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Go to our website: [www.rosneft.ru](http://www.rosneft.ru)
As part of this low-carbon agenda, Rosneft is also boosting natural gas output and marketing new, more eco-friendly products.

Gerhard Schroeder
Chairman of Rosneft's Board of Directors

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 gas companies when ranked by proven SEC hydrocarbons 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 mmt.

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) 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
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.

Igor Sechin
Chairman of the Management Board
Chief Executive Officer

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 contributing 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.

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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

Rosneft 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
- >93 thousand employees
  had training in occupational health and safety in 2019
- >52 thousand vehicles
  are equipped with on-board monitoring systems

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

- 14% energy efficiency improvement in recent two years
- 26 mln t oil of fuel and energy saved

Rosneft 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.

- 76% of the headcount covered by collective bargaining agreements
- 2.6 trillion roubles
  spent on goods, works and services procured from third parties

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

- 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

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

- Rosneft best Russian company in the CHRB (Corporate Human Rights Benchmark) international human rights index
- 16 round-table discussions
  held in the regions of operation to address the sustainability agenda

Rosneft places a special focus on philanthropic activities of the industry majors and responsible business practices of the global energy sector’s sustainability.

- A transport safety mobile app launched
- The Company and the Group Subsidiaries initiated more than 102 thousand social and educational programmes (maximum) value of over RUB 2.1 trln
- The Company and its foreign peers held a carbon management workshop

In the key regions of operation, the Company held round table discussions with stakeholders.

- Live Longer! programme promoting healthy living, gathers more participants
- 35 thousand employees
  in occupational health and safety in 2019
- 0.7% increase in the employee headcount covered by collective bargaining agreements
- 17% increase in the number of social contracts with suppliers, contractors, and employees

In 2019, the Company boosted the output of products, and producing fuels and energy saved.

- Rosneft creates new digital services for customers (for details see p. 186)
- Rosneft seeks to improve energy efficiency and leadership in innovation as a major development factor.
- Rosneft recognises its role and responsibility for timely and reliable energy supply to its employees, and protecting human rights.
- Rosneft recognises its role and responsibility for the global energy sector’s sustainability.
- Rosneft places a special focus on philanthropic activities of the industry majors and responsible business practices of the global energy sector’s sustainability.
- Rosneft recognises the importance of global energy sector’s sustainability and responsible business practices of the industry majors.
- Rosneft recognises its role and responsibility for timely and reliable energy supply.
**Business Model**

and Strategically important UN Sustainable Development Goals

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

- **MODERN REFINERIES**
  - **OIL REFINING**
    - In Russia: 100 mmt
    - Abroad: 10 mmt
  - **PETROLEUM PRODUCTS**
    - In Russia: 97 mmt
    - Abroad: 11 mmt

- **PRODUCTION**
  - Crude oil: 230 mmt
  - **52 mmt** purchase
  - **282 mm³ t of crude oil**

- **282 mm³ t of crude oil**

- **116 mm³ t** petroleum products and petrochemicals

- **100 mm³ t** petrochemicals

- **9 mm³ petroleum products purchase**

- **9 mm³** petroleum products purchase

- **170 mm³**

**EXTENSIVE LOGISTICS AND DISTRIBUTION NETWORK**

- **REVENUE**
  - **TOTAL** 8,676 RUB bln
  - **PETROLEUM PRODUCTS SALES**
    - In Russia: 42 mmt
    - Abroad: 70 mmt
    - **3,897 RUB bln**
  - **OIL SALES**
    - In Russia: 6 mmt
    - Abroad: 149 mmt
    - **4,234 RUB bln**
  - **GAS SALES**
    - In Russia: 57 bcm
    - Abroad: 5 bcm
    - **259 RUB bln**
  - **INTERNAL CONSUMPTION, ETC.**
    - **12 mm³**
  - **Other**
    - **186 RUB bln**

**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**

---

**Capital**

- **Financial**
  - 2,105 RUB bln
  - EBITDA margin 24%
  - Net income 708 RUB bln
  - Dividends 283 RUB bln

- **Social and reputational**
  - 3.5 RUB bln
  - Taxes 578 RUB bln allocated for social projects
  - 621 kt production of CO₂ eq.
  - 3 % reduction of GHG emissions
  - 12 filling stations retail sales of compressed natural gas

- **Human**
  - 700 patents issued
  - 11 RUB bln innovations impact

- **Intellectual**
  - 8 R&D and design institutes

- **Natural**
  - 1.9 % salary vs. the country’s average
  - 170 mmt
  - 42 mmt motor fuels output

- **Productive**
  - 13 refineries
  - 6 refineries
  - 67 bcm production
  - 7 bcm purchase

---

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 2019 Annual Report or other public documents.

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.

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.

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.

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.

MATERIALITY MATRIX

- Asset integrity, process safety (safety procedures and number of accidents)
- Strategic targets of sustainable development
- Economic performance
- Direct competitive practices
- Procurement practices (including local suppliers)
- GHG emissions
- Climate risks and opportunities
- Compliance with environmental legislation
- Occupational health and safety
- Energy
- Water
- Emissions of NOx, SOx and other pollutants
- Biodiversity
- Emergency preparedness
- Human rights protection
- Market foothold
- Human rights protection
- Materials
- Product and service labelling
- Evaluation of suppliers by sustainability criteria
- Freedom of association and collective bargaining
- Emissions of ozone-depleting substances
- Comparison to the 2018 Sustainability Report matrix

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

About the Report

In 2019, Rosneft becomes 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.

The Company received 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.

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- 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.
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**

<table>
<thead>
<tr>
<th>Metric</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
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<tbody>
<tr>
<td>Dividends, RUB bln</td>
<td>104</td>
<td>225</td>
<td>283</td>
</tr>
<tr>
<td>Total procurement, RUB bln</td>
<td>6,566</td>
<td>2,114</td>
<td>2,672</td>
</tr>
<tr>
<td>Procurement from SMEs, RUB bln (contractual volume)</td>
<td>158</td>
<td>167</td>
<td>123</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL PERFORMANCE**

<table>
<thead>
<tr>
<th>Metric</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual fuel and energy savings, mln GJ</td>
<td>22.6</td>
<td>21.4</td>
<td>25.9</td>
</tr>
<tr>
<td>Contaminated land at the end of the year, ha</td>
<td>3,348</td>
<td>3,219</td>
<td>2,710</td>
</tr>
<tr>
<td>Disposal of contaminated wastewater, mmc</td>
<td>57.3</td>
<td>50.9</td>
<td>47.5</td>
</tr>
<tr>
<td>Non-GHG emissions into atmosphere, kt</td>
<td>1,846</td>
<td>1,835</td>
<td>1,773</td>
</tr>
<tr>
<td>Share of water recycled and re-used, %</td>
<td>93</td>
<td>93</td>
<td>94</td>
</tr>
</tbody>
</table>

**OCCUPATIONAL HEALTH AND SAFETY**

<table>
<thead>
<tr>
<th>Metric</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<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>Share of work-related injuries</td>
<td>0.36</td>
<td>0.34</td>
<td>0.38</td>
</tr>
<tr>
<td>Controlled 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>
</tr>
</tbody>
</table>

**PERSONNEL**

<table>
<thead>
<tr>
<th>Metric</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headcount at year-end, thousand employees</td>
<td>318.0</td>
<td>325.6</td>
<td>334.6</td>
</tr>
<tr>
<td>Payroll, RUB bln</td>
<td>287</td>
<td>311</td>
<td>335</td>
</tr>
<tr>
<td>Social payments fund, RUB bln</td>
<td>7.7</td>
<td>8.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Training hours, mln man-hours</td>
<td>13.5</td>
<td>12.3</td>
<td>19.0</td>
</tr>
</tbody>
</table>

**CUSTOMER RELATIONS**

<table>
<thead>
<tr>
<th>Metric</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
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<tbody>
<tr>
<td>Oil sales, mmt</td>
<td>128.7</td>
<td>129.1</td>
<td>155.0</td>
</tr>
<tr>
<td>Sales of petroleum products, mmt</td>
<td>109.6</td>
<td>113.1</td>
<td>112.0</td>
</tr>
<tr>
<td>Gas sales, bcm</td>
<td>63.9</td>
<td>62.0</td>
<td>41.8</td>
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</table>

**Direct economic value generated and distributed**, RUB bln

<table>
<thead>
<tr>
<th>Metric</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct economic value generated (income)</td>
<td>5,951</td>
<td>7,968</td>
<td>8,670</td>
</tr>
<tr>
<td>Direct economic value distributed, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opex</td>
<td>1,967</td>
<td>2,270</td>
<td>2,917</td>
</tr>
<tr>
<td>Payments to providers of funds</td>
<td>346</td>
<td>521</td>
<td>585</td>
</tr>
<tr>
<td>Personnel expenses, excluding compulsory insurance premiums</td>
<td>269</td>
<td>296</td>
<td>327</td>
</tr>
<tr>
<td>Insurance premiums</td>
<td>61</td>
<td>67</td>
<td>75</td>
</tr>
<tr>
<td>Accrued taxes and duties</td>
<td>2,614</td>
<td>3,879</td>
<td>3,576</td>
</tr>
<tr>
<td>Community investments</td>
<td>22</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Economic value retained</td>
<td>672</td>
<td>909</td>
<td>1,168</td>
</tr>
</tbody>
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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 LTIF = 0.41 and 0.38, respectively.

1 Including benefits and one-off bonuses as part of the payroll and annual remuneration.
2 Data for 2017–2019 reflects more accurate calculation of payments to providers of funds, personnel expenses, and community investments under GRI 201-1.
“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
Strategic Vision of Sustainable Development

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.

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.

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.

The Rosneft–2022 Strategy sets equally high standards in sustainable production, social responsibility and HSE across all of the Company’s business segments.

STRATEGIC INITIATIVES BASED ON NATIONAL PRIORITIES:

- **Rosneft – City of the Future**
  - New services at filling stations with the offering of non-fuel goods and services considerably expanded, including digital and green services
  - Widespread use of energy-efficient solutions and renewables at the Company’s facilities

- **Employee Development**
  - Leader of the Future programme
  - Cooperation in education (from school to university) and expansion of mentoring programmes
  - Long-term incentives to boost productivity

- **Social Development**
  - Modern Medicine Programme: healthcare facilities at production sites, telemedicine, and a brand new programme for preventive medical examination
  - Active Longevity Programme: support for pensioners, healthcare services for retired employees in excess of compulsory medical insurance

- **Digital Rosneft**
  - Enhancing and facilitating a transparent interaction between the Company and external counterparties.
  - Creating a digital cluster

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.
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.

UN Sustainable Development Goals (adopted by the resolution of the UN General Assembly on 25 September 2015) seek to achieve a meaningful progress in addressing global economic, social and environmental challenges.

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

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 the G20’s TCFD under the G20’s Financial Stability Board, CDP and others.

In 2019, Rosneft improved its CHRB score by 11 p. p. 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.

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.

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.

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

Fair and responsible business practices
- Business and production integrity
- Transparency and information disclosure
- Respect for human rights
- Ethics, compliance with procedures, and combating corruption
- Risk management

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

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 resource use
- More eco-friendly products
- Monitoring of production-related energy consumption
- Reduced energy consumption

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
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.

For details on the corporate governance framework, see the 2019 Annual Report and the official website.

GENERAL SHAREHOLDERS MEETING

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

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;
• is made up of eleven Board members, with four of them independent;
• 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.

CHIEF EXECUTIVE OFFICER

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

EXECUTIVE GOVERNING BODIES

COMMITTEES OF THE BOARD OF DIRECTORS

STRATEGY AND SUSTAINABLE DEVELOPMENT COMMITTEE (INCLUDING ONE INDEPENDENT DIRECTOR)

• takes part in developing corporate and business line strategies and oversees their implementation;
• reviews draft internal regulations (policy level) on sustainable development, innovations, external communications, and information policy;
• reviews the Company’s sustainability reports and other ESG-related public reports;
• analyses and informs the Board of Directors on the risks and opportunities related to climate change, environment (including water resource management) and Rosneft’s social responsibility (including respect for human rights).

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.

For details on shareholder engagement, see the 2019 Annual Report.

1 Strategic Planning Committee before April 2020. In charge of reviewing sustainability reports instead of the HR and Remuneration Committee.

2 For details on shareholder engagement, see the 2019 Annual Report.
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 payments 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

**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.

> 111 / 69 / 20 / 13

- Sustainability matters
- Other

**Number of items reviewed by the governing bodies**

In June 2019, the Board of Directors welcomed a new member Harald Rashid Al Mohannadi who has an extensive expertise and administration experience in the oil and gas industry, as well as in strategic, risk and HR management.

> 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%.

> 18%

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

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.

**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.

**Age Diversity on the Management Board, breakdown**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 45 years</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>46-55 years</td>
<td>9</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>56-65 years</td>
<td>9</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>66 or over</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

**Gender Diversity on the Management Board, %**

<table>
<thead>
<tr>
<th>Gender</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Woman</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

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 2019).
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 Roseft’s 2019 Annual Report.)

Key risks inherent in the Company’s business

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

- tightening of environmental regulations, promoting energy saving standards and initiatives;
- health, safety, and environment (HSE) risks: these risks are managed through a variety of measures, as set down in its H&S strategy, designed to recruit and retain highly qualified personnel, and deepen 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 analyzes climate-related risks as part of the CRWMS, with the results submitted to the Board of Directors’ Audit Committee and the Company’s management;
- 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 H&S strategy, designed to recruit and retain highly qualified personnel, and deepening the existing policies and procedures covering HR management, social development, and corporate culture.

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

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 extra 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 temperature 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

 Protecting Health and Staying Efficient

For details on climate-related risks, see the Climate-related Risks and Opportunities section of this Report.

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

Key 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.

**Government Agencies**
- As a major Russian taxpayer, Rosneft helps ensure budget stability and contributes to the nation's social and economic development.
- 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.

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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 2019).
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ROSNEFT

Regions of operation and local communities

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 3,842 mln spent on sponsorship activities;
1 mln trees planted as part of forest protection initiatives;
RUB 2,265 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 660 bln in tax payment to regional budgets.

Interaction
• Round tables and public discussions;
• Sponsorship programmes;
• Support of environmental initiatives;
• Development of infrastructure across the regions of operation.

Suppliers and Contractors

Point of Interest
Support of environmental initiatives, social support.

Achievements in 2019
• RUB 2.6 trln – the volume of procurement;
• 18 workshops for SMEs (jointly with SME Corporation);
• SME access account for 7% of potential suppliers accredited with Rosneft;
• over 102 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
• 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’ competences, 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.

Employees

Interaction
• Ensuring occupational safety; providing remuneration;
• Organising education, training and professional development;
• Social policy implementation: establishing optimal workplace conditions, voluntary insurance, development of the health protection system and pension plan.

Points of Interest
Stable and competitive salary, professional growth, social protection.

Achievements in 2019
• RUB 88,609 – average monthly salary;
• RUB 18,7 bln – the amount of social payments, benefits and one-off bonuses included in the payroll;

• 19 million man-hours of training;
• 74% of the headcount covered by collective bargaining agreements;
• 56% of staff represented by trade unions;
• more than 330 thousand employees of Rosneft and Group Subsidiaries covered by personal insurance programmes;
• over 280 thousand employees covered by the corporate pension plan;
• over 290 heads of Group Subsidiaries’ social and HR functions participated in an annual conference, which was also attended by the Company’s overseas partners.

