SYNERGY OF ACHIEVEMENTS AND RESPONSIBILITY

LUKOIL GROUP
SUSTAINABILITY REPORT 2018
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Dear Readers,

I am privileged to be able to present you with our ninth Sustainability Report, in which we inform you about the results of the societal, economic, and environmental performance of LUKOIL Group in 2018. We have highlighted our contribution to attaining the UN Sustainable Development Goals, in line with the strategic benchmarks set by the Company in this area.

2018 was a successful year for LUKOIL: we managed not only to achieve record-high financial results, our flagship projects (the V. Filanovsky field on the Caspian Sea shelf in Russia and the Kandym gas processing plant in Uzbekistan) reached planned capacity, and we also improved key environmental protection and industrial safety indicators, reduced greenhouse gas emissions, and updated our Code of Business Conduct and Ethics, including with regard to human rights observance. The technologies and standards applied by our Company in the field of ecology and industrial safety in some cases surpass international practice. For example, we apply the “zero discharge” principle in all offshore projects, and this approach has been recognized as a model by the Helsinki Commission for the Protection of the Marine Environment of the Baltic Sea Region (HELCOM).

Our primary hydrocarbon production activity helps people in various countries satisfy their ever-increasing demands for electricity, fuel, heating, and petrochemicals, while complying with such UN Sustainable Development Goals as ensuring access to energy sources. We believe that for these purposes both available traditional energy resources and new technological developments should be used. During the reporting year we worked hard to ensure growth in oil production, thanks to high resource base development rates in the North Caspian and the successful extraction of hard-to-recover reserves in Timan-Pechora and West Siberia.

We managed to boost our resource efficiency performance, by significantly reducing the production of fuel oil. The construction of the delayed coking complex at the Nizhny Novgorod oil refinery (which began in 2018) will help further improve this indicator. LUKOIL is continuing with efforts to upgrade its petroleum product portfolio, through ramping up the production of cleaner and more energy efficient products.

To reinforce our leadership within the industry we have significantly stepped up efforts to increase operating efficiency, optimize costs, and develop new technologies. To this end, I consider it important to set up digital development programs and place great importance on the adoption of the Information Strategy of LUKOIL Group, which will contribute to the solution of these issues across all business segments.

We pay due attention to the level of greenhouse gas emissions: in 2018, these emissions fell by 4% compared to 2017, while record growth in hydrocarbon production was achieved. The Program for Rational APG Utilization enhanced the level of beneficial APG use, which reached more than 97% across LUKOIL Group in 2018.

We are working hard to improve the effectiveness of labor and industrial safety measures. In 2018, the lowest pipeline failure rate was achieved for the last seven years the number of labor injuries among employees of contracting organizations and the total number of injured employees across LUKOIL Group significantly decreased. I view this as a confirmation of the effective work we
have carried out to implement a culture of safety at our entities. Personnel safety is our priority, and we will continue to do our utmost to achieve the best results in this area.

We have always taken care of our employees and provided them with opportunities to develop their career and competencies. We are committed to making work at the Company interesting for them at all times and to nurturing an environment where talented employees are able to realize their potential. These are precisely the aims of the new leadership concept we have introduced within HR management.

In 2018 we continued to support various charity programs. I am pleased to highlight in this regard LUKOIL Charity Fund and LUKOIL Sports Club: 2018 was an anniversary year for both (25 and 20 years, respectively). In this period these organizations supported many regional projects, sports and art teams, and social and public organizations. We wish to further develop social partnerships and the economic and cultural potential of the regions where we operate.

I am happy to announce that our efforts to improve the quality of our non-financial reporting have been greatly appreciated by industry experts: LUKOIL Group 2017 Sustainability Report won numerous awards in all key competitions and ratings in Russia. This is a testament to the success of our efforts to enhance our reporting and sustainable development management systems.

I do hope that you find the current report to be informative, and that it will contribute to a better understanding of the activities of our Company for all our partners, investors, public organizations, and other stakeholders.

Vagit Alekperov,
President, Chairman of the Management Committee of PJSC LUKOIL
PJSC LUKOIL is pleased to present the ninth Sustainability Report of LUKOIL Group (the “Report”), which reflects the performance results for the period from January 1, 2018 to December 31, 2018.

The previous report was published in July 2018 (for the reporting period from January 1, 2017 to December 31, 2017). The Company received awards for the quality of its non-financial reporting in 2018 at the Moscow Exchange’s Annual Report Awards in the special category “Best Corporate Social Responsibility and Sustainability Report”; in a competition held by the Russian Ministry of Energy in the category “Best Public Non-Financial Report of a Company in the Oil and Gas Sector with more than 100,000 Employees”; in the Russian Union of Industrialists and Entrepreneurs National Competition “Leaders of Russian Business. Dynamics, Responsibility, Sustainability 2018” in the category “High Quality of Sustainability Reporting”; and in an Environmental Responsibility Rating from the World Wildlife Fund.

Since 2014, LUKOIL Group has been consistently ranked in the top 10 in the “Responsibility and Transparency” and the “Sustainability Vector” indices prepared by the Russian Union of Industrialists and Entrepreneurs (RSPP), based on an analysis of the public reporting of the 100 largest companies in Russia. In April 2019, the Moscow Exchange began the daily calculation and publication of stock exchange indices (the MOEX-RSPP Responsibility and Transparency Index and the MOEX-RSPP Sustainability Vector Index), based on these instruments.

We have been publishing sustainability reports since 2005. They are addressed to a wide range of stakeholders and seek to provide balanced information that is relevant to the interests of each group. As part of its corporate governance system, the Company pays significant attention to improving its sustainability efforts and to enhancing the quality of the information reported. We believe an important factor in meeting these objectives is the performance of an independent audit of the information disclosed, as well as a public verification of the Report. The audit firm’s opinion under a limited assurance engagement with respect to the Report is published on page 146. The conclusions on the public verification of the Report, by the RSPP Non-Financial Reporting Council, are published on page 150.

A new stage in the development of non-financial reporting in LUKOIL Group is the integration of goals and objectives presented in the 2030 Agenda for Sustainable Development of the UN (hereinafter, the 2030 SDGs) into the system for analyzing operations and submitting reporting data, as well as a gradual expansion of the reporting scope.
IN PREPARING THIS REPORT, WE USED THE FOLLOWING NON-FINANCIAL REPORTING STANDARDS AND GUIDELINES:

- Business Reporting on SDGs

- the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) ("Foundation"). Certain GRI Standard indicators and the table of general and specific standard reporting elements are provided in Appendices 1 and 2

- the United Nations Global Compact

- the Social Charter of Russian Business and the Basic Performance Indicators of the Russian Union of Industrialists and Entrepreneurs

We also focused on the following documents:

- SASB (Sustainability Accounting Standards Board) Reporting Standards, related to determining essential topics for the oil and gas industry


Reports for previous periods can be found at PJSC LUKOIL website
A COMPREHENSIVE ANALYSIS OF REPORTING GOALS DETERMINED SIX PRIORITY TOPIC AREAS

1. MANAGING RISKS AND SUSTAINABILITY ASPECTS

UN 2030 Sustainable Development Goals

9. INDUSTRY INNOVATION AND INFRASTRUCTURE
   TARGET 9.4

12. RESPONSIBLE CONSUMPTION AND PRODUCTION
   TARGET 12.5

17. PARTNERSHIPS FOR THE GOALS
   TARGET 17.17

2. ETHICS AND RESPECT FOR HUMAN RIGHTS

GRI Standards

GRI 201
GRI 419

3. CLIMATE CHANGE

GRI 302
GRI 305

UN 2030 Sustainable Development Goals

13. CLIMATE ACTION
   TARGET 13.1

7. AFFORDABLE AND CLEAN ENERGY
   TARGET 7.2

Page of the Report

20-32, 35-40
13, 47
55

1For more information see Appendix 2.
4. INDUSTRIAL AND ENVIRONMENTAL SAFETY, EFFICIENT USE OF RESOURCES

- TARGET 6.3
- 6.4
- TARGET 12.5
- TARGET 13.1
- TARGET 14.1
- 14.5
- TARGET 15a

GRI 303 GRI 306 GRI 308
GRI 305 GRI 308
55, 72, 47, 80, 83

5. RESPONSIBLE SOCIAL POLICY

- TARGET 5.5
- TARGET 8.3
- 8.8
- TARGET 8.3

GRI 202 GRI 401 GRI 402
GRI 403 GRI 404
GRI 203 GRI 204
GRI 411
GRI 412
GRI 413
109, 110
117, 119, 129

6. LOCAL COMMUNITIES AND SMALL INDIGENOUS NATIONS OF THE NORTH

- TARGET 4.4
- TARGET 17.17

LUKOIL 2018
ABOUT THE COMPANY

BUSINESS MODEL

As a vertically integrated company, LUKOIL controls its entire chain of production, from oil and gas production to marketing a range of various products and services, including electricity and heat, which are supplied to industrial and retail consumers in various countries worldwide.

EXPLORATION AND PRODUCTION

Exploration, mining

76% / 24%

Share of oil and gas in proven reserves

REFINING

Oil and gas refining, petrochemicals

8.8

The Nelson Index for Company refineries as of December 31, 2018

88.0%

Refining yield

1 Not including mini-refineries and external refineries, or unused capacity at the Ukhta, Volgograd, and Burgas refineries.
Public Joint-Stock Company “Oil company “LUKOIL” is one of the world’s largest publicly traded and vertically integrated oil and gas companies in terms of total proven reserves and hydrocarbon production. LUKOIL employs over 100,000 people across Russia, Europe, Asia, Africa, and the USA (more than 30 countries worldwide).

We are an international oil and gas company whose operations promote the economic development of the countries where we operate and improve people’s living standards. We strive towards demonstrating technological leadership and achieving environmental equilibrium, so that all of us can share in a prosperous future.

**PRODUCTION AND SALES**

International trading, retail sales
General brands: ECTO fuel and diesel, Genesis oils

- **9.6** million tons
  Sale of ECTO brand fuel
- **6.5** million liters
  Sales of biofuel blends

Sales of motor fuels

- **257.9** thousand tons
  Sales of brand oils (premium group)
- **4.7** thousand tons
  River and maritime fueling

Sales of bunker fuel

- **3.2** million tons
  Aircraft refueling

**POWER SUPPLY**

Electric Power Engineering

- **19,919** million kWh
  Electricity generation (net of supply power generation):

Renewable Energy

- **1,365.3** million kWh
  Electricity generation using renewable energy sources
KEY EVENTS AND YEAR RESULTS

Oil and gas exploration and production

Oil and gas exploration and production form the central link in LUKOIL Group operations and are the main creators of value for the Company. We possess a high-quality portfolio of assets that are diversified in terms of both geography and type of reserve.

Proven oil and gas reserves consist primarily of those in the conventional category. In 2018 these stood at 15.9 billion BOE\(^1\), of which oil made up 76%. In the reporting year, the main increases in proven oil and gas reserves were achieved in West Siberia and Timan-Pechora.

The production of hydrocarbons (excluding the West Qurna-2 project) rose by 3.8% compared to 2017, mainly as a result of the advanced development of gas projects in Uzbekistan. Annual oil production, taking into account external constraints, remained at the 2017 level, while production growth was seen at high-production fields in the Caspian Sea and at mature fields in Western Siberia and Timan-Pechora, as a result of effective production management.

- The gas processing plant at the Kandym group of fields in Uzbekistan was put into operation ahead of schedule.
- The V. Filanovsky field reached planned capacity, and a final investment decision was made on the infrastructure development project at the Rakushechnoye field (both fields are in the Caspian Sea).
- A water steam production plant was put into operation at the Yaregskoye field to further increase the extraction of tight reserves.

Refining, marketing, and distribution

We aim to use the natural resources we extract with maximum efficiency. Our priority is to boost operating efficiency and to ensure that the structure of our output matches the needs of consumers and market demand.

During 2018, the production of petroleum products at the Group’s Russian and foreign refineries remained at the 2017 level, despite repair work being carried out at the ISAB plant\(^2\). In the reporting year, the depth of processing was further increased through the use of alternative raw materials and the reloading of secondary processes, including by deepening inter-plant integration. The Group’s petroleum product portfolio saw a further reduction in fuel oil production and an increase in light petroleum products and high-margin products.

In order to increase the efficiency of retail network management at gas stations, the business sector of petroleum products supply in Russia was restructured: eight management organizations were combined into four. In the reporting year, the Company retained its position as one of the largest suppliers of bunker fuel, and also expanded direct retail sales of jet fuel.

The operational and financial activities of LUKOIL Group are coordinated by a head office located in Moscow, and are divided into three business segments: Exploration and production; Refining, marketing, and distribution; and Corporate Center and Others.

- The Nizhegorodsky refinery in Kstovo began construction of delayed coking and isomerization units.
- A fueling facility at Sheremetyevo International Airport was commissioned.
- Launch of the program for development of new types of oils that meet promising requirements was undertaken jointly with the world’s leading manufacturers of automobiles and industrial equipment.
- Signing of a cooperation agreement to develop green energy projects in the Republic of Kazakhstan.

\(^1\) Oil equivalent under the SEC (US Securities and Exchange Commission) classification
\(^2\) For the full names of organizations in accordance with IFRS see Appendix 3.
### Key financial and production indicators

#### Financial

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA, RUB billion</td>
<td>731</td>
<td>832</td>
<td>1,115</td>
</tr>
<tr>
<td>Total debt to EBITDA, %</td>
<td>96</td>
<td>74</td>
<td>48</td>
</tr>
<tr>
<td>Labor productivity, RUB million/person</td>
<td>50</td>
<td>57</td>
<td>78</td>
</tr>
<tr>
<td>Capital expenditure, RUB billion</td>
<td>497</td>
<td>511</td>
<td>452</td>
</tr>
<tr>
<td>Free cash flow, RUB billion</td>
<td>255</td>
<td>247</td>
<td>555</td>
</tr>
<tr>
<td>Research and technical expenses, RUB billion</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Number of patents received</td>
<td>23</td>
<td>20</td>
<td>37</td>
</tr>
</tbody>
</table>

#### Production

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of oil and gas condensate (including the share in affiliates), million barrels</td>
<td>676</td>
<td>645</td>
<td>644</td>
</tr>
<tr>
<td>Crude oil production (including the share in affiliates), thousand tons</td>
<td>91,992</td>
<td>87,414</td>
<td>87,124</td>
</tr>
<tr>
<td>Gas production, million cubic meters</td>
<td>24,922</td>
<td>28,861</td>
<td>33,543</td>
</tr>
<tr>
<td>including APG</td>
<td>9,272</td>
<td>8,942</td>
<td>8,772</td>
</tr>
<tr>
<td>Output of petroleum products, thousand tons</td>
<td>63,069</td>
<td>69,908</td>
<td>70,188</td>
</tr>
<tr>
<td>Full cycle lubricant production, thousand tons</td>
<td>917</td>
<td>998</td>
<td>961</td>
</tr>
<tr>
<td>Output of petrochemicals, thousand tons</td>
<td>1,270</td>
<td>1,171</td>
<td>1,246</td>
</tr>
</tbody>
</table>

Note. The decline in capital expenditure was due to the completion of the main scope of work to develop the Gissar and Kandym fields.

#### Economic value generated and distributed, RUB million

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct economic value generated</td>
<td>5,256,250</td>
<td>6,010,089</td>
<td>8,058,338</td>
</tr>
<tr>
<td>Revenue</td>
<td>5,227,045</td>
<td>5,936,705</td>
<td>8,035,899</td>
</tr>
<tr>
<td>Income from financial investments</td>
<td>14,756</td>
<td>15,151</td>
<td>19,530</td>
</tr>
<tr>
<td>Income from the sale of tangible assets</td>
<td>14,449</td>
<td>58,233</td>
<td>2,919</td>
</tr>
<tr>
<td>Distributed economic value</td>
<td>(4,741,979)</td>
<td>(5,380,245)</td>
<td>(7,277,460)</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>(3,413,258)</td>
<td>(3,908,114)</td>
<td>(5,297,908)</td>
</tr>
<tr>
<td>Employee payroll</td>
<td>(136,035)</td>
<td>(127,851)</td>
<td>(135,671)</td>
</tr>
<tr>
<td>Other employee payments and benefits</td>
<td>(20,370)</td>
<td>(1,135)</td>
<td>(31,300)</td>
</tr>
<tr>
<td>Payments to providers of capital</td>
<td>(175,435)</td>
<td>(166,125)</td>
<td>(195,669)</td>
</tr>
<tr>
<td>including dividends paid</td>
<td>(130,728)</td>
<td>(141,499)</td>
<td>(160,365)</td>
</tr>
<tr>
<td>including interest paid to creditors</td>
<td>(44,707)</td>
<td>(24,626)</td>
<td>(35,304)</td>
</tr>
<tr>
<td>Payments to the government</td>
<td>(984,821)</td>
<td>(1,168,011)</td>
<td>(1,608,127)</td>
</tr>
<tr>
<td>Investments in society</td>
<td>(12,060)</td>
<td>(9,009)</td>
<td>(8,785)</td>
</tr>
<tr>
<td>Undistributed economic value</td>
<td>514,271</td>
<td>629,844</td>
<td>780,878</td>
</tr>
</tbody>
</table>

Notes. Income from financial investments = Income from interest on deposits + Income from interest on issued loans + Other finance income.
Income from the sale of tangible assets = Profit from the sale and disposal of assets.
Operating expenses = Operating expenses + Cost of acquired oil, gas, and products of their processing + Transportation expenses + Sales, general and administrative expenses - Employee payroll - Other employee payments and benefits + Costs of geological and exploration works.
Employee payroll = remuneration of labor (including remuneration, estimated liabilities, compensation and incentive payments, pension insurance, voluntary medical insurance, accident voluntary insurance).
Other employee payments and benefits = Incentive program accruals.
Dividends paid = Dividends paid on the shares of the Company + Dividends paid to the holders of non-controlling interests.
Interest paid to creditors = Interest expenses + Other finance expenses.
Payments to the government = Taxes (other than income tax) + Excise and export duties + Current income tax.
Investments in society = Charitable expenses.

Note. The decline in capital expenditure was due to the completion of the main scope of work to develop the Gissar and Kandym fields.

At own, affiliated, and third-party refineries (by Group share).
**International sustainability projects, programs, and initiatives in which LUKOIL Group / PJSC LUKOIL participates:**

The European Business Network for Corporate Social Responsibility

The World Bank and UN initiative, “Zero Routine Flaring by 2030”

The United Nations Global Compact

The UN Development Program in Russia “Mainstreaming Biodiversity Conservation into Russia’s Energy Sector Policies and Operations”


**RUSSIAN INITIATIVES**

The Business and Biodiversity Initiative under the Russian federal project entitled “Conserving Biodiversity and Developing Ecotourism”.
Position in ratings and rankings in 2018

INTERNATIONAL

ESG Score (Thompson Reuters – Refinitive ESG Score)

**84 (A)**

ESG Score

Calculated on the basis of corporate information on sustainability. High level: ranked 6th out of 360 global oil and gas and energy companies.

MSCI

**BB**

Rating

A high level for Russian companies.

Carbon Disclosure Project (CDP Climate)

**D**

Level

Corresponds to the level of most Russian companies.

Corporate Human Rights Benchmark (CHRB)

**48**

Ranked (out of 102)

Corresponds to the average level of international companies and the best level among Russian companies.

ISS-oekom

**1**

Environment score

The ratings correspond to the minimum risk level of a 10-point scale.

**1**

Social score

RUSSIAN

RSPP indices Responsibility and Transparency and Sustainability Vector

**High level**

Among Russian companies – Top 10

ESG RANKING (RAEX-600)

**1st**

Ranked

Out of 30 finalist companies.

Transparency rating of Russian oil and gas companies in the field of environmental responsibility (WWF – Creon)

**1st**

Ranked

In the “Transparency regarding accidents and incidents” category.

Innovation Perception Index

**4.29**

(cf 5.0)

The best result among 18 fuel and energy sector companies.
Q. How do you see the role of management and the Board of Directors in boosting the resilience of LUKOIL’s business model to changes occurring in the world?

A. To ensure the resilience of the business model, it is important that various divisions of the Company, including various LUKOIL entities and the Board of Directors, take part in managing sustainability. The Board of Directors is provided with strategic analysis of key trends in the oil&gas sector annually. During 2018, a report on the Company’s prospects in the low-carbon economy was presented, targets were set for 2019 and plans were prepared to continue incorporation of sustainability matters into the planning and performance review processes. The Management Committee approves environmental and industrial safety programs, while the Board of Directors evaluates their implementation, reviews information on measures to reduce such risks in the future setting high safety, ethical standards and level of accountability. In 2018, the Board of Directors reviewed and approved activities to improve the level of security in those fields and measures to further enhance the management system. Direct involvement of management enables to create an effective sustainability management system.
Q. How does the emergence of Russian sustainability stock indices affect the Company’s plans to bolster its sustainability plans?

A. This is an important development and naturally it has to be taken into account. Such indices already exist on a number of the world’s stock exchanges. It is possible that at present sustainability exchange instruments will have no significant impact on company valuations. However, the situation could change in the future. That is why we believe the Strategy, Investment, and Sustainability Committee of LUKOIL PJSC may face major challenges to develop further in this area.

The Company has programs in place that help resolve the Sustainability Development Goals (SDGs) and have development potential. We understand that the SDGs require us to further develop a corresponding non-financing reporting methodology. This is a challenging, but useful, objective. The quality of the reporting system in future will to a large extent be contingent on our ability to integrate formalized requests from various stakeholders into this system.
LUKOIL GROUP'S SUSTAINABILITY STRATEGY

Our approach to sustainability management is based on seeking to align the interests and plans of the Company with UN sustainability principles, common human values, and global trends and priorities in domestic and regional development. This involves integrating economic, environmental, and social aims and objectives into the corporate system when making business decisions.

STRATEGIC GOALS

The industrial, environmental, and personal safety of employees in LUKOIL Group companies and improving the safety culture within the supply chain remain unwavering priorities for LUKOIL at all stages of value creation.

Strategic goals

The oil and gas industry was one of the main drivers of social and economic development in the 20th century, and made a notable contribution to attaining such social and economic UN Sustainable Development Goals as affordable and clean energy, human well-being, and decent work and economic growth.

However, the industry is also associated with negative impacts that can lead to a change in the balance of non-renewable energy resources, an increase in greenhouse gas emissions, and disruptions to soil and natural systems.

Nevertheless, we believe that the oil and gas industry will continue to play an important role in the global economy for at least 20–30 years, and that demand for hydrocarbon resources will remain high. This is demonstrated by such factors as continuing world population growth (in Asia, Africa, and Latin America), relatively rapid economic development in Asia-Pacific region countries (mainly China and India), the non-uniform economic development of a number of countries, and continued high demand for energy in the traditional economic sectors established during the period of industrialization.

Together with these factors, we are also facing the challenges of the 21st century, which are already impacting the global economy and the oil and gas industry and shaping a new political and energy landscape. The 2018 World Economic Forum report indicates a range of global risks, with destructive potential for various complex economic, environmental, and social systems.

