine A/S, Nokian Rockproof, Nokian WR A4 and Nokian Hakka Blue 2, so that even more of the modern car models can have premium tyres in the Nordic countries, Central Europe, North America and Russia.

More transparent testing practices

We carefully design and test all of our products in order to ensure their high quality and compliance with regulations. We use up to 300 different tyre tests in our product development stage. Before a finished product enters the market, it has to comply with several national and international standards and pass tests by independent parties. Comprehensive testing amounted to roughly half of our product development costs in 2016.

In 2015, our internal auditing discovered issues with some of our magazine testing practices. Even though we had already supplied tyres for many tests directly from our stock and the largest magazine testers had purchased the tyres that they test from retailers, we wanted to rectify our practices. For consumers in the market for new tyres, the comparison tests in motoring magazines are a visible part of tyre testing. We, therefore, wanted to focus public attention to the transparency and reliability of magazine testing throughout the industry.

Transparency and responsibility lay the best foundation for developing our company further. We have changed our practices and will not supply tyres that are not intended for commercial use for magazine tests.

Our announcement stirred up public discussion. We can only rebuild our reputation by doing the right things in a transparent way and by making the safest tyres in the world.

In order to improve transparency throughout the industry, we proposed consistent rules for testing practices to the ETRMA, the European Tyre and Rubber Manufacturers' Association. Even though our proposal was not accepted at this time, we decided to apply these rules to our own We carefully design and test all of our products in order to ensure their high quality and compliance with regulations.



business. Through our own example, we want to improve the reliability of testing and the entire industry.

→ Read more about our product testing under Safety and eco-friendliness on page 36.

Goal-oriented work

We improve the safety of our products through continuous product development and testing. We invest in our innovation process because we not only want to improve road safety but also maintain our position as a manufacturer of premium tyres and technical pioneer.

We also work continuously for better eco-friendliness through lowering our tyres' rolling resistance. Our objective is that each new product generation will have a lower rolling resistance compared to the previous one.

We have a continuous strategic goal that product models launched no earlier than two years ago account for some 30% of our tyre sales over a year. By refreshing our product ranges each year, we ensure that we offer tyres that match the special needs of each market.

Product liability organisation

The responsibility for product safety and quality covers our entire supply chain and process. As a pioneer, we want to ensure that the products that we market are safe to use and of high quality.

Product development and testing form a very significant part of Nokian Tyres' business. The Vice President of Research and Development is a member of the company's management team and reports directly to the President and CEO. The organisation comprises three key functions and their support departments:

 Materials development focuses on tyres and retreading materials. New raw materials and innovations are created through research projects, often in collaboration with raw material suppliers.

- Structural design focuses on the different tyre components that affect, among others, handling, tyre noise and rolling resistance. Reducing rolling resistance is one of the key goals in our product development.
- Tread model design creates the tread models for new tyres. The tread model affects the tyre's aquaplaning properties, grip and handling, for example.

These three functions are supported by the Testing department and Tyre technology department, among others.

Testing department first tests the speed durability, wear durability and rolling resistance of tyres in laboratory conditions. Only the best tyres pass through to track testing under actual conditions. Our test drivers test the selected tyres several times over in order to obtain as much information as possible about their performance. Tyre technology department tests new ideas for tyres, provides feedback to the product development departments and takes new products to production.

The work related to product liability is carried out by cross-organisational workgroups, which enable us to ensure extensive competence at the development stage and during commercial production.

From raw materials to premium tyres

Raw materials' long and complex journey to becoming finished premium tyres involves the effort and quality assurance by thousands of professionals. It is, therefore, justified to say that all of our personnel are linked to product liability.

The following graph briefly describes the process for ensuring product liability at all stages, from raw materials to a finished tyre fitted on a car.

1. Buying and reception of raw materials

Raw materials for tyres, like natural rubber and chemicals, is bought mainly from Europe, Asia, and Russia. From Finland we get, for example, rapeseed oil. Some 50% of our raw materials are oil based and 20% renewable. Natural rubber makes up most of our renewable raw materials. The majority of raw materials are non-renewable. The only recyclable raw materials are the rubber waste materials from our own production. Each batch of raw materials is tested in our laboratory before it is used in a rubber mixture.

2. Mixing

In the early stages of production, we follow specific recipes to process the raw materials into rubber compounds that we then use in the manufacture and rubber-coating of tyre components. We test each 200-kg mixing batch in our laboratory before we put it into use. The recipes for the compounds depend on the intended properties of the tyre. Different components require different kinds of rubber compounds.

3. Component manufacture

In component manufacture, we use rubber compounds, textiles, and wires to make various components, like body plies, and the inner lining, bead, core, sidewall, sidewall wedge insert, and steel belt of the tyre. Most of the components are reinforcements, and one tyre may include 10 to 30 different components.

4. Assembly

The assembly machine begins to shape the tyre by using different components. The assembly work is done mainly by machine, and the result is a green tyre, which is still soft and shapeable.



5. Curing

The assembled green tyres are placed into a curing press, in which the high steam pressure of the curing pad presses the green tyre against the heated mould. Curing vulcanises the rubber and provides the tyre with the intended properties, such as the tread pattern, sidewall markings, airtightness, grip that affects handling, and low tyre noise.

6. Inspection

After curing, we inspect every tyre we produce both visually and by a machine. Tyres require a flawless tread pattern, pure raw materials, and an undamaged, symmetrical structure. Our trained operators inspect the tyre for flaws visually and by feel. Then, the tyre is pressurised in a testing machine and spun to inspect the roundness as well as lateral and radial force variation. Hundred percent of our tyres go through these inspections.

7. Sale, studding, storage, and shipping

The tread of a finished tyre is labelled by machine with the basic tyre information: name, size, load-bearing capacity, speed rating, product code, and EAN code. Specific tyres are studded, and then all tyres are stored. Our tyres are sold in 63 countries by our in-house sales organisation and thousands of client companies. The delivery times range from 24 hours to four weeks. Successful seasons are essential for our business.

8. Good service ensures satisfied customers

At the end of our supply chain, the sales personnel of Vianor and other retailers find the right product for each customer, taking into account the customers' type of car and driving habits, among other things. We use internal and external testing for ensuring the excellent safety and world-class innovations of our tyres. This allows the salesperson to communicate openly and stand by the product that he or she is selling.

The basis for the quality of tyres is built during research and product development. At the product development stages, we specify the manufacturing methods and equipment as well as the requirements for the raw materials and the finished product. An essential part of product development is designing the industrial production. It involves ensuring that the manufacturing methods function in a repeatable manner on an industrial scale and that each production batch complies with the product specification. Product development ensures the continuum of innovative, safe and eco-friendly product generations.

All raw materials that we use in production go through our approval process. In order to ensure the high quality of our tyres, we

carry out process control operations during production. Each tyre passes through the production quality control. It includes the tyre's force variation, ETP and run-out measurement and 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.

Tracking product liability

The basic principles of quality in our supply chain are compliance with the best practices by UNECE and EU, process efficiency and functionality, safety and consistency of products and delivery reliability. Our research and development functions follow the legislation that guides our industry, the regulations and instructions by the authorities and the principles described in our ethical guidelines.

We are responsible for the quality and safety of the tyres that we produce. Our operations 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 road safety.

Safety is connected to understanding and managing the risks related to tyres. We track the safety of our tyres throughout the product life cycle, from the first development to discontinuing the product. The assessments and functions are carried out by qualified and trained experts. Our business is 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.

We use the following indicators for tracking product liability:

- G4-DMA Disclosure of the Management approach.
- G4-EN27 Extent of impact mitigation of environmental impacts of products and services.
- G4-PR1 Product and service categories for which health and safety impacts are assessed for improvement.

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

Tyre/vehicle safety (e.g. Uniform, Stud Decree and noise)

- 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
- CC Chinese Compulsory Certification
- GSO Standards 50, 51, 52, 1783, 1784

Tyre labels

- EC/1222/2009; European Tyre Labelling Regulation
- GSO Tyre Labelling Regulation
- SASO 2857-2015; Tyre Labelling

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

We track the safety of our tyres throughout the product life cycle, from the first development to discontinuing the product.

Customer satisfaction drives our development efforts

We track customer satisfaction through customer surveys, market knowledge and sales statistics. Their trends provide us with information on customer satisfaction in relation to the competitive situation. We also utilise industry reports by independent research organisations. Our customer and market segment surveys provide guidelines for setting strategic goals and developing our operations.

Audits ensure the quality of operations

In connection with the permit procedure, regulatory authorities have verified that our company has the necessary prerequisites for conducting business and that the tyres we put on the market meet the applicable requirements. The regulatory authorities on tyres (in Finland, the Finnish Transport Safety Agency (Trafi)) and the regulatory authorities on methods and equipment (in Finland, FINAS and MIKES) carry out periodic inspections in order to supervise and evaluate our quality and safety assurance activities. Furthermore, we use internal control for ensuring the high quality and compliance of our operations. We systematically conduct internal audits and management reviews and continuously improve our operations.

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 tyre manufacturing processes and R&D functions are appropriate.

Similarly, we supervise our subcontractors', suppliers' and partners' quality and compliance. In addition to assessments based on written surveys, we carry out our own audit visits in order to ensure that the other parties involved in the production and development of the tyre components also meet the prerequisites and obligations set in partner agreements. We follow up on and supervise the implementation of any necessary corrective actions.

WORLD ON WHEELS

Innovation improves eco-friendliness and safety

The basic principle of our product development has remained the same for more than 80 years: we design tyres for challenging conditions where drivers demand safety, durability and comfort at all times. The development process of a new tyre takes 2 to 4 years.

Consumers' tyre choice should be based on the tyre's suitability for their use scenario and driving style. For example, a contractor that operates heavy machinery requires a different type of tyre 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.

Nokian Tyres' product development creates and tests new innovations by means of computer modelling and laboratory testing, among others. In 2016, we invested in the future of product development through our laboratories. Our development efforts are supported by our investments in FEM modelling (Finite Element Method) in 2016, which enables us to investigate and develop various structural and material alternatives with computer simulations.

- In 2016, Nordic winter tyres with high ice grip comprised 73% of our entire winter tyre range.
- The proportion of tyres that reduce fuel consumption through ultra-low rolling resistance was 87%.
- A total of 99.5% of our summer tyre products were in the very high wet grip category.
- Our premium tyres with low rolling resistance and high wet grip correspond to categories A, B and C of the EU tyre label.

Our group has not had any major product recalls in more than 16 years. This demonstrates our careful product testing, thorough quality control and high quality raw materials. Furthermore, our company has not been involved in any legal proceedings regarding product liability.
Raw materials enter production through the laboratory

In addition to rubber compounds, we use steel and textiles in tyre production as reinforcing materials. Rubber compounds contain natural rubber, synthetic rubber, oils and fillers, such as carbon black and silica as well as sulfur and various 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.

In accordance with our purchasing policy, we purchase our raw materials from internationally reliable suppliers and our procurement process includes determining the suppliers' commitment to the environmental aspects, employee rights and occupational safety.

→ Read more about the commitments that we require from our suppliers on page 17.

Taking steps towards renewable raw materials and recycling of materials

The principle of sustainable safety that guides our product development also includes a promise of developing eco-friendly products and production technologies. In line with our strategy, we actively look for and test renewable raw materials, among other things. Our latest innovations will enter the market in early 2017.

We have continued our work on better material efficiency and recycling in production. In 2016, we looked into the recycling of materials in our production in order to be able to return secondary flows to production without compromising product characteristics. We have also investigated the possibility of using recycled carbon black and rubber sourced from used tyres as a raw material in production, both as filler and a replacement for virgin rubber.

→ Read more about the environmental impacts of our production on page 78.

Nokian Tyres' product development creates and tests new innovations by means of computer modelling and laboratory testing, among others.



Renewable raw materials replace fossil raw materials

Nokian Tyres' Materials development invests in seeking and using new raw materials. The goal is to create eco-friendlier tyres and replace fossil raw materials. This may not, however, alter the tyres' product or safety characteristics.

A tyre typically contains 50% polymers, 30% fillers and 20% reinforcing materials, softeners and chemicals. Nokian Tyres aims at finding bio-based raw materials for all raw material groups. Bio-based raw materials replace fossil raw materials and result in eco-friendlier tyres. Furthermore, renewable raw materials are used for improving the tyres' properties and performance.

We have carried out extensive work on renewable raw materials because the use of new raw materials requires a great deal of product development efforts and testing for finding the best combination of properties for a tyre. We have made the furthest progress in the use of renewable raw materials with bio-based oils, which will replace synthetic oils that are based on crude oil.

The eco-friendly tread compound of the Nokian

Hakkapeliitta 9 improves winter grip

Following more than three years of product development, in late 2016 we started using a new bio-based raw material in our production that improves the elasticity of rubber. The Hakkapeliitta 9 winter tyre, which we launched in early 2017, features a new kind of rubber compound for winter use, which contains silica, canola oil, natural rubber and, especially, the new Green Elasto Proof biomaterial, which helps the rubber compound maintain its elasticity even in cold temperatures. The elasticity of the tread also boosts the operation of the sipes - the slits across the tread blocks - which improves grip on snow. The strong and durable chemical bonds of the new biomaterial enable the tread compound to offer the best possible grip year after vear, even as the kilometres add up.

The use of this renewable raw material 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 tyres.

IN THE SPOTLIGHT

Innovations maximise safety and eco-friendliness

One of Nokian Tyres' product development goals is that new tyres' properties are always better compared to the previous models. In 2016, we launched several new innovations that improve the safety and eco-friendliness of tyres.

The new technologies that we launched in 2016 result in safer summer tyres and provide better snow grip and handling for winter tyres, among other things. The Nokian Hakkapeliitta 9 tyres feature a new kind of functional stud technology, where different types of studs in different parts of the tyre function as safety equipment that adapts to the winter weather.

