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### CLIMATE ACTION

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### ENVIRONMENTAL CONSERVATION

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### OCCUPATIONAL HEALTH AND SAFETY

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### EMERGENCY RISK MANAGEMENT

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### PERSONNEL

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### RESPONSIBLE BUSINESS PRACTICE

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### R&D AND DIGITAL TRANSFORMATION

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### SUPPORTING SOCIAL AND ECONOMIC DEVELOPMENT

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### APPENDICES

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Message from the Chairman of Rosneft’s Board of Directors

2019 was another year when Rosneft made significant strides towards the achievement of the Company’s core strategic goals, including increased profitability, completion of key projects, and transformation of its organizational and technological capability.

In addition, a number of projects aimed at employee development, expanding contribution to the social welfare of local communities, and minimising our environmental footprint, are in progress.

Last year Rosneft maintained its status as one of the world’s leading public oil and hydrocarbon liquids producers with total production reaching 285.3 mmtoe. The Company is also one of the largest international oil and gas companies when ranked by proven SEC hydrocarbons liquids reserves, which currently stand at 42 bboe, with a replacement ratio of 129% in 2019.

As we continue to explore and develop new oil and gas fields, last year was very successful one for Rosneft with 258 new discoveries in established fields and 23 new greenfield discoveries, bringing total hydrocarbon reserves to 352 mmtoe.

In 2019, the Company joined other international oil and gas industry leaders and other global stakeholders as a member of the Methane Guiding Principles initiative that aims to reduce methane emissions along the natural gas value chain. The Company also established a cross-functional Carbon Management Subcommittee to lead efforts to reduce the Company’s carbon footprint through an approved Carbon Management Framework. In line with our development strategy, we seek to become one of the industry’s leading companies, ranking competitively among leading global peers in terms of per unit GHG emissions performance. We have already seen tangible results from this focus, and last year we reduced known vented methane emissions by more than 70%.

As part of this low-carbon agenda, Rosneft is also boosting natural gas output and marketing new, more eco-friendly products. The Company is also actively introducing its own innovative technologies for emissions reduction. One example is progress linked with associated petroleum gas (APG) utilisation both through reservoir injection as well as for electricity generation. Over the past five years, we have invested over RUB 125 bln in this area with the average APG utilisation rate reaching 93.8% at our mature assets. This project will help the Company avoid the release of 8 million tonnes (mmt) of GHG emissions by 2022.

Investing in human resources plays a leading role in our development strategy. In 2019, Rosneft was recognised as the best performing Russian company in the CHRB (Corporate Human Rights Benchmark) International human rights index.

Our rating rose by 11 percentage points to 52.7%, one of the highest growth rates in the extractive industries globally.

Rosneft, as an oil and gas industry leader, reaffirms its commitment to the 17 UN Sustainable Development Goals and the core principles of the UN Global Compact since they both will play a fundamental role in overcoming serious global sustainability challenges by respecting human rights; combatting corruption; decreasing the rate of climate change and minimising climate and environmental impacts. The Company therefore aligns its activities in support of these goals and ensures that its future growth will be built on sustainability principles and in line with stakeholder expectations.

Gerhard Schroeder
Chairman of Rosneft’s Board of Directors
**Message from the Chief Executive Officer**

In 2019, Rosneft reaffirmed its commitment to the UN Sustainable Development Goals and made impressive progress in driving forward its environmental agenda. Last year, through our persistent efforts in carbon management, we consolidated our position as an industry leader with low unit carbon dioxide emissions.

In addition, Rosneft joined the Guiding Principles on Reducing Methane Emissions across the Natural Gas Value Chain, making another step towards minimising anthropogenic impact on the environment.

Last year, according to the CDP’s international climate change and water security ratings, Rosneft was recognised as Russia’s best performing oil and gas company. In December 2019, the Company became a constituent of the FTSE4Good Emerging Markets Index thanks to its strong performance in key environmental, social and governance indicators.

Furthermore, Rosneft outperformed most of its global competitors in terms of disclosure transparency according to Bloomberg and Refiniv.

Our strategic goal is to become one of the world’s leading oil and gas producers when ranked by key environmental and industrial safety metrics. The Company’s consistent contribution to joint international efforts will certainly facilitate this goal.

The reporting year saw us achieve considerable financial success. Net income attributable to shareholders increased by 29% during the year. On top of that, Rosneft paid a record dividend for 2019. These dividends, including the interim payout for the first half of the year, will total RUB 354.1 bln, or 50% of IFRS net income attributable to shareholders.

Our strong financial performance enabled us to increase the final dividend payout much sooner than expected. Dividend yield based on the year’s average share price was 8%. The Company remains the nation’s largest taxpayer. As at the year-end, Rosneft paid around RUB 3.6 trln of taxes on its domestic operations.

In the reporting year, the Company confirmed its status as one of Russia’s leading employers. Rosneft provides a competitive salary, social guarantees and offers opportunities for career growth and personal fulfilment.

At present, the Company’s headcount exceeds 330 thousand people.

As Russia’s leading oil producer, Rosneft seeks to create a safe working environment for its employees and contractors by eliminating accidents in the production process and minimising injuries via implementing international best practice in relation to health, safety, and environment.

As we pursue the Rosneft–2022 Strategy, our management team will continue to streamline financial and operational efficiency, taking further action to advance the sustainable development of the Company and secure our position as an industry leader for years to come.

Igor Sechin
Chairman of the Management Board
Chief Executive Officer
Strategically Important UN Sustainable Development Goals

Rosnef is committed to leadership in occupational safety, zero tolerance of accidents in operations, protecting health of local people living in the regions where the Company operates, and minimising environmental footprint.

The Company places a special focus on occupational safety and comfortable working environment for its employees and contractors

35 billion roubles
Green investment in 2019

>52 thousand vehicles
are equipped with on-board monitoring systems

Good health and well-being

Rosnef seeks to improve energy efficiency across all business lines and spotlights leadership in innovation as a major development factor.

Rosnef recognises its role and responsibility for timely and reliable energy supplies to consumers (including to emerging markets) on equal terms and at competitive prices

14% energy efficiency improvement in recent two years

1.9 times
the average monthly salary in the Company exceeds the Russian average

Affordable and clean energy

Rosnef contributes to the sustainable growth of the economy and its modernisation as well as creating new production facilities and highly efficient jobs, and making high value-added products by moving to long-term contracts with consumers, suppliers and contractors, and to the anchor order system

On top of that, the Company is committed to providing socially security to its employees and their families, preserving jobs, and protecting human rights.

76% of the headcount covered by collective bargaining agreements

2.6 trillion roubles
spent on goods, works and services procured from third parties

Decent work and economic growth

In the medium term, the Company’s strategic targets factor in the public’s growing needs and environmental concerns and include:

- ramping up production of natural gas as a lower carbon energy source;
- running refinery development projects to boost the output of products in high demand and feedstock for the petrochemical industry;

- mitigating environmental impact and improving efficiency of production facilities;
- creating, launching and rolling out new products contributing to lower emissions and higher fuel efficiency

1.7 mmt of CO₂ eq.
reduction in greenhouse gas emissions in 2019

73% reduction of fugitive methane emissions in Exploration and Production

Climate Action

Rosnef recognises the importance of the global energy sector’s sustainability and responsible business practices of the industry majors.

The Company shares the principles of Russian and international declarations, statements and initiatives in the field of fundamental human rights, elimination of inequality, and environmental protection

Rosneft
best Russian company in the CHRB (Corporate Human Rights Benchmark) international human rights index

In the key regions of operation, the Company held round table discussions with stakeholders (for details, see p. 231)

Rosnef and its foreign peers held a carbon management workshop (for details, see p. 49)

16 round-table discussions held in the regions of operation to address the sustainability agenda

Partnership for the goals

Rosnef positions the Company as a leader in reducing greenhouse gas emissions (and associated petroleum gas flaring) as part of the global responsible business practice agenda

The Company’s project to minimise associated petroleum gas flaring received an environmental award (for details, see p. 56)

In 2019, the Company joined the initiative to reduce methane emissions (for details, see p. 53)

An initiative created by Rosneft and its foreign peers has led to participation in the international environmental protection agenda

73% of the headcount covered by collective bargaining agreements

2.6 trillion roubles
spent on goods, works and services procured from third parties

SOME HIGH-PRIORITY SUSTAINABILITY PERFORMANCE INDICATORS ARE PART OF MANAGEMENT KPIs

1.7 mmt of CO₂ eq.
reduction in greenhouse gas emissions in 2019

73% reduction of fugitive methane emissions in Exploration and Production

Rosneft creates new digital services for customers (for details see p. 196)

The Company and the Group Subsidiaries initiated more than 312 thousand processes with an estimated total initial (maximum) value of over RUB 2.1 trln (for details, see p. 193)

Specialised class programmes supported by Rosneft Group Subsidiaries were launched (for details see p. 153)

Some high-priority sustainability performance indicators are part of management KPIs

A transport safety mobile app launched (for details, see p. 121)

Employees undergo energy efficiency training (for details, see p. 121)

In 2019, Rosneft received an environmental award (for details, see p. 103)

Employees undertaking energy efficiency training (for details, see p. 121)

In the key regions of operation, the Company held round table discussions with stakeholders (for details, see p. 231)

Rosnef and its foreign peers held a carbon management workshop (for details, see p. 49)

16 round-table discussions held in the regions of operation to address the sustainability agenda
Business Model
and Strategically Important UN Sustainable Development Goals

**WORLD-CLASS RESOURCE BASE AND EFFICIENT PRODUCTION ASSETS**

- **Oil Refining**
  - In Russia: 100 mmt
  - Abroad: 10 mmt

- **Petroleum Products**
  - In Russia: 97 mmt
  - Abroad: 11 mmt

**MODERN REFINERIES**

- **Crude Oil**
  - Production: 230 mmt

- **Petroleum Products and Petrochemicals**
  - Production: 116 mmt

**EXTERNAL LOGISTICS AND DISTRIBUTION NETWORK**

- **Oil Sales**
  - In Russia: 6 mmt
  - Abroad: 149 mmt

- **Gas Sales**
  - In Russia: 57 bcm
  - Abroad: 5 bcm

- **Other**
  - 15 mmt

**REVENUE**

- **Total Revenue**
  - 8,676 RUB bln

- **Petroleum Products Sales**
  - In Russia: 42 mmt
  - Abroad: 70 mmt

- **Oil Sales**
  - In Russia: 6 mmt
  - Abroad: 149 mmt

- **Gas Sales**
  - In Russia: 57 bcm
  - Abroad: 5 bcm

**CAPITAL (RESULTS)**

- **Total EBITDA**
  - 708 RUB bln

- **EBITDA Margin**
  - 24%

- **Net Income**
  - 283 RUB bln

- **Dividends**
  - 11 RUB bln

- **Tax Allocated for Social Projects**
  - 35 RUB bln

- **Patents Issued**
  - 700

- **Innovations Impact**
  - 11 RUB bln

- **Reserve Replacement Ratio**
  - 185%

- **High-Speed Rate of Seismic Exploration Drilling in Russia**
  - 88%

- **Motor Fuels Output**
  - 42 mmt

**SUSTAINABLE DEVELOPMENT**

- **CLIMATE ACTION**
- **ENVIRONMENTAL CONSERVATION**
- **OCCUPATIONAL HEALTH AND SAFETY**
- **EMERGENCY RISK MANAGEMENT**
- **R&D AND DIGITAL TRANSFORMATION**
- **PERSONNEL**
- **SUPPORTING SOCIAL AND ECONOMIC DEVELOPMENT**
- **RESPONSIBLE BUSINESS PRACTICE**

**2019 / Sustainability Report of Rosneft**
In 2019, Rosneft continues to disclose its non-financial metrics on the annual basis and releases its 14th Sustainability Report (the Report).

The Report seeks to inform a wide range of Rosneft’s stakeholders, including employees, shareholders and investors, communities in the regions of operations, public associations, customers and partners.

The Company receives feedback from different sources – comments and suggestions on sustainability reports can be submitted by phone or to the e-mail address in the Contacts section. All messages are reviewed and taken into account when preparing the next Report.

In order to avoid overlaps, some information is included in the Report as a reference to the Company’s official website. All Reports are available on the Company’s official website.

In 2019, for the fourth time in a row, Rosneft became one of the leaders of the RSPP Responsibility and Transparency and Sustainability Vector indices reflecting the degree of disclosure about the Company’s sustainability and ESG performance. The indices are based on public corporate reports, including annual and non-financial reports.

Reporting Principles

The Report was prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards, core option).

The Company also relied on the methodology of the following:

• GRI Oil and Gas Sector Disclosures;
• UN Global Compact principles;
• International Financial Reporting Standards (IFRS);
• recommendations of the Task Force on Climate-Related Financial Disclosures (the TCFD);
• 2016 IPIECA/API voluntary guidance for the oil and gas industry;
• <IR> International Integrated Reporting Framework.

The 2019 Report was independently verified by EY. For the report, see p. 198, GRI 102-46.

The information on Rosneft’s contribution to the UN Sustainable Development Goals, including those prioritised by the Company, is tagged in the Report by the relevant icons.

Materiality of the Company’s Impact

To identify material topics, the Company conducted a benchmarking and reviewed the sustainability inquiries received during the reporting period and feedback on the report for 2018.

The final list of material topics is based on the results of this analysis and takes into account the principles of completeness, materiality, and internal and external stakeholder engagement, along with the sustainability agenda in the industry.

To select the most relevant sustainability metrics and topics under the GRI standards, Rosneft compared the ESG reports of the Russian and foreign oil and gas majors and took into account significant events and trends in the sustainable development of the industry.

The Report prioritised the topics of combating climate change and protecting human rights.

Report content

MATERIALITY MATRIX

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Reporting Boundaries

Rosneft’s Sustainability Report is prepared on the corporate level and includes consolidated information about the Group Subsidiaries. It covers subsidiaries that are consolidated under the IFRS fully or proportionally to the stake, unless the notes indicate otherwise.

Occupational health and safety, and environmental protection (HSE), along with HR indicators of the Group Subsidiaries that should be consolidated proportionately under the IFRS, are accounted for in this Report in full.

Definitions

In this Report, the terms Rosneft and the Company refer to Rosneft PJSC, including its Head Office, and Group Subsidiaries.

The term Group Subsidiaries refers to Rosneft’s subsidiaries and affiliates.

Disclaimer: Forward-Looking Statements

The Report contains forward-looking statements regarding the Company’s future sustainability performance. Plans and intentions depend on the changing political, economic, social and regulatory environment in Russia and globally, which means that the actual results presented in subsequent reports may deviate from the projections.
## Key Sustainability Indicators

### Economic Performance

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<th>Metric</th>
<th>2017</th>
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<th>2019</th>
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<tr>
<td>Dividends, RUB bln</td>
<td>104</td>
<td>225</td>
<td>283</td>
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<td>Headcount at year-end, thousand employees</td>
<td>318.0</td>
<td>325.6</td>
<td>334.6</td>
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<tr>
<td>Payroll, RUB bln</td>
<td>287</td>
<td>311</td>
<td>335</td>
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<tr>
<td>Social payments fund, RUB bln</td>
<td>7.7</td>
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### Environmental Performance

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<th>Metric</th>
<th>2017</th>
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<tr>
<td>Oil sales, mmt</td>
<td>128.7</td>
<td>129.1</td>
<td>155.0</td>
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<tr>
<td>Sales of petroleum products, mmt</td>
<td>109.6</td>
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<td>Gas sales, bcm</td>
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<td>62.0</td>
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### Occupational Health and Safety

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<th>2017</th>
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<th>2019</th>
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<td>Expenditure on health and safety, including fire safety and blowout prevention, RUB bln</td>
<td>56</td>
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<td>55</td>
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<tr>
<td>Controllable and uncontrolled flows of gas, oil and water during the construction of exploration and production wells, number of cases</td>
<td>5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Controllable and uncontrolled flows of gas, oil and water during the construction of exploration and production wells, number of cases</td>
<td>5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Share of work-related injuries</td>
<td>0.36</td>
<td>0.34</td>
<td>0.38</td>
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<tr>
<td>Casual injuries, thousand employees</td>
<td>56</td>
<td>56</td>
<td>55</td>
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<tr>
<td>Share of water recycled and re-used, %</td>
<td>93</td>
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<td>94</td>
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### Customer Relations

### Personnel

### Appendices
“The Company is committed to supplying the world economy with energy resources to ensure balanced social and economic development and improve the quality of life. As one of the world’s largest hydrocarbon producers, we realise our responsibility for solving global problems, including climate change. Rosneft’s initiatives in sustainable development and environmental protection are aimed at reducing the Company’s environmental footprint and promoting energy-saving technologies. The Company has repeatedly scored high in major international ratings, which testifies to our effective performance in these areas.”

Igor Sechin
Chief Executive Officer, Chairman of the Management Board, Deputy Chairman of the Board of Directors
Rosneft–2022 Strategy
Approved in December 2017, the Rosneft–2022 Strategy focuses on increasing the Company’s profitability and returns on existing assets, implementation of major projects, as well as organisational and technological transformation. These priorities should go hand in hand with ensuring global leadership in accident-free operations, safe workplace conditions, protecting health of local residents in the regions where the Company operates, and minimising the environmental footprint.

Rosneft’s Strategy and its major tenets are in line with the principles of sustainable development, efforts to create a favourable social and environmental conditions, and objectives under Russia’s national projects, including Presidential Executive Order No. 204 On National Goals and Strategic Objectives of the Russian Federation through to 2024 dated 7 May 2018. In 2018, the Strategy was expanded to include initiatives in social, human resource and urban infrastructure development, regional growth and environmental protection.

As part of its commitment to the sustainable development of natural resources, the Company is implementing large-scale projects in oil and gas production and expanding production and refining capacities to reduce environmental impact by producing modern, environmentally friendly fuels.

In 2019, Rosneft continued its efforts to integrate sustainable development principles into the Company’s strategy and programmes. We also contributed to the UN sustainable development goals by implementing them as part of our core business and supporting various projects aimed at improving the quality of life across our footprint and promoting health care, science, education, culture, and environmental protection.

The Company has approved its strategic guidelines and public statement “Rosneft: contributing to implementation of the UN Sustainable Development Goals” which is available on the Company’s official website. The statement complements the Company Policy on Sustainable Development and complies with the principles of openness, transparency and information disclosure to shareholders, investors and other stakeholders.

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Contribution to UN Sustainable Development Goals

The Rosneft–2022 Strategy and the Company’s climate change initiatives are in line with the UN Sustainable Development Goals. The Company’s mission, values, goals, and strategic priorities are consistent with the 17 United Nations Sustainable Development Goals. Five of these goals have been adopted as strategic priorities of Rosneft.

**STRATEGICALLY IMPORTANT UN SUSTAINABLE DEVELOPMENT GOALS**

- Protecting health and ensuring a safe working environment;
- Implementing the environmental policy;
- Risk and incident management;
- Ensuring road traffic safety;
- Fostering a favourable social environment.

- Increasing energy efficiency in all operating segments;
- Creating conditions to improve energy efficiency when using Company products;
- Ensuring access to energy and reliable energy supplies to consumers, including in the emerging markets;
- Innovative activities.

- Contributing to the sustainable development and diversification of the national economy;
- Protecting employee health and safety;
- Contributing to the health and safety of suppliers and contractors;
- Creating a favourable social environment;
- Supporting family and children;
- Ensuring freedom of association and collective bargaining;
- Productivity growth and efficiency improvement;
- Using education as a means of integrating young people into the energy sector;
- Establishing a sustainable procurement system along the entire value chain;
- Improving energy efficiency in all operating segments;
- Creating decent living and labour conditions in remote regions.

**GOALS INTEGRATED INTO CURRENT ACTIVITIES**

- Participation in global initiatives;
- Contributing to the sustainable energy development;
- Establishing effective partnership with state organisations, the business, and the society.

Support for Sustainability Initiatives

In 2010, Rosneft joined the UN Global Compact, the most far-reaching international social responsibility initiative bringing together more than 13,000 companies from over 160 countries.

The Global Compact encourages its participants to support the UN Sustainable Development Goals as a way to improve the well-being of the present and future generations.

The Company adheres to ten Global Compact principles in the areas of human rights, labour, environment and anti-corruption, all of which are integrated into the Rosneft–2022 Strategy and given consideration on both strategic and operating levels.

In June 2019, Rosneft joined the initiative to reduce methane emissions launched by leading international oil and gas companies.

For more details on the Company’s participation in the methane reduction initiative, see the Contribution to International Initiatives section of this Report.
### ESG Investing

The development of ESG investing is supported by Igor Sechin, CEO, who has repeatedly proclaimed social and environmental responsibility as a key value of the Company. The Company works to foster its investor relations, takes part in various rankings and discloses ESG performance in line with the current guidance on responsible investment and recommendations of ESG rating agencies and maintained regular communication with investors participating in Climate Action 100+. The Company held nearly 50 negotiations with investors on ESG matters.

In June 2019, Rosneft became the first Russian company to take part in an ESG workshop in Copenhagen attended by the representatives of 31 investment funds, and ESG score providers – Sustainalytics and ISS-Ethix.

### Recognition in Sustainable Development

In 2019, Rosneft’s leadership in sustainable development received international recognition. The Company was included in the FTSE4Good Emerging Index of companies with top ESG transparency and disclosure metrics. Rosneft boasts high ESG scores from Bloomberg, Refinitiv, and SAM Corporate Sustainability Assessment (S&P Global) as well as in the CHRB human rights ranking.

### Sustainability Management

#### Sustainability Policy

The Company has put in place a Sustainable Development Policy that articulates its vision and introduces a uniform approach to sustainable development. Rosneft’s goals and objective under the Policy include, among others, supporting the Company’s strategy and efforts to achieve industry leadership, increasing shareholder value, facilitating professional and personal growth of employees, making better use of natural resources, and establishing effective and transparent communication with stakeholders.

#### Maximum adaptability of the business model while transitioning to the low-carbon economy

- Flexible business model
- Balanced investment portfolio
- Strong performance and value creation irrespective of the oil business cycle
- Energy security

#### Fostering social and economic development

- Direct and indirect support of economic development
- Development of suppliers, contractors, and related industries; employment and staff training
- Industrial and social infrastructure
- Availability of energy resources, novel products and solutions

#### Efficient environmental impact management

- Leadership in environmental protection
- Water resource management
- Ecosystems and biodiversity

#### Response to climate change risks

- Corporate governance with a stronger focus on climate change
- Lower GHG emissions
- Monitoring of production-related energy consumption
- More eco-friendly products

#### Care for people, the environment and moral values

- Safety culture and safe conduct of business
- Working space and benefits for employees
- Human, business and asset security

#### Strategic Targets

Along with the five priority UN Sustainable Development Goals pursued by Rosneft as part of its core operations, the Company formalised its strategic principles in this area.

#### Partnership with stakeholders

- Efficient partnerships
- Respect for human rights
- Right to work, comfortable working conditions, and social protection of employees
- Company’s values for suppliers and contractors

#### ESG Investing

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Position in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTSE4Good</td>
<td>The Company topped in the Governance category, which takes into account government, risk management and anti-corruption metrics. We are ahead of most participants (83%) in the ICB's international oil and gas supersector.</td>
</tr>
<tr>
<td>CDP</td>
<td>Following an independent assessment, Rosneft received a &quot;B&quot; in the Climate Change category, outperforming its Russian peers. The Company’s water management activities were rated &quot;B-&quot;, indicating the effectiveness of our environmental policy.</td>
</tr>
<tr>
<td>CHRB</td>
<td>In 2019, Rosneft improved its CHRB score by 11 p. pt. to 32.7 %, surpassing other Russian companies. This is one of the highest growth rates among international mining companies. Our rating is above the industry average, and we work to integrate relevant principles and approaches in all our operations with a view to further improving our human rights performance.</td>
</tr>
<tr>
<td>REFINITIV</td>
<td>The Company has an &quot;A&quot; rating, which places us among Top 5 oil and gas producers.</td>
</tr>
<tr>
<td>Bloomberg</td>
<td>Bloomberg assigned Rosneft an ESG score of 65.15, which puts us in a leading position ahead of most of our global peers.</td>
</tr>
<tr>
<td>SAM Sustainability Award</td>
<td>Rosneft improved its ranking in the S&amp;P Global's SAM Corporate Sustainability Assessment by 12 notches (57th line).</td>
</tr>
</tbody>
</table>
Corporate Governance

Reliant on the best Russian and international practices, the Company’s corporate governance framework keeps developing taking into account external changes and the needs of shareholders and other stakeholders. All its components are involved in and contribute to ongoing sustainability management.

**BOARD OF DIRECTORS**

- Provides strategic management of the Company’s activities;
- accountable to the General Shareholders Meeting;
- acts on behalf and for the benefit of all shareholders within its remit;
- one of the key priorities is to articulate and oversee the implementation of the Company’s sustainable development policy by the management.

**MANAGEMENT BOARD**

- The Management Board is a collective executive body responsible for decision-making on key matters of the Company’s business:
  - defining key strategic areas;
  - drafting and submitting proposals on strategic priorities to the Board of Directors;
  - strategy reporting.

**EXECUTIVE GOVERNING BODIES**

**CHIEF EXECUTIVE OFFICER**

- Sole executive body, which:
  - acts as the Chairman of the Management Board;
  - provides for implementing and follow up on the collective governing bodies’ decisions, including those related to sustainable development.

**GENERAL SHAREHOLDERS MEETING**

- Rosneft’s supreme governing body responsible for decision-making on key matters of the Company’s business;
- The Company offers its shareholders equal and fair opportunities to exercise their legal rights and sustainable dividend growth.1

**HR AND REMUNERATION COMMITTEE (CONSISTS OF INDEPENDENT DIRECTORS BY 2/3)**

- Analyses the Company’s current and anticipated needs with respect to the qualifications of governing body members and top managers taking into account its interests and strategic goals;
- reviews draft codes of business and corporate ethics and internal regulations (policy level) on HR and social matters, including human rights.

**AUDIT COMMITTEE (FULLY CONSISTS OF INDEPENDENT DIRECTORS)**

- Reviews the management’s proposals on improving the risk management and internal control system and an acceptable risk level;
- reviews draft corporate governance codes and internal regulations (policy level) on the risk management and internal control system, corporate governance and conflicts of interest;
- checks accuracy and completeness of financial statements and other reports, ensures reliability and effectiveness of internal control and risk management systems, compliance, internal audit, and corporate governance.

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1 For details on shareholder engagement, see the 2019 Annual Report.
2 Strategic Planning Committee before April 2020. In charge of reviewing sustainability reports instead of the HR and Remuneration Committee.
Performance in 2019

General Shareholders Meeting

The dividend decisions made by the General Shareholders Meeting in 2019 are in line with the Dividend Policy designed to balance the Company’s and its shareholder interests. They seek to boost the Company’s investment appeal and shareholder value:

▪ the target payout ratio is at least 50 % of the Company’s IFRS net income;
▪ dividend payouts are to be made at least twice a year.

Dividends paid to the Company’s shareholders in 2019 totalled RUB 283 bln.¹

283 billion roubles of dividends paid to the Company’s shareholders in 2019

Every 5th matter considered by the Board of Directors or the Management Board in 2019 was related to the Company’s sustainable development.

18% of all recommendations issued by the Board of Directors committees focused on sustainable development.

In 2019, every fifth matter considered by the Board of Directors or the Management Board was related to the Company’s sustainable development. The share of the Board committees’ recommendations on sustainable development stood at 18 %.

Over the year, the Board of Directors, its committees and the Management Board reviewed 378 items, with 72 (19 %) of them pertaining to sustainable development.

Board of Directors

As part of the sustainability risk management process, the Board of Directors did the following:

▪ reviewed the report on the status of the Comprehensive Plan for the Enhancement of the Risk Management and Internal Control System;
▪ reviewed the HSE report;
▪ approved the report on the identification of company-wide financial and operational risks for 2020.

Management Board

Key sustainability decisions made by the Management Board:

▪ approved the expansion of a retail distribution network of compressed natural gas to be used as motor fuel;
▪ approved seven charity transactions aimed at implementing social projects;
▪ approved the following Company’s internal regulations, including their updates and amendments:
  ▪ IT Policy;
  ▪ Regulations on the Energy Efficiency Commission;
  ▪ Standard on Insurance of Corporate Risks, Regulations on the Technological Council of Rosneft;
  ▪ Regulations on the Conflict Resolution Commission;
  ▪ Standard on Staff Skill Assessment and Development.

In 2019, the Management Board focused on the following sustainability objectives:

▪ enhancing IT management, including the automation and digitalisation of business processes;
▪ improving the corporate-wide risk management system (CWRMS);
▪ upgrading the staff skill assessment and development system;
▪ developing eco-friendly technologies;
▪ boosting energy efficiency and energy saving;
▪ social development of the Company’s regions of operation.

Key sustainability performance indicators

To propel the Company towards its 2022 strategic goals, the Board of Directors annually approves KPIs for the Management Board and top executives, which include the following sustainability performance metrics:

▪ implementing strategic objectives and initiatives;
▪ achieving environmental targets, including the reduction of emissions and discharges, waste and the area of contaminated lands;
▪ reducing the injury rate;
▪ fuel and energy saving;
▪ making innovative activities more effective;
▪ enhancing labour productivity;
▪ delivering on personnel training targets and integrating professional standards in the Company’s operations;
▪ educating stakeholders on the Company’s sustainable development initiatives.

¹ Dividends paid to Rosneft’s shareholders in 2019 in line with the resolutions of the Annual General Shareholders Meeting (for 2018) and the Extraordinary General Shareholders Meeting (for the first six months of 2018).
Sustainability Risk Management

The objectives of the Risk Management and Internal Control System (RM&ICS) are set out in the Company’s Policy on the Risk Management and Internal Control System drawing on recommendations of international firms engaged in risk management, internal control and audit services.

For details on the RM&ICS, see Rosneft’s 2019 Annual Report.

Key risks inherent in the Company’s business

Integrated in the CWRMS, sustainability risk analysis relies on the relevant corporate methodology. The following sustainability risks are classified as strategic:

- toughening of environmental regulation, promoting energy saving standards and initiatives;
- health, safety, and environment (HSE) risks: these risks are managed throughout the facility life cycle, including design, construction, operation, reconstruction, re-engineering, development, mothballing and shutdown. At each stage, the results are documented in reports described in the Company’s internal regulations. The HSE risk management system covers at least four levels: units, Group Subsidiaries, businesses and the Company;
- HR and social risks: based on the assessment the Company identifies risks related to honouring its social commitments and talent shortage in certain niche areas; Rosneft manages these risks through a variety of measures, as set down in its HR and social strategy, designed to recruit and retain highly qualified personnel; and develops and improves the existing policies and procedures covering HR management, social development, and corporate culture;
- human rights-related risks: if identified by the management, these risks are subject to assessment and mitigation as part of the RM&ICS;
- Risks related to climate change and carbon regulation (energy transition): the Company analyses climate-related risks as part of the CWRMS, with the results submitted to the Board of Directors’ Audit Committee and the Company’s management;
- Risks related to honour and reputation risks: Rosneft identifies risks related to honour and reputation as part of the CWRMS, with the results submitted to the Board of Directors’ Audit Committee and the Company’s management.

The Company also adapts to new coronavirus-caused challenges and takes steps to prevent the spread of infection.

For details on the observance of human rights, see the Approaches to Promoting Human Rights section of this Report.

Protecting Health and Staying Efficient

Rosneft was one of the first businesses to respond to the new crisis and related challenges. We took urgent measures to prevent the spread of the COVID-19, protect our employees, their families, local communities, customers and contractors and ensure the continuity of all production processes.

Within the shortest possible time, we rolled out a number of initiatives to reduce the risk of contagion at our production sites and shift camps. These include restrictive organisational and epidemiological measures, longer shifts, setting up isolation wards, introducing additional health checks, and maintaining virus vigilance. We increased the number of medical staff during shifts and created more mobile teams, while also providing our production staff with ample supplies of personal protective equipment (gloves, masks and respirators).

Working spaces and corporate vehicles are subject to frequent disinfection, and our staff undergo regular temperature screening. We toughened control over pre-shift medical check-ups and engaged mobile medical teams to perform ad-hoc examinations in dormitories at shift camps and production sites. Our experts developed various scenarios to evacuate people from remote shift camps, including acute cases. We introduced longer shifts to reduce staff rotations and travel associated with a risk of contagion. In most regions employees stay under pre-shift medical observation for a fortnight prior to going to the oil field.

We pay special attention to disease prevention at our sites and offices. We introduced contactless thermometer measurements, installed touchless hand sanitiser dispensers in all areas (site gates, floors, entrance lobbies and shared facilities), arranged for daily disinfection of premises and other protective measures.

Importantly, despite some real difficulties caused by the lockdown and the industry’s slowdown, we managed to retain all our staff, timely pay salaries in full and honour our commitments to partners.

In these unprecedented circumstances we did our best to protect our people’s health and prevent the spread of the coronavirus, while also ensuring business continuity and maintaining high efficiency of business processes. Our team showed a high degree of responsibility in dealing with new challenges. Every day, they proved capable of acting fast on any problem, promptly and effectively dealing with all difficulties and helping those in need to ensure social stability and security.”

Alexey Artemyev
Vice President for HR and Social Policy of Rosneft
Stakeholder Engagement

Rosneft is focused on building a transparent, productive and mutually beneficial partnership with a wide range of stakeholders and sees it as the basis for accomplishing strategic goals and growing the business.

In its relations with stakeholders the Company is guided by the law and high business ethics standards. Rosneft has in place the Company Policy on Sustainable Development and the Code of Business and Corporate Ethics. The Company organises its dialogue with stakeholders around various formats and mechanisms that are geared towards the effective achievement of sustainable development goals.

Stakeholders and Interaction Highlights for 2019

Shareholders and investors

Over 97 thousand individual and corporate shareholders and more than 500 GDR holders.

Interaction:
- Strategic speeches by the CEO at major international investment forums;
- participation in one-on-one and group meetings, including those on ESG matters;
- conference calls involving heads of finance, economics, and operations;
- publication of press releases, presentations, reports, and material facts on resolutions of the Company's Board of Directors and Management Board on the corporate website;
- work with rating agencies on ESG.

Points of Interest
- Increase in capitalisation, growth and sustainable development of Rosneft, transparency of operations.

Achievements in 2019
- In 2019, the Company’s capitalisation added +17 % (LSE);
- dividend payouts amounted to RUB 283 bln;
- inclusion in FTSE4Good Emerging Index;
- leading positions in international ESG ratings among Russian oil and gas companies CDP, Bloomberg, CHRB.

As a major Russian taxpayer, Rosneft helps ensure budget stability and contributes to the nation’s social and economic development.

Government Agencies

Interaction:
- Production operations;
- payment of taxes to the federal and regional budgets;
- cooperation with regional authorities;
- supplying fuel to strategic government functions;
- legislative improvement efforts.

Points of Interest
- Compliance with laws;
- timely tax payments;
- investments in regional development;
- generation of jobs for the region;
- development of urban infrastructure.

Achievements in 2019
- Presence in 78 regions;
- RUB 3.6 trln total amount of taxes, fees and duties;
- Rosneft is the sole fuel and lubricant supplier for the majority of government-owned companies.
Interaction
• Round tables and public discussions;
• sponsorship programmes;
• support of environmental initiatives;
• development of infrastructure across the regions of operation.

Points of Interest
Jobs, development of local communities, social support.

Achievements in 2019
• 16 round-table discussions held in the regions;
• 13 community meetings on offshore projects;
• RUB 2,138 mln spent on social projects in the regions of operation;
• RUB 1,842 mln spent on sponsorship activities;
• 1 mn trees planted as part of forest conservation initiatives;
• RUB 2,245 mln allocated to charitable aid in education and science;
• RUB 2,312 mln invested in the development of infrastructure across regions, districts and municipalities;
• help with transport infrastructure development;
• RUB 60 bln in tax payment to regional budgets.

Interaction
• Consistently high volumes of procurement of goods, works and services from small and medium enterprises (SMEs);
• implementation of category management, development of category and procurement strategies;
• improvement of contractors’ competencies, including in terms of occupational health and safety;
• posting workshops and round tables for suppliers and contractors.

Points of Interest
Responsible business practice;
• openness;
• competitiveness and effectiveness;
• proper performance under agreements;
• compliance with ethical standards and non-discrimination.

Achievements in 2019
• RUB 2.6 trln – the volume of procurement;
• 18 workshops for SMEs (jointly with SME Corporation);
• SMEs account for 76% of potential suppliers accredited with Rosneft;
• over 702 thousand procurement procedures initiated by the Company;
• the Company’s health and safety requirement apply to counterparties;
• the project to establish a Shared Service Centre in Samara entered the active phase – regional inventory management and quality control functions have been transferred from the Company’s Head Office to the centre;
• Corporate Internet Shop for minor purchases (up to RUB 500 thousand) was launched on the TEK-Torg electronic trading platform;
• over RUB 2 bln – completed procurement through the Corporate Internet Shop, with over 14 thousand registered suppliers (more than 10 thousand being SMEs).

Interaction
Rosneft takes active part in social, scientific, sport and education development, collaborates with educational, non-profit and non-governmental organisations, and works with environmental NGOs. The Company is also a member of a number of professional associations and business unions.
• Social initiatives;
• stewardship support of educational organisations and cultural and sports institutions;
• partnership with the Leaders of Russia competition;
• cooperation with associations of indigenous peoples of the North;
• membership in professional associations and unions.

Points of Interest
• Attention to socially important issues, including sustainable use of natural resources;
• support of social and cultural domains;
• corporate social responsibility.

Achievements in 2019
• Six employees of Group Subsidiaries made it to the finals and three became winners of the nationwide Leaders of Russia competition that honours the best managers in the country.
• The Company made and published the annual report of the best managers in the country.
• Rosneft is among the leaders of RSPP’s Sustainable Development Vector index;
• The Company’s employees won prizes in six out of eight categories of the national WorldSkills competitions;
• Vankor’s Bay (a subsidiary of Rosneft) was included in the National Gas Vehicle Association;
• Rosneft is among the leaders of RSPP’s Sustainable Development Vector index;
• winner of the nationwide Leaders of Russia competition;
• the project to establish a Shared Service Centre in Samara entered the active phase – regional inventory management and quality control functions have been transferred from the Company’s Head Office to the centre;
• the project is a priority initiative of the national WorldSkills competition for Russia;
**Approaches to Promoting Human Rights**

Human rights are rights inherent to all human beings, whatever their nationality, place of residence, sex, ethnic origin, colour, religion, language or any other status. All people are equally entitled to their human rights without discrimination. These rights are all interrelated, interdependent and indivisible.

Respecting generally accepted principles

Rosneft recognises and respects the importance and value of the fundamental human rights and freedoms, set forth by international declarations and conventions on human rights, including freedom of association and collective bargaining, labour rights, right to a healthy environment, right to health care, and rights of indigenous minorities.

Respecting human rights and freedoms is the fundamental principle of any business guided by sustainability and the UN Sustainable Development Goals. Aware of the impact its operations may have on the rights of the employees, customers, business partners, and local communities, Rosneft strives to adhere to the best corporate practices and procedures in everything it does.

**Respecting Generally Accepted Principles**

**Universal Declaration of Human Rights**

**UN Global Compact**

**United Nations Declaration on the Rights of Indigenous Peoples**

**OECD Guidelines for Multinational Enterprises**

**Declaration on Fundamental Principles and Rights at Work of the International Labour Organisation (ILO)**

**ILO Right to Organise and Collective Bargaining Convention No. 98**

**ILO Freedom of Association and Protection of the Right to Organise Convention No. 87**

**ILO Discrimination (Employment and Occupation) Convention No. 111**

**KEY INTERNATIONAL DOCUMENTS ON HUMAN RIGHTS THAT THE COMPANY USES AS A GUIDANCE:**

1. The Universal Declaration of Human Rights was officially approved by the Universal Declaration of Human Rights dated 10 December 1948.