• Climate change and growing political instability were cited as being the most dangerous risks for humanity.
• A slowing of globalization processes and weakening confidence in international institutions could significantly change the international trade system as well as economic activity trends.
• The collapse of ecosystems and the accelerated disappearance of biodiversity could lead to food crises and man-made environmental disasters.
• Increasing cyber-dependence and cyberattacks pose a significant threat in terms of potential operational failures of the systems that govern key sectors of the global economy. This risk stems from a gap between people’s ability to create software products and their ability to control them.

In view of the global nature of the oil industry, these threats may have a significant impact on its future development. The UN Sustainable Development Goals to a large extent define the mechanisms and areas for combating negative scenarios. That is why we support this strategic platform and seek to contribute to combined efforts to attain respective goals.

At the same time, changes in the energy balance are already taking place within the sector itself and in developed markets. These changes require oil and gas companies to adopt more flexible strategic approaches. The main trends that could to a greater or lesser extent influence LUKOIL’s operations include the following:

• A gradual change in demand for primary energy sources based on the continuing growth observed in the electric vehicle segment.
• Increased economic competition as the global energy sector becomes more competitive.

Vagit Alekperov, speech to the Board of Directors, January 2019

1 Hereinafter, Sustainable Development Goals (or SDGs) mean the goals and targets set forth in the document 2030 Agenda for Sustainable Development adopted in September 2015 at the UN Summit
Changes in investment flows, as some companies representing the investment community diversify their strategies with regard to carbon-based assets.

The yearly report of the UN Secretary-General “Progress towards the Sustainable Development Goals” for 2018 outlines the global community’s success in achieving a number of social indicators in the fields of education, health care, and social welfare (e.g. reducing the poverty level). However, the report also draws attention to an increase in greenhouse gas emissions and energy consumption for the first time since 2015, which represents an alarming trend.

In Russia, strategic development priorities are mainly socially oriented. A Russian Presidential Decree sets out national strategic development priorities and goals up to 2024 - these include achieving a twofold reduction in poverty, ensuring sustainable growth in the real income of the population, accelerating the development of technology, and facilitating an accelerated implementation of digital technologies in the economy and in the social sphere. The main areas of strategic development include health care, education, the environment, supporting employment, the digital economy, and small business development.

LUKOIL Sustainability Strategy is fully consistent with national priorities related to social and environmental programs.

Trends in Russia and worldwide contain both risks and opportunities. We believe the main ways that the oil industry can adapt to change are through enhanced production efficiency and accelerated technological development.

LUKOIL invests considerable efforts in retaining its leadership position in the new environment.

Key performance indicators

Since 2003, the Company has implemented a performance assessment system based on key performance indicators (KPIs). The list of KPIs includes indicators that illustrate resource efficiency (e.g. the level of APG use) and HSE (health, safety and environment) efficiency. The indicator “Assurance of the required HSE level in LUKOIL Group entities” is comprehensive in nature and takes into account injury rates and environmental impact factors (specific pollutant emissions into the atmosphere, specific discharges of wastewater effluents into the atmosphere, and the ratio of waste disposed of during the year to newly generated waste). The value of this indicator is established by a decision of the Management Committee of PJSC LUKOIL. In 2018 the KPI was achieved.

KPIs are motivational in nature and are taken into account when determining the level of remuneration of LUKOIL Group executive employees.

For more information about the status of achieving KPIs see the section “Performance Assessment System” in the 2018 Annual Report.

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2 Russian Presidential Decree of May 7, 2018 “On National Goals and Strategic Objectives to Develop the Russian Federation up to 2024”
STRATEGIC GOALS OF LUKOIL GROUP

In 2017, during the drawing up of LUKOIL Group’s Strategic Development Program for 2018–2027, four strategic objectives of LUKOIL Group in the field of sustainable development were identified.

THE MAIN RESULTS FOR 2018 TESTIFY TO THE SUCCESS ACHIEVED IN MEETING THESE GOALS.

Goal I.
Industrial and environmental safety, reliability and efficiency of processes

We are committed to improving occupational safety, preventing on-the-job injuries, ensuring that our production facilities operate accident-free, and continuously reducing our environmental impacts.

Goal II.
Competitiveness

In a rapidly changing business environment, maintaining and improving the Company’s competitiveness is a fundamental prerequisite for successful development. We are committed to boosting the overall productivity of our operating activity and to achieving a more rational and efficient use of resources (natural, human, production, and financial).

Goal III.
Social responsibility, worthy contribution to social development

We are a major employer, taxpayer, product supplier, and consumer of goods and services. We take a very responsible attitude towards our stakeholders, and always take their needs into account. We have a comprehensive social policy in place for our workers, and make a significant contribution to improving living standards in the regions where we operate.

Goal IV.
Return on equity, recovery of investments, and the continuous creation of shareholder value

We maintain a flexible and effective reinvestment policy, work constantly to improve performance, and foster continuous technological development. The successful implementation of our strategy will allow us to retain our competitive advantages, continuously create shareholder value, and boost the investment appeal of the Company.
MAIN RESULTS OF 2018

Adverse environmental impacts were mitigated as compared to 2017:
• The level of beneficial use of associated petroleum gas (APG) rose by 2 percentage points and stood at 97% in LUKOIL Group
• Greenhouse gas emissions declined significantly (by 4%)
• A seven-year record low ratio of pipeline failures was achieved (0.09 cases per 1 km annually)

The number of labor injuries among contractors’ employees fell substantially.

• The Information Strategy of LUKOIL Group was adopted, and preparations for the wide-scale digitalization of the Company are under way.
• An integrated program to cut costs, boost efficiency, and reduce the accident rate and downtime is being implemented.
• The oil refining yield rose by 1 percentage point compared to 2017, to 88%.
• The output of light petroleum products stood at 71%.
• Sales of products with high added value and enhanced environmental characteristics increased.

• The employees of Russian entities received over 200,000 health-related services.1
• Over 200,000 training courses were held for LUKOIL Group employees.
• The share of local executives in the foreign entities of LUKOIL Group was 31%.
• 773 projects developed by regional residents received support as part of the Competition of Social and Cultural Projects.

Record-breaking financial results were achieved:
• The revenue of LUKOIL Group stood at RUB 8,036 billion, up 35% on 2017
• Free cash flow amounted to RUB 555 billion, up 125% on 2017
• Dividends paid on shares, together with the redemption of shares, amounted to RUB 218 billion, a rise of 47% on 2017

1 A service provided to an employee within the framework of social programs means the provision of a service following an application submitted by an employee, or payment or compensation for it.
OUR CONTRIBUTION TO UN SUSTAINABLE DEVELOPMENT GOALS IN 2018

Total amount invested in projects correlating with UN Sustainable Development Goals

208.9 RUB billion

Taking into account the strategic benchmarks of LUKOIL Group, the experience of the Company in implementing environmental and industrial safety programs, the social programs for the employees of our organizations and the regions in which our enterprises operate, and the expectations of our stakeholders, we have determined 11 UN Sustainable Development Goals and 15 targets as priorities.

These goals and targets complement operational programs implemented in LUKOIL Group entities and form part of overall corporate planning and budgeting. That is why we believe that their implementation, in conjunction with other steps taken by the Company, to a large extent defines the positive contribution of LUKOIL Group to attaining global UN Sustainable Development Goals.

Goal 4.4. By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.

OUR POSITION
We believe the standard of education provided impacts the well-being of people and society; hence, by supporting schools and higher educational institutions we lay the foundation for future decent employment and economic growth in the regions where we operate.

OUR PROGRAMS
A comprehensive interaction program between LUKOIL Group entities and higher education institutions specializing in oil and gas, chemistry, and energy
- Support programs for students and teachers of higher and secondary education establishments in Russia
- Personnel education programs
- Charitable support for schools and educational institutions/centers

Goal 5.5. Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

OUR POSITION
We share ILO standards related to ensuring decent and productive work for women and men in conditions of equality of opportunity, social guarantees, and respecting human dignity and respect.

FINANCING IN 2018
913 RUB million
**Goal 6.3.** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.

**Goal 6.4**. By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

**Goal 7.2.** By 2030, increase substantially the share of renewable energy in the global energy mix.

**Goal 7.3.** By 2030, double the global rate of improvement in energy efficiency.

**OUR POSITION**

Improved energy efficiency is one of the main prerequisites for the Company’s competitiveness amid a global trend of transitioning to a low-carbon economy. Through implementing our RES projects, we increase the share of affordable “clean” energy.

**OUR PROGRAMS**

Energy conservation programs of LUKOIL Group entities

- Renewable Energy Sources (RES) development projects

**Goal 8.3.** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation.

**Goal 8.8.** Protect labor rights and promote safe and secure working environments for all workers.

**OUR PROGRAMS**

- Social programs and training programs for employees, as well as labor costs
- The Industrial Safety, Better Working Environment, Emergency Prevention, and Responses Program of LUKOIL Group entities (Occupational Safety Sub-Program)

**OUR POSITION**

We recognize employees’ right to decent work, create the necessary conditions to ensure that they work productively, and implement relevant social and occupational health and safety programs.

**FINANCING IN 2018**

- **Goal 6.3.**: 3,010 RUB million
- **Goal 7.2.**: 4,004 RUB million
- **Goal 8.3.**: 153,996 RUB million
Goal 9.4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.

**OUR POSITION**
We invest in upgrading and building new production equipment and implement the best available technologies, thereby increasing production efficiency in this area.

**OUR PROGRAMS**
R&D

Digital Development Programs for each business segment as a part of LUKOIL Group Information Strategy

Goal 12.5. By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.

**OUR POSITION**
Our approach entails preventing waste accumulation and reducing its generation whenever possible. We are committed to producing ‘cleaner’ and more energy efficient products.

**OUR PROGRAMS**
The environmental safety program of LUKOIL Group entities, the Waste Sub-Program

Goal 13.1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

**OUR POSITION**
We recognize the importance of actions to prevent climate change and support global efforts to reduce greenhouse gas emissions.

**OUR PROGRAMS**
The environmental safety program of LUKOIL Group, the Pure Air Sub-Program

The program for rational APG use by LUKOIL Group entities

**FINANCING IN 2018**

**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**

| 6,200 | RUB million |

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

| 3,579 | RUB million |

**13 CLIMATE ACTION**

| 19,253 | RUB million |
**Goal 14.1.** By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution. Goal 14.5. By 2020, conserve at least 10 percent of coastal and marine areas.

**OUR POSITION**
For marine ecosystems conservation purposes, we adopt a “zero discharge” principle, which is the main protection mechanism, and perform environmental monitoring, and other activities.

**OUR PROGRAMS**
The environmental safety program of LUKOIL Group entities, the Biodiversity Conservation Sub-Program

- Industrial environmental controls
- Emergency prevention and mitigation
- A Biodiversity Preservation Program for the Company’s facilities operating in the Russian Arctic Zone

**Goal 15a.** Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.

**OUR POSITION**
Biodiversity is necessary for conserving healthy ecosystems and human habitat. Our work on conserving biodiversity is based on the principle prevent – reduce – restore – compensate.

**OUR PROGRAMS**
An environmental safety program, the Biodiversity sub-program

- A reclamation sub-program

**Goal 17.17.** Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partners.

**OUR POSITION**
Partnership is the main principle of our interaction with society.

**OUR PROGRAMS**
Participation in the World Bank project and in the UN Global Compact initiative

**FINANCING IN 2018**
- **15,381** RUB million
- **2,452** RUB million
- **317** RUB million
Digitalization Program

In 2018, the Digital Development Program (LUKOIL Group Information Strategy) was approved. Its execution will to a great extent facilitate the attainment of all four strategic sustainable development goals, including the following:

- Boosting the efficiency of field development
- Optimizing technological processes
- Reducing losses and operating costs, reducing energy consumption
- Improving labor efficiency, expanding the automation of personnel management processes
- Enhancing the quality of work management and performance based on accurate and pertinent information
- Improving labor safety and preventing accidents through the professional development of personnel and tightening controls over compliance with occupational and industrial safety rules

Digital initiatives are being developed in four areas: “Digital Twin,” “Digital Staff,” “Robotization of Routine Processes,” and “Digital Ecosystem.”

As part of the Digital Twin initiative, there are plans to develop “intelligent field” (in the Upstream segment) and “digital plant” (in the Downstream segment) technologies.

In the oil processing industry, digitalization is used to solve tasks related to flexible responses to changes in demand, efficient capacity utilization, production and process safety, and greater workforce productivity.

In the electrical power segment, digital initiatives will contribute to the greater efficiency and reliability of generating equipment, more accurate monitoring of losses, and preventing non-routine events.

Oil product supply companies will gain additional possibilities to improve their customer-oriented approach and to maintain the quality of their products.

The robotization initiative has a pass-through nature and entails the automation of simple operations using robots and transitioning from human to digital labor.

As part of the Digital Personnel initiative it is planned to train employees to use modern digital devices, with a view to increasing their labor productivity. The program also comprises plans for the digitalization of HSE processes. For example, intelligent monitoring systems (computer vision) will automatically detect workers who are not wearing safety helmets or dressed in work clothes at facilities.

Digital technologies are intended to be used to optimize the supply chain and to increase the speed, quality, and flexibility of production processes.

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1 Intelligent Field is an automated management system for oil and gas production operations that facilitates the continuous optimization of the field’s integral and production management models.

2 Digital Plant is a unified integrated digital system that unites a chain of employees, systems, and equipment and enables up-to-date information at all production stages to be received.
Governance structure

Oversight concerning the setting and meeting of respective aims and objectives is exercised at strategic (the Board of Directors of PJSC LUKOIL, the Management Committee of PJSC LUKOIL, Strategy, Investment, and Sustainability Committee of the Board of Directors of PJSC LUKOIL) and operational (the Management Committee of PJSC LUKOIL, LUKOIL Group entities) levels.

Sustainability management system structure at PJSC LUKOIL

<table>
<thead>
<tr>
<th>Management level</th>
<th>Sustainability directions</th>
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</thead>
</table>
| **The Board of Directors of PJSC LUKOIL**  
Chairman: Valery Grayfer | Issues considered at Board of Director meetings include the following:  
• Monitoring and assessing the results of the Environmental Safety Program and the Industrial Safety, Better Working Environment, Emergency Prevention, and Responses Program of LUKOIL Group Entities  
• Annually reviewing the report “The State of HSE in LUKOIL Group”  
• Reviewing information about major incidents and accidents, their causes, the results of response measures, as well as actions taken to mitigate similar risks in the future |
| **Strategy and Investment Committee of the Board of Directors of PJSC LUKOIL**  
Chairman: Igor Ivanov, independent member of the Board of Directors | The committee oversees:  
• Prepares recommendations for the Board of Directors on:  
  – activities in the sphere of sustainable development  
  – developing and enhancing corporate governance and sustainability systems and practices  
  – updating the strategy for environmental and industrial safety and social responsibility  
• Monitors the improvement of the HSE Management System of LUKOIL Group  
• Analyzes the causes behind industrial and environmental accidents, which are then reported to Board of Director members  
• Reviews the Sustainability Report of LUKOIL Group  
• Oversees:  
  – progress on activities, projects, and programs in various areas of sustainable development  
  – interactions with internal and external stakeholders on sustainable development issues  
• Evaluates the Company’s long-term performance |
| **The Audit Committee of the Board of Directors of PJSC LUKOIL**  
Chairman: Viktor Blazheyev, independent member of the Board of Directors | The Committee oversees:  
• Processes that ensure the reliable and effective functioning of the risk management and internal control systems  
• Procedures that ensure compliance with legislative requirements, corporate ethical standards, respective rules and procedures, and the requirements of stock markets  
• The functioning of the system to notify potential cases of unfair actions of LUKOIL Group entity employees and third parties, as well as other violations within the Company’s operations |
| **HR and Compensation Committee (HRCC)**  
Chairman: Roger Munnings, independent member of the Board of Directors | The committee oversees:  
• Prepares proposals for the Board of Directors to develop corporate personnel policy  
• Makes annual assessments of the performance of the Board of Directors and its members  
• Develops and periodically revises the Remuneration Policy for Board of Director members, the Management Committee, and the President of the Company, and also monitors its implementation |

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3 The Committee was renamed in March 2019 the Strategy, Investment, and Sustainability Committee of the Board of Directors of PJSC LUKOIL (by a decision of the Board of Directors dated March 6, 2019, Minutes No. 4).  
4 Decision of the Board of Directors, protocol No. 4 dated March 6, 2019.
# Management level

### The Management Committee of PJSC LUKOIL

President and Chairman of the Management Committee: Vadit Alekperov

Carries out the management of the Company. Issues considered at Management Committee meetings include the following:

- The progress and implementation of target programs and development plans, and approving their results
- Decision-making on strategic HSE issues in LUKOIL Group, determining and approving the policy in this area, and analyzing and enhancing the system’s performance
- Approving the Environmental Safety Program and the Industrial Safety, Better Working Environment, Emergency Prevention, and Responses Program of LUKOIL Group Entities
- The functioning of the risk management and internal control systems

### The Corporate Secretary of PJSC LUKOIL

Natalia Podolskaya

The Corporate Secretary of PJSC LUKOIL and the Office of the Corporate Secretary:

- Interacts with the Board of Directors and its committees on sustainable development issues
- Initiates activities aimed at improving the quality of sustainability management, with a view to their deeper integration into business processes
- Takes part in coordinating the preparation of sustainability reports
- Interacts with stakeholders and responds to questions from shareholders and investors about the Company’s performance in the sphere of sustainability

### The Working Group on the Sustainability Report

Head: Yevgeniy Khavkin, member of the Management Committee of PJSC LUKOIL, Vice President and Chief of Staff of PJSC LUKOIL

The Working Group on the Sustainability Report:

- Organizes communications and interactions among PJSC LUKOIL business units whose operations relate to sustainability, and assigns respective tasks to implement changes in management systems for sustainability reporting
- Organizes and monitors the process of drafting the Sustainability Report
- Takes measures to improve the system for collecting, preparing, and disclosing reporting information
- Considers other sustainability related issues

### The Health, Safety, and Environment (HSE) Committee of PJSC LUKOIL

Chairman: Ravil Maganov, First Executive Vice President of PJSC LUKOIL

The Health, Safety, and Environment (HSE) Committee:

- Develops the HSE Policy and sets objectives, targets, and KPIs for LUKOIL Group entities
- Analyzes the impact of HSE initiatives
- Assesses whether LUKOIL Group operations comply with applicable legislative and other HSE requirements
- Prepares proposals to enhance LUKOIL Group HSE Management System

# LUKOIL Group entities

### Heads of LUKOIL Group entities

Make operational decisions at enterprise level to ensure that industrial safety, environmental protection, and injury rate targets are attained as required. Ensure that the target indicators approved by the Corporate Center are attained.

### Heads of dedicated business units

Provide leadership on the implementation of strategic and target programs.
Board of Directors

The role of the PJSC LUKOIL Board of Directors (hereinafter, the Board of Directors) in promoting sustainable development is strategic in nature and focuses on LUKOIL Group entities attaining high safety standards as well as an appropriate level of responsibility and ethics. With extensive experience in business and working for public organizations, Board members have expertise in such areas as industrial safety, occupational health and environmental protection, HR management, and risk management.

Each year the Board receives a strategic analysis of key trends in the oil and gas sector, which are associated, among other things, with transformational processes in the global energy sector. For example, in 2017 the report was devoted to boosting energy efficiency in the automotive sector and changes in the electric car fleet.

In 2018, the development outlook for a low-carbon economy was published. Based on a review of the related report, the Board of Directors set the following objectives for 2019:

- Analyze the Company’s operations in terms of climate issues
- Analyze growth opportunities in the context of transitioning to a low-carbon economy
- Develop the gas strategy of LUKOIL Group
- Prepare a renewable energy sources (RES) development program
- Continue integrating sustainable development issues into the processes of planning and assessing the attainment of results

In 2018, the Board of Directors assessed and approved activities to improve levels of health, safety, and environmental protection as well as measures for their further enhancement, including developing leadership mechanisms, improving the culture of safety and sustainable development, and replicating best practices.

The list of issues considered by the Board in 2018 comprised:

- Progress on drafting the Sustainability Report of PJSC LUKOIL for 2017
- The functioning and improvement of the risk management and internal control systems
- The functional program “Information Strategy of LUKOIL Group”
- Amending the PJSC LUKOIL Code of Business Conduct and Ethics
- Occupational health and safety activities and measures to increase workplace safety

For more information about the competences of members of the Board of Directors of PJSC LUKOIL, see the 2018 Annual Report (page 91).
The Strategy and Investment Committee

A leading role in enhancing the sustainability performance of LUKOIL Group is assigned to one of the three committees of the PJSC LUKOIL Board of Directors: the Strategy and Investment Committee. In 2019, amendments were made to the Regulation on the Strategy and Investment Committee in order to expand its functions for coordinating sustainability activity within LUKOIL Group, including evaluating issues regarding the improvement and planning of activities, and sustainability reporting.

Mrs. Toby Gati, a member of the Board of Directors as well as the Strategy and Investment Committee of the PJSC LUKOIL Board of Directors, advises on issues related to information disclosure about the Company’s efforts in the area of sustainability and how public reports are received by foreign audiences (including UN organizations, the investment and financial community, and other stakeholders).

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1 In accordance with the recommendations of the Corporate Governance Code, executive directors are understood to be not only members of the Management Committee of PJSC LUKOIL, but also individuals that have a contractual relationship with the Company.

2 Appendix 7 to Minutes No. 13 of the PJSC LUKOIL Board of Directors meeting dated October 19, 2018: Supplement to the Regulation on the Strategy and Investment Committee of the Board of Directors of PJSC LUKOIL. Clause 2.1, Section 2 of the Regulation will be supplemented with a new Sub-Clause 2.1.3, to read as follows: “2.1.3. Considering the matter of drafting the Sustainability Report of LUKOIL Group.”
Igor Ivanov, Chairman of the Strategy and Investment Committee, plays an active role in sustainability issues, and in 2018 he initiated considering integrating digital technology and artificial intelligence into business processes throughout the value creation chain.

In order to extend the competences of the heads of key business units at PJSC LUKOIL, in 2018 the Strategy and Investment Committee and the Working Group on the Sustainability Report, with the support of the Board of Directors, held a training session where the principles of sustainable development and global UN Sustainable Development Goals, best practices, and contemporary non-financial reporting trends were discussed. A similar training is planned for the heads of LUKOIL Group entities.

Audit Committee

In 2018, the main objective of the Audit Committee was to organize work to align the internal control system in LUKOIL Group entities with the approaches and principles of the Risk Management and Internal Control Policy of PJSC LUKOIL.

During the reporting year the Committee paid significant attention to fraud in respect of LUKOIL Group, in the form of false offers made on behalf of its entities. The Company promptly reacted to such cases and published its official position on the corporate website.