Employees

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 event is hosted by the Russia – Land of Opportunity autonomous non-profit organisation, Institute of Oil and Gas Technology Initiatives autonomous non-profit organisation established;
• the Company’s employees won prizes in six out of eight categories of the national WorldSkills championship;
• Vankorayshe UTT (a subsidiary of Rosneft) was included in the National Gas Vehicle Association;
• Rosneft is among the leaders of RSPP’s Sustainable Development Vector index;
• For a third time running, Rosneft was named the best socially oriented company as part of a Russian Ministry of Energy competition;
• over 2.5 thousand visitors attended the ECOARCTIC environmental forum staged by Rosneft in the Nenets Autonomous Region;
• The Company took part in the Earth Hour campaign: external lighting was turned off at the Company’s headquarters and at administrative buildings of 177 Group Subsidiaries;
• The Company made and published atlas titled ‘Russian Arctic. Space, Time, Resources’.

NGOs

Interaction
• RNOS and Rosneft in the regions of operation;
• support of social and cultural initiatives;
• public campaigns.

Points of Interest
• Participation in the development of infrastructure in social, educational and cultural areas;
• projects in the regions of operation;
• 1 mln trees planted as part of forest protection initiatives;
• 13 community meetings on offshore projects;
• 16 round-table discussions held in the regions;
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• RUB 3,842 mln spent on sponsorship activities;
• 1 mln trees planted as part of forest protection initiatives;
**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 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**

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 health care, and rights of indigenous minorities.

Respecting generally accepted principles:

- Contribution to the social and economic development of local communities.
- Contribution to the health and safety of the environment.
- Openness and transparency of information.
- Interaction with the media and the public.
- Development of customer value proposition.
- Expansion of the range of goods and services around filling stations.
- Development of remote fuel payment services for individuals.
- High service speed at filling stations.
- Fuel payment service via a mobile app.

**Content of website publications:**
- Discussions on the Company's website;
- Publications on the website and official social media accounts;
- The Company's statements in response to media publications;
- Website posts containing official reports and the Company's position on various issues.

**Universal Declaration of Human Rights**

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

**UN Global Compact**

**OECD Guidelines for Multinational Enterprises**

**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. Universal Declaration of Human Rights
2. Declaration on Fundamental Principles and Rights at Work of the International Labour Organisation (ILO)
3. ILO Right to Organise and Collective Bargaining Convention No. 98
4. ILO Freedom of Association and Protection of the Right to Organise Convention No. 87
5. ILO Discrimination (Employment and Occupation) Convention No. 111

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**Contact of website publications:**
- Rational use of API;
- Technology and innovation;
- Environmental protection activities;
- Energy-saving and energy efficiency;
- Credit and ESG ratings;
- Health and social matters;
- Financial and operating performance.

**Points of Interest**

- Regular updates with reliable, relevant and complete information.

**Achievements in 2019**

- Over 3,000 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 stations, shops and cafes — over 45 million cups of hot drinks sold.
- Rosneft stations provide compressed gas refilling for nearly 2.5 thousand vehicles daily.
- 12 charging stations for electric vehicles.

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**Rosneft's Information Policy is posted on the website: [https://www.rosneft.com/upload/site2/document_file/BP3-01-04_P-01_V-3_00_UL-001_ENG.pdf](https://www.rosneft.com/upload/site2/document_file/BP3-01-04_P-01_V-3_00_UL-001_ENG.pdf)**
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 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.

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.

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.

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.
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

Key internal documents governing ethics management and compliance activities:

- 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
- Regulations on the Procedure for Exchange of Corporate Gifts and Hospitality
- Regulations on Coordinating Anti-Fraud and Anti-Corruption Processes
- Confidential Data Protection Standard
- ROSNEFT’S CODE OF BUSINESS AND CORPORATE ETHICS

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.
Countering Corporate Fraud and Corruption

As a party to the UN Global Pact, 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 implementation, execution and operating efficiency of RIMICS 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;
- organisational training and communications on countering corporate fraud and corruption;
- monitoring and controlling the process of countering corporate fraud and corruption.

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.

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

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 789 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.

The Company encourages counterparties and JV partners to adhere to the same measures to prevent corporate fraud and involvement in corruption activities.
PERFORMANCE OF THE SECURITY HOTLINE

<table>
<thead>
<tr>
<th>Calls received by the Security Hotline</th>
<th>Areas of violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>35,106 calls</td>
<td>40.46 million roubles</td>
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</tr>
<tr>
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<td>270 violations</td>
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</table>

In 2019, 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.

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.

35,106 calls received by the Security Hotline in 2019

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.

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 into 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.

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

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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.

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.

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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.

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.
“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: integrating climate measures into strategies, reducing emission intensities, and strengthening resilience to climate-related risks.

These commitments are underpinned by actions across ten elements of Rosnef’ts 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.

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 $10 billion’ 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 5% 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,0.3 kg CO₂ eq./t production, for 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.

For details on the management system and guidelines on combating climate change, see the Company’s website.

Exchange of Carbon Management Experience

In 2019, Rosneft held a seminar on corporate carbon management practices, which focused on strategic GHG and methane reduction initiatives, energy efficiency programmes, and technological developments in carbon management.

The participants included the Company’s top managers, President of BP Russia David Campbell, President of Equinor Russia Elisabeth Birkeland Kvalheim and vice presidents of relevant functions at these companies.
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 up to 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 23%). The share of liquid hydrocarbons in global energy consumption will decrease from 31% in 2018 to 29% in 2040, but will remain the largest among all energy resources. At the same time, the total share of liquid hydrocarbons and gas will remain flat at around 54%. The share of renewable sources in global energy consumption 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 (72%). 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 81% respectively, compared with 2018. Gas consumption is projected to increase and then stabilise by 2025–2030, 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.

Scenario Forecasts Related to the Global Energy Transition and Climate Action

### BASE CASE:

- The forecast is based on the study of existing energy demand patterns, impact of technological progress, globalisation and the energy policy.

### LOW-CARBON SCENARIO:

- 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.

### SUSTAINABLE DEVELOPMENT SCENARIO:

- the scenario is based on the International Energy Agency forecast on the global energy transition and climate action.

### 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.
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 18% to 28% by 2040. They assume a 1.0% CAGR for all sources, with the lowest and highest rates of 0.8% and 1.2% projected in the ExxonMobil scenario and the BP and Rosneft forecast, respectively.

<table>
<thead>
<tr>
<th>Source</th>
<th>CAGR of global primary energy consumption towards 2040 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHS Markets</td>
<td>0.92</td>
</tr>
<tr>
<td>BP</td>
<td>1.22</td>
</tr>
<tr>
<td>IEJ</td>
<td>1.10</td>
</tr>
<tr>
<td>OPEC</td>
<td>1.04</td>
</tr>
<tr>
<td>IEA</td>
<td>0.98</td>
</tr>
<tr>
<td>Rosneft</td>
<td>1.17</td>
</tr>
<tr>
<td>ExxonMobil</td>
<td>0.80</td>
</tr>
<tr>
<td>EIA</td>
<td>1.14</td>
</tr>
<tr>
<td>UPMHNT PH1</td>
<td>0.96</td>
</tr>
</tbody>
</table>

*The comparative analysis relies on the following basic forecasts from the leading energy agencies and oil and gas producers:

- IHS Market, IHS Rovely Scenario (2019–2040) – IHS Market // 2019 Energy outlook to 2050
- OPEC, OPEC WTO (2019–2040) – The only scenario – Organisation of the Petroleum Exporting Countries // 2019 World Oil Outlook 2040
- ExxonMobil (EM), ExxonMobil (2018–2040) – The only scenario – ExxonMobil // 2019 Outlook for Energy

Climate-related Risks and Opportunities

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.

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 provided a much deeper insight into the climate and the environment of this unique region. In 2019, the Kara-Summer 2019 research expedition conducted hydrometeorological observations in the Barents, Kara, Laptev and Chukchi seas, with Atlases of Russian Arctic Seas published following the research. Hydrometeorological and climate information is used to design offshore oil and gas platforms and ensure the safe navigation and operation of these facilities.

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.

Introduction of Greenhouse Gas Emissions Charges

- Active participation in the working group on carbon regulation under the Russian Ministry of Economic Development
- Monitoring and analysis of international legislative initiatives related to the regulation of greenhouse gas emissions
- Testing a medium-term business plan using various greenhouse gas emissions charges
- Implementation of the Energy Saving Programme, Gas Investment Programme and the Programme to Monitor and Optimise Losses and Energy Consumption
- Adoption of a corporate target to reduce unit greenhouse gas emissions
- Development and implementation of a carbon management plan

Increase in air temperature and sea level, permafrost thawing, extreme weather phenomena

- Infrastructure design and operation based on hydrometeorological and climate data and production safety measures
- Climate research in the regions of operation

Changes in the structure of energy consumption due to technological breakthroughs

- Monitoring of technologies affecting the global energy mix
- Implementation of the Innovation Development Programme
- Upgrade of the corporate production and energy consumption framework
- Digitalisation and accelerated technical development across operations

Investor and other stakeholder sentiment towards investment in the oil and gas industry

- GHG emission reduction (Gas Investment Programme, Energy Saving Programme and the Programme to Monitor and Optimise Losses and Energy Consumption)
- Transparent disclosure, integration of climate change issues into corporate governance
- Active interactions and communications with the key audiences

For details on the Atlases of Russian Arctic Seas, see: https://www.rosneft.ru/pr/press/news/item/197449


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- ExxonMobil (EM), ExxonMobil (2018–2040) – The only scenario – ExxonMobil // 2019 Outlook for Energy
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 cutting GHG emissions by over 8 mmt (CO₂ equivalent) by 2022.

The Company has historically disclosed greenhouse gas emissions as recommended by the TCFD.

In 2019, GHG emissions 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 (Scope 3) emissions from the use of products manufactured by the Company in 2019 were 243.0 mmt (CO₂ equivalent), based on petroleum product sales.

GHG emissions, t CO₂ eq. / ktce

- Oil and gas production (including oilfield services)
- Oil refining, gas processing and petrochemicals

Direct GHG emissions, kt

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide (CO₂)</td>
<td>303</td>
<td>44.664</td>
<td>164</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>46.444</td>
<td>50.629</td>
<td>134</td>
</tr>
<tr>
<td>Total</td>
<td>359.456</td>
<td>51.293</td>
<td>198.066</td>
</tr>
</tbody>
</table>

Total Company GHG emissions, t CO₂ eq. / thousand boe

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas production</td>
<td>24.5</td>
<td>24.4</td>
<td>26.1</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>2.8</td>
<td>2.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Total = 27.3 t CO₂ eq. / thousand boe

APG Utilisation

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).

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.

Rational use of APG

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>APG utilisation capex, RUB bln</td>
<td>41.6</td>
<td>41.8</td>
<td>44.3</td>
</tr>
<tr>
<td>APG production in Russia (resource), bcm</td>
<td>37.1</td>
<td>35.3</td>
<td>34.5</td>
</tr>
<tr>
<td>APG production in Russia, excluding flared gas (blue), bcm</td>
<td>20.1</td>
<td>16.3</td>
<td>21.5</td>
</tr>
<tr>
<td>APG utilisation rate, %</td>
<td>15.2</td>
<td>15.7</td>
<td>17.8</td>
</tr>
</tbody>
</table>

Natural Gas Production

The Rosneft-2022 Strategy targets an increase in gas production to 100 bcm per annum to achieve a 20% share of domestic sales. Expanding the Company’s gas production is in line with the global trend of utilising gas as a low-carbon energy source.

The Company has also identified the following strategic objectives related to its gas production:

- Improving the economics of domestic gas sales, among other things by implementing projects on time and budget;
- Improving gas production processes and technological competences.

In 2019, production totalled 66.9 bcm, including 32.77 bcm of natural gas and 34.18 bcm of associated petroleum gas, which is generally in line with the previous year’s figures.

Natural gas production, bcm

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>31.58</td>
<td>32.33</td>
<td>32.77</td>
</tr>
<tr>
<td>Associated petroleum gas</td>
<td>34.36</td>
<td>34.93</td>
<td>34.18</td>
</tr>
</tbody>
</table>

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-Messyakhskoye, Yurubchevo-Toilikomskoye, Severo-Komsomolskoye, and Trebs and Titov).
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:

- An increase in APG production at greenfield sites (Soluzinskoye, Tagalyskoye, Volostchnoye, Messoyakskoye, Yurubchenskoye, Tokkomskoye, Severo-Komsomol’skoye, and Trebs and Titov) where the gas infrastructure is still under construction;
- Oil production cuts at Brownfield sites as part of the Company’s commitment under the DPECE-agreement and limited oil acceptance by Transneft’s Druzhba pipeline.

In planning new developments and greenfield infrastructure, Rosneft fully integrates the required solutions at the engineering and design documentation stage to maximise APG utilisation.

In 2019, the Company completed the construction of 23 APG utilisation facilities, including:

- 18 MW gas turbine power plant commissioned at Kondanef’s Zapadno-Erginskiy field;
- A compressor station and a vacuum compressor station at the Duurecherskoye field operated by Tomskneft VNKh;
- A compressor station at the Pravdinskoye field; a low-stage compressor station at the Malobalykskoye field; and a low-stage compressor station at well pad 354 of the Priobinskoye field operated by RN-Yuganskneftegaz;
- 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 Yurubchenskoye-Tokkomskoye, Srednebotuobinskoye, and Trebs and Titov fields. These projects are crucial for delivering on the strategic goals of increasing APG utilisation and reducing GHG emissions.

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

Rosneft’s energy efficiency performance has improved by 14% over the past two years, which helped prevent 3.1 million tonnes of 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.

Climate Cooperation

Paris Climate Agreement

The Paris Agreement was adopted in December 2015 at the 21st session of the Conference of the Parties to the UN Framework Convention on Climate Change held in France. Its purpose is to keep 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.

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;

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

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.

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 of 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.

1 United Nations Framework Convention on Climate Change, данные состоялись на 09 июля 2020 года https://unfccc.int
2 The Non-state Actor Zone for Climate Action (NAZCA) https://action.unfccc.int

In 2019, the Company’s sustainability 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.

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2 The Non-state Actor Zone for Climate Action (NAZCA) https://action.unfccc.int
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 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

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.

"Commerzbank Initiatives Award" in the Environment Category

In 2019, Rosneft’s large-scale project to reduce APG flaring won an annual “Commerzbank 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 6 – Clean water and sanitation
- SDG 11 – Sustainable cities and communities
- 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 and scientific institutions to incorporate feedback, recommendations and sound scientific guidance for carrying out the Company’s projects and activities.

Rosneft 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 led 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.

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

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 processes conducted by contractors for Rosneft.

The Company carries out monitoring to assess the effectiveness of environmental controls and to determine the level of actual environmental impact. This is done by conducting field measurements to analyse air emissions and the quality of surface and ground water, as well as to monitor potential impacts to soil and biodiversity, including the preservation of animal migration routes.