Our product development focuses on eco-friendliness as well as safety. One way to do this is reducing rolling resistance, which reduces fuel consumption. We also pay constant attention to ensuring that our studded tyres have minimal road wear.

The most significant innovations in 2016



The innovations of the Nokian Hakka Blue 2 summer tyre improve wet grip

In 2016, with the Nokian Hakka Blue 2, we introduced a summer tyre which features a rubber compound designed for northern conditions and a new generation tread pattern. These innovations improve the wet grip of the tyre.

The Dry Touch concept combines three innovations, providing better grip for the summer tyre and preventing dangerous aquaplaning. In addition, the new functional rubber compound adapts to the changing temperatures. The rubber compound contains a renewable raw material, pine oil, which reduces the friction caused by molecular movement. This results in lower heat generation and rolling resistance and that reduces fuel consumption. The tyre's steel belt structure is denser, which provides precise handling and better cut and puncture resistance.



The Nokian WR A4 brought even better grip for the varying Central European winter

Designed for the varying Central European winter conditions, the Nokian WR A4 winter tyre features innovations, which are the result of extensive computer modelling, laboratory comparisons and actual tests conducted with a vehicle. The most significant progress was made on snow. The tyre provides 5% better grip and handling on snow compared to the previous model.

Nokian WR A4 complemented our range of tyres specifically tailored for Central European conditions. The tyre's innovations improve snow grip and handling under winter conditions and rapid temperature changes. The new rubber compound contains natural rubber, silica and canola oil. The innovative compound provides better grip under winter conditions, driving stability and wear resistance. Canola oil provides tear strength, which makes the tyre resistant to wear, impacts and punctures. The rubber compound lowers the rolling resistance, which reduces fuel consumption.



The Nokian Hakkapeliitta 9 introduces new stud technology

Launched in early 2017, the Nokian Hakkapeliitta 9 and Nokian Hakkapeliitta 9 SUV feature a new kind of stud technology, which is the result of extensive product development efforts.

In the new functional studding technology, different types of studs in different parts of the tyre function as safety equipment that is designed to provide added safety in various driving scenarios. This patented functional studding solution is unique on the market and it ensures both great longitudinal grip and unparalleled lateral grip when cornering under winter conditions. It also provides stable and comfortable bare-road handling.

IN THE SPOTLIGHT

The lower the rolling resistance, the lower the fuel consumption

Rolling resistance means the energy consumed by the deformation during the road contact of the tyre. The rolling resistance of tyres may differ greatly: tyres with low rolling resistance may save more than 0.6 litres of fuel per 100 kilometres and reduce CO₂ emissions by 14 g/km.

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

Improving the fuel economy of tyres 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 tyres even further. We have achieved this by improving the tread patterns and surface rubber compounds, among other things.

Rolling resistance is expressed with a rolling resistance coefficient: the greater the coefficient, the heavier the tyre rolls. At the moment, class C is the most common fuel economy rating for Nokian Tyres' passenger car tyres according to the EU tyre label. Class B is the second most common class. The EU tyre label reports fuel efficiency on a scale from A to G. 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 tyres with a class A and class F fuel efficiency rating, respectively. A wise choice of tyres and a careful driving style significantly reduce the CO₂ emissions from driving.



The Nokian Hakkapeliitta R2 winter tyre receives the Tire of the Year 2016 award

The Nokian Hakkapeliitta R2 winter tyre (size 155/70R19) won the Tire Technology of the Year 2016 award. This genuine Nordic winter tyre is designed for BMW's unique i3 electric car, and it combines low rolling resistance, first-class grip and driving comfort.

The modern addition to the Nokian Hakkapeliitta family represents future technology. It is the world's first winter tyre with a class A energy rating, the best in the EU tyre label. According to tests, the Nokian Hakkapeliitta R2 reduces rolling resistance by up to 30%. Lower energy consumption extends the range of the electric car in cold winter weather which poses a challenge for the car's batteries. The Nokian Hakkapeliitta R2 demonstrates that energy-efficiency can be achieved without compromising on excellent winter grip.

Product testing practices

Before tyres are delivered from our production to customers, they undergo several tests depending on the market, which examine the tyre's behaviour in a range of conditions as well as its durability and eco-friendliness. On average, a winter tyre goes through 20 approval tests conducted by the authorities or their appointed accredited research laboratories.

Communities, regions (such as the EU) and organisations (such as the UN) have all specified standards that a tyre must meet before entering the market. Our large markets, the Nordic countries, Central Europe, Russia and the United States, use a total of 28 tyre tests that examine the properties of finished products and their handling under various conditions. In addition to this, certain regions subject tyres to their own tests, mostly concerning safety.

Each testing organisation uses its own testing practices. Most tests must be carried out by an accredited testing laboratory. The EU and UN tests, for example, may only be performed by a research laboratory which is audited and appointed by the national approval authority and which has international ISO 17025 accreditation.

In 2016, similar to several years before that, the practices were made stricter due to advancements in the technology, tests and products. As new developments happen at a different pace in different regions, our company is constantly subject to new requirements and changes.

In Europe, for example, wet grip tests became mandatory for new van, truck and bus tyres in 2016. In addition, the limits for rolling resistance and tyre noise became stricter for new products. We, however, had proactively ensured that our new products comply with the new regulations.

External, independent testing and auditing

Tyres undergo

several tests

market, which

tyre's behaviour

conditions as well

as its durability and

eco-friendliness.

examine the

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depending on the

Tyre testing involves the verification of production consistency and quality. Nokian Tyres' production supplies tyres for quality assurance testing according to the requirements of each test and approval authority. Some tests are carried out in our own laboratories and controlled by the authorities while some are assigned to external, independent laboratories. Because there are numerous tests and testing bodies, production continuously supplies tyres for testing. Furthermore, external parties regularly audit the production of Nokian Tyres.

We are committed to ensuring that every tyre we make complies with all the requirements as long as we manufacture the tyre model. If a tyre model is changed during its life cycle, we are committed to ensuring its continued compliance with the standards.

Tighter regulations guide our product development

In part, Nokian Tyres' product development is guided by the tightening limits and tests. For instance, Finland has some of the strictest legislation that guides the manufacturing of studded tyres. Experts say that the new stud legislation that came into force in July 2013 substantially reduces road wear and minimises the effect of studded tyres on the generation of street dust. Rather than stipulating indirect parameters, whose effect on the actual road wear the authorities would then have to evaluate, the amended stud legislation provides specific wear limits. This provides tyre manufacturers with the freedom to create innovative solutions.

Nokian Tyres' product development responded to the new legislation with the stud cushion that dampens the stud's dynamic impact on the road. It was introduced with the Hakkapeliitta 8 tyre. We have also managed to reduce road wear with lighter and shorter studs. Driving speed and the weight, shape and material of the stud and the structure of the tyre can all substantially affect road wear. We were able to increase the number of studs while reducing road wear.

Putting our tyres' safety and characteristics to the test

Our tyres undergo various laboratory and field tests. Some examples of the tests:

- High Speed structural durability testing examines tyres under extreme conditions, such as maximum load and a range of temperatures.
- Endurance testing in laboratory conditions examines structural durability during a prolonged load and under very high temperatures.
- Run Flat testing measures the driving distance of a special tyre when flat.
- The rolling resistance testing measures a tyre's fuel economy.
- There are various snow grip tests for different types of tyres. For passenger car tyres, for example, we measure the braking distance under specific conditions, among other parameters.
- Road wear testing indicates the asphalt wear caused by studded tyres.
- Wet grip testing comprises a field braking test performed on a special track under specific conditions.
- External rolling noise testing is performed on the field. It measures the noise from the tyres of a passing car driving under specific conditions on a standardised asphalt surface.
- Ice grip testing is performed on the field as a braking test on ice. It is very important for Nordic consumers.

Field testing under actual conditions and our new test facility in Spain

We test and develop our tyres under actual conditions because even the best instruments cannot capture the driving feel of a tyre. Our Ivalo Testing Center White Hell performs tests from November until late spring. In the near future, we will start building a new test facility and technology centre in Spain.

Each year, Nokian Tyres' test drivers cover hundreds of thousands of kilometres, feeling, sensing and evaluating the tyres. We have been performing winter tyre tests in our Ivalo Testing Center White Hell since 1986. The location of the Ivalo Testing Center between the Arctic and mild climates makes it ideal for demanding tyre testing. Covering more than 700 hectares, the testing centre offers more than 30 different tracks for testing tyres under the actual winter conditions that can occur on northern and Central European roads. Over 20,000 tyres are tested and over 40,000 test kilometres are driven during the period from November to May. Due to temperature variation, tests are also run at night.

Nokian Tyres' testing centre in Nokia tests tyres from April to November. The testing centre features an automatic sprinkler system, which is one of a kind in the world.

Nokian Tyres has made plans to start testing summer and winter tyres on its new test track in Spain within few years. The purpose of the versatile testing centre is to boost the company's year-round product development. The 300 hectare testing center is one of the single biggest investments in product development. According to the plans, the centre will utilise state-of-the-art technology and its central test track will be a five-kilometre oval track that circles the area and allows for speeds of up to 300 kilometres per hour. In particular, the new technology centre will be used for testing summer tyres with a high speed rating as well as for winter tyres.



WORLD ON WHEELS

Your tyre choice matters

Being a pioneer requires having and sharing expertise. As a manufacturer of tyres that provide excellent safety and high quality, we must also carry our responsibility for improving road safety and eco-friendliness and educating people.

The use of fossil fuels, like gasoline and diesel fuel, account for most of human carbon emissions. Carbon dioxide is the most significant greenhouse gas that is generated by traffic. When a tyre rolls against the road surface, the generated friction is called the rolling resistance. The higher the rolling resistance, the higher the fuel consumption. The tyre, 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 tyre's service life.

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 tyres with a class A and class F fuel efficiency rating, respectively. With the current fuel prices, a tyre with a more economical rolling resistance can save approximately €300 over a driving distance of 40,000 kilometres. A wise choice of tyres and a careful driving style significantly reduce the CO₂ emissions from driving – and save money.

We all can influence our surroundings and the world by seemingly minor choices.

Your tyre choice matters	What you can do	What we are doing
Your safety	Demand	On the frontline of safety
The safety of everyone in your car as well as other people on the road	Tyres with the best safety innovationsTyres that are quiet	Our uncompromising product development and testing result in techni- cal innovations that improve the properties of tyres and increase the safety, comfort, and eco-friendliness of driving.
Your well-being Driving comfort and peace of mind Noise levels in your car and the surrounding environment 	 Tyres that have been manufactured without any toxic or carcinogenic chemicals Tyres that have been manufactured by only using purified, low-aromatic oils 	Quiet tyres After fuel consumption, tyre noise is the second most significant environmental effect during the use of a tyre. Our tread patterns feature a number of noise-reducing innovations. The placement of tread blocks, new types of tread compounds, protrusions in longitudinal grooves, and noise cavities all reduce tyre noise.
Your finances Fuel consumption per every kilometre Wear resistance of tyres	 Information about the raw materials used in your tyres, employees' working conditions, and the environmental impacts of tyre production 	Clean raw materials We were the world's first tyre manufacturer to introduce a manufac- turing method that only uses purified, low-aromatic oils. In order
 Condition and durability of roads 	Drive wisely and rotate your tyres You can lower your fuel consumption by up to 0.3–0.5 litres per one hundred kilometres by regularly checking your tyre pressure and selecting tyres with low rolling resistance. To further extend	to improve grip in icy and wet conditions, we use a renewable raw material – canola oil – in our compounds. Transparent operations
You can also influence Raw material consumption	the safe life of your tyres, rotate them mid-season.	We monitor all of our operations with sustainable development in mind. All of our raw material suppliers go through the same stringent process. In accordance with our purchasing policy, our product procurement process includes determining the suppliers' commitment
Overall consumption of energy and fuelAmount of waste	The raw materials that have been used in your tyres deserve a second life. What you no longer need can be used elsewhere.	to environmental issues. We require that our contract partners commit to our principles. Transparency also means fostering a spirit of fairness and enthusiasm in our work community, and being a good neighbour.

Tyre labels provide more information for making a purchase

The EU tyre label came into use in November 2012, setting requirements for the fuel economy, wet grip and external rolling noise. The EU regulation aims for safer, eco-friendlier and more economical road traffic by promoting the use of safe tyres that provide good fuel economy.

Very few tyres still have the AA classification. Ten Nokian eLine 2 and Hakka Green 2 products received the EU tyre label's AA classi-

fication in independent tests, which means that they have the best class A rolling resistance and wet grip.

The labels allow consumers to make informed decisions when comparing tyres. The labels apply to summer tyres and non-studded winter tyres.

IN THE SPOTLIGHT

An ice grip marking would help consumers choose safe tyres

In northern conditions, ice grip is the most important property for winter tyres. Currently, consumers in the market for new winter tyres do not have any means for comparing tyres 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 tyres.

All-weather tyres, winter tyres designed for Central European climates and winter tyres tailored for northern conditions all look very similar. By looking at a winter tyre's rubber compound, tread pattern or markings, it is impossible for consumers to know whether it provides good grip on ice.

Currently, winter tyres may have a snowflake symbol if they pass a snow grip test according to the international norm. The snow grip label alone does not indicate whether the tyre provides good grip on ice. There are significant differences in the braking distances between Nordic and Central European non-studded winter tyres. According to braking tests from a speed of 50 kilometres per hour, Central European winter tyres take up to 20 metres longer to stop on ice than Nordic non-studded winter tyres.

Wet grip and ice grip are opposite properties in a winter tyre.



Ice grip is primarily affected by the chemical composition of rubber, i.e. how well the rubber maintains its elasticity when in contact with an icy surface. Wet grip, on the other hand, is affected by the tyre's tread pattern and structure.