HR and Compensation Committee (HRCC)

In 2018, at meetings of the HR and Compensation Committee, the following issues were considered in relation to implementing personnel-related HR and social policies:

- Personnel management work in LUKOIL Group entities
- Employee turnover in LUKOIL Group;
- Recommendations to the Board of Directors for amending the Code of Business Conduct and Ethics of PJSC LUKOIL
- Amending the Regulation on the Labor Compensation and Incentives System for Executive Personnel of PJSC LUKOIL
- The long-term motivation of key LUKOIL Group employees in 2018–2022

Sustainability Report Working Group

Since 2017, the Sustainability Reporting Working Group (hereinafter, the Working Group) has been functioning at the Company. It is responsible for improving the system of collecting, processing, preparing, and disclosing information in the area of sustainable development and facilitating the greater integration of related issues into LUKOIL business model. The Working Group consists of the heads of key departments dealing with relevant business processes and risks.

At its meetings the Working Group shapes the overall corporate position on pressing sustainability issues and considers objectives related to developing LUKOIL Group activities in this area.

In 2018, the Working Group initiated setting up an internal sustainability portal, to be used as a corporate tool for collecting and storing non-financial information and elaborating internal solutions. The portal is used to:

- Ensure that effective communication channels are in place with the Board of Directors on sustainability issues
- Process incoming requests related to sustainable development
- Increase the transparency of non-financial reporting and enhance the interaction process among its internal participants and stakeholders

Based on the results of 2018, projects to further bolster the sustainability management system were initiated, including:

- Developing the Sustainability Policy of PJSC LUKOIL
- Developing the Regulation for Drafting the Sustainability Report of LUKOIL Group, with due regard for the recommendations of report audits conducted in 2017–2018.
HSE Committee of PJSC LUKOIL

This committee was set up in 2016 to improve LUKOIL Group’s HSE Management System. The committee is headed by a member of the Board of Directors, Ravil Maganov, and provides information to the Board of Directors about industrial safety, labor protection, and the environment. Each year the Board of Directors is presented with a report on the management system in these areas and the results of operations and measures taken to improve management quality and efficiency.

At committee meetings the results of executing target programs, the report on the state of the risk management system, new legislative requirements, and other topics are considered. In 2018 the committee considered the following issues:

- New legislative requirements in the sphere of HSE
- Material environmental risks, aspects, and benchmarks, including in relation to PJSC LUKOIL’s participation in the “Zero Routine Flaring by 2030”
- Initiative and the increased attention of stakeholders towards climate change
- Further developing the safety culture and the holding of Safety Days, etc.

Emergency and failure warning system

The Company employs an emergency and failure observation, warning, communications and notification system that covers all management levels of LUKOIL Group, including the Board of Directors and the HSE Committee of PJSC LUKOIL. The system’s operation is regulated by standards and bylaws that were elaborated based on legislative requirements.

To improve PJSC LUKOIL’s responsiveness to potential failures that carry a risk of severe consequences (employee fatalities or significant material damage), the Emergency Response Center of PJSC LUKOIL was set up, with a view to eliminating accidents at hazardous production facilities of LUKOIL Group entities.

Corporate Secretary

In 2018, the Corporate Secretary Natalia Podolskaya paid great attention to sustainability issues. Since sustainable development was determined as being one of the Company’s strategic development goals, the efforts of the Corporate Secretary were aimed at supporting respective initiatives and obtaining maximum benefit from the experience of Board members who have exceptional capabilities in this area. In particular, during the reporting year the Corporate Secretary organized a speech by Mrs. Toby Gati, a member of the Board of Directors of PJSC LUKOIL, at a Russian Institute of Directors conference dedicated to corporate governance, where a wide range of corporate governance issues was discussed.

As a member of the Sustainability Reporting Working Group, the Corporate Secretary plays an active role in coordinating the drafting of the non-financial reporting of LUKOIL Group, interacts with dedicated business units of the Company and members of the Strategy and Investment Committee of the Board of Directors of PJSC LUKOIL. During the year the Corporate Secretary of PJSC LUKOIL took part in forums held by the professional community to exchange opinions on approaches to developing corporate sustainability management systems.
Awards received in 2018

At the XXI Annual Competition of the Moscow Stock Exchange the Company’s 2017 Sustainability Report won a prize in the special category “Best Corporate Social Responsibility and Sustainability Report” established by the Russian Union of Industrialists and Entrepreneurs.

LUKOIL received a diploma in the category “Best Public Non-Financial Report of a Company in the Oil and Gas Sector with More Than 100,000 Employees” in a competition held by the Russian Ministry of Energy to establish the best socially-oriented company in the oil and gas sector in 2018.

LUKOIL won the All-Russian RSPP Competition “Leaders of Russian Business. Dynamics, Responsibility, Sustainability 2018” in the category “High Quality of Sustainability Reporting.”

Based on the performance results of 2018, the professional community praised the work of the Company’s Corporate Secretary: Natalia Podolskaya received an award in the 8th National “Director of the Year” Awards, in the category “Corporate Governance Director / Corporate Secretary of 2018.”

On July 4-5, 2018, the International Forum of Corporate Secretaries “Corporate Secretary and Corporate Governance: New Challenges and Old Problems” was held. At the forum Natalia Podolskaya delivered a report on the Company’s non-financial reporting system and on the management of aspects of sustainability.

SUSTAINABILITY RISKS IN THE RISK MANAGEMENT SYSTEM

The Company’s management team pays significant attention to risk management in order to ensure a reasonable guarantee of attaining strategic goals against a backdrop of uncertainty and negative factors.

PJSC LUKOIL regularly determines, describes, assesses, and monitors potential events that could negatively impact the Company’s activities, and elaborates measures to prevent their manifestation or to mitigate their adverse impacts as much as possible should they materialize.

Risk management is carried out at all levels: in LUKOIL Group entities and PJSC LUKOIL and at the level of the Board of Directors. Information about the risk profile of LUKOIL Group entities is included in the annual reports, which are reviewed by the Board of Directors of PJSC LUKOIL and the Audit Committee of the Board of Directors of PJSC LUKOIL.

Sixteen groups of the most material risks affecting the business activities of LUKOIL Group entities were determined, and these undergo annual qualitative and quantitative assessments based on the likelihood of the risk arising and the extent of the consequences. For each material risk, an acceptability level and measures to mitigate or eliminate its negative impacts are developed. Employees from the Risk Management Department and dedicated units monitor the implementation of these measures and their effectiveness.

Given the uncertain nature of risks, as well as their external nature in relation to the Company, PJSC LUKOIL cannot guarantee that risk management measures will fully eliminate the negative impacts of risks. By reporting on identified risks, we inform stakeholders about the existence of certain circumstances that could worsen the Company’s performance indicators.

Furthermore, PJSC LUKOIL invests considerable efforts in mitigating risks associated with its production operations in the regions where the Company operates.

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List of main sustainable development risks

<table>
<thead>
<tr>
<th>Description of risk category</th>
<th>Risk management and mitigation measures</th>
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<tbody>
<tr>
<td><strong>HSE risks</strong></td>
<td>To mitigate these risks, an integrated HSE management system has been created and is successfully operating. The following activities are implemented:</td>
</tr>
<tr>
<td></td>
<td>• Targeted corporate industrial and environmental safety programs.</td>
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<tr>
<td></td>
<td>• Production supervision over the operation of hazardous production facilities.</td>
</tr>
<tr>
<td></td>
<td>• Diagnostics (non-destructive testing) and monitoring of equipment parameters.</td>
</tr>
<tr>
<td></td>
<td>• The repair and timely replacement of equipment.</td>
</tr>
<tr>
<td></td>
<td>• Ensuring the implementation of requirements in the field of industrial safety, labor and environmental protection related to contractors, at all stages of interaction with them.</td>
</tr>
<tr>
<td></td>
<td>• Leadership development and promoting a culture of safety.</td>
</tr>
<tr>
<td></td>
<td>• Ensuring that personnel of all levels are suitably qualified.</td>
</tr>
<tr>
<td></td>
<td>• Special assessments of working conditions, improving the working conditions of employees.</td>
</tr>
<tr>
<td></td>
<td>• Developing action plans to localize and eliminate the consequences of accidents at hazardous production facilities, spill response plans for oil and petroleum products, creating a reserve of means to eliminate emergencies and emergency situations, trainings for personnel serving at hazardous production facilities and for rescue teams to prevent and respond to emergency situations.</td>
</tr>
<tr>
<td></td>
<td>• Other measures to reduce accidents and labor injuries at LUKOIL Group entities.</td>
</tr>
</tbody>
</table>

See the “Environmental Protection” and “Industrial Safety and Health Protection” sections of the Report for details.

<table>
<thead>
<tr>
<th>Risks associated with climate change</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The toughening of carbon regulation rules in various countries, together with changes in the investment strategies of financial market participants, could have negative impacts on the activity of PJSC LUKOIL as a large producer of fossil fuels and an emitter of greenhouse gases, in the form of increased costs and a decrease in efficiency. In addition, PJSC LUKOIL operates in regions where the potential physical impact of climate change is rather unpredictable and can cause significant negative impacts.</td>
<td>To mitigate these risks, the Company:</td>
</tr>
<tr>
<td></td>
<td>• Monitors greenhouse gas emissions and plans measures for their regulation.</td>
</tr>
<tr>
<td></td>
<td>• Continuously monitors regulatory changes related to climate change and implements measures to obtain information about such changes, and also ensures the participation of the Company’s representatives in these discussions to explain in detail the Company’s position in relation to the issues, as well as possible risks and uncertainties arising from new legislative initiatives.</td>
</tr>
<tr>
<td></td>
<td>• Takes into account climate change risks in the design engineering and construction of facilities in vulnerable territories (the Far North, coastal regions).</td>
</tr>
</tbody>
</table>

See the “Climate Change” section of the Report for details.
<table>
<thead>
<tr>
<th>Description of risk category</th>
<th>Risk management and mitigation measures</th>
</tr>
</thead>
</table>
| **Risk of insufficiently qualified staff** | Insufficiently competent or qualified employees can have a negative impact on the Company’s performance results. In order to reduce the negative impacts of this risk, the Company pays key attention to the integrated development of human resources:  
- A talent pool has been created and is replenished with the most experienced and promising employees.  
- Young specialists and graduates are recruited from leading higher educational institutions.  
  See the “HR Management” section of the Report for details. |
| **Risk of loss of goodwill (reputational risk)** | PJSC LUKOIL encounters various factors that could result in reputational risk, including violations of legislation, defaulting on contractual obligations, the quality of finished products, and negative perceptions surrounding the financial stability and position of the Company. In order to manage this risk the Company implements measures aimed at:  
- Maintaining regular communications with stakeholders.  
- Providing timely and objective information on financial and operational performance indicators.  
- Providing constant monitoring of compliance with legislation and current agreements, and timely payments to contractors. The Company provides high quality of products and services: a Hotline has been set up to promptly respond to complaints and suggestions related to the operation of fueling stations. The Company pays great attention to safety and environmental issues and is guided in its activity by the highest industrial safety, labor protection, and environment standards. The Company attaches great importance to the organization of working conditions and social responsibility. Programs are in place to maintain and improve an effective system of labor protection and social safety.  
  See the “Product Quality” section of the Report for details. |

The risk management system also comprises the following categories, which include risks and measures for their mitigation: strategic, country, competition, macroeconomic, financial, legal, and industry specific risks, and risks related to acts of terrorism and illegal actions by third parties.

A full description of respective risks and the measures applied to manage them is disclosed in regular reports to the London Stock Exchange and the regulator of the Russian stock market (FFMS), as well as in the annual reports of PJSC LUKOIL.
ETHICS, HUMAN RIGHTS, AND STATUTORY COMPLIANCE

We consider compliance with legislative requirements and the provisions of international laws and international treaties of the Russian Federation to be the basis of our sustainability activities. We pay particular attention to strengthening corporate ethics and culture, believing them to be the core mechanism for preventing violations.

The ethical standards of LUKOIL Group cover all aspects of business ethics, including:
- Respect for human rights (including labor rights, the rights of local communities and small indigenous peoples, and freedom of association and trade union activity)
- Zero tolerance towards and combatting corruption and fraudulent activities
- Adherence to the rules of fair competition

The corporate documents contain the Company’s official position, rules of conduct, and obligations in relation to both mutual relationships with the personnel of the Company and interaction with external stakeholders. The documents set forth an intention to apply the rules of conduct (including with regard to respect for human rights) to relations with partners, suppliers, and contractors through respective notifications.

In 2018 a new Code of Business Conduct and Ethics, reflecting the best international practices and standards of business ethics, was adopted. The document was supplemented with new sections: “Human rights and working atmosphere,” “Information transparency and reporting accuracy,” and “Customers,” as well as anti-corruption principles, including the principle of the equal access of all companies to tendering and prohibiting any payments to government officials.

Detailed information about the Code of Business Conduct and Ethics can be found in the Annual Report (page 124).
Main documents governing the rules of corporate ethics

- The Code of Business Conduct and Ethics of Public Joint-Stock Company “PJSC LUKOIL” (approved by Minutes No. 17 of the PJSC LUKOIL Board of Director meeting dated December 11, 2018)
- The Social Code of PJSC LUKOIL (approved in Appendix 6 to Minutes No. 16 of the PJSC LUKOIL Board of Director meeting dated October 24, 2017)
- The Global Framework Agreement between the IndustriALL Global Union, the Russian Oil and Gas Workers Union, PJSC LUKOIL, and the International Association of Trade Union Organizations (IATUO) of PJSC LUKOIL (governs respecting human rights in the workplace and in local communities)

The rules for observing labor rights are also recorded in the following documents:

- Agreements between PJSC LUKOIL and the International Association of Trade Union Organizations (IATUO) for Foreign Organizations for 2018–2020.

Business Ethics Commission

The key body that monitors compliance with corporate ethics standards is the Business Ethics Commission, which was set up to consider issues related to compliance with business ethics and any violations of the Code of Business Conduct and Ethics. The commission is chaired by the President of PJSC LUKOIL, who ensures that members of the Board of Directors deal with issues related to compliance with the ethical principles of the Company. If any issues arise that require the attention of the Company’s management, they are escalated to the Chairman of the Commission.

Stakeholders can contact the Business Ethics Commission via all available communication channels, including in English (e-mail: ethics@lukoil.com, available 24/7; writing to the Business Ethics Commission; via telephone). The Business Ethics Commission’s contact details are available in the Code of Business Conduct and Ethics of PJSC LUKOIL, which can be accessed on the external corporate websites www.lukoil.ru and www.lukoil.com.

The confidentiality of an individual reporting a violation is guaranteed. The individual reporting a violation is also entitled to contact the higher management bodies of the Company (Committees of the Board of Directors, the Board of Directors, Meetings of Shareholders) and state supervisory agencies if the individual in question finds that the measures taken with respect to their query were unsatisfactory or believes that, in the course of its consideration, the standards guaranteed by the Code of Business Conduct and Ethics or other rights of the applicant were violated.

The Code of Business Conduct and Ethics is a corporate-wide document, hence compliance with corporate ethical standards is binding upon all employees of LUKOIL Group entities, including foreign ones. Responsibility for compliance by personnel with the Company and the entity’s bylaws is borne by the heads of entities.

In 2018, the Business Ethics Commission received four queries that were unrelated to a breach of ethical standards or human rights (consultations about relations with a contractor and on mutual relations among staff were requested).
Statutory compliance

LUKOIL Group Antitrust Policy is based on the principles of legality, fair competition (supporting and encouraging free and fair competition), employee awareness of the requirements of current antitrust legislation, and personal liability for respective violations.

Thanks to the consistent implementation of LUKOIL Group Antitrust Policy measures, the number of cases related to violations of antitrust legislation by LUKOIL Group entities continues to decline.

<table>
<thead>
<tr>
<th>Compliance with antitrust legislation by LUKOIL Group entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
</tr>
<tr>
<td>Number of closed cases of antitrust legislation violations</td>
</tr>
<tr>
<td>Total monetary amount of material penalties for antitrust legislation violations, RUB million</td>
</tr>
</tbody>
</table>

Notes. 1) Administrative fines exceeding RUB 100,000 are considered to be material penalties. The total monetary amount of the fines indicator reflects the number of cases completed in the corresponding reporting period, including those begun in previous years. (The process for considering cases until the issue of the final decision can take varying periods of time.) 2) The information provided for 2018 relates to cases associated with the conclusion of contracts with consumers by two heat supply organizations of the “Electric Power Generation” business sector.

In 2018, the Company did not pay any material fines for violations of laws in other areas of operations (the materiality criterion in this respect is defined in IFRS).

Human rights

As an international company that operates in countries with various political systems and cultural traditions, LUKOIL recognizes the importance of respecting and observing fundamental human rights declared by the United Nations, including labor rights, the right to a healthy environment, and the rights of small indigenous peoples and special groups.

LUKOIL Group entities comply fully with the tax legislation in effect in the countries in which they operate.

The Company acts in strict compliance with the Social Charter of Russian Business and the Universal Declaration of Human Rights, according to which every individual enjoys all the rights and freedoms proclaimed therein. The Company’s commitments under the UN Global Compact apply to all areas of our activity, and involve making respective notifications to the organizations with which LUKOIL Group entities interact.

In 2018, the following taxes were paid:

4.8 USD billion in foreign countries

1,059 RUB billion in the Russian Federation

125 RUB billion budgets of Russian constituent entities

0.5 RUB billion local budgets

933 RUB billion federal budget

1 All types of taxes and excise duties.
2 Net of tax duties paid.
<table>
<thead>
<tr>
<th>Commitments</th>
<th>Compliance with international documents and UN Global Compact</th>
<th>Corporate documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent child and forced labor</td>
<td>ILO Conventions No. 29, 105 and 138, 182</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UN GC Clauses 4, 5</td>
<td></td>
</tr>
<tr>
<td>Recognize the right of employees to freedom of association and collective bargaining and the right to defense</td>
<td>ILO Conventions No. 87 and 98</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UN GC Clause 3</td>
<td></td>
</tr>
<tr>
<td>Recognize equal opportunities for women and men, and equal pay for work of equal value</td>
<td>ILO Conventions No. 100, 111</td>
<td></td>
</tr>
<tr>
<td>Recognize the values of family relationships and support working women and men</td>
<td>ILO Conventions No. 156</td>
<td></td>
</tr>
<tr>
<td>Avoid discrimination on any grounds (employment, wages, career building, retirement, gender, race, religion, etc.)</td>
<td>ILO Conventions No. 111</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UN GC Clause 6</td>
<td></td>
</tr>
<tr>
<td>Condemn violence in any form</td>
<td>ILO Conventions No. 47, 106, 132, 171</td>
<td></td>
</tr>
<tr>
<td>Maintain favorable labor conditions, the health of employees, and sanitary and hygienic standards (access to clean water, hot meals, and toilet facilities)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pay attention to security issues (including personal data protection and protecting employees from criminal assault and pressure)</td>
<td>Universal Declaration of Human Rights, Art. 12</td>
<td></td>
</tr>
<tr>
<td>Respect the rights of local communities, including the use of resources, conservation of the environment, etc.</td>
<td>UN Declaration on the Rights of Indigenous Peoples, ILO Convention No. 169</td>
<td></td>
</tr>
<tr>
<td>Strive to avoid the resettlement of local residents in cases where this is possible, and minimize the consequences for those who have experienced such measures</td>
<td>IFC Performance Standard 5 on Land Acquisition and Involuntary Resettlement</td>
<td></td>
</tr>
<tr>
<td>Endeavor to maintain a healthy environment</td>
<td>UN GC Clauses 7, 8, 9</td>
<td></td>
</tr>
<tr>
<td>Combat corruption and bribery</td>
<td>UN GC Clause 10</td>
<td></td>
</tr>
</tbody>
</table>

- The Code of Business Conduct and Ethics (CBCE)
- The Global Framework Agreement (GFA)
- Social Code (SC)
- The HSE Policy of LUKOIL Group in the 21st century

**Notes.** The Company also complies with the relevant provisions of the EITI voluntary platform.
HR audits

HR audits are one mechanism for monitoring the observance of labor rights in LUKOIL Group entities, and involve auditing processes associated with the documentation of labor relations, establishing remuneration and work incentives for employees, and safeguarding employee personal data during processing (with or without automation tools).

HR audits also check the procedure for documenting disciplinary action that may be associated with employees’ compliance with the Code of Business Conduct and Ethics (e.g. information on the employment of relatives as direct subordinates may be requested).

Monitoring work includes ensuring that the business processes and activities of LUKOIL Group entities comply with Russian labor law, the Company’s regulations, and other requirements established by legal acts containing labor law provisions.

In 2018, such audits were conducted in LLC LUKOIL-ENERGOSETI, LLC LUKOIL-Kubanenergo, LLC LUKOIL-Trans, and the Yareganeft oil and mining production enterprise.

Based on the audit results, recommendations are elaborated to improve HR management processes in LUKOIL Group entities. Audits also include an analysis of existing control systems.

Labor rights and interaction with trade unions

We apply unified principles and approaches in our interactions with personnel in all the countries and regions in which we operate, and always take into account the specifics and characteristics of the local culture.

In order to prevent violations of the labor rights of employees, we develop social partnerships with trade union organizations. Our main partner is the International Association of Trade Union Organizations of PJSC LUKOIL (IATUO). The main objective of the IATUO in the area of observing labor rights is to implement preventative measures to safeguard the rights and interests of employees.

As part of social partnerships, the scope of the social commitments of the Company and trade union organizations that are parties to agreements is revised and updated on a regular basis. For example, when concluding an additional agreement1 in October 2017, the parties agreed to raise, starting in 2018, the level of certain social benefits in Russian organizations for non-working pensioners and employees on childcare leave with children aged 1.5 to three years. A number of additional guarantees are also provided for foreign organizations2.

Collective agreements were concluded in 53 Russian and 10 foreign organizations. The Russian organizations that did not conclude collective agreements are directly covered by the Industry Agreement for Organizations of the Oil and Gas Sectors and the Construction of Oil and Gas Facilities of the Russian Federation.

Share of employees covered by collective agreements in LUKOIL Group

### SHARE OF EMPLOYEES COVERED BY COLLECTIVE AGREEMENTS

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>88.0%</td>
<td>90.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>IN RUSSIAN ORGANIZATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td>95.1%</td>
</tr>
</tbody>
</table>

Note. Russian entities where no collective agreements have been concluded are subject to the provisions of the Industry Agreement for Organizations of the Oil and Gas Sectors and the Construction of Oil and Gas Facilities of the Russian Federation.

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2 Agreements between PJSC LUKOIL and IATUO for foreign organizations for 2018–2020.
Respecting the rights of indigenous people

Our operations are historically associated with the territory of the Khanty-Mansi Autonomous District – Yugra³, inhabited by the Khanty and Mansi, the indigenous people of Siberia. Thus the system of relations with the indigenous minorities of the North began to take shape from the very outset of the Company’s activity. Since that time, we have developed effective mechanisms for combining the interests of indigenous communities and those of LUKOIL. (See the section “Local Communities.”)

In Russia, subsoil use, including the allocation of land plots in traditional settlement areas and/or the economic management of indigenous minorities of the North, is regulated by the state authorities (under license agreements or other documents that entitle companies to use such subsoil sites). The terms and conditions of the use of licensed areas, including compensation to indigenous communities, are established by federal and regional authorities. Hence issues related to respecting the rights of indigenous peoples, including migration issues, are governed by Russian federal and regional legislation. We fully comply with the conditions set forth in legislation, regularly interact with representatives of indigenous communities, and take their opinion into account when planning and implementing exploration and production projects.