Across various levels of the Company, from special division 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.

Reduction of greenhouse gas (GHG) emissions as part of the Company’s climate change management agenda

Minimisation of environmental impacts, including the introduction of the best available technologies to improve environmental performance at operational sites, waste handling, effective wastewater treatment, and through the systematic implementation of ecological investment projects

Implementation of measures for ecosystem conservation and biodiversity protection, restoring natural resources, including remediation of contaminated soil

Environmental Efficiency Programme (to 2025)

KEY FOCUS AREAS OF PROGRAMME

- Reduction in APG flaring; reduction of specific absolute air emissions
- Increase in the percentage of recycled water; improved treatment of produced water from oil production; upgrading wastewater treatment systems
- Reduction in oil-contaminated areas and accumulated waste, including sludge pits, drilling and sludge waste resulting from the activities of third parties at the Company’s facilities
- Delivery of environmental obligations and requirements arising from the current projects and activities of the Company (land reclamation, removal of sludge pits, and waste handling)

*The HSE Management System is regulated by the Company’s Standard on Integrated Health, Safety, and Environment System No. P3.05 S-0009, version 1.00, approved by resolution of Rosneft’s Management Board and put into effect by order No. 647 dated 16 October 2018.

Rosneft’s Policy on Health, Safety and Environment is available on the official website of the Company.
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.

Environmental Protection Investments, RUB mln

<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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental permits</td>
<td>913</td>
<td>1,359</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.

Rosneft is also developing a number of technologies to increase water-flooding efficiency and reduce the volume of water required to maintain formation pressure. For example, a target innovative project is currently underway to develop high-viscosity oil reserves of the Pukhurskaya suite formations in Western Siberia. To this end, the Company is developing polymer flooding technologies which can potentially reduce reused water consumption by more than a half.

Investments in fixed assets for environmental protection, RUB mln

- Targeted Ecological Programmes
- Capital construction of facilities related to environmental fixed assets
- Materials and equipment
- Associated investments
- Other

Investments in fixed assets for environmental protection, RUB mln

- 1,625
- 5,991
- 169

34,544

26,632

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.

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

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.

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.

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.

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.

Last year, the Company continued the construction of a desulphurisation plant and production of granular sulphur as part the construction of the hydrocracking complex at Achinsk Refinery. The open oil separator of the reverse water supply system at Saratov Refinery was sealed in December 2019 to reduce emissions by 85 tonnes/year.

For more information on this subject, see the Climate Action chapter.

Structure of non-GHG emissions into atmosphere, kt

<table>
<thead>
<tr>
<th>Period</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross air emissions, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,846</td>
<td>1,835</td>
<td>1,773</td>
</tr>
<tr>
<td>solids</td>
<td>828</td>
<td>87</td>
<td>85</td>
</tr>
<tr>
<td>sulphur dioxide (SOx)</td>
<td>87</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>carbon monoxide (CO)</td>
<td>745</td>
<td>822</td>
<td>841</td>
</tr>
<tr>
<td>nitrogen oxide (NOx)</td>
<td>57</td>
<td>60</td>
<td>66</td>
</tr>
<tr>
<td>hydrocarbons (without volatile organic compounds)</td>
<td>500</td>
<td>379</td>
<td>303</td>
</tr>
<tr>
<td>volatile organic compounds</td>
<td>355</td>
<td>391</td>
<td>384</td>
</tr>
<tr>
<td>benz(a)pyrene</td>
<td>0.00003</td>
<td>0.00002</td>
<td>0.00002</td>
</tr>
<tr>
<td>other</td>
<td>22</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

The sum of the above numbers may not correspond to the total due to rounding.

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.

Specific air emissions by type, t/tece

<table>
<thead>
<tr>
<th>Year</th>
<th>SO(_2) emissions</th>
<th>NO(_x) emissions</th>
<th>Specific hydrocarbon emissions (including volatile organic compounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>oil and gas production</td>
<td>oil and gas production</td>
<td>oil and gas production</td>
</tr>
<tr>
<td>2017</td>
<td>0.055</td>
<td>0.06</td>
<td>0.052</td>
</tr>
<tr>
<td>2018</td>
<td>0.053</td>
<td>0.049</td>
<td>0.056</td>
</tr>
<tr>
<td>2019</td>
<td>0.052</td>
<td>0.046</td>
<td>0.052</td>
</tr>
</tbody>
</table>

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.
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>Type of water</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground water</td>
<td>12.2</td>
<td>48.9</td>
<td>7.6</td>
</tr>
<tr>
<td>Surface water</td>
<td>218.6</td>
<td>222.8</td>
<td>413.4</td>
</tr>
<tr>
<td>Third-party water supply networks</td>
<td>101.5</td>
<td>116.3</td>
<td>115.0</td>
</tr>
<tr>
<td>Rain water</td>
<td>394.4</td>
<td>479.2</td>
<td>647.9</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:

- Reconstruction of mechanical and biological wastewater treatment plants at the Ryazan Refinery.
- Decreasing disposal of industrial effluents to surface water bodies by 4%.
- Decreasing contaminated wastewater discharges by 4%.

Contaminated wastewater discharges in 2019 reduced by 4%
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.

Wastewater discharges into third-party networks for reuse, thousand cub m

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>290.39</td>
<td>8,938.86</td>
<td>10,380.2</td>
</tr>
</tbody>
</table>

Rosneft received a “B-” rating in the “water resources” category of the international CDP ranking. In 2019, Rosneft received a “B-” rating based on its CDP Water submission (previously Carbon Disclosure Project). A total of 2,435 companies were rated from their submissions in this category including 109 oil and gas companies from 28 countries. Rosneft’s rating is equivalent to the global international average ranking among global oil and gas majors and showed that the company’s water conservation activities were continuing to identify and manage water scarcity risks.

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.

For details on regional initiatives to improve water supply, see the Supporting Social and Economic Development of the Regions section.
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 30% 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>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>730</td>
<td>663</td>
<td>652</td>
</tr>
</tbody>
</table>

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

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.

Land Remediation and Waste Management

Land Remediation

When planning and executing production activities, the Company strives to improve its 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>3,417</td>
<td>3,728</td>
<td>3,219</td>
</tr>
<tr>
<td>Area of contaminated land specified during the pre-project survey</td>
<td>106</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>17,671</td>
</tr>
</tbody>
</table>

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

Igor Tabachnikov
CEO, RN-Yuganskneftegaz

* Data for 2018 reflect the area of land contaminated by bottom water.
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>14,122</td>
<td>14,374</td>
<td>15,642</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>499</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>14,044</td>
<td>14,934</td>
<td>16,670</td>
</tr>
</tbody>
</table>

“As early as in 2017, Varyeganneftegaz became the region’s first producing company to eliminate “legacy” lands which were contaminated during the Soviet period of field development in Western Siberia. Nevertheless, protection of environment is still one of the key aspects of our operations, and as of today we have shifted to drilling waste disposal directly from the rig.”

Alexey Sinyakov
CEO, Varyeganneftegaz

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-Severnaya Neft.

When handling waste, the Company adheres to the principle of sustainable use of natural resources and preservation of the environment. To this end, the following initiatives are being implemented:

- Separate accumulation and storage of waste in designated areas in compliance with environmental, sanitary, epidemiological laws and other applicable regulations;
- Reuse of materials which were generated during production, work, services or in the process of consumption;
- Waste transfer to special points for decontamination and disposal;
- At the design stage, selection of technological processes that generate the lowest quantities of waste possible;

Pursuant to 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 Syryan and Achinsk refineries, RN-Morskoi Terminal Tuapse, Bashneft-Roznist, and others have this process in place for plastic waste, the Achinski and Novokubanskoye refineries, RN-Volgograd, RN-Morskoi Terminal Tuapse, Tomsknefteprodukt VNK, RN-Rostovnefteprodukt, Saratovnefteprodukt, RN-GRP, VNPKhelft, 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 (ink cartridges, etc.) generated by its offices. 
Biodiversity Conservation

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.

Environmental monitoring and implementation of action plans to reduce environmental impacts

Environmental impact assessment

Obtaining approval from state ecological experts

Obtaining permissions, approvals of authorised bodies

Obtaining public approval

Using the results of environmental monitoring for scientific purposes and the development of environmental measures

At all stages of the life cycle of operational processes, the Company carries out environmental monitoring and takes measures to prevent environmental impacts, protect ecosystems and habitats. These monitoring results are used for scientific purposes and are taken into account when planning further environmental protection measures. All employees of the Company and contractors are banned from hunting and fishing in the areas of the Company’s projects.

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.
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 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,

For details on the environmental atlases published in 2019, see the section 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.

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.

Evenki Reindeer

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.

Black Sea Dolphin

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.

Laptev Walrus

In 2019, the research on the Laptev Walrus continued 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.

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

The Company has published the following atlases:

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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,
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 peled, sturgeon and other fish into the waters of the regions where the Company operates. The largest peled fingerling releases were held at Kondaneft (5 mln), RN-Purneftegaz (8.2 mln), Sorovskneft (2.5 mln), and RN-Yugandereftegaz (2.6 mln). Around 2 mln sturgeon fingerlings were released at RN-Yugandereftegaz, 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.

ACTIVITIES FOR THE REPRODUCTION OF AQUATIC BIOLOGICAL RESOURCES

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.

THESE STAKEHOLDER CONSULTATIONS ARE ORGANISED TO:

• Inform the local population about the planned project or activity of the Company

• Review project documentation (project documentation, G&G programmes, etc.) to get feedback from local inhabitants

• Provide explanations and detailed responses to questions from the public about these activities

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 Chechen Republic, Krai, Krasnoyarsk Krai, Primorsky 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).

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.

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- 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.
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.

Bashneft-Polyus contributed significantly to the implementation of environmental protection measures on the territory of the Nenets 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 Nenets Autonomous District, who thanked the Company formally for its efforts in conducting these events.

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 930 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.

Green Spring-2019 nationwide clean-up campaign

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Acknowledgement of the Group Subsidiaries’ Achievements

Bashneft-Polyus as part of forest conservation initiatives.

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. Subbotniks (Saturday clean-ups) are held to improve the ambient 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 min seedlings. In total, over 60 Subsidiaries planted trees in the regions where the Company operates.

RN-Yuganskneftegaz is rolling out the Keeper of the Cedar Forests of the Khanty-Mansi Autonomous Area – Yugra, a target programme where more than 476 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 Strostvo in honour of the Russian Environmental Protection Day. Siberian pine seedlings were also planted in the territory of the Bluchersky 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-Lavrentyevneftegaz 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 Kostovo 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 in Yekaterinburg. Employees of Bratskolegaz 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.

In 2019, Rosneft was awarded the Commemorative Initiative award in the Ecology nomination. For details, see the Carbon Ratings section.

Samotlorneftegaz took part in removing oil contamination from the bottom of water bodies using the new Aeroshchup 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
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.

The Company’s Health, Safety and Environment Policy clearly articulates its strong stand on HSE and sets out the goal, commitments and common HSE principles that are in place across all Rosneft’s operations for all employees and contractors.

HSE governance is provided by the Strategy and Sustainable Development Committee of the Board of Directors and Rosneft’s Executive Team who guide the delivery of strategic improvement programmes towards continuous improvement of HSE performance and the achievement of the Rosneft–2022 Strategic goal.

The Company has an HSE Committee, a standing collective body made up of a number of senior executives in charge of the production and support functions. Representatives of an Inter-regional Trade Union organisation also take part in this Committee’s meetings.

The Committee reviews key HSE risks, HSE programmes implementation, follows up on the corrective actions in case of repeated incidents, recommendations and solutions to improve safety culture, communications, personnel motivation and HSE performance.

To become a global leader in HSE performance, ensuring a safe working environment for employees, conducting incident-free operations, preserving health of population in the regions of the Company’s operations, and minimising the Company’s environmental footprint.

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

Health, Safety and Environment Integrated Management System

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 consist 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.

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

Development of these HSE priority areas improves:

Personal safety

Facility and Process Safety

Driving and Transportation safety

Costs of labour safety, industrial, blowout and fire safety, RUB bln

In 2019, the Company invested ~55 RUB bln

in its process and personal safety programme development.
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 environmental and occupational health risks.

The main goal of the Company’s HSE risk assessment and management process is to take adequate, proactive and resourced measures for identifying, quantifying and managing identified 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 89 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 a common Golden Rules standard across this industry. This will have the positive effect of reducing injuries at the federal level.

Overseas subsidiaries of the Company successfully apply best international practices to support safety interventions in their operations, for example, RN-BK, RN-Vietnam, 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.

RISK «BARRIERS» PREVENT OR REDUCE NEGATIVE EVENTS OR RISK FACTORS

- Risk factor
- Initiating event
- Leading barriers
- Implications for people, assets, environment, and reputation
- Lagging barriers

THE COMPANY’S SAFETY CULTURE IS BASED ON THE PRINCIPLE THAT ALL EMPLOYEES ARE ACCOUNTABLE FOR SAFETY, AND EACH EMPLOYEE HAS PERSONAL ACCOUNTABILITY FOR IT

- «YOU ARE SAFE»
  - Corporate accountability
- «I AM SAFE»
  - Personal accountability
- «WE ARE SAFE»
  - Collective accountability

83 thousand employees were trained in Golden Safety Rules in 2019
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 General Directors of Group Subsidiaries Commitments are based on the following principles:

- Belief - holding “safety minutes” 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 H&S 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 subsequent modification and approval, participate in off-site meetings to share experience, or to visit industrial production facilities of the leaders of the petroleum industry.

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. 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.”

Valentin Mamayev
Director General,
Samotlorneftegas

"The use of best practice and modern standards and, most importantly, the principles of responsibility and care for the lives and well-being of each and every employee, is key to Samotlorneftegas JSC strategy."

>3,200 employees attended the Company’s “HSE leadership” training programme in 2019.
For details on the Company's engagement with contractors see the "Contractor Cooperation" section of this Report.

### 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 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."

Vyacheslav Kurenkov
Director of Downstream HSE Department, Rosneft

Health and Safety training

- **COURSES:**
  - **Golden Rules of Safety**
  - **Investigation of safety events**
  - **HSE risks management**
  - **HSE Leadership**

**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**
- **Master the HR management methods related to H&S**
- **Understand and incorporate approaches to risk assessment**

**For more 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

**HSE TRAINING**

725 HSE in-house coaches trained over 93 thousand employees

93 thousand employees have taken part in health and safety training in 2019.

**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
- Master the HR management methods related to H&S
- Understand and incorporate approaches to risk assessment

**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
- Ensure maximum engagement of leaders in the process

**HSE in-house coaches trained in 2019**

- **725**

**COURSES:**

- **Golden Rules of Safety**
- **Investigation of safety events**
- **HSE risks management**
- **HSE Leadership**

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- Understand and incorporate approaches to risk assessment

**For more details on the Company's engagement with contractors see the "Contractor Cooperation" section of this Report.**
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.

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 fall 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.

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>4.4</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>1.11</td>
</tr>
<tr>
<td>Total number of contractors’ employees suffering from work-related injuries</td>
<td>160</td>
<td>135</td>
<td>146*</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 16 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 1.38 and 1.50 contractors’ employees suffering from work-related injuries respectively, including 29 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 in 2020 business plan a 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.