Therefore, in order to ensure a safe level of ice grip, consumers should choose the tyre with the worst possible safety rating (wet grip). In this sense, the EU tyre label that describes the tyre's fuel economy, wet grip and external rolling noise is misleading to consumers.

The growth of online tyre sales, used car imports, increase in

low-cost products and emergence of new tyre categories (all-season and all-weather tyres) make it more difficult for consumers to know what kind of ice grip their tyres provide.

International tyre manufacturers have developed a test together for measuring winter tyres' ice grip. The test is currently being standardised by the International Organization for Standardization (ISO). In 2016, Nokian Tyres has publicly promoted its demand for an ice grip marking and raised awareness among decision makers. For this purpose, the company has also worked with consumer organisations and road safety researchers.

An active role as an expert

In 2016, our communication emphasised the significance of the correct choice of tyres and driving style as well as the importance of checking the tyres' condition and inflation pressure. We participate in road safety initiatives, such as the Finnish projects "Turvassa tiellä" and "Traffic Safety 2025". We improve our dealers' competence in educating consumers through Hakkapeliitta eAcademy, which enables learning about the latest product characteristics as well as revisiting older training material. The purpose of new services is to harmonise product information throughout our digital channels.

Services provide safety on the road

We want to create new tyre-related services that contribute to safe driving. Examples of this include SnapSkan, a digital service launched in 2016 that enables drivers to check when it is time to replace their tyres, and the Hakka Guarantee, which covers accidental tyre damage beyond repair. We have offered the Hakka Guarantee to consumers in the Nordic countries for several years.

Traffic Safety 2025 – a joint road safety programme

Traffic Safety 2025 is a joint road safety programme by the Finnish Transport Agency, VTT Technical Research Centre of Finland and Nokian Tyres. The objective is to increase traffic safety competence and understanding in Finland and to support decision making for meeting the national road safety goals.

The co-sponsored programme is led by VTT. One of the specific goals of the programme is that the annual number of road fatalities in Finland is no more than 100 in 2025. Nokian Tyres has participated in the Traffic Safety 2025 programme right from the outset.

In 2016, the programme focused on the use of winter tyres in passenger cars in the summer. In the past year, the programme published two scientific articles on studded and non-studded winter tyres, fatal traffic accidents in Finland and how the type of tyres affects the icy and packed road surfaces. Furthermore, the programme's results were presented in two international seminars.

SnapSkan improves road safety

IN THE SPOTLIGHT

The new SnapSkan technology, created by Nokian Tyres and the tyre and service chain Vianor, informs the driver of the tread depth of their tyres and when it is time to replace them. The first scanning point was launched in a Finnish multistorey car park in December 2016. This groundbreaking digital tyre service will be expanded globally in the coming years.

Nokian Tyres aims at developing safe, comfortable and eco-friendly tyres as well as creating new tyre-related services. SnapSkan is made possible by 3D scanning technology, and it is a new way to measure the tread depth and safety of tyres in a quick and efficient manner.

In SnapSkan, the car is driven across an automatic tyre scanner while a camera identifies the car's number plate. After scanning, the driver will receive a report of the tyres' condition by SMS or email, regardless of the manufacturer of the tyres on the car. In the future, the service will be available

for free in car parks, for example.

Choosing premium tyres and, in particular, the tread depth of tyres substantially impact braking distance and aquaplaning prevention. By making sure that your tyres are in good condition, you maximise the safety of yourself and others on the road. In Nokian Tyres and Vianor's shared vision, SnapSkan will improve road safety for millions of people around the world in the future.

People

HR MANAGEMENT • GETTING TO GO HOME HEALTHY • SATISFIED AND MOTIVATED PERSONNEL



PEOPLE

HR management and improvements

Good management and supervisor work support the development of the competence, well-being and equal treatment of our motivated and professional staff. Leadership in our company aims at top results based on our strong Hakkapeliitta culture, which is built around entrepreneurship, working together and inventiveness.

Key measures in 2016

In 2016, we developed our procedures in several areas of HR management and safety. Our essential focus areas are building a safety culture, improving leadership and promoting employee well-being.

- We saw good results in occupational safety. For example, the number of accidents fell by nearly 26% and the reporting of near misses and safety observations improved. We also continued enforcing the use of personal protective equipment and paid special attention to the safety of production equipment.
- We continued implementing the leadership principles for the supervisors of all the units and departments with the Hakkapeliitta Leader game. The development of the company's leadership culture affects our HR development and training as well as performance management and hiring. We also applied the leadership principles in the 360 degree assessments.
- With a nearly 90% response rate, our Drive! personnel survey gives a comprehensive overview of the positive things and development needs in individual units as well as the group as a whole.

Goals for 2017

- Making sustainability a more integral part of the company culture: everyone in our group will have completed the online course on sustainability in 2017.
- Developing leadership, improving well-being and engaging the personnel: we will make the Drive! personnel survey an annual process and work on

the identified development needs. We will also make our induction training more international and improve our HR reporting systems.

- Developing the safety culture: promoting a strong safety mindset in the group through the new work community game as well as through supervisors' plans for improving safety and the culture in their area of responsibility.
- Conducting the human rights impact assessment and selecting the focus areas.

Human rights and diversity management

As a Nordic company, our principles in all operations are fair treatment and respecting human rights when dealing with our personnel or other stakeholders. The principle of equal treatment and inclusion is an essential and natural part of our business. In 2017, our goal is to make our operations even more transparent, for example by conducting a human rights impact assessment and selecting key focus areas in terms of human rights.

Diversity management at Nokian Tyres grows out of the idea of fair treatment and equal working conditions. Diversity is also important for the company's success. People with diverse backgrounds, skill sets and perspectives play an essential part in the development of the company's functions and creation of new and innovative solutions. We want to be a globally attractive employer which is known for its sustainability and truly multicultural working community. We also want to set an example in occupational safety as a tyre industry pioneer and to work in diverse teams around the world. In late 2016, we worked on a diversity policy for the entire group, which we intend to publish in 2017. Nokian Tyres' HR management organisation and governance

Nokian Tyres' Board of Directors Personnel and Remuneration Committee Nokian Tyres' management team Management teams of profit centres



Operational HR activities and supervisor support in individual countries

HR management organisation and governance

The need to develop leadership processes and practices always arises from a business perspective, and their implementation is based on our strategy and company culture. Our aim is establishing consistent and truly international HR operations which guarantee timely and clear need-based HR management and the tools for it.

In addition to effective decision making, project management and information sharing, HR management aims at ensuring that all management and activities are business oriented and follow an international perspective. The The graph on the left briefly describes the Nokian Tyres' HR management organisation and governance.

In addition, various guidelines regarding safety and well-being, hiring, induction training, People Reviews and HR development guide our personnel throughout the group.

Tracking HR responsibility

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

- G4-10 Total number of employees by employment contract and gender
- G4-11 Percentage of total employees covered by collective bargaining agreement
- G4-13 Significant changes to the size, structure, or ownership structure of the organisation
- G4-DMA Disclosure of the Management approach
- G4-LA1 Total number and rates of new employee hires and employee turnover by age group, gender and region

- G4-LA6 Number of accidents and occupational diseases, lost working days and absences
- G4-LA10 Personnel expertise development programmes and learning action programmes
- G4-LA11 Development discussions
- G4-LA12 Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity

PEOPLE

Getting to go home healthy – our work on safety culture

Our systematic improvement of processes and practices aims for an even safer and more efficient working environment that addresses the well-being of our personnel comprehensively. The work on safety culture emphasises a close collaboration between individual locations, units and departments. Our personnel are actively involved in the development of occupational safety, processes and environmental aspects. We support our goals with environmental and safety programmes, continuous auditing and risk management surveys, for example. They form the outset for the consistent induction and training of our personnel.

Our technology policy also contributes to our goals: We invest in the most advanced production technology possible in order to prevent harmful impacts on safety and the environment. We have taken a number of measures for improving the safety culture in our group and reducing the number of accidents. We want to ensure that everyone working in our facilities gets to go home healthy every day.

Measures and tools for improving the safety culture

A safe and comfortable working environment is integral for our operations. We promote occupational safety through risk management, continuous improvement of processes and new investments. The purpose is to make the working environment even safer and to ensure risk management in our production and functions. The interconnection between safety and the environmental aspects is especially apparent in matters that are related to work hygiene and the use of chemicals. Our goal is to make our operations even safer and aim for zero accidents.

Both of our factories undergo safety walks by the management, with the purpose of improving the level of

In 2016, we saw good results in occupational safety and made good progress in many areas of safety. safety and the safety culture. The safety walks promote a strong safety mindset, help employees pay attention to safe practices and support making the right decisions in the daily work. The safety walks are a way for our management to emphasise the importance of occupational safety throughout the group. They are also part of each supervisor's daily duties.

The regular Safety Management briefings discuss the required corrective actions and improvements that are identified during accident and hazard investigations. The practices for Safety Management briefings vary between individual functions from daily meetings to monthly reviews. Moreover, each meeting by the group's management team starts with a safety review of the previous month's events.

Accident rate (more than 3 days absence / million working hours)

	Nokian Tyres	Nokian Tyres	Vianor	The ratio of
	(Nokia)	(Vsevolozhsk)	Nordic	all listed companies
2016	11.1	2.8	13.6	7.4

Absenteeism by company

	Nokian Tyres, Nokia		Nokian Tyres, Vsevolozhsk			Vianor Nordic		
	Nokian Tyres (FI)	Nokian Heavy Tyres	000 Nokian Shina	000 Nokian Tyres	Vianor Holding Oy	Vianor Oy	Vianor AB	Vianor AS
Sick absences % (total)	2.67%	4.86%	2.49%	4.57%	1.19%	4.30%	4.10%	5.90%

Information of absenteeism by gender is not available



Forklift operators competed in safety in Russia

In 2016, all of our employees in Russia whose work involved driving a forklift truck could participate in a competition that aimed at promoting safe and responsible practices among forklift operators. Full-time forklift operators participated in the competition automatically.

The competition was designed for improving the safety culture regarding the use of forklift trucks as well as helping the personnel improve their forklift handling skills. The competition had three stages, two of which continued from December 2015 to November 2016. At the first stage, all personnel from the managers to production employees assessed the truck operators' work from a safety perspective. At the same time, we had an ongoing theme that reminded the drivers and tested them on the rules and principles of moving around the workplace safely.

In late 2016, the finalists were selected based on their total score from the first two stages. In the last stage, they put their skills to the test in practice.

The finalists drove through a test track built inside the factory and were judged on safety, treating the forklift truck carefully and handling it skilfully. The competition was well worth it, as the winners received prizes, a monetary bonus and certificates. Most importantly, the competition was a pleasant and natural way to improve the safety culture.



In 2016, we saw good results in occupational safety and made good progress in many areas of safety. We reduced the number of accidents by nearly 26% and improved the reporting rate of near miss reports and safety observations. In particular, the investigation of accidents and safety observations focused on determining the root causes. We also continued enforcing the use of personal protective equipment and paid special attention to the safety of production equipment. In our Nokia factory, nearly 700 subcontractors received training on following the safe working guidelines in our facilities. We also worked on the safety and competence of our Ivalo Testing Center's personnel.

The accident frequency measurements for 2016 still use the LT3F indicator. In the future, we will use the LT1F indicator which enables consistent tracking in all of the group's units.

The safety culture can be changed through attitudes

In the Drive! personnel survey, the improvement of safety was identified as an essential development need throughout the group. We intend to use our existing tools for better serving the needs of our international group and for globally harmonising the various practices and goals. In 2017, we will improve our safety culture through long-term safety efforts as well as various functional and communal initiatives.

By the end of 2017, our supervisors must prepare a safety action plan that includes measures for improving the safety and well-being of personnel, risk mapping and technical improvements in their area of responsibility. In addition, all employees must identify and address the risks present in their workspace. The duty of managers and supervisors is to build a better safety culture and report any risks to the safety organisation.

We communicate and discuss safety visibly in our company, which has made our personnel participate more actively. Near miss reports and safety observations are highly significant in terms of accident prevention and the improvement of the safety culture. All of our personnel have access to our investigations, and we communicate more openly than before. In 2017, we will continue our work on the safety culture more extensively throughout the group.

PEOPLE

Satisfied and motivated personnel

High standards of HR management help our committed, motivated and professional personnel to further develop their competence, support their well-being at work and promote equal treatment. We want to engage our employees around the world in building our company's sustainable success together.

Supervisors implement our company and leadership culture into the everyday work of our personnel in a natural and consistent way. Good HR management provides the tools that are necessary for good supervisor work and for improving leadership skills. Skilled, innovative and relentless personnel are our company's most important resource.

We continued implementing our leadership culture

We have made systematic efforts towards improving leadership in our company, as successful leadership is one of our most critical success factors. As part of this theme, we started conducting international supervisor coaching in 2016 with the aim of better leadership globally, engaging key personnel and their career development. We also planned a digital game environment for all personnel. It enables us to improve our working community and safety culture in the future.

Leadership principles grow out of our values

Our leadership principles are a practical tool for supervisors throughout the group and they establish a basis for improving and tracking leadership. This way, all supervisors know how we are assessing supervisor work, how they should improve their own supervisor work and how they should train their own team. Creating a coherent company and leadership culture starts with ensuring consistent leadership and supervisor work that meets our company's needs. Ultimately, however, it is everyone's business.

Lead by example

Be a role model who promotes the Hakkapeliitta culture!

- Develop your people
 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 towards an entrepreneurial mindset!



Leader Camp builds future leaders

Our competent personnel and good well-being at work form one of the cornerstones of our success. We, therefore, find it important to invest in a consistent leadership culture throughout the group. In 2016, near the end of implementing our leadership principles, we globally started our internal Leader Camp programme. The objective of Leader Camp is to globally strengthen a consistent leadership culture and to identify and nurture the future top leaders in our company.