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**Interaction**

- Sales of petroleum products and associated complementary goods through a filling station chain, wholesale of petroleum products from oil depots;
- a comprehensive solution for businesses with cashless payment functionality;
- Rosneft loyalty programmes; Family Team, BP Club, and Bashneft loyalty programme;
- development of remote fuel payment services for individuals;
- 820 fuel payment service via a mobile app.

**Points of Interest**

- Uninterrupted supply;
- fuel supplies to remote and poorly accessible areas;
- guaranteed petroleum product quality control;
- simplified business processes for legal entities;
- loyalty programme for individuals;
- higher service speed at filling stations;
- high customer service standards;
- development of customer value proposition;
- expansion of the range of goods and services around filling stations.

**Achievements in 2019**

- Over 3 thousand filling stations in Rosneft’s retail network across Russia;
- Leading position on one of the key regional markets thanks to growth at over 100 filling stations in St Petersburg and the Leningrad Region;
- The number of Family Team, BP Club and Bashneft loyalty programme members reached 13.6 million people;
- higher sales of complementary goods at filling station shops and cafes – over 45 million cups of hot drinks sold;
- Rosneft stations provide compressed gas filling for nearly 2.5 thousand vehicles daily;
- 12 charging stations for electric vehicles.

**Content of website publications:**

- the Company’s statements;
- publications on the website;
- high customer service standards;
- guaranteed petroleum product quality control;
- loyalty programme for individuals;
- higher service speed at filling stations;
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Human Rights Management

The Company's human rights management practices are in line with the principles and approaches stipulated by high-level public documents: Code of Business and Corporate Ethics of Rosneft and the Company Policy on Sustainable Development. The documents are published on Rosneft's website and are binding on all the employees regardless of their level or position.

Principles of respecting human rights are also detailed in the Company's internal regulations, are integrated into corporate business processes and apply to all controlled Group Subsidiaries.

Also, in 2019, Rosneft started developing its public statement on human rights, which covers the key aspects of the area:

- respect for the freedom of association and collective bargaining;
- respect for the equality of human rights and freedoms and non-discrimination;
- unacceptability of child and forced labour;
- health protection efforts, measures to provide a safe working environment and create favourable social conditions and a healthy environment;
- supporting family and children;
- respect for cultural heritage, traditions and rights of indigenous peoples.

The public statement also describes the role of the compliance and anti-corruption system, details methods of risk management relating to human rights protection, and provides information on feedback mechanisms and awareness raising in this area.

Rosneft is committed to promoting human rights across the supply chain. The Company has a roadmap on implementing approaches to promoting human rights as part of interaction with suppliers of goods, works and services. As part of the roadmap, the Declaration on Respecting Human Rights was developed to be used when interacting with suppliers of goods, works and services throughout procurement, with phased awareness raising and training activities planned for suppliers and contractors.

Tools to Respond to Violations of Human Rights

The Company has the necessary tools to collect and process complaints and claims relating to human rights. The Company's employees and any stakeholders, including those from the Company's regions of operation abroad, may contact the Security Hotline or the Ethics Hotline (written requests are accepted in all local languages across the footprint).

The Company guarantees confidentiality and security of any requests it receives.

Matters related to human rights can also be raised by the Company's employees with Rosneft’s Council for Business Ethics and ethics champions available in most of the Group Subsidiaries.

The Company investigates all the cases and takes measures to rectify violations whenever any are identified in the area of human rights.

Personal Data Management

In December 2019, the Company approved its Policy on Personal Data Processing aimed at protecting human and civil rights and freedoms, including the right to privacy, in this area.

The document is binding on the Group's business units and controlled Group Subsidiaries and applies to any processing of personal data, even if it took place before the Policy was implemented.

The Company’s Personal Data Processing Policy is posted on the Company’s official website.

Personnel Training on Human Rights

For its employees, the Company provides regular training on human rights matters, with respective modules integrated into a variety of corporate training courses. The training covered 42.4 thousand employees (577.3 thousand man-hours).

In 2019, training programmes on human rights included the following key focuses:

- human rights; approaches, terms and definitions;
- civil society and rule of law;
- human rights protection/labour law;
- cross-cultural communication;
- business ethics;
- cultural change management;
- designing effective social communications.

The best Russian company in the CHRB (Corporate Human Rights Benchmark) international human rights index

In 2019, the Corporate Human Rights Benchmark not for profit company (CHRB) improved Rosneft’s score on human rights by 11 p.p. to 32.7%. This is one of the highest growth rates among international and Russian mining companies. The Company now ranks above the industry average, outperforming Russian peers.

CHRB recognised the Company’s transparency and responsibility in respecting human rights throughout its operations.

The benchmark is based on publicly available information and its compliance with the UN Guiding Principles on Business and Human Rights. In 2019, a total of 200 companies were benchmarked.
Compliance Framework Development

Compliance Framework

Rosneft recognises the importance of maintaining high professional and ethical standards of doing business and improving transparency of its operations.

The corporate compliance framework is a system of preventive actions and pro-active measures aimed at ensuring no violations of applicable laws, industry legislation and internal regulations of the Company with a view to setting high professional and ethical standards, minimising compliance risks, and avoiding major financial losses or reputational damage.


Components of an Effective Compliance Framework:

1. General tone set by the senior management
2. Function / compliance unit
3. Compliance risk management
4. Programme of compliance activities
5. Policy and procedure development
6. Training and communications
7. Monitoring and reporting (including the hotline)
8. Compliance framework assessment

Rosneft’s Council for Business Ethics is a standing collegial body. As part of its activities, the Council reviews matters of ethical behaviour, human rights and conflicts of interest and monitors compliance activities and adherence to the Code of Business and Corporate Ethics. The body is composed of senior managers responsible for respective areas and managers overseeing related areas. The Council for Business Ethics develops the methodology and corporate position on business ethics and compliance. Enforcement of corporate compliance rules is the responsibility of senior managers and heads of functions and business units.

Priorities of Rosneft’s Compliance Framework: Are approved by the Company’s Council for Business Ethics

- Anti-corruption compliance
- Procurement compliance
- Anti-trust compliance (Federal Antimonopoly Service)
- Anti-fraud compliance
- Trade sanctions compliance
- Stock exchange and listing compliance (London Stock Exchange Group ethical principles)
- Policy on Combating Corporate Fraud and Involvement in Corruption Activities
- Regulations on Coordinating Anti-Fraud and Anti-Corruption Processes
- Regulations on Managing Conflicts of Interest
- Regulations on the Procedure for Verifying Information Received Through the Security Hotline Channels
- Confidential Data Protection Standard
- Regulations on Coordinating Anti-Fraud and Anti-Corruption Processes
- Regulations on Sponsor Support
- Regulations on the Procedure for Exchange of Corporate Gifts and Hospitality

Key internal documents governing ethics management and compliance activities

3 As per Rosneft’s corporate compliance risk matrix
4 Approved by Presidential Executive Order No. 570 dated 29 June 2018.
Countering Corporate Fraud and Corruption

As a party to the UN Global Compact, guided by its principle to work against corruption, the Company continued its efforts in 2019 to improve the efficiency of its existing anti-fraud and anti-corruption framework. In line with the National Anti-Corruption Plan for 2018–2020, this commitment covers all levels of the Company’s governance: strategic management is the responsibility of Rosneft’s Board of Directors (Audit Committee); current day-to-day management of the framework is within the remit of the Company’s executive bodies (Management Board and Chief Executive Officer) and the Council for Business Ethics; heads of businesses, functions and units are responsible for operational management; an independent and unbiased annual review of the risk management and internal control performance in the area of anti-corruption efforts is carried out by the Internal Audit Service.

The key documents and principles of preventing corporate fraud and involvement in corruption activities are approved by Rosneft’s Board of Directors, which also reviews the efficiency of efforts in this area on a regular basis. In 2019, the Board of Directors considered and approved the results of a review of the anti-corruption risk management and internal control process.

In addition, the Council for Business Ethics held four meetings in 2019, considering, inter alia:
- report on the progress against the Consolidated Corporate Compliance Programme (Roadmap) for 2018–2019;
- report on implementation, execution and operating efficiency of RM&ICS procedures in anti-fraud and anti-corruption areas for 2018;
- approval of the review of ethical declarations submitted by Rosneft’s officers during 2018.

In the reporting period, Rosneft’s Chief Executive Officer approved internal documents that included the Company’s Regulations on Coordinating Anti-Fraud and Anti-Corruption Processes providing for:
- assessing corporate fraud and corruption risk;
- protecting employees who reported on corporate fraud and corruption cases;
- reporting on violations showing signs of corporate fraud and corruption, and checking these reports;
- organising trainings and communications on countering corporate fraud and corruption;
- monitoring and controlling the process of countering corporate fraud and corruption. [1, 2, 3]

The Company’s Security Service oversees the entire anti-fraud and anti-corruption process. All of the Company’s subsidiaries operate in line with the Policy on Combating Corporate Fraud and Involvement in Corruption Activities. [4]

The Company has a system in place to control the contracting, pricing and discounting procedures. This ensures efficiency in identifying signs and facts of affiliation, personal interest, or potential corruption schemes. The Company investigated 163,813 prospective bidders and turned down 5,975 of them.

Rosneft encourages counterparties and JV partners to adhere to similar measures to prevent corporate fraud and involvement in corruption activities.

The Company continues its ongoing efforts to identify commercial schemes based on abuse, including abuse of power, by the Company’s management and third parties.

Under the 2013 Agreement on Cooperation with the Ministry of Internal Affairs, Rosneft engages in joint efforts as part of five-year action plans to help reduce the crime rate in the regions of the Company’s operations and improve the efficiency of measures to identify, prevent, expose, and investigate crimes in fuel-producing industries. In 2019, law enforcement agencies initiated 739 criminal cases based on materials compiled by the security functions of the Group Subsidiaries.

All new hires and employees appointed to new positions sign an anti-corruption clause, which forms part of their employment contracts. The clause specifies a number of limitations, prohibitions and requirements aimed at preventing conflicts of interest.

Measures as part of the Comprehensive Anti-Fraud and Anti-Corruption Programme for 2019–2020 included:
- drafting the Concise Guide to Compliance, including anti-fraud and anti-corruption provisions governing, including exchange of corporate gifts and hospitality. The Guide was communicated to all employees;
- quarterly updating the Company’s employees on typical violations of anti-fraud and anti-corruption rules (including the management of conflicts of interest). In May 2019, the Company developed methodology support on frequently asked questions related to conflicts of interest. The materials were circulated to employees of Rosneft and the Group Subsidiaries;
- drafting recommendations on anti-fraud and anti-corruption measures and communicating the same to the Group Subsidiaries and joint ventures;
- conducting ongoing anti-corruption audits of draft internal regulations;
- publishing the All about Compliance Information bulletin on a quarterly basis.

CORRUPTION RISK AREAS IDENTIFIED BY THE COMPANY

- Conflict of interest risk
- Bribery risk
- Counterparty risk and risk of ultimate beneficiary non-identification
- Commercial bribery
- Facilitation payments
- Risk associated with inappropriate use of funds
- Risk associated with third parties failing to comply with anti-corruption laws

1 The Company’s Policy on Combating Corporate Fraud and Involvement in Corruption Activities was approved by resolution of Rosneft’s Board of Directors on 21 May 2018 (Minutes No. 19 dated 21 May 2018).
2 Minutes No. 19 dated 1 April 2019 (resolution dated 29 March 2019).
3 Approved by Rosneft’s Council for Business Ethics (Minutes No. 7 dated 10 December 2018).
Security Hotline

The Company operates a 24/7 Security Hotline to report on cases of corporate fraud and corruption, which helped to identify and prevent a total of RUB 40.46 mln of damage in 2019.

Members and Chairman of the Company’s Board of Directors are updated on the Security Hotline performance on a quarterly basis. Also, to prevent wrongdoings, the Company provides regular updates to its employees about how the Security Hotline is performing.

The Company has a practice of rewarding whistleblowers. Rosneft guarantees confidentiality of all whistleblowers, whether employees or not, and protection of any other form of pressure, prosecution or discrimination. GRI 102-17

Ethics Management Framework Development

In 2008, Rosneft introduced a Code of Business and Corporate Ethics. In 2015, the Company adopted a new version of the Code aligned with best domestic and global practices. GRI 102-16

The Code is a common reference document that sets out the standards of behaviour expected from employees in their routine work and criteria of good practices in cases of ethical risk. It applies to each and every employee, regardless of their level or position.

In the reporting year, the Company continued to build awareness of the Code by translating it into the languages of the countries of operation: German, Kyrgyz, Portuguese, Spanish, Ukrainian and Vietnamese.

The Code of Business and Corporate Ethics is posted on the Company’s official website.

The Code is Rosneft’s fundamental document underlying its corporate culture and compliance framework.

Ethics champions are a key element of the system that puts the Code of Business and Corporate Ethics to life. They have the following duties:

- explaining the requirements of business ethics documents, principles, policies and procedures to employees;
- providing employees with advisory support on the implementation and application of the Code;
- resolving ethical conflicts;
- organising the registration of business ethics messages;
- informing employees about business ethics decisions made;
- developing feedback mechanisms.

Results of the Ethics Hotline

The Company has the Ethics Hotline in place to collect feedback on ethics issues. All queries are registered, analysed and sent for review to the Company’s relevant units.

In 2019 the ethics hotline received 51 queries relating mostly to ethics or human rights violations (21%), requests for additional information about business ethics (18%) and compliance with labour laws (19%). Other themes included living and working conditions, social programmes, corruption and conflict of interest, feedback, etc.

Calls received by the Security Hotline

- 35,106 calls
- 36,148
- 958
- 270
- 299
- 30

Areas of violations

- Fraud/corruption/embezzlement 958 violations
- Ethical standards, labour laws, protection of other persons 30
- Retail sales of petroleum products 270
- Procurement procedures 299
- Explanations/consultation provided 30
- Inquiry/corporate investigation conducted 958

40.46 million roubles of damage identified/prevented

In 2019, hotline received

- 51 queries
- Calls received by the Security Hotline in 2019 - 35,106
Training Programme for Ethics Champions

In 2019, we held a discussion session on today’s business ethics challenges of the Company and the role of ethics champions. The session was organised as part of the annual conference for the leaders in charge of personnel and social programmes at the Group Subsidiaries, with BP representatives among attendees.

The event saw discussions on current business ethics challenges and a presentation on business ethics and compliance (E&C) from BP. At the end of the event, the participants proposed to organise a comprehensive training for ethics champions at the level of deputy CEOs responsible for personnel and social programmes.

Based on the feedback received, a programme to build an effective system of applying Rosneft’s Code of Business and Corporate Ethics was designed. Its three modules include:

• establishing a system to respond to challenging ethical situations;
• communication skills of ethics champions and feedback management;
• developing business ethics in the Company and creating an expert community.

Employees of Rosneft regularly take part in training programmes and conferences arranged by third parties in the area of anti-corruption, fraud and compliance.

Personnel Training

Rosneft runs ongoing corporate training programmes in the field of countering corporate fraud and corruption, compliance and business ethics.

A corporate training programme on building an effective system of applying Rosneft’s Code of Business and Corporate Ethics was organised for 147 ethics champions in 125 Group Subsidiaries.

A lecture to review anti-fraud and anti-corruption activities in the Group Subsidiaries was delivered to 119 employees.

A multimedia training course on countering corporate fraud and corruption was updated in 2019.

In the reporting period, the Company held in-person trainings for the representatives of the Group Subsidiaries in Brazil in Anti-Corruption Compliance: Managing Conflicts of Interest in the context of local anti-corruption laws. On top of that, we staged a panel discussion on compliance to discuss approaches to combating corruption, including the management of conflicts of interest. The event took place as part of a joint conference with BP, our strategic business partner.

Employees of Rosneft regularly take part in training programmes and conferences arranged by third parties in the area of anti-corruption, fraud and compliance.

Countering Corruption and Fraud distance course

2,591 employees

Business Ethics Compliance: Managing Conflicts of Interest distance course

2,762 employees

Systemic Approach to the Compliance Function classroom course

1,961 employees

Managing Conflicts of Interest classroom course

>18 thousand employees

Managing Conflicts of Interest classroom course

2,006 employees

Business Ethics Compliance: Corporate Gifts and Hospitality distance course

8,751 employees

Corporate Training Events for Employees in Anti-Corruption, Compliance and Business Ethics

In 2019, more than 18 thousand employees of Rosneft and Group Subsidiaries completed internal training programmes either in class or online.

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Rosneft runs ongoing corporate training programmes in the field of countering corporate fraud and corruption, compliance and business ethics.

We held an employee survey on combating corporate fraud and corruption that showed that the overwhelming majority of employees know the contents of the key local regulations and requirements in this area, and understand what needs to be done should any violations be detected.

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Employees of Rosneft regularly take part in training programmes and conferences arranged by third parties in the area of anti-corruption, fraud and compliance.
“We understand our responsibility as one of the world's largest energy producers to incorporate sustainability principles across our operational activities. In 2019, Rosneft strengthened its carbon management governance processes at the Executive level. These have been supported by a dedicated carbon management subcommittee which has been established to develop further actions to minimise the Company’s overall carbon footprint.

Our partnership with other oil and gas producers as a member of the Methane Guiding Principles initiative will also help to drive industry best practices in methane management across our value chain.”

Didier Casimiro
First Vice President, Chairman of the Carbon Management Subcommittee
Carbon Management Goals and Approaches

Strategic Targets to Prevent Climate Change

As part of the Rosneft-2022 Strategy, the Company announced its commitment to the United Nations Sustainable Development Goals, which include two Goals which are directly linked to energy management, emissions reduction, and management of physical climate risks. These are:

- SDG 7 Affordable and Clean Energy
- SDG 13 Climate Action

These commitments are underpinned by actions across ten elements of Rosneft’s carbon management framework:

- Delivering company education programs on carbon management;
- Strengthening partnerships on carbon-management approaches;
- Understanding climate-related risks and opportunities for the Company.

The Company established a Carbon Management Subcommittee led by Didier Casimir, First Vice President of Rosneft to focus delivery on the carbon-reduction goals embedded in the Rosneft-2022 Strategy. The Subcommittee is made up of the Company’s top management and heads of operations, as well as heads of energy, economic, and environmental functional units.

The Sub委员会 is responsible for developing the Company’s position on reducing the carbon footprint of its assets, overseeing the development of relevant annual and longer-term plans and tracking progress on existing programmes, such as the Gas Investment Programme and Energy Saving Programme. The Subcommittee has held several meetings in 2019, delivering a carbon management framework and a carbon management plan, which was reviewed by the CEO as well as the Strategy and Sustainable Development Committee of the Rosneft Board of Directors.

The Company has also strengthened its internal capabilities in the area of carbon management by recruiting highly qualified and experienced professionals. In particular, we introduced the position of an advisor to Vice President for HSE on sustainable development and climate action.

Rosneft has taken a number of steps to reduce both direct and indirect GHG emissions generated by its operations or through the use of the Company’s products. These GHG reduction targets are supported by an internal ‘Green Investments’ capital investment program which includes funding for projects to reduce associated petroleum gas (APG) flaring and energy efficiency projects. The total expenditure for ‘Green Investment’ projects for the period of 2018-2022 will be around 300 billion rubles which will also include funding for pipeline reliability, water management and land remediation projects. ‘Green investment’ expenditure between 2020-2022 will average around 7% of the annual capital investment budget.

Strategic GHG Reduction Targets and Performance Indicators

We also set relevant targets and KPIs to drive these improvements:

- Growing the Company’s natural gas production to over 100 bcm per annum
- Reducing per unit GHG emissions by 15% by 2022
- Avoiding 8 mmt of CO2 equivalent emissions by through the Gas Investment Programme and the Energy Saving Programme
- Achieving a top quartile indicator in GHG emissions intensity, 0.5 terragrams CO2 eq. / production, let comparable with leading global peers
- Developing and producing new products that allow consumers to reduce emissions through the use of the Company’s more eco-friendly products
Development of Global Energy Markets

Scenario Forecasts Related to the Global Energy Transition and Climate Action

Rosneft considers various outlooks and projections of global energy demand, and develops long-term global economic and energy scenarios for the strategic and business planning process. The development and analysis of forecast scenarios is part of the KPIs for the Company’s top management. The Rosneft 2022 strategy was tested using three key scenario forecasts.

The forecast results indicate that the Company’s business model for the period until 2040 for both products and geographical spread are expected to be stable and resilient to the challenges assessed.

Projections based on the base-case and low-carbon scenarios imply an increase in global demand for primary energy up to 2040.

According to the base-case scenario, by 2040, global energy consumption will increase by 29% from the level of 2018. The share of fossil fuels will decrease from 81% in 2018 to 76% in 2040 with a shift in primary energy consumption towards a larger share of gas (from 23% in 2018 to 25% in 2040) and a smaller share of coal (from 27% to 26%). The share of liquid hydrocarbons and gas will remain flat at around 54% of renewable sources in global energy consumption that will increase from 2% in 2018 to 6% in 2040.

In the low-carbon scenario, global energy consumption will increase by almost 29% to 2040 compared with 2018. In 2040, global demand for fossil energy sources will increase by a mere 9% from 2018 levels with consumption of non-fossil energy surging by more than 80%. However, fossil fuel sources will still retain a dominant role in global consumption of primary energy (52%). In total, liquid hydrocarbons and gas will account for more than half (52%) of the energy mix. Consumption of renewable sources in 2040 will increase five-fold against 2018 with a share of 9%.

The Sustainable Development Scenario (SDS): the IEA SDS (set out in the 2019 World Energy Outlook) focuses on efforts to limit temperature growth to 1.8°C and achieving other sustainable development goals. It assumes that a decrease in the global economy’s energy intensity will accelerate at more than twice the rate of 2000-2018. Global primary energy consumption is expected to reach its peak in the near future, with a subsequent decrease by 7% by 2040 against 2018. Global consumption of liquid hydrocarbons and coal will go down by 32% and 61%, respectively, compared with 2018. Gas consumption is projected to increase and then stabilise by 2035–2030, after which it will decline by 3% by 2040. The consumption of non-fossil energy in 2040 will increase 2.1 times compared with 2018, with energy consumption from renewable sources growing nearly eight-fold to reach almost 17%. Thus, even under the SDS, with the expected technological and economic limitations, fossil energy sources are projected to remain the backbone of the global energy industry, with their share hitting 58% by 2040, though associated with much lower GHG emissions.

<table>
<thead>
<tr>
<th>SCENARIOS</th>
<th>BASE CASE:</th>
<th>LOW-CARBON SCENARIO:</th>
<th>SUSTAINABLE DEVELOPMENT SCENARIO:</th>
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</thead>
<tbody>
<tr>
<td>BASE CASE:</td>
<td>the forecast is based on the study of existing energy demand patterns, impact of technological progress, globalisation and the energy policy.</td>
<td>the forecast is based on the assumption that the maximum shift towards low-carbon technologies and renewable energy will not exceed the total effect of national contributions made by the Paris Agreement member countries.</td>
<td>the scenario is based on the International Energy Agency forecast on the global power industry development, which seeks to limit global temperature growth to 1.8°C, and achieve other UN Sustainable Development Goals.</td>
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</table>

Carbon Dioxide Emissions

Scenario projections show that global CO₂ emissions are expected to increase under the base-case scenario, while in the low-carbon scenario they will start decreasing after 2030. The SDS assumes that CO₂ emissions will decrease by over 2.1 times to 2040 compared with 2018.

Given the forecast of energy markets and product demand, the Company continues to grow its gas production while also improving the quality and range of its products and marketing more environmentally friendly products.
International Agency Forecasts

The comparison of the Company base-case scenario with similar ones from the world’s leading agencies and industry peers showed that the Company’s projections do not contradict those of international agencies. Our basic forecast takes into account trends in energy demand, consumption and development of energy markets in the coming decades.

According to experts, global energy demand will increase from 1.8% to 2.8% by 2040. They assume a 1.0% CAGR for all sources, with the lowest and highest rates of 0.8% and 1.2% projected for similar ones from the world’s leading agencies and industry peers.

The comparison of the Company base-case scenario with similar ones from the world’s leading agencies and industry peers showed that the Company’s projections do not contradict those of international agencies. The results are submitted to the Audit Committee of the Board of Directors and the senior management.

When considering the risks and opportunities associated with climate change, the Company is guided by recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD).

The Company supports climate research and has organised more than 20 large-scale Arctic expeditions since 2012. These expeditions provided a much deeper insight into the climate and the environment of this unique region. In 2019, the Kara–Summer 2019 research expedition conducted hydro meteorological observations in the Barents, Kara, Laptev and Chukchi seas, with Atlases of Russian Arctic Seas published following the research.

The Company takes steps to understand potential strategic threats and opportunities associated with climate change and the global energy transition and reviews climate-related risks as part of the annual corporate-wide risk management process. These risks are assessed for possible negative impacts on the Company's strategic indicators. The results are submitted to the Audit Committee of the Board of Directors and the senior management.

Further assessment of physical climate risks in related to the production facilities and activities of the Company will also be done taking into account the National Action Plan adopted in Russia in December, 2019 outlining the first stage of climate change adaptation to 2022.

For details on our research activities, see the Scientific Research in the Arctic section of this Report.

2019 / Sustainability Report of Rosneft
Achievement of Climate Goals in 2019

Greenhouse gas emissions reduction

The UN Sustainable Development Goal 13 Climate Action is a priority goal for Rosneft. To achieve this goal, the Company runs two large-scale programmes: the Gas Investment Programme focused on reducing APG flaring, and the Energy Savings Programme aimed at curtailing GHG emissions by over 8 mmt (CO2 equivalent) by 2022. The Company has also identified gas and 34.18 bcm of associated petroleum gas, which is generally in line with the global trend of utilising gas as a low-carbon energy source. With 66.95 bcm of natural gas, improvement in gas production processes and technological competences. In 2017, APG production from the Company's operations totalled 81.2 mmt (CO2 equivalent), with direct emissions and indirect emissions from electricity and heat procurement accounting for 59.4 mmt and 21.8 mmt (CO2 equivalent) respectively. Indirect emissions from the use of products manufactured by the Company in 2019 were 318.7 mmt (CO2 equivalent) based on petrochemical industry.

The increase of the absolute emissions in 2019 was largely due to increased flaring of APG at greenfield sites where the APG utilisation infrastructure has not yet been commissioned. In 2019 Rosneft reduced methane emissions by 18% compared with 2018, with fugitive emissions in oil and gas production down 7.5% due to improved processes.

The 2018 metric was adjusted following the update on fuel consumption by certain Group Subsidiaries. The programme to increase APG utilisation helps to reduce GHG emissions (both CO2 and CH4) through reduced flaring, and improves the air quality in producing regions. Actions include the use of cutting-edge technologies that allow for gas injection to maintain reservoir pressure, its accumulation in underground storage facilities for further use, and utilisation for electricity generation and supply to processing plants and consumers.

Natural Gas Production

In 2019, the Company continued to implement its Gas Investment Programme. Capital investment in the construction of gas infrastructure exceeded RUB 22 bln. One of the key investment areas is the utilisation of Associated Petroleum Gas (APG). To use APG to enhance recovery and generate heat and electricity, 14% of APG produced by Bashneft becomes feedstock for the petrochemical industry.

In 2017, APG production in Russia (resource), bcm 68.41 Natural gas production, bcm

<table>
<thead>
<tr>
<th></th>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td>Natural gas</td>
<td></td>
<td>66.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associated petroleum gas</td>
<td></td>
<td>34.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>101.1</td>
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In 2019, Rosneft placed a special focus on improving efficiency of using associated petroleum gas (APG). Bashneft pursues its strategy and made great progress in this area in 2019. At Bashneft-Dobycha, the APG utilisation rate topped 90% with over 40% of the produced APG used in the subsidiary’s own processes. Furthermore, Rosneft’s Gas Programme enabled the Company to use APG to enhance recovery and generate heat and electricity. 14% of APG produced by Bashneft becomes feedstock for the petrochemical industry.

In 2019, Rosneft’s Gas Programme focused on direct (Scope 1) and indirect (Scope 3) emissions as recommended by the TCFD. The increase of the absolute emissions in 2019 was largely due to increased flaring of APG at greenfield sites where the APG utilisation infrastructure has not yet been commissioned. In 2019 Rosneft reduced methane emissions by 18% compared with 2018, with fugitive emissions in oil and gas production down 7.5% due to improved processes.

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APG Utilisation

In 2019, Rosneft continued to implement its Gas Investment Programme. Capital investment in the construction of gas infrastructure exceeded RUB 22 bln. One of the key investment areas is the utilisation of Associated Petroleum Gas (APG).

As at the end of 2019, the APG utilisation rate averaged 93.8% for mature assets (up 1.0% year-on-year), and 77.8% including fields under development (Suzunskoye and Srednebotuobinskoye) and greenfield projects at early stages of development (Tagulskoye, Vostochno-Messoyakhskoye, Yurubchinskoye-Tolshomskoye, Severo-Komsomol’skoye, and Tobs and Ttovs).

In 2019, the Company’s capital investment in the construction of gas infrastructure exceeded RUB 22 bln.

Rational use of APG

<table>
<thead>
<tr>
<th></th>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>APG utilisation capex, RUB bln</td>
<td></td>
<td>20.1</td>
<td>16.3</td>
<td>21.5</td>
</tr>
<tr>
<td>APG production in Russia (resource), bcm</td>
<td></td>
<td>41.6</td>
<td>41.8</td>
<td>44.3</td>
</tr>
<tr>
<td>APG production in Russia, excluding flared gas (line), bcm</td>
<td>371</td>
<td>35.3</td>
<td>34.5</td>
<td></td>
</tr>
<tr>
<td>APG utilisation rate, %</td>
<td></td>
<td>89.2</td>
<td>84.6</td>
<td>77.8</td>
</tr>
</tbody>
</table>
Energy Saving and Energy Efficiency

Rosneft is one of Russia’s major consumers of fuel and energy resources. Its Energy Saving Programme includes initiatives that help reduce energy consumption and cut GHG emissions in the following business segments:

- In oil and gas production:
  - By using energy efficient equipment and optimising the operation of artificial lift and ground infrastructure;
  - In oil refining, gas processing and petrochemicals by optimising thermal processes and electrical load and enhancing fuel efficiency;
  - In marketing and distribution and in-house services:
    - By using energy saving technologies and equipment in supplying heat and electricity to production and administrative facilities.

- Other APG gathering, treatment and transportation facilities.

In 2020–2024, the Company plans to complete the construction and commissioning of natural gas power plants and injection facilities at the Yurubchenskomskoye, Srednebotubinskoye, and Trebs and Ttov fields. These projects are crucial for delivering on the strategic goals of increasing APG utilisation and reducing GHG emissions.

Rosneft’s energy efficiency performance has improved by 14% over the past two years, which helped prevent 3.1 mmt CO₂-equivalent emissions.

For details on energy saving and energy efficiency, see the R&D and Digital Transformation chapter of the Energy Saving and Energy Efficiency section.

KEY ACHIEVEMENTS UNDER APG UTILISATION IMPROVEMENT PROJECTS IN 2019

- Bashneft-Dobycha achieved a 95% utilisation rate
- RN-Vankor delivered the 30 billionth cubic meter of gas to the Unified Gas Supply System of Russia after the launch of the Vankor field

Stakeholder Engagement on the Climate Agenda

The global scale of the climate action calls for an extensive cooperation at the national, international and industry levels.

The Company actively interacts with government agencies and sits on various interdepartmental consulting and coordinating bodies on climate change, including:
- The Interdepartmental Working Group on the Economic Aspects of Environmental Protection and Regulation of Greenhouse Gas Emissions under the Ministry of Economic Development;

In 2019, Rosneft and the Ministry of Natural Resources and Environment signed a cooperation agreement to implement the climate action agenda as part of the national Environment project.

Rosneft pays great attention to reforestation, thus improving biodiversity, reducing our environmental footprint and supporting the removal of CO₂ from air.

For details on the cooperation with the Ministry of Natural Resources and Environment, see the Preservation of Biological Diversity in this Report.

On the industry level, Rosneft joined forces with BP and Equinor to support efforts to take action on climate change as part of environmental protection working groups.

Rosneft is a party to the UN Global Compact and supports the government’s efforts at the national level following the ratification of the Paris Agreement in September 2019.

The Company’s contribution to reducing greenhouse gas emissions and adapting to climate change will assist the Russian Federation in meeting its commitments under the Paris Agreement.

Paris Climate Agreement

The Paris Agreement was adopted in December 2015 at the 21th session of the Conference of the Parties to the UN Framework Convention on Climate Change held in Paris. Its purpose is to hold global average temperature increase “well below 2°C above pre-industrial levels”, and achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century. 189 Parties have ratified or acceded to the Agreement. Together with governments, more than 18 thousand representatives of cities, regions, the business and the civil society participate in implementing the Paris Agreement.

Rosneft is a party to the UN Global Compact and supports the government’s efforts at the national level following the ratification of the Paris Agreement in September 2019.

In 2019, the Company’s subsidiaries planted around 1 million trees as part of forest restoration initiatives, including around 5 thousand trees as part of the Green Spring-2019 nationwide clean-up campaign.

For details on the cooperation with the Ministry of Natural Resources and Environment, see the Preservation of Biological Diversity in this Report.

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Joining the Guiding Principles on Reducing Methane Emissions across the Natural Gas Value Chain

Minimising emissions is the key priority of the Rosneft-2022 Strategy. We aim to become one of the global energy companies with the lowest carbon footprint and rank in the first quartile among global peers in terms of unit GHG emissions. To achieve this goal, we also focus on reducing methane emissions from our operations. These emissions can contribute over 28 times the atmospheric warming of carbon dioxide.

In 2019, we joined the Methane Guiding Principles (MGP) Industry Initiative, to show our commitment to strengthening industry partnerships on methane management. Other participants from among oil and gas companies include BP, Equinor, Eni, ExxonMobil, Shell, Total, and Gazprom. Eric Liron, Vice President for Internal Services at Rosneft, is Rosneft's representative on the Steering Committee of this partnership initiative.

This industry partnership will enable the parties to share best practices in methane management, align metrics and reporting, apply detection and quantification technologies and harmonise approaches to the global methane policy. The Company and other industry players also agreed on a number of actions related to remote identification of methane sources, development of methane intensity indicators and workforce training in methane management. In 2020, we plan to have the Reducing Methane Emissions Best Practice Guides translated into Russian, with training to be provided to both management and field specialists.

“In 2019, Rosneft signed the Guiding Principles on Reducing Methane Emissions across the Natural Gas Value Chain – an initiative of oil and gas majors. We will continue to implement advanced technologies, including those allowing for remote methane detection, quantification, and leakage prevention. We will also organise relevant training for our staff. As one of the world’s largest hydrocarbon producers, Rosneft understands the contribution of anthropogenic sources of methane to climate change impacts and will do its part to reduce methane emissions from its operations.”

Eric Liron
Vice President for Internal Services, official Rosneft representative in the Steering Committee of the Methane Guiding Principles

GUIDING PRINCIPLES ON REDUCING METHANE EMISSIONS ACROSS THE NATURAL GAS VALUE CHAIN

- Continually reduce methane emissions
- Advance strong performance across gas value chains
- Improve accuracy of methane emissions data
- Advocate sound policies and regulations on methane emissions
- Increase transparency

Carbon Resilience Ratings

Rosneft’s efforts in sustainable development and carbon management received high recognition from national and international rating agencies.

CDP Rating

CDP (formerly the Carbon Disclosure Project) is the most reputable non-profit organisation that assesses the processes and initiatives in managing a company’s carbon footprint and resilience to climate related risks, as well as its forest and water stewardships, and energy transitioning. Following an independent assessment, Rosneft received a “B” rating in the Climate Change category.

“Commersant Initiatives Award” in the Environment Category

In 2019, Rosneft received a “B” CDP rating in the Climate Change category, which is the best score among Russian oil and gas producers and two notches higher than the average score of European members.

In 2019, Rosneft’s large-scale project to reduce APG flaring won an annual “Commersant Initiatives Award” in the Environment category. In the past five years, Rosneft has made APG utilisation one of its top environmental priorities, with relevant investments exceeding RUB 125 bln.
Rosneft focuses on minimising environmental impacts during the design of new projects and applying best available technologies using our green investment programme to continuously improve the environmental performance of existing facilities. The Company also works closely with stakeholders to support resource conservation and biodiversity protection across its operations to align with its sustainable development commitments.

Christoph Nehring
Vice President for Health, Safety and Environment at Rosneft
Managing Our Environmental Impacts

The Company has the dual accountability of providing energy to global populations to drive socio-economic development as a means of improving the quality of life for many, while being guided by the principles of sustainable development.

As a member of the United Nations Global Compact (UNGC), Rosneft has committed to support the achievement of the United Nations Sustainable Development Goals (UN SDGs) with its environmental protection activities and initiatives linked to the following UN SDGs:
- SDG 3 – Good health and well-being
- SDG 4 – Quality education
- SDG 5 – Gender equality
- SDG 6 – Clean water and sanitation
- SDG 7 – Affordable and clean energy
- SDG 8 – Decent work and economic growth
- SDG 9 – Industry, innovation and infrastructure
- SDG 10 – Reduced inequalities
- SDG 11 – Sustainable cities
- SDG 12 – Responsible consumption and production
- SDG 13 – Climate action
- SDG 14 – Life below water
- SDG 15 – Life on land
- SDG 17 – Partnership for the goals.

The Company therefore works to identify and avoid or minimise any negative impacts to the environment from its activities as part of this commitment to maintaining sustainable operations.

One of the most important areas of this work is the interaction and cooperation with key stakeholders including local communities, state authorities, environmental organizations, scientific institutions, local scientific and technical organisations and local communities.

Managing Our Environmental Impacts

The Company has also developed its 2022 environmental goals based on the ongoing implementation of its 2025 Environmental Efficiency Improvement Programme. This programme consists of four focus areas each with an annual delivery plan with actions across all Group Subsidiaries.

The implementation of improvement actions to achieve environmental goals is carried out within an Integrated HSE Management System (IMS), which has been in place across Rosneft and Group Subsidiaries since 2006.

In 2019, this HSE IMS was again independently assessed as being in conformance with the requirements of ISO 14001:2015 “Environmental Management System”.

The requirements of the HSE Integrated Management System (IMS) apply to all Group Subsidiaries and employees as well as to contractors working at the Company’s production facilities. Employees are trained to improve their knowledge and understanding of the ISO 14001:2015 requirements.

Environmental Protection Monitoring

Across the Group, the selection of subsidiaries to be certified against the requirements of ISO 14001:2015 is based on the specific type of business activities. The criteria include the nature of environmental risks, as well as the requirements of investors, partners, customers and other stakeholders.

The number of certified companies within the Group increases annually increased from 57 to 63 in 2019.

When planning and implementing production processes, Rosneft is guided by the principles of sustainable use of natural resources as well as reducing the level of environmental impact. These principles are enshrined in the Company’s Policy on Health, Safety and Environment.

Environmental Protection Monitoring

In accordance with the legislative requirements of the Russian Federation, evaluation of potential environmental impacts is required when planning business activities including the nature and frequency of impact to ecosystems and biodiversity, including animals, birds, fish, and flora. At each stage in the project life cycle, compliance with applicable international, national and regional legislation is monitored including those of changes in environmental legislation and discussing the most urgent environmental issues. One of the mechanisms for these discussions is through an annual corporate environmental congress which is attended by prominent experts and key stakeholders.

The Company continually invests in professional and technical capability development of its environmental specialists, keeping informed of changes in environmental regulation and discussing the most urgent environmental issues.

Across various levels of the Company, from special divisions to top management, performance against the Company’s environmental goals is reviewed to determine the level of progress achieved and to identify risks to delivery. This review of environmental performance trends, external and internal risk factors and best international practices guides decision-making at management levels.

The Company continually invests in professional and technical capability development of its environmental specialists, keeping informed of changes in environmental regulation and discussing the most urgent environmental issues. One of the mechanisms for these discussions is through an annual corporate environmental congress which is attended by prominent experts and key stakeholders.
Environmental Protection Investments

Every year, the Company invests in reducing environmental risks through its ‘green investments’ programme which targets both long-term capital construction projects aimed at environmental protection and projects which reduce environmental impacts from existing operations. As part of implementation of the Rosneft-2022 Strategy, around RUB 300 bln have been allocated to these ‘Green investments’ to drive improvements.