In the reporting year, during LUKOIL Group’s production activities in areas of traditional settlement and/or the economic management of indigenous minorities in the North, no forced resettlement of indigenous peoples took place.

³ In 1991 the region was known as the Khanty-Mansi Autonomous District.
STAKEHOLDER ENGAGEMENT

We cooperate with a wide range of organizations and private individuals (stakeholders), with whom the Company endeavors to establish successful long-term relationships, taking into account their expectations and positions on a number of issues. Key stakeholder engagement principles¹ comprise:

- PARTNERSHIPS
- ACHIEVING LONG-TERM AND EFFICIENT DEVELOPMENT
- TRANSPARENCY OF OPERATIONS AND INFORMATION

State legislative and executive authorities. We actively interact with Russian legislative and executive authorities at all levels. Experts from PJSC LUKOIL and LUKOIL Group entities take part on an ongoing basis in discussing legislative initiatives and in the work of advisory groups and expert forums, discussing issues that are topical for the Russian oil and gas industry.

Shareholders and investors. Our investors and shareholders comprise Russian and foreign organizations and individuals pursuing various investment strategies. We consider the following to be stakeholders: investment funds and individual investors, investment banks, professional securities market participants (brokers and traders), industry analytical agencies, stock exchanges, rating agencies, as well as non-profit organizations that provide analytical and research services in the sphere of sustainability.

We continually strive to raise the level of information transparency, regularly provide using various channels information to representatives from the investment and financial communities, and react promptly to incoming queries.

In 2018, over 50% of the Company’s publicly traded shares were under the control of funds which take ESG factors² into account when making investment decisions. Considering the wishes of the investment community, we refine our sustainability activities, build internal management processes, and enhance the quality of information disclosure. When identifying material topics for disclosure, a systematic analysis of requests from the investment community and rating agencies on the subject of sustainable development is carried out, and the most popular topics are determined. These requests are communicated to the Company’s management, which then takes respective management decisions. Thus as part of the analysis of feedback from investors, an issue was identified regarding treasury shares that were on the balance sheet of a Company subsidiary. The presence of these shares was perceived very negatively by investors in terms of corporate governance standards and the risk of selling shares in the market. The necessary corporate procedures were prepared and implemented in a short time, which made it possible to redeem the treasury shares in 2018.

The Department for Interaction with Investors replies to questions from ESG analysts and rating agencies. LUKOIL takes part in the largest ESG ratings. Issues that are significant for the investment community were taken into account when updating the Company’s internal documents.

¹ The above principles are set forth in the corporate document Social Code of PJSC LUKOIL.
² ESG – environment, social responsibility, corporate governance.
Employees and trade unions. Social partnership forms the basis of the Company’s relationships with its employees and trade unions. The Company has built a social partnership system that is based on agreements between the employer, trade unions, and employees. Trade union organizations process queries from employees: in 2018, around 650 queries were received, and around 270 expert reviews of collective contracts and agreements conducted. Trade unions also hold surveys of employees in order to study their opinions and make assessments of social and labor issues, including observance of labor rights.

Meetings between employees and management representatives of PJSC LUKOIL and LUKOIL Group entities are held on a regular basis.

Clients. Our clients comprise large and medium-sized organizations operating in various sectors of the economy and private individuals. We provide our clients with high-quality products and services, and develop innovative products that take into account the requirements of regional markets and the individual needs of consumers. Our goal is to reinforce our reputation as a responsible and reliable producer and supplier of energy products.

Suppliers and contractors. LUKOIL’s supply chain consists of companies with diverse types and scales of operations: large companies, small- and medium-sized enterprises, individual entrepreneurs, and social entrepreneurs. We are open to collaboration and offer equitable and competitive terms that are designed to facilitate the unbiased and effective selection of suppliers and contractors in key areas of the Company’s activity.

Local communities. Social investment programs are implemented in constant contact with stakeholders, including local authorities and municipal and non-government organizations. Significant attention is paid to interacting on environmental protection issues with the environmental community and the residents of the regions where we operate.

Demonstrating its transparency, the Company interacts with the media on a regular basis, providing it with information that is of interest to the general public. In 2018 the Company had over 100 print media mentions and TV appearances, both in Russia and abroad.

LUKOIL is also a participant, organizer, and sponsor of forums, single-topic conferences, roundtables, and other events within which it interacts with other companies of the industry and the above stakeholder groups on a wide range of issues.
### STAKEHOLDER ENGAGEMENT IN 2018

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Events in 2018</th>
<th>Engagement-related issues within the framework of events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State and local legislative and executive authorities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government representatives from the countries in which we operate</td>
<td>Activities associated with the start-up of Kandym GPP (Uzbekistan), The Oil and Gas Uzbekistan Conference</td>
<td>The development outlook for the gas industry, the social importance of investments in the country</td>
</tr>
<tr>
<td>Government representatives from the countries in which we operate, international companies, and organizations</td>
<td>The Offshore Northern Seas International Conference (Norway), The Asia-Europe Business Forum (Belgium)</td>
<td>The responsible development of offshore resources, The role of business in creating a positive international agenda</td>
</tr>
<tr>
<td>Legislative authorities of the Russian Federation</td>
<td>108 draft laws underwent expert review</td>
<td>A public dialog on environmental protection, the regulation of greenhouse gas emissions, charity, and labor relations</td>
</tr>
<tr>
<td>Government representatives from Russian regions</td>
<td>A series of roundtable discussions &quot;Responsible interaction between business and government to facilitate the development of the Republic of Kalmykia&quot;</td>
<td>Social and economic cooperation between PJSC LUKOIL and the Republic of Kalmykia and the Volgograd Region administration was summarized</td>
</tr>
</tbody>
</table>

| **Shareholders and investors** | | |
| Institutional investors | Over 250 group and face-to-face meetings | Presenting the Company’s operating and financial results, as well as development plans |
| Investment community | Participation in 10 investment conferences and forums. Organizing road shows in the UK, the USA, and a number of European countries | Presenting the Company’s operating and financial results, as well as development plans |

<p>| <strong>Employees and trade unions</strong> | | |
| Managers of HR units and chairmen of trade unions | A training seminar at the ILO International Training Center in Turin (Italy) | Sharing experience in holding collective negotiations and social dialogues, resolving occupational health and safety issues, and fostering gender equality |
| Trade unions | The 106th ILO Session &quot;Work in a Changing Climate: The Green Initiative&quot; (Switzerland) | The influence of global climate change on the labor market |
| Trade unions | The International Conference &quot;Topical Remuneration Issues in the North: International and Domestic Aspects&quot; (Russia) | The efficacy of existing guarantees and compensation for workers of the North, questions relating to remuneration levels |</p>
<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Events in 2018</th>
<th>Engagement-related issues within the framework of events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local communities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial enterprises in Russian regions</td>
<td>PJSC LUKOIL Supplier’s Day (Nizhny Novgorod Region, the Republic of Tatarstan, Russia)</td>
<td>An opportunity to participate in PJSC LUKOIL public tenders</td>
</tr>
<tr>
<td>Local residents, experts, and environmental specialists</td>
<td>The visit of a delegation of experts and scientists to the industrial sites of LLC LUKOIL-Nizhegorodnefteorgsintez (Nizhny Novgorod Region, Russia)</td>
<td>The environmental responsibility of refineries</td>
</tr>
<tr>
<td>Local residents and municipal authorities</td>
<td>Working group meetings (Komi Republic, Russia)</td>
<td>Building a solid and liquid slurry processing landfill</td>
</tr>
<tr>
<td>International organizations</td>
<td>17th Session of the UN Permanent Forum on Indigenous Issues (USA)</td>
<td>Presenting LUKOIL projects “Red Chum” and “Preserving the Native Languages and Literature of Indigenous People of the North”</td>
</tr>
<tr>
<td>Regional and local authorities, non-government organizations in the Russian regions</td>
<td>A series of roundtable discussions “Responsible Interaction Between Business and the Government to Develop the Region” (the cities of Naryan-Mar and Usinsk in Russia)</td>
<td>Interaction between large businesses, government, and society</td>
</tr>
<tr>
<td>Local authorities and non-government organizations in foreign countries</td>
<td>A series of public dialogues PETROTEL LUKOIL (Romania)</td>
<td>The Company’s corporate social responsibility programs in the Prahova (Romania) Region, territorial development priorities</td>
</tr>
<tr>
<td></td>
<td>Public Council meetings at refineries in Burgas (Bulgaria)</td>
<td>Presenting the Sustainability Report for 2017</td>
</tr>
<tr>
<td>The media</td>
<td>Press releases, press conferences</td>
<td>Share buy-back program, field development in the Northern Caspian area and Uzbekistan, environmental safety, raising the retirement age in Russia, RES projects, and social programs in Russian regions</td>
</tr>
<tr>
<td>Scientific community</td>
<td>The Project &quot;Antarctica. 200 Years of Discoveries&quot;</td>
<td>The development of Antarctica</td>
</tr>
</tbody>
</table>
SUSTAINABILITY STRATEGY

LUKOIL GROUP SUSTAINABILITY REPORT 2018

SUPPLY CHAIN

2018 RESULTS

- The HSE requirements for potential tender participants were made more stringent, including introducing a requirement for holding mandatory assessments of subcontracting organizations to this end when granting access to the Company’s facilities.
- Requirements related to potential tender participants’ fulfilling tax obligations and the tax legislation requirements for tender documents were also made more stringent.
- Methodological guidelines for holding a technical audit of contractors at oil and gas extraction and power sector facilities were elaborated.
- Methods were elaborated to assess the qualifications of contracting organizations’ personnel to perform technical servicing works and to terminate overhauls at oil-processing, petrochemical, and gas-processing facilities.

Management system

LUKOIL Group entities procure a significant volume of goods, works, and services on an annual basis, and this involves greater and greater numbers of business entities in business relations. LUKOIL’s procurement activities assist in preserving and increasing the number of jobs in various sectors of the economy.

Based on the results of 2018, the share of Russian suppliers of centralized material and technical resources stood at 94%, based on the number of suppliers, and 93% based on the total volume of purchases in Russia, corresponding to 2017.

As a part of the development of green procurement practices, we collaborate with a foreign company, which is the world’s leading producer of energy efficient pumping equipment.

Selection of suppliers of goods, works, and services

Procurement activities in LUKOIL Group are regulated by internal regulatory acts and applicable laws. The selection of suppliers of goods, works, and services is performed in accordance with the Regulations on Holding Tenders to Select Suppliers and Contractors of LUKOIL Group Entities (hereinafter, the Regulations) and is based on the principles of the competitive, unbiased, and efficient selection of suppliers of goods, works, and services.

Notifications and the information needed by potential tender participants about the conditions of tenders and the procedures for holding them, the requirements for potential tender participants, and the list of documents that need to be submitted, are published on the corporate website of PJSC LUKOIL as well as on the websites of LUKOIL Group entities in the section Tenders.

The regulatory framework governing procurement activities is updated on a regular basis to take into account the latest experience in this area, as well as any amendments to respective Russian laws.

The foreign entities of LUKOIL Group adapt general corporate documents so that they comply with local legislation requirements.
Requirements for fulfilling anti-corruption regulations

Under the Regulations potential tender participants who, directly or indirectly, offer, have given, or agree to give compensation in any form to an employee of PJSC LUKOIL or LUKOIL Group entities cannot be admitted to tenders. If any such facts are identified, potential tender participants can be classified as bad-faith suppliers of goods, works, and services. The decision to classify a potential tender participant within this category and disqualify it from a tender is made by the Tender Committee or the Procurement Committee of PJSC LUKOIL.

Industrial safety and occupational safety requirements

If the subject matter of the tender requires the need to verify the state of the HSE system of a potential tender participant, experts from PJSC LUKOIL and LUKOIL Group entities perform a comprehensive examination, based on the corporate document “Procedure for Assessing the Health, Safety, and Environment Level of Business Entities Intending to Participate in a Tender”.

We pay significant attention to this matter, since the safety level at the Company’s production facilities depends on the actions of both LUKOIL employees and contracting organizations.

In order to minimize manufacturing and professional risks, the procedure for assessing the HSE level of potential tender participants comprises:

- Determining compliance between the potential tender participant’s management systems and the following requirements:
  - the laws of the Russian Federation
  - the bylaws of PJSC LUKOIL
  - Ascertaining whether potential tender participants possess necessary licenses and whether their employees have the necessary level of qualifications, personal protective equipment, and technical abilities and technologies.

During assessments the following indicators are taken into account: the occurrence of accidents and fatal accidents; the number of breakdowns and accidents over the past three years; confirmations that trainings have been completed; and knowledge testing. Potential tender participants also provide social information, in particular related to observing the working hour requirements of their employees.

If it is discovered during comprehensive assessments that a supplier has not complied with respective corporate requirements, they are not admitted to the respective tender.

For certain types of procurement, technical audits of potential tender participants are carried out, with mandatory assessments of the suitability of potential tender participants’ employees to perform scheduled works at facilities of LUKOIL Group entities.

Total number of potential tender participants that submitted applications to take part in tenders for the procurement of goods, works, and services

4,444

Percentage of total number of potential tender participants that submitted applications

38.9%

An HSE assessment

1,728

Participants admitted to tenders based on the assessment results

1,583

91.6%

of tender participants for whom HSE assessments were prescribed successfully passed the comprehensive assessment procedure, and 145 applications were rejected in 2018.

3 The corporate standard STO LUKOIL 1.6.5-2016 “HSE Management System. Requirements for Contracting Organizations” is in effect.

4 The assessment of candidates for contracting organizations is performed in accordance with an internal regulatory document: Appendix 32 to the Regulations for Tenders for Selecting Suppliers and Contractors by LUKOIL Group Entities, approved by a Resolution of the OJSC LUKOIL Management Board dated September 30, 2013 (Minutes No. 19 as amended).
Interaction in the course of fulfilling contractual obligations

A contract is entered into with the organization that wins the tender; this, together with the requirements of applicable legislation, regulate the interactions of both parties. In otherwise equal conditions, when selecting suppliers, preference is, however, given to domestic manufacturers.

Under the terms and conditions of agreements to supply goods/services, all suppliers and contractors undertake to adhere to the requirements of current laws, as well as those of the Policy of PJSC LUKOIL in the area of occupational health, safety and environment in the 21st century. The following obligatory requirements form integral parts of the agreements:

- Undergoing introductory / initial workplace briefings before contractors begin the performance of works / provide services at LUKOIL Group entity facilities, the availability of personal protective equipment in accordance with the nature of the work being performed, confirming that suppliers / contractors have appropriate first-aid skills.
- Immediate notifications to the customer of works or services about all accidents that have taken place during performance of work.
- Prohibiting the unauthorized accumulation and placement of waste, the discharge of wastewater (liquid waste) and chemicals, the discharge of pollutants into ambient air, or the contamination of soil with chemicals while performing works at LUKOIL Group entity facilities.

The Company monitors the operations of contracting organizations for compliance with the above requirements.

PRODUCT QUALITY

LUKOIL Group entities produce a wide range of products that are used in various sectors of the industry, as well as by vehicle owners in Russia and in countries in Europe, Asia, and the USA. Our priorities include a focus on consumer expectations, developing and marketing new products with enhanced operational and environmental qualities, and the continual improvement of high-quality management methods.

Product sales in 2018

<table>
<thead>
<tr>
<th>Type of product</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium ECTO fuel, thousand tons</td>
<td>7,535</td>
<td>8,554</td>
<td>9,603</td>
</tr>
<tr>
<td>Bunker fuel, thousand tons</td>
<td>3,347</td>
<td>4,539</td>
<td>4,742</td>
</tr>
<tr>
<td>Aviation bunker fuel, thousand tons</td>
<td>2,747</td>
<td>3,238</td>
<td>3,198</td>
</tr>
<tr>
<td>Branded oils (premium group), thousand tons</td>
<td>249</td>
<td>262</td>
<td>258</td>
</tr>
<tr>
<td>Biofuel mixes, million liters</td>
<td>4,246</td>
<td>4,174</td>
<td>6,515</td>
</tr>
</tbody>
</table>

Notes. Allowing for a density of automotive gasoline of 0.755 kg/L and of diesel fuel of 0.845 kg/L. Biofuel mixtures are understood to mean mixtures of automotive gasolines and ethanol (up to 10%), or diesel fuel and methyl ethers of fatty acids. These products are sold in European countries. (The largest volumes, in excess of 1,000 million liters, are sold in Belgium, Romania, Bulgaria, and Turkey.)
Manufacturing and sales of products with enhanced qualities

An analysis of global trends points to the importance of reducing risks related to the use of petroleum processing products by end consumers. Demand for cleaner and more efficient fuels, oils, and other derivatives generated by consumers and regulators brings to the fore issues relating to the search for optimal product formulas and compositions, reducing the content of hazardous substances in waste, and options to recycle depleted products.

LUKOIL brand products possess improved characteristics that have positive impacts on fuel consumption and reduce the content of hazardous substances in exhaust gas. The use of new and innovative products promotes safety improvements and reduces negative environmental impacts.

Share of products with enhanced qualities, %

- **63**
  - Share of brand oils ECTO (petrol and diesel) in total retail volume of petroleum products in Russia and abroad

- **23**
  - Share of environmentally safe marine fuel in total volume of bunker fuel sales

- **13**
  - Share of energy efficient lubricants¹ in total production volume of lubricants (PVL + CVL)

¹ Oils with low high-temperature viscosity values (under or equal XXW-30) from light and heavy-duty product lines.
A strategic LUKOIL benchmark is the continuous search for ways to enhance the quality of motor oils and lubricants and anticipatory compliance with the needs of markets where our products are supplied.

The composition of our motor fuels was 100% compliant with European quality standards (Environmental Class 5) as early as 2012. As part of continued work to enhance the quality of fuel, LUKOIL has marketed the ECTO and ECTO+ brands (gasolines and diesel fuel). In 2017, the sale of the premium-class gasoline ECTO 2017 was launched. The combustion products of new types of fuel contain less sulfur, soot, carcinogens, and other hazardous substances. Innovative products for use in marine shipping, aviation, and industrial companies are also being produced.

LUKOIL is one of the largest suppliers of bunker fuel in Russia, as well as in the ports of Bulgaria and Romania. Environmentally safe marine fuel (RMD-80/TSE), containing 0.1% sulfur, meets MARPOL requirements related to the content of pollutants during the discharge of combustion products into the atmosphere in SECA areas, as well as in aquatic areas of the European Union. Since 2014, this product has been sold in the Baltic Sea aquatic area.

**Production of energy efficient lubricants**

Our priority in the development of oil and lubricant products is to create innovative products for promising new equipment and technology samples, as well as highly effective specialized products for various industry sectors.

**Premium group of innovative products:**
- LUKOIL Genesis (Special)
- LUKOIL Luxe
- LUKOIL Avantgarde
- LUKOIL Transmission
- LUKOIL ATF
- LUKOIL Antifreeze

**Industrial lines:**
- LUKOIL Geyser
- LUKOIL Tornado
- LUKOIL STEELO
- LUKOIL Slido
- LUKOIL Assisto
- LUKOIL EFFORSE
- LUKOIL FREO

**Marine line:**
- NAVIGO

LLC LLK-International develops and supplies low-viscosity oils of the Genesis FE (Fuel Eco) series to consumers in a number of countries, thereby promoting the reduction of fuel consumption by combustion engines and boosting energy efficiency. Leading car manufacturers (Daimler, Mercedes-Benz, Volkswagen, etc.) select LUKOIL brand oils when filling their vehicles for the first time, which is a testament to the quality of the products we produce. In 2018 we developed new energy efficient oils of the SAE 0w16 and SAE 0w12 viscosity classes.

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2. Sulfur emission control area – aquatic areas of the North and Baltic Seas and a section of the US coast.
In 2018 we released a new product for marine engines, developed in accordance with international environmental restrictions on sulfur content in marine fuel. NAVIGO MCL Extra 40 BN oil, combined with the iCOlube intelligent lubrication system developed by LUKOIL, ensures optimal conditions for the operation of marine engines, and facilitates reduced carbon dioxide emissions into the atmosphere.

In 2018, LUKOIL Marine Lubricants DMCC won awards in two categories of the annual Maritime Standard Awards for 2018: for creating the iCOlube intelligent lubrication system and for promoting innovations in marine navigation.

In addition to energy efficient products, we produce oils that are safer for the environment. LUKOIL LUBRICANTS EUROPE Oy supplies biodegradable products to the European market under the brand BIO (BIOLUBE, BIOCHAIN, and BIOFLUIDE). Such oils degrade over a certain period into components that do not harm the environment (as waste from synthetic oils do).

Certification of quality management systems

The oil product supply entities of LUKOIL Group adopt an integrated approach to quality management, covering all stages of a product journey, from plant to consumer. We apply unified quality management approaches, both in Russia and abroad.

Certificates confirming the compliance of quality management systems with the international standard ISO 9001:2015 are held by nine organizations operating in the air bunkering sector in Russia and abroad, as well as all LLC LLK-International facilities producing oils and liquid lubricants.

In 2018, LLC LLK-International completed the certification of production sites for compliance with the new international standard IATF 16949:2016 (a standard of the industry organization International Automotive Task Force, which unites leading global car manufacturers). The standard establishes quality management system requirements for suppliers of products for the automotive industry. Global car companies take into account whether a supplier has an IATF certificate when selecting suppliers of components and consumables.

Ensuring the quality of motor fuels

We believe it our duty to maintain, at all stages, from production to consumer, the quality of motor fuels at a level that is no lower than the standards established by respective technical regulations and production standardization documents. Also, the oil product supply entities of LUKOIL Group are governed by corporate standards and methodological recommendations.

Our goal is to ensure total and real-time controls when delivering and accepting oil products at the transportation systems of Transneft and Russian Railways and to organize their proper acceptance, storage, and sale at LUKOIL bulk plants and fuel stations.

The corporate automated management system, which covers all fuel stations and most bulk plants located within Russia, and is also installed at facilities in Serbia and Romania, enables oil product movements, from refinery to end user, to be electronically tracked. The Guaranteed Oil-Product Delivery system allows us to reduce product transportation time, as well as the number of misappropriations and product losses. The electronic sealing of road tankers helps lessen potential injuries among fuel station personnel, since it eliminates dangerous work at heights.

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3 The number of organizations holding certificates declined compared to 2017, as LLC LUKOIL-AERO-Nizhny Novgorod and LLC LUKOIL-AERO-Perm merged with LLC LUKOIL-AERO-Samara.
Distribution of LUKOIL Group fuel stations among countries as of December 31 each year

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5,309</td>
<td>5,258</td>
<td>5,168</td>
</tr>
</tbody>
</table>

including

<table>
<thead>
<tr>
<th>RUSSIA</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,603</td>
<td>2,609</td>
<td>2,556</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EUROPE</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,177</td>
<td>2,155</td>
<td>2,054</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POST-SOVIET COUNTRIES</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>244</td>
<td>247</td>
<td>314</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USA</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>285</td>
<td>247</td>
<td>244</td>
</tr>
</tbody>
</table>

Notes. The data include information about proprietary fuel stations of LUKOIL Group, both leased and franchised, as well as mothballed fuel stations that are available for lease (as of December 31, 2018). Changes to the performance dynamics in Russian companies engaged in oil product supplies chiefly relate to the reorganization of the sales network in 2018.