Leader Camp launched in the spring, and we invited some 30 people from Vianor, our sales companies and our facilities in Nokia and Vsevolozhsk. In the first event, the participants got to share their best practices and views on challenging situations with the Hakkapeliitta Leader game. They also heard our business review and worked together on creating a vision for the supply chain organisation. For homework, everyone was assigned project work on our Must Win roadmap. In the next meeting, they presented the results to the management team. The programme's main results included strengthening our consistent leadership culture and the ever important networking within the group.

People Reviews

Our performance appraisals, the People Reviews, shape our direction in the near future and set concrete targets for daily work based on the company strategy. People Reviews are an important part of immediate supervisor work. We revised our People Review model in 2015 so that we can track and support our employees' performance and development better than before.

All employees attend at least one People Review per year. Our office personnel in Nokia and Russia, however, attend a minimum of two People Reviews per year, one of which can be a team session. The People Reviews include all in-house personnel of the Nokian Tyres group regardless of gender or employee group.

The People Reviews look at overall performance in line with our values, assess how well the previous goals have been reached, set new goals for the coming year and discuss the prerequisites for success and professional development needs in terms of the set goals and the company's future needs. We also assess performance compared to the previous year's goals. The People Reviews are recorded in an electronic tool and reported to the management every six months.

People Reviews (realisation/target, %)

People re	eviews implementation %
Nokian Tyres, Nokia	97.4%
Nokian Tyres, Vsevolozhsk	100%
Vianor	69.8%
Sales companies	75.1%
Nokian Tyres Group	86.0%

Developing competence for the future

We develop the competence of our personnel in a strategic and proactive manner that addresses future needs. People Reviews are essential for competence development, as they include identifying personal career plans, strengths and development needs as well as preparing a development plan together with the supervisor. The development of leadership skills forms an important part of the competence development plan, which is supported by the 360 degree assessments of all supervisors in the group.

Most of the competence development comes from on-the-job learning in various projects, problem solving, job rotation and new duties. One essential tool for competence development is our international Hakkapeliitta eAcademy online portal, whose services are accessible by our retailers and partners in addition to our personnel. We continually work on the content of Hakkapeliitta eAcademy: currently, we offer some 70 courses in up to 20 different languages. Our eLearning resources range from internal sustainability and insider courses to product training and tyre fitment courses.

360 degree assessments for supporting leadership development

We carry 360 degree supervisor assessments in our group, primarily as a tool for supervisors for improving their own leadership skills. The assessment is based on our leadership principles, and it forms a significant part of our global leadership development efforts. An individual's assessment comprises feedback from his or her own supervisors, team and colleagues.

Each supervisor receives personal feedback, which is used as the basis for personal improvement measures. Furthermore, we expect everyone to discuss the improvement measures with their own supervisor, for example during their People Review. Individual units have gone through department-level summaries of the feedback with their HR representative. These discussions are used for planning leadership development for the unit supervisors.

In 2016, 360 degree assessments were completed in Vianor. In Russia, the assessment is carried out every other year. Systematic utilisation of 360 degree assessments is part of our leadership development.

Drive! – Making a difference

The Drive! personnel survey is a tool for identifying specific strengths and development needs that help us improve our organisation and company. In the future, we will conduct the survey annually. The purpose of the survey is to drive employee commitment. It is built around the concept of engagement, which indicates the employees' attitude towards the organisation and the values it represents.

With a nearly 90% response rate, the 2016 Drive! personnel survey gives a comprehensive overview of the positive things and development needs in the group as well as in individual units. In our group action plan, one common denominator was internationalisation – enabling truly consistent operations in various aspects. The basis of our development efforts is a flexible and efficient organisation that promotes employee well-being and contributes to an open and healthy atmosphere.

Strengths

The company's recent developments, the high quality of our products and services and efficient decision making were mainly mentioned as positive things in the 2016 survey. The majority of the group also found our leadership culture and employer brand to be positive. Succeeding in these areas supports employee commitment especially well.

The group's personnel believe that our decision making is efficient, as is our unit and department-level work. Similarly, in the majority of the group, department-level goals were considered to be clear and the employees know what is expected of them. Our familiarisation with new tasks is The basis of our development efforts is a flexible and efficient organisation that promotes employee well-being and contributes to an open and healthy atmosphere. also on a good level. Our personnel also feel that Nokian Tyres provides good opportunities to affect the decision making, improve our operations and even share differing opinions with their supervisor.

Development needs

After the previous survey, we implemented measures for reducing rumours and improving the communication of the company strategy and view of the future. We saw some good results and managed to improve our score in these areas. In the 2016 Drive! survey, safety, consistent international processes and the leadership and company culture were highlighted as the most important development needs throughout the whole group. Preparing improvements and implementing them throughout the group is a long-term effort, and we started effective work on all selected development needs. We will track the results in the 2017 survey.

Inventiveness, encouragement and equal treatment are good for motivation

Our employees' competence, inventiveness, courage and relentlessness form an important factor in building our success. Consistent and equal treatment of personnel is also important to us. A fair work community is a motivating factor that contributes to our profitability and competitiveness.

Employee well-being and equal treatment are important to our operations, and we have a long history in their development. Our ethical guidelines comprise several principles regarding the treatment of our personnel, and we promote equality at work. Every employee of our company is always entitled to fair and appropriate treatment at work. All kinds of discrimination, harassment and hostility are absolutely forbidden, and we take immediate measures in case of violations.



With a nearly 90% response rate, the 2016 Drive! personnel survey gives a comprehensive overview

Competence mapping guides the development efforts in our sales organisation

Our goal is to be the top choice for our customers as well as consumers. This goal is nearly impossible to reach without competent and customer-oriented sales personnel. The responsible unit for developing sales and marketing has taken determined actions for improving the sales skills in our company. As part of this process, we carried out a global competence mapping throughout our sales organisation in 2016. The purpose of the mapping was to provide an overview of our sales personnel's level of competence, which lays the foundation for further improvements.

Pohioisen valturs

THE SPOT

We started this by defining the competence profiles – determining the sales roles in our company and the competence required for succeeding in each role. Then, we started to build competence maps around three different sales roles. We created profiles for sales managers, sales supervisors and sales representatives, comprising the knowledge, skills and abilities that contribute to a great performance. The competence areas included, for example, account management, sales skills, product knowledge and an understanding of the company and its business. In connection with this, we looked into our sales personnel's interaction and negotiation skills, presentation skills, digital abilities, language skills and the desire to improve and learn new things.

The competence mapping was conducted by a multidisciplinary team that included representatives from sales development, HR and ICT. We performed the mapping in four waves for our entire sales organisation in 13 countries. All in all, a group of some 200 people assessed their own competence. In addition to this self-assessment, each person's supervisor evaluated the person's abilities according to the same criteria. We used a digital competence management tool for the process, which our company has utilised before for competence mapping in product development and maintenance at the Nokia factory, among others.

Suorituskykyä märälle tielle.

The mapping yielded extensive valuable information on the areas where our sales organisation is already very competent as well as on our development needs. We have used the results from the competence mapping for defining the contents of the Sales Academy trainings, which we will introduce in 2017. We have built an individual training path for each role, which addresses the required key skills and capabilities. Everyone working in a sales role will attend the Sales Academy trainings in 2017. By investing in training and HR development, we ensure that we really are our customers' top choice today and in the future.

A CONTRACTOR AND A CONT

Employment in our group is based on employment contracts in accordance with the local legislation and any collective agreements. Our salaries are equal to or above the local statutory minimum wage. One example of fair treatment in our company is that our remuneration system covers all of our employees.

The Hakkapeliitta of the Year award is one of the ways of showing appreciation and rewarding persons whose actions and example contribute to a great working environment, who go above and beyond what is required, and who can also celebrate the success of others. We give out the award in our locations in Nokia and Russia, and we have continued the tradition for more than a decade. The award is especially significant because our personnel are involved in selecting the nominees and the winner.

Inventiveness is a strong part of our company culture

We appreciate the competence and ideas of our personnel. Our work on inventiveness is an important channel through which our personnel can further develop their own work, the working environment and our business. It provides everyone with an opportunity to make a difference.

Inventiveness has a long tradition in our company, and it is an important part of our company culture. Our inventiveness and suggestion procedure is a way to encourage everyone to actively participate in the development of their own work and the operation of our company. The outset of inventiveness is continuous improvement of the work and questioning the current state of things. Suggestions for improvements and new solutions can be made by individuals or groups.

We welcome suggestions for increasing efficiency and productivity and for improving the quality of our operations and products, occupational safety and employee well-being. In Nokia, inventiveness also includes observing and recording safety issues. In 2016, to mark the anniversary of the Hakkapeliitta, we arranged the Global Hakkapeliitta Award competition, which was strongly built on our company values. The outset of inventiveness is continuous improvement of the work and questioning the current state of things. Suggestions for improvements and new solutions can be made by individuals or

groups.



Global Hakkapeliitta Award yielded excellent ideas

global HAKKAPELIITTA award

As a tyre industry pioneer, we must have the right attitude: tenacity, the ability to take risks, make improvements and better ourselves. We, therefore, challenged our group's personnel to think of new, never-before-seen ideas based on our values. We wanted to make our values more visible in practical actions, strengthen our company culture and find innovative ideas for improving our operations.

The competition, which we named the Global Hakkapeliitta Award, had three categories, and everyone could participate individually or in a team of up to five people. In the Inventiveness category, we sought ideas that improve occupational safety or the company's safety culture, whereas the Entrepreneurship category focused on ideas that improve the customer and consumer experiences. And finally, as the name implies, the Team spirit category was built around teamwork and strengthening the team spirit internationally.

Some people had submissions in all three categories, while others focused on one particular area. We chose the top three ideas in each category, which were presented to the management by the persons behind them. Based on the presentations, the management picked one winner in each category. Ultimately, two teams of five people from Finland and an individual participant from Russia won an all-inclusive trip to our Ivalo Testing Center. We were happy with the number of submissions, and we intend to work on the finalists' ideas during 2017.

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

	Nordic	Russia and CIS	CE and Eastern Europe	North America	The rest of the world	Total
Total workforce on 31.12.2016	2,556	1,391	173	203	14	4,337
Women	359	213	55	22	8	657
Men	2,197	1,178	118	181	6	3,680
Total number of own employees	2,514	1,391	173	203	14	4,295
Women	349	213	55	22	8	647
Men	2,165	1,178	118	181	6	3,648
Number of supervised workers	42	0	0	0	0	42
Women	10	0	0	0	0	10
Men	32	0	0	0	0	32
Total number of seasonal employments in Vianor during 2016	1,171	8	7	0	0	1,186
Permanent	2,418	1,332	163	203	0	4,116
Full-time	61.7%	100.0%	93.9%	95.1%	100.0%	77.0%
Part-time	38.3%	0.0%	6.1%	4.9%	0.0%	23.0%
Women	13.9%	12.8%	31.9%	10.8%	50.0%	14.1%
Men	86.1%	87.2%	68.1%	89.2%	50.0%	85.9%

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

	Nordic	Russia and CIS	CE and Eastern Europe	North America	The rest of the world	Total
Total number of new employees	346	145	55	55	3	604
Number of women	46	46	19	7	2	120
Number of men	300	99	36	48	1	484
Number of under 30 years old	142	105	14	28	1	290
Number of 30-50 years old	165	40	37	23	2	267
Number of over 50 years old	39	0	4	4	0	47
New employee hires rate (Total)	13.8%	10.4%	31.8%	27.1%	21.4%	14.1%
Percentage of women	1.8%	3.3%	11.0%	3.4%	14.3%	2.8%
Percentage of men	11.9%	7.1%	20.8%	23.6%	7.1%	11.3%
Percentage of under 30 years old	5.6%	7.5%	8.1%	13.8%	7.1%	6.8%
Percentage of 30-50 years old	6.6%	2.9%	21.4%	11.3%	14.3%	6.2%
Percentage of over 50 years old	1.6%	0.0%	2.3%	2.0%	0.0%	1.1%

	Nordic	Russia and CIS	CE and Eastern Europe	North America	The rest of the world	Total
Total number of terminated employees (fixed terms not included)	354	96	11	37	1	499
Number of women	67	18	6	4	1	96
Number of men	287	78	5	33	0	403
Number of under 30 years old	63	57	0	18	1	139
Number of 30-50 years old	188	39	10	13	0	250
Number of over 50 years old	103	0	1	6	0	110
Turnover rate (Total)	14.1%	6.9%	6.4%	18.2%	7.1%	11.6%
Percentage of women	2.7%	1.3%	3.5%	2.0%	7.1%	2.2%
Percentage of men	11.4%	5.6%	2.9%	16.3%	0.0%	9.4%
Percentage of under 30 years old	2.5%	4.1%	0.0%	8.9%	7.1%	3.2%
Percentage of 30-50 years old	7.5%	2.8%	5.8%	6.4%	0.0%	5.8%
Percentage of over 50 years old	4.1%	0.0%	0.6%	3.0%	0.0%	2.6%

In Nokian Tyres Group voluntary turnover (voluntarily ended employments, excluding retirement) was 6.52% in 2016.