There were no well control events and blowouts during exploration and development drilling over the past 2 years with a continuous reduction in workforce 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 (leaks) of tube bundles of feedstock heat exchangers of hydrotreatment units has significantly decreased.

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, 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 in 2020 business plan a set of activities based on practical recommendations for improvement in safe operations, integrity and reliability of operational facilities.

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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>Number of accidents, cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<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 mobilization 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 complications. The system includes:

- Preparation and liquidation procedures;
- 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.

**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 modernize 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.

**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.

The Company’s vehicle safety management system is aimed at reducing risks for employees, contractors and third parties and it sets the requirements for both Company and Contractor vehicles as well as for drivers. More than 50,000 drivers have been trained under the defensive driving programme and more than 52,000 vehicles have been equipped with on-board speed monitoring systems.

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.

In 2019, specialists of Tyumen Oil Research Center developed and commissioned the “Dome” Innovative Digital Transport Safety System in Uvatneftegaz.

**“Dome” Innovative Digital Transport Safety System in Uvatneftegaz**

In 2019, specialists of Tyumen Oil Research Center developed and commissioned the “Dome” which is an 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.
Air flights safety

In order to prevent injuries to children from road traffic accidents from August to September 2019, the Group Subsidiaries held the traditional preventive days called “Caution, children!”. 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.

The following are the key tasks of this new Committee:

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- 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.

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.

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Teams and schoolchildren attended meetings with the Road Traffic Police of Russia, where they were able to refresh their knowledge on the basic requirements of road and vehicle safety.

Rosneft has consistently implemented 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.

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Transportation of shift crews to fields of the Uvat group

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.
To achieve production safety, it is essential to minimise the risk of accidents that can escalate into emergencies. Emergencies may result from natural hazards (natural disasters) seriously affecting the Group Subsidiaries, such as wildfires, hurricanes, heavy rains, floods (freshets), snowstorms, abnormal frosts, and earthquakes.

**GRI 103-1**

Results of 2019

As a result of the efforts taken, the Company’s sites had no natural or man-made emergencies.

**GRI 103-2**

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Financial Reserve</th>
<th>Non-Financial Reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,891.0</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>1,998.7</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>2,065.5</td>
<td></td>
</tr>
</tbody>
</table>

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 channelled 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.

**GRI 102-15**

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 response with 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.

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.

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).

**ROSNEFT’S EMERGENCY PREVENTION AND MANAGEMENT OBJECTIVES INCLUDE:**

- Mitigating emergency risks at the Company’s sites
- Maintaining the guaranteed level of staff safety in case of a potential or actual emergency
- Making the Company’s assets and environment better protected against emergencies
- Ensuring the life safety of local communities across the Company’s footprint in case of a potential or actual emergency as required by Federal Law No. 68-FZ on Protection of Population and Territories from Natural and Man-Made Disasters dated 21 December 1994
- Minimising emergency consequences, including related damage and losses
- Ensuring the life safety of local communities across the Company’s footprint in case of a potential or actual emergency
- Resulting in no accidents of any kind.
- Providing the required level of staff safety in case of a potential or actual emergency
- Making the Company’s assets and environment better protected against emergencies
- Protecting the business and employees in case of emergencies
- Minimising emergency consequences, including related damage and losses
- Providing the required level of staff safety in case of a potential or actual emergency
- Making the Company’s assets and environment better protected against emergencies

**EMERGENCY RISK MANAGEMENT**

Emergency Risk Management

2019 / Sustainability Report of Rosneft
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;

As part of the Company’s social guarantees in case of an emergency, 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;

As part of the Company’s social guarantees in case of an emergency, all employees of the Group Subsidiaries have compulsory and voluntary accident insurance.

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.
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.

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.

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 to two sites (no penalties imposed).

The Company’s Head Office consistently monitors the measures taken to eliminate the identified gaps and provides methodological support to relevant units. The reporting year also saw the audits of emergency prevention and response systems in 36 Group Subsidiaries.

In 2019, about 300 thousand employees of Rosneft were trained in emergency prevention and response.

In the reporting year, 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

The Company implements innovative projects in various areas, including oil and gas production, oil refining, petrochemicals. For details, see p. 118

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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.

In 2019, Rosneft’s R&D costs amounted to RUB 30.05 bln, including RUB 3.4 bln spent on target innovative projects.

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

In 2019, Rosneft’s Innovation Development Programme achieved the following objectives:

- 152 new technologies tested
- 116 technologies implemented and rolled out in 2019
- 36 RUB bln combined proven economic effect from the innovative projects implemented over the last three years

- 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 developed a technology to tap into the Berezovskaya suite and submitted the respective intellectual property application. The technology was tested to localise deposits at the Berezovskaya suite. As a result, the Company booked over 150 bcm of in-place reserves and 60 bcm of recoverable reserves of natural gas at the Berezovskaya suite.

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.

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.

In 2019, the Company 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.

RN-Geosim added software modules for building vertical and tilted faults for structural surfaces, visualising seismic cubes, multipoint statistics, basic reports on geological models, and parallel computations. RN-Geosim is anticipated to cover up to 80% of the Company’s needs for geological modelling.

RN-Simtep added software modules for modelling oil and gas production processes. Going forward, RN-Simtep will cover up to 80% of the Company’s needs for production process modelling.

The Company developed a concept for RN-PetroLog, a corporate software suite for interpretation of core samples and well log data.

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.

Achievements in Key Areas of Innovative Development in 2019

- Exploration and Production
- Research-intensive Technology Software
- HSE Technologies at the Company’s Sites

ACHIEVEMENTS IN KEY AREAS OF INNOVATIVE DEVELOPMENT IN 2019
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 xylenol using heterogeneous catalysts.

It also developed the composition and a process to produce heterogeneous catalysts for benzene alkylation with propane 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 pack-

age 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 for converting acetone into isopropanol at its pilot testing facility.

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 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.

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, competencies 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.
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.
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 to enable digital programmes implementation by searching and assessing innovative products, adapting solutions to business needs, and testing them at Group Subsidiaries.

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.

Artificial intelligence was tested to analyse video stream from production facilities of the Varyagneftegaz and RN-Yugansneftegaz 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-Krasnodaneftegaz and Varyagneftegaz, 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.

Key Achievements in 2019

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 piloting 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.
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

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.
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**

<table>
<thead>
<tr>
<th>City</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Petersburg</td>
<td>1</td>
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<tr>
<td>Tomsk</td>
<td>2</td>
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<tr>
<td>Krasnodar</td>
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<td>Novokuibyshev</td>
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<td>Nizhnevartovsk</td>
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<tr>
<td>Tyumen</td>
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<td>Kazan</td>
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<tr>
<td>Nizhnevarovsky</td>
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<td>Angarsk</td>
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<td>Tyumen</td>
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<tr>
<td>Nizhnevarovsky</td>
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<td>Tomsk</td>
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<tr>
<td>Krasnoyarsk</td>
<td>15</td>
</tr>
<tr>
<td>Yuzhno-Sakhalinsk</td>
<td>16</td>
</tr>
</tbody>
</table>

**Key Institutes**

- VNIPIMeft
- VNII NP
- RGU
- RN-TsIR
- VNIIOP
- INiRGI
- Burovaya Technika
- ANTs
- VNII Strojkontrol
- Tyur
- Slavnef-NPTs
- Sapphire
- Rosneft MC
- VNII Neftekhimoborudovanie
- Samaraneftekhimprojekt VOSG and RGI
- Sakol
- VN-BashNIPimeft
- Bashgiproneftekhim
- INNTs
- FNTs
- NIPImoreneft SNGT
- RN-MTsIR (Doha, Qatar)
- SABINN
- VNII Neftekhimoborudovanie
- TomskNIPimeft
- VNII Neftekhimoborudovanie
- AngarskNeftekhimprojekt
- RN-Sakhalins
- NIPMorneft SNGT
- RN-MTsIR (Doha, Qatar)

**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

**Shared Information Space**

- Flexible Pricing System

**Unified Technical Policy**

- Shared Staff Development Programme

**29 corporate R&D and design institutes**

**43 specialised institutes**

**>15 thousand highly skilled employees**

**>100 customers**
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.

SamaraNIPIneft – corporate institute specialising in ecology

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 Kуйbyshev Refinery;
• development of comprehensive environmental permits was launched for the Group’s upstream Subsidiaries such as RN-Yuganskneftegaz, Samaraneftegaz, and Orenburgneft.

The institute also delegated its experts to Rosprirodnadzor’s Scientific and Technical Council task forces engaged in updating environmental regulations. In addition, SamaranNIPIneft hosted the 2nd conference on environmental safety, important law enforcement trends, and improvement of environmental practices. The conference was attended by 105 representatives of 40 Group Subsidiaries, including seven corporate R&D institutes. The participants discussed some of the most pressing issues related to new environmental law requirements and enforcement mechanisms; the Company’s scientific and practical waste management solutions; regional environmental agenda and comprehensive resource management. The guests described the discussions and exchanges as highly useful, and appreciated the practical aspect of the conference.

Centralised Management System of Corporate Research and Design Institutes

In 2019, 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

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.

In 2019, the system of standard design solutions helped to achieve the following targets:

83% of the Company’s oil and gas production facilities covered by standard design solutions
65% of the Company’s centralised inventory requirement standardised
maximum standardisation degree achieved for storage tanks: 83% and for modular units: 80%

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 streamline 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 petroleum companies;
• 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.
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, 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 prepa ration 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 capex exceeding RUB 1 bln 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 nodes 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>Number of programmes</th>
<th>Number of students</th>
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<tbody>
<tr>
<td>6</td>
<td>19</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 coker 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.

Azimuth Thruster for Icebreakers and Large Capacity Ice-Class Vessels

Sapphire developed an electric 7.5 MW azimuth thruster for multi-purpose supply icebreakers currently under construction at the Zvezda Shipyard. The Centre also developed a 15 MW azimuth thruster for large capacity high-ice-class tankers and LNG carriers.

Oilfield Chemicals

RN-BashNPIneft developed a range of oilfield chemicals that includes a corrosion inhibitor, a scale inhibitor, a tar and paraffin sedimentation inhibitor, etc. Oilfield tests demonstrated that the chemicals have a higher performance than any of their known peers. In-house manufacture of chemicals will reduce the cost of chemicals required in production processes by 15%.

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 gas-oil, hydrotreating, and guard catalysts will be manufactured by RN-Kat, a subsidiary of Bashneft.

Resin-Coated Propellant for Hydraulic Fracturing

Ultra-lightweight resin-coated propellant 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 modelling 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.

Below are the projects completed by Rosneft as part of its Arctic shelf research programme in the reporting year:

- Kara Summer 2019 research expedition to the Kara, Pechora and Laptev seas;
- biological agent to clean the coastline and waters of northern seas from oil and petroleum product spills;
- digital archive of metocean and ice conditions based on a mathematical model;
- study of predictability of sea ice extent parameters during the open-water period in Russian Arctic seas;
- jointly with the Far Eastern Federal University examining the structural properties of deformed ice;
- ice management system.

On top of that, the intellectual efforts of the Arctic Scientific Centre yielded 20 patents of the Russian Federation for inventions in biotechnology, microbiology, ecology, and environment protection.

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 morphological 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. Foreign assets operate in line with the corporate procedures and local legislation.

The Company’s main publicly available projects and expertise for the Company’s projects

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.

Average headcount in 2019 (as per the business plan), %

Headcount as at 31 December 2019 (as per the Business Plan), %

Employee turnover, %

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

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 employee 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 institutions across Russia and abroad to offer our employees opportunities for career growth, advanced study and good performance.

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>121,98</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>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average duration of training per employee per year, man-hours</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Total duration of training, thousand man-hours</td>
<td>18,979</td>
<td></td>
</tr>
</tbody>
</table>

By category:

<table>
<thead>
<tr>
<th>Manager</th>
<th>3,439</th>
</tr>
</thead>
<tbody>
<tr>
<td>White-collar workers</td>
<td>4,232</td>
</tr>
<tr>
<td>Blue-collar workers</td>
<td>11,308</td>
</tr>
</tbody>
</table>

By gender:

<table>
<thead>
<tr>
<th>Gender</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>men</td>
<td>15,767</td>
<td></td>
</tr>
<tr>
<td>women</td>
<td>3,213</td>
<td></td>
</tr>
</tbody>
</table>
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.

First Geo-Steering Championship

Over the past decade, Rosneft has been steadily increasing the volume of horizontal drilling. However, as projects become exceedingly 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.

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 at the Rosneft site in Yekaterinburg. Composed of 21 contestants and 17 experts from 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.

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 (144.6 thousand people), of whom over 95% have an educational background meeting the requirements.

In 2019, 755 employees received additional professional education and vocational training thanks to implementation of professional standards.
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 1,224 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 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 personal 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>Youth Policy Highlights in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;80 thousand school and university students covered by youth policy projects</td>
</tr>
<tr>
<td>122 class programmes supported by Rosneft Group Subsidiaries across the Company’s footprint</td>
</tr>
<tr>
<td>25 specialised university departments opened by Rosneft</td>
</tr>
<tr>
<td>~4 thousand young professionals</td>
</tr>
<tr>
<td>163 partnerships set up with educational institutions</td>
</tr>
<tr>
<td>61 partnerships set up with universities</td>
</tr>
<tr>
<td>38 partnerships set up with colleges</td>
</tr>
<tr>
<td>1.7 RUB bln invested by the Company in youth policy projects</td>
</tr>
</tbody>
</table>
Development of Young Talents

WORK WITH YOUNG TALENTS HAS A NUMBER OF FOCUS AREAS.

- Onboarding
- Training and Development
- Financial and social support

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 4,000 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-hours organised) and arranged for 2,600 thousand young professionals to participate in regional and cluster R&D conferences.

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>1,167.7</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 graduated employed by the Company, the project has proved its efficiency. In 2019, 32 Group Subsidiaries hired 107 Rosneft classes graduates.

In 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 – Kolmogorov’s boarding school, a department of Moscow State University.

Charitable Support for Educational Institutions

Rosneft 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.
Social Policy

Rosneft's management has always been committed to maintaining high social security standards for its employees. For many years, the Company has been one of the most socially responsible employers in Russia.

In 2019, the Company continued to implement the Rosneft–2022 Strategy to ensure better motivation and social security for its employees and retirees.

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, %

Employee Satisfaction Survey

Rosneft conducts a biennial socio-logical survey of employee satisfac-tion with HR and social programmes that covers the Group's Subsidiaries and the Company's Head Office. At the end of 2018, the survey encompassed some 70 Group Subsidiaries and included over 16,000 respondents, around 300 focus groups, and more than 170 in-depth interviews with company managers.

The survey showed that the employees were content with the Company's social policy and the quality of corporate initiatives. Among the things mentioned by the respondents were Rosneft's prestigious brand as an employer, better internal communications and access to information, and vast opportunities for growth thanks to corporate training programmes.