During the period from 2020 to 2022, Green investments will represent around 7% of the Company’s annual capital expenditure.

Over the last three years, Rosneft has completed a number of major environmental projects, including those actively rolled out as part of the Year of Environment in 2017. This, coupled with rescheduling of some projects under the Gas Investment Programme, contributed to reducing the volume of green investment as at the end of 2019.

Environmental Protection Investments

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments in fixed assets for environmental protection</td>
<td>67,240</td>
<td>45,605</td>
<td>34,544</td>
</tr>
<tr>
<td>Current environmental protection opex</td>
<td>28,642</td>
<td>31,697</td>
<td>29,244</td>
</tr>
<tr>
<td>Payments to budgets at all levels related to environmental protection and ecological management, including:</td>
<td>4,199</td>
<td>4,741</td>
<td>6,338</td>
</tr>
<tr>
<td>Environmental permits</td>
<td>913</td>
<td>1,159</td>
<td>1,348</td>
</tr>
<tr>
<td>Environmental compensation</td>
<td>1,705</td>
<td>1,040</td>
<td>1,296</td>
</tr>
<tr>
<td>Accumulated fines for environmental pollution</td>
<td>258</td>
<td>290</td>
<td>200</td>
</tr>
<tr>
<td>Non-financial sanctions, number of cases</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Fines related to environmental impact decreased by 31% compared with 2018 showing the improvement in meeting compliance with environmental legislation.

In 2019, investments in R&D linked with environmental improvements totalled RUB 242.7 mln.

Rosneft has introduced an innovative project for the development of a corporate hydrogeological information system. This is expected to become a comprehensive solution for planning the withdrawal and use of groundwater as well as for monitoring and minimizing the impact on underground water bodies. This will improve the efficiency of production processes and drive the implementation of measures aimed at the conservation of groundwater.

In addition to its contribution to greenhouse gas reductions by decreasing the quantity of APG that is flared, the Gas Investment Programme also contributes to the reduction of other gaseous emissions into the atmosphere. As part of the Gas Investment Programme, three compressor stations were completed at RN-Yuganskneftegaz.

The Company achieved a 3% reduction in non-GHG emissions in 2019.

In oil refining, gas processing and petrochemicals, atmospheric emissions decreased by 1% due to the implementation of a number of controls including installation of pressurised aluminium internal floating roofs on tanks at Syzran Refinery and Novokuibyshevsk Refinery. In 2019, floating roofs were mounted on three tanks. It is planned to install another eight vertical steel tanks with floating roofs in 2020.

Reducing Air Emissions

One of the priority areas of Rosneft’s environmental agenda is to reduce air quality impacts resulting from air emissions released during operational activities.

Also, in 2019, work on the construction of a gas treatment unit in the East Urengoy licence area continued under an Agreement between Rosneft, the Russian Ministry of Natural Resources and Environment, and Rosprirodnadzor, at a cost of more than RUB 11 bln. This construction is planned to be completed and commissioned in Q4 2020.

In oil refining, gas processing and petrochemicals, atmospheric emissions decreased by 1% due to the implementation of a number of controls including installation of pressurised aluminium internal floating roofs on tanks at Syzran Refinery and Novokuibyshevsk Refinery. In 2019, floating roofs were mounted on three tanks. It is planned to install another eight vertical steel tanks with floating roofs in 2020.

The Company implements new technologies for integrity control, including the use of unmanned aerial vehicles to monitor remote sections.
Overall across air emissions, there were significant reductions in non-VOC hydrocarbons (20%); benz(a)pyrene emissions (18%) and other air emissions (12%) but increases in the emissions of carbon monoxide and nitrogen oxides because of greater quantities of flared APG (for details see chapter Climate Action).

Conserving Water Resources

Rosneft complies with regulations on the use of water resources, and the Company takes measures to protect fresh water bodies by increasing the efficiency of water usage; employing best available treatment technologies for produced water; increasing the percentage of recycled and re-used water and introducing modern wastewater treatment systems.

The Company assesses environmental risks, including water resource risks. The assessment methodology is based on the ISO 31000 standard; baseline conditions of water bodies and ecosystems in regions of the Company’s footprint, and laws of the Russian Federation. In 2019, among risks related to water bodies, the assessment identified accidental pollution risks, including risks of pipeline failure. To mitigate the risks, comprehensive management solutions are being implemented including the reconstruction, overhauls, diagnosis, inhibition and cleaning of pipelines.

Rosneft strives to minimise the water resources consumed, used and discharged to reduce the impact on the aquatic environment and ecosystems in the areas where the Company operates.

Most of the Company’s operations are carried out in areas with sufficient fresh-water resources, though some international operations are in areas of water stress, as classified by the Aqueduct programme. Despite this, the actions taken to reduce demand and conserve fresh water are similar whether the region is classified as water scarce or not. Within the Russian Federation, access to water bodies for direct or indirect use by the Company is carried out in accordance with the country’s legislation and approval of local regulatory bodies.

Rosneft was ranked among the best oil and gas companies in the Water Resources category of the Global CDP Rating.

The Company ensures that it does not violate the right of any local inhabitants and other stakeholders to fresh-water access and also invests in a number of infrastructure initiatives to improve the local water supply in support of regional populations in areas of its footprint.

In Brazil, RN-Brazil, a Rosneft subsidiary, there are strict operational controls to ensure the sources of water withdrawn and the quality of waste-water discharged are in compliance with local discharge regulations. The monitoring of waste-water discharges from these operations confirm that there is no adverse impact on the Amazon river system.

For details on the Company’s support of regional initiatives for providing locals with fresh water, see chapter Community Engagement.
Water Consumption

In 2019, fresh water consumption increased by 3% compared with 2018. This was mainly due to an increase in water withdrawn from surface sources.

IGroup Subsidiaries reduced water consumption and water withdrawal from natural sources by implementing the following improvements:

- Treatment and reuse of water from individual petrochemical plants of Angarsk Petrochemical Company and section No. 1 of CHP-9 of Irkutskenergo;
- Increase in the share of recycled and reused water for the Kuibyshev Refinery and reconstruction of Volga water conduit sections;
- Reduction of the water intake due to the recycled water supply of produced water by RN-Severnaya Neft;
- Installation of water meters for the purpose reducing water consumption.

The increasing volume of water-use is due to the associated increase in production and in addition higher withdrawal rates to maintain reservoir pressure.

<table>
<thead>
<tr>
<th>Formation water treatment indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total produced water, mmcm</td>
<td>1,587.8</td>
<td>1,588.1</td>
<td>1,658.3</td>
</tr>
<tr>
<td>Injection into formation without treatment, mmcm</td>
<td>28.7</td>
<td>31.8</td>
<td>189.3</td>
</tr>
<tr>
<td>Injection into formation with treatment, mmcm</td>
<td>140.4</td>
<td>147.6</td>
<td>135.2</td>
</tr>
<tr>
<td>Disposal of formation water, mmcm, including:</td>
<td>98.4</td>
<td>97.7</td>
<td>110.04</td>
</tr>
<tr>
<td>discharge into formations</td>
<td>98.4</td>
<td>97.7</td>
<td>110.02</td>
</tr>
<tr>
<td>discharge into soils</td>
<td>0.043</td>
<td>0.054</td>
<td>0.026</td>
</tr>
<tr>
<td>Total hydrocarbons in waste formation water, kt</td>
<td>16.54</td>
<td>22.36</td>
<td>17.43</td>
</tr>
</tbody>
</table>

Water Disposal

The most significant potential impact from waste-water discharges is from their discharge into surface water bodies with around 68% of the Company’s total water discharges into these systems in 2019. To minimise this potential impact, the Company has implemented a series of improvement measures including investments in the upgrade of treatment facilities at the Company’s refineries. These include:

- Construction of a unit for neutralising acidic and alkaline effluents at the Kuibyshev Refinery;
- Reconstruction of mechanical and biological wastewater treatment plants at the Ryazan Refinery.
- Increasing the volume of water disposed for reuse into the network of other organisations by 16%,
- Decreasing domestic wastewater disposed by 5%.
- Decreasing disposal of industrial effluents to surface water bodies by 4%,
- Decreasing contaminated wastewater discharges by 4%.

The volume of reused water was up 9% year-on-year to 2,496 mmcm due to improvements in the quality of wastewater treatment and the upgrades of waste-water systems.

<table>
<thead>
<tr>
<th>Total water disposal, thousand cub m</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic wastewater discharges</td>
<td>75,731</td>
<td>74,937</td>
<td>71,511</td>
</tr>
<tr>
<td>Industrial wastewater discharges, including:</td>
<td>193,161</td>
<td>186,883</td>
<td>184,366</td>
</tr>
<tr>
<td>into surface water bodies</td>
<td>133,192</td>
<td>127,904</td>
<td>122,666</td>
</tr>
<tr>
<td>into formations</td>
<td>59,870</td>
<td>58,881</td>
<td>61,654</td>
</tr>
<tr>
<td>into soils</td>
<td>99</td>
<td>98</td>
<td>45</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial wastewater discharges, thousand cub m</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard-treated and standard-clean wastewater</td>
<td>110,152</td>
<td>108,715</td>
<td>109,060</td>
</tr>
<tr>
<td>Polluted and insufficiently treated wastewater</td>
<td>83,009</td>
<td>78,168</td>
<td>75,305</td>
</tr>
</tbody>
</table>

The volume of reused water increased by 9% year-on-year to 2,496 mmcm due to improvements in the quality of wastewater treatment and the upgrades of waste-water systems.
A number of measures for the construction and reconstruction of wastewater treatment plants in the Group Subsidiaries were implemented in accordance with the tripartite Agreement concluded between Rosneft, the Russian Ministry of Natural Resources and Environment, and Rosprirodnadzor as part of commitments made in 2017 – the Year of the Environment.

This facility has a capacity of 84 thousand cub m per day and has reduced the volume of water intake from water bodies by 250%. This is not only one of the key environmental investment projects of the Company but also the largest facility in Eurasia among those implemented using membrane bioreactor technology.

Biological treatment facilities can significantly improve the quality of wastewater treatment, as well as increase the use of purified water in technological processes.

According to the United Nations, fresh water accounts for only 2.5% of total water resources and by 2030 global water scarcity can reach 40%. In this context, the CDP rating in the water category is becoming increasingly important to investors. It also stimulates companies, financial markets and governments to ensure continued growth without compromising fresh water supplies and to assess water scarcity when making project investments. Also, Rosneft implements a number of infrastructural initiatives to improve the local water supply in support of regional populations in areas where the Company operates.
Prevention of and Response to Oil Spills

The Company assesses the extent of its ecological footprint across the areas where it operates and, as a result, takes a number of actions to both prevent oil spills, as well as to reduce the severity of environmental impacts if any spills occur.

The existing corporate Oil Spill Response System is designed to mitigate potential environmental impacts. Rosneft strictly adheres to a policy of immediate and transparent reporting and closely cooperates with relevant state authorities.

The Syzran Refinery has commissioned a digital system for monitoring pipelines. This digital equipment allows operational personnel to accurately identify the location of pipeline ruptures and halt the pumping of hydrocarbon products if any failure is detected.

A number of measures were taken to improve the reliability of production facilities and equipment. These include:

▪ Improvement of the corporate system for the localisation and elimination of oil and petroleum product spills;
▪ Completion of the Pipeline Reliability Enhancement Programme for 2015–2019; This Programme is now in its second 5-year phase from 2020 to 2025 and covers the activities of 28 Group oil and gas producing subsidiaries. It uses a risk-based approach aimed at ranking and identifying critical processes with potentially high environmental impact. It targets over 120 thousand km of the Company’s pipeline network and the first phase resulted in a 35% decrease in the rate of pipeline failures compared with 2013. The volume of oil spilled from pipeline failures across the Company also reduced by 2% in 2019.

The total volume of spilled oil across the Company showed a continuous reduction from 2017 to 2019.

Total volume of spilled oil and oil products across the Company, tonnes

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>730</td>
<td>663</td>
<td>652</td>
</tr>
</tbody>
</table>

Rosneft actively cooperates with its international oil and gas strategic partners, BP International and Equinor, with the aim of sharing experience and best practices as well as application of best available technologies for preventing oil spills. In April 2019, a three-day workshop on best practices in the area was conducted jointly with BP International.

“RN-Yuganskneftegaz prioritises environmental safety and protection and invests in state-of-the-art equipment and sustainable technologies. Daily 24-hour drone monitoring has become an important step towards improving the reliability of production facilities, primarily pipelines. They currently cover all field pipeline transport network of the asset. This improved the ability to detect process upsets and incidents, and significantly reduced response times. It also enhanced monitoring of protected areas of the Company’s assets.”

Igor Tabachnikov
CEO, RN-Yuganskneftegaz

Land Remediation and Waste Management

Land Remediation

When planning and executing production activities, the Company strives to improve its environmental environmental performance and reduce potential environmental impacts, taking the necessary measures to remediate any disturbed or contaminated land and using the most applicable waste treatment technologies.

The Company has a Remediation and Waste Management Standard in place to regulate land remediation, sludge pits and waste handling. Timely implementation of these procedures is one of the goals of the Environmental Efficiency Improvement Programme.

In 2019, these measures resulted in a 14% reduction of the contaminated land area compared with 2018.

The rate of land remediation decreased in 2019 due to new legislative changes and the enactment of Decree No. 800 of the Government of the Russian Federation of 10 July 2018 (as amended on 7 March 2019) "On Land Reclamation and Conservation", which introduced new approval requirements and permits for land remediation projects. Nevertheless, the Company continued its efforts and progress towards reducing the area of contaminated land.

Area of contaminated lands, ha

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of contaminated land at the beginning of the year</td>
<td>3,647</td>
<td>3,738</td>
<td>3,219</td>
</tr>
<tr>
<td>Area of contaminated land specified during the pre-project survey</td>
<td>306</td>
<td>123</td>
<td>183</td>
</tr>
<tr>
<td>Newly contaminated land</td>
<td>321</td>
<td>204</td>
<td>232</td>
</tr>
<tr>
<td>Area of contaminated land at the end of the year</td>
<td>3,348</td>
<td>3,219</td>
<td>2,710</td>
</tr>
<tr>
<td>Area of natural restoration of disturbed lands</td>
<td>157</td>
<td>86</td>
<td>202</td>
</tr>
<tr>
<td>Area of remediated land</td>
<td>19,866</td>
<td>19,001</td>
<td>17,471</td>
</tr>
</tbody>
</table>

For details on the Pipeline Reliability Enhancement Programme, see the Equipment Integrity section of this Report.

† Data for 2018 reflect the area of land contaminated by bottom water.
Land Remediation in the Khanty-Mansi Autonomous Area

The Khanty-Mansi Autonomous District – Yugra is strategically important to Rosneft’s activities. The Group Subsidiaries that operate in this region strive to reduce their environmental impact and coordinate annual environmental protection programmes and ecological restoration activities with the regional office of Rosprinodnadzor. The approach used by Rosneft is to remediate contaminated lands at the same time as introducing pipeline integrity improvements. This reduces the risk of new leaks and ensures there is an improved spill reporting and response system to minimise the potential for future contamination.

In 2018-2019, Rosneft invested over RUB 35 bln in environmental protection and remediation activities in the Khanty-Mansi Autonomous District. Annually, in licence areas of the Khanty-Mansi Autonomous District, it is estimated that around 400-500 ha of disturbed lands are restored. A number of Company’s operations in the district, such as the Nizhnevartovsk Oil and Gas Producing Company and Varyeganneftegaz, have remediated 100% of land which was historically contaminated by third parties.

In 2019, the Company remediated over 800 ha of land in its licence areas in the Khanty-Mansi Autonomous District. According to decisions of Yugra Prinodnadzor, 763.6 ha of land was certified as excluded from the list of contaminated lands. An effective method of carrying out work in the Khanty-Mansi Autonomous District is winter reclamation. Given the high water levels and boggy areas of the region, the winter reclamation method is more practical for cleaning these areas, which cannot be accessed in the warmer seasons. Using the winter restoration method allows the increase in volumes of soil that can be accessed and remediated every year. This process involves an integrated approach, using amphibious excavators, largecapacity all-terrain vehicles, floating swamp buggies, snowmobiles, and mini-all-terrain vehicles.

Waste Management

One of Rosneft’s activities aimed at minimising its environmental footprint is waste management. Every year, oil sludge and drill cuttings are disposed, decontaminated, recycled and safely buried. These practices are regulated by the Company’s Waste Management Standard.

Rosneft pays close attention to waste management by both Group Subsidiaries and third-party supervisors. The Company builds new and reconstructs existing industrial waste landfills, furnishes facilities with modern oil sludge treatment equipment.

Waste management, kt

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste at the beginning of the year as adjusted</td>
<td>14,922</td>
<td>14,376</td>
<td>15,662</td>
</tr>
<tr>
<td>Waste generated and accepted (from third parties) during the year</td>
<td>8,769</td>
<td>7,167</td>
<td>6,097</td>
</tr>
<tr>
<td>Waste used during the year</td>
<td>4,355</td>
<td>4,339</td>
<td>3,612</td>
</tr>
<tr>
<td>Waste neutralised and recycled</td>
<td>533</td>
<td>504</td>
<td>445</td>
</tr>
<tr>
<td>Waste buried</td>
<td>699</td>
<td>451</td>
<td>420</td>
</tr>
<tr>
<td>Waste transferred in ownership to third parties</td>
<td>3,639</td>
<td>1,372</td>
<td>592</td>
</tr>
<tr>
<td>Waste at the end of the year</td>
<td>14,064</td>
<td>13,936</td>
<td>16,670</td>
</tr>
</tbody>
</table>

GRI 306–2: Minimisation of newly generated waste and the continuous reduction of accumulated waste are key principles of waste management. The increase in accumulated waste in 2019, however, was due to a reduction in waste handling caused by extended procurement procedures which are being improved.

In 2019, the Group Subsidiaries implemented the following improvements as part of the waste management process:

- Acquisition of a mobile oil sludge disposal unit at Bashneft-Ufaneftekhim branch of Bashneft;
- Recycling of oil-containing wastes of the Kubyshev Refinery and construction of a spent sulphuric acid recovery unit continues to progress. Once commissioned this unit will stop spent sulphuric acid from being transferred to third parties for treatment;
- Construction of concrete paved and fenced platforms on all production sites of RN-Lubricants and a platform for the recycling of oil-contaminated soils delivered from Samaraneftegaz;
- Acquisition of facilities for the decontamination of production and consumption wastes of RN-Severnaja Neft.

In pursuance of the Green Office Principles, the Group Subsidiaries arranged for the separate accumulation and storage of waste in designated areas for subsequent disposal. In particular, the Sytin and Achinsk refineries, RN-Morskoi Terminal Tuapse, Bashneft-Rostov, and others have this process in place for plastic waste; the Achinsk and Novokubansk refinery, RN-Volgograd, RN-Morskoi Terminal Tuapse, Tomsknefteprodukt VNK, RN-Rostovnefteprodukt, Saratovnefteprodukt, RN-GRP, VNPHnefte, and others use the method to collect and recycle paper waste. The Company also has a process for the decontamination and disposal of hazardous waste (batteries, ink cartridges, etc.) generated by its offices.
Managing the Company's Biodiversity Conservation Efforts

The Company takes all possible measures to preserve ecosystems and biodiversity across its operating areas and has worked together with scientific and environmental organisations to develop the most effective biodiversity conservation programmes. Rosneft strictly complies with the environmental legislation of the Russian Federation and implements biodiversity conservation projects subject to expert guidance and approvals from authorised bodies, including state ecological experts, and the public. The Company is also guided by international recommendations and standards that govern production and economic activities. All new projects of the Company are assessed for potential environmental impacts, with action plans being developed to minimise such impacts.

These programmes are aimed at protecting certain species of animals and birds with a focus nationally and internationally protected, as well as replenishing the biological resources of ecosystems. These programmes are implemented in the licence areas of Rosneft in the Arctic zone of the Russian Federation, with the main focus to ensure the safe development of the Arctic and biodiversity conservation. The Company engaged specialised Institutes and scientific organisations to render environmental support for exploration, R&D and methodological work, environmental monitoring of indicator species of Arctic ecosystems and their habitats. Over the five years, more than RUB 870 mln were allocated to implement this work.

Biodiversity Conservation in the Arctic Region

The Arctic ecosystems are known to be highly sensitive and vulnerable, and the Company focuses on activities aimed at preserving biological diversity in this region. In the period from 2015 to 2019, the Company implemented a marine ecosystem biodiversity conservation Programme in the licence areas of Rosneft in the Arctic zone of the Russian Federation, with the main focus to ensure the safe development of the Arctic and biodiversity conservation. The Company engaged specialised Institutes and scientific organisations to render environmental support for exploration, R&D and methodological work, environmental monitoring of indicator species of Arctic ecosystems and their habitats. Over the five years, more than RUB 870 mln were allocated to implement this work.

To build on the Programme of marine ecosystem biodiversity conservation in the licence areas of Rosneft in the Arctic zone of the Russian Federation, the Company plans to implement a large-scale target innovative project to assess stability of Arctic ecosystems based on studies to understand the health of key indicator species populations between 2020–2023. The research will be carried out under the Agreement between the Company and the Russian Ministry of Natural Resources and Environment as part of the national Environment project.

The project is focused on assessing the current condition, size, and dynamics of populations of indicator species such as wild reindeer and species from the Red Data Book of Russia – white gull, Atlantic walrus and polar bear. These provide an indication of the health and stability of the Arctic’s marine and terrestrial ecosystems. In the period from 2015 to 2019, the Company allocated more than RUB 870 mln to implement the Programme of marine ecosystem biodiversity conservation in the licence areas of Rosneft in the Arctic zone of the Russian Federation.
Conduct further field research

For its part, the Russian Ministry of Natural Resources and Environment will provide scientific, methodological and data analytical support for this Programme. The Company will use the project deliverables for safe operations in the Company’s licence areas and for assessing the environmental impact of planned operations, as well as to develop monitoring methodologies for these species. The data obtained from such expeditions are used to prepare environmental atlases of Russian seas published by the Company since 2016. The atlases contain extensive information on oceanography and biodiversity in the regions. They are unique regional reference books for Russia which highly appreciated by the scientific and expert community. The Company has published the following atlases:

- Kara Sea. Environmental Atlas in 2016,
- Laptev Sea. Environmental Atlas in 2017,
- Marine Mammals in Russia’s Arctic and Far East in 2017,

The Company plans to allocate approximately 295 RUB mln to this Programme.

Since 2012, the Company regularly conducts comprehensive research expeditions to study the health of marine Arctic ecosystems. Particular attention is paid to rare and protected species, including those listed in the Red Data Book of the Russian Federation, regional Red Books, and the Red List of the International Union for Conservation of Nature and Natural Resources.

The Conference on Environmental Safety of Offshore Operations

In September 2019, with the support of RN-Exploration - a subsidiary of Rosneft, a scientific and practical Conference titled ‘Conference on Environmental Safety of Offshore Operations’ was held in Astrakhan. The event was attended by over 50 representatives of the scientific and business community.

The Conference addressed the issues of ensuring safe work in Southern seas. In particular, topics of marine seismic surveys were discussed; meeting HSE requirements; elimination of oil spills; environmental studies, etc.

Participants of the conference shared experiences, discussed priorities, developed solutions and approaches to ensure the safe development of the Russian Sea shelf. At the end of the event, the Conference participants and city residents released sturgeon fingerlings in the river of Volga to contribute to maintaining the sturgeon population in the Caspian Sea.

Research and Monitoring of Indicator Species of Ecosystem Health

Polar Bear

During field expeditions and ship voyages, polar bear sightings are recorded and biological samples collected to contribute to scientific studies. Bears are tagged with satellite transmitters and identification numbers for tracking.

In 2019, two expeditions were arranged in the licence areas of the Company on the Arctic shelf. The Russian Academy of Sciences (RAS) evaluated the habitats and conditions of polar bears in three licence areas.

- The Central Siberian Reserve also conducted studies on the size and distribution of polar bear populations, their habitats and food sources within and around the Company’s licence areas. The research is also focused on the seasonal distribution of polar bears on islands during an ice-free period, and also on the population of bears in the Yamalo-Nenets Autonomous Okrug.

- For details on the environmental atlases published in 2016, see the section Research and Monitoring of Indicator Species of Ecosystem Health.

Evenki Reindeer

Monitoring the state of the Taimyr-Evenki reindeer population as the main biological resource of the Arctic territory is extremely important for science and the local indigenous population. In 2019, specialists of the Siberian Federal University recorded new data on the condition of the Taimyr-Evenki wild reindeer population. The main objective of the expedition was to compare data obtained from satellites with ground-based observations and previous population numbers.

The scientists used modern satellite technologies to show that the increase in migration distances together with the significant shift of the start and end dates of seasonal animal migrations have had a significant effect on the population size of this species.

Laptev Walrus

In 2019, the research on the Laptev walrus was carried out in the Pechora Sea together with specialists from the Nenetsky State Nature Reserve. The daily activities of walruses were monitored by installing 13 autonomous photo recorders. Species composition and population abundance were assessed visually both in the rookery and in the waters around the island.

Black Sea Dolphin

In 2019, scientific research of mammals of the Black Sea continued with scientists from the Institute of Oceanology of the Russian Academy of Sciences conducting studies on more than 2 thousand dolphins within the territorial waters from Sochi to Anapa.

They used detailed digital photography to collect extensive scientific data and photos across more than 1000 km of the marine route and also compiled photo and acoustic catalogues of the Black Sea cetaceans of this region. In addition, coastal studies were also conducted and samples taken for further laboratory studies.

Data collected from these studies indicates that increasing anthropogenic impacts have made the Black Sea dolphins very vulnerable. Scientists are preparing recommendations on measures to preserve these unique animals, as some of them are listed in the Red Data Book of Russia.
Every year, Rosneft takes measures to both conserve and support the increase in natural populations of aquatic species.

In 2019, in support of this objective, 29 Group Subsidiaries released more than 37 mln fingerlings of peld, sturgeon and other fish into the waters of the regions where the Company operates. The largest peld fingerling releases were held at Kondaneftegaz (5 mln), RN-Purneftegaz (8.2 mln), Soroskifsneftegaz (2.5 mln), and RN-Yuganskneftegaz (2.6 mln). Around 2 mln sturgeon fingerlings were released at RN-Yuganskneftegaz, while around 2.7 mln whitefish fingerlings were released at Sibneftegaz.

Environmental Atlases of Russian Seas

Together with the Foundation for Support of Scientific and Project Activities of Students, Graduate Students and Young Scientists “National Intellectual Development”, the Company publishes environmental atlases of the Russian seas.

In 2019, the Environmental Atlas of the Black Sea and the Sea of Azov was published. This is the fourth volume in a series, which was nominated for the Crystal Compass Prize, established by the Russian Geographical Society. The Atlas provides original data on the condition of the environment, which were obtained in the course of many years of research on the marine ecological state in the licence areas of Rosneft.

The atlas titled Russian Arctic. Space, Time, Resources includes 15 thematic sections and is a collection of scientific data on physical geography, ecology, research history and economic potential of the Arctic zone of the Russian Federation.

In 2019, 226 consultations were held with representatives of the local population with assistance from regional and municipal governments. The events were organised in 21 regions where the Company operates, including the Yamal-Nenets and Khanty-Mansi autonomous districts, the Republic of Bashkortostan, Buryatia, Tatarstan, Sakha (Yakutia) and the Chechens Republic, Krasnodar, Krasnoyarsk, Primorye and Khabarovsk Territories, as well as in the Arkhangelsk, Astrakhan, Murmansk, Samara, Saratov, Sakhalin, Tomsk and Tyumen regions.

In 2019, 13 meetings with stakeholders were held regarding work scheduled in licence areas situated in the Barents, Pechora, and Kara seas, and the Sea of Okhotsk. The following issues were the most important for public stakeholders:

- Compensation for damage to aquatic biological resources (raised at three meetings);
- Experience and practice of the Company in implementing similar projects (raised at three meetings);
- The impact of work on soil cover and fish resources (raised at four meetings).

Discussions were held in the following regions: the Sakhalin, Astrakhan, Arkhangelsk, and Murmansk regions, the Yamal-Nenets Autonomous District, and the Krasnoyarsk Territory. The documents from these meetings were submitted to state ecological experts where three had a positive outcome. The projects also received the support of the public.

Public Consultations

Conducting Public Discussions on the Results of Environmental Impact Assessment of Planned Activities

In accordance with Russian legislation, Rosneft ensures that stakeholders actively participate in discussions about the Company’s new developmental projects and plans for constructing new operational facilities to provide input and feedback. These discussions take place at the design stage of the project and contribute to the environmental impact assessments for these activities.

Environmental initiatives have long been an integral part of our corporate culture. The Company places emphasis on the safety of environment, environmental compliance, and encouraging responsible approach to nature. The Volga is a symbol of Russia, and we are committed to protecting and preserving its biodiversity. In 2019, Samaraneftegaz released over 80 thousand fry of sterlet, hypophthalmichthys, and common carp. Similar activities are also scheduled for 2020.

Sergey Anzhigur

CEO, Samaraneftegaz

*Environmental initiatives are also included in the Atlas of the Black Sea and the Sea of Azov.*

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Improving Environmental Awareness

Rosneft strongly supports the rational use of natural resources and environmental conservation and continuously works to build the environmental awareness of its employees. As a result a number of Company environmental initiatives are implemented, including environmental education programmes and involvement of employees, contractors and local people in environmental activities.

Group Subsidiaries initiate and participate in regional projects to improve environmental literacy, not only among employees of the Company and contractors, but also among young people and children. An example of such a programme was the School of the Ecological Leader, a regional project conducted by the Achinsk Refinery. This was the first stage of a long-term programme to improve the environmental awareness of the Achinsk community by developing a natural resource conservation mindset and deepening research skills among schoolchildren who were also involved in environmental lessons and discussions on public environmental initiatives.

Rosneft conducts various events to improve the level of environmental awareness among employees of the Company and contractors, as well as among young people. The Ryazan Refinery initiated an environmental lesson for pupils of school No. 47 in the village of Turlatovo. The event was timed to coincide with the Earth Day, and young ecologists, together with employees of the Ryazan Refinery, planted spruce seedlings.

Rosneft’s Polyus subsidiary significantly contributed to the implementation of environmental protection measures on the territory of the Menets Autonomous District and also held extensive educational programmes on environmental protection. The company actively participated in the Russian environmental campaigns “Clean Shores to Our Rivers and Lakes!” and “Forest, Live!” which was highly appreciated by the Governor of the Menets Autonomous District, who thanked the Company formally for its efforts in conducting these events.

Green Office

The Group Subsidiaries are actively implementing the principles of the Green Office, which are aimed at the sustainable consumption of resources; reducing heat and electricity usage; improving the quality of working conditions, and environmental enhancement. Subbotniki (Saturday clean-ups) are held to improve the ambiance of the territory, and annual competitions are held for landscaping industrial sites at the Company’s operating facilities.

Reforestation Efforts

Rosneft highlights its commitment to achieving the UN Sustainable Development Goals by implementing a series of measures including those aimed at preserving and restoring forests. In 2019, the Group Subsidiaries planted about 1 mn seedlings. In total, over 60 Subsidiaries planted trees in the regions where the Company operates.

Bashneft-Polyus contributed significantly to the implementation of environmental protection measures on the territory of the Menets Autonomous District and also held extensive educational programmes on environmental protection. The company actively participated in the Russian environmental campaigns “Clean Shores to Our Rivers and Lakes!” and “Forest, Live!” which was highly appreciated by the Governor of the Menets Autonomous District, who thanked the Company formally for its efforts in conducting these events.

About 1 mn trees were planted by Group Subsidiaries in 2019 as part of forest conservation initiatives.

RN Yuganskneftegaz is rolling out the Keeper of the Cedar Forests of the Khanty-Mansi Autonomous Area – Yugra, a target programme where more than 475 thousand seedlings of Siberian pine (cedar) were planted in 2019. For these purposes, the Company allocated more than RUB 70 mln.

Tomskneft planted approximately 28 thousand seedlings in Strochnev in honour of the Russian Environmental Protection Day. Siberian pine seedlings were also planted in the territory of the Ustilinsky natural boundary of the Nizhnevartovsk forestry as part of activities to restore cedar plantations.

Annually, Group Subsidiaries join the Russian Forest Planting Day. As part of this activity, employees of RN-Uvatneftegaz and the Tyumen Oil Research Centre took part in the programme for the restoration of the Uspenskoye forestry which was ravaged by fire in 2015. As part of the campaign, more than 75 thousand seedlings were planted.

Employees of the Kotkovo refueling facility contributed to the preparation of the Universiade-2023 in the Sverdlovsk region, by planting large seedlings of pine and spruce in the forestry area in the vicinity of the Novosverdlovsk CHP. Employees of Bratskogaz took part in the planting of Siberian pine on the territory, which was destroyed in a recent fire in the Bratsk District of the Irkutsk Region.

Acknowledgement of the Group Subsidiaries’ Achievements

Green Spring-2019 nationwide clean-up campaign

In 2019, Rosneft employees took part in Green Spring-2019 nationwide clean-up campaign. Over 15 thousand employees from more than 80 Group Subsidiaries took part in these activities. Company employees planted trees, cleaned up garbage, and improved urban areas and production facilities. In total, more than 950 ha were cleaned up, which is equivalent to 1,870 football pitches; nearly 1 thousand tonnes of garbage was removed, and about 5 thousand trees were planted.

For participation of employees in the event, Rosneft was awarded with a commemorative badge For the Initiative and Significant Contribution to the Environmental Protection.

Group Subsidiaries actively contribute to environmental protection in the regions of their operational footprint and initiate their own actions to improve environmental well-being and awareness, while also supporting initiatives of regional and local authorities.

In 2019, Samotlorneftegaz, Samaraneftegaz, Tomskneft, Achinsk Refinery, Angarsk Petrochemical Company, RN-Komsomolsk Refinery, and Novokuibyshevsk Refinery took an active part in the competition for environmental activities and received awards and certificates as winners of the 15th jubilee Russian contest Leader of Environmental Activities in Russia 2019.

The School of the Ecological Leader, a project conducted by the Achinsk Refinery, became the first stage of a long-term programme to improve the environmental awareness of the Achinsk community. For details, see the Improving Environmental Awareness section.

Samotlorneftegaz took part in removing oil contamination from the bottom of water bodies using the new Aeroditch contactless flotation technology as part of the International Project Ecological Culture, Peace and Concord, as well as in the landscaping of Nizhnevartovsk. The Company was awarded certificates and prizes for both projects.
The goal of the Company is to ensure a safe working environment for all employees and contractors, delivered through an Integrated Health, Safety and Environmental management system which is built on robust operating processes aligned with industry best practices, and with clear accountabilities and priorities.

Zeljko Runje
First Vice President, Oil & Gas and Offshore Business Development, Rosneft

For details on safety culture, see p. 98

OCCUPATIONAL HEALTH AND SAFETY
Industrial and Labour Safety Management

Strategic guidelines

As a leader of Russia’s oil industry and one of the largest global energy companies, Rosneft recognises the nature and scale of its business influence and its responsibility to provide a safe working environment for its employees, partners and contractors and to maintain the smallest possible environmental footprint across all spheres of business activity.

The Company’s ambition of incident-free operations is driven by implementing the highest process safety, personal safety and environmental management standards with a strategic HSE objective, indicators and priority development areas set out in Rosneft–2022 Strategy.

HSE priority areas:
- Leadership and Safety Culture
- Competency and Capability Development
- Safety Management System
- Internal Controls
- Risk and Integrity Management
- Reporting and Performance Analysis

Rosneft’s HSE Integrated Management System (IMS) was developed to deliver the goals, commitments and intent of the Company’s HSE Policy through the implementation of industry best practices and standards.

In 2019, the Company’s HSE IMS was once again certified to the requirements of the International OHSAS 18001:2007 standard “Occupational Health and Safety Management Systems – Requirements”. The requirements of the HSE IMS apply to all Company subsidiaries as well as to all contractor staff who provide services at corporate production facilities. Staff are trained in knowledge of and compliance with the standard.

In 2019, the number of certified Group Subsidiaries increased from 57 to 63.

The certification of Group Subsidiaries to the requirements of the OHSAS Standard 18001:2007 is prioritised on the basis of the type of operations, including hazard class of the production facilities, as well as the requirements of investors, partners, clients and other stakeholders.

Rosneft and 63 Group Subsidiaries are certified to OHSAS 18001:2007 “Occupational Health and Safety Management Systems – Requirements”.

The Company has developed a multi-pronged approach to safety management, placing major emphasis on strengthening industrial or process safety barriers, developing safety management programmes consistent with higher risk activities and increasing staff competence and capability on safe practices and controls. Over RUB 55 bln were allocated to these activities in 2019.

In 2019, the Company invested ~55 RUB bln in its process and personal safety programme development.

Prior to April 2020, Strategic Planning Committee of Rosneft’s Board of Directors.

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Health, Safety and Environment Integrated Management System

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Managing Health, Safety and Environmental Risks

The Company is implementing procedures and regulations on HSE risk management with specific focus on:
- Risk identification;
- Risk assessment;
- Planning and risk management actions; and
- Monitoring and analysis

Work has also continued to implement risk management best practices on managing process, integrity and transportation risks as well as strengthening risk barriers.

The outcomes of this work are inputs for prioritising and planning for risk mitigation efforts across operating assets including budgets. In 2019, this process was implemented across 72 Group Subsidiaries.

Industrial safety control system

As part of HSE Control Department a separate unit was created to implement consistent and independent HSE control procedures and methodologies. This unit carries out random audits to assess the extent of successful implementation of HSE controls as well as the efficiency of HSE management systems at Group Subsidiaries and also develops corrective actions for achieving systemic HSE improvements.

In process control Commissions made 83 scheduled inspections of Group Subsidiaries in 2019 with inspection reports provided to the leadership of Group Subsidiaries. These reports highlight any identified inconsistencies with HSE requirements, actions to mitigate operational and environmental risks and recommendations for improving the HSE Management System.

People safety

Safety culture

As one of the foundation blocks of improving and sustaining HSE performance towards the strategic goals, strong focus is placed on strengthening the Company’s safety culture based on the commitments and principles outlined in the HSE Policy.

The priority of the Company is to take proactive actions based on the belief that all accidents can be prevented.

The Golden Safety Rules have been one of the most effective means to communicate this personal and collective accountability across the Company since they are simple and user-friendly requirements for mitigating risks associated with performing the most hazardous activities. These Rules have been communicated to all employees and training programmes are ongoing, with over 83 thousand employees trained in 2019.

Each employee is accountable for:
- Knowing and applying the Rules;
- Suspending operations where these Rules are not being observed;
- Immediately reporting hazardous situations.

Since sector contractors carry out work for oil & gas companies across Russia and their workforce is relatively constant, the Company believes it will be beneficial to launch an initiative jointly with BP and other companies use STOP cards (may have different names in other subsidiaries). A STOP card is a standardised form used by all employees for recording their safety observations including equipment condition, PPE use and compliance with Golden Rules of safety. If an employee is able to stop or eliminate a hazardous situation, this is recorded on this form. Employees use this STOP system to ensure that the situation is resolved and corrective actions are implemented.

Overseas subsidiaries of the Company successfully apply best international practices to support safety interventions in their operations, for example, RN-BM, RN-HCM, RN-Brazil and other companies use STOP cards (may have different names in other subsidiaries). A STOP card is a standardised form used by all employees for recording their safety observations including equipment condition, PPE use and compliance with Golden Rules of safety. If an employee is able to stop or eliminate a hazardous situation, this is recorded on this form. Employees use this STOP system to ensure that the situation is resolved and corrective actions are implemented.

This practice also helps to identify safe practices contingencies and highlight minor violations before they escalate.