Fuel station network services development

In 2018, work began to implement efficient technologies and to expand the range of fuel products and services provided by LUKOIL fuel stations.

• Three multi-fuel stations were built at LLC LUKOIL-Yugnefteprodukt.
• Work began to develop the gas strategy in the oil products supply sector; five gas fuel stations were prepared for commissioning at LLC LUKOIL-Tsentrnefteprodukt.
• Six electric charging stations for electric vehicles were commissioned (at LLC LUKOIL-Yugnefteprodukt and LLC LUKOIL-Tsentrnefteprodukt).
• Plans are under way to implement automated systems to manage power consumption at fuel stations.
• New customer-oriented solutions to change the image of fuel stations were developed, including the corporate style of stations, corporate uniforms for employees, and sales models of non-fuel products.
Ensuring the quality of oils and lubricants

An effective quality control and interaction mechanism with customers in LLC LLK-International audits LUKOIL production sites on behalf of customers that are leading car manufacturers (Daimler, General Motors, Ford, Volkswagen, Renault-Nissan, etc). During this process product quality and production efficiency are analyzed. For example, in 2018 a plant in Perm successfully underwent audits by Ford, Volkswagen, and Daimler, and the production site in Volgograd was audited by Severstal. The lubricants plant in Perm was declared to be in full compliance with Volkswagen’s Formel Q quality control system, and also received the highest score on Ford’s Q1 quality system. The Austrian branch (LUKOIL LUBRICANTS EUROPE Oy) and the LLC LLK-International branch in Perm hold VDA 6.3 certificates (conveyor supplies of German producers).

We apply similar requirements to suppliers of raw materials, additives, and supplementary materials. All suppliers undergo assessment in accordance with the respective corporate standard, and LUKOIL Group entities perform audits of suppliers.

By 2022 LLC LLK-International plans to upgrade its capacities at principal sites in Perm and Volgograd, in order to accelerate transitioning to manufacturing small-tonnage batches that will reduce the resource intensity of production processes.

Interactions with customers take place in accordance with the standard SP LLK 08-2015 “Consumer Claims and Complaints Handling.” Customers are sent “Product Satisfaction Questionnaires” three times a year in order to gauge their satisfaction levels. The average satisfaction level of oil and lubricant consumers is defined as the ratio of positive responses in questionnaires to the total number of completed questionnaires.

Ensuring the quality of aviation fuel and aviation greases and lubricants

The quality control system at LUKOIL fueling facilities located at airports and airfields includes monitoring aviation fuel quality, as well as a number of other fuels and lubricants and specialized fluids in the course of accepting, storing, and preparing for their release for fueling, and during aircraft refueling with aviation fuels and lubricants. Elements within the quality management system comprise a number of mandatory procedures.

1. Internal inspection controls, whose objectives comprise:
   - ensuring flight safety in relation to the quality of aviation fuels and lubricants
   - confirming compliance with production technology
   - ensuring the appropriate use of technical equipment and hardware
   - confirming the professional competence of personnel
2. Annual audits of the quality management system performed by an independent audit organization.
3. Annual consumer satisfaction surveys.

Laboratories are equipped with modern equipment that is specifically designed for the quality control of aviation fuels and lubricants. Highly qualified personnel promptly and meticulously perform all necessary operations during product movement stages, from acceptance to release to an aircraft. The set of measures listed above enables us to guarantee a high quality of both products supplied and services provided.

Average satisfaction level of oil and lubricant consumers, % of those satisfied with product quality

- 88
  - 2017
- 90
  - 2018

2 SP LLK 11-2016 “Procedure for Assessing Materials and Services Suppliers”. 
Q. Globally, increasing attention is being paid to the issue of climate change, and the collective actions of investors in this area are intensifying. How do these trends affect the Company?

A. Measures aimed at boosting overall energy efficiency can make a significant contribution to reducing greenhouse gas emissions. An energy management system has been implemented at LUKOIL Group entities in Russia that complies with the international standard ISO 50001:2012B.

An Energy Conservation Program of LUKOIL Group Entities in Russia for 2018 and for 2019-2020 is in place, together with “Road Maps” to increase operating efficiency by 2020. A New Business Development Center has been created, to coordinate innovative technology and electrical power projects and to develop new energy infrastructure. The targets of the Energy Conservation Program of LUKOIL Group Entities in Russia up to 2020 include savings on energy resources of around 280 million kWh 330,000 Gcal of thermal energy and 360,000 TOE of boiler and furnace fuels as a cumulative total over three years (2018-2020).

LUKOIL has also joined the Greenpeace project Green Office. Thanks to the implementation of voluntary obligations aimed at improving the environments of office premises, we have reduced expenses related to maintaining the Company’s offices and contributed to a decrease in energy consumption.

Developing in accordance with modern trends and looking ahead to the wider use of electric cars, we are installing charging points at filling stations.
Q. LUKOIL has experience in developing and managing projects in the area of renewable energy sources. Does the Company have any plans to develop such projects in Russia?

A. We strategically approach the resolution of issues related to renewable energy sources – the LUKOIL Board of Directors has set us the objective of developing a corresponding program. At present, the Company manages a fleet of four hydroelectric plants in the South of Russia, with a total capacity of around 300 MW, as well as solar parks and wind farms in Russia, Romania, and Bulgaria, with an aggregate capacity of approximately 100 MW.

In addition, LUKOIL has a portfolio of promising projects, which can be implemented if the circumstances are favorable, in various regions where the Company operates.
Despite some uncertainty surrounding climate change issues in Russia, the topic of climate is in high on the agenda of the PJSC LUKOIL Board of Directors and the Strategy, Investment, and Sustainable Development Committee of the Board of Directors of PJSC LUKOIL, which initiates discussing issues related to this subject at Board level and elaborates relevant positions and plans.

At the executive level, the PJSC LUKOIL Management Board and the First Executive Vice President for HSE are involved in discussions of issues related to the climate and greenhouse gas emissions, including as a part of HSE Committee meetings. This topic is also covered in the annual Report to the PJSC LUKOIL Management Board about the state of HSE.

The HSE policy of LUKOIL Group in the 21st century sets forth the following obligation as one of its objectives: when possible, to “minimize climatic impacts from operations of LUKOIL Group entities.”

The main focus of our efforts in this area is reducing the flaring of associated petroleum gas (APG) and boosting overall energy efficiency. In addition, the production of energy efficient products and expanding the use of natural gas motor fuel at LUKOIL fuel stations helps reduce the carbon footprint on the consumer’s side.

CONTEXT

In 2009, the Climate Policy of the Russian Federation was approved. This policy expresses the need to adopt adaptation measures in connection with climate change, since in various regions of the country this process will have different consequences for the population, industry, and the environment. The policy draws attention to both the risks and opportunities related to climate change; however clear assessments of the consequences for the Russian Federation of possible climate change were not made.

Later reports indicated the relevance of the objectives outlined in the policy. According to Federal Service for Hydrometeorology and Environment Monitoring data, spontaneous hydro meteorological events have taken place frequently on the territory of Russia in recent decades, and their concentration in certain regions results in social risks and economic losses. Russia participates in global discussions to reduce greenhouse gas emissions and sets respective targets to reduce the use of carbon in its economy. Increased work in this area includes publication of Russian Presidential Decree No. 752 dated September 30, 2013 “On Reducing Greenhouse Gas Emissions” and a government instruction to ensure a reduction, by 2020, in greenhouse gas emissions to a level that does not exceed 75% of the 1990 level.

At the state level, a system of reporting, monitoring, and inspecting greenhouse gas emissions is being created (respective methods for calculating direct and indirect emissions have been approved), and options for the state regulation of greenhouse gas emissions are under discussion. Nevertheless, at the time of preparing this Report, Russia had not ratified the Paris Agreement, and a consensus position had not been established in scientific and industrial circles. At the expert level, discussions are being held about the measures needed to achieve a balance between national state interests and the goals of the global community. As a Russian company, LUKOIL adheres to the official position of the Russian Federation. At the same time, to plan and manage greenhouse gas emissions, the Company has created a system for monitoring, recording, and reducing them.
Assessments of climate change risks are taken into account when establishing the Uniform Scenario Conditions (USC) used to develop strategies, evaluate investment projects, and create annual and mid-term plans. A baseline USC scenario provides for the influence of existing national programs adopted under the Paris Agreement on the global balance of the primary consumption of energy resources. In addition, the USC scenarios include a forecast of the cost of CO₂ emissions, which is used in strategic planning processes.

A scenario related to the accelerated reduction of hydrocarbon consumption in the transport sector has also been developed, in order to assess corresponding risks and to test the Company’s sustainability strategy.

**GOALS AND RESULTS**

Based on the results of 2018, emissions of greenhouse gases fell significantly in Russian LUKOIL Group entities, and also declined in our foreign entities.

Our goal – a 1.2% reduction in greenhouse gas emissions among Russian entities of LUKOIL Group by 2020 - was achieved ahead of schedule in 2018.

**Direct greenhouse gas emissions in Russian LUKOIL Group entities (Scope 1), million tons of CO₂E**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total emissions, including:</th>
<th>Carbon dioxide</th>
<th>Methane</th>
<th>Share of methane, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>31.29</td>
<td>29.85</td>
<td>1.44</td>
<td>4.8</td>
</tr>
<tr>
<td>2017</td>
<td>31.14</td>
<td>29.87</td>
<td>1.27</td>
<td>4.2</td>
</tr>
<tr>
<td>2018</td>
<td>29.99</td>
<td>29.02</td>
<td>0.97</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Notes. 1) Calculations of greenhouse gas emissions by LUKOIL Group Russian entities were performed in accordance with the method of the Ministry of Natural Resources of the Russian Federation. Calculations of emissions by LUKOIL Group foreign entities were performed in accordance with the national methods of the countries in which they operate. The indicator “Volume of Direct Greenhouse Gas Emissions” was checked as a part of an audit of the Report on Operations in the Sphere of Sustainable Development, based on the auditor’s method (auditor – JSC KPMG).

2) The value presented in the “Share of emissions accounted for by countries where the regulation of greenhouse gas emissions has been implemented” line item is calculated as the ratio of emissions released by European oil refineries (PETROTEL-LUKOIL S.A., LUKOIL Neftochim Burgas AD, ISAB S.r.l.) to the total emissions released by both European refineries and Russian LUKOIL Group entities. (Information on LUKOIL Uzbekistan Operating Company LLC is not taken into account when calculating the above value, as no regulation of greenhouse emissions has been implemented in Uzbekistan at the state level.)

Our goal – a 1.2% reduction in greenhouse gas emissions among Russian entities of LUKOIL Group by 2020 - was achieved ahead of schedule in 2018.

**Direct greenhouse gas emissions in foreign LUKOIL Group entities, million tons of CO₂E**

- Share of emissions accounted for by countries where the regulation of greenhouse gas emissions has been implemented

Notes. 1) Calculations of greenhouse gas emissions by LUKOIL Group Russian entities were performed in accordance with the method of the Ministry of Natural Resources of the Russian Federation.

4 The target indicator has been established on the basis of calculations performed at PJSC LUKOIL under planned measures for APG utilization within the relevant program.

According to the results of 2018, over 90% of total direct gross GHG emissions of LUKOIL Group in Russia were produced by enterprises in energy, oil refining, and oil and gas production industries. The main contribution (around 80%) to the total direct emissions is made by stationary sources of fuel combustion. Flaring made up about 10% of total emissions in 2018 and was at the same level as emissions from production processes.

Methane emissions made up 3.2% of total GHG emissions according to the results of 2018. Almost the entire volume (98.5%) of methane emissions from LUKOIL Group organizations comes from oil and gas production processes (in the process of APG extraction, during preventive maintenance work on equipment and in case of equipment failures). The implementation of projects on efficient APG use, energy consumption reduction, and combustion system optimization contribute to lowering methane emissions.

In Russian oil and gas extraction entities, thanks to a material increase in the beneficial use of APG based on 2018 results, greenhouse gas emissions saw a significant fall compared to 2017 (by 773,000 tons of CO₂E, which amounted to 9%).

In the Russian oil refining segment, the gross volume of greenhouse gas emissions fell (by 2.8% compared to the 2017 level). These results were achieved thanks to a redistribution of volumes of fuel used (a decline in liquid fuel and an increase in gaseous fuel), as well as reduced raw materials consumption in hydrogen production.

In the foreign oil-refining entities of LUKOIL Group the total volume of emissions declined by almost 0.7 million tons of CO₂E in 2018 compared to 2016 as a result of implementing projects to improve the energy efficiency of oil refining plants (ORP, oil refineries).

### Specific indicators of greenhouse gas emissions by Russian LUKOIL Group entities, broken down by types of activity (Scope 1)

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas producing entities, tons of CO₂E/ton of oil equivalent in produced hydrocarbons</td>
<td>0.108</td>
<td>0.088</td>
<td>0.079</td>
</tr>
<tr>
<td>Oil-refining entities, tons of CO₂E/ton of processed raw materials</td>
<td>0.173</td>
<td>0.209</td>
<td>0.204</td>
</tr>
<tr>
<td>Petrochemical entities, tons of CO₂E/ton of processed raw materials</td>
<td>0.352</td>
<td>0.370</td>
<td>0.322</td>
</tr>
<tr>
<td>Oil product supply entities, tons of CO₂E/ton of oil products sold</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Transportation entities, tons of CO₂E/ton of oil or oil products transported</td>
<td>0.004</td>
<td>0.004</td>
<td>0.004</td>
</tr>
<tr>
<td>Energy sector entities (without LLC LUKOIL-ENERGOSETI), CO₂E/ MWh of generated electrical and heat energy</td>
<td>0.339</td>
<td>0.332</td>
<td>0.326</td>
</tr>
</tbody>
</table>

**Notes.** Fluctuations in the indicators for oil refining and petrochemical entities are due to changes in the production volumes of end products.
REDUCED FLARING

Associated petroleum gas (hereinafter, APG) is pumped into formations to maintain formation pressure and to generate heat and electrical energy for in-house use by oil and gas producing organizations. It is also supplied to gas processing plants and the gas transportation systems of other organizations. The Program for Rational APG Utilization has been in place at Russian LUKOIL Group entities since 2013. The program includes measures related to building new facilities and renovating continuously operating ones for the pre-treatment, transportation, and processing of APG.

In 2017, Russian LUKOIL Group entities achieved a goal of 95% APG efficient use. Thanks to the program measures, environmental conditions in the Company’s main oil and gas extraction regions (West Siberia, Perm Territory, Volga Region, and Republic of Komi) are improving.

Our goal is to continue to increase the share of APG use by reducing the flaring of energy resources.

In 2016–2018, the volume of APG flaring fell by almost a factor of three, and by 57% in 2018 compared to 2017.

<table>
<thead>
<tr>
<th>Total volume of APG (hydrocarbon) flaring, million cubic meters</th>
<th>Volume of APG utilization funding activities, RUB billion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2016</strong></td>
<td><strong>2017</strong></td>
</tr>
<tr>
<td>Total for LUKOIL Group, including:</td>
<td></td>
</tr>
<tr>
<td>Russian entities of LUKOIL Group</td>
<td>937.6</td>
</tr>
<tr>
<td>Foreign entities of LUKOIL Group</td>
<td>14.9</td>
</tr>
<tr>
<td><strong>2018</strong></td>
<td><strong>2017</strong></td>
</tr>
<tr>
<td><strong>8.4</strong></td>
<td><strong>15.0</strong></td>
</tr>
</tbody>
</table>

**Notes.** 1) Data on foreign entities are presented by LUKARCO B.V. (in accordance with the share in the Tengiz project in Kazakhstan) and LUKOIL Overseas Kumkol B.V. (in accordance with the share in the Kumkol project in Kazakhstan). 2) The rise in the 2017 volume of APG flaring in foreign entities was due to the maintenance of gas equipment in the Tengiz project.

APG utilization level, %

| **TOTAL FOR LUKOIL GROUP** |
|---|---|---|
| 2016 | 2017 | 2018 |
| 92.1 | 95.4 | 97.4 |
| **RUSSIAN ENTITIES** |
| 2016 | 2017 | 2018 |
| 91.7 | 95.2 | 97.3 |
| **FOREIGN ENTITIES** |
| 2016 | 2017 | 2018 |
| 98.1 | 97.6 | 98.1 |

**Notes.** Data on foreign entities are presented by LUKARCO B.V. in accordance with the share in the Tengiz project in Kazakhstan, and LUKOIL Overseas Kumkol B.V. in accordance with the share in the Kumkol project in Kazakhstan.
PLANS

In 2018 the Program for Rational APG Use was updated for the period 2019-2021. The main program activities for 2019-2021 comprise:

- **LLC LUKOIL-Komi**: renovation of the booster pump station DNS-V1 of the Usinskoye Oil Deposit and retooling of the Usa-Pechora main pipeline.
- **LLC LUKOIL-Perm**: construction of production facilities at the Kokuy gas compressor plant and retooling of the Kueda Gas Compressor Plant.
- **LLC RITEK**: construction of a multi-phase pipeline at the Galyanovsky license area.
- **LLC LUKOIL-Nizhnevolzhskneft**: retooling of the production facility of the Yu. Korchagin offshore ice-resistant fixed platform (OIRFP), to boost hydrocarbon production.

"ZERO ROUTINE FLARING BY 2030" INITIATIVE

The Company was one of the first Russian oil companies to join the World Bank’s Zero Routine Flaring by 2030 initiative, which was announced in 2015 to pool the efforts of governments, oil companies, and non-government organizations to increase beneficial APG use. Two projects implemented by LUKOIL as part of this initiative are projected to reduce greenhouse gas emissions by around 105 thousand tons of CO₂E.

**Notes**: The expected reduction is calculated for a period of three years (until the end of 2022).
Reducing gas leaks during repairs

We strive to minimize natural gas leaks into the atmosphere from scheduled repairs and equipment failures at oil and gas production facilities.

While detecting gas leaks, Russian LUKOIL Group entities are governed by regulatory documents, federal regulations, Russian oil and gas industry rules, and corporate standards. At production facilities, portable and stationary gas-leak control tools are used. Based on the results of audits and diagnostic work, repairs are scheduled for pipelines that transport gas and for gas collection and compression facilities (compressor stations). Equipment audits and diagnostic work are performed as scheduled.

ENERGY CONSERVATION

The effective utilization of fuel and energy resources is a priority for LUKOIL Group entities, and serves to boost the overall operational efficiency of LUKOIL Group.

Our goal is to increase the energy efficiency of the production activities of LUKOIL Group entities. Target indicators for activities are established within energy conservation programs.

In the Russian entities of LUKOIL Group an energy management system, in compliance with the international standard ISO 50001:2012, has been implemented. As of December 31, 2018, Certificates of Compliance of energy management systems with the ISO 50001 standard were held by 25 entities of the Group, and covered 68.2% of workers. The Energy Conservation Program of LUKOIL Group Entities for 2018 and 2019–2020 in Russia is under way; there are now road maps for improving operational efficiency up to 2020. The Center for Developing New Business Areas was set up to coordinate projects in the sphere of innovative technologies in the electrical energy sector and to develop a new energy infrastructure.

Based on the results of 2018 operations, all scheduled activities were completed in full, and savings targets were achieved for each type of energy.

Energy resource savings achieved, based on the results of implementing the Energy Conservation Program of LUKOIL Group Entities in Russia

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric energy, million kWh</td>
<td>82</td>
<td>66</td>
<td>98</td>
</tr>
<tr>
<td>Heat energy, thousand Gcal</td>
<td>57</td>
<td>186</td>
<td>101</td>
</tr>
<tr>
<td>Boiler and furnace fuel, thousand tons of oil equivalent</td>
<td>76</td>
<td>181</td>
<td>135</td>
</tr>
</tbody>
</table>

In industrial consumption most electrical energy is used by oil and gas extraction entities, while other types of energy resources are used mainly by oil-refining and petrochemical entities.

The development of in-house (supporting) energy generation is performed directly at the deposits of the Group and meets the needs of production in electric and thermal energy due to APG efficient use. The further development of securing generation (as part of work to build a gas-turbine thermal power plant in Perm Territory) and the commissioning of eight steam generation plants in the Republic of Komi has been scheduled.

The specific consumption indicator of electrical energy at Russian oil and gas extraction enterprises was stable in 2016–2018, and stood at 20.6 kWh per ton of extracted liquid.

Specific consumption of fuel and power resources by oil refining LUKOIL Group entities, GJ/tons of product

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for LUKOIL Group, including</td>
<td>3.7</td>
</tr>
<tr>
<td>Russian LUKOIL Group entities</td>
<td>3.7</td>
</tr>
<tr>
<td>Foreign LUKOIL Group entities</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Notes. 1) Information is provided on an as-produced basis, with due account for cross-supplies, i.e. volumes of petroleum products supplied between LUKOIL Group oil refineries in Russia for further processing. 2) Information is presented inclusive of gas processing products (LLC Permnefteorgsintez) and petrochemical products (LUKOIL Neftohim Burgas AD and ISAB S.r.l.).

Russian commercial power-generating entities use gas as the main raw material for generating electrical and thermal energy. In 2018, generating entities consumed in total 5,042 million cubic meters of natural gas, of which LUKOIL Group entities supplied 5%.

Total production energy consumption by LUKOIL Group entities

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production consumption of electrical energy for LUKOIL Group, billion kWh, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>production consumption of electrical energy for Russian LUKOIL Group entities, billion kWh</td>
<td>19.8</td>
<td>19.8</td>
<td>19.5</td>
</tr>
<tr>
<td>including purchases on foreign market</td>
<td>15.0</td>
<td>14.3</td>
<td>13.4</td>
</tr>
<tr>
<td>production consumption of electrical energy for foreign LUKOIL Group entities, billion kWh</td>
<td>3.0</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>including purchases on foreign market</td>
<td>1.8</td>
<td>1.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Production consumption of thermal energy for LUKOIL Group, million Gcal, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>production consumption of thermal energy for Russian entities of LUKOIL Group, million Gcal</td>
<td>18.3</td>
<td>21.2</td>
<td>22.7</td>
</tr>
<tr>
<td>including purchases on foreign market</td>
<td>6.0</td>
<td>7.3</td>
<td>3.6</td>
</tr>
<tr>
<td>production consumption of thermal energy for foreign entities of LUKOIL Group, million Gcal</td>
<td>6.2</td>
<td>6.0</td>
<td>6.4</td>
</tr>
<tr>
<td>including purchasing</td>
<td>1.2</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Production consumption of boiler and furnace fuel for LUKOIL Group, million tons of oil equivalent, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>production consumption of boiler and furnace fuel for Russian entities of LUKOIL Group, million tons of oil equivalent</td>
<td>7.5</td>
<td>8.6</td>
<td>9.7</td>
</tr>
<tr>
<td>production consumption of boiler and furnace fuel for foreign entities of LUKOIL Group, million tons of oil equivalent</td>
<td>2.3</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Total production energy consumption by LUKOIL Group entities, million GJ</td>
<td>362.7</td>
<td>397.4</td>
<td>416.0</td>
</tr>
</tbody>
</table>

Notes. 1) Total production energy consumption by LUKOIL Group entities = Consumption of non-renewable types of fuel + Electric energy and thermal energy purchased for production consumption. The consumption of non-renewable fuels = Consumption of boiler and furnace fuel (fuel consumption for the generation of electrical and thermal energy at in-house generation facilities is taken into account). Volumes of electrical and thermal energy transferred to third-party consumers, as well as utility consumption of electricity/heat are not included in production consumption and are accounted for separately. 2) Conversion is performed as per GOST R 51750-2001: 1 thousand kWh = 3.6 GJ, 1 Gcal = 4.19 GJ, 1 ton of oil equivalent = 29.3 GJ. 3) The rise in consumption of thermal energy and boiler and furnace fuel relates to an increased volume of thermal steam formation treatment (LLC LUKOIL-Komi, eight steam generation units commissioned at Yarega and Usa). 4) The limits of the indicator were expanded in 2018 (see Appendix 4). The values of the indicator for 2016 and for 2017 have changed and are indicated in the respective boundaries.
EXAMPLES OF 2018 PROJECTS

The main energy conservation activities in 2018 comprised replacing, optimizing, and implementing energy efficient pumping equipment; using variable frequency drives; replacing and upgrading production equipment with a view to enhancing efficiency; optimizing condensate recycling systems; and upgrading lighting and heating systems.