The survey also identified several areas for improvement. Based on the results, a discussion session was held in 2019 that was attended by representatives of the Company's HR and social function, as well as deputy HR and social programme directors of the Group Subsidiaries. Following the meeting, each Company compiled its own action plan to improve employee satisfaction. A survey that is scheduled for 2020 will assess the progress under these initiatives.

Social and Working Conditions at Production Sites

Over the reporting year, 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-Bureniye), 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 of a mortgage that is available to employees. The employee then enters into a mortgage agreement for the remaining amount with partner banks at a below-market interest rate.

In addition, relocating 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

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 worksites, 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.

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 hard-to-reach regions of the Company’s operation.

The programme has been extended into 2020. 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 propaganda programme that include promotion of examinations for early diagnosis of cancer. Of the World Cancer Day (4 February), Rosneft prepared a special newsletter on cancer risk factors and health 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.

- Measures for preventing non-infectious diseases include a special focus on mental health issues.
- On the World AIDS Day (1 December), the Company holds an information campaign on the disease. One of its goals is to reiterate the guidelines on how to act in connection with these issues and to protect those living with HIV against discrimination.

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:

- VHI, 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.

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.

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.

**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 JukeboxTrío. Rosneft Lights Up the Nights is famous for its rousing dances, sophisticated instrumental compositions, and the unique nature of each performance.
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 of 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. Rosneft also offered financial aid or enjoyed health resort treatment free of charge. These expenditures came to RUB 522 thousand in the reporting year. Rosneft also held holiday celebrations for veterans on the occasion of Victory over Nazism in WWI, 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.

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 thousand in the reporting year. Rosneft also held holiday celebrations for veterans on the occasion of Victory over Nazism in WWI, Oil and Gas Workers’ Day and New Year’s Day.

80 thousand former employees received corporate pensions in 2019

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>11,402</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>6,868</td>
<td>8,333</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 NEFTEGARANT.

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 Organization (Rosneft ITUO) is a partner that plays a key role in the Company’s HR and social policies.

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 trade unions in 2019. In November 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.
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
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 an increase in 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.

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

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 all 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 catalysis and catalysts for the said processes.
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 AnC oil-class carriers, nuclear and diesel-electric icebreakers, multi-purpose supply vessels, and also the world’s most powerful nuclear Project 10510 “Leader” icebreakers.

Zvezda is set to become a strong competitor to foreign shipyards, providing Russia with a maritime fleet to develop a dry dock and additional full-cycle workshops for large capacity vessels and marine equipment. The shipyard will be fully operational in 2024.

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

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 inter-governmental 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.

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 pursuance 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.

Large-scale work is in progress to train and attract qualified workforce.

The Company runs a local school-to-workplace framework for continuing education, with three Rosneft classes opened to provide future talent with a deep insight into core subjects. Zvezda maintains close cooperation with local education institutions, providing training and jobs to their graduates. It also organises job fairs and open days for students. In 2019, we helped launch new specialisations in the Far Eastern Shipbuilding College, such as hull steel work assembly and electric welding.

Zvezda experts made a presentation at the Ufa State Petroleum Technological University and Bashkir College of Welding, Assembly and Industrial Production. Following the assessment of candidates, the shipyard made job offers to 21 welders.

Zvezda is also strengthening dialogue with employment centres countrywide. The company and the Agency for Human Capital Development in the Russian Far East are implementing a jointly developed roadmap.

A special focus in placed 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 144 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 prioritises social investments in the regions as per 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, %

<table>
<thead>
<tr>
<th>Category</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>5.1</td>
<td>36.6</td>
<td>36.6</td>
</tr>
<tr>
<td>Physical education and sports, including children, promotion of healthy lifestyles</td>
<td>24.2</td>
<td>23.7</td>
<td>23.7</td>
</tr>
<tr>
<td>Infrastructure development in regions, districts and municipalities</td>
<td>22.2</td>
<td>22.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Education and science</td>
<td>4.4</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Culture and revival of cultural heritage</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Support for veterans, the disabled, and people in need</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Pre-school institutions and orphanages</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Charities, NGOs, humanitarian aid</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Support for indigenous peoples of the North</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Other expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>170</td>
<td>171</td>
<td>171</td>
</tr>
</tbody>
</table>

#### Charity funding, RUB mln

<table>
<thead>
<tr>
<th>Year</th>
<th>Social financing under signed agreements</th>
<th>Individual charitable projects, total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>6,668</td>
<td>9,534</td>
</tr>
<tr>
<td>2018</td>
<td>2,671</td>
<td>3,186</td>
</tr>
<tr>
<td>2019</td>
<td>2,418</td>
<td>7,138</td>
</tr>
</tbody>
</table>

#### 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 Bolsheneulinsk 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.

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 Bolsheneulinsk District of the Krasnoyarsk Territory. The programme is being implemented jointly with the district administration.

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*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): 

**Republic of Bashkortostan**
- Purchase of municipal service vehicles;
- Major overhaul of the community centre in Dyurtuly;
- Major overhaul of the administrative premises in the Tyumen youth recreation centre;
- Repair of the teaching block and the gym in the Ufa Forestry Technical College;
- Major overhaul and equipment purchase for the Spartak stadium in Tyumen;
- Repair of the water supply system in Chelyabinsk;
- 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 Dzhurubiy Narodov Avenue in the vicinity of the Kamyshlinskaya specially protected area (Lenninsky District, Ufa);
- Construction of a kindergartens for 250 kids in the Andreevsky district, Khashayskoe;
- Major overhaul of the Urzaiwno pump station and the Sabanchi-Bedino (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

**Tyumen Region**
- Design, reconstruction, repair and improvement of roads, streets and public spaces, including the Oil Industry Worker Square in Uvat (Uvat Municipal District, Tyumen Region);
- Support indigenous peoples of the North, preservation and promotion of their traditions;
- Staging parades and competitions of various levels;
- Staging the Miracle Hen park sculpture festival;
- Setting up a community music studio for kids and the youth in the Uvatsky Municipal District;
- Staging various boxing competitions;
- Support for childhood disease prevention, treatment and rehabilitation of children with serious illnesses;

**Yamal-Nenets Autonomous Area**
- Providing for diagnostics, medical treatment and rehabilitation of critically ill and disabled children;
- Implementing social programmes and initiatives to develop Novy Urengoy, Pervomaysky and Tazovsky districts;
- Reconstruction, repairs and beautification of urban recreational and sporting areas, facilities improvement for the Zenit sports and health centre;
- Design, construction and repairs of housing and social infrastructure facilities, purchase of portable housing, social infrastructure facilities and specialized equipment for tribal communities of indigenous northern minorities;

**Khanty-Mansi Autonomous Area – Yugra**
- Design works and improvement of the sports centre in Mezhdurechensky, purchase and installation of street lighting systems in Kondinsky District localities, setting up a walking route in Mehdurechensky;
- Staging municipal events, including greetings for socially disadvantaged groups and indigenous northern minorities as part of milestone celebrations and festive occasions (Victory Day, Town Day, or Day of the Oil and Gas Industry Worker);
- Purchase of sports facilities for Mehdurechensky;
- Completion of a 25-bed district hospital and a clinic for 85 patient visits per shift in Talmia;
- Design and construction of the Quantorium youth centre in Quarter No. 21 of the Vostochny Planning District, Khashayskoe;
- Improvement of the waterfront esplanade crossing Chapaevo and Khantimansiyskaya Streets;
- Construction of a modular water treatment plant in Karkateyev, Nefteyugansky District;
- Reconstruction and repairs of the Sibiryak sports centre;
- Upgrade of local treatment facilities in Gornoapravdinsk.

**Republic of Sakha (Yakutia)**
- Construction of a teaching block for 150 students and a boarding school for 100 kids for the Sakha (Yakutia) Junior Science Academy in Chapave (Khngalaysky District);
- Renovation and equipment purchase for the regional clinical hospital in Orenburg;
- Design, reconstruction, repair and improvement of roads, streets and public spaces, including the Oil Industry Worker Square in Uvat (Uvat Municipal District, Tyumen Region);
- Support indigenous peoples of the North, preservation and promotion of their traditions;
- Staging parades and competitions of various levels;
- Staging the Miracle Hen park sculpture festival;
- Setting up a community music studio for kids and the youth in the Uvatsky Municipal District;
- Staging various boxing competitions;
- Support for childhood disease prevention, treatment and rehabilitation of children with serious illnesses;

**Orenburg Region**
- Renovation and equipment purchase for the regional clinical hospital in Orenburg;
- Design works and improvement of the sports centre in Mezhdurechensky, purchase and installation of street lighting systems in Kondinsky District localities, setting up a walking route in Mehdurechensky;
- Staging municipal events, including greetings for socially disadvantaged groups and indigenous northern minorities as part of milestone celebrations and festive occasions (Victory Day, Town Day, or Day of the Oil and Gas Industry Worker);
- Purchase of sports facilities for Mehdurechensky;
- Completion of a 25-bed district hospital and a clinic for 85 patient visits per shift in Talmia;
- Design and construction of the Quantorium youth centre in Quarter No. 21 of the Vostochny Planning District, Khashayskoe;
- Improvement of the waterfront esplanade crossing Chapaevo and Khantimansiyskaya Streets;
- Construction of a modular water treatment plant in Karkateyev, Nefteyugansky District;
- Reconstruction and repairs of the Sibiryak sports centre;
- Upgrade of local treatment facilities in Gornoapravdinsk.
2019 saw Rosneft allocate RUB 418 mn 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, purchasing 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 Chernyavsky Lug garden-ers' non-commercial partnership of the Nizhneudinsky District (Irkutsk Region).
- Providing financial support to overhaul a children's tuberculosis sanatorium in Sarator; 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; upgrading social facilities in Achinsk; upgrading social facilities in the Mirninsky 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.
- Upgrading social facilities in Achinsk; purchasing equipment for children’s playgrounds and sports grounds in Strechevoy.
- 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 Mininsky and Lensky districts of the Republic of Sakha (Yakutia); reconstituting 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.

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:

- Resuming 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.
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, Bashneft’s employees 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.

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.

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 mln 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.

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- acting as a general sponsor of the International SAMBO Federation.
Support for Indigenous Minorities of the North

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.

Breakdown of expenditures to support the indigenous peoples of the North, RUB mln

<table>
<thead>
<tr>
<th>Year</th>
<th>Provision of materials and equipment</th>
<th>Preservation of the local culture, health improvement programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>44.6</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>36.32</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>55.4</td>
<td></td>
</tr>
</tbody>
</table>

Support for Indigenous Minorities of the North

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.

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.

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Respect for the cultural heritage, traditions and rights is a guiding principle of Rosneft's operations in the regions of indigenous minorities.

Rosneft and the Group Subsidiaries support indigenous minorities in addressing social issues, running initiatives to improve the legal literacy of community leaders, purchasing equipment and materials for traditional economic activities and crafts. The Company promotes access to healthcare services in the remote areas of the North, purchases necessary equipment and supplies, and supports the activities of institutions that care for the health of indigenous children.

In 2019, the Company cooperated with indigenous peoples in a number of areas, including:

- developing social infrastructure in the Tunukhansky and Taymyrsky Dolgano-Nenetsky districts, including support for indigenous minorities;
- supporting the Association of Indigenous Peoples of the North of the Yamal-Nenets Autonomous Area “Yamal for Descendants”;
- sponsoring and hosting the Rossypi Yugri regional festival of Northern peoples culture in the Khanty-Mansi Autonomous Area – Yugra;
- staging events aimed at preserving ethnic identity, culture and lifestyle of indigenous minorities of the Khanty-Mansi Autonomous Area – Yugra.

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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 sub-species 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.

For details on public discussion of environmental impact assessment with regard to planned operations, see the Environmental Protection section of this Report.

Support for Indigenous People by Vostsibneftegaz

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 Polgipok 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 the grant programme of East Siberian Oil and Gas Company
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

Customer Engagement
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 cafés 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 mln 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 mcm, 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.

More Eco-Friendly Products

In 2019, Rosneft continued implementing projects to bring fuels with improved environmental efficiency to the Russian market.

In 2019, Tulannefreprodukt, Byanannefreprodukt, Kaluganefteprodukt and RN-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 Adygeya (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.
The new fuel contains less sulphur, benzene and aromatic hydrocarbons, resulting in lower corrosive and toxicity of exhaust gases. The gasoline helps decrease deposits by 12.5 % on intake valves and by 12.7 % in combustion chambers. In 2019, production of Euro-6 gasoline was launched at Ryazan Refinery. In November 2019, Euro-6 fuel received awards from the nationwide Top 100 Best Russian Goods programme.

**Eco-Friendly Marine Fuel**

In 2019, RN-Bunker (Rosneft’s specialised subsidiary) started bunkerising 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 Komsomolsk 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 fuelling vessels with eco-friendly LMF type A fuel (low-viscosity marine fuel) produced at Novokuibyshevsk Refinery. The sulphur content in the fuel is below 0.1 %.

- an initiative to produce regenerative fuels at MRIO Refinery. As part of the reFuels – Rethinking Fuels (regenerative fuels) project, MRIO 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.

**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.

**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, 12 filling stations in Russian regions served daily up to 2.5 thousand cars with this fuel.

**BP Fuels with ACTIVE technology**

BP fuels with ACTIVE technology are specially designed to provide car owners with 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.

**Gasoline**

The new fuel contains less sulphur, benzene and aromatic hydrocarbons, resulting in lower corrosive and toxicity of exhaust gases. The gasoline helps decrease deposits by 12.5 % on intake valves and by 12.7 % in combustion chambers. In 2019, production of Euro-6 gasoline was launched at Ryazan Refinery. In November 2019, Euro-6 fuel received awards from the nationwide Top 100 Best Russian Goods programme.

**Pulsar 100**

The gasoline is high-octane fuel with decreased deposit formation. Compared to AI-95-K5, 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.

**Active fuel**

ACTIVE fuel is a unique set of components against deposits formation and remove existing deposits. BP fuels with ACTIVE technology are specially developed for the new BP fuel technology.

**Electric car charging infrastructure**

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.

**Rosneft Deutschlands GmbH** (Rosneft’s subsidiary) produces greener transportation fuels using both traditional components and HVO additive made from vegetable stocks, 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.
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 recognizable 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 similarity tests at independent labs. 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 subsidaries 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 785,523 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:

Family Team: +7 800 775 7588

for the Far East: +7 800 555 3723

BP CLUB: +7 800 334 7550

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. In 2019, 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.

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. The reporting year saw the Company launch Filling Station No. 51 in Lesosibirsk as part of the Krasnoyarsk Territory Governor’s initiative to increase the number of filling stations along local highways.

Supplier and Contractor Relationship Management

Strengthening 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.

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 102 thousand procurement procedures. As a result, the Company managed to attract new counterparties (mostly small and medium-sized enterprises (SMEs)). More than 14 thousand suppliers are registered on the Corporate Internet Shop, including over 10 thousand SMEs. In 2019, the Company 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’S PRINCIPLES IN SELECTING CONTRACTORS²

- Openness
- Reasonableness
- Competitiveness
- Effectiveness
- Non-discrimination

² Minor purchases are those worth below RUB 500,000.
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.

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.

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. For the purposes of long-term qualification (for 18 months), standard criteria for centralised procurement of materials, supplies and equipment have been developed and approved.

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/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.
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.