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Leadership and safety culture

Rosneft places special focus on improving the direct communication between leadership and employees to create a safe working environment. Senior executives of the Company and Group Subsidiary leaders are the driving force in promoting a strong safety culture by personally demonstrating appropriate safe behavior.

In 2019, the Company’s senior executives took on personal safety leadership commitments that were earlier taken on by General Directors of Group Subsidiaries. Commitments are based on the following principles:

- Belief - holding “safety minute” prior to starting operational meetings, participation in employee behavioral safety audits of Group Subsidiaries and contractors;
- Authority - personal participation in various commissions, including in-process control commissions, leading by example in observing safety rules;
- Action - holding HSE meetings with teams of employees or contractors, employee polls regarding HSE actions;
- Support - motivating and rewarding employees who prevented incidents, suspended unsafe operations, or achieved excellence in HSE performance.

Being a major employer, the Company has partnered with the state, as well as public and commercial organisations, to develop joint solutions for creating a safe working environment. Representatives of the Company participate in the Petroleum Complex Facility Safety Section of the Research and Development Board of the Federal Service for Environmental, Technological and Nuclear Supervision, and in the Industrial Safety Committee of the Russian Union of Industrialists and Entrepreneurs.

In cooperation with other stakeholders, representatives of the Company review draft H&S legislative acts for Environmental, Technological and Nuclear Supervision, and in the Industrial Safety Committee of the Russian Union of Industrialists and Entrepreneurs.

Valentin Mamayev  
Director General, Samotlorneftegas

>3,200 employees  
attended the Company’s “HSE leadership” training programme in 2019.

Contractor interaction

As outlined in the principles of the Company’s HSE Policy, Rosneft’s approach to ensuring safe operations does not differentiate between Company employees and contractor employees. As HSE expectations and requirements are the same for anyone performing operating activities at the Company facilities.

A significant number of contractor and subcontractor employees work at the Rosneft production and refining facilities; contracted entities vary in terms of their headcount and the range of services that they provide. This is the reason why Rosneft made the important decision to include the HSE performance indicators related to contractors and subcontractors in the strategic HSE goals.

Rosneft maintain high-grade requirements to the transparency level of contractors’ reporting. Reporting of all incidents, whether minor or significant, is a mandatory requirement for all contractors.

As part of the process to implement a systematic approach to improve contractor management standards and engage contractors committed to improved HSE performance, a new contractor safety management procedure was approved and implemented in 2019. This procedure included strengthened HSE qualification and selection criteria and audits for specific work activities; the need for mandatory risk assessments; clarification of contractor capability requirements and the conduct of control activities and performance reviews. One important capability provision included in all Rosneft contracts is the requirement for contractors to train all of their employees in the “Golden Safety Rules”.

Initiation of an agreement with a contractor

Qualification of a contractor

Entering into a contract

Actions cover the entire cycle of the customer-contractor interaction

An implementation plan to 2022 was developed for each element. Meetings were also held with contractor company leaders to discuss these requirements and also agree ways to improve contractor site safety leadership and HSE performance. Over 29 thousand contractor audits were carried out in 2019 to verify compliance with state rules and regulations as well as the Company’s HSE requirements.
For details on the Company’s engagement with contractors see the “Contractor Cooperation” section of this Report.

Prior to starting turnaround operations, representatives of Rosneft and Angarsk Polymer Plant held a “Turnaround 2019. Operations management and safe performance” meeting to discuss health and safety issues with over 40 contractor companies who provide services to the Angarsk Cluster. The discussion included topics such as PPE standards, contracts performance, equipment certification and preparation, timely issuance of work permits, unification of preventive maintenance activities on sites.

Vyacheslav Kurenkov
Director of Downstream HSE Department, Rosneft

“The Company’s leadership does not differentiate between contractors and employees on its operational sites. The life, safety and health of every person working at the Company’s facilities, irrespective of the company to which they belong, is the most important priority valued as a priceless resource.”

Health and Safety training

Developing a strong, proactive and mature safety culture requires highly capable and competent employees and contractors. The Company’s investment in HSE training for its employees has been increasing each year, with 725 in-house coaches conducting additional programmes for over 93 thousand employees at its Headquarters and Group Subsidiaries in 2019.

The training principles of the Safety Academy make it possible to efficiently link theory with practice in the operations; apply individual approaches to the learning process and ensure maximum engagement of leaders in the process.

More than 1,100 employees were trained on improved incident investigations techniques linked to an updated “Incident investigation procedure” in place. This will help to improve learning from incidents and reduce repeat accidents.

A number of Group Subsidiaries have been actively introducing a “Safety Academy”, an open platform for training, communicating and sharing knowledge and experience related to Health and Safety. Courses provided through the academy assist participants to develop and exhibit their safety leadership qualities and to build the leadership culture at their sites, with the main objectives for participants to:

- Learn to systemically use the H&S training and control tools
- Prevent non-compliance with labour safety rules and requirements
- Understand and incorporate approaches to risk assessment
- Master the HR management methods related to H&S

For details on the Company’s engagement with contractors see the “Contractor Cooperation” section of this Report.

HSE in-house coaches trained over 93 thousand employees in 2019.
Health and Safety performance results

2019 injury rate

The Company recognises its responsibility for the safety of both its employees and the contractor workforce while conducting work at its operations. The Company’s views any injury as being unacceptable and has set clear strategic goals to reduce injury rates to top quartile industry performance levels.

As a result, each Group Subsidiary works to eliminate operating risks and hazardous conditions at sites, improve the competencies of employees and implement programmes and measures to reduce the risk of injuries. The new contractor management procedure will also be critical to assist in improving HSE performance of existing and new contractors working at Rosneft’s sites each year.

2019 injury rate

The number of high severity incidents among the Company employees has decreased by 23%, resulting from the implementation of strategic Health and Safety programmes, including those focused on safety leadership and strengthening the Company’s safety culture. At the same time, the employees have shown improved awareness in reporting even low severity injuries, appreciating the importance of the steps the Company is taking to analyse and prevent such incidents. Consequently, the Company’s Lost Time Incident Frequency in 2019 was 0.36 (compared to the previous year’s 0.34), primarily due to the increase in reporting of low severity injuries resulting from slips, trips, and minor road accidents.

The Company has targeted preventive measures and programmes to reduce accidents associated with falls from heights and road accidents (Road Safety Concept (BDD) 2022), which are two of the identified high risk areas. These programmes are based on a risk-oriented approach, identifying risk factors for each area and strengthening technical or organisational risk prevention barriers and controls associated with these risks.

In the area of road safety, a number of controls including speed monitors and new requirements were introduced to reduce driving speed by 10 km/h lower than the established speed limit. This was designed for specific high risk road sections during hazardous conditions including darkness, rainfall and reduced visibility.

![Image](image_url)

Accident Rate among Rosneft’s Employees

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of the number of lost-time work-related injuries (including fatalities) of the Company’s employees to one (1) mln man-hours worked (LTIF)</td>
<td>0.36</td>
<td>0.34</td>
<td>0.36*</td>
</tr>
<tr>
<td>Ratio of the total number of the Company’s work-related fatalities to one hundred (100) mln man-hours worked (FAR)</td>
<td>1.87</td>
<td>2.47</td>
<td>1.04*</td>
</tr>
<tr>
<td>Ratio of the number of lost-time work-related injuries (including fatalities) and work-related injuries of the Company’s employees involving medical treatment or first aid to one (1) mln man-hours worked (TRIR)</td>
<td>–</td>
<td>0.96</td>
<td>0.78</td>
</tr>
<tr>
<td>Total number of employees suffering from work-related injuries</td>
<td>211</td>
<td>190</td>
<td>208*</td>
</tr>
<tr>
<td>Including fatalities</td>
<td>11</td>
<td>14</td>
<td>6*</td>
</tr>
<tr>
<td>Ratio of occupational diseases (total number of professional diseases identified to one (1) mln man-hours worked)</td>
<td>0.11</td>
<td>0.04*</td>
<td>0</td>
</tr>
</tbody>
</table>

Accident Rate among contractors

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of the number of lost-time work-related injuries (including fatalities) of the contractors’ employees to one (1) mln man-hours worked (LTIF)</td>
<td>–</td>
<td>–</td>
<td>0.38</td>
</tr>
<tr>
<td>Ratio of the total number of the contractors’ work-related fatalities to one hundred (100) mln man-hours worked (FAR)</td>
<td>–</td>
<td>–</td>
<td>4.1</td>
</tr>
<tr>
<td>Ratio of the number of lost-time work-related injuries (including fatalities) and work-related injuries of the contractors’ employees involving medical treatment or first aid to one (1) mln man-hours worked (TRIR)</td>
<td>–</td>
<td>–</td>
<td>1.1</td>
</tr>
<tr>
<td>Total number of contractors’ employees suffering from work-related injuries</td>
<td>140</td>
<td>135*</td>
<td>148*</td>
</tr>
<tr>
<td>Including fatalities</td>
<td>13</td>
<td>28*</td>
<td>16*</td>
</tr>
</tbody>
</table>

* The figures for 2018–2019 are presented in accordance with the IFRS accounts and the new calculation methodology, which does not include injuries as a result of participation in sports events, unlawful activities of third parties, and road accidents caused by third parties in the total injury rate.

The indicators for 2017 cover a wider range of subsidiaries. The injury rate includes injuries as a result of participation in sports events, unlawful activities of third parties, and road accidents caused by third parties.

LTIF for 2018 and 2019 calculated in accordance with the methodology used by the Company until 2018 would be 0.41 and 0.38, respectively, with a FAR of 3.00 and 1.04 respectively; total number of employees suffering from work-related injuries – 219 and 220 respectively, including 18 and 6 fatalities respectively; ratio of occupational diseases – 0.06 and 0 respectively.

The figures for 2018–2019 are presented in accordance with the IFRS accounts and the new calculation methodology, which does not include injuries as a result of participation in sports events, unlawful activities of third parties, and road accidents caused by third parties in the total injury rate.

The indicators for 2017 cover a wider range of subsidiaries. The injury rate includes injuries as a result of participation in sports events, unlawful activities of third parties, and road accidents caused by third parties.

LTIF for 2018 and 2019 calculated in accordance with the methodology used by the Company until 2018 would be 1.98 and 1.58 respectively; number of contractors’ employees suffering from work-related injuries, including 16 and 16 fatalities respectively.
Industrial and Process Safety

Integrity of equipment

The Company applies internationally recognised standards and industry best practices to maintain the technical integrity of operational facilities and equipment and manage the risks of internal and external factors that could increase equipment failures.

- Equipment integrity assurance, defined operational standards and timely decommissioning of production facilities all significantly increase the level of protection from major process safety accidents and reduce the risk of serious injuries and negative environmental impacts.

- Integrity management programmes are therefore risk-based to focus on the critical "safety barriers".

In 2019, the Company started the first year of accounting and analysis of process safety events and tracking specific PSE-1 and PSE-2 indicators in accordance with ANSI/API RP 754 recommendations and IOGP report No. 456. Following analysis of PSE-1 and PSE-2 results for 9 months 2019, the safety barrier approach and risk assessment were used to develop and implement the 2020 business plan set of activities based on practical recommendations for improvement in safe operations, integrity and reliability of operational facilities.

Additionally, a new Company regulation – "Procedure for the organisation and implementation of work on energy sources isolation" – has been put in place for controlling work on isolating energy sources.

Pipeline Programme implementation

Due to the success of the previous 5-year Pipeline Reliability Programme, which ended in 2019, a new Programme has been approved by the Upstream Business Block to continue this work for the period 2020–2025.

The Objectives of the Pipeline Reliability Programme are to:

- Reduce failures and incidents related to field pipelines;
- Increase in-line pipeline inspections;
- Select, test and incorporate new technologies and materials that provide protection against corrosion and technical failures; and
- Develop and implement tools for operational control and analysis of pipeline condition.

In the Group Subsidiaries of the Oil Refining and Petrochemicals Business Blocks, pipeline integrity programmes delivered a number of improvements in 2019:

- 146 of the most critical pipelines were replaced;
- 496 dead-end sections of technological pipelines were eliminated;
- 4,244 units of elements with reduced material performance were replaced;
- U-bends in 26 furnaces were eliminated.

In 2019, survey and design work was performed for 14 Group Subsidiaries of the Regional Sales block making up the first phase of the special programme for equipping oil tanks with hydrocarbon vapour meters and ventilation systems. The installation of the equipment is scheduled for 2021.

There were no well control events and blowouts during exploration and development drilling over the past 2 years with a continuous reduction in workover and sidetracking incidents as well.

There have been no process safety incidents across over 61,000 units of vessels and devices operating under excess pressure.

No accidents occurred across 7,200 tank units.

The risk of depressurisation (leak) of tube bundles of feedstock heat exchangers of hydrotreatment units has significantly decreased.

Field Pipeline failures and associated oil spills in the Upstream Block

<table>
<thead>
<tr>
<th>Index</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spilled oil and gas condensate volume as a result of pipeline failures, tonnes</td>
<td>663.3</td>
<td>642.3</td>
<td>462.2</td>
</tr>
<tr>
<td>Spilled oil and gas condensate volume as a result of pipeline failures per 1 million tonnes of produced oil and gas condensate</td>
<td>3.00</td>
<td>3.00</td>
<td>2.98</td>
</tr>
</tbody>
</table>

Pipelines in Upstream Block, km

<table>
<thead>
<tr>
<th>Index</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total length of existing production pipelines at the end of the period (excl. inner wellpad pipelines)</td>
<td>82,513</td>
<td>83,155</td>
<td>83,563</td>
</tr>
<tr>
<td>Field pipelines corrosion inhibition</td>
<td>27,319</td>
<td>25,326</td>
<td>25,842</td>
</tr>
<tr>
<td>Pigging of pipelines</td>
<td>13,703</td>
<td>14,305</td>
<td>15,337</td>
</tr>
<tr>
<td>Reconstruction and repair of field pipelines</td>
<td>1,426</td>
<td>1,586</td>
<td>1,607</td>
</tr>
<tr>
<td>Diagnostics and safety expert evaluation of field pipelines (excl. inner wellpad pipelines)</td>
<td>23,998</td>
<td>24,825</td>
<td>26,490</td>
</tr>
</tbody>
</table>

Scanning is carried out in the visible and thermal imaging ranges with live video transmission to the operator’s mobile station for detection of infrastructure failures. Illegal tie-ins are identified by thermal illumination of the image using artificial intelligence technologies.

Use of the advanced analytical platforms makes it possible to quickly map emerging situations, monitor changing dynamics of the situation, guide search teams on actions required, monitor progress and conduct forecast analysis taking into account spatial and temporal factors.

For details on using drone monitoring in Exploration and Production, see p. 189 of the 2019 Annual Report.
Integrity Management System Seminar

HSE risk assessment and integrity are the priority areas of the Rosneft-2022 Strategy implementation.

In June 2019, Rosneft together with BP held a seminar focused on the development of an Integrity management system for production facilities and equipment. The participants improved their understanding of the Integrity Management System implemented at BP as well as the experience and lessons learned during the process. They also presented a vision for organising a similar system at Rosneft.

Experts discussed a number of topics including:

- The key elements of the production management system and their relationship with process safety and integrity management;
- Hazard assessment and production risk management (life cycle, mechanisms, methods and tools of risk assessment and management, risk matrix);
- The structure of regulations, standards and practices of integrity management.

Accidents at the facilities

Implementation of the pipeline integrity and reliability programme is aimed at preventing equipment and pipeline failures.

In 2019, across more than 261,000 equipment units in the Company’s operations, there were 7 accidents which were mainly related to depressurisation of individual elements. These accidents were contained and did not result in production process shutdowns. Each of these accidents was investigated and detailed “lessons learned” were prepared and incorporated into revised safety standards and updated procedures.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of accidents, cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>11</td>
</tr>
<tr>
<td>2018</td>
<td>6</td>
</tr>
<tr>
<td>2019</td>
<td>7</td>
</tr>
</tbody>
</table>

The information is posted in places accessible to employees and communicated at meetings of all units of subsidiaries. In 2019, priority activities and “Lessons learned” included the following areas of work:

- Unscheduled inspections of technological sites;
- Development of design documentation for the technically obsolete equipment replacement to include instruments and control systems that ensure the process shutdown or transfer to a safe mode in the event of a critical deviation from parameters provided by the technological regulations;
- Additional analyses of operating conditions, state of equipment corrosion, tightness, technological parameters measurement;
- Analysis of emergency response plans for descriptions of personnel actions in emergency situations and safe implementation of work.

CORRECTIVE ACTION SYSTEM INCLUDES THE FOLLOWING COMPONENTS:

- “Lessons learned” are developed and communicated to employees
- Investigations with not only direct, but also systemic causes identified
- Interaction with design organisations to update the design documentation and improve equipment performance
- Additional process safety training and certification of employees
- Extraordinary inspections of the equipment condition
Activities of Emergency rescue teams

The Company has a sufficient amount of resources and a high level of preparedness and mobilisation to immediately respond to accidents.

Blowout safety

Drilling activities and operation of wells may pose a number of risks including gas, oil, water inflows, which under certain conditions, can turn into dangerous open gas and oil blowouts. These complications occur in many fields of the country, but their frequency of occurrence depends on the specific technical and technological details of the drilling process and the geological situation of the region.

To address this issue, the Company has developed a blowout safety management system to manage these risks using the approved Company Regulation “Prevention and liquidation of gas, oil, water inflows and open blowouts”. The document defines:

- Staff competencies;
- Work design and planning procedure;
- Internal and external control system;
- Requirements for the gas, oil, and water inflows liquidation activities.

Approximately 7,000 persons who are part of the Company's emergency rescue teams provide operational readiness and response to any incidents. At all Company facilities associated with hazardous operations, Emergency Response Plans and Emergency Oil Spill Response Plans have been developed and approved. The Company's personnel receive the necessary training including emergency drills, to respond to different situations.

Across the Company's facilities, more than 10,000 training sessions and drills were held to respond to localised fires, accidents and other emergency situations.

Fire safety

Rosneft and its Group Subsidiaries take consistent steps to ensure fire safety at production facilities in strict accordance with legislation and the Company's regulations.

The Company continues to implement the 2018–2021 programme “Main areas of fire protection at the Company’s facilities” to modernise and re-equip the technical fleet and reconstruct fire stations to improve the working conditions of staff.

In 2019, the Company facilities were equipped with fire-fighting vehicles and equipment in accordance with the planned performance indicators including the purchase of 46 fire trucks and 497 units of fire-fighting equipment with enhanced technical specifications. These will improve the ability to respond to fires and eliminate them in a shorter time, thereby improving worker protection and reducing company losses.

~400 fire teams provide round-the-clock fire protection at the Company’s facilities

>50,000 inspections of compliance with the fire safety requirements were carried out by fire protection teams and the Group Subsidiaries

Transport safety

Transport safety is one of the main areas of safety management in the Company since employees are driving about two billion kilometers per year. The risk of road accidents is managed through approved Company procedures, defensive driving training, provision of technical safety and speed monitoring equipment in vehicles and close interaction with state authorities.

Specific actions to reduce the number of road traffic accidents at the Group Subsidiaries include:

- The improvement of vehicle models used to provide a higher degree of protection;
- Implementation of a number of targeted preventive programmes such as “Safe road - 2019”, “We are for road traffic safety - 2019”, “Winter road”, “Caution, children”;
- The display of road safety information for pedestrians and drivers at all Group Subsidiaries;
- Regional forums on road traffic safety. These were held in Nefteyugansk, Ufa and Samara with the participation of representatives of the Group Subsidiaries, contractors, road traffic police and the administration of state vehicular control. Presentations reported about current results in transport safety and best practices in this area.

In 2019, specialists of Tyumen Oil Research Center developed and commissioned the "Dome" innovative mobile application for improving drivers' safety.

This application allows dispatchers of the data center at any time to know both the condition of the driver and the vehicle as well as the road traffic situation. It can also transfer data, if necessary, to the technical assistance services, to inform drivers about the location of important stopping areas or to help find necessary solutions to emergency situations. Through the mobile application, the drivers also receive up-to-date maps and alerts about changes in the road traffic situations as it accumulates data on the road traffic situation and the weather conditions. These updates help to reduce downtime and can provide detours which are especially helpful during the winter and flood months and can also prevent drivers from traveling to high risk areas where weather conditions are changing.

The application connects to the on-board systems of more than 2,000 vehicles, which send signals to a single data center. All motor vehicles on the road or working in the fields are displayed on the data center monitors. In the event of a loss of signal from the vehicle, speeding or unauthorised driving on a winter road, an incident is recorded on the system.

"Dome" Innovative Digital Transport Safety System in Uvatenftegaz

In 2019, specialists of Tyumen Oil Research Center developed and commissioned the "Dome" which is an innovative mobile application for improving drivers’ safety.

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Air flights safety

Air transportation of personnel is an important part of the Company’s transportation logistics and to avoid aviation accidents, the Company continuously analyses the causes of industry accidents, reviews lessons learned and develops solutions to prevent such accidents within Rosneft.

Rosneft strictly ensures that Contractor employees have the necessary training and skills in flight safety.

In 2019, Rosneft joined the new Customers Committee of the Russian Helicopter Industry Association. Management of the Association includes airline heads, aircraft division heads – experienced and honored pilots, representatives of major enterprises. The Committee was created to support the work of the flight safety, technical, flight and economic committees.

The following are the key tasks of this new Committee:

▪ Integration of the best global flight safety risk management practices;
▪ Provision of pricing transparency;
▪ Development of common approaches for customers to interact with the helicopter services market;
▪ Creation of uniform requirements for provision of services and technical specifications of helicopters and level of personnel training, as well as infrastructure requirements.

Work in the committee will allow the helicopter service customers to collect and analyse data that is not available in the public space, but necessary for making strategically important decisions while working with the helicopter industry.

Transportation of shift crews to fields of the Uvat group

Rosneft has been consistently implementing a policy to improve the aviation safety across its business in service of its operating facilities. The Company has set higher standards for both aviation equipment and the qualifications and training for aviation personnel. The Company’s aim is to have the most modern domestic aviation equipment equivalent to high global standards, capable of providing the quality of services required at a competitive price.

Every month, about 3,000 shift personnel from RN-Uvatneftegaz and contractors are carried to the fields by helicopters from the cities of Surgut, Tyumen and Tobolsk.

In 2019, new domestic Mi-171A2 class helicopters launched flights for transportation of the shift personnel to the fields of the Uvat group of RN-Uvatneftegaz LLC.

The Mi-171A2 class is equipped with a modern digital flight-navigation system with display indication, an increased power unit with a digital control system, enhanced transmission, as well as an effective tail rotor and a new rotor with all-composite blades of an improved aerodynamic layout. These features allow an increase in helicopter flight speed, expansion of the scope of application and reduction in the cost of flight hours.
The Company has put in place a comprehensive emergency prevention and response system and adheres to the highest corporate safety standards to eliminate even the slightest risk of emergency.

Christoph NEHRING
Vice President of Rosneft for Health, Safety and Environment
Emergency prevention and response activities are part of the corporate risk management system.

A two-tier regulatory framework plays an important role in emergency risk management. At the corporate level, we have introduced company-wide requirements, approaches and objectives to implement, coordinate and improve emergency prevention and response measures. The Group Subsidiaries take all steps to ensure compliance with these requirements.

One of the Company's priorities is to update and align its internal regulations on emergency prevention and the Russian laws and regulations. We also arrange for a timely revision of SOPs, forms and timelines for submitting the required information.

The Company has put in place all the essential regulations to identify and assess potential threats, and develop measures to mitigate and eliminate them.

The Company manages emergency risks using a corporate subsystem made up of the Group Subsidiaries' on-site teams. The subsystem is part of Russia's Single State Disaster Management System.

On the corporate level, the Emergency Response Centre is in charge of coordinating emergency prevention and response activities. The Group Subsidiaries have set up permanent units responsible for protecting employees and the business in case of emergencies. These units operate as part of the corporate emergency management subsystem and respective on-site teams.

The Group Subsidiaries' on-site teams report to emergency prevention and response and fire safety commissions, with duty dispatch services also put in place for the day-to-day management, 24/7 situation monitoring and a timely response to any arising threats. In doing so, they may be assisted by temporary bodies (task forces and teams).

Emergency (incident) response operations are carried out by the on-site teams' constant readiness forces represented by specially equipped in-house and outsourced professional squads.

To provide information support of the corporate emergency management subsystem, the Company operates communication, alarm and automated management systems. We use corporate satellite connection to ensure prompt and reliable communication with the Group Subsidiaries through telephone and video channels. All Group Subsidiaries have set up local and on-site alarm systems.

In 2019, the Company-wide emergency reserves exceeded 2 RUB bln and put aside financial and non-financial reserves for emergency prevention and response. These reserves are channeled to carry out rescue and other response activities, organise and maintain accommodation and food supply for accident victims, provide one-off financial aid and take other urgent measures to ensure stable operations in case of an emergency.

Financial and non-financial reserves for emergency prevention and response, RUB mln

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,891.0</td>
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<td>2,005.5</td>
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Emergency Risk Management

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- The Company has put in place all the essential regulations to identify and assess potential threats, and develop measures to mitigate and eliminate them.
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- The Group Subsidiaries' on-site teams report to emergency prevention and response and fire safety commissions, with duty dispatch services also put in place for the day-to-day management, 24/7 situation monitoring and a timely response to any arising threats. In doing so, they may be assisted by temporary bodies (task forces and teams).
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<td>1,998.7</td>
<td>2,005.5</td>
</tr>
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</table>
Emergency Prevention

In 2019, the Company put into effect an action plan to make its employees, equipment and assets and the environment better protected in case of emergencies. The steps include:
- updating the Company’s internal regulations on emergency prevention, management, and prompt response in case of a potential or actual emergency;
- mitigating the potential risks of fatalities and negative effects of emergencies, fire prevention, introducing advanced fire-fighting and rescue techniques;
- improving staff knowledge and skills and ensuring emergency preparedness of the relevant emergency response bodies and on-site teams of the Group Subsidiaries;
- effective use of information resources for emergency prevention and response;
- set-up, training and certification of in-house and outstaffed professional rescue teams in the Group Subsidiaries;
- establishing and ensuring the operability of local and on-site alarm systems to inform Group Subsidiaries employees about potential and actual emergencies;
- strengthening communications between the Group Subsidiaries’ on-site emergency teams and the management bodies and units of the functional and regional emergency subsystems.

As part of the Company’s social guarantee, all employees of the Group Subsidiaries have compulsory and voluntary accident insurance.

The reporting year saw the creation and launch of the Emergency Response Centre’s risk management information system.

Four Group Subsidiaries are running a pilot project to integrate their dispatchers into a shared crisis response service.

Prevention of Man-Made Disasters

In 2019, the Company’s sites took the following key steps to minimise the risk of accidents and prevent their escalation into man-made disasters:
- assessing potential threats of man-made accidents to take preventive actions and mitigate the impact on Company’s assets;
- ongoing monitoring of compliance with process flow requirements;
- employee training in emergency prevention and response;
- keeping emergency containment and fire-fighting equipment in constant readiness;
- upgrade of technical infrastructure, engineering networks and equipment, routine preventive repairs of the core equipment;
- furnishing production units with automatic systems to monitor the accidental release of hydrogen sulphide, hydrogen chloride and organic substances.

Prevention of Natural Disasters

Every year, the Group Subsidiaries take a number of preventive and mitigating steps to ensure accident-free operation of assets, preparedness and prompt response of relevant bodies to natural disasters.

During the 2019 spring flood season, Rosneft and the Group Subsidiaries planned preventive measures, prepared river breakup outlooks by federal district, developed and distributed the guidelines to mitigate the effects of summer and autumn freshets.

The Group Subsidiaries created flood response bodies, implemented preventive action plans to get ready for the accident-free operation in spring freshets, updated the list of facilities most exposed to floods, and established communications with regional and municipal commissions for emergency prevention, response and fire safety. They also checked the preparedness of the relevant bodies and on-site teams, reviewed financial and non-financial reserves and arranged for a proactive build-up of resources at locations with high flood risks.

In March 2019, the Company organised tabletop exercises and training for the emergency management bodies and on-site teams of the Group Subsidiaries to prevent accidents and protect employees, production sites and other facilities against spring freshets.

Thanks to the preventive measures, the Group Subsidiaries had no accidents during the flood season.

In 2019, the Group Subsidiaries developed and implemented measures to ensure fire safety and timely prevention of wildfires near oilfields and production sites. They also teamed up with Russia’s local forest protection squads to monitor fire risks in the Group’s regions of operation. The Group Subsidiaries’ facilities were kept safe from wildfires in 2019.
Emergency Response

The Group Subsidiaries took the following steps to ensure a prompt and effective response to potential emergencies:
- updated action plans on emergency prevention and response based on the study of natural and man-made risks;
- improved the alarm systems designed to notify the Group Subsidiaries’ response teams and constant readiness forces in case of an emergency;
- provided for the set-up, certification and operation of 71 emergency rescue squads;
- signed agreements with external professional response teams to protect facilities that have no dedicated in-house services.

Both in-house squads and emergency response contractors have all the necessary vehicles, equipment and tools in place to ensure an effective response to any emergency as required by federal laws.

In 2019, the Group Subsidiaries responded fast to the warnings from municipal dispatch services by transitioning its specialist forces and teams into high alert mode, which helped prevent on-site emergencies.

Employee Training in Emergency Response

The Company focuses on staff training in emergency response and ensuring the preparedness of the Group Subsidiaries’ dedicated bodies and teams. Nearly 300 thousand employees took the training in 2019.

To assess the emergency preparedness, the Company held 79 comprehensive, 264 tabletop and 205 tactical training exercises, along with 42,605 on-site training sessions.

June 2019 saw the Company hold an instructional meeting on civil defence, emergency prevention and response measures in Samara. The event was attended by ca. 200 heads of civil defence and emergency units from the Group Subsidiaries as well as heads of the Company’s sites located in the Samara Region.

The participants reviewed the reporting year’s emergency prevention and response activities and defined short-term objectives.

To improve their professional knowledge, they also took part in a training session on the best practices in maintaining the facilities ready for use and theoretical classes on the response to various emergencies.

Every year, the Company holds competitions to recognize and award the achievements of its subsidiaries in civil defence, emergency prevention and response.

In 2019, the Russian Ministry for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters conducted 25 audits of the Group Subsidiaries’ emergency prevention and response activities, with gaps identified only with respect of two sites (no penalties imposed).

155 facilities took part in the competition.
“Developing new technologies and implementing digital innovations is key to boosting the efficiency of all business processes, from production and refining to sales to the end consumer. As part of its development strategy, Rosneft is undergoing a full-fledged transformation aimed at increasing its competitiveness in the oil market.”

Andrey Shishkin
Vice President for Informatisation, Innovation and Localisation, Chairman of the Energy Efficiency Commission
Innovation Management

Strategic Objectives in Innovative Development

Rosneft carries out its innovative activities in accordance with the Innovation Development Programme approved by its Board of Directors. The Programme aims to achieve the Company’s strategic goals drawing on its priorities, such as efficiency, sustainable growth, transparency, social responsibility, and innovations.

The Company uses the Programme to build a portfolio of innovative projects, with every new technology developed under a separately financed target innovative project (TIP). TIP is the main tool used by the Company to deliver on its innovation strategy. Key projects are selected from the TIP portfolio for approval by the Company’s Scientific and Technical Council.

In 2018, Rosneft set up a Technological Council to manage its innovative initiatives. The Council reviews promising technologies and oversees their effective implementation to help the Company deliver on its innovative development strategy and ensure technological growth in key areas.

The Council comprises heads of Rosneft’s shareholder companies and technology partners, including members of the Board of Directors, researchers, industry experts, and top managers of the Company.

Implementation of Advanced Technologies

The reporting year saw 22 Group Subsidiaries test 152 technologies. Over the year, the Company conducted a total of 511 tests as part of pilot projects, which yielded 299 kt in incremental oil production. We reviewed the results, assessed the economic viability of proposed solutions, and prepared plans for their roll-out.

In 2019, the Company implemented and rolled out 116 new technologies which proved their viability following prior tests.

Testing and adoption of innovations in 2019

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of technologies</th>
<th>Total incremental oil production, kt</th>
<th>Total economic effect, RUB mln</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology testing</td>
<td>297</td>
<td>130</td>
<td>463</td>
</tr>
<tr>
<td>Technology roll-out</td>
<td>78</td>
<td>283</td>
<td>659</td>
</tr>
</tbody>
</table>

As part of implementing Target Innovative Projects, the Company signed over 50 licence and sublicence agreements for the transfer of its software and solutions (RN-KIN, RN-GRID SS) worth over RUB 90 mln, among other things to provide training to students at the industry-related departments of the leading Russian universities.

In 2019, the combined proven economic effect from the innovative technologies implemented over the last three years exceeded RUB 36 bln.

Rosneft spent RUB 3.2 bln to deploy and roll out 6.7 thousand solutions.

OBJECTIVES OF THE INNOVATION DEVELOPMENT PROGRAMME

- Development and deployment of new technologies
- Development, production, and launch of new world-class innovative products
- Support to the Company’s modernisation and technological advancement through high-impact improvements in key performance indicators for business processes
- Enhancement of the Company’s shareholder value and competitive edge in the global market

<table>
<thead>
<tr>
<th>30.05 RUB bln.</th>
<th>spent on R&amp;D in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>152 new technologies tested</td>
<td></td>
</tr>
<tr>
<td>116 technologies implemented and rolled out in 2019</td>
<td></td>
</tr>
<tr>
<td>&gt;36 RUB bln combined proven economic effect from the innovative projects implemented over the last three years</td>
<td></td>
</tr>
</tbody>
</table>

For details on software suites, see the Long-term Leadership in Mathematical Modelling section of this Report.

RN DIGITAL—Rosneft’s reservoir engineering software.

Software suite.
Key Achievements in Innovative Development

Efficient Implementation
The Company implements innovative projects in various fields, including oil and gas production, refining and petrochemicals.

- **63 patents** received in 2019
- **61 applications** for patents and software certificates submitted
- **735 patents** recorded on the Company’s balance sheet in 2019

The Company tested the technology for using horizontal production and injection wells with multi-stage hydraulic fracturing to develop low-permeability reservoirs at a pilot area of the Prirazlomnoye field. The solution proved to be effective. RN-Yuganskneftegaz continued to deploy the technology at the Priobskoye field, with over 80 wells drilled in total.

Rosneft partnered with the National Intellectual Development Foundation to test the integration technology for multi-scale studies of the Jurassic high-carbon formation. The Company developed technologies for core analysis on hard-to-recover reserves. Once implemented, the technology is expected to deliver an economic effect of over RUB 10 bln for gas and gas condensate deposits in the Yamalo-Nenets Autonomous Area and the Khanty-Mansi Autonomous Area – Yugra.

Rosneft developed an RN-KIM version that allows for a quick modelling of oil and gas condensate fields that require computation-intensive analysis. As a result, about 80% of digital field modelling works were performed using RN-KIM.

Tyumenneftegaz obtained initial data required to procure the equipment for a modular preliminary water discharge unit.

New software modules were added to RN-SMT, an integrity monitoring system for oilfield pipelines.

The Company issued more than 38 commercial licences and over 40 trial licences to 25 oilfield service companies and oil and gas companies as well as over 140 academic licences to four partner universities.

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Tyumenneftegaz obtained initial data required to procure the equipment for a modular preliminary water discharge unit.

At Bashneft-Ufaneftekhim, the biological treatment facility with a membrane bioreactor was ramped up to design capacity, reaching the highest productivity in Europe.

The Saratov Refinery sealed the open oil separator of the water recycling system.

The Novokuibyshevsk Oils and Additives Plant commissioned a water recycling unit and a wastewater treatment plant.

The Syzran Refinery conducted the first tests of unmanned aerial vehicles for pipeline integrity monitoring.
Rosneft developed a laboratory-level GTL technology which allowed for mixing synthetic and mineral oil to produce commercial petroleum products compliant with the existing quality standards. Rosneft partnered with the National Intellectual Development Foundation to design, manufacture and deliver a pilot APS desulphurisation plant based on microporous membranes for the preliminary water discharge facility.

Rosneft developed a laboratory-level technology to regenerate xylene and butylated fire-resistant oil wastes intended for high-powered turbines, including at nuclear power plants. The Company successfully tried the hydrogenation technology for converting acetone into isopropanol at its pilot testing facility and ran endurance tests on a catalyst batch used in the process.

The Company arranged for independent tests at its refineries with a view to streamlining dispersant and depressor additives for diesel fuels. It also developed the composition thereof and a process to produce heterogeneous catalysts. It also developed the composition and a process to produce heterogeneous catalysts for benzene alkylation with propylene and transalkylation.

Rosneft ran endurance tests on a pilot batch of hydrotreating catalysts for diesel mixtures. The Company developed and patented Russia’s first-ever additive package for all-season hydraulic oils. The Company developed its own line of guard catalysts and materials for catalytic reactors.

Rosneft developed a laboratory-level technology to produce isopropylbenzene using heterogeneous catalysts. It also developed the composition and a process to produce isopropylbenzene using heterogeneous catalysts. Rosneft successfully tried the hydrogenation technology to produce isopropylbenzene using heterogeneous catalysts.

Energy Saving and Energy Efficiency

Rosneft is one of Russia’s major consumers of fuel and energy. In 2019, it consumed a total of 612 million GJ of energy, worth RUB 240 bln.

Due to high consumption volumes, the Company pays much attention to reducing and optimising the use of fuel and energy resources. Rosneft’s energy management system is based on principles and approaches set forth in the Company’s Energy Efficiency and Energy Saving Policy. In 2013, the Company established its Energy Efficiency Commission, which implements advanced solutions and approaches to energy efficiency management and development of the energy management system in line with ISO 50001. The cornerstone of the energy management system is Rosneft’s Energy Saving Programme drafted for every five-year period and updated annually.

The Company’s Energy Efficiency and Energy Saving Policy is available on its website. Every year, the Company takes steps to ensure reliable and uninterrupted energy supply of the existing and prospective production assets.

41 Group Subsidiaries accounting for over 95% of the Company’s total energy consumption were certified to ISO 50001 for Energy Management Systems.

Employee Training in Energy Efficiency

To increase awareness about energy efficiency and energy saving among the Company’s workforce, four corporate training programmes were launched in 2019 at Group Subsidiaries:

- Maintaining formation pressure in a more energy-efficient manner;
- Improving energy efficiency of the systems for gathering, treatment, and transport of production fluids;
- Better energy efficiency for oil refining and gas processing facilities;
- Enhanced energy efficiency of the energy supply, heat supply and power generation facilities.

The training programmes are delivered through Rosneft-Termneft (a subsidiary of Rosneft), which possesses the expertise, competences and practical skills in improving energy efficiency, and regularly inspects all Group Subsidiaries certified to ISO 50001 for energy efficiency. The Company plans to train ca. 500 employees of the Group Subsidiaries annually.

The Company plans to train a total of 500 employees of the Group Subsidiaries annually.