**OIL AND GAS EXTRACTION:**
Installing complex drives with AC converter-fed motors

One method to improve oil extraction efficiency is to replace traditional asynchronous motors with AC converter-fed ones. Installations with AC converter-fed motors have better functional characteristics and higher resource and power parameters. Comparative tests performed at LUKOIL Group entities demonstrated a decrease in power consumption in the range of 10 to 60%.

**OIL REFINING:**
Boosting the operational efficiency of the furnace’s heat reclamation system

Increasing the operational efficiency of the heat reclamation system achieved via the thermal insulation of the gas duct along the section from the exit from the convection heater to the entrance to the air heater, sealing the air heater, installing a heat-exchange unit to pre-heat the air before the air heater using spent steam or water condensate, as well as via thermal insulation of the air heater. This makes it possible to boost the furnace efficiency, reduce fuel consumption by 2.5–4%, and improve the operational reliability of heat reclamation system equipment in the furnace.

**OIL PRODUCT SUPPLY:**
Use of heat pumps at fuel stations

To provide fueling facilities with hot water, heating, and cooling facilities, a heat-pump based technology has been implemented. A comparative analysis of electrical energy consumption at fuel stations operating under such a format demonstrates a 20-35% reduction in annual costs on account of this measure.

Plans for 2019 and the medium term include projects to boost the cost effectiveness and reliability of production facilities, and activities to optimize the operating modes of current boiler houses and power plants.
RENEWABLE ENERGY SOURCES

We believe that the development of the renewable energy sector is a long-term trend and that over time it could change significantly the face of the energy sector.

According to an IRENA report, renewable energy sources (RES) are being implemented globally at a rapid rate - installed generating capacity is growing by 20-30% per annum. The levelized cost of energy (LCOE) for wind and solar power plants is now near to that of traditional generation options.

After gaining experience in foreign projects in the solar and wind energy sectors in Bulgaria and Romania, LUKOIL is gradually expanding its presence in the clean energy projects market.

The main goals of LUKOIL Group in the sphere of renewable energy are:

- **Implementing effective projects as part of the state system for developing the renewable energy sector** (an agreement to provide capacities by qualifying generating objects that operate using renewable energy sources).

- **Utilizing resources and competencies obtained in the course of fulfilling capacity-supply agreements in Russia and renewable-energy projects in Romania and Bulgaria.**

- **The efficient utilization of free land plots belonging to LUKOIL Group entities.**

The implementation of projects based on renewable energy sources is performed in two areas:

- Satisfying the in-house needs of LUKOIL Group entities

- The generation and supply of electrical energy to the grid

The plan to support capacity supply agreements based on renewable energy sources opens up opportunities to implement projects in renewable energy sectors in Russia: the level of investment risk is getting lower, thanks to the possibility of securing a return on investments through guaranteed payments. Requirements related to the degree of equipment localization and capital cost restrictions do present certain obstacles (for example, for solar power units not less than 70%). The manufacture of Russian components for the RES sector is only just beginning, hence choice is limited.

The Industrial Development Program for the “Electrical Energy” business sector includes proposals to build new solar power plants (SPPs) at unused sites at refineries in Saratov and Volgograd. Projects to build wind power plants can potentially be considered. The emergence of localized facilities to produce major power equipment in Russia would allow the Company to play a more active role in implementing renewable energy projects.

The Company has three SPPs erected at oil refineries in Bulgaria, Romania, and Russia, with a total capacity of 20.25 MW, as well as a wind power plant in Romania, with a capacity of 84 MW. Thus the total installed capacity in 2018 was 104.25 MW.

<table>
<thead>
<tr>
<th>Total volume and share of electric power generated from renewable sources, million kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generation of electrical energy from renewable sources, including:</strong></td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>Wind power</td>
</tr>
<tr>
<td>Solar power</td>
</tr>
<tr>
<td>Hydropower</td>
</tr>
<tr>
<td>Volume of power generated by LUKOIL Group commercial generation facilities (net of supporting energy supply)</td>
</tr>
<tr>
<td>Share of electric power generation from renewable sources in the electrical energy generation volume by LUKOIL Group commercial generation facilities, %</td>
</tr>
<tr>
<td>Share of electric power generation from renewable sources in the electrical energy generation volume by LUKOIL Group commercial generation facilities, %</td>
</tr>
</tbody>
</table>

**Notes.** The value presented in the “Total volume of power generated by commercial generation facilities” line item for 2016, 2017, and 2018 is shown inclusive of the data on the power supply complex at the ISAB Srl oil refinery.
Investments to develop renewable energy sources, RUB million

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,580</td>
</tr>
<tr>
<td>2017</td>
<td>487</td>
</tr>
<tr>
<td>2016</td>
<td>251</td>
</tr>
</tbody>
</table>

**Notes.** 1) The data for 2017–2018 relate to LLC LUKOIL-Ekoenergo and LLC LUKOIL-Volgogradenergo. 2) The increase in investment in 2018 was due to the cost of acquiring the solar power unit for the Volgograd refinery being attributed to the reporting year, as well as due to an increase in the cost of the Belorechenskaya HPP reconstruction.

Share of total income from the sale of electrical power from renewable energy sources, %

<table>
<thead>
<tr>
<th>Year</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>10.5</td>
</tr>
<tr>
<td>2017</td>
<td>8.5</td>
</tr>
<tr>
<td>2016</td>
<td>6.8</td>
</tr>
</tbody>
</table>

**Note.** The indicator is calculated as the ratio of income received from the sale of electricity from renewable energy sources to the total amount of income received from the sale of electricity generated by commercial generation facilities of LUKOIL Group.

LARGEST SOLAR PARK IN THE NETHERLANDS

LUKOIL takes part in partner projects to develop renewable energy sources, in order to expand opportunities for increasing the generation of clean energy.

*Zeeland Refinery* - is a modern refinery located in the southwest of the Netherlands. PJSC LUKOIL is one of the refinery’s shareholders (45% stake). Focusing on sustainable development, Zeeland Refinery pays significant attention to issues related to boosting energy efficiency. The refinery’s plans include using energy from clean sources to cover a quarter of its power consumption.

As a part of this strategy, the refinery’s shareholders took the decision to build one of the largest industrial-grade solar parks in the Netherlands, called Zeeland Solar, on the refinery’s territory, with a capacity of 11 MW. Construction was completed in 2018. On a summer day the park is projected to supply around 20% of the refinery’s power consumption.

Zeeland Refinery also participates in the Smart Delta Resources platform, which comprises 11 major European industrial companies that combine their resources to determine effective ways of reducing CO₂ emissions (including CO₂ disposal technologies) by 20-50% by 2050.

Hydropower sector

LUKOIL Group owns four hydropower plants, with a cumulative capacity of 290.5 MW. In 2018, a number of projects to renovate and upgrade HPP equipment, optimize the operating mode of hydraulic units, and enhance the overall reliability and efficiency of operations were implemented, including renovating the Belorechenskaya HPP, renovating hydro-mechanical equipment at the gas-turbine station at the Maykopskaya HPP, and upgrading equipment at the Tsymlyanska HPP.

Personnel training

In order to develop the renewable energy sector in Russia and supply it with highly qualified personnel, LUKOIL assisted in creating a specialized Department of Renewable Energy Sources at the I.M. Gubkin Russian State University of Oil and Gas.

In 2018, a training and exploratory trip to the Volgogradskaya Solar Power Plant was organized for students of the department. The students were shown the stages of the project’s implementation, from design to plant launch; installed equipment; and the special features of operating the facility. Following the trip, the students were able to put into practice at the university the theoretical and practical knowledge they had acquired.
Q. Based on the results of the reporting year, which specific achievements from implementing the environmental safety program would you like to highlight?

A. LUKOIL is achieving a consistent improvement in indicators related to the impacts of our current and planned activity on the environment. In 2018 LUKOIL entities significantly reduced emissions of pollutants into the atmosphere, and achieved waste utilization and contaminated land remediation targets. Thanks to environmental safety program measures, the consumption of water from surface natural sources is being reduced and the quality of effluent is improving. In this way LUKOIL contributes to preserving sources of fresh water in the regions where the Company operates. We also continue to apply our cutting-edge technologies such as the “zero discharge” principle during work in offshore zones.
Q. How successful has the Company been in its measures to increase the reliability of pipelines?

A. LUKOIL devotes significant attention to reducing the number of pipeline transport accidents and seeks to comply with the global best practice of oil companies in this area. In 2018 the specific failure rate of pipelines contracted significantly, and we attained the best result in the past seven years. Thanks to pipeline transport renovation and retrofitting measures, the share of protected pipelines is increasing, which creates good conditions for further work.
**2018 RESULTS**

- Gross emissions fell significantly (by 14%) and specific indicators of pollutant emissions into the atmosphere were improved.
- The consumption of water resources from surface sources declined by 4%.
- Waste management targets were met: waste recovery corresponded to the volume of waste generated.
- Around 80,000 tons of pre-privatization waste were disposed of.
- The incident rate at hazardous production facilities was reduced.

**MANAGEMENT SYSTEM**

In LUKOIL Group the corporate Integrated System of Management of Industrial, Fire, Radiation Safety, Emergency Prevention and Liquidation, the Protection of Civilians, Occupational Safety and Environmental Protection (hereinafter, the HSE Management System) is in effect, and forms an essential part of the general management system. An integrated approach to HSE management has been developing on a voluntary basis since the mid-1990s.

The sphere of application of the HSE Management System of LUKOIL Group is determined based on an analysis of the internal and external factors of activities of LUKOIL Group and LUKOIL Group entities that influence the attainment of strategic goals.

**Certification of management systems**

The HSE management system has been certified for compliance with the international standards ISO 14001 and OHSAS 18001 since 2001; it is also based on Russian law provisions and the legislation of the countries in which LUKOIL Group operates.

The sphere of certification comprises LUKOIL Group entities in whose operations principal risks in the area of health, safety, and environmental protection from time to time arise.

As of December 31, 2018, certificates issued to PJSC LUKOIL and 48 LUKOIL Group entities were in effect (with total employee coverage of 83%).

The certification framework is steadily expanding, and foreign LUKOIL Group entities are regularly included in it. For example, from 2019 IOOO LUKOIL-Belarus will be included in the scope of certification.

During the three-year period in which a certificate is issued, an audit of the HSE Management System in LUKOIL Group entities is conducted. Depending on the nature of production, each entity undergoes an audit at least once, while hazardous production facilities and organizations where critical deviations have been established are audited every year or once every two years. In addition to external audits, corporate supervision over compliance between the HSE Management System and the requirements of law and corporate standards is performed annually.

**Number of entities where audits to determine compliance between management systems and the requirements of law and corporate standards were performed**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>External audits (for compliance with ISO 14001 and OHSAS 18001 standards)</td>
<td>22</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Internal audits (for compliance with corporate requirements)</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
</tbody>
</table>

*Note. External audits are conducted within a three-year cycle in accordance with ISO committee recommendations; during this period, all LUKOIL Group entities that have been declared for certification and in which certification or supervisory audits are conducted are audited.*

1. Waste from the pre-privatization period - waste accumulated at facilities during the period before their privatization and/or the acquisition of assets by LUKOIL Group.
2. With regard to the foreign entities LUKOIL Uzbekistan Operating Company LLC, ISAB S.r.l., S.C. LUKOIL ENERGY & GAS ROMANIA S.R.L., SIA VARS (VARS) and oil product supply entities.
3. The requirements for audits are established by the corporate standard STO LUKOIL 1.6.12-2016 “HSE Management System. Procedure for Organizing and Conducting Audits” (Order No. 143 of PJSC LUKOIL dated August 2, 2016).
Policy

LUKOIL Group Policy for Health, Safety, and Environmental Protection in the 21st century (hereinafter, the Policy) is in effect at the Company. In 2018, amendments were made to the Policy’s contents, and a new version was approved. The amendments stipulate the Company’s obligations vis-à-vis applying risk-oriented approaches, including on climate change issues and preserving biodiversity.

Employee engagement

In order to boost employee motivation when it comes to adhering to the HSE principles and obligations of LUKOIL Group, annual occupational safety and environmental protection competitions have been held in the Company for over 10 years. Competition participants submit projects and inventions that promote improving the occupational safety culture and mitigating against negative environmental impacts. The winners receive awards, while the other participants have an opportunity to study best practices in this area and to employ them to enhance HSE performance in their companies.

Targeted functional programs

In accordance with the corporate requirements for planning HSE activities, LUKOIL Group annually creates three-year medium-term targeted functional programs on a sliding basis in the sphere of environmental and industrial safety, which form an integral part of the Budget and Investment Program. As a part of the planning, program parameters are determined for one year and benchmarks for two years.

The implementation of environmental and industrial safety programs for 2018-2020 have facilitated a reduction in negative environmental impacts and improved industrial safety and occupational safety performance. Respective results are provided in relevant sections hereto. In 2018, work was completed to create medium-term targeted functional programs:

- A program related to industrial safety, improving labor conditions and industrial safety, and emergency prevention and mitigation of LUKOIL Group entities for 2019-2021 (hereinafter, the Industrial Safety Program).
- The Environmental Safety Program of LUKOIL Group Entities for 2019-2021 (hereinafter, the Environmental Safety Program).

R&D activities

In addition to targeted HSE programs, LUKOIL Group R&D function annually completes projects with high implementation potential, aimed at accomplishing pressing tasks in the sphere of reducing adverse environmental impacts and reducing waste or ensuring its productive use.

The annual LUKOIL Group R&D coordination program is developed on the basis of proposals from LUKOIL Group entities, hence it includes the most in-demand projects. The R&D Committee of PJSC LUKOIL creates the respective sections of the program, while the Presidium of the R&D Committee examines and approves the program as a whole.

In 2016-2018 a number of projects were implemented to reduce greenhouse gas emissions, improve working conditions during mining extraction, and create new formulae and expand the line of oils being produced.
Total volume of expenses on R&D, experimental engineering, and scientific technical works related to improving environmental and industrial safety, RUB million

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, including:</td>
<td>101</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>environmental protection</td>
<td>47</td>
<td>23</td>
<td>58</td>
</tr>
<tr>
<td>industrial safety</td>
<td>54</td>
<td>17</td>
<td>22</td>
</tr>
</tbody>
</table>

EXAMPLES OF PROJECTS BEING IMPLEMENTED

**CLIMATE CHANGE**

- Developing the technology for the combined injection of heat media and carbon dioxide to increase the oil recovery factor of the Permian reservoir of the Usinskoye Field.
- Developing a range of AC converter-fed motors with improved heat tolerance for centrifugal and screw-type pumps.
- Developing an automated closed system for collecting oil produced using the thermal mining method.

**PROTECTION OF WATER RESOURCES**

- Developing a geofiltration model to optimize protective structures on the Pyzh River.
- Ensuring the environmental safety of lake and bog landscapes of oil and gas-bearing regions of the Sub-Arctic and Arctic Zones of the Russian Federation.
- Developing complex technologies and manufacturing equipment to remove oil and oil products from water bodies.

**ENERGY EFFICIENT PRODUCTION AND GREATER RESOURCE EFFICIENCY.**

- Developing energy-saving oils at the request of Daimler, Renault/Nissan.
- Developing and implementing an automated monitoring system for the operation of the ASSB 60-30 in-line analyzer.
- Expanding the rational use of natural gas for the production of marketable products with high added value.

1 In May 2019, PJSC LUKOIL was issued a favorable state environmental appraisal for its oil-in-water technology.
Awards

Based on the results of the Year of Environmental Protection that was held in Russia in 2017, PJSC LUKOIL was awarded a special prize by the Ministry of Natural Resources and the Environment of Russia in the category “For the Active Environmental Policy of Companies during the Year of Environmental Protection.” The resulting activities on environmental protection and openness to interaction with stakeholders positively reflect the Company’s environmental rating positions.

Compliance with environmental legislation

PJSC LUKOIL carefully monitors changes to legislation and rules that apply to the entire range of issues related to the operation of organizations in the fuel and energy sector in each country where we operate. Using qualitative analysis, situation modelling, and forecasting, the prerequisites for the manifestation of regulatory risks are disclosed in a timely manner, and steps are taken to adequately and timely react to cross-functional regulatory risks.

New provisions in Federal Law No. 7-FZ dated January 10, 2002 “On Environmental Protection,” which change the requirements for production facilities that have negative impacts on the environment, are coming into effect in Russia, and provisions relating to the implementation of the best available technologies have also been introduced. In Bulgaria and Romania, legislative conditions are also changing, including in relation to the requirements for complex environmental permits.

Thanks to the completion of a large-scale modernization program for the Russian oil refineries of LUKOIL Group, the Company has sought to ensure its ability to meet the new requirements. The modernization program was accompanied by the construction of environmental protection facilities (discharge treatment and disposal plants), refurbishments of treatment facilities, and other activities. As a result, in the context of a substantial complication of oil-refining processes, increased oil-processing volumes, and bringing product quality into compliance with European standards, a stabilization and in some cases a reduction in specific indicators of pollutant emissions into the atmosphere was achieved, and the treatment of wastewater in accordance with regulatory standards was ensured.

Environmental safety program activities are aimed at reducing the negative impacts of LUKOIL Group entities. Thanks to systematic work in the sphere of industrial and environmental safety, in 2018 no material cases of fines or damages were recorded.

The share of excess payments in 2018 stood at 23%. In the past five years, this indicator has dropped by a factor of more than three (from 85.5% in 2014).

Environmental Safety Program

Following the implementation of environmental safety program activities, environmental performance improved in 2018, including in terms of reducing pollutant emissions into the atmosphere and reducing water consumption from above-ground sources in the electrical energy sector.

The updated Environmental Safety Program for 2019–2021 comprises over 900 measures, with a total cost of around RUB 106.5 billion (RUB 89.1 billion in investments; RUB 17.4 billion in operating expenses). 45 Russian and foreign LUKOIL Group entities participate in the program. Principal funding areas comprise:

- Emergencies and response preparedness (around 40% of the program’s budget)
- Achieving a reduction in emissions, discharges of pollutants and water consumption, subject to the requirements for transitioning to the best available technologies in Russia
- Continued work on the rehabilitation of accumulated damage (including in the Russian Arctic Zone)

Environmental protection targets have been set in both qualitative and quantitative terms.

The total cost of the Environmental Safety Program of the LUKOIL Group for 2019–2021

106.5 RUB billion
## ENVIRONMENTAL SAFETY PROGRAM GOALS AND INDICATORS FOR 2018 AND 2019-2021

<table>
<thead>
<tr>
<th>2018</th>
<th>GOALS FOR 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utilization level of associated petroleum gas</strong></td>
<td>A further increase in the indicator value</td>
</tr>
<tr>
<td>97.4%</td>
<td></td>
</tr>
<tr>
<td><strong>Pollutant emissions into the atmosphere, thousand tons</strong></td>
<td>To be reduced by 5% in relation to the 2018 indicator in LUKOIL Group</td>
</tr>
<tr>
<td>451.3</td>
<td></td>
</tr>
<tr>
<td><strong>Wastewater discharged into surface water objects, million cubic meters</strong></td>
<td>A further reduction in the indicator value</td>
</tr>
<tr>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td><strong>Total water consumption (for own needs)</strong></td>
<td>A further reduction in the indicator value</td>
</tr>
<tr>
<td>374.4</td>
<td></td>
</tr>
<tr>
<td><strong>Disposal of waste accumulated during the pre-privatization period, thousand tons</strong></td>
<td>Reduce by 250,000 tons</td>
</tr>
<tr>
<td>84.1</td>
<td></td>
</tr>
<tr>
<td><strong>Rehabilitation of contaminated land, hectares</strong></td>
<td>Approximately 40 hectares per annum</td>
</tr>
<tr>
<td>50.3</td>
<td></td>
</tr>
<tr>
<td><strong>Minimizing the impacts of operations of LUKOIL Group entities on the biodiversity of vulnerable territories, including the Russian Arctic Zone</strong></td>
<td>Confirming that operations have no impact on biodiversity, based on the results of in-production environmental controls, the monitoring of environmental components, and improving management mechanisms</td>
</tr>
<tr>
<td>Providing in-production environmental controls and the monitoring of environmental components</td>
<td></td>
</tr>
</tbody>
</table>
Costs of environmental protection activities performed by LUKOIL Group entities, RUB million

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total costs, including:</td>
<td>53,286</td>
<td>42,412</td>
<td>35,529</td>
</tr>
<tr>
<td>capital costs</td>
<td>30,854</td>
<td>21,927</td>
<td>28,498</td>
</tr>
<tr>
<td>a) Russian entities, total</td>
<td>53,286</td>
<td>42,412</td>
<td>34,339</td>
</tr>
<tr>
<td>including capital costs</td>
<td>30,854</td>
<td>21,927</td>
<td>27,552</td>
</tr>
<tr>
<td>b) foreign entities, total:</td>
<td>no data</td>
<td>no data</td>
<td>1,190</td>
</tr>
<tr>
<td>including capital costs</td>
<td>no data</td>
<td>no data</td>
<td>946</td>
</tr>
</tbody>
</table>

Notes. 1) Reducing the total funding volume for Environmental Safety Program measures is connected with the completion of the main stage of the Program for the Rational Utilization of Associated Petroleum Gas in LUKOIL Group Entities. 2) The costs of the Environmental Safety Program comprise: expenses related to the Program for the Rational Utilization of Associated Petroleum Gas by LUKOIL Group Entities, waste removal and disposal, the treatment of emissions and discharges, the performance of in-process environmental controls and the monitoring of environmental components, the preservation of biodiversity, eradicating damage, and preparedness for the liquidation of emergencies (sum of operating and capital costs). 3) When calculating costs in the foreign entities of LUKOIL Group, the 2018 currency exchange rate of USD 1 = RUB 63 was used.