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.

Rosneft treats its employees and the employees of the contractors that work at its facilities the same, applying universal HSE requirements to everybody.

To test contractors for compliance with health and safety requirements, the collective bodies responsible for procurement decisions, include HSE function representatives.

Contractor Compliance with Human Rights Protection Requirements

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.

For more information on the Company’s approaches to human rights protection, see the respective section of the Sustainable Development chapter of this Report.

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.

In 2019, the total value of contracts signed by Rosneft and Group Subsidiaries with SMEs amounted to RUB 16.3 bln, with RUB 4.1 bln worth of contracts awarded as a result of direct procurement processes.

Supporting Social and Economic Development

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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.

Digital Transformation of Procurement

The Company is establishing a distribution centre for personal protective equipment on the premises of the regional procurement operator RN Snabzhenniye-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.

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Independent Assurance Report on the Sustainability Report 2019

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 2019 of Rosneft Oil Company (the “Report”), except for the following aspects:

► Forward-looking statements on performance, events or planned activities; and
► 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, Task Force on Climate-related Financial Disclosures, and UN Global Compact principles.

Applicable criteria
The criteria for our engagement were the Global Reporting Initiative’s Sustainability Reporting Standards (“the GRI Standards”); 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. We believe that these criteria correspond to the objectives of our engagement.

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 sustainability policies, activities, events and performance of the Company for the year ended 31 December 2019; and that the Report is prepared ‘in accordance’ with the GRI Standards using the Core option.

Our responsibility
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 for the year ended 31 December 2019;

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

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

Summary of work performed
Our engagement was conducted in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information, issued by IFAC, 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;

► Analysis of stakeholder engagement activities via reviewing minutes of stakeholder meetings conducted by the Company;

► Review of data samples on key performance indicators relating to human resources, energy use, environmental protection, industrial and occupational health and safety, and GRI observe the aspects of operations relating to industrial and occupational health and safety and environmental protection;

► Collection on a sample basis of evidence substantiating the qualitative and quantitative information included in the Report at the headquarters level;

► Assessment of compliance of the Report and its preparation process with the Company’s sustainability reporting principles; and

► Assessment of compliance of information and data disclosures in the Report with the requirements of the Core option of reporting ‘in accordance’ with the GRI Standards.

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, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended 31 December 2019 in accordance 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.

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.

Details of the subject of the independent assurance
Name: Rosneft Oil Company
Enterprises of the unified state register of legal entities on 12 August 2022 and assigned state registration number 1027700043502. Registered address: 115035, Moscow, Sadovnicheskaya emb., 77, bld. 1.
Details of the assurance provider
Name: Ernst & Young LLC
Registered in the unified state register of legal entities on 2 September 2002 and assigned state registration number 1027700043502. Registered address: 105082, Moscow, Sadovnicheskaya emb., 77, bld. 1.
Details of the assurance provider
Name: Ernst & Young LLC
Registered in the unified state register of legal entities on 2 September 2002 and assigned state registration number 1027700043502. Registered address: 115035, Moscow, Sadovnicheskaya emb., 77, bld. 1.
Details of the assurance provider
Based on the standards of assurance engagement, the assurance provider is independent of the Company and of all parties that have a material financial interest in the Report and the assurance service.

References
Rosneft Oil Company. File of the unified state register of legal entities on 12 August 2022 and assigned state registration number 1027700043502. Registered address: 115035, Moscow, Sadovnicheskaya emb., 77, bld. 1.
Ernst & Young LLC. A member of a self-regulated organization of auditors assurance organizations included in the register of auditors and audit organizations, state registration number 1027700043502.
### Appendix 1. Key Sustainability Indicators

#### Period 2017 2018 2019

<table>
<thead>
<tr>
<th>Operating and economic indicators</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating and economic indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proved SEC reserves of oil, gas condensate and hydrocarbon liquids, mmt</td>
<td>3,792</td>
<td>3,899</td>
</tr>
<tr>
<td>Proved SEC reserves of marketable gas, bcm</td>
<td>1,069</td>
<td>2,045</td>
</tr>
<tr>
<td>Production of hydrocarbon liquids, bcm</td>
<td>225.5</td>
<td>230.2</td>
</tr>
<tr>
<td>Natural gas production, bcm</td>
<td>68.4</td>
<td>67.3</td>
</tr>
<tr>
<td>Hydrocarbon production, mmboe</td>
<td>2,087</td>
<td>2,115</td>
</tr>
<tr>
<td>Refining, bcm</td>
<td>112.8</td>
<td>115.0</td>
</tr>
<tr>
<td>Petroleum product and petrochemicals output, bcm</td>
<td>109.1</td>
<td>111.7</td>
</tr>
<tr>
<td>Assets as at year-end, RUB bln</td>
<td>12,228</td>
<td>13,163</td>
</tr>
<tr>
<td>Revenues and equity share in profits of associates and joint ventures, RUB bln</td>
<td>6,011</td>
<td>8,238</td>
</tr>
<tr>
<td>Equity, RUB bln</td>
<td>4,183</td>
<td>4,677</td>
</tr>
<tr>
<td>Dividends, RUB bln</td>
<td>104</td>
<td>225</td>
</tr>
</tbody>
</table>

**Direct economic value generated and distributed**, RUB bln

<table>
<thead>
<tr>
<th>Direct economic value generated</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>5,951</td>
<td>7,968</td>
</tr>
<tr>
<td><strong>Direct economic value distributed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opex</td>
<td>1,967</td>
<td>2,270</td>
</tr>
<tr>
<td>Payments to providers of funds</td>
<td>346</td>
<td>521</td>
</tr>
<tr>
<td>Personnel expenses, excluding compulsory insurance premiums</td>
<td>269</td>
<td>294</td>
</tr>
<tr>
<td>Insurance premiums</td>
<td>61</td>
<td>67</td>
</tr>
<tr>
<td>Accrued taxes and duties</td>
<td>2,614</td>
<td>3,879</td>
</tr>
<tr>
<td>Community investments</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>

**Economic value retained**

| | 672 | 909 | 1,168 |

**Health, safety and environment performance indicators**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<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>0.34</td>
</tr>
<tr>
<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>2.47</td>
</tr>
<tr>
<td>HSE training, thousand man-courses</td>
<td>413.0</td>
<td>444.3</td>
</tr>
<tr>
<td>Expenditure on health and safety, including fire safety and blowout prevention, RUB bln</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Rate of pipeline failures (unit/kilometre per year)</td>
<td>0.101</td>
<td>0.095</td>
</tr>
<tr>
<td>Total volume of spilled oil and oil products across the Company, t</td>
<td>730</td>
<td>663</td>
</tr>
<tr>
<td>Spilled oil and gas condensate volume as a result of pipeline failures, tonnes</td>
<td>686.3</td>
<td>647.2</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.

3 The figures for 2018–2019 are presented in accordance with the IFRS accounts and the new calculation methodology, which does not include APG utilisation 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.

4 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.

5 The 2018 metric was adjusted following the update on fuel consumption by certain Group Subsidiaries.

6 Including fields under development and greenfield projects at early stages of development.

---

### Period 2017 2018 2019

<table>
<thead>
<tr>
<th><strong>Air pollutant emissions</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross air pollutant emissions, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas production</td>
<td>1,846</td>
<td>1,835</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>1,530</td>
<td>1,524</td>
</tr>
<tr>
<td>Gas business</td>
<td>256</td>
<td>250</td>
</tr>
<tr>
<td>Marketing and distribution</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Service Group Subsidiaries</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Air pollutant emissions from extraction activities, t/ktce</td>
<td>4.05</td>
<td>3.96</td>
</tr>
<tr>
<td>Air pollutant emissions from refining and petrochemical activities, t/ktce</td>
<td>1.90</td>
<td>1.77</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>GHG emissions</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total emissions (Scope 1+2), mmt CO₂ eq.</td>
<td>75.2</td>
<td>76.9</td>
</tr>
<tr>
<td>Direct emissions (Scope 1), mmt CO₂ eq.</td>
<td>53.9</td>
<td>54.7</td>
</tr>
<tr>
<td>Indirect emissions (Scope 2), mmt CO₂ eq.</td>
<td>21.3</td>
<td>22.2</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>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Direct GHG emissions, t</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide (CO₂)</td>
<td>46,364</td>
<td>50,629</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>303</td>
<td>164</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>GHG emissions, t CO₂ eq. / ktce</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas production (including oilfield services)</td>
<td>0.123</td>
<td>0.129</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>0.131</td>
<td>0.119</td>
</tr>
<tr>
<td>GHG emissions, t CO₂ eq. / kmoe</td>
<td>26.0</td>
<td>25.1</td>
</tr>
<tr>
<td>Oil and gas production (including oilfield services)</td>
<td>25.5</td>
<td>23.2</td>
</tr>
<tr>
<td>Oil refining, gas processing and petrochemicals</td>
<td>24.5</td>
<td>24.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Direct GHG emissions, t CO₂ eq. / ktce</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-wide</td>
<td>26.5</td>
<td>24.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>APG utilisation rate, %</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>89.2</td>
<td>84.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Water consumption and water discharge</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water consumption (water intake from surface and underground sources) for extraction activities, cub m / tce</td>
<td>0.43</td>
<td>0.46</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>
</tr>
</tbody>
</table>
### Period 2017 2018 2019

#### Polluted water intake for treatment and use/discharge, mcm

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater</td>
<td>133.9</td>
<td>170.4</td>
<td>117.0</td>
</tr>
<tr>
<td>Produced water</td>
<td>1,587.8</td>
<td>1,588.1</td>
<td>1,658.2</td>
</tr>
<tr>
<td>Bottom water</td>
<td>1.0</td>
<td>0.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Gross industrial wastewater discharges to surface waters, mcm</td>
<td>133.2</td>
<td>127.9</td>
<td>122.7</td>
</tr>
<tr>
<td>Wastewater discharges into third-party networks for reuse, thousand cub m</td>
<td>290.39</td>
<td>8,938.86</td>
<td>10,380.24</td>
</tr>
<tr>
<td>Wastewater discharges from extraction activities, cub m / tce</td>
<td>0.0006</td>
<td>0.0005</td>
<td>0.0003</td>
</tr>
<tr>
<td>Wastewater discharges from refining and petrochemical activities, cub m / tce</td>
<td>0.99</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>Polluted wastewater discharges from extraction activities, cub m / tce</td>
<td>0.000400</td>
<td>0.000100</td>
<td>0.000004</td>
</tr>
<tr>
<td>Polluted wastewater discharges from refining and petrochemical activities, cub m / tce</td>
<td>0.62</td>
<td>0.55</td>
<td>0.55</td>
</tr>
</tbody>
</table>

#### Environmental protection expenditures

| Environmental protection investments, including as part of production programmes with an environmental impact, RUB bln | 47 | 46 | 35 |
| Current environmental protection opex, RUB bln | 29 | 32 | 29 |
| Environmental fines payable, RUB bln | 0.26 | 0.29 | 0.20 |
| Payments to budgets of all levels related to environmental protection and sustainable use of natural resources, RUB bln | 4.2 | 4.7 | 4.3 |

### Emergency prevention and response performance indicators

| Financial and non-financial reserves for emergency prevention and response, RUB bln | 1.9 | 2.0 | 2.0 |
| Innovation performance indicators
| R&D expenses, RUB bln | 29.90 | 32.10 | 30.05 |
| HR Indicators
| Headcount at year-end, thousand employees | 318.0 | 325.6 | 334.6 |
| Average headcount, thousand employees | 302.1 | 308.0 | 315.4 |

#### Workforce by category at year-end, %

| Blue-collar workers | 57.8 | 54.2 | 54.7 |
| White-collar workers | 30.0 | 31.5 | 33.1 |
| Managers | 12.2 | 12.2 | 12.2 |

#### Workforce by gender at year-end, %

| Women | 33.5 | 32.2 | 32.7 |
| Men | 66.5 | 67.8 | 67.3 |
| Employee turnover, % | 10.3 | 10.8 | 10.2 |
| Company average monthly salary per person, RUB | 79,221 | 84,030 | 88,609 |
| Payroll, including benefits and one-off bonuses as part of the payroll and annual remuneration, RUB bln | 287 | 311 | 335 |
| Social payments fund, RUB bln | 7.7 | 8.6 | 9.3 |

---

### Social performance indicators

| Tax payments and customs duties, RUB bln, including: | 2,575 | 3,971 | 3,528 |
| Federal tax payments and customs duties | 2,180 | 3,503 | 3,042 |
| Regional tax payments | 325 | 393 | 404 |
| Payments to non-budgetary funds | 70 | 76 | 82 |
| Expenditures on social programmes, social investments in the regions and charity, RUB bln, including: | 37 | 46 | 45 |
| Optimisation of working conditions, RUB bln | 8.5 | 8.2 | 9.4 |
| Social investments under cooperation agreements with regional authorities, RUB bln | 6.7 | 9.5 | 7.1 |
| Charity, including charitable aid to educational institutions in furtherance of the government’s education and science policy | 2.7 | 3.2 | 2.4 |
| Other social investments | 20 | 25 | 26 |

### Anti-corruption performance indicators

| Calls received by the Security Hotline | 20,486 | 27,081 | 35,106 |
| Damage identified/prevented following the review of Security Hotline calls, RUB mln | 103.7 | 14.5 | 40.5 |
| Criminal cases opened, including following Security Hotline calls | 735 | 751 | 739 |

---

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’ councils, see the Personnel and Social Programme section of our annual reports for 2017, 2018 and 2019.
<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-Morskoi Terminal Nakhodka</td>
<td>64,380.64</td>
<td>45,372.20</td>
<td>162%</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>71,688.00</td>
<td>195%</td>
</tr>
<tr>
<td>Republic of Bashkortostan</td>
<td>LLC Bashneft-Dobycha</td>
<td>70,762.34</td>
<td>36,266.70</td>
<td>195%</td>
</tr>
<tr>
<td></td>
<td>PJSC Ufagazintez</td>
<td>81,158.41</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-Roznitsa</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>64,427.72</td>
<td>32,048.60</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 Kulybyshev 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>67,248.75</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>Saratov Region</td>
<td>JSC Samaranneftegaz</td>
<td>33,634.74</td>
<td>35,895.80</td>
<td>94%</td>
</tr>
<tr>
<td>Arkhangelsk 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>30,417.16</td>
<td>30,212.90</td>
<td>101%</td>
</tr>
<tr>
<td>Republic of Komi</td>
<td>LLC RN-Severny Naft</td>
<td>120,238.24</td>
<td>50,416.80</td>
<td>238%</td>
</tr>
<tr>
<td>Republic of Karelia</td>
<td>LLC Bashneft-Polyus</td>
<td>150,618.00</td>
<td>80,542.30</td>
<td>187%</td>
</tr>
<tr>
<td>Republic of Murmansk</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-Ingushetia</td>
<td>30,318.07</td>
<td>27,213.60</td>
<td>111%</td>
</tr>
<tr>
<td></td>
<td>LLC RN-Ingushetia</td>
<td>28,970.11</td>
<td>27,213.60</td>
<td>106%</td>
</tr>
</tbody>
</table>
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. 3-113</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GRI 102-3</td>
<td>Location of headquarters</td>
<td>The Company’s Head Office is located in Moscow</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GRI 102-4</td>
<td>Location of operations</td>
<td>2019 Annual Report, Assets and Regions of Operation section, p. 8-9; Company Structure section, p. 14-15</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GRI 102-5</td>
<td>Ownership and legal form</td>
<td>2019 Annual Report, Share Capital section, p. 348</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GRI 102-7</td>
<td>Scale of the organisation</td>
<td>Management Framework and Personal Profile Key Sustainability Indicators;</td>
<td>p. 142-145</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GRI 102-8</td>
<td>Information on employees and other workers</td>
<td>Management Framework and Personal Profile Key Sustainability Indicators;</td>
<td>p. 142-145</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GRI 102-10</td>
<td>Significant changes to the organisation and its supply chain</td>
<td>2019 Annual Report, Company Structure section, p. 14-15</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