<table>
<thead>
<tr>
<th>Energy consumption, mln GJ</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total consumption of renewable and non-renewable energy sources (process fuel)</td>
<td>636.0</td>
<td>598.0</td>
<td>612.2</td>
</tr>
<tr>
<td>Electricity consumption</td>
<td>44.7</td>
<td>151.2</td>
<td>180.1</td>
</tr>
<tr>
<td>Heat consumption</td>
<td>151.2</td>
<td>440.1</td>
<td>288.2</td>
</tr>
<tr>
<td>Heat sources</td>
<td>440.1</td>
<td>288.2</td>
<td>196.3</td>
</tr>
</tbody>
</table>

908 remedial actions completed
5% reduction in oil production shortages caused by power failures
8 technical audits of the quality of power facility management
SUCCESSFUL IMPLEMENTATION OF THE ENERGY SAVING PROGRAMME

- 877 ktce or 26 mln GJ of fuel and energy were actually saved, 14% above the target approved by Rosneft's Board of Directors for 2019
- RUB 10.9 bln – in energy savings
- RUB 2.05 bln – spent on the programme

DEVELOPMENT OF ROSNEFT’S ENERGY SAVING PROGRAMME FOR 2020–2024

- 2.69 mln tce or RUB 38.8 bln expected to be saved on fuel and energy within the next five years

DEVELOPMENT AND IMPLEMENTATION OF NEW COMPANY REGULATIONS

- Regulations on Planning and Measuring the Actual Energy Saving Effect from Energy Saving Programmes at In-House Service and Marketing and Distribution Group Subsidiaries and Marine Terminals

INTERNAL ENERGY EFFICIENCY ASSESSMENT

- 19 Group Subsidiaries assessed in both upstream and downstream

ESTABLISHMENT OF CORPORATE TRAINING CENTRE FOR ENERGY EFFICIENCY

- 352 employees of the Group Subsidiaries trained
- 25 employees of Rosneft completed energy efficiency internships at China National Petroleum Corporation (CNPC)

ISO 50001 CERTIFICATION

- Six Group Subsidiaries were certified: Sormosnft, Bashneft-Polyus, Ufaorgsintez, branches of Bashneft – Lifeneftekhim, Bashneft-Novoil, and Ufa Refinery
- 41 Group Subsidiaries accounting for over 95% of the Company’s total energy consumption in 2019 were certified to ISO 50001

What steps were taken during the reporting period towards saving fuel and energy and developing the energy management system

As part of technical audits, the Company also checks if its sites operate equipment in compliance with health and safety requirements. Rosneft’s Energy Saving Programme for 2019–2023 provides for saving more than RUB 49 bln on fuel and energy resources with RUB 16 bln invested. 81 Group Subsidiaries will be covered by the Programme. The Company plans to reduce energy consumption by streamlining its processes and using energy efficient equipment and technologies in its core operations.

Digital Transformation

Accelerated Digital Transformation Programme

Technological advances, improved workplace safety, accident-free operations, and low environmental impact are crucial for the Company’s sustainable operational performance.

As part of the Rosneft-2022 Strategy, the Company approved its Comprehensive Accelerated Digital Transformation Plan, which is currently deployed across the Group Subsidiaries and expanded to new businesses and functions.

ROSNEFT: DIGITAL TRANSFORMATION MAP

Digital field
Digital refinery
Central Dispatch Office
Digital filling station
Digital supply chain
Group Subsidiaries develop and implement end-to-end technologies, including predictive analytics, advanced visualisation, machine learning, big data, and industrial internet of things, applicable to all Company’s processes.

Powered by an internal IT integrator, Rosneft operates a Digital Transformation Centre and Digital Cluster created to enable digital programme implementation by searching and assessing innovative products, adapting solutions to business needs, and testing them at Group Subsidiaries.

The Digital Cluster consists of: analytical centre to monitor trends in the Russian and international technology and solution markets;
- Prototyping site facilitating faster markets; and international technology and solutions to business needs, and testing them at Group Subsidiaries.

Within the cluster, around 20 product teams work across the whole range of end-to-end technologies. There is also an acceleration platform for interacting with innovative start-up market. Eight external start-ups shifted to the prototype and testing phase as part of digital transformation programmes for functions and businesses.

In 2019, the Company participated in major digital transformation events and presented its digital solutions at key industry and technology fora. In particular, the 23rd St Petersburg International Economic Forum saw Rosneft presenting its ten developments which will be piloted by Group Subsidiaries.

With clear progress on its digital maturity journey, in 2019 the Company updated the initial range of digital scenarios to intellectualise the Group Subsidiaries’ existing operations, create digital products within a short timeframe, and assess the effect of their implementation for deciding whether they should be rolled out in other Group Subsidiaries.

Today, the digital transformation programme offers more than 120 scenarios factoring in the nature and management maturity of the Group Subsidiaries to be digitalised.

On average, 70 % of the key digital programmes were completed with a 23 % increase in 2019, laying groundwork for successful delivery on all of the Company’s digital transformation targets.

Digital transformation and UN Sustainable Development Goals

Rosneft is guided by the UN Sustainable Development Goals and takes them into account when developing and implementing its digital solutions.

To support the Company’s climate change targets (SDG 13 Climate action), we work hard to develop solutions for safe and accident-free operation of our productions facilities. For example, the Gas business started piloting an initiative to prevent natural gas – primarily methane – leakages.

Working towards SDG 3 Good health and well-being, the Company is developing comprehensive digital HSE solutions. For example, Group Subsidiaries have already piloted technologies that use computer vision and neural networks to find people in hazardous areas, track PPE availability and alert to dangerous situations.

Sibneftegaz installed a multi-functional device with an IR imager at a gas well cluster for remote monitoring and gas leak control. This solution helps to prevent dangerous accidents and breakdowns as well as provides efficient control over emissions of methane, one of key greenhouse gases generated by hydrocarbon production.

Sibneftegaz has been plotting a machine learning-based solution for online interpretation of telemetry data collected from a gas well and for determining whether any extra survey is required.

Rospian International started testing of a solution for remote monitoring of abandoned and suspended wells. The Company expects to use this solution to monitor well pressure, detect dangerous gas concentrations in areas adjacent to its facilities, and significantly reduce the need for engaging its staff and helicopters for regular inspections of isolated assets.

Key Achievements in 2019

Artificial intelligence was tested to analyse video stream from production facilities of the Varyageneftegaz and RN-Yuganskeftegaz drilling sites. The monitoring promotes discipline, protects life and health of employees, helps to comply with technical regulations and reduce environmental risks.

A drone monitoring system successfully passed flight tests at RN-Krasnoderneftegaz and Varyageneftegaz, including in winter conditions. It consists of a proprietary unmanned aerial vehicle which can be equipped with a video camera, IR imager and laser gas sensor for methane leakages, as well as a charging and storage station and flight mission management software. The system will autonomously monitor infrastructure facilities and oil pipelines, thus significantly reducing human involvement. It relies on a computer vision technology to automatically scan protected areas to identify whether people or machinery are present there, and notify of petroleum product spills and methane leakages.

For details on drone monitoring in Exploration and Production, see p. 100 of the 2019 Annual Report.
### Information Security

Recognising the current information security challenges and threats posed by accelerated automation and digital transformation of the business and production processes, Rosneft at all times keeps focus on ongoing improvement of information security management, real-time monitoring and assessment of its IT assets security.

The Company has developed and is implementing a set of projects geared towards delivering on its information security strategy. One of the Company’s priorities is to roll out a mechanism of proactive response to and prevention of cyberattacks.

Another important task is to promote corporate culture, awareness, and skills related to information security. All in-house users are updated about existing computer threats, while the IT staff are trained in prompt computer incident response. In 2019, over 1.5 thousand employees of both Rosneft and Group Subsidiaries took part in IT staff drills.

<table>
<thead>
<tr>
<th>xx</th>
<th>III</th>
<th>x</th>
<th>II</th>
<th>I</th>
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<tbody>
<tr>
<td>A pilot project to improve the efficiency of process equipment performance management is in progress at Ryazan Oil Refining Company.</td>
<td>Technologies tested:</td>
<td>- drone-based monitoring of refinery perimeters and product leakages; - energy efficiency monitoring; - energy balance and optimisation.</td>
<td>- Laboratory research</td>
<td>- Design automation</td>
</tr>
<tr>
<td>Rosneft piloted a system for optimised blending of petroleum products at the Syzran Refinery and initiated its rolling out at other Group Subsidiaries.</td>
<td>- Using IR imagers to monitor equipment; - Roboticised oil tank cleaning; - Mobile solution for inspections in the course of maintenance and repair; - Comprehensive staff monitoring (inspections of operators, contractor tracking) with wearable devices and beacons.</td>
<td>- Drilling support</td>
<td>- Pre-FEED</td>
<td></td>
</tr>
<tr>
<td>Technologies were tested for the following projects:</td>
<td>- Comprehensive staff monitoring (inspections of operators, contractor tracking) with wearable devices and beacons.</td>
<td>- Production engineering</td>
<td>- Engineering services</td>
<td></td>
</tr>
<tr>
<td>Novokuibyshevsk Petrochemical Company tested a safety monitoring and employee control technology using a combination of computer vision, neural networks and conventional video analytics. This solution helps to identify risks of incidents.</td>
<td>Parameters (air temperature and atmospheric pressure), monitoring of production routines such as regular inspections of process equipment and production facilities both inside and outside</td>
<td>- Design and support of hydrocarbon development</td>
<td>- 3D engineering</td>
<td></td>
</tr>
<tr>
<td>Ufaorgsintez piloted a prototype hardware and software solution for the comprehensive monitoring of production staff, including employee tracking on site, monitoring of employees’ physical condition, measurement of environmental parameters (air temperature and atmospheric pressure), monitoring of production routines such as regular inspections of process equipment and production facilities both inside and outside</td>
<td>- Conceptual design</td>
<td>- Consulting</td>
<td>- Improving economics of oil refining, gas processing and petrochemicals</td>
<td></td>
</tr>
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</table>

### Development of R&D Capabilities

**Corporate Research and Design Complex**

Rosneft’s corporate research and design cluster boasts powerful infrastructure and research capabilities with its products covering all business areas – from field development to retail operations.

### RANGE OF SERVICES AVAILABLE AT THE CORPORATE RESEARCH AND DESIGN CLUSTER

#### SCIENCE IN EXPLORATION AND PRODUCTION
- Laboratory research
- Exploration
- Design and support of hydrocarbon development
- Drilling support
- Production engineering

#### DESIGN IN EXPLORATION AND PRODUCTION
- Conceptual design
- Engineering survey
- Design and working documentation
- Construction

#### DIGITAL SERVICES (IT SERVICES)
- Design automation
- Import substitution of research-intensive specialist software
- Advanced data analysis methods (Big Data)

#### SCIENCE IN OIL REFINING, GAS PROCESSING AND PETROCHEMICALS
- Petrochemicals
- Oil Refining
- Gas processing and conversion
- R&D support

#### DESIGN IN OIL REFINING, GAS PROCESSING AND PETROCHEMICALS
- Feasibility study
- Pre-FEED
- Engineering services
- 3D engineering
- Consulting
- Improving economics of oil refining, gas processing and petrochemicals
The corporate research and design cluster unites 29 corporate research and design institutes. The corporate research and design institutes provide the entire scope of engineering, field, and in-office support to the Company’s oil, gas, oil refining, and petrochemical assets from exploration to commercial end-products. The institutes employ over 15 thousand highly skilled professionals (geologists, developers, designers, chemists, physicists, and programmers) of whom about 4% hold PhD or Post-Doc degrees.

**GEOGRAPHY OF THE CORPORATE RESEARCH AND DESIGN CLUSTER**

- 29 corporate R&D and design institutes
- 43 specialised institutes
- >15 thousand highly skilled employees
- >100 customers

The corporate research and design cluster provides the entire scope of engineering, field, and in-office support to the Company’s oil, gas, oil refining, and petrochemical assets from exploration to commercial end-products. The institutes employ over 15 thousand highly skilled professionals (geologists, developers, designers, chemists, physicists, and programmers) of whom about 4% hold PhD or Post-Doc degrees.

**Exploration and Production, gas**
- Shelf
- Laboratory research
- Oil Refining, Gas Processing and Petrochemicals
- Process equipment

**Shelf**
- Construction supervision
- Process equipment

**Construction supervision**
- QNIPineff
- VNII NP
- RN-TsIR
- INiRGI
- Burovaya Technika
- ANTs
- RN-Stroykontrol
- TsIR
- Slavneft-NPTs
- SAPPHIRE

**Process equipment**
- Rosneft MTC
- VNIPIneft
- VNIPIneft Kosborudovaniye
- SAMARAKIP ineft
- Samaraneftelektrimproekt VOIG and RGI
- SAKHAIP
- RN-BashIPineft
- Bashgiproneftekhim
- RNPAIP
- YNPAIP
- Giprostymnenefegaz

**Flexible pricing system**
- Shared information space
- Unified technical policy
- Shared staff development programme
Rosneft manages its research and design institutes in a centralised manner. Lead institutes are in place for each of the Company’s businesses to monitor and improve R&D activities at the corporate research and design institutes. Specialised institutes focus on developing niche technologies, including research, development, testing, and commissioning of new technologies and design solutions.

**Sustainable Development**

Rosneft is deploying a system of standard design solutions to improve efficiency of capital investments and design processes by using the best possible solutions, technologies, materials, and equipment.

The system of standard design solutions reduces costs and minimises risks of project delay, improves the quality, reliability and safety of installations and equipment, increases the level of mechanisation and automation, and reduces operating expenses.

One of the objectives pursued by the system is to set technical requirements for equipment used by the Company’s diverse operations. In addition to studying and analysing equipment and inventory used by the Company or the Company’s need for them, this means minimising the risks of lobbying any specific suppliers/manufacturers by stating any specific parameters or manufacturing techniques.

**Standard Design and Standardisation**

**Standard design solutions**

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**Standardisation System**

In 2019, the Company continued to contribute to the development of the oil and petroleum product standardisation system. Working hand in hand with technical committees for standardisation at the Federal Agency on Technical Regulation and Metrology (Rosstandart), the Company’s experts reviewed over 120 draft regulations and standards, both national and international.

In 2019, the Company took part in an initiative to establish an industry-wide system for voluntary certification of products and suppliers in the Russian Federation. The initiative prioritises process safety in oil and gas industry, reducing the percentage of counterfeit products, and streamlining SMEs’ access to the market of oil and gas sector suppliers.

The following events were successfully implemented in 2019:

- jointly with the Russian Ministry of Industry and Trade, proposals were prepared for the concept of regulating the voluntary compliance certification;
- as a result of the Initiative, Institute of Oil and Gas Technology Initiatives was established jointly with the Russian Ministry of Energy and other vertically integrated oil companies; and
- a scientifically validated evidence base was built with respect to changes in hydrogen sulphide content in marketable oil to reduce deposits on heat exchangers of refining facilities.

Since 2016, Rosneft has been operating a corporate institute specialising in ecology to facilitate the Company’s target of minimising its environmental impact across its footprint. In 2019, the following was completed:

- a drilling waste volume estimation methodology was developed to underpin the Company’s guidelines introduced in the reporting year. Applicable to all Group Subsidiaries, the document sets algorithms used to estimate drilling waste volumes when drafting design and environmental compliance documentation;
- quantitative assessment of the Company’s GHG emissions was carried out;
- feasibility studies were developed to support the use of certain technologies and methods of managing waste generated by construction and installation operations at the Kulybysh Refinery;
- development of comprehensive environmental permits was launched for the Group’s upstream Subsidiaries such as URFuganskneftegaz, Samaraneftegaz, and Orenburgneft.

The institute also delegated its experts to Rospriradnazor’s Scientific and Technical Council task forces engaged in updating environmental regulations. In addition, SamaranIPineft hosted the 2nd conference on environmental science in oil refining, gas processing and petrochemicals.

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Automation of Planning and Surveying

Working towards the targets set by Rosneft–2022 Strategy for the use of digital solutions, the corporate research and design cluster rolls out the Digital Technologies for Institutes programme aimed to facilitate automation.

Import Substitution and Software Range Optimisation

To promote import substitution, RN-BashNIPIneft developed a research-intensive specialist software for the areas including geology, exploration of gas and oil fields, oil and gas production.

TomskNIPIneft works to create a unified software range to be used for design automation.

In 2019, 80% of software (over 20 items) was Russian.

Long-term Leadership in Mathematical Modelling

The Company develops and implements proprietary software for field modelling, hydraulic fracturing design, management of field development, drilling operations of any complexity, etc.

A wide range of corporate software was developed, including:

- RN-KIN, a workplace for specialists in geology and oil and gas field development. The software suite has an edge over its international peers, provides production data, and conducts proxy modelling from calculation of well interventions to surface network components;
- RN-KIM is a reservoir simulator, a comprehensive high-performance solution for digital 3D modelling of hydrocarbons development with a 77% increase in the use for modelling the Company’s hydrocarbon fields over the last five years;
- RN-SMT is a prototype and a set of software modules of an integrity monitoring system for oilfield pipelines, a promising information system for monitoring and controlling the Company’s oilfield pipelines with a real-time decision-making support system, which assesses the technical condition of pipelines, generates pipeline reliability improvement programmes, and automates production processes;
- RN-GRID is a next generation hydraulic fracturing simulator, which provides the most precise picture of hydraulic fracture geometry;
- RN-Geosim is an integrated geological modelling platform building full-scale geological models based on high-performance computing. The platform includes up-to-date visualisation tools to assist a modelling geologist and display components of the geological models in 1D (correlation pattern), 2D, and 3D projections. The software suite will cover up to 80% of the Company’s geological modelling needs by 2020;
- additional software modules were developed for RN-Simtep import substituting software to model processes of transportation and preparation of production fluids;
- RN-PetroLog prototype was created as part of import substituting petrophysical software to interpret well logging and carry out laboratory-based core analysis.

Machine Learning Open

The Corporate Research and Design Complex strives to establish partnership with leading research teams, including numerical modelling of physical processes. In 2019, the Company held Rosneft Seismic Challenge, Russia’s largest machine learning open championship with the focus on seismic data interpreting.

The event attracted about 500 teams from nine countries. The contestants proposed solutions for automating manual processes in seismic exploration where cognitive services of corporate software will carry out monotonous tasks.
Integrated Design Automation Technologies

The Company leverages digital technologies to design major construction projects. Currently, all projects with complex exceeding RUB 1 bn are based on 3D modelling.

The target innovative project for developing design automation technologies produced the following results in 2019:

- 17 unified automated designer workplaces for disciplines supporting the 3D design technology, thus reducing the time for carrying out certain design operations by a half;
- information modelling technology for the design stage, including modelling modules for FEED, and technical and economic feasibility study;
- geotechnical monitoring system for assets located in the permafrost zone.

Drilling Support Technologies

The Company keeps developing its in-house high-tech service of well drilling (geosteering). In 2019, the Corporate Research and Design Complex introduced geomechanical modelling to minimise drilling accidents and started the piloting of automatic geosteering and use of drill bits to study lithology based on machine learning. These focus areas complement the existing services of geosteering, log data interpretation, and geotechnical survey during well drilling.

Therefore, the comprehensive approach and available technologies ensure a 24/7 support for all of the Company’s horizontal and multilateral wells, and for priority directional wells.

The high-tech services helped the Company to drill its deepest multilateral well of 12,792 m at the Srednebotuobinskoye field.

Corporate Training Centre

Sapphire Applied Engineering and Training Centre was established to facilitate Rosneft’s projects using a wide array of General Electric products and technologies, including basic technical solutions, equipment localisation, and training of oil and gas professionals. In the premises of Sapphire Applied Engineering and Training Centre, the Company created a licensing and training centre. In 2019, the centre rolled out 54 training programmes covering over 1.9 thousand employees of the Company.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of programmes</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>2017</td>
<td>19</td>
<td>57</td>
</tr>
<tr>
<td>2018</td>
<td>49</td>
<td>589</td>
</tr>
<tr>
<td>2019</td>
<td>54</td>
<td>1,799</td>
</tr>
</tbody>
</table>

International Cooperation of the Corporate Research and Design Complex

The Corporate Research and Design Complex cooperates with major international engineering companies.

In 2019, RN-TsIR and Germany’s ART Photonics signed a memorandum of cooperation in the development and implementation of remote process control devices and methods. In addition, RN-TsIR entered into an agreement with Rosneft International Centre for Research and Development QSTP-LLC for developing a polyketone synthesis stand at the Qatar Science and Technology Park. In 2019, VNIPIneft continued the construction of EP-600 crufin production complex at the request of Linde, a German company.

Proprietary Technologies

Autonomous Preliminary Water Discharge and Power Generation System

To prepare greenfields for pilot production and streamlined operation, Sapphire Applied Engineering and Training Centre (Sapphire) developed a solution for the autonomous preliminary water discharge and power generation system using separated associated petroleum gas, with its first batch of equipment manufactured in 2019 and pilot operation planned for 2020.

Oil Refining Catalysts

RN-TsIR corporate institute developed hydrotreating catalysts for producing Euro5 diesel fuel. All proprietary hydrotreating catalysts for diesel fuels, hydrogenation of vacuum gasoil, hydrocracking, and guard catalysts will be manufactured by RN-Kat, a subsidiary of Bashneft.

Oxid-Coated Proppant for Hydraulic Fracturing

Ultra lightweight resin-coated proppant was piloted at the Samotlor field. The material is designed to improve well productivity when using hydraulic fracturing and enhance oil recovery by producing oil in previously undeveloped field areas.
Exploration of the Arctic Shelf and Operational Safety on Shelves of Freezing Seas

Scientific Research in the Arctic

Rosneft places a particular emphasis on environmental research and biodiversity conservation in the Arctic region.

The Arctic Scientific Centre (part of Rosneft’s research and design cluster) conducts comprehensive environmental studies, including biological, hydrological, hydrochemical examinations as well as modeling and monitoring of Arctic ecosystems.

To monitor the Arctic shelf environment, the centre leverages a year-round observation network of automatic weather and seismic stations and autonomous buoy stations.

Kara Summer 2019 research expedition

November 2019 saw the end of the Kara Summer 2019 research expedition organised by the Arctic Scientific Centre with the assistance of the Arctic and Antarctic Research Institute of the Russian Federal Service for Hydrometeorology and Environmental Monitoring.

The expedition collected hydrological data for the Kara, Pechora, and Laptev seas (sea level fluctuations, sea state, direction and speed of currents, sea ice draft and drift velocity) over a one to two year period. This information is needed to develop an offshore exploration drilling strategy and ensure safety and effectiveness of marine operations, design drilling rigs and hydro-technical facilities.

Digital Archive of the Arctic Ocean Data

The Arctic Scientific Centre created a digital archive of metocean and ice data based on mathematical modelling (reanalysis) that contains key meteorological, oceanographic and ice information from 1966 through to 2017. The data resolution is 15x15 km for the Arctic Ocean and 5x5 km for Russia’s Arctic seas.

The models were set up and verified using the Company’s historical data and observations of 2012–2017.

Iceberg Safety

Since 2016, the Company and the Arctic Scientific Centre have been testing iceberg towing in the Barents and Kara seas to assess the possible changes in iceberg drift trajectory and prevent the collision with offshore oil and gas facilities.

These activities have resulted in a holistic approach to ensuring iceberg safety. The Company also conducted a research to examine the morphology and formation of outlet glaciers in the Russian Arctic and study metocean and ice conditions in Russia’s Arctic seas.

In 2019, employees of the Company and the Arctic Scientific Centre received a government award in science and technology.

Atlas “Russian Arctic. Space, Time, Resources”

In 2019, Rosneft together with Innopraktika, a non-governmental development institute, published atlas titled Russian Arctic. Space, Time, Resources. The atlas is organised into 15 topical sections and constitutes a collection of valuable scientific data on the physical geography, environment, history of exploration, and economic potential of Russia’s Arctic Zone.

The edition contains unique pictures of majestic ice landscapes and spectacular fauna that were shown in the Magnetic Arctic exhibition held in Tsvetnoy Boulevard, Moscow.
“Rosneft’s main asset is its highly skilled employees driving the Company’s development. We have always been committed to social responsibility and protection of human rights. In 2019, Rosneft was recognised as the best performing Russian company in the CHRB (Corporate Human Rights Benchmark) international human rights index, which is in line with the Company’s priorities in achieving the UN goals. We will continue this work going forward.”

Alexey Artemyev
Vice President for HR and Social Policy of Rosneft
Management Framework and Personnel Profile

Management Framework

Highly skilled and motivated employees are the Company’s core asset. Rosneft is focused on effective personnel management, offering professional and personal growth opportunities, as well as social support for its employees.

In its employment practices, Rosneft complies with applicable Russian and international laws and never uses forced, compulsory or child labour. The Company takes a zero tolerance approach to discrimination on the basis of gender, age, ethnic origin, religion, race, or any other grounds. Rosneft and Group Subsidiaries never use child labour in whatever circumstances.

Rosneft abides by authorities’ directives and international laws and never uses forced, compulsory or child labour. Rosneft and Group Subsidiaries never use child labour in whatever circumstances.

The Company’s main publicly available Social Policy aimed at protecting human and civil rights and freedoms at workplace: the freedom of association, the right to collective bargaining, labour rights and the right to health.

The Company recognises the importance and value of fundamental human rights and freedoms at workplace: the freedom of association, the right to collective bargaining, labour rights and the right to health.

In December 2019, the Company approved its Personal Data Processing Policy aimed at protecting human and civil rights and freedoms in this area.

The Company’s Policy on Personal Data Processing is available on the website.

Employee turnover, %

**Personnel Structure**

Rosneft is one of Russia’s largest employers. In 2019, its average headcount stood at 315.4 thousand people, up 2.4% year-on-year. The increase was driven by production development, acquisition of new assets or their inclusion in the business plan. Most of the workforce is located in Russia (98.8%), Ukraine (0.5%) and Belarus (0.2%), with 0.5% of the employees working in other countries.

The average employee age remained mostly unchanged at 40.3 years. Managerial positions were held by 40.8 thousand employees. Employees categorised as managers made up 12.2% of the total average headcount in 2019.

The share of female employees remained virtually flat at 32.7%.

As at the end of 2019, women accounted for 23.9% of all managers and 14.9% of top and senior managers of the Group Subsidiaries.

Employee turnover, %

**Personnel by country (average headcount) in 2019, %**

- **Russia**: 98.8%
- **Ukraine**: 0.5%
- **Belarus**: 0.2%
- **Other countries**: 0.5%

° An employment agreement with a minor may only be made in strict compliance with applicable laws of the country where Rosneft or its respective Group Subsidiaries operate.

° The Company’s Policy on Personal Data Processing is available on the website.

° For more details on the Company’s personnel structure, see Appendix 1 to this Report.

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Improving HR Processes for Better Protection of Labour Rights

It is important to improve HR processes for minimising the risks of labour rights violations. Rosneft is making consistent efforts to unify and automate its processes as well as unify the organisational structures of Group Subsidiaries’ functions.

Unification and Automation

Key HR business processes are performed in line with the uniform corporate HR, compensation and social development standards. The standards apply to personnel accounting, recording of working hours, organisational management, remuneration system, and payments to the staff and third parties.

In 2019, we continued to roll out the methodology based on two corporate IT platforms, which, as at the end of the reporting period, were used by 129 Group Subsidiaries with more than 197 thousand employees.

Unification of the Organisational Structures of the Group Subsidiaries’ Functions

The Company seeks to optimise its processes and reduce labour costs. In 2014, we began to unify the functions and organisational structures of Group Subsidiaries. Over five years, 30 corporate-wide functions (80%) were standardised.

In 2019, five typical organisational structures were developed and circulated among the Group Subsidiaries. They covered industrial safety, health, safety and environmental protection (for Commerce and Logistics businesses); HR and social programmes; energy supply (for Gas businesses); mine surveying and land use (for Exploration and Production and Gas businesses); and work with internal regulations. Their phased implementation is planned until the end of 2022.

Rosneft also unified the structure and functions of Chief Engineer and Prospective Development production units of the Company’s upstream businesses.

HR Management Performance

Remuneration

The Company adheres to the principles of high social responsibility in terms of remuneration and ensuring a decent standard of living for its employees and seeks to maintain wages above the regional average and perform annual indexation.

The average monthly salary for all Group Subsidiaries in 2019 reached RUB 88,609 which, for most of the Group Subsidiaries, is traditionally above not only legal minimum wage but also the actual average salary in the respective regions.

For comparison of average monthly salary in the Group Subsidiaries with the average salary by the region, see Appendix 1 to this Report.

In 2019, social payments, regular benefits, and one-off bonuses included in the payroll amounted to an average of RUB 59.2 thousand per employee.

To ensure increase in real wages and offset the inflation, Rosneft adjusted the salaries in Group Subsidiaries located in Russia by 4% in 2019.

Key Performance Indicators

Rosneft has a system of key performance indicators (KPIs), which forms an integral part of the management incentives and remuneration.

The KPI system includes a number of sustainable development indicators, including the saving of fuel and energy resources, injury rate, environmental indicators, and the efficiency of procurement from SMEs.

Breakdown of social payments, benefits and one-off bonuses included in the payroll in 2019, RUB mln

- wellness of employees and their children
- benefits and one-off bonuses included in the payroll
- voluntary health insurance contributions
- retirement
- severance
- other social payments

Environmental indicators include reduction of emissions and discharges, as well as waste and the area of contaminated lands. The injury rate includes such generally accepted international indicators as LTIF and FAR.

The Company’s top managers are personally responsible for injuries of any employees of Rosneft, its contractors and subcontractors.

The management bonuses depend on KPIs. KPIs of each top manager include both specific indicators directly related to their function, which cascade down to their subordinates, as well as a number of general corporate indicators.

For details on sustainable development KPIs, see the Sustainability Management section of this Report.
Personnel Training and Development

Personnel Training System

Training and development of our personnel are strategic priorities at Rosneft. We make every effort to offer our employees opportunities for continuous professional and personal growth and development.

The corporate training system covers all business areas and staff categories. We engage experts from educational and consulting companies to train our people in line with our current and strategic needs.

The corporate training and development system aims to:

- develop professional skills of the employees;
- improve managerial skills and create an internal talent pool;
- provide qualified personnel for the Company’s strategic projects;
- ensure that all employees are competent in HSE matters;
- guarantee compliance with mandatory state requirements for personnel training in the fuel production industries.

Results in Personnel Training

In 2019, we continued working consistently on enhancing the professional skills of the Company’s employees. Rosneft delivered 635.9 thousand man-courses in mandatory vocational and management training, which is 33% more than the 2019 target.

Personnel training and development, thousand man-courses

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for year, including by category:</td>
<td>533</td>
<td>535</td>
<td>636</td>
</tr>
<tr>
<td>managers</td>
<td>100</td>
<td>106</td>
<td>119</td>
</tr>
<tr>
<td>talent pool</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>white-collar workers</td>
<td>121,988</td>
<td>125</td>
<td>146</td>
</tr>
<tr>
<td>young professionals</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>blue-collar workers</td>
<td>306</td>
<td>299</td>
<td>365</td>
</tr>
</tbody>
</table>

Personnel training and development in 2019

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average duration of training per employee per year, man-hours</td>
<td>60</td>
</tr>
<tr>
<td>Total duration of training, thousand man-hours</td>
<td>18,979</td>
</tr>
<tr>
<td>By category:</td>
<td></td>
</tr>
<tr>
<td>managers</td>
<td>3,429</td>
</tr>
<tr>
<td>white-collar workers</td>
<td>4,232</td>
</tr>
<tr>
<td>blue-collar workers</td>
<td>11,308</td>
</tr>
<tr>
<td>By gender:</td>
<td></td>
</tr>
<tr>
<td>men</td>
<td>15,767</td>
</tr>
<tr>
<td>women</td>
<td>3,213</td>
</tr>
</tbody>
</table>

In 2019, Rosneft launched a professional retraining programme for HR managers and employees of the Group Subsidiaries. It builds on the Innovative master’s programme in organisational development and personnel management in the oil and gas industry that opened in 2018 through joint efforts of Rosneft and Ufa State Petroleum Technological University.

Leaders of Russia Nationwide Competition

In 2019, some of the Company’s employees took part in the Leaders of Russia competition for a new generation of leaders. The competition seeks to identify people with a strong managerial potential and contribute to the development of their skills.

In 2019, we significantly expanded the range of management courses to include:

- MBA programmes for managers, talent pool and high potential employees;
- series of Director Club workshops;
- Leader of the Future programme;
- The University of CEO and the School of Management for CEOs of the Group Subsidiaries and their deputies.

We provide the following professional education opportunities:

- training for young engineers from exploration and production facilities;
- training of shop managers from the exploration and production facilities under a professional retraining programme designed to improve performance and production methods;
- professional retraining in oil refining and petrochemicals;
- training of specialists involved in coaching line personnel at oil depots and filling stations of oil distribution facilities.

In HSE, we implemented the following programmes: training in corporate approaches to carbon management for top managers and heads of departments in the Company’s Head Office, and courses in leadership, internal incident investigation, risk assessment and management for heads of the Group Subsidiaries.

In 2019, Rosneft launched a professional retraining programme for HR managers and employees of the Group Subsidiaries. It builds on the Innovative master’s programme in organisational development and personnel management in the oil and gas industry that opened in 2018 through joint efforts of Rosneft and Ufa State Petroleum Technological University.
Internal Training System
At Rosneft, we have built an internal training system to preserve and transfer knowledge within the company. We leverage our in-house training centres, coaches, experts and workplace mentors to provide 62% of training (395.8 thousand man-courses).

In 2019, internal coaches conducted 688 training sessions and 15,570 man-courses. On top of that, over 71 thousand man-courses were available in the distance learning format.

In the reporting period, we launched a targeted training programme for in-house coaches made up of 15 modules, with 163 groups trained (2,126 man-courses).

Corporate Mentoring Programme
The company has been implementing a corporate mentoring and development programme for workers and young professionals. It aims to facilitate employee onboarding and build up their skills to professional standards. The programme is offered to the newly hired blue-collar workers and young professionals with higher education in a relevant field. The duration of the programme is three to nine months for blue-collar workers, depending on the occupation, and 12 to 36 months for young professionals, depending on individual competence level.

Rosneft has over 15 thousand mentors. In 2019, they helped train 4,876 new workers and 3,994 young professionals.

Professional Standards
As part of efforts to support the government policy to improve labour legislation, Rosneft is working consistently to implement professional standards in the Group and its Subsidiaries. Of the nearly 1.3 thousand professional standards currently approved in Russia, more than one fourth of them can be implemented in Rosneft, including the 54 that are classified as mandatory qualification requirements. The qualification standards apply to more than 13% of employees (44.6 thousand people), of whom over 95% have an educational background meeting the requirements.

WorldSkills Championship of Vocational Skills
In 2019, Rosneft held the fourth WorldSkills corporate championship to promote blue-collar occupations and improve vocational training based on international requirements. Contestants competed in the Laboratory Chemical Analysis category and the new Occupational Safety category.

The tournament was held in Yekaterinburg. Composed of 16 Group Subsidiaries and the Head Office, the Rosneft team competed in eight categories and won prizes in six of them. Rosneft championship in geo-steering.

First Geo-Steering Championship
Over the past decade, Rosneft has been steadily increasing the volume of horizontal drilling. However, as projects become increasingly complex both geologically and technologically, the company needs to continuously focus on maintaining and developing professional expertise in planning and drilling. In 2019, Rosneft held its first corporate championship in geo-steering to help improve employee professional skills and facilitate their involvement in geological support for drilling high-tech horizontal wells.

Over 40 people representing 20 Group Subsidiaries and the company’s Head Office competed in the tournament. Using a virtual simulator they had to drill three horizontal wells of various degrees of complexity to penetrate an oil reservoir as far as possible.

Many of the participants, including those who work in well planning, gained unique experience in horizontal drilling support in real geological environments across the company’s footprint.
Skills assessment framework

Rosneft has a unified skills assessment framework covering all personnel categories (managers, white- and blue-collar employees) and focusing on three key areas:
- creating a talent pool and expert communities;
- planning competency training;
- recruiting or changing job descriptions.

The assessment of professional skills uses materials drafted in the course of the target innovative project to introduce a skills-based approach to personnel development across all business segments. In 2019, more than 20,83 thousand people were assessed for compliance with the professional and technical skill requirements.

The corporate and management skills model is a local regulation used as a basis for personnel assessment.

In 2019, the Company applied the model to evaluate

**23.65 thousand people**

Talent pool

Rosneft’s talent pool programme focuses on the identification of promising employees, their special-purpose training and promotion to the key management positions. For the Company, the talent pool programme serves as a guarantee of business efficiency, while the staff view it as an opportunity for development and career growth.

The programme helps create the talent pool for the first-, second- and third-level management positions, with first-level successor candidates eligible for target positions in several Group Subsidiaries. The Company paves the way for professional development of its talent pool members by offering them job rotations, making them first-choice candidates for promotion to target positions and enabling them to participate in the Company’s key projects.

The Company has a multi-tier independent assessment framework to evaluate management skills of employees included in the talent pool. In 2019, the selection process included assessment of 5,295 employees to determine growth priorities for them, with 1,124 participants ending up with individual development plans.

An external young talent pool includes school and university students attending Rosneft’s training programmes and is designed to help the Company achieve its objectives in the long run.

International projects

As part of comprehensive staff training, Rosneft sets up partnerships with global oil and gas companies and educational institutions to promote joint internships, conferences and training programmes.

In 2019, the Company continued delivering on its arrangements with international partners focusing on projects offering foreign students an opportunity to pursue higher education at Russian universities with financial and organisational support provided by Rosneft.

Under an educational cooperation agreement between Rosneft and ONGC Videsh Ltd. (India), 41 employees of the Company’s Head Office and Group Subsidiaries received training in India in the reporting year.

As part of an educational and training cooperation agreement between Rosneft and CNPC, 20 CNPC employees did internship at Group Subsidiaries in Samara and 20 employees of Rosneft were dispatched to China as interns in 2019.

Under an agreement signed between Rosneft and the Qatar Foundation, 49 employees of the Company took training offered in 2019 by an expert from the Qatar National Research Fund (part of the Qatar Foundation) at the Gubkin Russian State University of Oil and Gas.

In the reporting year, Rosneft and BP Plc took the following steps to strengthen their long-standing partnership:
- Rosneft and BP signed an agreement on cooperation in the field of HR management and social responsibility;
- created a joint working group in this area;
- developed a partnership road map for 2019–2020;
- staged events to exchange experience in personnel assessment and HR e-workflow management.
Youth Policy

Rosneft’s youth policy aims to ensure a steady influx of young professionals. To that end, the Company is building an external talent pool comprised of students from Rosneft’s regions of operation. The youth policy largely relies on a school-to-workplace approach, benefiting from the advantages of continuous corporate training.

HR Conference Attended by International Partners

2019 was the first year when the annual Conference of Heads of Rosneft’s Social and HR Functions was attended by the Company’s international partners. The Conference brought together more than 290 employees of Rosneft’s Head Office and Group Subsidiaries, with speakers including representatives of the world’s leading oil and gas corporations. The participants shared experience in personnel management and corporate culture, discussed avenues for further cooperation and established working contacts between the HR functions. The Conference also shone the light on best global practices in personnel management.

Master’s Programme in Oil Engineering

In 2019, Rosneft partnered with BP Russia to create a dedicated Master’s programme in Oil Engineering at Kazan (Volga) Federal University. The programme allows enrollees to gain advanced knowledge of oil production, development system streamlining, and well and oilfield management. In October 2019, 10 students enrolled on this Master’s programme, having passed a complex selection procedure. Upon the programme’s completion in 2021, the graduates will be hired by eight Group Subsidiaries.

Youth Policy Funding in 2019, RUB mln

- Promotion of pre-university training
- Cooperation with universities (equipment upgrades, internship opportunities, scholarships for students and grants for professors)
- Work with young talent

<table>
<thead>
<tr>
<th>120,0</th>
<th>258.8</th>
<th>1,724.0 RUB mln</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,345.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- >80 thousand school and university students covered by youth policy projects
- ~4 thousand young professionals
- 163 partnerships set up with educational institutions
- 38 partnerships set up with colleges
- 1.7 RUB bln invested by the Company in youth policy projects
- 25 specialised university departments opened by Rosneft
- 122 class programmes supported by Rosneft Group Subsidiaries across the Company’s footprint

SUSTAINABLE DEVELOPMENT
- CLIMATE ACTION
- ENVIRONMENTAL CONSERVATION
- OCCUPATIONAL HEALTH AND SAFETY
- EMERGENCY RISK MANAGEMENT
- R&D AND DIGITAL TRANSFORMATION
- PERSONNEL
- SUPPORTING SOCIAL AND ECONOMIC DEVELOPMENT
- RESPONSIBLE BUSINESS PRACTICE
- APPENDICES

2019 / Sustainability Report of Rosneft
Development of Young Talents

**WORK WITH YOUNG TALENTS HAS A NUMBER OF FOCUS AREAS.**

- **Onboarding**
- **Training and Development**
- **Financial and social support**
- **Progress assessment**
- **Identifying and development of potential leaders**

To fast-track the onboarding of young professionals, we have set up 71 young specialist councils and introduced mentorship programmes across the Group Subsidiaries. In 2019, 105 Group Subsidiaries employed 4 thousand young professionals.