## UTILIZATION OF WATER RESOURCES

Water is used at all stages of the production cycle in the oil and gas industry (from exploratory drilling to raw material processing into end products and their transportation to consumers). At the same time, water is required by people, animals, and plants, which underlines the social and ecological importance of sustainable water use. A lack of fresh drinking water results in significant health risks for people. Hence access to fresh drinking water constitutes a fundamental human right.

### Water consumption

Russia has a healthy water supply¹ and the oil & gas sector has a relatively low impact on fresh water consumption compared to other sectors of the economy². Nonetheless, we believe improving water use efficiency and maintaining the cleanliness of surface and underground waters to be important issues.

LUKOIL HSE Policy for 21st century³ sets forth obligations for the rational use of natural resources (including water), and is aimed at:
- Minimizing impacts from business activity, including a reduction in the use of water resources.
- Decreasing the dependence of production facilities on possible external negative factors, including natural ones (droughts, the drying up of reservoirs, the contamination of underground springs).

Seeking to ensure a more effective water use, we strive to identify risks in a timely manner and to minimize them through the implementation of cutting-edge water-efficient technologies. Our main approach to attaining our objective of sustainable water use is the implementation of water recycling and reuse systems at production facilities and the maximum beneficial use of water which is withdrawn, including formation water.

³ See: LUKOIL HSE Policy for 21st century.
Low-water regions

The bulk of LUKOIL Group’s production activities in Russia are performed in regions that do not experience a deficit of fresh water (with the exception of low-water years in regions with high population density and concentrations of economic activity). Nevertheless, the southern regions of Russia (Krasnodar Territory and the Rostov and Astrakhan regions) from time to time experience droughts and sharp weather variations, which impact total water consumption. According to data from the State Report “On the Condition and Utilization of Water Resources of the Russian Federation in 2016,” the population of the southern regions is provided with adequate levels of fresh drinking water.

Among LUKOIL Group entities, the main consumers of fresh water in the southern regions are LLC LUKOIL-Astrakhanenergo and LLC LUKOIL-Rostovenergo, although the share of consumption by these organizations in the total fresh water consumption of the respective regions is negligible. For example, in the Rostov Region it is less than 0.01%.

Among the foreign countries in which LUKOIL Group operates, Uzbekistan and Iraq belong to the category of low-water countries. In these countries there are risks of frequent droughts, inadequate supplies of drinking water, and interruptions in the supply of clean, fresh water to the local population. Apart from climatic conditions, the situation is exacerbated by social factors: an insufficiently developed utility infrastructure and a high depletion level of the resources of water-supply systems.

LLC LUKOIL Uzbekistan Operating Company operates in the Bukhara and Kashkadarya regions, as the operator of one of the Company’s priority natural gas extraction and processing projects at the Kandymskaya and Gissarskaya groups of deposits. Most of the Bukhara Region is covered by the Kyzylkum Desert, therefore the water supply of the region is far lower than that of the rest of the country.

In Iraq there is a critical situation with the water supply, due to increasing desertification and a reduction in reserves of terrestrial water resources.

In order to help the local population in both countries, LUKOIL Group entities implement a number of social projects, one of which is to provide drinking water to children’s institutions and assisting in organizing the extraction of water to irrigate gardens. In Iraq in 2018 most attention was paid to renovating and re-equipping water treatment and water pressure plants that supply water to local villages, in particular, those in the Izeddin Salim administrative district.

Projects to assist in supplying drinking water to local populations in 2018

Assessment of the risk of lack of water

Astrakhan Region
- Medium
- Main activities: Supporting local organizations as part of the Social and Cultural Projects Competition of PJSC LUKOIL.

Uzbekistan
- High
- Main activities: Supplying drinking water to orphanages and boarding schools in the towns of Bukhara and Karshi, with a total coverage of over 2,200 students.

1 Based on data from the State Report “On the Condition and Utilization of Water Resources of the Russian Federation in 2016,” the total consumption of fresh water in the Rostov Region was 2,212.1 million cubic meters.

2 LUKOIL Group entities also operate in Kazakhstan and Egypt, which are also low-water regions. However, in these regions LUKOIL does not perform extraction work.

3 According to the World Resource Institute.
“Fresh Waters” sub-program

The objectives achieved under the “Fresh Waters” sub-program include:

- The rational use of water resources
- Preventing the contamination of surface bodies of water with highly mineralized formation waters
- Reduced discharges of contaminated wastewater into surface bodies of water

Main activities include the construction, renovation, and technical retooling of water treatment and wastewater purification systems. On an annual basis organizations from the electrical energy sector carry out maintenance work to optimize the operation of boiler equipment and heating networks.

In 2018, RUB 3 billion was allocated to implement such measures, and it is planned to earmark around RUB 7 billion more in 2019–2021.

Water consumption by LUKOIL Group entities

<table>
<thead>
<tr>
<th></th>
<th>Russian entities</th>
<th>Foreign entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawn water, total,</td>
<td>428.5</td>
<td>21.3</td>
</tr>
<tr>
<td>million cubic meters,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>consumed for in-house</td>
<td>354.9</td>
<td>19.5</td>
</tr>
<tr>
<td>purposes (household,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>production, other)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water transferred</td>
<td>39.1</td>
<td>1.8</td>
</tr>
<tr>
<td>unused to third-party</td>
<td></td>
<td></td>
</tr>
<tr>
<td>consumers (net of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>intragroup exchanges)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>other operations:</td>
<td>34.5</td>
<td>0</td>
</tr>
<tr>
<td>a) formation water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(collected together with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>oil and not used for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>formation-pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>maintenance, but rather</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pumped into absorbing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subsoil horizons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) household wastewater</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(sent for treatment to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukhtinsky Refinery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>facilities)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water discharges, total</td>
<td>337.6</td>
<td>14.9</td>
</tr>
<tr>
<td>million cubic meters,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water discharges into</td>
<td>214.7</td>
<td>14.7</td>
</tr>
<tr>
<td>surface bodies of water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water discharges into</td>
<td>11.3</td>
<td>0</td>
</tr>
<tr>
<td>the sea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water discharges into</td>
<td>104.0</td>
<td>0.2</td>
</tr>
<tr>
<td>underground formations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water delivered after</td>
<td>18.4</td>
<td>0</td>
</tr>
<tr>
<td>use to a third party</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(net of intragroup</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>exchanges)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Sea water is used to cool equipment and returns to a water body at a natural temperature, without being used in other production processes and absent relevant pollution.

Water consumption sources

In the water withdrawal structure of the Russian entities of LUKOIL Group, around 85% of the volume of withdrawn water is made up of surface and underground sources. Water withdrawal is insignificant and is carried out mainly at the basins of the Ob, Pechora, Volga, Don, and Kuban rivers, in accordance with respective permits and within prescribed quotas. Risks of water deficits are recorded with respect to the Don and the Kuban basins, especially on the territory of the Krasnodar Territory, which has limited water resources.

Total water withdrawal by LUKOIL Group entities by water withdrawal sources, million cubic meters

<table>
<thead>
<tr>
<th>Water withdrawn, total, including:</th>
<th>By Russian entities</th>
<th>By foreign entities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>including by electrical energy sector entities</td>
<td>345.1</td>
<td>331.9</td>
</tr>
<tr>
<td>a) from surface sources, including:</td>
<td>297.4</td>
<td>279.7</td>
</tr>
<tr>
<td>sea water</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>water from other surface sources</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>b) from underground sources, including:</td>
<td>77.1</td>
<td>76.1</td>
</tr>
<tr>
<td>fresh water</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>c) from other sources (centralized water supply systems, etc.)</td>
<td>147.6</td>
<td>155.3</td>
</tr>
</tbody>
</table>

Notes. 1) The water consumption calculation method was updated in 2018: accounting for water used in intragroup transfers (between LUKOIL Group entities) was eliminated. The difference in “Water withdrawal” indicators for 2017 and 2018 results from eliminating the volume of intragroup water transfers (56 million cubic meters). 2) The data provided for 2018 for foreign entities do not include ISAB S.r.l. 3) The value presented in the “Water withdrawal from other sources (centralized water supply systems, etc.)” line item is provided for 2018 net of intragroup exchanges. 4) Some indicators for 2016 and 2017 are not available, as the recommendations on their disclosure were introduced by GRI standards from 2018.

Water use

The total indicators of water withdrawal and water consumption in Russia are significantly influenced by electrical energy sector entities (whose consumption amounts to around 62%). These are major consumers of water used in steam generation and to cool thermal power plant equipment. The availability of these assets is a distinguishing feature of LUKOIL’s business model compared to other oil and gas companies.

Oil and gas extracting entities use water primarily to maintain formation pressure. The share of the business segment in water utilization for LUKOIL Group is around 28%. Entities within the processing and sales business segments together consume around 10% of total water consumption in LUKOIL Group.

Specific water consumption remains relatively stable in all business sectors. At electrical energy sector entities this indicator has been falling, due to measures taken to decommission obsolete equipment. In particular, in 2018 the consumption of make-up\(^1\) water for the needs of the LLC LUKOIL-Astrakhanenergo heating network was reduced, and the withdrawal of water from the Kuban by LLC LUKOIL-Kubanenergo declined, thanks to the implementation of an investment project to upgrade sluice gates.

\(^1\) Make-up water is water that has been chemically and thermally processed and is intended to compensate water losses in heat-consuming installations and heat networks.
Specific water consumption for in-house needs by Russian LUKOIL Group entities, broken down by main types of activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas extraction,</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>cubic meters/ton of oil equivalent in hydrocarbon resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil processing,</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>cubic meters/ton of processed oil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petrochemicals,</td>
<td>6.2</td>
<td>7.3</td>
<td>6.4</td>
</tr>
<tr>
<td>kg/ton of processed raw materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil products supply,</td>
<td>0.06</td>
<td>0.07</td>
<td>0.1</td>
</tr>
<tr>
<td>cubic meters/ton of oil products sold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation,</td>
<td>0.04</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>cubic meters/ton of oil products transported</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical energy sector,</td>
<td>40.1</td>
<td>34.4</td>
<td>34.0</td>
</tr>
<tr>
<td>cubic meters/ton of oil equivalent in consumed fuel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. 1) Specific indicators are calculated based on the volumes of water consumed by LUKOIL Group entities for their own needs. 2) Fluctuations in the indicators of petrochemical and oil refining entities are due chiefly to a change in the volume of products produced.

Water removal

After use in production processes, water is sent to treatment facilities. Established levels of wastewater quality are observed as part of in-process environmental monitoring by both in-house laboratories and accredited third-party independent laboratories.

Major measures taken in 2018 to improve wastewater quality at oil and gas extraction entities included the construction of wastewater treatment facilities at the Yareganef oil and mines division of LLC LUKOIL-Komi (the facility is scheduled to be commissioned in 2019).

In oil-refining, petrochemical, and electrical energy entities in Russia there have in recent years been no discharges of insufficiently treated wastewater into water bodies.

In 2018, the share of insufficiently treated wastewater in the total volume of water removal in the Russian entities of LUKOIL Group remained negligible; in foreign entities, there were no discharges of undertreated water. The weight of dangerous chemicals (Hazard Class 2, mainly lead) in the total volume of wastewaters discharged into bodies of water was 64 kg.

Quality of wastewater discharged into surface bodies of water by Russian LUKOIL Group entities, million cubic meters

<table>
<thead>
<tr>
<th>Wastewater discharged, total, including:</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>clean in accordance with the standard</td>
<td>223.7</td>
<td>206.2</td>
<td>186.3</td>
</tr>
<tr>
<td>treated in accordance with the standard</td>
<td>19.5</td>
<td>29.1</td>
<td>27.5</td>
</tr>
<tr>
<td>polluted water</td>
<td>0.7</td>
<td>1.1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Note. Polluted water is insufficiently treated water and wastewater that is not treated.

2 With the exception of water used to maintain formation pressure, supplement water reuse systems, and a number of other purposes.
**Specific discharges of insufficiently treated wastewater into bodies of water by Russian entities of LUKOIL Group**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas extraction, cubic meters/ton of oil equivalent in hydrocarbon resources</td>
<td>0.005</td>
<td>0.008</td>
<td>0.004</td>
</tr>
<tr>
<td>Oil products supply, cubic meters/ton of oil products sold</td>
<td>0.001</td>
<td>0.004</td>
<td>0.003</td>
</tr>
<tr>
<td>Transportation, cubic meters/ton of oil products transported</td>
<td>0.002</td>
<td>0.008</td>
<td>0.009</td>
</tr>
</tbody>
</table>

**Notes.** At oil product supply, petrochemical and electrical energy sector entities, there are no discharges of insufficiently treated waters into bodies of water.

**Circulating water**

The facilities of generating entities in the electrical energy sector and oil-refining and petrochemical production facilities in Russia are equipped with circulating process water supply systems. New production facilities are required to be equipped with circulating and recycled water supply systems and treatment facilities.

**Volumes of circulating water supply and reused water in LUKOIL Group entities, million cubic meters**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian entities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of circulating water supply</td>
<td>2,371.9</td>
<td>2,253.1</td>
<td>2,284.2</td>
</tr>
<tr>
<td>Volume of reused-sequentially used water</td>
<td>930.6</td>
<td>875.5</td>
<td>896.5</td>
</tr>
<tr>
<td>Foreign entities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of circulating water supply</td>
<td>no data</td>
<td>no data</td>
<td>198.9</td>
</tr>
<tr>
<td>Volume of reused-sequentially used water</td>
<td>no data</td>
<td>no data</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Notes.** The data presented for 2018 on foreign entities include data for LUKOIL Neftohim Burgas AD, PETROTEL-LUKOIL S.r.lA., and LUKOIL Uzbekistan Operating Company LLC.

**EMISSIONS AND WASTE**

**In 2018 Russian entities significantly reduced emissions of pollutants into the atmosphere (by 14%)**

**Emissions into the atmosphere**

The main measures of the environmental safety program in Russia in relation to pollutant emissions into the atmosphere comprise:
- Upgrading and constructing new generation facilities at electrical energy sector entities that are equipped with improved automated systems to regulate fuel combustion processes and heat losses and minimize emissions of pollutants
- Replacements or upgrades according to the principle of utilizing the best available technology and equipment at industrial facilities
- Use of emission trapping and treatment systems

In 2018 Russian entities significantly reduced emissions of pollutants into the atmosphere (by 14%), including solid particles and nitrogen oxide. This result was achieved chiefly through reducing associated petroleum gas combustion volumes.

The majority of discharges from foreign entities was attributable to the rapid development of a gas project in Uzbekistan.
**Gross discharges of pollutants into the atmosphere (net of CO₂) by LUKOIL Group entities, thousand tons**

<table>
<thead>
<tr>
<th></th>
<th>By Russian entities</th>
<th>By foreign entities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>Total, including:</td>
<td>627.5</td>
<td>502.5</td>
</tr>
<tr>
<td>NOₓ discharges</td>
<td>44.0</td>
<td>49.6</td>
</tr>
<tr>
<td>SO₂ discharges</td>
<td>59.7</td>
<td>23.0</td>
</tr>
<tr>
<td>solid particle discharges</td>
<td>26.9</td>
<td>24.3</td>
</tr>
<tr>
<td>CO discharges</td>
<td>295.9</td>
<td>216.6</td>
</tr>
<tr>
<td>hydrocarbon discharges (including volatile organic compounds (VOC))</td>
<td>199.2</td>
<td>187.8</td>
</tr>
<tr>
<td>discharges of other pollutants</td>
<td>1.8</td>
<td>1.2</td>
</tr>
</tbody>
</table>

**Specific discharges of pollutants into the atmosphere by Russian entities of LUKOIL Group**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas extraction, kg/ton of oil equivalent in extracted hydrocarbon resources</td>
<td>5.5</td>
<td>4.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Oil refining, kg/ton of refined oil</td>
<td>0.9</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Petrochemicals, kg/ton of processed raw materials</td>
<td>1.0</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Oil products supply, kg/ton of oil products sold</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Transportation, kg/ton of oil products transported</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>electrical energy sector, kg/ton of oil equivalent in consumed fuel</td>
<td>3.7</td>
<td>2.6</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**Waste**

Our main approach to the management of industrial waste consists of:
1) applying the latest technologies that reduce waste generation,
2) preventing excessive build-ups of waste at LUKOIL Group entity facilities,
3) placing waste at specialized facilities that meet modern requirements, and
4) the timely and safe disposal of waste.

Most of the production waste of LUKOIL Group in Russia is generated during the process of well drilling and operation; the volume of waste generated depends primarily on the scope of drilling and repair works at wells. For this reason, in the past three years the volume of waste generation has risen by approximately 50%. The main types of waste are drilling mud and spent drilling fluids.

In 2018 the ratio of recycled waste to newly formed waste was equal to one.

**Generation of waste of Hazard Classes 1-5 and waste handling in Russian entities of LUKOIL Group, thousand tons**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste generation volume, total</td>
<td>1,033</td>
<td>1,434</td>
<td>1,529</td>
</tr>
<tr>
<td>Amount of waste used, neutralized, and handed over to specialized entities, as well as landfill waste</td>
<td>1,115</td>
<td>1,396</td>
<td>1,582</td>
</tr>
</tbody>
</table>

**Notes:**
1) The data for 2018 for foreign entities include data for LUKOIL Neftohim Burgas AD, PETROTEL-LUKOIL S.A., and LLC LUKOIL Uzbekistan Operating Company.
2) The weight of hazardous substances (benzo[a]pyrene) in discharges by the Russian entities of LUKOIL Group in 2018 amounted to 0.00098 thousand tons.
3) Data on waste generation volumes for 2016–2018 are shown net of rock waste generated during the boring of oil wells at LLC LUKOIL-Komi (Hazard Class 5).
Waste management, 2018, thousand tones

<table>
<thead>
<tr>
<th>Waste at the beginning of the reporting year</th>
<th>2018</th>
<th>Waste generation volume, total</th>
<th>1,529</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste at the end of the reporting year</td>
<td></td>
<td>Amount of waste used, neutralized, and handed over to specialized entities, as well as landfill waste</td>
<td>1,582</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waste at the beginning of the year, total, thousand tons</td>
<td>933</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waste generated during the year, total, thousand tons</td>
<td>1,529</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waste at the end of the year, total, thousand tons</td>
<td>886</td>
</tr>
</tbody>
</table>

According to the respective environmental hazard classification, most generated waste is attributed to Class 4 (low-hazard) or Class 5 (non-hazardous), and is mostly recycled. The share of hazardous waste (hazard classes 1 and 2) that contain substances that are dangerous to people’s lives and health and can cause irreparable changes to environmental systems amounts to 0.01% of the total volume of generated waste; such waste is subject to mandatory disposal. Hazard Class 3 (moderate) waste includes a portion of oil-containing waste (with an oil product content in excess of 15%). This comprises around 10% of the total volume of generated waste.

Hazard class 1-5 waste over time at Russian entities of LUKOIL Group in 2018, thousand tons

<table>
<thead>
<tr>
<th>Waste at the beginning of the year, total, thousand tons</th>
<th>Waste generated during the year, total, thousand tons</th>
<th>Waste at the end of the year, total, thousand tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, 933</td>
<td>1,529</td>
<td>886</td>
</tr>
<tr>
<td>including: oil-containing, 22</td>
<td>192</td>
<td>22</td>
</tr>
<tr>
<td>drilling waste</td>
<td>156</td>
<td>972</td>
</tr>
<tr>
<td>Hazard Class 1</td>
<td>0.0007</td>
<td>0.036</td>
</tr>
<tr>
<td>Hazard Class 2</td>
<td>0.0033</td>
<td>0.09</td>
</tr>
<tr>
<td>Share of waste of Hazard Classes 1 and 2, %</td>
<td>0.0004</td>
<td>0.008</td>
</tr>
<tr>
<td>Hazard Class 3 (oil-containing)</td>
<td>23</td>
<td>159</td>
</tr>
<tr>
<td>Share of waste of Hazard Classes 1, 2, and 3, %</td>
<td>2.5</td>
<td>10.4</td>
</tr>
<tr>
<td>Hazard Class 4</td>
<td>878</td>
<td>1,117</td>
</tr>
<tr>
<td>Hazard Class 5</td>
<td>32</td>
<td>253</td>
</tr>
</tbody>
</table>

Notes. There is no direct correspondence between the concept of “hazardous waste” in foreign practice and Russian legislation. Most substances categorized as hazardous waste in the international accounting system are contained in waste of the 1 and 2 hazard classes. In Russia, waste of the 1-3 hazard classes is considered hazardous, the waste of hazard class 4 low-hazard, and the waste of hazard class 5 non-hazardous. The hazard class is determined based on criteria approved by the Russian Ministry of Natural Resources and Ecology.

Waste generation by foreign entities of LUKOIL Group in 2018, thousand tons

<table>
<thead>
<tr>
<th>Waste at the beginning of the year, total, thousand tons</th>
<th>Waste generated during the year, total, thousand tons</th>
<th>Waste at the end of the year, total, thousand tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>23.1</td>
<td>27.0</td>
</tr>
<tr>
<td>including: oil-containing, 19.9</td>
<td>5.3</td>
<td>16.6</td>
</tr>
</tbody>
</table>

Notes. The data for 2018 for foreign entities include data for LUKOIL Neftohim Burgas AD, PETROTEL-LUKOIL S.A., and LLC LUKOIL Uzbekistan Operating Company.

1 Here and later, the term “disposal” is used to mean “use, neutralization, landfilling, or handing over to a specialized organization for these purposes”.
2 Excluding waste received from third parties.
The Company has switched to a sumpless well-drilling concept, according to which generated drilling waste is not stored/landfilled at the drill sites, but is sent for use or neutralization, which ensures that the key performance indicator for waste-handling is met.

We pay careful attention to the quality of waste disposal works carried out by contractors, and monitor their operations as part of concluded contracts: waste-handling methods, the state of the in-process control system, and the availability of the necessary resources to fulfill contractual obligations are verified. LUKOIL Group entities are continuously expanding their level of interaction with contractors in order to improve the quality of their work.

**Land rehabilitation**

Land rehabilitation works are performed at sites that have become contaminated with oil due to failures in the oil-production infrastructure, or due to other incidents. The rehabilitation of contaminated land is carried out in all territories where the Company operates. In view of the climatic conditions of operations in Russia (chiefly the northern latitudes), the necessary rehabilitation cycle of a contaminated site takes at least two years. In 2018, 50.3 hectares of land were transferred to the state commission. As a result of completing all rehabilitation stages, including the microbiological stage, the content of oil products on this land was reduced to safe levels.

**Pre-privatization damage management**

As of December 31, 2018, in the previous six years the volume of “old” waste decreased by 575,000 tons (compared to data at the beginning of 2013, when the last stocktaking was performed).

The balance sheets of a number of oil production and processing entities accumulated large volumes of mainly oil-containing waste during the period before privatization and/or the acquisition of respective enterprises by LUKOIL Group (pre-privatization [“old”] damage). At its own initiative the Company disposes of such waste at its own expense (except for LUKOIL Neftochim Burgas AD, where respective activities are financed by the state). The volume of pre-privatization waste is declining each year. In 2018, the volume of “old” waste fell in comparison to 2017:

- at Russian entities, by 16% (to 268,9 thousand tons)
- at LUKOIL Neftochim Burgas AD, by 13% (by 396,5 thousand tons)

The pre-privatization waste of PETROTEL-LUKOIL S.A. (Romania), LLC LUKOIL-West Siberia, and LLC RITEK was processed in full.