**General disclosures**

- **GRI 102-1** Name of the organisation: Contact Details
  - Page 238
  - External assurance

- **GRI 102-2** Activities, brands, products, and services: 2019 Annual Report, Operating Results section, p. 3-113
  - Page 2019
  - External assurance

- **GRI 102-3** Location of headquarters: The Company’s Head Office is located in Moscow
  - External assurance

- **GRI 102-4** Location of operations: 2019 Annual Report, Assets and Regions of Operation section, p. 8-9; Company Structure section, p. 14-15
  - External assurance

- **GRI 102-5** Ownership and legal form: 2019 Annual Report, Share Capital section, p. 348
  - External assurance

  - External assurance

- **GRI 102-7** Scale of the organisation: Management Framework and Personal Profile Key Sustainability Indicators;
  - Page 142-145
  - External assurance

- **GRI 102-8** Information on employees and other workers: Management Framework and Personal Profile Key Sustainability Indicators;
  - Page 142-145
  - External assurance

- **GRI 102-9** Supply chain: 2019 Annual Report, Business Model section, p. 12-13
  - External assurance

- **GRI 102-10** Significant changes to the organisation and its supply chain: 2019 Annual Report, Company Structure section, p. 14-15
  - External assurance

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**Report section / references to other public documents**

- GRI 102-12 Externally developed economic, environmental, social and corporate standards or principles, or other initiatives to which the organisation subscribes or which it endorses
  - Stakeholder Engagement
  - Page 32-35
  - External assurance

- GRI 102-13 Membership of associations or national or international advocacy organisations
  - Stakeholder Engagement
  - Page 6-7
  - External assurance

- 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
  - Page 4-5, 8-9
  - External assurance

- GRI 102-15 Key impacts, risks, and opportunities
  - Message from the Chairman of Rosneft’s Board of Directors
  - Message from Rosneft’s Chief Executive Officer
  - Page 25-31
  - External assurance

- GRI 102-16 Values, principles, standards, and norms of behaviour
  - Strategic Vision of Sustainable Development
  - Compliance Framework Development
  - Page 20-24
  - External assurance

- GRI 102-17 Mechanisms for advice and concerns about ethics
  - Compliance Framework Development
  - Page 40-67
  - External assurance

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Additional information is available on the Company’s website at [https://www.rosneft.com/investors/Documents/](https://www.rosneft.com/investors/Documents/)
## 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-SE1, SE13 Direct economic value generated and distributed**
- **GRI 201-3 Defined retirement plans and other benefit plans**
- **GRI 201-4 Financial assistance received from government**

### 2. Indirect economic impact

- **GRI 203 Indirect Economic Impacts 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 203-1 IPIECA-SE7 Infrastructure investments and services supported**
- **GRI 203-2 IPIECA-SE6 Significant indirect economic impacts, including scope of impact**

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**No.** | **Name** | **Report section / references to other public documents** | **Omission** | **Page in the Report** | **External assurance**
---|---|---|---|---|---
GRI 102-52 | Reporting cycle | About the Report | | p. 12-15 | ✓
GRI 102-53 | Contact point for questions regarding the report | Contact Details | | p. 238 | ✓
GRI 102-54 | Claims of reporting in accordance with the GRI Standards | About the Report | | p. 12-15 | ✓
GRI 102-55 | GRI content index | This appendix | | | ✓
GRI 201-3 | Defined retirement plans | Management Framework and Personnel Profile Social Policy | | p. 142-145 | ✓
GRI 201-4 | Financial assistance received from government | | | p. 156-165 | ✓
GRI 103-1 | Explanation of the material topic and its boundary | 2019 Annual Report, Strategy section, p. 18-29 | | | ✓
GRI 103-2 | The management approach and its components | 2019 Annual Report, Mission and Values section, p. 10-11; Strategy section, p. 18-29 | | | ✓
GRI 103-3 | Evaluation of the management approach | 2019 Annual Report, Strategy section, p. 24-26 | | | ✓
GRI 201-1 | Key Sustainability Indicators | | p. 16-17 | | ✓
GRI 201-3 | Defined retirement plans and other benefit plans | Management Framework and Personnel Profile Social Policy | | p. 142-145 | ✓
GRI 201-4 | Financial assistance received from government | | | p. 156-165 | ✓
GRI 202-1 | Dealing with stakeholders | | | | ✓
GRI 202-2 | Identifying and selecting stakeholders | Rosneft interacts with all stakeholder groups that have an impact on, and are impacted by, the Company’s operations | | | ✓
GRI 202-3 | Approach to stakeholder engagement | Stakeholder Engagement | | p. 32-35 | ✓
GRI 202-4 | Key topics and concerns raised, and how the organisation has responded to those key topics and concerns, including through its reporting | About the Report Stakeholder Engagement | | p. 12-15 | ✓
GRI 202-6 | Defining report content and topic boundaries | About the Report | | p. 12-15 | ✓
GRI 202-7 | List of material topics | About the Report | | p. 12-15 | ✓
GRI 202-8 | Any restatements of information given in previous reports, and the reasons for such restatements | About the Report Key Sustainability Indicators | | p. 12-15 | ✓
GRI 202-9 | Significant changes from previous reporting periods in the list of material topics and topic boundaries | About the Report | | p. 12-15 | ✓
GRI 202-10 | Reporting period | About the Report | | p. 12-15 | ✓
GRI 202-11 | Date of the most recent report | | | | ✓

Rosneft’s 2018 Sustainability Report was published in June 2019

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5. Procurement practices (including local suppliers)

IPIECA-SE11, Principle 10

UNGC

GRI 103 Management approach 2016

GRI 204 Procurement Practices 2016

GRI 103-1 Explanation of the material topic and its boundary

Supplier and Contractor Relationship Management

p. 193–197

✓

GRI 103-2 The management approach and its components

Supplier and Contractor Relationship Management

p. 193–197

✓

GRI 103-3 Evaluation of the management approach

Supplier and Contractor Relationship Management

p. 193–197

✓

GRI 204-1 Proportion of spending on local suppliers in significant locations of operation

Supplier and Contractor Relationship Management

p. 193–197

✓

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.

6. Combating corruption and non-competitive practices

IPIECA-SE11, Principle 10, UNGC Principles 7, 8, 9

GRI 205-1 Number of legal actions against the Company regarding anti-competitive behaviour and violations of anti-trust and monopoly legislation during the reporting period

No confirmed cases of corruption were identified in 2019. Corruption prevention is the responsibility of the Company’s Security Service and Internal Audit Service.

GRI 205-2 Communication and training about anti-corruption policies and procedures

Compliance Framework Development

p. 40–47

✓

GRI 205-3 Confirmed incidents of corruption and actions taken

No court disputes related to the Company’s alleged violations on monopoly laws that would result in court orders taking effect.

5. Energy

IPIECA-SE11, Principle 10

UNGC

GRI 302 Energy 2016

GRI 103 Management approach 2016

GRI 103-1 Explanation of the material topic and its boundary

Energy Saving and Energy Efficiency

p. 123–124

✓

GRI 103-2 The management approach and its components

Energy Saving and Energy Efficiency

p. 123–124

✓

GRI 103-3 Evaluation of the management approach

Energy Saving and Energy Efficiency

p. 123–124

✓

GRI 302-1 Energy consumption within the organisation

Energy Saving and Energy Efficiency

p. 123–124

✓

The Group Subsidiaries use various types of fuel, above all natural and associated petroleum gas, as well as fuel oil, diesel fuel, and oil.

GRI 302-4 Reduction of energy consumption

Energy Saving and Energy Efficiency

p. 123–124

✓

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.

GRI 303 Total amount of renewable energy generated by source

Partially disclosed. Information is unavailable due to insignificant volumes of renewable energy generation. Rosneft plans to start accounting for this type of energy after the Company’s reliance on it grows.

Currently, the volume of generated renewable energy accounts for an insignificant part of total energy volume.

In 2019, risks related to corruption were assessed on a quarterly basis at the level of the Company, business entities, and business functions (covering 100% of all units). This risk is cross-functional and affects all business processes, requiring business process owners to develop control procedures aimed at preventing it. Anti-corruption is one of the components of the Code of Business and Corporate Ethics in place at Rosneft. The Company also has the Policy on Combating Corporate Fraud and Involvement in Corruption Activities approved by resolution of Rosneft’s Board of Directors dated 21 May 2015, Minutes No. 19 dated 21 May 2015, and the Regulations on Coordinating Anti-Fraud and Anti-Corruption Processes providing for the algorithm and methodology to assess the risk.

To implement the above documents, the Company ran programmes in 2019 as part of the Comprehensive Anti-Fraud and Anti-Corruption Programme.
### 7. Biodiversity

#### GRI 304 Biodiversity 2016

<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 304-1</td>
<td>UNGC Principle 8 IPECA-E6</td>
<td>Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas</td>
<td></td>
<td>p. 80-84</td>
<td>✅</td>
</tr>
<tr>
<td>GRI 304-2</td>
<td>UNGC Principle 8 IPECA-E6</td>
<td>The Company engages in exploration in environmentally vulnerable and protected areas, including those in the Yamal-Nenets Autonomous Area, Krasnoyarsk Territory, Arkhangelsk Region, and Republic of Sakha, on the shelf of the Sea of Okhotsk, Barents, Pechora, and Kara seas, and produces, treats and transports oil</td>
<td></td>
<td>p. 71-75</td>
<td>✅</td>
</tr>
<tr>
<td>GRI 304-3</td>
<td>UNGC Principle 8 IPECA-E6</td>
<td>In 2019, the percentage of water recycled and reused stood at around 94% (2,496 mmcm)</td>
<td></td>
<td>p. 71-75</td>
<td>✅</td>
</tr>
<tr>
<td>GRI 304-4</td>
<td>UNGC Principle 8 IPECA-E6</td>
<td>Total number of IUCN Red List species and national conservation list species with habitats in areas affected by the operations of the organisation, by level of extinction risk</td>
<td></td>
<td>p. 77-80</td>
<td>✅</td>
</tr>
</tbody>
</table>

#### GRI 304-2 UNGC Principle 8 IPECA-E5, HS4

- Nature of significant impacts of operations, products, and services on biodiversity in formally protected areas and formally designated areas of special importance or sensitivity
  - Partially disclosed. The scale of the Company’s operations makes it impossible to identify all of the species affected and extent of areas impacted.

#### GRI 304-3 UNGC Principle 8 IPECA-E5

- Habitats protected or restored
  - Land Remediation and Waste Management
  - Partially disclosed. The scale of the Company’s operations makes it impossible to identify all of the species affected and extent of areas impacted.

The final phase of land remediation is an assessment of work done by an independent contractor. Remediation is confirmed by acceptances certificates handed over to local authorities.

### Table 1

#### Biodiversity

<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 304-2</td>
<td>UNGC Principle 8 IPECA-E5</td>
<td>Nature of significant impacts of operations, products, and services on biodiversity in formally protected areas and formally designated areas of special importance or sensitivity</td>
<td></td>
<td>p. 71-75</td>
<td>✅</td>
</tr>
<tr>
<td>GRI 304-3</td>
<td>UNGC Principle 8 IPECA-E5</td>
<td>Habitats protected or restored</td>
<td></td>
<td>p. 77-80</td>
<td>✅</td>
</tr>
</tbody>
</table>
### 6. GHG emissions

<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 305-1</td>
<td>UNGC Principles 7, 8</td>
<td>Indirect and energy (Scope 2) GHG emissions</td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 305-2</td>
<td>UNGC Principles 7, 8</td>
<td>Other significant GHG emissions stating volume</td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 305-3</td>
<td>UNGC Principles 7, 8</td>
<td>Reduction of GHG emissions</td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 305-4</td>
<td>UNGC Principles 7, 8</td>
<td>Emissions of ozone-depleting substances</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 305-5</td>
<td>UNGC Principles 7, 8</td>
<td>NOx, SOx, and other air emissions</td>
<td>Reducing Air Emissions</td>
<td>p. 69-70</td>
<td>✓</td>
</tr>
</tbody>
</table>

### 8. GHG emissions

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
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<th>Omission</th>
<th>Page in the Report</th>
<th>External assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 305-1</td>
<td>UNGC Principles 7, 8</td>
<td>Direct (Scope 1) GHG emissions</td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 305-2</td>
<td>UNGC Principles 7, 8</td>
<td>Other significant GHG emissions stating volume</td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 305-3</td>
<td>UNGC Principles 7, 8</td>
<td>Reduction of GHG emissions</td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 305-4</td>
<td>UNGC Principles 7, 8</td>
<td>Emissions of ozone-depleting substances</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 305-5</td>
<td>UNGC Principles 7, 8</td>
<td>NOx, SOx, and other air emissions</td>
<td>Reducing Air Emissions</td>
<td>p. 69-70</td>
<td>✓</td>
</tr>
</tbody>
</table>

### 10. Water discharge and waste management (including spills)

<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 306-1</td>
<td>UNGC Principles 7, 8</td>
<td>Total water discharge by quality and destination</td>
<td>Conserving water resources</td>
<td>p. 71-75</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 306-2</td>
<td>UNGC Principles 7, 8</td>
<td>Total weight of waste by type and disposal method</td>
<td>Land remediation and waste management</td>
<td>p. 77-80</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 306-3</td>
<td>UNGC Principles 7, 8</td>
<td>Number and volume of significant spills</td>
<td>Prevention of and response to oil spills</td>
<td>p. 76</td>
<td>✓</td>
</tr>
<tr>
<td>GRI 306-4</td>
<td>UNGC Principles 7, 8</td>
<td>Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of Annexes I, II, III, and VII to the Basel Convention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 306-5</td>
<td>UNGC Principles 7, 8</td>
<td>Information on water bodies significantly affected by the Company’s discharges of water and/or runoff</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 centralised waste water systems. The Company also discloses data on domestic water discharges.

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.

The Company does not use ozone-depleting substances on an industrial scale.

In 2019, no significant impacts of the Company's discharges on water bodies was registered.
## 11. Environmental compliance (regulatory aspects)

<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 307</td>
<td>Environmental compliance 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103</td>
<td>Management approach 2016</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>Environmental impact management</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>
<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></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></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>
</tbody>
</table>

**Notes:**
- A number of Group Subsidiaries were fined for environmental non-compliance. Total fines in 2019 amounted to RUB 200 mln. Individual fines were insignificant.