As part of an effort to develop the professional, technical, corporate and managerial competencies of young specialists, we put in place training programmes (approximately four thousand man-courses organised) and arranged for 2.6 thousand young professionals to participate in regional and cluster R&D conferences.

**Young Professionals at Rosneft, people**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of young professionals hired upon graduation</td>
<td>1,437</td>
<td>1,459</td>
<td>1,360</td>
</tr>
<tr>
<td>Number of young professionals in the Company, people</td>
<td>4,161</td>
<td>3,994</td>
<td>4,001</td>
</tr>
<tr>
<td>Number of young professionals participating in R&amp;D conferences</td>
<td>2,072</td>
<td>2,391</td>
<td>2,607</td>
</tr>
<tr>
<td>Financing of the young talent programme, RUB mln</td>
<td>102.7</td>
<td>116.1</td>
<td>120.0</td>
</tr>
</tbody>
</table>

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**Cooperation with Universities**

The Company actively leverages cooperation agreements to promote partnerships with 61 Russian and foreign universities from the regions where it operates. In the reporting year, the following steps were taken in this direction:

- new specialised university department was established and 24 existing departments continued to operate, with 74 employees of the Company involved in their activities;
- work continued on projects aimed at enhancing curriculum via more sophisticated university infrastructure; Rosneft Days were held with more than 20 thousand students attending;
- more than 7 thousand students and 47 university academics completed internships in the Company;
- the Head Office arranged a long-term internship for 179 Master’s students of Rosneft’s partner universities.

**University Cooperation Highlights**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of partner universities</td>
<td>58</td>
<td>60</td>
<td>61</td>
</tr>
<tr>
<td>Number of students doing internship</td>
<td>6,661</td>
<td>7,014</td>
<td>7,088</td>
</tr>
<tr>
<td>Financing of university cooperation initiatives, RUB mln</td>
<td>1,049.8</td>
<td>1,147.7</td>
<td>1,345.2</td>
</tr>
</tbody>
</table>

**Pre-University Training**

Rosneft classes are a part of pre-university training programmes designed to help the Company create an external young talent pool. Rosneft classes are available at educational institutions across the Company’s regions of operation and offer school students secondary education with a strong focus on technology and natural sciences to enable them to continue engineering studies at universities. Upon graduation, the best students are employed by the Group Subsidiaries.

**Rosneft Classes Highlights**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Rosneft classes</td>
<td>111</td>
<td>117</td>
<td>122</td>
</tr>
<tr>
<td>Number of students trained</td>
<td>2,615</td>
<td>2,762</td>
<td>2,839</td>
</tr>
<tr>
<td>Number of regions</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Investments in Rosneft classes, RUB mln</td>
<td>191.1</td>
<td>224.4</td>
<td>258.8</td>
</tr>
</tbody>
</table>

In 2019, the Company sponsored 122 Rosneft classes in partnership with 64 secondary schools from across 27 Russian regions. The classes had a total attendance of 2,839 students. With a lot of Rosneft classes graduates employed by the Company, the project has proved its efficiency. In 2019, 32 Group Subsidiaries hired 107 Rosneft classes graduates. 2019 saw the creation of a new dedicated Rosneft class designed to supply talent for the Company’s operations focusing on Arctic and offshore oil and gas exploration and development, including environmental support and protection and biodiversity preservation. The class is hosted by AESC MSU – Komologro’s boarding school, a department of Moscow State University.

**Charitable Support for Educational Institutions**

Rosnef and the Group Subsidiaries provide charitable assistance to educational institutions taking part in projects and programmes of the corporate School–University–Company framework for continuing education. In the reporting year, total charitable aid allocations amounted to RUB 1,126.8 mln for vocational and higher education institutions and RUB 237.9 mln for partner schools.
In 2019, for the third year in a row, Rosneft was rated the Most Socially Responsible Oil and Gas Company of the Year in a contest organised by the Russian Ministry of Energy. The panel of judges gave high praise to the Company’s achievements in fostering the corporate culture and developing professional and personal skills of its employees. The judges also noted considerable work done by the Company to promote the principles and develop new formats of social partnership, as well as to propagate healthy lifestyles and ensure occupational safety.

Furthermore, Rosneft was awarded for the best public non-financial report among oil and gas companies.

Key social policy costs in 2019, %

<table>
<thead>
<tr>
<th>Social Policy Cost</th>
<th>% of Total</th>
<th>RUB bln</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODERN MEDICINE</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>ACTIVE LONGEVITY</td>
<td>30</td>
<td>35.4</td>
</tr>
<tr>
<td>AFFORDABLE HOUSING</td>
<td>2</td>
<td>36</td>
</tr>
</tbody>
</table>

In 2019, Rosneft continued to implement its comprehensive programme to ensure favourable social and working conditions for the Company employees stationed in remote regions and adverse climatic conditions. The programme’s key focus is the development and fit-up of 349 shift camps, including 119 shift and trailer camps, and 230 trailer camps for the drilling crews of RN Burenie, which in 2019 accommodated close to 52 thousand employees of the Company and its contractors.

In 2019, RUB 8.7 bln was spent on providing favourable social and working conditions. Capital investment in the construction, reconstruction, development and fit-up of shift camps, field support bases, sites and workshops amounted to RUB 8.1 bln.
Quality Living Conditions

One of the core areas of the Company’s Social Policy is its comprehensive housing programme that facilitates long-term cooperation with highly-qualified and valuable employees.

The cornerstone of the programme is corporate mortgage, which consists in the Company's giving an employee an interest-free 20-year loan to cover 25–35% of the flat's cost. The employee then enters into a mortgage agreement for the remaining amount with partner banks at a below-market interest rate.

In addition, relocated professionals are provided with corporate housing for a period of up to five years.

Education Support for Employees and Members of Their Families

Rosneft continues to invest in training of the Company’s employees and their children who attend universities on a full-time basis by issuing student loans.

In the reporting period, these loans were taken out by 307 employees.

Rosneft Vector – Camp for Employees' Children

In August 2019, corporate children's camp Rosneft Vector opened its doors for the first time to children from all over Russia whose parents are employed by the Company.

This pilot project brought together 135 kids from 59 Group Subsidiaries in the picturesque Republic of Khakassia, at the Lake Shira children's health resort that is supervised by the Achinsk Refinery.

The first shift was comprised of children who had actively participated in competitions and Olympiads organised by Rosneft and regional associations, supported cultural and volunteer activities, and won awards at municipal, regional, federal and international levels in sports, culture and education.

The girls and boys enjoyed colourful and exciting pastimes such as Future Oil Worker and Spitting Image talk shows, Rosneft Lights Up the Nights tryouts and gala concert, a Spartakiad, the Live Longer quiz, Rosneft Plants multiple-stage quiz, business and takeover days and much more. The kids also went on excursions to the Ubinsky Museum of Local History and Khakassia Nature Reserve. The camp also welcomed renowned guests who came to speak to the children – Guinness World Record holder Sergy Burlakov and legendary CSKA ice hockey player and Olympic champion Yury Bilonov. The shift ended with an award ceremony that celebrated the best group and sports team, as well as a music concert and fireworks.

Employee Health Management

The Company views keeping employees in good health as one of the strategic priorities of its Social Policy that serves to shape conditions for better labour productivity.

To improve the quality of medical services at remote workites, provide healthcare for its employees, and carry out the Modern Medicine strategic initiative, Rosneft is implementing a number of measures along the following lines:

- development and improvement of an emergency aid and evacuation system at the production facilities of the Group Subsidiaries; creation and development of a corporate telemedicine network;
- introduction of a brand new programme for preventive medical examination of employees aimed at early detection of life-threatening conditions;
- disease prevention and promotion of healthy lifestyles.

Occupational Medicine Advisory Board

In order to boost the efficiency of the healthcare system and effectively provide emergency medical aid, the remote production facilities of the Group Subsidiaries have an occupational medicine advisory board in place that consists of highly experienced occupational medicine specialists from the Group Subsidiaries and the Company’s Head Office.

In 2019, the board’s experts conducted comprehensive audits of the healthcare and emergency aid system at six Group Subsidiaries and also assessed the organisation and quality of pre-shift medical check-ups at ten of the Group’s Exploration and Production Subsidiaries.

Emergency Medical Aid at Production Facilities

All occupational medical stations of the Company are equipped with state-of-the-art medical equipment for emergency care and professional-grade training equipment for the development of emergency medical care skills.

The Group has established regular training sessions on prehospital emergency care in accordance with modern international standards (both in-person and using telemedicine).

To assess the readiness of the emergency medical response, the Group holds regular medical drills at various levels. In 2019, large-scale drills were hosted by 50 Group Subsidiaries.

Creation and Development of a Corporate Telemedicine Network

As part of a strategic initiative, a project is being implemented to establish a corporate telemedicine network that will bring together 90 healthcare facilities from remote production sites of 18 Group Subsidiaries and large federal and regional medical centres from across eight Russian regions to improve the availability and quality of medical care in the hard-to-reach regions of the Company’s operation.

Implementation of a Brand New Programme for Preventive Medical Examination

Ensuring good health of its employees and maintaining their long-term professional engagement are the priorities of the Company's new programme for preventive medical examination aimed at early-stage diagnosis and treatment of life-threatening conditions.

As part of the programme, employees get access to additional medical services intended to effectively diagnose cardiovascular diseases and cancer.

In 2019, the programme saw over 30 thousand employees from 11 Group Subsidiaries (pilot project) and Head Office of the Company.

All employees who went through the prevention programme received health passports containing the results of the check-ups and detailed individual recommendations on further monitoring and treatment. As part of the existing voluntary medical insurance (VMF) programme, employees received follow-up examinations and all types of treatment, including high-tech ones.

The results confirmed the new format of the prevention programme to be highly effective, especially when it came to early diagnosis of life-threatening diseases at pre-clinical stages. The programme has been extended into 2020.

Additionally, there are various initiatives under the healthy lifestyle propagation programme that include promotion of examinations for early diagnosis of cancer. On the World Cancer Day (February 4), Rosneft prepared a special newsletter on cancer risk factors and life-saving benefits of early diagnosis.
Disease Prevention and Promotion of Healthy Lifestyles

The Company continues running its 2018–2022 Live Longer! programme that promotes healthy living in order to prevent diseases and keep its employees in good health.

With more and more employees of the Company’s Head Office and the Group Subsidiaries participating, they not only take more interest in monitoring their physical condition, but also take active steps to find out more about ways to maintain their health, live a more active life, and thus make it more fulfilling.

The programme includes online lectures and training sessions on healthy behaviours, which bring the latest and greatest in healthy living and disease prevention to the regions of the Company’s operation courtesy of leading Russian experts from the relevant fields.

- WH, where more high-tech and multidisciplinary clinics with state-of-the-art equipment were included into the coverage to provide services in excess of those guaranteed by the government;
- voluntary accident insurance, which ensures round-the-clock coverage for employees in case of death and total or partial disability as a result of an accident. The Group Subsidiaries are moving towards increasing individual insurance coverage amounts that determine maximum payouts to employees;
- personal insurance programmes covering more than 330 thousand employees of Rosneft and Group Subsidiaries.

Personal Insurance Programmes

One of the Company’s key measures aimed at fostering a favourable social environment is the implementation of employee personal insurance programmes, which include:

- Rosneft was represented by its athletes on the half ironman and sprint distances at IRONSTAR, an international triathlon race held in Kaliningrad;
- a large-scale running event Run 10 km to Celebrate the Oil Worker Day was held;
- family sports events were arranged, including Spring Athletics Festival at CSKA and Summer Running Festival in Moscow.

For the second year in a row, Rosneft’s triathlon team became the corporate team of the year and won a commemorative award – a symbolic crystal.

Promotion of a healthy lifestyle, sports, and culture

Rosneft has a long history of promoting a healthy lifestyle and extensively supporting sports. Rosneft corporate events facilitate sports activities and give employees an opportunity to demonstrate their athletic achievements.

The “LIVE LONGER!” Programme to Promote a Healthy Lifestyle

The project is set to promote a healthy lifestyle, disease prevention, and involving employees of various ages and fitness levels in athletic events.

As part of the programme:
- the Company’s staff competed in a number of major Russian athletic events, including a series of races of the Moscow Marathon, Pioneer Cup biathlon race, All-Russian Ready for Labour and Defence Festival for employees;
- Rosneft was represented by its athletes on the half ironman and sprint distances at IRONSTAR, an international triathlon race held in Kaliningrad;
- a large-scale running event Run 10 km to Celebrate the Oil Worker Day was held;
- family sports events were arranged, including Spring Athletics Festival at CSKA and Summer Running Festival in Moscow.

For the second year in a row, Rosneft’s triathlon team became the corporate team of the year and won a commemorative award – a symbolic crystal.

Our triathlon team consists of more than 250 employees representing over 20 Group Subsidiaries.

In the Sport and Russia national award, Rosneft’s “Live Longer!” programme was awarded a diploma and a cup in the nomination The Best Project in Corporate Mass Sports and Promotion of Healthy Lifestyle among Employees.

In 2019, Rosneft won a contest held by the Russian Ministry of Energy among oil and gas companies in the nomination titled Promoting Healthy Lifestyle Culture and Standards among Employees.
In addition, the Company arranges internal events to promote corporate culture and support creativity among its employees.

9th Winter Spartakiad and 15th Summer Spartakiad of Rosneft

The Company places great importance on its winter and summer Spartakiads. The 9th Winter Spartakiad was hosted by Ufa and featured competitions in four sports – ice hockey, skating, cross-country skiing, and luge relay. 560 athletes and 32 corporate teams participated in the event. Bashneft became an overall winner, Angara were runners-up, while Samaraneftegaz took the bronze.

In autumn 2019, the Company awarded prize-winners of the 15th Summer Spartakiad in Sochi with competitions held in twelve disciplines, including futsal, volleyball, basketball, kettlebell lifting, tug of war, table tennis, athletics, billiards, and bowling. 800 athletes and 20 teams took part in the event with Angara celebrating the victory, Samaraneftegaz winning silver, and Novokuibyshevsk Refinery coming third.

Rosneft Lights Up the Nights

In 2019, Rosneft held its 9th annual corporate festival Rosneft Lights Up the Nights, which brought together more than 6.5 thousand employees from 125 Group Subsidiaries. Individual performers and groups which qualified after regional contest stages got a chance to win in one of the following nominations: choreography, vocal, instrumental, circus, and performance arts, artwork (painting and photography) in three age groups – 7 to 12, 13 to 17, and 18 and older.

The concert programme featured the best performances of the festival’s final phase and those put up by participants together with professional artists and Russian pop stars – Dmitry Malikov, Natalia Podolskaya, Mitya Fomin, Levon Oganezov, Pizza, and Jukebox Trio. Rosneft Lights Up the Nights is famous for its rousing dances, sophisticated instrumental compositions, and the unique nature of each performance.

This traditional festival reveals new talents and every year confirms its status as a notable cultural event attracting performers from the Group Subsidiaries across Russia.
Corporate Pensions and Support for Veterans

Since 2000, the Company cooperates with Non-State Pension Fund Evolution¹ to implement a pension programme set to improve the social security of retired employees of Rosneft and Group Subsidiaries. As at the end of 2019, the programme covered 280 thousand employees, and some 80 thousand former employees received corporate pensions. RUB 3.3 bln was paid in pensions during the year.

In 2019, private pension schemes cost the Company RUB 8.9 bln, including RUB 461.6 mln spent on the social support of veterans.

Under the collective bargaining agreement, retirees receive extra one-off financial aid or enjoy health resort treatment free of charge. These expenditures came to RUB 522 thoul. In 2019, Rosneft also held holiday celebrations for veterans on the occasion of Victory over Nazism in WWII, Oil and Gas Workers’ Day and New Year’s Day.

The Active Longevity Programme is implemented as part of the Rosneft-2022 Strategy and designed to improve the social security of retirees. In 2019, RUB 2.5 bln was invested in the programme. This helped to:

• apply one-time indexation to ca. 18 thousand pensions awarded in or before 2010, with the average pension amount increasing by 17.5 %
• top-up personal pension accounts of ca. 41 thousand retirees to ensure a 6.18 % indexation of corporate pensions financed from the investment income of NPF Evolution.

The Active Longevity Programme to be completed in 2021 is aimed to ensure the annual indexation of all corporate pensions from the investment income of NPF Evolution, thus maintaining their purchasing power over the whole payment period.

### Private pension schemes

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Company’s contributions to NPF Evolution under the pension scheme, RUB mln</td>
<td>6,843</td>
<td>11,577</td>
<td>14,402</td>
</tr>
<tr>
<td>Number of people receiving corporate pensions</td>
<td>72,841</td>
<td>76,892</td>
<td>79,836</td>
</tr>
<tr>
<td>Pension payments, RUB mln</td>
<td>2,196</td>
<td>2,786</td>
<td>3,287</td>
</tr>
<tr>
<td>Total value of personal pension plans with NPF Evolution, RUB mln</td>
<td>6,888</td>
<td>8,833</td>
<td>10,806</td>
</tr>
<tr>
<td>Number of people with personal pension plans (cumulative total)</td>
<td>76,460</td>
<td>91,124</td>
<td>96,358</td>
</tr>
<tr>
<td>Employees contributing to the fund, thousand people</td>
<td>Over 233</td>
<td>Over 266</td>
<td>Over 280</td>
</tr>
</tbody>
</table>

¹ Formerly known as NPF NESTEGRANT.

Collective Bargaining Agreement and Labour Rights

Rosneft respects employees’ right to freedom of association and collective bargaining. The Company never prevents its employees from joining associations and trade unions.

The Rosneft Interregional Trade Union Organisation (Rosneft ITUO) is a partner that plays a key role in the Company’s HR and social policies.

For details on Rosneft ITUO

For details on the Association

Liaising with the Russian Association of Oil and Gas Employers.

As at the end of 2019, there were more than 200 trade unions in Rosneft ITUO representing the Group Subsidiaries, with more than 160 thousand members (ca. 50 % of the total headcount as at the year-end).

Collective bargaining agreements cover more than 7% of the headcount.

To facilitate the social partnership programme, we continued the tradition of annual meetings of Rosneft’s HR and social segment and other functions with leaders of Rosneft ITUO. In 2019, they met in Moscow to discuss a number of burning issues for employees – wages, their indexation, pension schemes, subsidised vouchers, and local topics that needed to be taken care of by the Company.

Traditionally, Rosneft ITUO places a special focus on industrial safety. In particular, a meeting of the Health, Safety, and Environment Committee held in 2019 highly appreciated the performance of the Orenburgneft trade union’s labour safety officer and recommended to expand the practice of setting up the position of such Rosneft ITUO officers in other Group Subsidiaries.

Industry Agreement between Oil and Gas Companies

In 2019, Rosneft actively contributed to drafting of and entering into a new Industry Agreement between oil and gas and construction companies (the Industry Agreement). For the first time since 1992, the Industry Agreement promotes the interests of the oil and gas sector.

The long-lasting negotiations resulted in amending 56 clauses of the Industry Agreement with 24 new clauses added.

Employees of the Group Subsidiaries will enjoy the industry standard that guarantees minimal social benefits and compensations. The new Industry Agreement will enhance social security for employees, support sustainable development of the Company, and mitigate the risks of social strain and conflicts among employees.

Another benefit of joining the Industry Agreement is the capability to apply specific provisions of the Russian Labour Code conditioned upon the presence of relevant provisions in the Industry Agreement.
As a socially responsible business, Rosneft consistently implements a policy to facilitate comprehensive social and economic development across its regions of operation. We build long-term partnerships with local communities, take steps to protect social and cultural heritage and support key infrastructure projects aimed at advancing healthcare, education, culture, mass and youth sports. The Company respects the traditions of indigenous minorities and local ethnic diversity. We have gained a unique experience in addressing challenges related to preserving the identity, lifestyle and households of indigenous people, while also helping provide quality education and healthcare.”

Elena Zavaleeva
State Secretary – Vice President of Rosneft

For details on Vostsibneftegaz’s grant programme to preserve the Evenki language, see pp. 181

168 Supporting Social and Economic Development
181 Support for Indigenous Minorities of the North
Supporting Social and Economic Development

Rosneft is committed to promoting sustainable development of local communities by bolstering related industries and creating added value and new jobs across the entire production and sales chain. We implement socially significant infrastructural projects that serve to improve the quality of life for local communities.

Economic Development

As a major Russian taxpayer, Rosneft helps ensure budget stability and contributes to the nation’s social and economic development.

In 2019, the Company paid RUB 3.6 trillion in taxes, duties and insurance contributions to the budgets of all levels and non-budgetary funds, which makes up 18% of federal budget revenues.

Investment Programme

Rosneft’s investment programme comprises high-quality projects across all business segments and seeks to help the Company deliver on its strategic goals, including increased profitability, enhancing operational and investment efficiency, and minimising the environmental footprint.

The existing investment portfolio management and project ranking process make the investment programme flexible enough to respond quickly to changes in the macroeconomic environment and business, as it boasts high resistance to adverse external factors.

Most of Rosneft’s investment projects are based in Russia that accounts for 92% of the Company’s total investments in 2019, of which about 20% are projects in Eastern Siberia and the Far East. We invest in projects that bring about social and economic improvements and boost the quality of life in Russian regions.

Rosneft’s investment management process is designed in line with international best standards and practices, including initiation, pre-study, approval, monitoring of investment projects, and management of the Company’s investment portfolio. The investment process is integrated with all related processes, including strategic and business planning, budgeting, reporting and financial control, project management and corporate governance.

3.6 trillion roubles
in taxes, duties and insurance contributions paid by Rosneft in 2019

Equipment Localisation

In 2015, Rosneft launched an Import Substitution and Equipment Localisation Programme designed to help the Company achieve its goals in line with its strategic priorities.

OBJECTIVES UNDER THE IMPORT SUBSTITUTION AND EQUIPMENT LOCALISATION PROGRAMME

Rosneft development as a high-tech oil and gas company

Technological leadership in the core competencies: oil and gas production, oil refining and gas processing

Technologically sustainable position in the hydrocarbons market

Increasing the share of Russian-made products and implementing projects to localise the manufacturing of foreign oil and gas equipment in Russia in cooperation with leading global producers

Sustainable infrastructure development

Running upstream and downstream projects

As part of the programme, Rosneft keeps investing in proprietary solutions and products with a view to sustaining its technological self-sufficiency.

Advancing Prospecting, Exploration and Development Technologies

In partnership with Rosatom, Rosneft creates instruments for measuring mineral composition of formations and logging while drilling horizontal wells. This will help provide for high-quality insights into complex reservoirs and ensure independence from expensive foreign services.

Rosneft and its another partner Rostec are working on a project to produce synthetic proppants using a jointly developed technology.

Promoting Russian-Made Catalysts

In 2019, Rosneft’s subsidiary RN-Kat specialising in catalyst production and the Ufa Refinery conducted industrial tests on the first batch of the hydrotreating catalyst suitable for Euro5 compliant diesel fuel. This is a unique hydrotreating agent capable of fully replacing its foreign peers for the Russian refining industry. The tests proved that Rosneft’s proprietary catalyst was fit for the production of diesel fuel compliant with the latest technical requirements.

In 2019, the Novokuibyshevsk Catalysts Plant launched Russia’s first-ever advanced pilot testing facility for hydrotreating catalysts. The new facility is designed to test technologies for manufacturing new oil refining and petrochemical catalysts with a view to ramping up large-scale production. Until now, Russia has been lacking technological capabilities of this kind. The cutting-edge platform will fast-track the implementation and commercialisation of Rosneft’s R&D initiatives focusing on catalysts and catalysts for the said processes.

For details on the proprietary research-intensive specialist software, see the Development of R&D Capabilities section of this Report.

1 A type of borehole measurement.
2 Rock formation with voids (pores, vugs, cracks or fractures) that can host and filter fluids (oil, gas and water).
Zvezda Shipbuilding Complex

Upon instruction from the Russian President, Rosneft is running a programme to ramp up a shipbuilding cluster in the Far East. Zvezda Shipbuilding Complex (Zvezda Shipyard) in Bolshoy Kamen, Primorye Territory, is the core shipyard in the cluster and Russia’s first-ever facility for the construction of large-capacity vessels.

In 2019, the shipyard has 42 vessels in pipeline, with orders for 28 vessels placed by Rosneft to secure pilot workload.

Zvezda Shipyard produces vessels of various class and purpose, including large-capacity Aframax tankers, MR product tankers powered by gas motor fuel, shuttle oil tankers and Arc7 ice-class gas carriers, nuclear icebreaker, icebreaking vessels and marine equipment.

In 2019, we continued to develop import substitution in cooperation with the following federal executive bodies:

- Russian Government;
- Ministry of Industry and Trade;
- Ministry of Energy;
- Ministry of Economic Development.

Rosneft is represented in various intergovernmental task forces and research groups established by federal executive bodies to look into ways to reduce the domestic fuel and energy sector’s dependence on imported equipment, components, spare parts, as well as on foreign services and software.

Rosneft is also involved in public discussions of draft laws and regulations aimed at facilitating import substitution.

As at the end of 2019, the Company signed cooperation agreements with 48 Russian regions, which among other things set stage for localising equipment manufacturing across Russia.

Following the commissioning of its second phase, Zvezda will be able to build all types of vessels and marine equipment. Work is currently underway to build a dry dock and additional full-cycle workshops for large-capacity vessels and marine equipment. The shipyard will be fully operational in 2024.

Government Relations in Import Substitution and Localisation

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Social and Economic Development of the Russian Far East

Building a cutting-edge industrial cluster requires a lot of investments in manufacturing, as well as in talent pool and social infrastructure. Thanks to the Zvezda Shipyard, the Primorye town of Bolshoy Kamen received a powerful impetus for growth.

The shipyard will be built by a Rosneft-led consortium in fulfillment of instructions from the Russian President Vladimir Putin. Today, the shipyard has 39 vessels (59 including options) in its pipeline, with orders for 28 vessels placed by Rosneft to secure pilot workload. Zvezda product range will feature vessels with an up to 350 kt displacement, components of marine platforms, ice-class vessels, commercial vessels for cargo transportation, specialty vessels, and other types of marine equipment of any complexity, characteristics and purposes, including those not previously manufactured in Russia due to the lack of required launching and hydraulic structures. The new industrial cluster emerging in the Russian Far East has created thousands of jobs, contributing to the region’s economic and social development. The shipyard currently employs as many as 3,000 people, with its headcount expected to exceed 7,500 by 2024.

A special focus in place on improving social infrastructure in Bolshoy Kamen. To create a comfortable living and working environment, Zvezda helps build housing for its staff. November 2019 saw the commissioning of four new residential buildings intended for Zvezda employees, at the official ceremony, they received keys from 344 apartments fully ready for a comfortable living. By the end of the year, another 12 residential buildings with 528 apartments were commissioned, with two other buildings of 68 apartments each made available for living earlier as part of the project. By 2023, the Zvezda Shipyard contractors and Primorye Territory Administration will build a total of 788 apartments in seven Bolshoy Kamen microdistricts.
Supporting Social Development of Regions and Charity

Rosneft makes a significant contribution to the development of local healthcare, education, culture and infrastructure while also promoting mass sports in the regions of operation. In its charitable activities, the Company prioritizes social investments in the regions as part of social and economic cooperation agreements with regional authorities.

In 2019, we continued to honour our commitments under the relevant agreements with 48 Russian regions.

Allocation of Funds in 2019\(^a\), %

<table>
<thead>
<tr>
<th>Category</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>5.1</td>
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<tr>
<td>Physical education and sports, including children, promotion of healthy lifestyles</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure development in regions, districts and municipalities</td>
<td>24.2</td>
<td>24.8</td>
<td>25.7</td>
</tr>
<tr>
<td>Culture and revival of cultural heritage</td>
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<td></td>
</tr>
<tr>
<td>Education and science</td>
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<td>Support for veterans, the disabled, and people in need</td>
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<td></td>
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<tr>
<td>Pre-school institutions and orphanages</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Charities, NGOs, humanitarian aid</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for indigenous peoples of the North</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other expenses</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9,556.35 million roubles spent on sponsorship activities in 2019

Support for Local Water Supply Initiatives

Rosneft sponsored a large-scale project to improve water supply in the Republic of Ingushetia. In 2019, water supply facilities were put into operation in Nazran and six rural settlements outside the town. Over 40 km of water pipeline, three water tanks and eight artesian wells were built to provide clean drinking water to local communities.

The Company also supports projects to secure water supply in the Tarqazy settlement and to repair water supply networks in 11 settlements of Yermekeyevsky, Ishimbaysky, and Chekmagushevsky districts of the Republic of Bashkortostan.

In the Khanty-Mansi Autonomous Area – Yugra, discussions are underway to construct a modular water treatment plant in the settlement of Karkateyevy. It is also planned to erect engineering facilities for water supply networks in the district’s urban and rural settlements. As part of the Clean Water federal project, the Achinsk Refinery supported a project to provide clean drinking water to settlements located in the Bolshoeulinsk District of the Krasnoyarsk Territory. The programme is being implemented jointly with the district administration.

Charity

Rosneft provides charitable support to the regions across its footprint. The Company’s charitable activities are carried out in accordance with the Federal Law On Charitable Activity and the Regulations on the Procedure for Charitable Activities in Rosneft and Group Subsidiaries.

Supporting Social and Economic Development

Rosneft provides charitable support to the regions across its footprint. The Company’s charitable activities are carried out in accordance with the Federal Law On Charitable Activity and the Regulations on the Procedure for Charitable Activities in Rosneft and Group Subsidiaries.

\(^a\) For charity expenses related to the support of education institutions and Veterans Council, see the Personnel and Social Programme section of our annual reports for 2017, 2018 and 2019.
In 2019, Rosneft and the Group Subsidiaries provided funding under cooperation agreements with the following regions (including as part of certain projects): [END]

**Republic of Bashkortostan**
- Purchase of municipal service vehicles;
- major overhaul of the community centre in Durytyul;
- major overhaul of the administrative premises in the Yamal youth recreation centre;
- repair of the teaching block and the gym of the Ufa Forestry Technical College;
- major overhaul and equipment purchase for the Spartak stadium in Tyumen;
- design works for the major overhaul and construction of the republican rehabilitation and education centre for children and teenagers with special needs in Ufa’s Kirovsky District;
- construction of a footbridge across the Druzhby Narodov avenue in the vicinity of the Kamysnykolskaya specially protected area (Leminsky District, Ufa);
- construction of a kindergarten for 230 kids in the Andreyevsky District, Khuzhamekenko;
- major overhaul of the Urazaevo pump station and the Sabanchi-Mansky (Krasnoselsky District) water supply main to provide water to residential areas;
- construction of a clinic for 120 patient visits per shift in Nagaevo;
-

**Kostroma Region**
- Gasification of Kostroma Region localities;
-

**Orenburg Region**
- renovation and equipment purchases for the regional clinical hospital in Orenburg;
-

**Tyumen Region**
- design, reconstruction, repair and improvement of roads, streets and public spaces, including the Oil Industry Worker Square in Uvats (Uvats Municipal District, Tyumen Region);
- support of indigenous peoples of the North, preservation and promotion of their traditions;
- staging parascending competitions of various levels;
- staging the Miracle Hen park sculpture festival;
- setting up a community music studio for kids and the youth in the Uvalsky Municipal District;
- staging various boxing competitions;
- support for childhood disease prevention, treatment and rehabilitation of children with serious illnesses;
-

**Republic of Sakha (Yakutia)**
- Construction of a teaching block for 150 students and a boarding school for Obytchinsky-2 and Uyugat
-

**Republic of Bashkortostan**
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-
2019 saw Rosneft allocate RUB 418 mlr to support certain charity projects in addition to investments in the regions as per the agreements on social and economic cooperation. In the reporting period, Rosneft gave charitable support to the following activities and projects:

- Improving social infrastructure of the Evenkiysky District (purchase of equipment for municipal needs, improvement of the rural settlements’ living environment, overhaul of socially important facilities, including repairs of housing and supporting the Surindinsky reindeer husbandry enterprise);
- Purchasing diesel generators for the villages of Yerbogachen and Nepa (Irkutsk Region) and implementing a project to promote school forestry units in the villages of Yerbogachen, Preobrazhenka, Podvoloshino;
- Performing design works and constructing bridges in the Uygat village of the Tulunsky District and in the Chernyayev Lug garden-ers’ non-commercial partnership of the Nizhneudinsky District (Irkut Region);
- Providing financial support to overhaul a children’s tuberculosis sanatorium in Saratov;
- Purchasing medical equipment for the Novokuibyshevsk Central City Hospital and the Ryazan Regional Clinical Perinatal Centre, improving the technical infrastructure of the Angarsk Perinatal Centre;
- Repairing the roof of Secondary School No. 7 named after Alexander Pushkin with advanced study of English, repairing heating, water supply and sewage facilities of Secondary School No. 48 located in Vladivostok (Republic of North Ossetia – Alania);
- Upgrading social facilities in Achinsk; purchasing equipment for children’s playgrounds and sports grounds in Strelechie;
- Sponsoring holiday and after-school activities of orphans, children from disadvantaged and low-income families, organising New Year plays for disabled children and children from low-income families living in the areas of the Company’s operations in the Tomsk Region;
- Upgrading social facilities located in the Miminsk and Lensky districts of the Republic of Sakha (Yakutia);
- Reconstructing the stadium of the Children and Youth Sports School situated in the Parabelsky District (the Tomsk Region);
- Providing financial support to veterans and disabled servicemen of the Great Patriotic War, home front workers, as well as persons of equivalent categories in the regions across the Company’s footprint.

Rosneft supported certain charity projects by allocating 2,418 million roubles.

Round Table of the Group Subsidiaries in the Republic of Bashkortostan

Rosneft organises round tables with its stakeholders on a regular basis. April 2019 saw one of the events held in Ufa and attended by representatives of the Group Subsidiaries and the republic’s government, contractors, and educational institutions. The agenda included the most pressing issues on sustainable development, regional impact of the Company and the Group Subsidiaries, as well as suggestions put forward during the previous event.

At the round table meeting, stakeholders presented their proposals and provided their assessment of cooperation on sustainable development. The participants’ requests included the following:

- Replacing joint scientific and technical councils of the Company and the Ministry of Industry and Innovation Policy of the Republic of Bashkortostan;
- Fostering the creation of the Rosneft – Ufa State Oil Technical University research and education centre;
- Creating a mechanism for the out-of-court settlement of disputes arising during the Company’s procurement activities;
- Familiarising members of the Chamber of Commerce and Industry with Bashneft’s procurement procedures through training seminars.

As the event came to a close, the stakeholders thanked the Company and other participants for organising a platform for a constructive dialogue.
Sponsorship

Rosneft pays special attention to sponsorship activities in the regions where it operates. The Company provides ample support to projects aimed at reviving spiritual and national values, developing culture, science, education, industry, and sports.

In 2019, Rosneft spent RUB 1,842 mn on sponsorship activities, including the following events:
- seven business forums and conferences held in Russia and abroad, such as the St Petersburg International Economic Forum, the Eastern Economic Forum, the Russian Energy Week International Forum, the Arctic: Territory of Dialogue International Arctic Forum;
- exhibition of the British artist Thomas Gainsborough held at the Pushkin State Museum, a permanent historical display Ancient Colonisation of the Northern Black Sea Region staged by the State Hermitage Museum;
- Bravo International Music Award, White Nights Festival, as well as events organised by the D. D. Shostakovich St Petersburg Academic Philharmonia;
- performances of the St Petersburg Eifman Ballet, Chamber Choir of the Moscow Conservatory, Mariinsky Orchestra conducted by Valery Gergiev, and other events as part of the Russian Culture Festival celebrated in Japan;
- Eifman Ballet performed Anna Karenina in Doha at the premises of the Qatar Foundation for Education, Science and Community Development;
- comprehensive programme to protect polar bears living in Russian zoos, which has been running since 2013; under the programme, Rosneft provides sustenance for 36 polar bears in 16 zoos across the country;
- financing of the CSKA Moscow Hockey Club and the Arsenal Tula Football Club;
- funding of the LADA Sport ROSNEFT racing team;
- acting as a general sponsor of the International SAMBO Federation.

Volunteering Activities

The Group Subsidiaries promote volunteering among its staff.

Rosneft’s employees take part in a variety of volunteering initiatives such as supporting vulnerable population groups (veterans, disabled people, orphans, and older people who live alone), organising and holding sports, educational, social, and cultural events, implementing projects to protect the environment and address green issues.

Bashneft’s Kind Hearts

It has become a New Year’s Eve tradition for employees of Bashneft to stage festive events for children (A Gift From Father Frost) and for the Company’s veterans (The Warmth of Our Hearts). The Kind Hearts volunteer programme began over eight years ago, adding in size and scale every year.

In 2019, volunteers held New Year plays for more than 1,000 children from 25 sponsored institutions. They also donated thousands of children’s gifts, as well as fitness and rehabilitation equipment, office and household appliances, carpets and furniture.

Volunteers visited veterans’ homes to give presents to the those affected by the Great Patriotic War and former employees of the Company.
Support for Indigenous Minorities of the North

Respect for the cultural heritage, traditions and rights is a guiding principle of Rosneft’s operations in the regions of indigenous minorities.

When engaging with indigenous peoples, the Company is guided by the following international documents:
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP);
- Indigenous and Tribal Peoples Convention (No. 169) of the International Labour Organisation.

Rosneft strictly complies with the Russian laws on indigenous minorities of the North, ensuring they can exercise their rights to protect their natural environment, traditional way of life, economic activities, and crafts.

Representatives of indigenous peoples are involved in decisions that may affect their interests. In particular, they have the right to participate in the decision-making process during the assessment of environmental impact and public environmental reviews.

Donor Day

Every year, Rosneft’s employees participate in Donor Day events and actively donate blood on an individual basis. Several dozens of them were recognised as Honorary Donors of Russia, which means they have made over 40 blood donations. In 2019, some 1.5 thousand employees of the Company took part in Donor Days and donated more than 650 litres of blood.

A corporate Donor Day has now become a good tradition for Bashneft’s employees. The event is held right after the Oil and Gas Industry Workers Day. In 2019, it brought together over 60 employees of Bashneft and its subsidiaries. Those interested also applied for becoming bone marrow donors. Our employees are proactive people always ready to help those in need.

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Breakdown of expenditures to support the indigenous peoples of the North, RUB mln

<table>
<thead>
<tr>
<th>Year</th>
<th>Support for the Indigenous Minorities of the North, RUB mln</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>43.50</td>
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<tr>
<td>2018</td>
<td>36.32</td>
</tr>
<tr>
<td>2019</td>
<td>107.80</td>
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Provision of materials and equipment
Preservation of the local culture, health improvement programmes

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Breakdown of expenditures to support the indigenous peoples of the North, %

<table>
<thead>
<tr>
<th>Year</th>
<th>Support for the Indigenous Minorities of the North, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>55.6</td>
</tr>
<tr>
<td>2018</td>
<td>36.32</td>
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In 2019, Vostsibneftegaz, a subsidiary of Rosneft, took further steps to maintain traditions and preserve the culture of indigenous minorities of the Evenkiysky District (Krasnoyarsk Territory). Supporting domestic reindeer herding and craftsmanship is among the company’s priorities. Vostsibneftegaz is a traditional partner in celebrating the Reindeer Herder’s Day. In addition to prizes for the winners, Surindinsky, the only reindeer husbandry enterprise in Evenki, received 15 radio stations and a car on the basis of GAZ-73 with radio communication equipment suitable for the taiga environment, making sure reindeer herders can coordinate the herding process and protect reindeers from wolves.