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

	Nordic	Russia and CIS	CE and Eastern Europe	North America	The rest of the world	Total
Number of individuals within the top management	18	2	4	2	1	27
Number of women	4	0	0	0	0	4
Number of men	14	2	4	2	1	23
Percentage of women	22.2%	0.0%	0.0%	0.0%	0.0%	14.8%
Percentage of men	77.8%	100.0%	100.0%	100.0%	100.0%	85.2%
Number of under 30 years old	0	0	0	0	0	0
Number of 30-50 years old	9	2	3	2	0	16
Number of over 50 years old	9	0	1	0	1	11
Percentage of under 30 years old	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Percentage of 30-50 years old	50.0%	100.0%	75.0%	100.0%	0.0%	59.3%
Percentage of over 50 years old	50.0%	0.0%	25.0%	0.0%	100.0%	40.7%
Number of white collars	1,089	366	147	83	14	1,699
Number of women	251	167	54	20	8	500
Number of men	838	199	93	63	6	1,199
Percentage of women	23.0%	45.6%	36.7%	24.1%	57.1%	29.4%
Percentage of men	77.0%	54.4%	63.3%	75.9%	42.9%	70.6%
Number of under 30 years old	73	144	21	13	2	253
Number of 30-50 years old	714	212	103	37	12	1,078
Number of over 50 years old	302	10	23	33	0	368
Percentage of under 30 years old	6.7%	39.3%	14.3%	15.7%	14.3%	14.9%
Percentage of 30-50 years old	65.6%	57.9%	70.1%	44.6%	85.7%	63.4%
Percentage of over 50 years old	27.7%	2.7%	15.6%	39.8%	0.0%	21.7%
Number of blue collars	1,407	1,023	22	118	0	2,570
Number of women	92	46	1	3	0	142
Number of men	1,315	977	21	115	0	2,428
Percentage of women	6.5%	4.5%	4.5%	2.5%	0.0%	5.5%
Percentage of men	93.5%	95.5%	95.5%	97.5%	0.0%	94.5%
Number of under 30 years old	276	421	15	31	0	743
Number of 30-50 years old	810	574	5	52	0	1,441
Number of over 50 years old	321	28	2	35	0	386
Percentage of under 30 years old	19.6%	41.2%	68.2%	26.3%	0.0%	28.9%
Percentage of 30-50 years old	57.6%	56.1%	22.7%	44.1%	0.0%	56.1%
Percentage of over 50 years old	22.8%	2.7%	9.1%	29.7%	0.0%	15.0%
Composition of the Board	7					
Number of women	3					
Number of men	4					
Percentage of women	42.9%					
Percentage of men	57.1%					
Number of under 30 years old	0					
Number of 30-50 years old	2					
Number of over 50 years old	5					
Percentage of under 30 years old	0.0%					
Percentage of 30-50 years old	28.6%					
Percentage of over 50 years old	71.4%					





FINANCIAL MANAGEMENT • PROFITABLE GROWTH BENEFITS EVERYONE • CUSTOMER RELATIONS AND DELIVERY RELIABILITY ARE KEY



ECONOMY

Financial management

Financial success and our ability to create value for our stakeholders lay the foundation for our financial responsibility. Nokian Tyres conducts financial management in an active and result-oriented manner. Our Finance function collects information on the operating environment as well as the different stages and results of the company's business processes. By processing this information, we aim at anticipating the effects of our future business decisions. Good financial management supports systematic and foreseeable operations. In 2016, Nokian Tyres performed well in all of the company's key markets despite the challenging market environment.

Focus areas of financial management for 2016–2018

The goals of the Finance function in the coming years include enabling new projects and investments by ensuring sufficient cash and credit limits. Finance is closely involved in the implementation of the company's potential structural changes, including the assessment and management of the related risks and opportunities, while adapting the financial reporting according to the company's business needs. Product and customer profitability guide the company's operations and are developed together with the business units. Finance is also actively involved in developing global processes that enable the best possible service for Nokian Tyres' customers.

The head of financial administration is Vice President of Finance, who reports to the company President and CEO. Together, they are in charge of investor relations. Major investments are discussed by the regularly convening Investment Board.

Corporate Governance in a nutshell

Our corporate governance is based on the annual general meeting, Board of Directors, President and CEO, group's management team, Finnish Limited Liability Companies Act and applicable regulations as well as the group's policies, procedures and practices. The Board of Directors has approved the corporate governance statement and the company's auditors verify that the statement and its related descriptions of the internal reporting controls and risk management correspond to the financial reporting process.

The annual general meeting holds the highest decision-making power. The annual general meeting decides on matters such as verifying the company's annual accounts, profit distribution and discharging the Board of Directors and the President and CEO from liability. The annual general meeting also elects the members of the board and the auditors and determines their remuneration. In addition, the annual general meeting can make decisions concerning amendments to the articles of association, issue of shares, granting warrants and acquisition of the company's own shares, for example.

- Shareholders have the legal right to propose matters for consideration by the annual general meeting by submitting a written request to the Board of Directors in time for including the matter in the invitation to the meeting.
- The Board of Directors is responsible for corporate governance and the appropriate conduct of ordinary activities. The Board holds the general authority in company-related matters, unless other company bodies have the authority under the applicable legislation or articles of association. The guiding principles and key tasks of the board are specified in the Limited Liability Companies Act, articles of association and the Board's working order. The key tasks include consolidated financial statements and interim and half year financial reports, proposals to the annual general meeting, appointing and dismissing the President and CEO and organising financial control.
- The President and CEO conducts the group's business and manages the company operations in accordance with the instructions and guidelines provided by the Board of Directors. The President and CEO may, considering the extent and nature of company operations, only undertake unusual or far-reaching actions with the Board's authorisation. The President and CEO is liable for ensuring the legal compliance of the company's bookkeeping and for arranging reliable asset management.
- The group's management team assists the President and CEO in managing the company operations. In accordance with the group's meeting policy, the Management Workshop convenes once per month and

The goals of the Finance function in the coming years include enabling new projects and investments by ensuring sufficient cash and credit limits. it is attended by the President and CEO as well as the business Vice Presidents, service Vice Presidents, Vice President for Russian operations and chief audit executive (CAE).

- The group's internal control mechanisms are in place in order to ensure that the financial reports released by the company contain material and accurate information on the group's financial standing. The group has defined group-level instructions and policies for the key operational units specified below in order to ensure efficient and profitable company operations.
- → Learn more about our full corporate governance system on our website.
- → Read more about our report of salaries and remuneration here!

Risk management at Nokian Tyres

The group has adopted a risk management policy, approved by the Board of Directors, which supports the achievement of strategic goals and ensures business continuity. The group's risk management policy focuses on managing both the risks pertaining to business opportunities and the risks affecting the achievement of the group's goals in the changing operating environment.

The risks are classified as strategic, operational, financial and hazard risks. Strategic risks are related to customer relationships, competitors' actions, political risks, country risks, brand, product development and investments. Operational risks arise as a consequence of shortcomings or failures in the company's internal processes, actions by its personnel or systems or external events, such as legislative changes, unpredictable rulings by judicial systems or authorities or changes in raw material prices. Financial risks are related to fluctuations in interest rate and currency markets, refinancing and counterparty and receivables



risks. Hazard risks may lead to injuries, property damage, production outages, environmental impacts or liabilities to third parties.

The most significant risks related to Nokian Tyres' business are the country risks related to the Russian business environment, reputation risks, tax risks (especially in Finland), product and R&D risks, production outage risks, currency and receivables risks and governance, information security and data administration risks. Due to the company's product strategy, interruption risks that are related to marketing and logistics may especially have a significant impact on peak season sales. The risk analysis conducted in 2016 focused special attention on corporate social responsibility risks, the most significant of which are related to the company reputation and product quality.

The risk management process aims to identify and evaluate the risks and to plan and implement the practical measures for each risk. Among others, such measures may include avoiding the risk, reducing it in different ways or transferring the risk through insurance policies or agreements. Control functions and measures are verification or back-up procedures applied in order to reduce the risks and ensure the completion of the risk management measures.

Risk management is not assigned to a separate organisation. Rather, its tasks follow the general division of responsibilities adopted elsewhere in the organisation and its business. The company's Board of Directors discusses the most significant risks and their related measures annually in connection with the strategic process.

Sustainability improves our competitiveness

As a manufacturer of high-quality, innovative premium tyres designed for demanding conditions, we want to be an industry pioneer also in terms of sustainability. The more often our name and products are associated with environmental responsibility in addition to safety and high quality, the more we can attract sustainability-conscious customers. Among other things, we invest in the eco-friendliness of our products and processes and the safety of our products. Corporate responsibility also improves our competitiveness, thereby supporting our goal of profitable growth. Business success, in turn, benefits our surroundings and stakeholders.

In addition to our corporate sustainability goals and development plans, our externally assured GRI G4 compliant Corporate Sustainability Report guides the development of sustainability in our company. For us, profitable growth, good HR management and environmental aspects are important for the development of sustainable business operations, in addition to product safety and quality.

Nokian Tyres is included in the OMX GES Sustainability Finland GI Index. The index provides transparent, objective and reliable information for making responsible investments. The reference index comprises 40 leading companies listed on Nasdaq Helsinki in terms of sustainability. The index companies are selected based on their compliance with the requirements, which focus on the The more often our name and products are associated with environmental responsibility in addition to safety and high quality, the more we can attract sustainabilityconscious customers. management of environmental, social and corporate governance (ESG). Nasdaq calculates the index in partnership with GES Investment Services. Nokian Tyres is also included in the STOXX Global ESG Leaders and FTSE4Good indices.

Our company has received consistent and good scores in the global Dow Jones Sustainability Index assessment. The assessment reviews corporate sustainability against 18 assessment criteria, including environmental management, human rights, supply chain sustainability and occupational health and safety. In the 2016 assessment, Nokian Tyres' score exceeded the industry average in nearly all 18 criteria. The assessment is conducted by RobecoSam, Switzerland.

We track financial management with the following indicators:

- G4-34 Governance structure of the organisation
- G4-DMA Disclosure of the Management approach
- G4-EC1 Produced and distributed direct financial added value
- G4-EC8 Key indirect financial impacts and their scope
- G4-PR5 Results of surveys measuring customer satisfaction

ECONOMY

Profitable growth benefits everyone

Financial success and our ability to create value for our stakeholders lay the foundation for our financial responsibility. Our business must be profitable so that we are able to offer security, work and well-being for our personnel as well as consider our investors, customers and other stakeholders. We seek growth and strong profitability for our business. Our strategic goal is to grow faster than the market and be the world's most profitable tyre company. We intend to maintain the best operating profit level in the industry, at 22 per cent at a minimum. Furthermore, our strategy sets a target of an efficient organisation whose sales grow faster than the fixed costs. In 2016, we performed well in the rather challenging market environment.

Profitable business not only benefits our stakeholders in various ways, it also enables us to further improve our business. Financial success also makes our own business even more interesting and varied overall.

Continuous improvement in all areas

Improving our products and maintaining our position as a leading manufacturer of premium tyres are important for us. We focus our production on core products with good margins and make consistent investments in improving quality, productivity and logistics. Our strong expertise in the northern conditions has enabled us to grow our product range and extend our sales to new areas. Consumer recommendations strengthen the reputation of our company, thereby driving our sales.

In addition to product development, we prioritise the continuous improvement of our business models and processes. The management and functionality of the distribution chain are basic requirements for growing our sales and for receiving a good return on investment. Profitable growth requires that we continuously increase our capacity. We, therefore, invest in new production capacity according to our growth targets and the development of the market. Better productivity supports profitability, which enables higher salaries or dividends for our stakeholders, for example. As a responsible company, we are also an attractive option for investors who take into account sustainability when making investments.

Key figures, IFRS

EUR million	2016	2015	change %
Net sales	1,391.2	1,360.1	2.3
Operating profit	310.5	296.0	4.9
% net sales	22.3	21.8	
Profit before tax	298.7	274.2	8.9
% of net sales	21.5	20.2	
Return on capital employed (ROI), %	19.9	20.3	
Return on equity (ROE), %	18.7	19.6	
Interest bearing net debt	-287.4	-209.7	-37.1
% of net sales	-20.7	-15.4	
Net cash flow from operations	364.4	283.4	28.6
Gross investments	105.6	101.7	3.8
% of net sales	7.6	7.5	
Earnings/share, EUR	1.87	1.80	3.6
Shareholders equity per share, EUR	10.75	9.24	16.4
Equity ratio, %	73.8	70.8	
Taxes, EUR	46.9	33.5	
Wages, fees, social security contributions	197.6	195.5	
Personnel, average during the year	4,433	4,421	

Impact on society and communities

Nokian Tyres contributes to society and communities through the payment of salaries and taxes. We directly employ more than 4,400 people around the world. When we also consider all of our subcontractors, our role as a job creator becomes even more significant. Our tyre 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.

Nokian Tyres and the cash flow between stakeholders

A good financial result has extensive effects on our stakeholders. The following graph shows the Nokian Tyres' economic footprint in terms of its stakeholders.

Partnerships and sponsoring

We continuously work with various organisations in the localities where we employ people. We affect our local communities in many ways: In Nokia, we are one of the major employers. In Russia, we have built housing for our personnel. The taxes that we pay support the well-being of people in many countries. We are also actively involved in making road traffic safer. Many small actions – such as our dialogue with our neighbourhood, work with educational institutions and minor contributions for local sports clubs – have an effect on individuals and communities.

Similarly to previous years, our work with schools in 2016 included thesis collaboration and company visits, for example. We offer a range of thesis assignments and trainee positions in fields from product development to production. We also participate in various student projects and events.

In 2016, we engaged in international marketing collaboration with the International Orienteering Federation and the organisation behind the Tough Mudder events.

GENERATION OF ADDED VALUE



Our agreement with the International Orienteering Federation provides us with high visibility during the annual World Orienteering Championships and World Cup events. Focused on Central Europe, our partnership with Tough Mudder supported the image that our specially reinforced SUV tyres deserve and provided us with visibility throughout Europe.

Tough Mudder organises obstacle races that put strength, endurance, teamwork and mental grit to the test. The Nokian Tyres' brand and Tough Mudder both demonstrate the same mentality: succeeding under exceptionally demanding conditions through intelligence and relentlessness. These elements can also be found in the annual Swamp Soccer World Championships in Hyrynsalmi, Finland. We have been the main sponsor for the championships for nearly 10 years.