## 12. Employment and labour/management relations

<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 401</td>
<td>Employment 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103</td>
<td>Management approach 2016</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>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>
<td>p. 142–145, p. 204-209</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>p. 156–165</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Notes:**
- The Company fully complies with the laws on notifying the employees of significant changes.

## 13. Occupational health and safety

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
<th>Omission</th>
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</thead>
<tbody>
<tr>
<td>GRI 402</td>
<td>Labour/management relations 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103</td>
<td>Management approach 2016</td>
<td></td>
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<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>
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<tr>
<td>GRI 103-2</td>
<td>Management approach and its components</td>
<td>Management framework and personnel profile</td>
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<tr>
<td>GRI 103-3</td>
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<tr>
<td>GRI 402-1</td>
<td>Minimum notice periods regarding changes in operations, including whether these are specified in collective agreements</td>
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</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.
14. Training and Education

GRI 404 Training and Education 2016

<table>
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<th>No.</th>
<th>Name</th>
<th>Report section / references to other public documents</th>
<th>Omission</th>
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<tr>
<td>GRI 103-1</td>
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<td>Management framework and personnel profile</td>
<td>p. 142–145</td>
<td>✔️</td>
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<tr>
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<td>Management framework and personnel profile</td>
<td>p. 142–145</td>
<td>✔️</td>
<td></td>
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<tr>
<td>GRI 103-3</td>
<td>Evaluation of the management approach</td>
<td>Approaches to promoting human rights</td>
<td>p. 37–39</td>
<td>✔️</td>
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In 2019, Company-wide reviews of corporate and managerial competencies covered more than 23 thousand employees.

16. Rights of indigenous people and minorities

GRI 411 Rights of Indigenous Peoples 2016

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<tr>
<th>No.</th>
<th>Name</th>
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<tr>
<td>GRI 103-1</td>
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<td>p. 181–183</td>
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<tr>
<td>GRI 103-2</td>
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<td>p. 181–183</td>
<td>✔️</td>
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<tr>
<td>GRI 103-3</td>
<td>Evaluation of the management approach</td>
<td>Support for indigenous minorities of the North</td>
<td>p. 181–183</td>
<td>✔️</td>
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</table>

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.
1. Compliance with social and economic requirements

GRI 103 Socioeconomic Compliance – 2016

GRI 103 Management approach 2016

- GRI 103-2: Explanation of the material topic and its boundary
  Compliance framework development
  Page: p. 40–47

GRI 103-2: Management approach and its components
  Compliance framework development
  Page: p. 40–47

GRI 103-3: Evaluation of the management approach
  Compliance framework development
  Page: p. 40–47

GRI 419-1: Significant fines and total number of non-monetary sanctions for non-compliance with laws and/or regulations
  Climate cooperation
  Page: p. 59–60

2. Risks and opportunities related to climate change (physical aspects)

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  Climate-related risks and opportunities
  Page: p. 55

GRI 103-2: Management approach and its components
  Climate-related risks and opportunities
  Page: p. 55

GRI 103-3: Evaluation of the management approach
  Climate-related risks and opportunities
  Page: p. 55

3. Emergency preparedness and response

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  Emergency prevention and response
  Page: p. 108

GRI 103-2: Management approach and its components
  Emergency risk management
  Page: p. 111

GRI 103-3: Evaluation of the management approach
  Employee training in emergency response
  Page: p. 115

4. Asset integrity, process safety (safety procedures and number of accidents)

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  Safety of Production Facilities and Processes
  Page: p. 100–104

GRI 103-2: Management approach and its components

GRI 103-3: Evaluation of the management approach

GRI 416-2: Cases of product and service non-compliance with regulatory requirements

21. Strategic targets of sustainable development

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  Strategic Vision of Sustainable Development
  Page: p. 20–24

GRI 103-2: Management approach and its components
  Sustainability Management
  Page: p. 25–31

GRI 103-3: Evaluation of the management approach
  Strategic Vision of Sustainable Development
  Page: p. 20–24

22. Alternative fuels and innovations

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  Innovation Management
  Digital Transformation
  Customer Engagement
  Page: p. 118–119

GRI 103-2: Management approach and its components
  Innovation Management
  Digital Transformation
  Customer Engagement
  Page: p. 118–119

GRI 103-3: Evaluation of the management approach
  Development of R&D Capabilities
  Customer Engagement
  Page: p. 129–137

23. Amount and type of estimated proved reserves and production

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  2019 Annual Report, Rosneft's Exploration and Reserve Replacement section, p. 38–43

GRI 103-2: Management approach and its components
  2019 Annual Report, Rosneft's Exploration and Reserve Replacement section, p. 38–43

GRI 103-3: Evaluation of the management approach
  2019 Annual Report, Rosneft's Exploration and Reserve Replacement section, p. 38–43

GRI OGI: Proved reserves and production
  Key Sustainability Indicators
  Page: p. 204–209

24. Consumer health and safety

GRI 416 Consumer health and safety 2016

GRI 103 Management approach 2016

- GRI 103-1: Explanation of the material topic and its boundary
  Customer Engagement
  Page: p. 186–192

GRI 103-2: Management approach and its components
  Customer Engagement
  Page: p. 186–192

GRI 103-3: Evaluation of the management approach
  Customer Engagement
  Page: p. 186–192
### 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 partners and clients, representatives of 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.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Discussions of current issues, including:</th>
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<tbody>
<tr>
<td>Representatives of Bashneft, Rosneft, the government of the Republic of Bashkortostan, contractors and the media</td>
<td>Resuming 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 center; 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; resuming joint scientific and technical councils of the Company and the Ministry of Industry and Innovation Policy of the Republic of Bashkortostan.</td>
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<table>
<thead>
<tr>
<th>Participants</th>
<th>Discussions of current issues, including:</th>
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<tr>
<td>Representatives of Vostsibneftegaz, Slavneft-Krasnoyarskneftegaz, the Evenkiysky District Administration, village councils, educational institutions, the public and the media</td>
<td>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.</td>
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<thead>
<tr>
<th>Participants</th>
<th>Discussions of current issues, including:</th>
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<tbody>
<tr>
<td>Management of RH-Vankor, administration heads of the Turukhansky District and city of Igarka, representatives of legislative bodies, educational, health, culture, and religious institutions, NGOs and contractors</td>
<td>Increasing the Company’s contribution to the project to create an ethnic theme park in the village of Sovetskaya Rechka; RH-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.</td>
</tr>
</tbody>
</table>

#### 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:**
  - Resuming 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 center.
  - 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**: Management of RH-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.
  - RH-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.

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**Table 1: Stakeholder engagement in 2019**

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<th>Omission</th>
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<tr>
<td>15.</td>
<td>Climate-related Financial Disclosures (TCFO)</td>
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**Governance**

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<tbody>
<tr>
<td>a)</td>
<td>The Board of Director’s position on climate-related risks and opportunities</td>
<td>Sustainability Management</td>
<td>p. 25-31</td>
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<tr>
<td>b)</td>
<td>Management’ role in assessing and managing climate-related risks and opportunities</td>
<td>Carbon Management Goals and Approaches</td>
<td>p. 50-51</td>
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**Strategy**

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<td>a)</td>
<td>Short, medium and long term climate-related risks and opportunities identified by the Company</td>
<td>Climate-related Risks and Opportunities</td>
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<td>b)</td>
<td>The impact of climate-related risks and opportunities on the Company’s business, strategy and financial planning</td>
<td>Sustainability Management</td>
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<tr>
<td>c)</td>
<td>Strategy resilience with regard to climate scenarios, including the below 2 °C scenario.</td>
<td>Development of Global Energy Markets</td>
<td>p. 52-54</td>
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**Risk management**

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<tbody>
<tr>
<td>a)</td>
<td>Processes to identify and assess climate-related risks</td>
<td>Climate-related Risks and Opportunities</td>
<td>p. 55</td>
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<tr>
<td>b)</td>
<td>The Company’s processes to manage climate-related risks</td>
<td>Sustainability Management</td>
<td>p. 25-31</td>
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<tr>
<td>c)</td>
<td>Integration of processes to identify, assess, and manage climate-related risks into a unified Company risk management process</td>
<td>Emergency Prevention</td>
<td>p. 112-113</td>
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**Targets and indicators**

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<tbody>
<tr>
<td>a)</td>
<td>Targets used by the Company to assess associated risks and opportunities in accordance with the risk management strategy and process</td>
<td>Biodiversity Conservation</td>
<td>p. 80-84</td>
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<tr>
<td>b)</td>
<td>Scope 1, Scope 2 and Scope 3 greenhouse gas emissions and associated risks</td>
<td>Strategically Important UN Sustainable Development Goals</td>
<td>p. 8-9</td>
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<td>Carbon Management Goals and Approaches</td>
<td>p. 50-51</td>
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<td></td>
<td></td>
<td>Achievement of Climate Goals in 2019</td>
<td>p. 56-58</td>
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<tr>
<td>c)</td>
<td>Targets used by the Company to manage climate-related risks and opportunities and their consequences</td>
<td>Achievement of Climate Goals in 2019</td>
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<tr>
<td></td>
<td></td>
<td>Managing Our Environmental Impacts</td>
<td>p. 64-68</td>
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</tbody>
</table>
4. Round table “Sustainable Development of Udurntnft and the Udurt Republic in 2018”, Izhorsk, Udurt Republic

Participants: representatives of Udurntnft, executive bodies of the Udurt Republic, local governments, educational and social institutions, and the media.

Discussions of current issues, including:
- Udurntnft’s contribution to national environmental projects;
- setting up a Rosneft Class in one of the villages in the Votkinsk District;
- Udurntnft’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 Udurntnft and the Republic’s authorities to repair the Malye Kalmashi-Yatyslve road.

5. Round table “Sustainable Development of Rosneft Group Subsidiaries and the Irkutsk Region in 2018”, Irkutsk

Participants: representatives of Verkhnechonskneftegaz, Angarsk Petrochemical Company, Angarsk Polymer Plant, Irkutsknefteprodukt, heads of regional administrations and city districts, regional authorities, dedicated supervisory agencies, EMERCOM, industrial and commercial companies, scientific and higher educational institutions, charitable NGOs, the Ethnicultural Centre and the media.

Discussions of current issues, including:
- arranging doctor visits to the Katangsky District;
- construction and financing of an Ethnicultural Centre for the indigenous peoples of the North in Irkutsk;
- 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”, Komsomol’sk-on-Amur, Khabarovsk Territory

Participants: representatives of RN-Komsomolsk Refinery, the government of the Khabarovsk Territory, the administration of Komsomol’sk-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:
- supporting instructors at Komsomol’sk-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 Leninprospekty Street in 2021;
- treating with anti-icing chemicals of pedestrian crossing at the Learning Centre in the autumn-winter season, cleaning 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 in 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.


Participants: representatives of RN-Purneftegaz, the government and municipalities of the Yamalo-Nenets Autonomous Area, indigenous peoples of the North and trade unions.

Discussions of current issues, including:
- financial support of the 75th 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 Ryazan 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, SamarArPineft, Kulyshhev Refinery, Syzran Refinery, Novokulyshhevsk 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 Rodnaya Raki (Homeland Rivers) foundation on the Patriotism. Environment. Leadership project;
- employee and community safety;
- 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.


Participants: representatives of Rosneft-Stavropolneftegaz, 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-Stavropolneftegaz;
- informing the region’s administration about capital investments and the planned investment projects;
- implementation of a railroad project to connect Budyonovsky and Kochubevsk; Shirutor;
- 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”, Uusinsk, Komi Republic

Participants: representatives of RN-Severnaya Neft, Uusinsk Urban District administration, educational institutions, war, labour and military veterinaries council, healthcare institutions and mass media.

Discussions of current issues, including:
- financial support of Uusinsk;
- employment at RN-Severnaya Neft for the indigenous and local population;
- lectures for students of the Uusinsk branch of Ukhta State Technical University;
- training and competitions for the rescue unit of RN-Severnaya Neft hosted at Uusinsk Polytchnic College.


Participants: representatives of RN-Yuganskneftegaz, Samotlorneftegaz, Varyeganneftegaz, RN-Sakhinmorneftegaz, 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 Otkrytstvo 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-Sakhinmorneftegaz, Sakhalin Region executive body, non-profit environmental organisations and veteran organisations, educational and science institutions, clergy and culture establishments.

Discussions of current issues, including:
- RN-Sakhinmorneftegaz’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

<table>
<thead>
<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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<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
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<tr>
<td>ITUO</td>
<td>Interregional Trade Union Organisation</td>
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<tr>
<td>SME</td>
<td>Small and medium-sized enterprises</td>
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<tr>
<td>IFRS</td>
<td>International Financial Reporting Standards</td>
</tr>
<tr>
<td>EMERCOM</td>
<td>Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>NPF Neftegarant</td>
<td>Non-State Pension Fund Neftegarant</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>OHS</td>
<td>Occupational health and safety</td>
</tr>
<tr>
<td>HSE</td>
<td>Health, safety and environment</td>
</tr>
<tr>
<td>APG</td>
<td>Associated petroleum gas</td>
</tr>
<tr>
<td>RAS</td>
<td>Russian Academy of Sciences</td>
</tr>
<tr>
<td>RSPP</td>
<td>Russian Union of Industrialists and Entrepreneurs</td>
</tr>
<tr>
<td>Rosstekhnadzor</td>
<td>Federal Service for Supervision of Natural Resources</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal protective equipment</td>
</tr>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
</tr>
<tr>
<td>FAR</td>
<td>Fatal Accident Rate, the ratio of the total number of the Company’s work-related fatalities to 100 mln man-hours worked.</td>
</tr>
<tr>
<td>IPIECA</td>
<td>International Petroleum Industry Environmental Conservation Association</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organisation for Standardisation</td>
</tr>
<tr>
<td>LTIF</td>
<td>Lost Time Injury Frequency, number of lost time work-related injuries (including fatalities) of the Company’s employees to 1 mln man-hours worked</td>
</tr>
<tr>
<td>SEC</td>
<td>U.S. Securities and Exchange Commission</td>
</tr>
</tbody>
</table>
### Units of Measurement

<table>
<thead>
<tr>
<th>Units</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>mln</td>
<td>million</td>
</tr>
<tr>
<td>bln</td>
<td>billion</td>
</tr>
<tr>
<td>trln</td>
<td>trillion</td>
</tr>
<tr>
<td>th</td>
<td>thousand</td>
</tr>
<tr>
<td>t</td>
<td>tonne</td>
</tr>
<tr>
<td>tce</td>
<td>tonne of coal equivalent</td>
</tr>
<tr>
<td>toe</td>
<td>tonne of oil equivalent</td>
</tr>
<tr>
<td>kg</td>
<td>kilogramme</td>
</tr>
<tr>
<td>km</td>
<td>kilometre</td>
</tr>
<tr>
<td>sq m</td>
<td>square metre</td>
</tr>
<tr>
<td>cub m</td>
<td>cubic metre</td>
</tr>
<tr>
<td>ha</td>
<td>hectare</td>
</tr>
<tr>
<td>RUB</td>
<td>rouble</td>
</tr>
<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>
</tr>
</tbody>
</table>

### 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