A new three-apartment house was built in the national village of Polpuk in the Ekonda village, municipal housing stock was renovated, while in the Motorai village, school and kindergarten buildings were overhauled. The Union of Indigenous Communities of the North received support for traditional economic and cultural activities, training of students and healthcare services for the indigenous population. Under the Vostsibneftegaz grant programme to support scientific research of considerable significance for the residents of the Evenkiysky District, scientists of the Siberian Federal University continued to take steps to preserve the Evenki language. For this purpose, the first audio library of Evenki speech and folklore was created and used as a basis for the only website in Evenki.

In 2019, the Kuyumbinskoe Hunters Society was awarded its first grant for the project to preserve and reproduce the purebred Evenki Laika. When revived, the dogs of this genotype will help support traditional folk crafts as a key activity of the Evenks.

For details on public discussion of environmental impact assessment with regard to planned operations, see the Environmental Protection section of this Report.

ECOARCTIC Forum

March 2019 saw the ECOARCTIC environmental forum staged as part of cooperation between the administration of the Nenets Autonomous Area and RN-Shelf Arktika, a subsidiary of Rosneft. Attended by over 2.5 thousand people, the event sought to establish an open and fruitful dialogue between scientists, government officials, major subsoil users, and local residents on matters relating to environmental protection and preservation of indigenous peoples’ identity.

In 2019, the forum’s key event was a round table on safe development of the Arctic and reduction of environmental impact. The dialogue also centred around the grant programme to study the Evenki reindeer. As part of the programme, scientists of the Siberian Federal University are studying reindeer migration routes. The scientists also presented the results of projects to study the polar bear and the Laptev Sea subspecies of the Atlantic walrus inhabiting the Russian part of the Arctic Ocean.

During the event, six career guidance lectures on ecology and geology were held for schoolchildren of grades 8 to 11 from three residential areas. The forum was concluded by the Syamyankhat Mereta national holiday featuring reindeer races, national games, a national costume contest, and musical performances. More than 70 reindeer herders took part in Syamyankhat Mereta competitions.

Support for Indigenous People by Vostsibneftegaz

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As an operator of the largest retail network of filling stations and oil depots in Russia, Rosneft has been putting significant effort into developing the marketing and distribution infrastructure. The Company is committed to responsible business practices when engaging with a wide range of contractors and builds relationships based on mutual interest, transparency, competitiveness and effectiveness. Stable supplies of environmentally-friendly and high-quality products and complementary goods coupled with high service standards make the Company a leader in the Russian retail market. On top of that, Rosneft contributes to the social and economic development across its footprint by contracting local SMEs.

Avril Conroy
Vice President for Retail Business and Domestic Market Development

For details on fuels with improved environmental properties, see p. 187

186 Customer Engagement
193 Supplier and Contractor Relationships
Customer Engagement

Rosneft makes it a priority to build trust-based partner relationships with all its consumers, embrace a customer-driven approach and supply environmentally-friendly and high-quality solutions. Its products are sold in domestic and international markets.

Retail Sales

As at the year-end, Rosneft’s retail sales covered 66 Russian regions. We operate the largest and most geographically diverse retail chain in Russia, holding a leading position in most regions. The Company also has retail chains in Abkhazia, Belarus, Kyrgyzstan, Georgia and India. Rosneft is a leading Russian fuel brand in terms of recognition and quality perception.

As at 31 December 2019, the Company’s retail chain comprised over 3 thousand filling stations in 66 Russian regions and over 5 thousand filling stations abroad. In 2019, the Company completed the acquisition of Petersburg Fuel Company to become a leader in the strategic market of St Petersburg and the Leningrad Region.

As at 31 December 2019, the Company had 132 oil depots (including two filling stations) and approximately a thousand gasoline tanker trucks in operation.

The Company continues to expand sales of complementary goods in convenience stores and cafes at its filling stations. As at the year-end, filling stations had 2,379 convenience stores, with 2,530 filling stations offering coffee service. In 2019, over 45 million cups of hot drinks were sold at the Company’s filling stations.

Rosneft aims to further develop the infrastructure at its filling stations to meet the market needs. To this end, it is implementing a programme to expand its sales of compressed natural gas (CNG). In 2019, its monthly CNG sales totalled 1.7-2.2 bcm, with up to 2.5 thousand vehicles serviced daily at the Company’s filling stations. Rosneft has 12 CNG modules at its filling stations and plans to expand further.

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ADVANTAGES OF THE COMPANY’S DIGITAL SOLUTIONS:

- Guaranteed high quality of fuel from a reliable supplier
- Extensive chain of filling stations, including the partner ones
- Attractive flexible pricing
- Mobile app with a virtual fuel card
- Quick contract execution
- Electronic workflow
- Financial instruments and additional services
- Round-the-clock hotline

New Digital Services for Customers

Rosneft seeks to improve the effectiveness of its retail business. In line with the Rosneft–2022 Strategy, the Company is introducing digital technologies to develop digital marketing channels, including new mobile apps, brand promotion in social networks, development of new distance learning courses for employees, automation of material flow measurements and a monitoring system keeping track of petroleum product inventories.

Rosneft is working on new solutions to offer online fuel payment services for individuals. The Company and its partners have launched a fuel payment service via a mobile app, allowing customers to pay for fuel without leaving their car. In 2019, the loyalty programme was updated, with a new Virtual Card service available in-app to phase out plastic cards. In the reporting year, the number of Family Team, BP Club and Bashneft loyalty programme members reached 13.6 million people.

The Company is moving with the times, introducing advanced digital solutions to make the customers’ business processes easier. Today, to gain access to virtual card payment and electronic accounting documents, a potential customer can download a mobile app from the website at www.rn-card.ru and sign a contract within just five minutes.

More Eco-Friendly Products

In 2019, Rosneft continued implementing projects to bring fuels with improved environmental efficiency and performance to the Russian market.

In 2019, Tulanefteprodukt, Bayannenetproodukt, and RM Moscow (Rosneft’s subsidiaries) switched to improved Euro-6 gasoline (AI-95 K5). Euro-6 gasoline is currently sold at 727 filling stations of the Company in the Republic of Bashkortostan (112 filling stations), Krasnodar Territory (205 filling stations), Republic of Adygea (5 filling stations), Tula (40 filling stations), Kaluga (27 filling stations) and Vladimir (3 filling stations) regions, in Moscow and the Moscow Region (203 filling stations), as well as in wholesale quantities from oil depots.
BP Fuels with ACTIVE technology

BP fuels with ACTIVE technology are specially designed to provide a high level of engine protection against deposits formation and remove existing deposits. ACTIVE fuel is a unique set of components developed specifically for the new BP fuel line to effectively prevent deposit formation on the main parts of the engine and contribute to greater fuel economy and restoration of the engine capacity.

Compressed natural gas

Gas motor fuel is more environmentally friendly and efficient type of fuel that allows car owners not only to considerably cut costs, but also benefit from a more efficient car while also reducing their environmental impact. In 2019, 15 filling stations in Russian regions served daily up to 2.5 thousand cars with this fuel.

Pulsar 100 gasoline

The gasoline is high-octane fuel with decreased deposit formation. Compared to AI-95-RS, Pulsar 100 has a different composition with a decreased content of aromatic hydrocarbons and an increased content of high-quality components ensuring low deposit formation. The fuel contains active cleaning additives for stable and reliable operation of the car fuel system. Pulsar 100 gasoline is sold at the Company’s filling stations in the Moscow Region.

Eco-Friendly Marine Fuel

In 2019, RN-Bunker (Rosneft’s subsidiary) started bunkering vessels in the Far East with RMLS40, fuel with improved environmental performance. It is characterised by a low sulphur content that does not exceed 0.5 % and fully meets the requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL).

The first 200 tonnes of marine fuel were supplied to a bulk carrier in Nakhodka. The low-sulphur fuel is also used for vessels operating in the waters of Bolshoy Kamen as part of the Zvezda Shipbuilding Complex project.

The environmentally friendly marine fuel for the Far East is produced at Rosneft’s Komstomolsk Refinery in the Khabarovsk Territory. The ability to produce this type of fuel testifies to the high technological level of the Company’s refineries, while the use of this fuel helps reduce the transport’s impact on the environment.

In 2019, RN-Bunker started fueling vessels with eco-friendly LMF type A fuel (low-viscosity marine fuel) produced at Novikulbyshevsk Refinery. The sulphur content in the fuel is below 0.1 %.

Electric Car Charging Stations

In 2019, to expand service offering at filling stations, Rosneft continued developing its electric car charging infrastructure. As part of these efforts, 50 kW fast charging columns were installed in the Moscow Region and the Primorye Territory, making it possible to charge a car in less than one hour.

Fuels with Improved Environmental Properties

Rosneft Deutschland GmbH (Rosneft’s subsidiary) produces greener transportation fuels using both traditional components and HVO additive made from vegetable fats, as required by German and European legislation. Its refineries and numerous terminals across Germany deliver over 500 kt of biofuels per annum. Rosneft Deutschland sells its bio-based fuel to customers in Germany, Poland and Austria.

As an equity holder in three German refineries, Rosneft promotes a variety of greener production initiatives, including:

- A feasibility study for the IH²® technology (Shell technology used by another shareholder in the PCK Refinery in Schwedt). The IH²® technology is a catalytic thermochemical process to convert biomass directly to high-purity hydrocarbon hydrocarbon fuel components. It helps achieve cost savings in turning forestry, agricultural and municipal waste into transportation fuels, reduces the hydrocarbon fuel consumption, and provides up to 72 % bio-energy recovery from organic wastes and up to a 92 % reduction in greenhouse gas (GHG) emissions.

- An initiative to produce regenerative fuels at HRG Refinery. As part of the refuelling - Rethinking Fuels (regenerative fuels) project, HRG Refinery together with Karlsruhe Institute of Technology (KIT), the Baden-Württemberg Ministry of Transport, other government authorities and partners from the automotive industry have been looking into efficient production and use of regenerative fuels, the so-called refuels. The project focuses on the processes designed to significantly expand the production of gasoline and diesel fuels based on renewables and available raw materials. It also explores the impact of regenerative fuels on the level of pollution emissions and vehicle operation. The production of synthetic fuels using the existing refinery infrastructure will enable a phased transition to carbon-neutral fuels.
Quality Management System

As a leader in the motor fuel market, the Company pays special attention to the compliance of its products with all applicable standards and customer expectations. The Rosneft trademark is one of the most recognisable for petroleum products across the regions where the Company operates and is associated with quality fuel on sale at filling stations.

Product Quality Control

We have built a system to manage fuel quality at all stages of production, transportation and sales. The system seeks to ensure consistently high fuel characteristics all the way through from refinery to car tank.

Motor gasoline and diesel fuel sold domestically meet the K5 class requirements outlined in Technical Regulations of the Customs Union and undergoes safety against the standards set domestically.

Fuel parameters are verified using cutting-edge equipment at stationary site labs and oil depot labs and specified in the quality certificate available at Rosneft filling stations.

The final link in this chain is 15 mobile labs equipped with high-tech analysers to perform tests at filling stations. Mobile labs control fuel quality, among other things by measuring and benchmarking its impact on consumer health and safety against the standards set out in the Technical Regulations (sulfur content, benzene in gasoline, diesel flash point, etc.). Each lab checks over 700 filling stations annually.

Rosneft’s products are also subject to quality verification by the Federal Agency for Technical Regulation and Metrology (Rosstandart). In 2019, the watchdog conducted 32 scheduled and ad hoc checks at the Company’s marketing and distribution subsidiaries and analysed fuel samples from four oil depots and 74 filling stations across Russia. The checks confirmed the top quality of our motor fuel.

In 2019, the testing conducted by NGOs at filling stations in the Kurgan Region (Ural Federal District) validated the high quality of our products.

Fuel sold in Abkhazia, Belarus, and Kyrgyzstan complies with the Technical Regulations of the Customs Union and undergoes quality checks at independent labs.

Cooperation with Rosstandart on Fuel Quality

The reporting year saw Rosstandart’s Interdepartmental Working Group on Countering the Illegal Turnover of Petroleum Products take the following steps in cooperation with Rosneft:

- develop and approve a risk-oriented quality preservation system for petroleum products;
- run a pilot project in St Petersburg to create a national traceability solution to prevent fuel surrogates from entering the market.

Customer Focus

Improving Customer Experience

High quality service is the key driver of our retail business. Our customer-centric culture hinges on professional staff at oil depots and filling stations, an effective training system, and customer satisfaction monitoring.

In 2019, the Company held training sessions for filling station managers and administrative staff in effective management, customer-centric behaviour and constructive customer relations, with a total of 414 employees from nine marketing and distribution facilities having been trained.

In 2019, the Company kept running its Mystery Shopper programme to assess the service quality at filling stations, with a score for the year standing at 91.13 % (excellent level).

The Company has set up 24/7 hotlines for loyalty programme participants. The reporting year saw 765,532 and 103,189 queries under the Family Team and BP Club programmes, respectively. The average speed of answer on the line does not exceed 30 seconds, and the average talk time is 2–3 minutes.

Loyalty programme hotlines:
- BP Club: +7 800 334 7550
- Family Team: +7 800 555 3723
- for the Far East: +7 800 775 7588

Data for October–November 2019.
Pricing Policy

Rosneft pursues a balanced pricing policy and takes steps to stabilise the fuel market. Our retail prices are on par with the competition, and we take action to prevent a sharp rise in prices at our filling stations. By doing so, we smooth out necessitated price hikes and prevent repercussions from high volatility on the exchange market, thus helping consumers get fair prices.

Fuel Availability in Remote Regions

We operate one of the largest and most extensive retail networks spreading from Russia’s western borders to the Kamchatka Territory. Our network brings Rosneft petroleum products to 66 regions, including remote and poorly accessible areas.

Irkutskneftprodukt’s List-Kut oil depot is a key element in the petroleum product shipment by river under the Northern Supply Haul programme. The depot supplies Rosneft products to the Republic of Sakha (Yakutia) and the north of the Irkutsk Region.

RN-Vostoknefteprodukt uses its tanker fleet to transport motor fuels to the Magadan Region, Kamchatka Territory and Sakhalin.

Fuel Supply to Socially Significant Consumers

The Company’s subsidiaries ensure uninterrupted sales of motor fuel, both wholesale from oil depots and retail via a network of filling stations. They also take part in public tenders organised in line with federal laws. Rosneft is the sole motor fuel supplier for the majority of large government-owned companies, such as agricultural producers.

Launch of Filling Stations in Remote Regions

Rosneft runs low-cost projects to open fuel outlets in remote areas with low traffic volumes and relatively weak demand for gasoline. By expanding its retail network, Rosneft contributes to the regional development and meets local demand for affordable quality fuel.

Supplier and Contractor Relationship Management

Strongening Partnerships

Rosneft, if one of the biggest consumers of goods, works and services in all of its geographies. The Company’s model of partnership with suppliers and contractors meets high international standards on procurement organisation and efficiency.

THE COMPANY’S PRINCIPLES IN SELECTING CONTRACTORS

- Openness
- Reasonableness
- Competitiveness
- Effectiveness
- Non-discrimination

Corporate Internet Shop

To enhance the transparency and efficiency of minor procurement, TEK-Torg’s electronic trading platform launched a Corporate Internet Shop.

In 2019, the Company and the Group Subsidiaries initiated more than 29 thousand procurement procedures.

In 2019, TEK-Torg was named the third best electronic trading platform in Russia in terms of corporate customer satisfaction with the quality of services.
The Company is consistently working towards implementing the category management in procurement, with 18 category/procurement strategies developed and approved in 2019. Category management makes it possible to move from single to consolidated purchases that are based on the specific characteristics of a given product category, standardise technical requirements, and use the advantages of the market environment and domestic demand forecasting, as well as establish and prioritise management approaches for categories of goods, works and services.

Category strategies are geared towards boosting procurement efficiency via the implementation of an optimal approach to purchasing materials and supplies, works, and services within given categories and the standardisation of the main parameters of procurement procedures along with reducing the time spent on preparation to carry them out.

**Category strategy** is a local regulation determining the Company's unified approaches to managing a specific category of goods, works and services and setting out targets and objectives for the category and the most efficient procurement approaches.

**Shared Service Centre**

The Company is setting up a Shared Service Centre with a view to centralising and pipelining routine procurement operations and category management functions. In 2019, regional inventory management and quality control functions were transferred to the Shared Service Centre.

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End-to-End System for Controlling Compliance

In order to pick reliable suppliers and contractors, the Company and Group Subsidiaries always employ a single end-to-end system for controlling compliance with corporate requirements. It consists of several elements.

**Reliability testing (accreditation)**

Before signing an agreement with the Company, candidates go through a test of their compliance with the minimum established requirements as regards the legal status, financial stability, reliability, and business reputation, which constitutes part of the measures to combat fraud and involvement in corruption activities.

**Qualification by product**

Suppliers and contractors go through a test of compliance with special requirements confirming their ability to supply high-quality products of a certain kind (goods, works, services) in a timely manner, including requirements on specialised experience, resources, permits, as well as other requirements that are publicly available on the Company's website.

**Technical audits**

Technical audits examine suppliers' production and technical activities, technical capabilities, capacities, assess their ability to produce and supply the necessary amounts of products in accordance with the Company's technical requirements. The decision to hold this audit may be made as part of a procurement process or based on the Company's pre-approved schedule. All of the above requirements are publicly available on the Company's website and on the TEK-Torg electronic platform so that potential suppliers and contractors could view them in advance. A total of 473 technical audits were completed in 2019.

**Inspection control**

The Company has developed and applies uniform requirements to inspection control of production and shipment of materials and supplies on the production sites of manufacturers and suppliers in order to evaluate their ability to follow through with their obligations in terms of deadlines and quality of delivery. Technical inspections include control and assessment of whether technological processes of manufacture and shipment and the materials and supplies meet the requirements under the agreements with the Company.

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* The business plan for 2020 provides for 48% of its needs to be covered by existing strategies.
Responsible Relationships with Suppliers and Contractors

Contractor Compliance with the Company’s Requirements on Health, Safety and Environment (HSE)

The Company strictly adheres to health and safety requirements and in connection with the Company’s Regulations on Procedure for Interaction with Contractors on Occupational and Fire Safety, Health and Environment Issues that came into effect in 2019 and introduced new HSE qualification criteria, standard criteria for HSE qualification by product, work, and service have been developed. The following requirements to contractors and suppliers are included in procurement procedures:

- a health and safety management system in place;
- well-educated personnel with duly certified knowledge on health and occupational, fire, and electrical safety;
- existence of the relevant services / divisions;
- provision of personal protective equipment to contracted personnel;
- compliance with laws in terms of mandatory pre-employment and regular medical check-ups for the employees of the supplier / contractor;
- availability of job-specific guidelines, briefing programmes;
- pre- and post-trip medical check-ups for contracted drivers.

Rosneft treats its employees and the employees of the contractors that work at its facilities the same, applying universal HSE requirements to everybody.

All standard agreements on construction, installation and oil production works include provisions on the need to follow the Company’s HSE rules. For oil production (drilling in particular), the agreement contains additional provisions on drilling waste management by contractors based on the applicable environmental and other laws.

To test contractors for compliance with health and safety requirements, the collective bodies responsible for procurement decisions, include HSE function representatives.

In 2019, the Company approved a roadmap on implementing approaches to promoting human rights across the supply chain. The roadmap provides for the development of a Declaration on Respecting Human Rights to be used when interacting with suppliers and contractors, with phased awareness raising and educational round table discussions planned.

Automation of Procurement Processes

One of Rosneft’s strategic priorities is procurement process automation. The Company is implementing the following automation projects:

- developing the information resource “SAP SRM 2-based automated system for supplier relationship management”;
- vertically integrated procurement solution; robotisation of accounting and inventory management processes;

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Support of SMEs in the Regions of Operation

To facilitate competition and development of SMEs, Rosneft seeks to partner with small and medium-sized businesses as part of its procurement activities. The Company holds round-table discussions with suppliers and contractors on individual procurement items and provides information on:

- procedure and rules of engagement in procurement with the Company;
- minimum requirement to all procurement participants;
- benefits afforded to SMEs as part of procurement.

Digital Transformation of Procurement

The Company is establishing a distribution centre for personal protective equipment on the premises of the regional procurement operator RN Snabchenny-Samara. Key project goals:

- create advanced and hi-tech warehousing facilities using automated and robotised systems of processing and storing supplies;
- transform key processes of supplying personal protective equipment to the Group Subsidiaries: requirements planning, supply logistics management (trials of new logistic models of delivery), inventory and quality management.

In 2019, pre-project study was completed and funds for the project were allocated. Commissioning is scheduled for 2023.

In 2019, the total value of contracts made between Rosneft and SMEs amounted to RUB 16.3 bln, with RUB 4.1 bln worth of contracts awarded as a result of direct procurement from SMEs. To foster further development in this area, Rosneft and SME Corporation signed a cooperation agreement that in 2019 saw:

- 18 seminars held for contracted SMEs in Russia’s regions;
- work on developing and improving Russia’s regulatory framework in this field.

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Independent Assurance Report on Rosneft’s 2019 Sustainability Report

Ernst & Young LLC
Sadovnicheskaya Nab., 77, bld. 1
Moscow, 115035, Russia
Tel: +7 (495) 705 9700
Fax: +7 (495) 755 9700
www.ey.com/ru

To the Board of Directors and Stakeholders of Rosneft Oil Company

Subject matter
At the request of Rosneft Oil Company (the “Company”) we have completed an engagement to obtain a limited level of assurance on the qualitative and quantitative information disclosed in the Sustainability Report 2018 of Rosneft Oil Company (the “Report”), except for the following aspects:

- Forward looking statements on performance, events or plans.
- Correspondence between the Report and the Oil and Gas Industry Guidance on Voluntary Sustainability Reporting developed by the International Petroleum Industry Environmental Conservation Association and American Petroleum Institute, Basic Performance Standards and the Company’s reporting principles and approaches to defining certain sustainability performance indicators as set out in section “About the Report” and the corresponding notes in the text of the Report.

Management’s responsibilities
The management of the Company is responsible for the preparation of the Report and for ensuring that the information contained therein represents fairly, in all material respects, the Company’s sustainability policies, activities, events and performance of the Company for the year ended 31 December 2018.

The Report is prepared “in accordance” with the GRI Standards using the Core option.

Our responsibilities
Our responsibility is to independently express conclusions that:

- The information in the Report is, in all material respects, a fair representation of sustainability policies, activities, events and performance of the Company based on the procedures described above and analyzing how they are reflected in the Report;
- The information in the Report is, in all material respects, a fair representation of sustainability activities, events, performance and the Company’s sustainability reporting principles and approaches to defining certain sustainability performance indicators as set out in section “About the Report” and the corresponding notes in the text of the Report.

Management’s responsibilities
The management of the Company is responsible for the preparation of the Report and for ensuring that the information contained therein represents fairly, in all material respects, the Company’s sustainability policies, activities, events and performance of the Company for the year ended 31 December 2018.

The Report is prepared “in accordance” with the GRI Standards using the Core option.

We apply International Standard on Quality Control 1 and accordingly maintain a comprehensive system of quality control, including documented policies and procedures, responding to industrial and occupational health and safety, and regulatory requirements.

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

Our assurance services were performed in accordance with Internationally Standard Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information, issued by ISAE and accordingly included the following procedures:

- Interviews with representatives of the Company’s management and specialists responsible for sustainability policies, activities, performance and relevant reporting;
- Analysis of key documents related to the Company’s sustainability policies, activities, performance and relevant reporting;
- Obtaining an understanding of the process used to prepare the information on sustainability performance in indicators of the Company and other engagement criteria by reviewing the reporting process used for the preparation of sustainability reports;
- Analysis of stakeholder engagement activities via reviewing minutes of stakeholder meetings conducted by the Company;
- Benchmarking of the Report against sustainability reports of selected international and Russian peers of the Company and lists of sector-specific sustainability issues raised by stakeholders;
- Analysis of material sustainability issues identified by the Company;
- Identification of sustainability issues material to the Company based on the procedures described above and analyzing how they are reflected in the Report;
- Review of data samples on key performance indicators relating to human resources, energy use, environment, industrial and occupational health and safety and charitable activities for the year ended 31 December 2018 to assess whether this data has been collected, prepared, collated and reported appropriately; and
- Visits to selected subsidiaries in order to (i) interview those responsible for human resources, management, environmental protection, industrial and occupational health and safety and charitable activities, (ii) gather evidence supporting the assertions made by the Company on its sustainability policies, activities, events and performance, and (vi) observe the aspects of operations relating to industrial and occupational health and safety and environmental protection;

Identification of sustainability issues material to the Company based on the procedures described above and analyzing how they are reflected in the Report;

We believe that these criteria correspond with the GRI Standards and the Company’s sustainability reporting principles and approaches to defining certain sustainability performance indicators as set out in the Report.

Conclusion
Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report does not represent fairly, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended 31 December 2018 in accordance with the GRI Standards and the Company’s sustainability reporting principles and approaches to defining certain sustainability as set out in the Report.

Nothing has come to our attention that causes us to believe that the Report is not prepared “in accordance” with the GRI Standards using the Core option.

D.E. Lobachev
Ernst & Young LLC
7 June 2019

Details of the subject of the independent assurance
Name: Rosneft Oil Company
Entered in the Unified State Register of Legal Entities on 12 August 2002 and assigned state registration number 1027739072033. Registered address and location: Russia, 115035 Moscow, Sadovochnaya emb., 77, bld. 1.
Ernst & Young LLC is a member of self-regulated organization of auditors “Russian Union of Auditors” (Association) (“SRO RUK” Ernst & Young LLC), included in the control copy of the register of auditors and audit organizations, main registration number 1163950448.

Details of the assurance provider
Name: Ernst & Young LLC
Entered in the Unified State Register of Legal Entities on 5 December 2002 and assigned state registration number 1027739072033. Registered address and location: Russia, 115035 Moscow, Sadovochnaya emb., 77, bld. 1.
Ernst & Young LLC is a member of self-regulated organization of auditors “Russian Union of Auditors” (Association) (“SRO RUK”). Ernst & Young LLC is included in the control copy of the register of auditors and audit organizations, main registration number 1163950448.
### Appendix 1. Key Sustainability Indicators

#### Period 2017 2018 2019

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating and economic indicators</td>
<td>Proven SEC reserves of oil, gas condensate and hydrocarbon liquids, mmt</td>
<td>3,792</td>
<td>3,899</td>
<td>3,935</td>
</tr>
<tr>
<td></td>
<td>Proven SEC reserves of marketable gas, bcm</td>
<td>1,069</td>
<td>2,045</td>
<td>2,119</td>
</tr>
<tr>
<td></td>
<td>Production of hydrocarbon liquids, mmt</td>
<td>225.5</td>
<td>230.2</td>
<td>230.2</td>
</tr>
<tr>
<td></td>
<td>Natural gas production, bcm</td>
<td>68.4</td>
<td>67.3</td>
<td>67.0</td>
</tr>
<tr>
<td></td>
<td>Hydrocarbon production, mmboe</td>
<td>2,087</td>
<td>2,115</td>
<td>2,114</td>
</tr>
<tr>
<td></td>
<td>Refining, mmt</td>
<td>112.8</td>
<td>115.0</td>
<td>110.2</td>
</tr>
<tr>
<td></td>
<td>Petroleum product and petrochemicals output, mmt</td>
<td>109.1</td>
<td>111.7</td>
<td>107.5</td>
</tr>
<tr>
<td></td>
<td>Assets as at year-end, RUB bln</td>
<td>12,228</td>
<td>13,163</td>
<td>12,950</td>
</tr>
<tr>
<td></td>
<td>Revenues and equity share in profits of associates and joint ventures¹, RUB bln</td>
<td>6,011</td>
<td>8,238</td>
<td>8,476</td>
</tr>
<tr>
<td></td>
<td>Equity, RUB bln</td>
<td>4,183</td>
<td>6,377</td>
<td>5,152</td>
</tr>
<tr>
<td></td>
<td>Dividends, RUB bln</td>
<td>104</td>
<td>225</td>
<td>283</td>
</tr>
<tr>
<td></td>
<td>Direct economic value generated and distributed², RUB bln</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct economic value generated</td>
<td>Income</td>
<td>5,951</td>
<td>7,968</td>
<td>8,670</td>
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<tr>
<td></td>
<td></td>
<td>Direct economic value distributed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Output</td>
<td>1,967</td>
<td>2,270</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Payments to providers of funds</td>
<td>346</td>
<td>521</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personnel expenses, excluding compulsory insurance premiums</td>
<td>269</td>
<td>296</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insurance premiums</td>
<td>61</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accrued taxes and duties</td>
<td>2,614</td>
<td>3,879</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community investments</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economic value retained</td>
<td>672</td>
<td>909</td>
</tr>
<tr>
<td>Health, safety and environment performance indicators</td>
<td>Number of lost-time work-related injuries (including fatalities) of the Company’s employees to 1 mln man-hours (LTIF)</td>
<td>–</td>
<td>0.34¹</td>
<td>0.36¹</td>
</tr>
<tr>
<td></td>
<td>The ratio of the total number of the Company’s work-related fatalities to one hundred (100) mln man-hours worked (FAR)</td>
<td>1.87</td>
<td>2.47¹</td>
<td>1.04¹</td>
</tr>
<tr>
<td></td>
<td>HSE training, thousand man-courses</td>
<td>413.0</td>
<td>414.3</td>
<td>477.3</td>
</tr>
<tr>
<td></td>
<td>Expenditure on health and safety, including fire safety and blowout prevention, RUB bln</td>
<td>56</td>
<td>56</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Rate of pipeline failures (unit/kilometre per year)</td>
<td>0.101</td>
<td>0.095</td>
<td>0.101</td>
</tr>
<tr>
<td></td>
<td>Total volume of spilled oil and oil products across the Company, t</td>
<td>730</td>
<td>663</td>
<td>652</td>
</tr>
<tr>
<td></td>
<td>Spilled oil and gas condensate volume as a result of pipeline failures, tonnes</td>
<td>686.3</td>
<td>647.2</td>
<td>642.9</td>
</tr>
</tbody>
</table>

¹ Dividends paid to Rosneft’s shareholders in the calendar year.
² Data for 2017–2019 reflects more accurate calculation of payments to providers of funds, personnel expenses, and community investments under GRI 201-1.

### Air pollutant emissions

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross air pollutant emissions, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas production</td>
<td>1,846</td>
<td>1,835</td>
<td>1,773</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>1,530</td>
<td>1,524</td>
<td>1,445</td>
</tr>
<tr>
<td>Gas business</td>
<td>256</td>
<td>250</td>
<td>248</td>
</tr>
<tr>
<td>Marketing and distribution</td>
<td>31</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>Service Group Subsidiaries</td>
<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Air pollutant emissions from extraction activities, t/ktce</td>
<td>4.05</td>
<td>3.96</td>
<td>3.83</td>
</tr>
<tr>
<td>Air pollutant emissions from refining and petrochemical activities, t/ktce</td>
<td>1.90</td>
<td>1.77</td>
<td>1.83</td>
</tr>
</tbody>
</table>

### GHG emissions

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total emissions (Scope 1+2), mmt CO₂ eq.</td>
<td>75.2</td>
<td>76.9</td>
<td>81.2</td>
</tr>
<tr>
<td>Direct emissions (Scope 1), mmt CO₂ eq.</td>
<td>53.9</td>
<td>54.7</td>
<td>59.4</td>
</tr>
<tr>
<td>Indirect emissions (Scope 2), mmt CO₂ eq.</td>
<td>21.3</td>
<td>22.2</td>
<td>21.8</td>
</tr>
<tr>
<td>Indirect emissions (Scope 3) from the use of the Company’s products, mmt CO₂ eq.</td>
<td>207.2</td>
<td>244.3</td>
<td>318.7</td>
</tr>
<tr>
<td>Direct GHG emissions, kt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide (CO₂)</td>
<td>46,364</td>
<td>50,629²</td>
<td>58,035</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>303</td>
<td>164</td>
<td>134</td>
</tr>
<tr>
<td>GHG emissions, t CO₂ eq. / ktce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas production (including oilfield services)</td>
<td>0.123</td>
<td>0.129</td>
<td>0.140</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>0.131</td>
<td>0.119²</td>
<td>0.120</td>
</tr>
<tr>
<td>GHG emissions, t CO₂ eq. / mboe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas production (including oilfield services)</td>
<td>24.0</td>
<td>25.1</td>
<td>27.3</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>25.5</td>
<td>22.8²</td>
<td>23.4</td>
</tr>
<tr>
<td>GHG emissions, t CO₂ eq. / ktce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company-wide</td>
<td>24.5</td>
<td>24.4²</td>
<td>26.1</td>
</tr>
<tr>
<td>AGP utilisation rate, %</td>
<td>89.2</td>
<td>84.4²</td>
<td>77.8²</td>
</tr>
</tbody>
</table>

### Water consumption and water discharge

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water consumption (water intake from surface and underground sources) for extraction activities, cub m / toe</td>
<td>0.43</td>
<td>0.46</td>
<td>0.49</td>
</tr>
<tr>
<td>Water consumption (water intake from surface and underground sources) for refining and petrochemical activities, cub m / tce</td>
<td>1.47</td>
<td>1.43</td>
<td>1.50</td>
</tr>
</tbody>
</table>

¹ The figures for 2018–2019 are presented in accordance with the IFRS accounts and the new calculation methodology, which does not include losses as a result of participation in sports events, unlawful activities of third parties and road accidents caused by third parties in the total injury rate.

² The indicators for 2017 cover a wider range of subsidiaries. The injury rate includes injuries as a result of participation in sports events, unlawful activities of third parties and road accidents caused by third parties.

³ The 2018 metric was adjusted following the update on fuel consumption by certain Group Subsidiaries.

⁴ The information and plans on APG utilisation relate to the Company’s Russian assets.

⁵ The changes in the APG utilisation rate are driven by higher oil and APG production at greenfields and production cuts at brownfields as part of the Company’s commitment under the OPEC+ agreement.

⁶ The LTIF for 2018 and 2019 calculated in accordance with the methodology used by the Company until 2018 would be 0.41 and 0.38, respectively.

⁷ The LTIF for 2017 calculated in accordance with the methodology used by the Company until 2018 would be 0.34 and 0.36, respectively.

⁸ Including fields under development and greenfield projects at early stages of development.
### Period 2017 2018 2019

#### Polluted water intake for treatment and use/discharge, mcm

- **Wastewater**
  - 2017: 132.9
  - 2018: 170.4
  - 2019: 117.0

- **Produced water**
  - 2017: 1,587.8
  - 2018: 1,588.1
  - 2019: 1,658.2

- **Bottom water**
  - 2017: 1.0
  - 2018: 0.5
  - 2019: 2.9

#### Gross industrial wastewater discharges to surface waters, mcm

- 2017: 133.2
- 2018: 127.9
- 2019: 122.7

#### Environmental protection expenditures

- **Environmental protection investments, including as part of production programme with an environmental impact, RUB bln**
  - 2017: 67
  - 2018: 46
  - 2019: 35

- **Current environmental protection expenditure per tce, RUB bln**
  - 2017: 4.2
  - 2018: 4.7
  - 2019: 4.3

- **Environmental fines payable, RUB bln**
  - 2017: 0.26
  - 2018: 0.29
  - 2019: 0.20

- **Payments to budgets of all levels related to environmental protection and sustainable use of natural resources, RUB bln**
  - 2017: 4.2
  - 2018: 4.7
  - 2019: 4.3

#### Emergency prevention and response performance indicators

- **Financial and non-financial reserves for emergency prevention and response, RUB bln**
  - 2017: 1.9
  - 2018: 2.0
  - 2019: 2.0

#### Innovation performance indicators

- **R&D expenses, RUB bln**
  - 2017: 29.90
  - 2018: 32.10
  - 2019: 30.05

#### HR indicators

- **Headcount at year-end, thousand employees**
  - 2017: 318.0
  - 2018: 325.6
  - 2019: 334.6

- **Average headcount, thousand employees**
  - 2017: 302.1
  - 2018: 308.0
  - 2019: 315.4

#### Workforce by category at year-end, %

- **Blue-collar workers**
  - 2017: 57.8
  - 2018: 54.2
  - 2019: 54.7

- **White-collar workers**
  - 2017: 30.0
  - 2018: 31.5
  - 2019: 33.1

- **Managers**
  - 2017: 12.2
  - 2018: 12.2
  - 2019: 12.2

#### Workforce by gender at year-end, %

- **Women**
  - 2017: 33.5
  - 2018: 32.2
  - 2019: 32.7

- **Men**
  - 2017: 66.5
  - 2018: 67.8
  - 2019: 67.3

- **Employee turnover, %**
  - 2017: 10.3
  - 2018: 10.8
  - 2019: 10.2

- **Company average monthly salary per person, RUB**
  - 2017: 79,221
  - 2018: 84,030
  - 2019: 88,609

- **Payroll, including benefits and one-off bonuses as part of the payroll and annual remuneration, RUB bln**
  - 2017: 287
  - 2018: 311
  - 2019: 335

- **Social payments fund, RUB bln**
  - 2017: 7.7
  - 2018: 8.6
  - 2019: 9.3

---

1. Data for 2017 were adjusted following updated information, including that on Novokuibyshevsk Petrochemical Company.
2. Taxes, customs duties and insurance contributions transferred to the budget of the Russian Federation.
3. For charity expenses related to the support of education institutions and veterans Council, see the Personnel and Social Programme section of our annual reports for 2017, 2018 and 2019.