We signed a partnership agreement with two-time F1 champion Mika Häkkinen in 2016, which will promote the Nokian Tyres brand as well as our collaboration projects for better road safety. Mika Häkkinen and Nokian Tyres share the values of mental grit, relentlessness and professional expertise, which we will also emphasise from a safety perspective.

Furthermore, we have been one of the main sponsors of the youth road safety campaign "Turvassa tiellä" and the "Rosvopaisti" meal events for Finnish war veterans. We have also offered minor contributions to local activity clubs and organisations that focus on substance abuse prevention.







New tyres help Russian families with children get around more safely

In 2016, the Leningrad Oblast decided to support families with more than seven children by donating 40 multi-purpose vehicles to them. The Russian organisation of Nokian Tyres decided to participate in the initiative by donating safe and eco-friendly tyres for the MPVs. In celebration of the 80th anniversary of the Nokian Hakkapeliitta, each family got to choose between the Nokian Hakkapeliitta C3 winter tyres or Nokian Hakka C2 summer tyres. With this gesture, we want to help the families stay safe on the road.

ECONOMY

Customer relations and delivery reliability are key

We want the dealers and users of our products to be the most satisfied customers in the tyre industry. Delivery reliability is one of the prerequisites of success in this industry, which is heavily built around the peak seasons.

We want to be the top choice for our customers. Accordingly, our strategy specifies customer satisfaction and good partnership as one development need. Long customer relationships based on trust provide both parties with opportunities for improvement and success. We support our customers' success through commercial collaboration and our pricing policy, among other things.

In autumn 2016, we carried out our annual customer satisfaction survey simultaneously in 14 different markets. We chose to do this with telephone interviews because we wanted to gain an in-depth understanding of our customers' business environment. The survey covered some 200 customers. We received positive feedback for our delivery capabilities in nearly all regions. The respondents assessed their overall satisfaction on a scale from 0 (poor) to 10 (excellent). 78% of the respondents gave us a score of 8, 9 or 10. Our customers especially praised the good accuracy of our deliveries. The Nokian Tyres' employees also received positive feedback.

We will improve our operations further based on the feedback. In 2017, for example, we will launch online services, which were also brought up in the customer satisfaction survey.

Delivery reliability is critical for success

Nokian Tyres' products are sold in more than 60 countries by thousands of customer companies as well as our own sales organisation. By delivery reliability, we mean that the right products are delivered according to contract in terms of the product quality, method of transport, delivery location, delivery time and price.

One special characteristic of our core market is that the sales of passenger car tyres are heavily built around two peak seasons. Succeeding during the peak seasons is essential for Nokian Tyres' business: We sell most of our summer tyres to consumers a few weeks before and after Easter. Consumer sales of winter tyres peak between September and November depending on the weather conditions, and we sell an estimated 30% of our winter tyres in the first 10 days after the first snowfall.

Our key success factors are our extensive distribution network and flexible and efficient logistics. Nokian Tyres and Vianor have worked for a long time towards improving and streamlining their logistics. In many cases, forecasting delivery volumes to partners is the only way to ensure sufficient capacity during the peak seasons. Tyre transports are planned 1 to 6 months in advance, and inventory forecasts are made up to two years ahead.

By maintaining an extensive network and building long-term partnerships, we can ensure good readiness to respond to changes, for instance by using alternative delivery routes or delivery partners.

Online services create a better customer experience

Nokian Tyres had created a digital service for its customers, which provides access to training content, product information and the ordering channel. The new online service will launch in the spring of 2017, starting in Europe. The online concept is being developed based on a need iden-

Vianor aims at better customer service through employee well-being

IN THE SPOTLIGHT

In 2016, the Vianor chain started the Premium Customer Journey initiative, which harmonises customer service practices and renews the store concept. The goal is to create the best possible workplace and customer experience.

The idea behind Premium Customer Journey is that the best customer experience is created by motivated employees with good job satisfaction and the right level of competence. The HR development measures and mutual trainings create a new, shared approach.

We started Premium Customer Journey in 2016 by training the first customer service ambassadors and coaches for implementing the theme in their own organisations. In the five selected Vianor pilot outlets, we kicked off the initiative with a board game day, discussing the practices related to the work and customer service. At the same time, we introduced a new 5S model in our pilot outlets. It defines a new level of housekeeping and cleanliness, which provides better comfort and safety. Throughout Premium Customer Journey, we coach the supervisors on better leadership and motivation.

Our goal for 2017 is to extend the initiative to ten Vianor outlets. In the coming years, the new model will apply to all Vianor personnel.



Top consumer choice

Vianor aims at being the top choice for consumers – a service provider that offers a comfortable customer experience in car servicing as well as tyre changes. The renewal of the store concept addresses consumers' current needs, including the ability to focus on their own work while they wait. We will also improve the customer experience with digital services that will be improved continually.

We track customer satisfaction on a daily basis with HappyOrNot Smiley Terminals, which collect immediate customer feedback.

tified in our customer satisfaction surveys.

For our business, it is essential that our customers know the company and the products we produce. Establishing strong product and company knowledge and earning mutual trust in all aspects make it easier for the customer to sell our products and conduct profitable business operations.

Our development efforts are driven by digitalisation and the

changes it has brought to Nokian Tyres and our customers. Today, tyre manufacturers must be able to provide customers with information quickly, for example on product pricing, availability and technical details.

The online service improves the availability of information and reduces the need to travel in a cost-efficient way. The service also enables everyone to access the same information and makes it easy to implement changes and updates.

Planet

MANAGEMENT OF ENVIRONMENTAL RESPONSIBILITY • ENVIRONMENTAL IMPACTS OF PRODUCTION • A TYRE'S LIFE CYCLE AND RECYCLING


ENVIRONMENT

Management of environmental responsibility and improvements

We develop and manufacture safe tyres for demanding conditions while respecting environmental values. Our aim 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 operation focuses on continuous improvement and is based on the corporate social responsibility that we recognise and our strategic business goals. We also consider the entire product life cycle and all of our company's functions in terms of environmental responsibility.

Eco-friendliness is an integral part of the Finnish business culture, and we are not willing to compromise on it in our global operations. We want to be an international industry leader also in terms of environmental matters. The awards and excellent reviews that our company and products have received demonstrate that environmental aspects, quality and safety are important for our customers and other stakeholders. Our successful development projects, therefore, guide improvements throughout the industry.

Key measures in 2016 and goals for 2017

A summary of the essential goals of Nokian Tyres' 2016 environmental programme, their completion and our goals for 2017 is presented in the following tables.

Organisation for environmental management

Our group's sustainability efforts are coordinated by the Environmental and Responsibility Manager. Environmental aspects, chemical safety and sustainability are assigned to the Quality, Sustainability and ICT unit and coordinated globally by Vice President of Quality, Sustainability and ICT. The goals of quality and sustainability management are accident prevention, uninterrupted production, ensuring high quality and good corporate citizenship in all areas of operation.

Practical training and coordination, for instance regarding chemicals and waste, are handled by environmental

Essential goals of Nokian Tyres' 2016 environmental programme and their completion

Object	Target in 2016	Status in 2016	
Statutory requirements	Implementation according to the Nokian Tyres' environmental permits and legislation	Completed according to plan	
VOC emissions	Compliance with VOC-directive, ensuring usability of new incinerator	Incinerator in use, operating faultlessly. Exceeding total emission limit of VOC directive, emission 45% (limit 25%).	
Energy	Implementing and updating energy saving actions	Implementation of actions according department's action plans started as planned	
Greenhouse gas emissions	Determining scope 3 emissions	Implemented	
Wastewater	Reducing pollutants in wastewater (Vsevolozhsk)	Main actions done, continues during 2017.	
Chemical safety	Preparing for chemical safety report according to Seveso III directive for Nokia factory	Preparation started	
Safety audits and monitoring the use of chemicals	2 audits/department	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 per- sonnel	According to the plants' environmental programmes	Implemented	

engineers. Additionally, 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.

Management systems

We aim at managing the environmental impacts of our products over their entire life cycle and addressing the safety and quality aspects of our operations in a comprehensive and systematic manner. The management system manual that covers the environmental aspects, safety and quality serves as a key tool for this purpose. The operations

Our goals for 2017

Object	Target in 2017
Statutory requirements	Implementation according to the Nokian Tyres' environmental permits and legislation
VOC emissions	Compliance with VOC-directive, improving intake of VOC-emissions in heavy tyres tyre building
Energy	Implementing energy saving actions.
Wastewater	Reducing pollutants in wastewater (Vsevolozhsk)
Chemical safety	Chemical safety report according to Seveso III directive for Nokia factory
Environmental audits and monitoring the use of chemicals	2 audits/department
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	According to the plants' environmental programmes

manual is ISO 14001 compliant in terms of environmental matters and ISO 9001 compliant as regards quality. The document that guides our environmental protection efforts the most is the Environmental Protection procedure. Our factories in Russia and the Swedish sales company Nokian Däck are also covered by the joint environmental and quality system and are included in the ISO 14001 and ISO 9001 certifications. Furthermore, the management system incorporates the safety management system as referred to in the Finnish Government Decree 856/2012 (industrial handling and storage of hazardous chemicals, SEVESO III). We also have received the automotive industry's ISO/TS 16949 approval for both of our factories.

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. The strategy is drawn up with Vice President of Quality, Sustainability and ICT and the Environmental and Responsibility Manager, who reports to the vice president. Working together with environmental experts, the Environmental and Responsibility Manager prepares an annual environmental programme for the factories, which specifies detailed targets, actions, schedules and persons in charge for the objectives presented in the strategy. This leadership covers all aspects of the environmental management system. Additionally, units have their own projects for developing the operations and processes.

The development of environmental aspects and quality are reviewed each quarter at the management meetings. The top management provides direct feedback to the persons in charge.

Authorities and permits

Nokian Tyres' production facilities have valid environmental, chemical handling and storage permits. These permits and other environmental and safety operations are supervised by several authorities according to the laws of the country in question. We maintain continuous dialogue with various authorities in order to take any official requirements and requests into account in a timely manner. Any disruptions, accidents and deviations from permit requirements are immediately communicated to the authorities.

We see official permits as minimum requirements and regard eco-friendliness as 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 Finland, the EU and Russia, and anticipate the effects of pending regulation on our operations.

Control of chemicals

Nokian Tyres started its control of chemicals in the early 1960s. Our company complies with all the requirements of the EU chemicals legislation aimed at ensuring the safest possible use of chemicals for the employees, environment and end users. In order to improve the level of chemical safety and to comply with the REACH directive, we continuously collaborate with component and chemicals suppliers and producers.

In our production, we never use carcinogenic chemicals or SVHC chemicals (Substances of Very High Concern) as per the EU's REACH regulation. Our contract manufacturers' products are also free of SVHC chemicals. Our products do not contain any conflict minerals. All of our products meet the EU REACH requirements concerning PAHs. We also intend to ensure that no products sold in the Vianor units now or in the future contain any such chemicals. We require all our chemicals suppliers to provide us with a chemical safety data sheet (SDS) in compliance with valid legislation prior to the purchasing of chemicals. The SDSs of the chemicals in use are registered in a database available to all personnel.

New raw materials for rubber compounds are tested in Nokia for quality assurance and applicability in production both in laboratory and production conditions. The raw materials approved for rubber compounds are documented in a list of approved raw materials. The purchasing personnel are only allowed to purchase raw materials included on the group's list of approved raw materials. The raw materials used by our Russian factories are also tested and approved in Finland.

No booster chemical is taken into use at the Nokia factory before the 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 pur-



pose of this policy is to harmonise the use of chemicals throughout the company and, whenever possible, to replace hazardous chemicals with safer ones.

In Nokia, we use a chemical information database that stores the safety data sheets for all the chemicals in use at the factory. We arrange chemical safety training annually to the persons involved in the early stages of production and as needed to other personnel.

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 meeting high standards. The audits aim to verify if the operation under scrutiny complies with the legislation, EHSQ policy and the instructions provided in the activity management system.

Internal environmental and quality audits are carried out according to an annual plan so that each area specified in the activity management system is audited at least once every three years. The annual plan is drawn up on the basis of a five-year plan, taking into account the findings of the previous audits. In production, the environmental aspects and chemical safety issues are audited regularly during the Safety Walk rounds of individual departments and every six months by the chemical control team.

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 an internal audit.

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

Tracking environmental responsibility

We track the development of our environmental responsibility with the following indicators:

- G4-DMA Disclosure of the Management approach
- G4-EN1 Materials used by weight or volume
- G4-EN2 Percentage of materials used that are recycled input materials
- G4-EN3 Energy consumption within the organization
- G4-EN5 Energy intensity
- G4-EN8 Total withdrawal by source
- G4-EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas
- G4-EN15 Direct greenhouse gas emissions
- G4-EN16 Indirect greenhouse gas emissions
- G4-EN31 Total environmental protection expenditures and investments by type
- G4-EN18 Greenhouse gas (GHG) emissions intensity
- G4-EN34 Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms
- G4-EN21 Nitrogen and sulphur dioxide emissions and other significant emissions
- G4-EN22 Total water discharge
- G4-EN23 Total weight of waste by type and disposal method
- G4-EN29 Monetary value of fines for non-compliance with environmental laws and regulations

ENVIRONMENT

Environmental impacts of production

We aim at managing the environmental impacts of our products over their entire life cycle and addressing the environmental aspects of our operations in a comprehensive and systematic manner.

The environmental impacts caused by the production of tyres include odour, solvent and dust emissions, noise, waste and consumption of energy. The most significant of these impacts are waste and, locally, odour. Solvent emissions (i.e. VOC emissions) are also a significant impact of the Nokia plant. We aim to reduce these impacts in the best possible way. For example, we track emission volumes, improve our operation and find efficiencies and address any problems that we find. In line with our quality and sustainability principles, we aim for zero errors in all EHSQ aspects.