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### Salary ratios for certain Group Subsidiaries across Rosneft’s footprint in 2019, RUB per month

<table>
<thead>
<tr>
<th>Region</th>
<th>Group Subsidiary</th>
<th>Average salary at the Group Subsidiary, RUB</th>
<th>Average salary in the region, RUB (as per Rosstat's data for November 2019)</th>
<th>Average salary at the Group Subsidiary to average salary in the region, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primorye Territory</td>
<td>JSC Eastern Petrochemical Company</td>
<td>131,931.07</td>
<td>45,372.20</td>
<td>291%</td>
</tr>
<tr>
<td></td>
<td>LLC RN-Morsko Terminal Nahodka</td>
<td>64,380.64</td>
<td>45,372.20</td>
<td>142%</td>
</tr>
<tr>
<td>Khabarovsk Territory</td>
<td>LLC RN-Komsomol Refinery</td>
<td>82,979.24</td>
<td>48,887.00</td>
<td>170%</td>
</tr>
<tr>
<td>Sakhalin Region</td>
<td>RN Sakhalinmorneftegaz LLC</td>
<td>106,669.98</td>
<td>84,665.60</td>
<td>126%</td>
</tr>
<tr>
<td>Republic of Sakha (Yakutia)</td>
<td>LLC Taas-Yuryakh Neftagazodobycha</td>
<td>139,745.98</td>
<td>71,668.00</td>
<td>195%</td>
</tr>
<tr>
<td>Republic of Bashkortostan</td>
<td>LLC Bashneft-Dobya</td>
<td>70,762.34</td>
<td>36,266.70</td>
<td>195%</td>
</tr>
<tr>
<td></td>
<td>PJSC Ufaorgaz</td>
<td>81,158.61</td>
<td>36,266.70</td>
<td>224%</td>
</tr>
<tr>
<td></td>
<td>Ufa Refinery (Branches of PJSC Bashneft)</td>
<td>79,618.83</td>
<td>36,266.70</td>
<td>220%</td>
</tr>
<tr>
<td></td>
<td>LLC Bashneft-Roziuta</td>
<td>41,093.68</td>
<td>36,266.70</td>
<td>113%</td>
</tr>
<tr>
<td>Udmurt Republic</td>
<td>JSC Udmurtneftegaz</td>
<td>69,078.15</td>
<td>34,140.80</td>
<td>202%</td>
</tr>
<tr>
<td>Orenburg Region</td>
<td>JSC Orenburgneftegaz</td>
<td>66,427.72</td>
<td>32,084.60</td>
<td>207%</td>
</tr>
<tr>
<td>Samara Region</td>
<td>JSC Samaranneftegaz</td>
<td>62,669.38</td>
<td>35,895.80</td>
<td>175%</td>
</tr>
<tr>
<td></td>
<td>JSC Kulybyshnev Refinery</td>
<td>66,521.01</td>
<td>35,895.80</td>
<td>185%</td>
</tr>
<tr>
<td></td>
<td>Novokuibyshev Refinery</td>
<td>65,671.21</td>
<td>35,895.80</td>
<td>183%</td>
</tr>
<tr>
<td></td>
<td>Syzran Refinery</td>
<td>67,724.75</td>
<td>35,895.80</td>
<td>189%</td>
</tr>
<tr>
<td></td>
<td>JSC Novokuibyshev Petrochemical Company</td>
<td>49,500.85</td>
<td>35,895.80</td>
<td>138%</td>
</tr>
<tr>
<td></td>
<td>LLC Novokuibyshev Oils and Additives Plant</td>
<td>58,482.54</td>
<td>35,895.80</td>
<td>163%</td>
</tr>
<tr>
<td></td>
<td>JSC Samaranneftegaz</td>
<td>33,634.74</td>
<td>35,895.80</td>
<td>94%</td>
</tr>
<tr>
<td>Saratov Region</td>
<td>PJSC Saratov Refinery</td>
<td>72,175.04</td>
<td>30,212.90</td>
<td>239%</td>
</tr>
<tr>
<td></td>
<td>PJSC Saratovneftegaz</td>
<td>30,617.16</td>
<td>30,212.90</td>
<td>101%</td>
</tr>
<tr>
<td>Arkhangelsk Region</td>
<td>LLC RN-Arkhangelskneftegaz</td>
<td>47,217.64</td>
<td>48,100.60</td>
<td>98%</td>
</tr>
<tr>
<td>Republic of Komi</td>
<td>LLC RN-Severskaja Neft</td>
<td>120,238.24</td>
<td>50,416.80</td>
<td>238%</td>
</tr>
<tr>
<td>Nenets Autonomous Area</td>
<td>LLC Bashneft-Polyus</td>
<td>150,618.00</td>
<td>80,562.30</td>
<td>187%</td>
</tr>
<tr>
<td>Republic of Karelia</td>
<td>JSC Karelianneftegaz</td>
<td>37,581.70</td>
<td>42,187.50</td>
<td>89%</td>
</tr>
<tr>
<td>Murmansk Region</td>
<td>PJSC Rosneft-Murmanskneftegaz</td>
<td>44,821.29</td>
<td>62,516.60</td>
<td>72%</td>
</tr>
<tr>
<td>St Petersburg</td>
<td>LLC RN-Severo-Zapad</td>
<td>54,232.28</td>
<td>61,141.20</td>
<td>89%</td>
</tr>
<tr>
<td>Republic of Ingushetia</td>
<td>OJSC RN-Ingushneftegaz</td>
<td>30,318.07</td>
<td>27,213.60</td>
<td>111%</td>
</tr>
<tr>
<td></td>
<td>LLC RN-Ingushneftegaz</td>
<td>28,970.11</td>
<td>27,213.60</td>
<td>106%</td>
</tr>
</tbody>
</table>

### Average salary at the Group Subsidiary, RUB

- Chechen Republic: 35,458.51
- Republic of Khakassia: 34,372.92
- Krasnoyarsk Territory: 141,542.90
- Sakha Republic: 69,078.15
- Udmurt Republic: 69,078.15
- Tomsk Region: 50,681.73
- Tyumen Region: 134,683.25
- Khanty-Mansi Autonomous Area - Yugra: 110,662.02
- Chelyabinsk Region: 35,458.51
- Republic of Komi: 120,238.24
- Nenets Autonomous Area: 35,458.51
- Republic of Karelia: 30,318.07
- Murmansk Region: 44,821.29
- St Petersburg: 54,232.28
- Republic of Ingushetia: 30,318.07
- LLC RN-Ingushneftegaz: 28,970.11

### Average salary in the region, RUB (as per Rosstat’s data for November 2019)

- Chechen Republic: 29,297.30
- Republic of Khakassia: 40,073.70
- Krasnoyarsk Territory: 48,645.20
- Sakha Republic: 45,891.60
- Udmurt Republic: 45,891.60
- Tomsk Region: 45,891.60
- Tyumen Region: 44,906.00
- Khanty-Mansi Autonomous Area - Yugra: 45,891.60
- Chelyabinsk Region: 45,891.60
- Republic of Komi: 50,416.80
- Nenets Autonomous Area: 45,891.60
- Republic of Karelia: 80,562.30
- Murmansk Region: 62,516.60
- St Petersburg: 61,141.20
- Republic of Ingushetia: 27,213.60
- LLC RN-Ingushneftegaz: 27,213.60
Appendix 2. Report’s Compliance with International Standards

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
<th>Omission</th>
<th>Page in the Report</th>
<th>External assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 102-1</td>
<td>Name of the organisation</td>
<td>Contact Details</td>
<td>p. 238</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>GRI 102-2</td>
<td>Activities, brands, products, and services</td>
<td>2019 Annual Report, Operating Results section, p. 3-413</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key products: oil, gas, and refining products

GRI 102-3 | Location of headquarters | The Company’s Head Office is located in Moscow | ✔ | | |

GRI 102-4 | Location of operations | 2019 Annual Report, Assets and Regions of Operation section, p. 8-9; Company Structure section, p. 14-15 | ✔ | | |

GRI 102-5 | Ownership and legal form | 2019 Annual Report, Share Capital section, p. 248 | ✔ | | |


GRI 102-7 | Scale of the organisation | Management Framework and Personal Profile Key Sustainability indicators; | p. 162-165 | ✔ | |

GRI 102-8 | Information on employees and other workers | Management Framework and Personal Profile Key Sustainability indicators; | p. 162-165 | ✔ | |

Headcount as at the end of 2019, including:
Permanent employment contract: women – 104,252, men – 206,281
Temporary employment contract: women – 15,310, men – 8,741
Part-time employment: women – 866, men – 694


GRI 102-10 | Significant changes to the organisation and its supply chain | 2019 Annual Report, Company Structure section, p. 14-15 | ✔ | | |


The Company believes it important to carry out environmental impact assessments (EIAs) to use the outcomes as a basis to develop activities aimed at minimising the Company’s environmental footprint. In conducting EIAs, the Company follows the precautionary approach laid out in The Rio Declaration on Environment and Development (Principle 10. The Rio Declaration on Environment and Development, UN, 1992)

GRI 102-12 | Externally developed economic, environmental, social and cultural standards, principles, or other initiatives to which the organisation subscribes or which it endorses | Stakeholder Engagement | p. 32-35 | ✔ | |

In 2009, the Company joined the UN Global Compact and the Social Charter of the Russian Business. Since 2013, the Company has been supporting the Anti-Corruption Charter of the Russian Business. In 2018, Rosneft’s Board of Directors approved the Company’s strategic principles and public statement “Rosneft: contributing to implementation of the UN Sustainable Development Goals.” The Company also shares and endorses the principles of the Universal Declaration of Human Rights, Declaration on Fundamental Principles and Rights at Work of the International Labour Organisation, and The Rio Declaration on Environment and Development. In 2019, Rosneft joined an international industry initiative by signing the Guiding Principles on Reducing Methane Emissions across the Natural Gas Value Chain, confirming its commitment to partnerships in carbon management.

GRI 102-13 | Membership of associations and/or national or international advocacy organisations | Stakeholder Engagement | p. 32-35 | ✔ | |

The Company is a member of the Russian-German Foreign Trade Chamber, Chamber of Commerce and Industry of the Russian Federation, Russian National Committee for Pacific Economic Cooperation, Petrochemical and Refiners Association, Russian Gas Society - association of oil and gas businesses, National Association for Subsidy Examination, Non-Profit Russian Corporate Counsel Association, and National Association of Technology Transfer (NATT)

GRI 102-14 | Statement from senior decision-maker | Message from the Chairman of Rosneft’s Board of Directors, Message from Rosneft’s Chief Executive Officer | p. 6-7 | ✔ | |

GRI 102-15 | Key impacts, risks, and opportunities | Message from the Chairman of Rosneft’s Board of Directors | p. 6-7 | ✔ | |

GRI 102-16 | Values, principles, standards, and norms of behaviour | Strategic Vision of Sustainable Development, Compliance Framework Development | p. 20-24 | ✔ | |
### North America

**Rosneft North America**

- **Date of most recent reporting period**: About the Report
- **List of material topics**
  - GHG
  - Water
  - Energy
  - Transportation
  - Stakeholder engagement

**Material topics**

1. **Economic Performance**
   - GRI 201 Economic Performance 2016
   - GRI 103 Management approach 2016
   - GRI 103-1 Explanation of the material topic and its boundary
   - GRI 103-2 The management approach and its components
   - GRI 103-3 Evaluation of the management approach
   - GRI 201-1 IPIECA-SE4, SE6
   - GRI 201-3 Defined retirement plans
   - GRI 201-4 Financial assistance received from government

2. **Indirect economic impact**
   - GRI 203 Indirect Economic Impacts 2016
   - GRI 103-1 Explanation of the material topic and its boundary
   - GRI 103-2 The management approach and its components
   - GRI 103-3 Evaluation of the management approach
   - GRI 203-1 IPIECA-SE7
   - GRI 203-2 IPIECA-SE6

### Financial performance

- **Direct economic value generated and distributed**
- **Key sustainability indicators**

### Stakeholder engagement

- **Rosneft interacts with all stakeholder groups that have an impact on, and are impacted by, the Company’s operations**
- **74% of the headcount are covered by collective bargaining agreements**

### Governance structure and sustainability management

- **Corporate governance**
- **The Company and Group Subsidiaries make use of tax benefits provided for by federal tax laws. In a number of regions of operation, the Company and Group Subsidiaries use income tax benefits and corporate property tax benefits under regional laws**

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**Contact Details**

- **Independent Assurance Report on Rosneft's 2019 Sustainability Report**
- **Message from the Chairman of Rosneft's Board of Directors**
- **Supporting Social and Economic Development**
- **Message from the Chairman of Rosneft's Board of Directors**
- **Supporting Social and Economic Development**
- **Message from the Chairman of Rosneft's Board of Directors**
- **Supporting Social and Economic Development**

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**Figure 1**

- **Figure 1. Flowchart of the report**
- **Figure 2**
- **Figure 3**
- **Figure 4**

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**Table 1**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
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</tr>
</thead>
<tbody>
<tr>
<td>GRI 102-20</td>
<td>Executive-level responsibility for economic, environmental, and social topics</td>
<td>Sustainability Management</td>
<td></td>
<td>p. 25-31</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-22</td>
<td>Composition of the high-level governance board and its committees</td>
<td>Sustainability Management 2019 Annual Report, Corporate Governance section, p. 196-247</td>
<td></td>
<td>p. 25-31</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-29</td>
<td>Identifying and managing economic, environmental, and social impacts</td>
<td>Sustainability Management</td>
<td></td>
<td>p. 25-31</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-40</td>
<td>List of stakeholder groups</td>
<td>About the Report Stakeholder Engagement</td>
<td></td>
<td>p. 12-15</td>
<td>✓</td>
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<tr>
<td>GRI 102-41</td>
<td>Percentage of total employees covered by collective bargaining agreements</td>
<td>Social Policy</td>
<td></td>
<td>p. 155-165</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-42</td>
<td>Identifying and selecting stakeholders</td>
<td>Rosneft interacts with all stakeholder groups that have an impact on, and are impacted by, the Company’s operations</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-43</td>
<td>Approach to stakeholder engagement</td>
<td>Stakeholder Engagement</td>
<td></td>
<td>p. 32-35</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-44</td>
<td>Key topics and concerns raised, and how the organization has responded to those key topics and concerns, including through its reporting</td>
<td>About the Report Stakeholder Engagement</td>
<td></td>
<td>p. 32-35</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-46</td>
<td>Defining report content and topic boundaries</td>
<td>About the Report</td>
<td></td>
<td>p. 12-15</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-47</td>
<td>List of material topics</td>
<td>About the Report</td>
<td></td>
<td>p. 12-15</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-48</td>
<td>Any restatements of information given in previous reports, and the reasons for such restatements</td>
<td>About the Report Key Sustainability Indicators</td>
<td></td>
<td>p. 204-209</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-49</td>
<td>Significant changes from previous reporting periods in the list of material topics and topic boundaries</td>
<td>About the Report</td>
<td></td>
<td>p. 12-15</td>
<td>✓</td>
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<tr>
<td>GRI 102-50</td>
<td>Reporting period</td>
<td>About the Report</td>
<td></td>
<td>p. 12-15</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 102-51</td>
<td>Date of the most recent report</td>
<td>Rosneft’s 2018 Sustainability Report was published in June 2019</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
4. Combating corruption and non-competitive practices

GRI 205 Anti-corruption 2016

GRI 103 Management approach 2016

GRI 103-1 Explanation of the material topic and its Boundary

With Russia as the key region of operation, Rosneft places special emphasis on supporting local suppliers. In its procurement activities, the Company prioritises goods, works and services made, provided and rendered by Russian entities, including by way of direct procurement from SMEs in line with applicable laws. The Company’s procurement is based on principles of information openness, no unwarranted restrictions on bidders, and targeted and cost-efficient expenditures as set forth by Federal Law No. 223-FZ on Procurement of Goods, Works and Services by Certain Types of Legal Entities dated 18 July 2011. Suppliers (contractors) are selected as part of procurement (including bidding) procedures provided for by the above law, in order to meet the Company’s demand for products, works and services.

5. Energy

GRI 303 Energy 2016

GRI 103 Management approach 2016

GRI 103-1 Explanation of the material topic and its Boundary

As a result of activities implemented under the Energy Saving Programme, the Company saved a total of 25.7 mln GJ of fuel and energy resources (heat, electricity, and fuel) in 2019.
7. Biodiversity

**GRI 304 Water 2016**
- **GRI 304-1**
  - Name: Explanation of the material topic and its Boundary
  - Report section / references to other public documents: Conservation Water Resources
  - Page in the Report: p. 71-75
  - Omission: ✔

**GRI 304-2**
- Name: The management approach and its components
  - Report section / references to other public documents: Conservation Water Resources
  - Page in the Report: p. 71-75
  - Omission: ✔

**GRI 304-3**
- Name: Evaluation of the management approach
  - Report section / references to other public documents: Conservation Water Resources
  - Page in the Report: p. 71-75
  - Omission: ✔

**GRI 304-4**
- Name: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
  - Report section / references to other public documents: ENOC 4-5, IPIECA-E5
  - Page in the Report: p. 80-84
  - Omission: ✔

Rosneft’s key impacts on biodiversity are related to exploration, production, treatment, transportation and retail sales of petroleum products and in most cases have a duration of the term of lease or operation of respective production facilities. The Company has no irreversible impact on biodiversity. The most common impacts are area pollution and construction and use of production capacities.

The final phase of land remediation is an assessment of work done by an independent contractor. Remediation is confirmed by acceptance certificates handed over to local authorities.

Species with habitats in areas affected by the Company’s operations include grey whale, sperm whale, reindeer, grey heron, golden eagle, Eurasian otter, European pond turtle, sturgeon, etc. The Company analyses its impact on the above species and aims to minimise it.

The percentage of existing significant facilities for which biodiversity risk was assessed totalled 8% in 2019 (18 facilities)
The Company does not use ozone-depleting substances on an industrial scale.

The Company does not consolidate information on waste by hazard class, each Group Subsidiary accounts for its own waste.

According to the data collection methodology, the Company discloses the total volume of waste water (both own and received from third parties) discharged into the environment through its own and third party centralized waste water systems. The Company also discloses data on domestic water discharge and waste management (including spills).

The main type of waste generated by the Company is oil sludge and drill cuttings. Rosneft does not transport, import, export, or process waste deemed hazardous under the terms of Annexes I, II, III, and VII to the Basel Convention. The Company does not consolidate information on waste by hazard class, each Group Subsidiary accounts for its own waste.

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Information on water bodies significantly affected by the Company’s discharge of water and/or runoff.

In 2019, no significant impacts of the Company’s discharges on water bodies was registered.

The Company does not consolidate information on waste by hazard class, each Group Subsidiary accounts for its own waste.

The main type of waste generated by the Company is oil sludge and drill cuttings. Rosneft does not transport, import, export, or process waste deemed hazardous under the terms of Annexes I, II, III, and VII to the Basel Convention. The Company does not consolidate information on waste by hazard class, each Group Subsidiary accounts for its own waste.

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Information on water bodies significantly affected by the Company’s discharge of water and/or runoff.

In 2019, no significant impacts of the Company’s discharges on water bodies was registered.

The Company does not consolidate information on waste by hazard class, each Group Subsidiary accounts for its own waste.
<table>
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<tr>
<th>No.</th>
<th>Name</th>
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<tbody>
<tr>
<td>11. Environmental compliance (regulatory aspects)</td>
<td>GRI 307 Environmental compliance 2016</td>
<td></td>
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<tr>
<td></td>
<td>GRI 103 Management approach 2016</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GRI 103–1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Environmental impact management</td>
<td></td>
<td>p. 64–68</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103–2</td>
<td>Management approach and its components</td>
<td>Environmental impact management</td>
<td></td>
<td>p. 64–68</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103–3</td>
<td>Evaluation of the management approach</td>
<td>Environmental impact management</td>
<td></td>
<td>p. 64–68</td>
<td>✓</td>
</tr>
<tr>
<td>GRI OG8</td>
<td>Fuels with benzene, lead and sulphur content significantly exceeding the national standards</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>The Company does not produce fuels with benzene, lead and sulphur content significantly exceeding the national standards (technical regulations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 307–1</td>
<td>UNGC Principle 8</td>
<td>Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations</td>
<td>Environmental impact management</td>
<td>p. 64–68</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>A number of Group Subsidiaries were fined for environmental non-compliance. Total fines in 2019 amounted to RUB 200 mln. Individual fines were insignificant</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### 12. Employment and labour / management relations

<table>
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<tr>
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<tbody>
<tr>
<td>GRI 401 Employment 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103 Management approach 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103–1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Management framework and personnel profile</td>
<td></td>
<td>p. 142–145</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103–2</td>
<td>Management approach and its components</td>
<td>Management framework and personnel profile</td>
<td></td>
<td>p. 142–145</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103–3</td>
<td>Evaluation of the management approach</td>
<td>Management framework and personnel profile</td>
<td></td>
<td>p. 142–145</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 401–1</td>
<td>UNGC Principle 6</td>
<td>New employee hires and employee turnover</td>
<td>Management framework and personnel profile</td>
<td>Key sustainability indicators</td>
<td>Partially disclosed. No information on new hires or turnover by gender and age is collected. The Company intends to collect such information once the unified automated HR records management system is implemented in all Group Subsidiaries as part of centralised business planning, which will be in place no sooner than 2020</td>
</tr>
<tr>
<td>GRI 401–2</td>
<td>Benefits provided to full-time employees that are not provided to temporary or part-time employees</td>
<td>Social policy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13. Occupational health and safety

The Company fully complies with the laws on notifying the employees of significant changes.
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
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</thead>
<tbody>
<tr>
<td>GRI 403-1</td>
<td>Occupational health and safety 2016</td>
<td>Explanation of the material topic and its boundary</td>
<td>Health and safety management</td>
<td>p. 100–104</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 403-2</td>
<td>Management approach and its components</td>
<td>Evaluation of the management approach</td>
<td>Health and safety management</td>
<td>p. 100–104</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 403-3</td>
<td>Safety of production facilities and processes</td>
<td>Safety of production facilities and processes</td>
<td>Health and safety management</td>
<td>p. 100–104</td>
<td>✓</td>
</tr>
</tbody>
</table>

The Company is committed to safety. To prevent incidents, Rosneft conducts regular health and safety inspections, has a system of health and safety training in place, and includes response measures into drills and on-site training sessions.

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<table>
<thead>
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<th>No.</th>
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<tbody>
<tr>
<td>GRI 407-2</td>
<td>Management approach and its components</td>
<td>Evaluation of the management approach</td>
<td>Social policy</td>
<td>p. 156–156</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 407-3</td>
<td>Employment disputes</td>
<td>Identified units and suppliers that could be violating these rights</td>
<td>Social policy</td>
<td>p. 156–156</td>
<td>✓</td>
</tr>
</tbody>
</table>

The Company operates in compliance with the laws ensuring freedom of association and rights to collective bargaining. Rosneft has no information about units or suppliers that could be violating these rights.

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<table>
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<tr>
<th>No.</th>
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</thead>
<tbody>
<tr>
<td>GRI 410-1</td>
<td>Security practices 2016</td>
<td>Percentage of security personnel trained in the human rights policies or procedures</td>
<td>Management framework</td>
<td>p. 142–145</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 410-2</td>
<td>Human rights assessment 2016</td>
<td>Approaches to promoting human rights</td>
<td>Approaches to promoting human rights</td>
<td>p. 142–145</td>
<td>✓</td>
</tr>
</tbody>
</table>

The Company operates in compliance with labour laws. Rosneft is committed to resolving all employment disputes through negotiations.
In 2019, Company-wide reviews of corporate and managerial competencies covered more than 23 thousand employees.

14. Diversity and equal opportunity, non-discrimination

GRI 405 Diversity and Equal Opportunity 2016

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
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<tr>
<td>405-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Management framework and personnel profile</td>
<td>p. 142–145</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>405-2</td>
<td>Management approach and its components</td>
<td>Management framework and personnel profile</td>
<td>p. 142–145</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>405-3</td>
<td>Evaluation of the management approach</td>
<td>Approaches to promoting human rights</td>
<td>p. 37–39</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>405-4</td>
<td>Diversity of governance bodies and key categories of employees</td>
<td>Sustainability management framework and personnel profile</td>
<td>p. 25–31</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>405-5</td>
<td>Operations with local communities</td>
<td>Public relations</td>
<td>p. 85–87</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

The Company complies with Russian laws on the protection of the disabled when it comes to meeting the established disabled quotas. We employ nearly 2 thousand disabled who enjoy equal access to education. At the same time, taking into account the nature of its operations and a high share of hazardous or dangerous jobs according to the special assessment of working conditions, the Company pays compensations to the disabled employment promotion fund as provided for by regional laws. In 2019, relevant Company-wide expenses totalled RUB 152 mil.

15. Rights of indigenous peoples and minorities

GRI 411 Rights of Indigenous Peoples 2016

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
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<tbody>
<tr>
<td>411-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Support for indigenous minorities of the North</td>
<td>p. 181–183</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>411-2</td>
<td>Management approach and its components</td>
<td>Support for indigenous minorities of the North</td>
<td>p. 181–183</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>411-3</td>
<td>Evaluation of the management approach</td>
<td>Support for indigenous minorities of the North</td>
<td>p. 181–183</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>411-4</td>
<td>Total number of identified incidents of violations involving the rights of indigenous minorities and actions taken</td>
<td>The Company operates in compliance with the laws prohibiting any forms of human rights violation. In 2019, no incidents of violations of indigenous minorities’ rights were identified in the Company</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Company operates in some oil and gas producing regions where indigenous communities are present. In all these regions, the Company runs programmes to engage with, and provide support to, such communities.

GRI 413 Local Communities 2016

<table>
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<tr>
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<tr>
<td>413-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Supporting social and economic development</td>
<td>p. 168–180</td>
<td>✔</td>
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<tr>
<td>413-2</td>
<td>Management approach and its components</td>
<td>Supporting social and economic development</td>
<td>p. 168–180</td>
<td>✔</td>
<td></td>
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<tr>
<td>413-3</td>
<td>Evaluation of the management approach</td>
<td>Supporting social and economic development</td>
<td>p. 168–180</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

Operations which affect interests of indigenous minorities and involve special actions to liaise with them.

The Company operates in some oil and gas producing regions where indigenous communities are present. In all these regions, the Company runs programmes to engage with, and provide support to, such communities.

APPENDICES
### 17. Compliance with social and economic requirements

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
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<td>GRI 419 Socioeconomic Compliance – 2016</td>
<td>GRI 103 Management approach 2016</td>
<td></td>
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</tr>
<tr>
<td>GRI 103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Compliance framework development</td>
<td></td>
<td>p. 40–47</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103-2</td>
<td>Management approach and its components</td>
<td>Compliance framework development</td>
<td></td>
<td>p. 40–47</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103-3</td>
<td>Evaluation of the management approach</td>
<td>Compliance framework development</td>
<td></td>
<td>p. 40–47</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 419-1</td>
<td>Significant fines and total number of non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

In 2019, there were no significant fines for non-compliance with laws and/or regulations in the social and economic area confirmed by court rulings.

### 18. Risks and opportunities related to climate change (physical aspects)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
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<tbody>
<tr>
<td>GRI 103 Management approach 2016</td>
<td>GRI 103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Climate-related risks and opportunities</td>
<td>p. 55</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103-2</td>
<td>Management approach and its components</td>
<td>Climate-related risks and opportunities</td>
<td></td>
<td>p. 55</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103-3</td>
<td>Evaluation of the management approach</td>
<td>Climate-related risks and opportunities</td>
<td></td>
<td>p. 55</td>
<td>✓</td>
</tr>
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</table>

### 19. Emergency preparedness and response

<table>
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<th>No.</th>
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<td>GRI 103 Management approach 2016</td>
<td>GRI 103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>Emergency prevention and response</td>
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<td>✓</td>
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<tr>
<td>GRI 103-2</td>
<td>Management approach and its components</td>
<td>Emergency risk management</td>
<td></td>
<td>p. 111</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 103-3</td>
<td>Evaluation of the management approach</td>
<td>Employee training in emergency response</td>
<td></td>
<td>p. 115</td>
<td>✓</td>
</tr>
</tbody>
</table>

### 20. Asset integrity, process safety (safety procedures and number of accidents)

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<th>No.</th>
<th>Name</th>
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### Appendix 3. Stakeholder engagement in 2019: round table meetings in the Company’s regions of operation

Since 2007, Rosneft has been annually holding meetings with stakeholders in its key regions of operation. The events are held in the round table format and attended by partner and client representatives, NGOs, educational institutions, the media, as well as supervisory bodies, government agencies, and municipal authorities. The Company is represented by the heads of the Group Subsidiaries operating in the region. The round table agenda traditionally includes discussion of the following items:
- Group Subsidiary activities and contribution to the development of a respective region in the reporting year;
- status of stakeholder suggestions made at previous round tables;
- exchange of views with stakeholders.

In total, 16 round table were held in 2019 across the Company’s footprint.

#### 1. Round table “Sustainable Development of Rosneft Group Subsidiaries and the Republic of Bashkortostan in 2018”, Ufa, Republic of Bashkortostan

- **Participants:** representatives of Bashneft, Rosneft, the government of the Republic of Bashkortostan, contractors and the media.
- **Discussions of current issues, including:**
  - joining joint scientific and technical councils of the Company and the Ministry of Industry and Innovation Policy of the Republic of Bashkortostan;
  - fostering the creation of the Rosneft - Ufa State Oil Technical University research and education centre;
  - creating a mechanism for the out-of-court settlement of disputes arising during the Company’s procurement activities;
  - familiarising members of the Russian Chamber of Commerce and Industry with Bashneft’s procurement procedures through training seminars.

#### 2. Round table “Sustainable Development of Vostsibneftegaz and the region where it operates in 2018”, the village of Baykit, Evenkiysky District, Krasnoyarsk Territory

- **Participants:** representatives of Vostsibneftegaz, Slavneft-Krasnoyarskneftegaz, the Evenkiysky District Administration, village councils, educational institutions, the public and the media.
- **Discussions of current issues, including:**
  - creation of a salt therapy room for children in the village of Baykit as part of the Company’s charity program;
  - support for an additional police position in the Evenkiysky District;
  - sending the Company’s vacancies to the Baykit Employment Centre to facilitate local employment.

#### 3. Round table “Sustainable Development of Rosneft Group Subsidiary in the regions where it operates in 2018”, Igarka, Turukhansky District, Krasnoyarsk Territory

- **Participants:** the management of RN-Vankor, administration heads of the Turukhansky District and city of Igarka, representatives of legislative bodies, educational, health, culture, and religious institutions, NGOs and contractors.
- **Discussions of current issues, including:**
  - increasing the Company’s contribution to the project to create an ethnic theme park in the village of Sovetskaya Rechka;
  - RN-Vankor’s offer to join the programme to compensate travel costs financed by the municipal budget;
  - partnering with educational institutions to facilitate employment of graduates whose tuition was paid from the government budget;
  - streamlining food delivery to Igarka through opening a grocery store by a Company contractor.
Discussions of current issues, including:
• Udmurtneft’s contribution to national environmental projects;
• setting up a Rosneft Class in one of the villages in the Volkind District;
• Udmurtneft’s contribution to upgrading the water supply system in the Karakulinsky District by financing the drafting of project documents to include the district in the federal Clean Water programme;
• joint effort by Udmurtneft and the Republic’s authorities to repair the Malye Kalmashi–Vyatka road.

5. Round table “Sustainable Development of Rosneft Group Subsidiaries and the Khabarovsk Territory in 2018”, Komsomolsk-on-Amur, Khabarovsk Territory
Participants: representatives of RN-Komsomolsk Refinery, the government of the Khabarovsk Territory, the administration of Komsomolsk-on-Amur, sports and cultural NGOs, the regional veterans organisation, children’s rehabilitation centre, educational institutions, medical organisations, and the media.
Discussions of current issues, including:
• arranging doctor visits to the Katangsky District;
• construction and financing of an Ethnocultural Centre for the indigenous peoples of the North in Khabarovsk;
• public-private partnership programme to recycle municipal solid waste;
• allocating funds to purchase seedlings for a park in Angarsk;
• supporting the project to build a fitness centre in the Katangsky District.

6. Round table “Sustainable Development of Rosneft Group Subsidiaries and the Khabarovsk Territory in 2018”, Komsomolsk-on-Amur, Khabarovsk Territory
Participants: representatives of RN-Komsomolsk Refinery, the government of the Khabarovsk Territory, the administration of Komsomolsk-on-Amur, sports and cultural NGOs, the regional veterans organisation, children’s rehabilitation centre, educational institutions, medical organisations, and the media.
Discussions of current issues, including:
• empowering instructors at Komsomolsk-on-Amur State University;
• continued partnership to develop the city and regional infrastructure, including building a sidewalk from the Learning Centre to the Komsomolsk Refinery as part of the project to repair pavement on Lerinpradalskaia Street in 2021;
• treating with anti-icing chemicals of pedestrian crossing at the Learning Centre in the autumn-winter season, clearing the sidewalk along from the Learning Centre to the Komsomolsk Refinery.

7. Round table “Sustainable Development of Rosneft Group Subsidiaries in the Krasnodar Territory in 2018”, Krasnodar
Participants: representatives of Rosneft Group Subsidiaries, the government of the Krasnodar Territory, EMERCOM, and administrative bodies of Krasnodar’s municipalities.
Discussions of current issues, including:
• improvement of inside premises across the retail network of filling stations;
• interaction with local EMERCOM bodies, municipalities, consulting and awareness-raising work;
• joint work on prevention initiatives to create precautions against theft of Subsidiaries’ production equipment.

8. Round table “Sustainable Development of Orenburgneft as a Rosneft Subsidiary and the Orenburg Region in 2018”, Orenburg
Participants: representatives of Orenburgneft, Orenburg Region authorities, supervisory bodies, Orenburg Region Union of Industrialists and Entrepreneurs, regional clinical hospital, municipal authorities, service providers and trade unions.
Discussions of current issues, including:
• working meetings with the heads of municipalities on the salaries of the contractor and sub-contractor employees;
• participation in the regional AFG utilisation programme and establishment of a coordination board featuring experts from the scientific community;
• arranging for the joint control of biological land restoration by Orenburgneft and the Krasnogvardeysky District Administration;
• raising awareness of the local authorities about the Orenburgneft activities.

Discussions of current issues, including:
• financial support of the TSM WWI Victory anniversary celebrations and participation in campaigns to search for the artefacts, relics and burials of war in the Yamalo-Nenets Autonomous Area;
• use of CCTV cameras on towers at remote fields;
• invitation for the Company to become part of the collective bodies of the Muravlenkovsky Multidisciplinary College branch management.

10. Round table “Sustainable Development of Rosneft Group Subsidiaries in the Ryazan Region In 2018”, Ryazan
Participants: representatives of Rosneft Refinery, Ryazannefteprodukt, the government of the Ryazan Region, Ryazan Regional Duma, Ryazan administration, educational institutions and supervisory bodies.
Discussions of current issues, including:
• brokering approvals between the Environmental Management Ministry of the Ryazan Region and Rosneft Refinery in respect of the possibility and terms of using the refinery’s ecology lab;
• interaction with Ryazan Refinery on the matters of materials and equipment supply, adjustments to training programmes, and recruitment of the Kasimov Oil and Gas College graduates;
• equipment upgrades for related subjects at sponsored schools (Rosneft Classes), help with organisation and implementation of school students’ individual projects;
• Rosneft’s participation in establishing the Digital Education Centre.

11. Round table “Sustainable Development of Rosneft Group Subsidiaries and the Samara Region in 2018”, Samara
Participants: representatives of Samaraneftegaz, SamarAIPinft, Kulyshnev Refinery, Syzran Refinery, Novokuibyshevsk Petrochemical Company, Samaranefteprodukt, Samara Region government agencies, municipalities, business community, trade unions and educational institutions.
Discussions of current issues, including:
• active participation of Rosneft Subsidiaries in the EcoLeader regional competition;
• participation of Rosneft Subsidiaries in the implementation of national projects (Clean Volga programme);
• changes in wages at the Samara Region’s Rosneft Subsidiaries;
• Rosneft Subsidiaries’ participation in trade unions’ cross-industry events;
• proposals on increasing the number of Rosneft Classes;
• supplementing the agreement between Rosneft and the Samara Region with a project to reconstruct the school in an urban district where the bulk of the population are employees of Syzran Refinery.

12. Round table “Sustainable Development of Rosneft Group Subsidiaries and the Saratov Region in 2018”, Saratov
Participants: representatives of Saratov Refinery, Saratovnefteprodukt, the government of the Saratov Region, regulatory bodies, municipalities, educational and healthcare institutions.
Discussions of current issues, including:
• cooperation with the Rodnye Raki (Homeland Rivers) foundation on the Patriotism. Environment. Leadership project;
• help in implementing the HR standard for industrial economic growth of the Saratov Region’s Ministry of Employment, Labour and Migration;
• sharing of the Group Subsidiaries’ experience in teaching safe work practices for their roll-out at other companies in the region.

13. Round table “Sustainable Development of Rosneft-Stavropolye and RN-Stavropolneftegaz in the region where they operate in 2018”, Stavropolis
Participants: representatives of Rosneft-Stavropolye, RN-Stavropolneftegaz, Stavropol Territory authorities, educational and science institutions, business community and municipalities.
Discussions of current issues, including:
• improvement of service quality at the filling stations of Rosneft-Stavropol;
• informing the region’s administration about capital investments and the planned investment projects;
• implementation of a railroad project to connect Budyonnovsk and Kochubeysk shutor;
• contributions to boosting employment in select districts;
• maintaining social support measures at the level of 2014–2015;
• participation in new social projects of the Levokumsky Municipal District.
14. Round table “Sustainable Development of RN-Severnaya Neft and the region where it operates in 2018”, Usinsk, Komi Republic

Participants: representatives of RN-Severnaya Neft, Usinsk Urban District administration, educational institutions, war, labour and military veterans council, healthcare institutions and mass media.

Discussions of current issues, including:
- financial support of Usinsk;
- employment at RN-Severnaya Neft for the indigenous and local population;
- lectures for students of the Usinsk branch of Ukhta State Technical University;
- training and competitions for the rescue unit of RN-Severnaya Neft hosted at Usinsk Polytechnic College.


Participants: representatives of RN-Yuganskneftegaz, Samotlorneftegaz, Varyeganneftegaz, RN-Nyaganneftegaz, regional authorities, Duma of the Khanty-Mansi Autonomous Area – Yugra, regulatory bodies, business community, educational institutions, head offices of cities and districts, and mass media.

Discussions of current issues, including:
- appointment of personnel by Rosneft Subsidiaries for interaction with the Yugra Development Foundation on the matters of localising suppliers’ production operations in the Khanty-Mansi Autonomous Area – Yugra;
- full inventory of disturbed land by RN-Yuganskneftegaz jointly with the supervisory and regulatory service;
- additional focus on cardiovascular diseases in the process of recruitment and otherwise;
- launch of Rosneft Classes in the Otkydarsky District;
- arrangement of joint efforts with Rosneft Subsidiaries on retraining and professional development of employees with higher education;
- participation of RN-Yuganskneftegaz in the construction of a park in the town of Pyt-Yakh.

16. Round table “Sustainable Development of Rosneft Group Subsidiaries and the region where they operate in 2018”, Yuzhno-Sakhalinsk

Participants: representatives of RN-Sakhalinmorneftegaz, RN-Shelf Arktika, RN-Vostoknefteprodukt, RN-SakhalinNIPImorneft, Sakhalin Region executive bodies, non-profit environmental organisations and veteran organisations, educational and science institutions, clergy and culture establishments.

Discussions of current issues, including:
- RN-SakhalinNIPImorneft’s proposal to engage the public in the matters of design, development and operation of the Vostochno-Pribrezhny and Deryuginsky licence areas;
- conclusion of a cooperation agreement between the Civic Chamber of the Sakhalin Region and Group Subsidiaries in the region;
- career guidance activities at all Sakhalin schools;
- proposal for cooperation in establishing an animal rehabilitation centre;
- development of programmes to support traditional use of natural resources and economic activities.

Appendix 4. Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>VHI</td>
<td>Voluntary health insurance</td>
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<tr>
<td>CNG</td>
<td>Compressed natural gas</td>
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<td>KPI</td>
<td>Key performance indicators</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>ITUO</td>
<td>Interregional Trade Union Organisation</td>
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<td>SME</td>
<td>Small and medium-sized enterprises</td>
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<td>IFRS</td>
<td>International Financial Reporting Standards</td>
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<td>EMERCOM</td>
<td>Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters</td>
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<td>R&amp;D</td>
<td>Research and development</td>
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<td>NPF Neftegarant</td>
<td>Non-State Pension Fund Neftegarant</td>
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<td>UN</td>
<td>United Nations</td>
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<td>OHS</td>
<td>Occupational health and safety</td>
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<td>HSE</td>
<td>Health, safety and environment</td>
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<td>APG</td>
<td>Associated petroleum gas</td>
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<td>RAS</td>
<td>Russian Academy of Sciences</td>
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<td>RSPP</td>
<td>Russian Union of Industrialists and Entrepreneurs</td>
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<td>Rosr-Assu</td>
<td>Federal Service for Supervision of Natural Resources</td>
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Units of Measurement

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<tr>
<td>mln</td>
<td>million</td>
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<tr>
<td>bln</td>
<td>billion</td>
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<tr>
<td>trln</td>
<td>trillion</td>
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<tr>
<td>th.</td>
<td>thousand</td>
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<td>t</td>
<td>tonne</td>
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<tr>
<td>tce</td>
<td>tonne of coal equivalent</td>
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<tr>
<td>toe</td>
<td>tonne of oil equivalent</td>
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<tr>
<td>kg</td>
<td>kilogramme</td>
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<tr>
<td>km</td>
<td>kilometre</td>
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<tr>
<td>sq m</td>
<td>square metre</td>
</tr>
<tr>
<td>cub m</td>
<td>cubic metre</td>
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<tr>
<td>ha</td>
<td>hectare</td>
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<td>RUB</td>
<td>rouble</td>
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<tr>
<td>CO2-equivalent, CO2-eq.</td>
<td>Total emissions from various greenhouse gases and from an organisation as a whole on the basis of their global warming potential</td>
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Contact Details

Rosneft Oil Company, Public Joint-Stock Company

Address:
26/1 Sofiyskaya Embankment, Moscow, 117997, Russian Federation

Phone: +7 499 517 7333

Email: postman@rosneft.ru

Corporate website:
Russian: www.rosneft.ru
English: www.rosneft.com

Feedback:
Feel free to address any queries in relation to the Company’s Sustainability Report to the Social Development and Corporate Culture Department.

Email: e_karpova@rosneft.ru; n_muhina@rosneft.ru