We document the annual environmental impacts of our tyre factories and report them to the authorities as required in each country. We record all feedback and take the necessary corrective actions. We quickly assess and respond to all complaints and address them as required. Our goal is to take care of environmental aspects so effectively that people have no cause for complaints or comments. In 2016, our factory in Nokia did not receive any environmental complaints. However, our factory in Russia received four complaints concerning odour emissions.



Water into the sewage 98,000 m²

6,527,000 m³

Water into the

Nokianvirta river

Environmental impacts of our factories in Nokia and Russia

-	Emissions	
and st	All emissions under (measured at the dis	iiiiiii iiiiiiiiiiiiiiiiiiiiiiiiiiiiii
	Particle emissions	9.3 t
	CO ₂	603 kg Scope 1+2 kg CO ₂ eq/production (t)
Vsevolozhsk	Noise	< 50 dB
	Input	
	Energy	1510 TJ
	Municipal water	311,600 m ³
	Raw materials	141,700 t
	Products	
	Tyres	134,300 t
-	Waste	
	Landfill	1,500 t
	Utilized	8,400 t
	Hazardous	1,300 t
	Water into the sewage	248,500 m ²
	Water into the drain	206,000 m ³

Taking biodiversity into account

We have always considered biodiversity as part of our environmental aspects. We have assessed our factories, test tracks and retreading plants in terms of biodiversity. Although our operations have little direct effect on biodiversity, we intend to continue taking the biodiversity of our surroundings into account.

Energy

The Nokian Tyres' purchased energy can be divided into electricity, heating and steam. We buy the energy for our factory in Nokia from an external supplier. Renewable energy sources account for approximately 40% of the electricity that we purchase. We use bioenergy and natural gas as the energy source for heating and steam generation. Our Vsevolozhsk factory uses natural gas as an energy source. We buy the electricity from an external supplier and use our own power station for the energy needed for heating and steam.

A biomass power plant that supplies our Nokia factory started its full production in April 2016. The new power plant primarily uses local wood-based fuels, such as wood chips and peat. The plant is also suited for burning fibre clay and sludge from the Nokia paper mill. The new plant reduces the use of fossil fuels, i.e. natural gas, in favour of local energy sources in the region. With our investment in the biomass plant, the proportion of renewable energy sources will grow up to to approximately 50%.

Our Energy Savings workgroup continued working in 2016. We did not meet our target of reducing our yearly energy consumption per production tonne by 1% due to the lower production volume and production idling in Nokia.







Emissions

Renewable energy sources account for approximately 40% of the electricity that we purchase.

Emissions from energy production

At our factory in Vsevolozhsk, an independent company annually measures the nitrogen and sulfur emissions from energy production. Our nitrogen and sulfur emissions are below the set emission limits.



Carbon dioxide (CO₂)

In 2016, we updated our CO_2 calculator for tyre production to include the so-called Scope 3 emissions. We calculate our greenhouse gas emissions according to the ISO14064 guidelines from the purchasing of raw materials to the disposal of the product. The calculator is now used annually for determining these emissions. Our Vsevolozhsk factory uses its own power station for generating most of the energy it needs. Therefore, its direct greenhouse gas emissions exceed those of the factory in Nokia.

In 2016, we updated our targets for reducing CO_2 emissions. We intend to achieve a 20% reduction in Scope 1 and Scope 2 emissions by 2020 and a 30% reduction by 2030 compared to the 2013 baseline.

→ For our specific sustainability goals, see the section on managing sustainability in our company on page 13

Vianor's energy rating is good for the environment and the budget

Vianor's Real Estate Manager Jarkko Haavisto is happy to present the energy rating system, implemented in 2012 for reducing energy consumption in all group-owned Vianor outlets.

- We have seen some good results: in the past five years, we have improved the average rating of our outlets by one star, which means a 20% improvement in energy consumption. The star rating works on a scale from one to five, and we are now near four stars.

Like many great ideas, this one grew out of a genuine need. Vianor outlets have undergone regular audits in terms of safety and housekeeping, for example, but there was no tool for tracking outlets' energy consumption. Jarkko had the idea of tracking energy consumption based on heating, electricity consumption and water consumption. It was first implemented in Finland, and later in Sweden and Norway.

- The outlets have welcomed the rating system, and we have been able to implement significant improvements. The star rating helps communication and makes it easy for the personnel to see whether the outlet is doing well or if there is any need for improvement. Furthermore, we love healthy competition with each other, which drives our outlets to achieve even better results.

The rating system has also helped identify deviations. For example, if an outlet's energy consumption is significantly high, further investigation may uncover an underlying issue.

Addressing these issues saves energy. For example, old lease agreements may have outdated energy provisions. Now, we only equip new facilities with remote controlled doors. If the outdoor temperature is -20 degrees, the difference with the +20 degrees indoors is 40 degrees. Keeping a door open costs €90 per hour with the current price of district heating. This reduces the environmental impact and may also save thousands of euros annually, which is a significant sum for small outlets, both financially and in terms of employee satisfaction. The benefits are obvious.

Cost-efficiency is also good for the environment. Even though the number of Vianor outlets varies each year, our aim is to reduce the relative energy consumption by 10% in the next five years.

Vember of Nokian 7

Corporate Sustainability Report 2016 | 80 | Planet > Environmental impacts of production







Volatile Organic Compounds, VOC

Solvents, or volatile organic compounds (VOC), form the most significant emissions into air. Solvents are used in the production of heavy tyres and treads for improving adhesion. As of 2012, no solvents are used in the production of passenger car tyres. The VOCs from tread production and the assembly of heavy tyres are collected and conveyed to an incineration plant.

In 2016, the solvent emissions amounted to 52.3 tonnes, equalling 1.2 kg/tonne of products. The company aims at compliance with the total emission limit according to the EU's VOC Directive, i.e. 25% of the solvents used. In 2016, however, our emissions amounted to 45%, which exceeded the emission limit of the directive. Collecting solvent emissions from the production of heavy tyres poses a challenge. In the production of heavy tyres, it is not possible to close all emissions sources such that all emissions can be collected and conveyed to the incineration plant. During 2017, we will continue working on the collection of solvents in the assembly of heavy tyres in order to reach the directive's solvent limit.



Particle emissions (dust)

Particle emissions are caused by the processing of pow-

dery chemicals in the compound mixing department. The mixing equipment is fitted with effective ventilation and dust collection devices. The best separating rates achieved by water cleaners exceed 99%. We measure particle emissions with particle concentration and differential pressure gauges. In addition, external experts carry out concentration measurements on a regular basis. The measured particle concentrations have complied with the permit limits at both factories. The dust that passes through the filter system mainly causes an aesthetic inconvenience and poses no harm to the environment or health.

Odour

According to surveys commissioned by Nokian Tyres, odour emissions are momentary. The mastication process for softening natural rubber causes discharges of compounds generated during the precipitation and dehydration phases of rubber milk, which results in an unpleasant odour in the near surroundings. We use droplet separators in order to reduce the odours from mastication. We have also managed to reduce odours by decreasing the number of separate mastication processes. Some odours are generated during the tyre 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.

According to a dispersion modelling of odour emissions in Nokia, the percentage of odour hours in a year is 5–10% in the neighbourhood eastward from the factory. In summer 2016, the compound mixing department commissioned new odour control equipment, which represents the best available technique (BAT). It provides odour elimination for two mixing lines. According to measurements, the equipment eliminates approximately 60% of the collected odour. In the future, the technology will be expanded to other lines in Nokia and Vsevolozhsk based on the experience gained with the equipment.

Noise

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

Water and wastewater

In 2016, we assessed our factories' water risks with the Water Risk Filter tool by the WWF. The assessment indicates that our water risks are not significant. Moreover, in our factory locations, there is no water shortage and the bodies of water are fairly clean.

Tyre manufacturing processes use large quantities of cooling water. The Vsevolozhsk factories use municipal water for cooling. The Nokia factory takes cooling water from the nearby Nokianvirta river and discharges it back into the river after use. The cooling water has no contact with production chemicals at any stage. It is, therefore, not contaminated when it returns to the river. Wastewater from the factory is conveyed to the municipal treatment plant of the town of Nokia. The Vsevolozhsk factory has undergone several improvements in order to comply with the concentration limits in the factory's wastewater. In 2017, we will conduct follow-up measurements and use them as the basis for any further actions for reducing the concentrations.

We take samples annually from the cooling water discharged into the river and from the wastewater conveyed to the municipal treatment plant in order to verify the water quality. The sanitation water pumped into the municipal sewerage system and the cooling water discharged into the Nokianvirta river have been practically clean. We aim to reduce the consumption of municipal water by 25% by 2020 compared to the 2013 baseline.











Materials

Our production uses premium raw materials that contribute to the safety and high quality of our tyres. We are also continuously exploring the utilisation of recycled materials but, in general, recycled materials contain impurities that would degrade our products' safety characteristics. We, therefore, primarily use virgin raw materials in our production.









Waste

Waste is generated both in the actual production and support functions. We weigh all production waste and log the volumes in a monthly record. Other waste is logged in yearly reports. The waste volumes are weighed by waste management companies. The generated waste is sorted at the factories according to separate waste management instructions. Most of the production waste is taken directly to utilisation. Hazardous waste is stored separately in collection points in containers carrying warning labels. The generated waste can be roughly divided into three categories: landfill waste or non-recycled waste, recycled waste and hazardous waste.

Recycled waste

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

Scrap tyres – tyres that do not meet high standards of quality - are taken to recycling directly from production. In Finland this is handled by Finnish Tyre Recycling Ltd. and in Russia by three partner companies. Non-vulcanised scrap rubber is generated in the production stages preceding vulcanisation or curing. Its re-use applications include rubber products with non-critical material requirements, such as impact padding and conveyor belts.

Other recycled waste includes combustible waste, plastics, scrap iron and steel, wood, paper and cardboard and, in Finland, also biodegradable waste, glass and electrical and electronic waste.

Landfill waste

Mixed waste that cannot be utilised 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 utilisation. Our goal for 2020 is that no waste generated in production is taken to a landfill.



Wastes by disposal method

Nokia

0 % 8 %

79 %

Recycling

Recovery as energy

12 %

Reuse

Landfill

Composting



2

100

90

80 70

60

50 %

40

30

20

10

0

Utilization %

3

Total waste by disposal method – Nokia & Vsevolozhsk

	20)14	2	015	20)16
Disposal methos	t	%	t	%	t	%
Reuse	2,539	16.1	1,495	11.7	1,736	12.2
Recycling	1,0471	66.5	9,691	75.7	10,056	70.9
Composting	20	0.1	20	0.2	26	0.2
Recovery as energy	596	3.8	677	5.3	830	5.9
Incineration (mass burn)	54	0.3	0	0.0	128	0.9
Landfill	2,058	13.1	921	7.2	1,398	9.9

Hazardous waste

All hazardous waste is taken to an authorised processing plant. One fourth of this 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 utilised for energy or as materials.

Environmental costs

Environmental costs comprise the expenses and investments that are related to air, soil and water protection, waste management, management of environmental aspects and noise reduction. The graph on the left presents our environmental administration costs, emission processing costs and the paid monetary compensation in relation to environmental permits and legislation. In early 2015, we separated our environmental and safety administration. Therefore, the environmental administration costs were lower in 2015 and 2016.

In 2016, our factory in Vsevolozhsk was issued a fine of approximately €128,000 for exceeding the emission limit in wastewater.

Other locations

Our sales companies and Vianor outlets comply with the local laws and regulations. Waste is sorted and delivered for reuse whenever technologically and economically feasible. The most significant environmental impacts of our locations are formed by waste and energy consumption. In relation with energy-efficiency audits in the group, we have planned to conduct a focused energy consumption assessment in one Vianor outlet in 2017. In addition, our sales companies and Vianor outlets pay attention to the efficiency of product transportation.







ENVIRONMENT

A tyre's life cycle and recycling

Life cycle refers to the different stages a product undergoes from manufacture to use and, ultimately, recycling. The life cycle of a tyre begins from a rubber tree in the southern hemisphere, for example in Indonesia or Thailand. It spans the manufacture of raw materials and products, storage and several rounds of transportation. The tyre's actual life cycle ends, for instance, when the tyre is crushed and used as a 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. Tyre manufacture
- 3. Use of tyre
- 4. Utilisation of used tyres.

The outset for our environmental protection is the life cycle approach. This means that we take responsibility for the environmental impacts of our operation and our products throughout their life cycle. In accordance with our purchasing policy, our product procurement process includes determining the suppliers' commitment to the environmental aspects. In 2016, 67% of our raw material suppliers had the ISO14001 certification. All contract partners, such as contractors and subcontractors, must be committed to Nokian Tyres' principles.

Most of a tyre's environmental impacts are generated during use. The single most important factor is the vehicle's fuel consumption. Fuel consumption can be decreased by reducing the tyre'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 generate 10–20% savings in fuel consumption.

The most significant life-cycle environmental impacts of a tyre are caused by the vehicle's fuel consumption, which also generates emissions into air. The above graph presents the environmental impacts of a tyre as the carbon footprint.

Further studies are needed about the possible impact of micro polymers

Lately, there has been discussion about the microplastics that are ending up in seas, and motor vehicles have been brought up as one of the sources. Regarding tyres, the term "microplastics" is somewhat



Retreading offers eco-friendly driving

The Nokian Noktop retreading complements our service offer and brings cost savings and eco-friendlier kilometres to professional driving. Tyre retreading allows the operator to save money, resources and the environment. A good tyre carcass can easily be retreaded two times, which cuts tyre costs by approximately 30%.

 CO_2 emissions are generated during tyre production as well as driving. Retreading has a significant impact on the carbon footprint of tyres: manufacturing a new tyre results in approximately 220 kg of CO_2 emissions, whereas the figure for retreading is only approximately 40 kg. Furthermore, each retreading operation saves 40 kg of rubber and 70 litres of oil per tyre compared to new tyres. 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 tyres' excellent rubber compound even more efficiently without compromising on quality.

Our winter tyres for trucks and buses and our Noktop retreading materials use a Cap/Base structure, which is optimised for the seasons in the north. Its tread is composed of two layers. When a tyre is fitted in the autumn, 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 tyre provides sturdy performance in the following summer. misleading because tyres contain rubber rather than plastic. However, plastic and rubber are both polymers. Tyre wear generates tyre dust, and many publications have included it under micropolymers or microplastics.

The current research indicates that rubber particles that enter bodies of water do not pose verifiable harm to the ecosystem or human health. However, we need more of reliable research results, and microplastics' potential impact on aquatic ecosystems and human health should be thoroughly investigated. We are actively following the studies on this topic and we participate in external studies ordered by ETRMA and other organisations. Furthermore, we have looked into the utilisation of various bio-based materials in our products.

Our company is committed to continuous improvement, and we are developing our products and our functions to be even more eco-friendly. We take human safety and health very seriously. If, in the future, new research suggests that micropolymers are harmful, we will react and look for new solutions. The materials that are used in a tyre must be considered from the perspectives of safety and eco-friendliness.

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.

Where do tyres end up after use?

Approximately 3.2 million tonnes of used tyres are discarded each year in Europe. Luckily for the environment, discarded tyres are not worthless and can serve various reuse or recycling applications. They can be used, for instance, in noise barriers along motorways or as an elastic base material in horse riding arenas. If tyres are not appropriately recycled, they will end up in the environment or pile up in people's garages. The recycling rate of tyres in Finland is high compared to many other countries. In 1995, Nokian Tyres and other companies in the tyre industry established the Finnish Tyre Recycling Ltd in order to promote the centralised collection and utilisation of tyres nationally. In Finland, close to 100% of tyres are recycled. In all of Europe, for example, 95% of tyres are recycled and non-recycled tyres are taken to landfills. In Russia, the tyre recycling rate is low. According to new legislation, the share of tyres recycled in Russia must be, at a minimum, equivalent to 15% of the total sales in Russia.

Most of the recycled tyres are utilised for their material; they are shredded or granulated to replace rock materials in various road construction and civil engineering applications. Retreading tyres is one of the best recycling methods. If the carcass of a tyre is undamaged, it can be retreaded – bus and truck tyres up to two or even four times. It is also possible to combust tyres for energy, as the thermal value of tyres is close to that of oil. We are constantly looking for new ways to recycle and utilise tyres.

Independent assurance report

This document is a translation of the Finnish report

To the Management of Nokian Tyres plc

We have been engaged by the Management of Nokian Tyres plc (hereafter Nokian Tyres) to provide limited assurance on corporate sustainability information from the reporting period 1. January – 31. December 2016, which has been presented on Nokian Tyres' website on specifically indicated web pages as well as in a pdf-format report "Corporate Sustainability Report 2016" (hereafter the Corporate Sustainability Information).

Global Reporting Initiative's Sustainability Reporting Guidelines G4 was used as the assurance criteria (hereafter GRI G4).

Inherent limitations on the engagement

The inherent limitations on accuracy and completeness in data related to the Corporate Sustainability Information are to be taken into account when reading our assurance report. The presented Corporate Sustainability Information is to be considered in connection with the explanatory information on data collection, consolidation and assessments provided by Nokian Tyres.

The Management of Nokian Tyres is responsible for the measuring, preparation and presentation of the Corporate Sustainability Information in accordance with the GRI G4.

Our responsibility is to express an independent conclusion on the Corporate Sustainability Information. We have conducted the engagement in accordance with ISAE 3000 (Revised). To the fullest extent permitted by law, we accept no responsibility to any party other than Nokian Tyres for our work, for this assurance report, or for the conclusions we have reached. We are independent from the company according to the ethical requirements in Finland and we have complied with other ethical requirements, which apply to the engagement conducted.

We apply the International Standard on Quality Control 1 (ISQC 1) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Summary of the work performed

A limited assurance engagement consists primarily of making inquiries of persons responsible for the preparation of the Corporate Sustainability Information presented, and applying analytical and other evidence gathering procedures, as appropriate. 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 and consequently the level of assurance obtained in a limited assurance engagement is substantially lower.

In our engagement we have performed the following procedures:

- Interviews with members of Nokian Tyres senior management;
- An assessment of conformity with the reporting principles of GRI G4 in the presentation of the Corporate Sustainability Information;
- An assessment of the definition of the reporting boundaries for Corporate Sustainability Information in the context of Nokian Tyres's 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.

Conclusions

Based on the assurance procedures performed, nothing has come to our attention that causes us to believe that the information subject to the assurance engagement is not prepared in accordance with the GRI G4 in all material respects.

Helsinki, 15 March 2017 KPMG OY AB

Lasse Holopainen Authorised Public Accountant, KHT Tomas Otterström Partner

ndicator G4	Content	
	Strategy and analysis	
G4-1	Managing director's review	Greetings from the management, p. 6
	Organizational profile	
G4-3	Name of the organisation	Contents, p. 2
G4-4	Most important trademarks, products and services	Nokian Tyres, p. 4
G4-4	Most important trademarks, products and services	Nokian Tyres, p. 4, Innovation improves safety and eco-friendliness, p. 38
G4-5	Location of the organisation's head office	Contents, p. 2
G4-6	Area of operations	Nokian Tyres, p. 4
G4-7	Operational structure of the organisation	Nokian Tyres, p. 4
G4-8	Market areas	Nokian Tyres, p. 4
G4-9	Size of the reporting organisation	Nokian Tyres, p. 4
G4-10 *	Total number of employees by employment contract and gender	Satisfied and motivated personnel, p. 59
G4-11 *	Percentage of total employees covered by collec- tive bargaining agreement	Data not yet cathered in corporate level.
G4-12 *	Organization's value chain	Value chain, p. 23
G4-13	Significant changes to the size, structure, or ownership structure of the organisation	No significant changes during the account- ing period.
G4-14 *	Precautionary approach or principle addressed by the company	Sustainability management, p. 11
G4-15	Commitment to external corporate social respon- sibility initiatives	Materiality assessment, p. 20
G4-16	Memberships in organisations	Materiality assessment, p. 20
	Identified material aspects and boundaries	
G4-17	Ownership structure and form of company	Financial Statement Bulletin 2016
G4-18	Defining the report content and aspect bound- aries	Materiality assessment, p. 15
G4-19	Material aspects	Materiality assessment, p. 15
G4-20	Aspect boundary within the organization	Materiality assessment, p. 15
G4-20	Aspect boundary within the organization	Value chain, p. 23
G4-21	Aspect boundary outside the organization	The report does not include an external accounting of the organization.
G4-21	Aspect boundary outside the organization	Value chain, p. 23
G4-22	Causes for and impact of information deviating from previous reports	Materiality assessment, p. 15
G4-23	Most important changes to the scope of the re- port, its delimitations or measurement methods	Materiality assessment, p. 15
	Stakeholder engagement	
G4-24	Stakeholders of the organisation	Stakeholder engagement, p. 27
G4-25	Definition and selection criteria for stakeholders	Stakeholder engagement, p. 26
G4-26	Principles of stakeholder activities	Stakeholder engagement, p. 26
G4-27	Topics brought up by stakeholders	Stakeholder engagement, p. 27
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G4-28	Reporting period	Materiality assessment, p. 15
G4-29	Time of publication of the previous report	05/04/16

Indicator G4	Content	
G4-30	Report publication frequency	Materiality assessment, p. 15
G4-31	Contact information	Contents, p. 2
G4-32	GRI content comparison	This engagement, p. 90
G4-33	External assurance	Materiality assessment, p. 15
G4-33	External assurance	Independent Assurance Report, p. 89
	Governance	
G4-34	Governance structure of the organisation	Financial management, p. 64
G4-48	Highest governance body approving organiza- tion's sustaibility report	Top management approves sustainability report annually.
	Ethics and integrity	
G4-56 *	Organization's values, principles and standards	Sustainability management, p. 10
	Economic	
G4-DMA	Disclousure of the Management approach	Financial management, p. 64
G4-EC1	Produced and distributed direct financial added value	Profitable growth benefits everyone, p. 67
	Indirect financial impacts	
G4-DMA	Disclousure of the Management approach	Financial management, p. 64
G4-EC8	Key indirect financial impacts and their scope	Profitable growth benefits everyone, p. 67
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G4-DMA *	Disclousure of the Management approach	Sustainability management, p. 11
G4-DMA	Disclousure of the Management approach	Management of product safety and product liability, p. 31
G4-DMA	Disclousure of the Management approach	Management of environmental responsi- bility, p. 74
G4-EN1 *	Materials used by weight or volume	Environmental impacts of production, p. 83
G4-EN2 *	Percentage of materials used that are recycled input materials	Environmental impacts of production, p. 83
	Energy	
G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-DMA	Disclousure of the Management approach	Materiality assessment, p. 20
G4-EN3 *	Energy consumption within the organization	Environmental impacts of production, p. 79
G4-EN5	Energy intensity	Environmental impacts of production, p. 79
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G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-DMA	Disclousure of the Management approach	Materiality assessment, p. 20
G4-EN8 *	Total withdrawal by source	Environmental impacts of production, p. 82
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G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-EN12 *	Description of significant impacts of activities, products, and services on biodiversity in protect- ed areas and areas of high biodiversity value outside protected areas	Environmental impacts of production, p. 79
	Emissions	
G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-DMA	Disclousure of the Management approach	Materiality assessment, p. 20

ndicator G4	Content	
G4-EN15 *	Direct greenhouse gas emissions	Environmental impacts of production, p. 81
G4-EN16 *	Indirect greenhouse gas emissions	Environmental impacts of production, p. 81
G4-EN18 *	Greenhouse gas (GHG) emissions intensity	Environmental impacts of production, p. 81
G4-EN21 *	Nitrogen and sulphur dioxide emissions and other significant emissions	Environmental impacts of production, p. 79
	Effluents and waste	
G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-DMA	Disclousure of the Management approach	Materiality assessment, p. 20
G4-EN22 *	Total water discharge by quality and destination	Environmental impacts of production, p. 82
G4-EN23 *	Total weight of waste by type and disposal method	Environmental impacts of production, p. 84
	Products and services	
G4-DMA	Disclousure of the Management approach	Materiality assessment, p. 11
G4-DMA	Disclousure of the Management approach	Management of product safety and produc liability, p. 31
G4-EN27 *	Extent of impact mitigation of environmental impacts of products and services	Your tyre choice matters, p. 42
G4-EN27 *	Extent of impact mitigation of environmental impacts of products and services	Innovation improves safety and eco-friend- liness, p. 36
	Compliance	
G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-DMA	Disclousure of the Management approach	Management of environmental responsibility, p. 75
G4-EN29 *	Monetary value of fines for non-compliance with environmental laws and regulations	Environmental impacts of production, p. 85
	Overall	
G4-DMA	Disclousure of the Management approach	Environmental impacts of production, p. 85
G4-EN31 *	Total environmental protection expenditures and investments by type	Environmental impacts of production, p. 85
	Environmental Grievance Mechanisms	
G4-DMA	Disclousure of the Management approach	Environmental impacts of production, p. 78
G4-EN34 *	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	Environmental impacts of production, p. 78
	Social labour practises and decent work	
G4-DMA	Disclousure of the Management approach	HR management – human rights, diversity management, p. 49
G4-LA1 *	Total number and rates of new employee hires and employee turnover by age group, gender and region	Satisfied and motivated personnel, p. 60
	Occupational health and safety	
G4-DMA	Disclousure of the Management approach	HR management - human rights, diversity management, p. 49
G4-DMA	Disclousure of the Management approach	Sustainability management, p. 11
G4-LA6	Number of accidents and occupational diseases, lost working days and absences	Getting to go home healthy – developing the safety culture, p. 51
G4-LA6	Number of accidents	Getting to go home healthy – developing the safety culture, p. 51

	Content	
G4-LA6	Type of injury, occupational diseases and total number of work-related fatalities, by region and by gender	Data not yet cathered in corporate level.
	Training and education	
G4-DMA	Disclousure of the Management approach	HR management – human rights, diversity management, p. 49
G4-LA10	Personnel expertise development programmes and learning action programmes	Satisfied and motivated personnel, p. 55
G4-LA11 *	Development discussions	Satisfied and motivated personnel, p. 55
	Diversity and equal opportunity	
G4-DMA *	Disclousure of the Management approach	HR management – human rights, diversity management, p. 49
G4-DMA *	Disclousure of the Management approach	Ethical quidelines
G4-LA12 *	Composition of governance bodies and break- down of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Satisfied and motivated personnel, p. 61
	Society	
G4-DMA	Disclousure of the Management approach	Profitable growth benefits everyone, p. 67
G4-S01 *	Operations with implemented local community engagement and development programs	It is not possible to calculate this indicator from our operations.
	Public policy	
G4-DMA	Disclousure of the Management approach	Materiality assessment, p. 17
G4-DMA	Disclousure of the Management approach	Ethical quidelines
G4-S06 *	Political contributions	Materiality assessment, p. 17
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G4-DMA *	Disclousure of the Management approach	Management of product safety and product liability, p. 31
G4-PR1 *	Product and service categories for which health and safety impacts are assessed for improvement	Innovation improves safety and eco-friend- liness, p. 36
	Product and service labelling	
54-DMA	Disclousure of the Management approach	Customer relations and delivery reliability are key, p. 70
54-PR5	Results of surveys measuring customer satisfac- tion	Customer relations and delivery reliability are key, p. 70

* indicators that also measure company's progress on the GC principles