**BIODIVERSITY CONSERVATION**

The conservation of natural ecosystems and biodiversity is of significant economic, environmental, and social importance. It helps create productive habitats and has an important impact on people’s health.

**Our goal** is to preserve the diversity of natural biosystems in the regions where the Company operates and to ensure that they are treated carefully, so that their ability to self-repair is not threatened.

**Operating principles and methods**

We act to preserve biodiversity based on the “prevention – reduction – restoration – compensation” principle.

At an early stage, an assessment of the impact of proposed environmental projects (an environmental impact assessment) is performed, during which background information about the state of ecosystems on the territory of proposed operations is collected (including the condition of valuable and specially protected species of flora and fauna). The data received are taken into account when selecting the site for production facilities; if necessary, alternative project implementation options are considered. The risk of
harmonizing biodiversity is assessed, and the environmental and related social and economic consequences of such harm are estimated.

During the early stage, we take steps to reduce and compensate for the impact of production hazards and risks, including measures to prevent the introduction of alien species. The assessment of environmental monitoring results is used to adjust adopted measures and activity plans. Particular attention is paid to readiness to mitigate emergencies, impacts on animals, birds, and the plant world, as well as measures to save them from further harm.

**Environmental monitoring**

The Company employs cutting-edge technologies to ensure environmental safety and invests significantly in this area. In particular, an integrated in-process environmental control (hereinafter, the IPEC) system has been implemented at facilities for the development of marine deposits and transportation. This facilitates assessing their environmental impacts in a timely manner. The innovativeness of IPEC lies in the way that complex natural and man-made environments at each life cycle stage of a facility are observed, using satellite surveys and underwater observations (subsea and geophysical stations and measurements directly at production facilities and in their vicinity).

Corporate methods were developed for the operational interpretation of environmental monitoring data. For example, the system for assessing the impact of oil production on the marine ecosystem is reflected in the corporate standard of LLC LUKOIL-Nizhevolzhskneft, in relation to environmental monitoring using bottom stations and identifying sources of hydrocarbon pollution in the Caspian Sea during oil and gas field development.

**Measures programs**

The main measures for preserving biodiversity comprise: introducing fish and bird protection devices; compensating for damage to water biological resources; clearing small riverbeds, including in areas of underwater pipeline systems; rehabilitating oil-contaminated soils; and landscaping work and improvements to production bases. Specific activities are planned and implemented as part of the environmental safety programs of LUKOIL Group entities.

PJSC LUKOIL implements a Biodiversity Preservation Program for the Company’s facilities operating in the Russian Arctic Zone. Under this program, companies operating in the zone (LLC LUKOIL-West Siberia, LLC LUKOIL-Komi, and LLC Varandey Terminal) develop their own action plans to preserve biodiversity, including rare species of flora and fauna (indicator species).
LUKOIL Neftochim Burgas AD is located at two production sites. The main site is located within 20 km of the small (inner) Gulf of Burgas, and the port terminal is located on the Black Sea, in the so-called Gypsy Gulf – the southern part of the large Gulf of Burgas. The mild climate, the proximity of the sea and three lakes with various salinity levels, and the availability of wet zones contribute to a significant diversity of animal and plant species in the area.

The Via Pontica, one of the three main routes of migratory birds in Europe, passes over the west coast of the Black Sea, above both production sites. This route is used by many species of birds, including 78% of all white storks and the entire population of rosy pelicans in Europe, as well as rare Eastern imperial eagle and griffon vulture.

The Rosenets Port Terminal is partially located in the territory of the protected area Bakyrlyka. Within the territory of the terminal, the reptile leopard snake (Zamenis situla), the spur-thighed tortoise (Testudo graeca ibera), and the Hermann’s tortoise (Testudo hermanni) have been found. All three species are listed in the Red Book of the Republic of Bulgaria with the environmental status EN (meaning that the species is under threat of extinction).

LUKOIL Neftochim Burgas AD implements biodiversity conservation measures. An Information Sheet was developed to describe the species of birds and sea animals living on the territory, the areas of their habitat, and the rules of conduct. The personnel of the plant and the port terminal, as well as representatives from external organizations operating at production sites, are acquainted with the document.

Should an employee find an animal in distress, the animal should be delivered to the Environmental Department of the plant for subsequent transportation to a rescue center through partners, i.e. the District Environmental and Water Inspectorate or a non-governmental environmental organization. Similar actions are also taken for city animals, i.e. cats and dogs, which are sent to local shelters. The enterprise plans to develop a guide for the steps to be taken upon discovering an animal in distress, which should increase the animal’s chances of survival thanks to the timely help of LUKOIL employees.

Due to such measures, a number of rare species of birds can be rescued and even rehabilitated. In 2014, a bird in distress was found in the territory of the main site and was brought by the plant’s employees to the rescue center. There it was identified that it was a lesser kestrel (Falco naumanni) – a species that was thought to have disappeared from the country in the 1950s. In Bulgaria, there is an international project dedicated to the revival of the lesser kestrel, as part of which the Green Balkans adaptation center was created in the Sakar Mountains, where they have managed to establish a small colony of this species. All birds accepted and hatched in this center are marked. However, the lesser kestrel found at the plant was not marked, which meant it was a representative of a natural colony. A study was conducted at the place where the bird was found, and it confirmed the existence of a small group of birds.

For the conservation of the lesser kestrel, LUKOIL Neftochim Burgas AD developed an action plan, which was approved by the Chairman of the Management Board. Over the next few years, Environmental Department employees worked with the adaptation center on a project to restore the population of this bird. They identified exact nesting sites and performed observation work. In 2017 Green Balkans installed 10 wooden nests, and in May 2018 it was established that at least three artificial nests were being used by lesser kestrels.

One of the birds was marked and named Emma, after the daughter of one of the plant’s employees. A transmitter transfers data on the location of the bird every 10 days. Based on the satellite data for August 20, 2018, Emma was found in Hungary. This is a precedent for the Bulgarian population of this species, and confirms that it is gradually reviving.
LUKOIL has considerable experience in oil production projects in northern and southern seas. We believe offshore projects are a promising trend in oil production, which will expand with the development of more reliable and safer technologies.

At the same time, marine systems are particularly vulnerable to negative impacts, given the high speed at which contaminants spread, the ability to accumulate contaminants in sediment beds, and the high risk of death to a significant number of fish, animals, and plants. The main environmental risks of implementing offshore projects are associated with spills of oil, drilling fluids, and other hazardous liquids. We believe that targeted measures to ensure the safety of marine ecosystems are obligatory conditions for the implementation of the Company’s offshore projects.

In Russia, we are developing offshore projects:
- In the Baltic and Caspian Seas, and we are also participating in a joint project with Rosneft in the Sea of Azov. Exploration and production on licensed sites within these projects are carried out at depths of less than 150 meters.
- In the Barents Sea, where an on-shore marine terminal for the transfer of petroleum products has been built.

LUKOIL also participates in international consortia to implement exploration projects, including explorations of deep-water reserves.

In most projects the Company is not an operator, while we promptly receive information on the progress of work on these projects, the selection of contractors and the measures taken to ensure safety.

- Projects in which LUKOIL is not an operator:
  - in the Gulf of Guinea, the Caspian Sea (Azerbaijan sector), and the Barents Sea (Norwegian sector, transboundary fields)
  - Projects in which LUKOIL is an operator:
    - in the Black Sea (Romanian sector)

In 2018, LUKOIL Group entities did not carry out any deep-sea works related to drilling or the construction and operation of wells. Deep-sea works refer to oil and gas exploration and production at depths of over 150 meters.

In order to prevent environmental risks related to implementing offshore projects, a safety system is functioning to ensure a high degree of protection of the marine environment from potential negative impacts due to industrial operations.

“Zero discharge”

The basic principle applied in marine works is “Zero discharge,” which prohibits the discharge into the marine environment of any waste generated as a result of production activities. All waste is collected in sealed containers, which are then taken ashore for neutralization and disposal.
Environmental and satellite monitoring of marine and coastal ecosystems

In Russia, LLC LUKOIL-Kaliningradmorneft and LLC LUKOIL-Nizhevolzhskneft have entered into contracts with specialized organizations for the continuous environmental monitoring of the Baltic and Caspian Seas within the boundaries of licensed subsoil areas.

New methods are used to assess the actual impact of oil and gas production on biological objects, such as bottom stations for environmental monitoring and to identify sources of hydrocarbon pollution in sea waters.

Technical solutions ensuring a high level of reliability of offshore pipelines.

In 2018, the Network Group of PJSC LUKOIL “Improvement of Oilfield Pipe and Tubing Reliability” developed the Guidelines for Ensuring the Reliability of Offshore Pipelines and corporate standards that establish more stringent safety requirements than those prescribed under Russian law. A new model regulation was also developed, which contains a classification of defects and well repair rules. In 2018 the first repairs were carried out in accordance with this document.

Monitoring works performed by contractors

In order to ensure the quality of the work of contractors, all well construction works at fields are carried out under the leadership of LUKOIL Group entities through drilling supervisors (working directly on drilling platforms) and production engineers (working in an office).

The comprehensive measures that have been taken ensure a high level of safety for offshore projects.

In 2018, LUKOIL Group entities did not carry out any deep-sea works related to drilling or the construction and operation of wells. (Deep-sea works refer to oil and gas exploration and production at depths of over 150 meters.)
How do you assess the results of measures to increase occupational safety in 2018?

We comply rigorously in this area with the requirements of respective legislation in Russia and the countries where we operate. In the case of facilities that are potential sources of accidents, we have developed plans to prevent and clean up spills of oil and petroleum products. We work specifically in this area with contractors, including the training of employees. We pay particular attention to training courses at marine and river terminals and oil production facilities, as well as on the training of employees, which means we are ready at any moment to clean up possible spills of oil and petroleum products.
How does the Company plan to bolster further cooperation with contractors to attain a sustainable decrease in the injury rate?

In 2018 we achieved a notable success in reducing the injury rate among employees of the Company's contractors. This was facilitated by a number of factors: we tightened requirements during the contractor selection stage during tender procedures, implemented technical due diligence procedures in respect of contractors at oil and gas production and energy facilities, assessed the qualifications of the employees of contractors for the performance of technical service work, and applied occupational health and safety requirements to subcontractors. All these changes were implemented at both our Russian and foreign entities.

We plan to expand interaction with contractors as part of Safety Days, including exchanging best experience and practices in relation to preventing injuries.
We believe that ensuring the industrial safety of our enterprises is an essential task, whose successful performance promotes not only the financial well-being of the Company, but also enhances the living standards and socio-economic potential of the regions where we operate.

We strive to comply with best international practices and have set the following permanent (not time limited) goals:

- Reducing risks of accidents, incidents, fires, and emergencies at LUKOIL Group entity facilities
- Reducing the level of occupational injuries and occupational illness
- Ensuring the sustainable operation of the HSE Management System

Main areas of work in the field of safety comprise:

- Preparedness for emergencies and disasters. Given the increasing number of adverse weather events in various regions of Russia, this area is important not only for the Company, but also for local communities.
- Fire safety. In addition to protecting our own facilities, our rescue teams help local authorities deal with frequent fires in the forests of Siberia and in areas with large concentrations of people in urban locations (such as large shopping centers).
- Preparedness for rapid response to oil spills and the elimination of their consequences. Particular attention is paid to developing the requisite skills for eliminating potential spills in the ice conditions of the Arctic.

Our approaches are based on the following principles:

- Using a risk-based approach
- Regular leadership visits and Safety Days
- Continuous improvements to the HSE management system, taking into account changes in the external environment and industry trends
- System planning: creating target programs aimed at improving the preparedness of LUKOIL Group entities for emergencies and oil and oil product spills

- Promoting safe methods of operation in contracting organizations
- Introducing state-of-the-art technologies and the digitalization of production and control processes
The main methods for improving safety comprise:
- Equipping facilities with modern equipment and security features, and maintaining a high level of preparedness on the part of Company rescue teams.
- Conducting comprehensive training, including with the participation of rescue teams from the Ministry of Emergency Situations and other companies operating in territories where LUKOIL operates.
- Training Company employees and contractors’ employees at advanced LUKOIL Group training centers.

Assessments of the effectiveness of the management system are conducted during internal audits and in annual reports on HSE in LUKOIL Group, which are submitted to the Management Committee of PJSC LUKOIL.

**INDUSTRIAL SAFETY PROGRAM**

LUKOIL spends significant funds on the adoption of industrial safety and health protection measures. In 2016–2018, over RUB 30 billion was allocated in this area.

In 2018, Russian and foreign LUKOIL Group entities participated in the Industrial Safety, Better Working Environment, Emergency Prevention, and Responses Program of LUKOIL Group Entities. The program for 2019–2021 encompasses over 2,000 events, with a total funding of around RUB 40 billion.

Expenses on measures related to the Industrial Safety, Better Working Environment, Emergency Prevention, and Responses program of LUKOIL Group entities, RUB million

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenses</td>
<td>8,610</td>
<td>12,307</td>
<td>10,093</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Occupational health, including: adoption of preventative measures, assessing working conditions, training and information support, introducing modern technologies and products, and electrical safety</td>
<td>2,715</td>
<td>5,091</td>
<td>4,372</td>
</tr>
<tr>
<td>2. Emergency prevention and response, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- expenses related to uncontrolled flows and radiation safety</td>
<td>4,052</td>
<td>3,909</td>
<td>3,894</td>
</tr>
<tr>
<td>- expenses related to fire safety</td>
<td>106</td>
<td>110</td>
<td>138</td>
</tr>
<tr>
<td>- other measures</td>
<td>1,753</td>
<td>2,692</td>
<td>2,635</td>
</tr>
<tr>
<td>3. Expenses on measures aimed at improving the management system and ensuring regulatory compliance</td>
<td>2,193</td>
<td>1,107</td>
<td>1,121</td>
</tr>
<tr>
<td></td>
<td>1,843</td>
<td>3,037</td>
<td>1,827</td>
</tr>
</tbody>
</table>

**PREPAREDNESS FOR EMERGENCIES AND ACCIDENTS**

For all facilities that are potential sources of oil and oil product spills, plans have been developed to prevent and eliminate oil and oil product spills. The main program measures in 2018 enabled us to achieve the following results:
- Trainings on the localization and elimination of the consequences of oil and oil product spills were held at LUKOIL Group entity facilities; particular attention was paid to verifying oil spill response plans and how prepared teams were to eliminate spills.
- A project to broadcast live video images from hazardous production facilities in the Central Control Room of PJSC LUKOIL was prepared for implementation.
- The Open Flow Elimination Headquarters was organized in order to increase how prepared LUKOIL Group’s Russian oil and gas producing entities are to eliminate oil flows.

\[2\] Audits are carried out in accordance with STO LUKOIL 1.6.12-2016 "HSE Management System. Procedure for Organizing and Conducting Audits".
• Contracting organizations were sent recommendations on the retraining and certification of employees in the course “Well Control. Well Management in Case of Gas, Oil, or Water Inflow” at recommended PJSC LUKOIL training centers.

• Over 60,000 employees, as well as the chairmen and members of emergency prevention and response and fire safety commissions of LUKOIL Group entities, underwent training.

In addition, in cooperation with the administrations of municipalities where the Company’s production sites constitute local economic mainstays, places where large numbers of people gather were examined for compliance with respective fire safety requirements.

Indicators of preparedness for emergency situations at LUKOIL Group

<table>
<thead>
<tr>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of trainings conducted, including:</td>
<td>193</td>
</tr>
<tr>
<td>on the elimination of simulated spills of oil and oil products</td>
<td>109</td>
</tr>
</tbody>
</table>

Comprehensive trainings on the prevention of and response to oil spills are held in all regions of our operations on oil production, oil products transportation, including regions where freezing conditions prevail. For example, in 2018 trainings were conducted in the following sites:

- **in LLC LUKOIL-Nizhnevolzhskneft** on the ice-resistant platform LSP-2 of the V. Filanovsky field
- **in LLC LUKOIL-Kaliningradmorneft** on the offshore ice-resistant fixed platform MLSP D-6
- **in TPU Povkhneftegaz, LLC LUKOIL-West Siberia**
- **in LLC Varandey Terminal** on the fixed offshore ice-resistant off-loading terminal Varandey and the coastal strip of the Varandey settlement
- **in TPU RITEK - Samara-Nafta, LLC RITEK and other LUKOIL Group's Russian organizations**

THE RESULTS OF AN INVESTIGATION INTO AN ACCIDENT AT THE NIZHNY NOVGOROD REFINERY

On October 5, 2017, an accident occurred at LLC LUKOIL-Nizhegorodnefteorgsintez: during the installation of a fire extinguishing system at tank R-1549 in the commodity production area, leading to a fire emergency.

According to the results of the investigation into the accident (which was completed in 2018), the cause was deemed to be the inadequate organization of hazardous work by operating, contracting, and subcontracting companies.

Following the investigation PJSC LUKOIL took the following decisions.

- The regulation on industrial supervision over compliance with industrial safety requirements at a hazardous production facility was revised.
- The procedure for the admission of contractors in terms of verifying their knowledge of industrial safety requirements, as well as instructions for hazardous operations, was revised, taking into account the operational specifics of oil refineries.
- The action plan for the localization and elimination of the consequences of accidents was revised, taking into account actions from personnel in the event of an accident.
- Lists of hazardous works were updated, taking into account respective legislative requirements and lessons learned from the accident.
ENSURING THE RELIABILITY OF PIPELINE TRANSPORT

2018 RESULTS

- The specific pipeline failure rate fell by 21% compared to 2017.
- The share of corrosion-resistant pipelines (excluding inhibited protection) rose to 26.8%.
- The list of pipe product suppliers was expanded, which allowed the Company to choose higher-quality equipment.
- Liability for the quality of products supplied in the supply chain was increased.

LUKOIL operates a developed field pipeline system, including the longest offshore pipeline system among Russian oil and gas companies. The Company performs systematic work to reduce the risk of pipeline failures, and this is producing tangible results.

The long-term strategic target is to achieve, by 2026, compliance with the best global practice of oil companies in relation to the indicator "specific coefficient of pipeline failures."

In 2018, RUB 643 million was invested in the inhibitory protection of pipelines.

### Specific coefficients of pipeline failures, case/km/year

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
<td>0.092</td>
<td>0.117</td>
<td>0.133</td>
</tr>
</tbody>
</table>

Notes. Pipeline failure means a malfunction associated with a sudden, complete, or partial shutdown of the pipeline due to a leakage of the pipeline or at the stop and control valves, or due to the blockage of the pipeline. In the calculation, the total length of pipelines - oil, gas, and water pipelines - was used.

Results of measures taken to improve the reliability of field pipelines in Russian LUKOIL Group entities

<table>
<thead>
<tr>
<th>SHARE OF ANNUAL PIPELINE REPLACEMENT, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHARE OF CORROSION-RESISTANT PIPELINES, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
</tr>
<tr>
<td>23.6</td>
</tr>
</tbody>
</table>
Oil spills

For the third consecutive year, the number of oil and petroleum product spills in LUKOIL Group entities declined as a result of systemic measures carried out to improve the reliability of pipeline transport. In 2018 this indicator declined significantly compared to 2017. In four cases, contractors and third parties (unauthorized tapping) were responsible for accidents with environmental consequences. The Company’s oil spill response system is able to localize spills quickly, eliminate the damage caused by accidents, and rehabilitate contaminated areas.

Our goal: stabilization and reduction of the pipeline transport accident rate.

Volume of spilled oil and oil products in accidents involving environmental damage

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of oil and oil products spilled in accidents, thousand tons</td>
<td>0.26</td>
<td>0.22</td>
<td>0.032</td>
</tr>
<tr>
<td>Specific coefficient of spills (kg of spilled oil and oil products per thousand tons of extracted oil and gas condensate)</td>
<td>3.1</td>
<td>2.7</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Notes. The specific coefficient is calculated based on the volume of oil and gas condensate production in Russia (net of the share in related organizations).

Management system

The Company has built an effective system for managing the reliability of field and main pipelines, based on the requirements of applicable laws and federal rules and regulations, as well as corporate documents.


The system covers all management levels, from senior management to specialized services in LUKOIL Group entities. The individuals responsible for the safe operation of pipeline transport facilities, performing timely technical diagnostics, and with industrial safety expertise are appointed by respective orders for each entity. Responsible individuals in this area also include the experts and head of the PJSC LUKOIL Improvement of the Oilfield Pipe and Tubing Reliability Network Group (hereinafter, the Network Group).

The management system, as well as methods for improving the reliability of pipelines, are regularly improved. A key source of expertise is the activity of the Network Group, which forms a structural element within the Corporate Knowledge Management System.

Each Russian oil and gas producing organization implements an investment program related to the renovation and technical re-equipment of pipeline transport facilities. In order to influence the main factors that affect the safe operation of pipelines, objectives and planned quantitative indicators are determined for each reporting year, as well as for the medium term.

Improving the reliability of pipelines

An integrated approach forms the basis for improving the operational reliability of pipelines in PJSC LUKOIL. Main measures include:

- Pipeline maintenance and repairs
- Overhauls of field and main pipelines
- Appraisals of industrial safety and technical diagnostics
- Renovation of field and main pipelines, including corrosion-resistant pipelines
- Inhibitory and electrochemical protection to ensure the operation and extend the service life of pipelines

In 2018, almost half of pipeline renovation activities were carried out in West Siberia, as this region accounts for 44% of pipelines.

Priorities when it comes to implementing the concept of enhancing the operational reliability of pipelines include: inhibition, the use of non-metallic pipelines, and...
introducing corrosion-resistant pipes. The main focus is on pipelines of the first (highest) hazard class.

Options are considered to use alternative materials, including non-metallic pipes, in conditions of highly corrosive environments. These materials can be used to construct pipelines of the fourth hazard class (which include discharge lines), taking into account the bearing capacity of the soil. If optimal solutions are found, they can be also be applied in permafrost conditions.

Major efforts are made to prepare pipelines for the autumn-winter season and for floods, which includes maintaining hydraulic locks (oil separators) in working order so as to reduce the likelihood of spills. In order to reduce the number of spills, the frequency of bypasses is increased, especially with regard to potentially hazardous areas that may be exposed to melt water and rain.

Assessing the effectiveness of measures

In order to improve the operational reliability of pipeline transport, the effectiveness of implemented measures is assessed annually, as part of the following processes.

1. Selective, comprehensive inspections of the production activities of oil and gas companies: every three years, all territorial-industrial companies undergo assessment. During inspections, the indicators and methods for recording accidents of losses of pipelines integrity are analyzed, and measures to rectify the situation are determined. In parallel, corporate oversight over compliance with federal and industry requirements is performed. Based on the results of a comprehensive inspection, instructions are issued to eliminate violations, as well as any identified deviations.

2. Technical meetings of Network Group experts: Technical meetings are held on a quarterly basis and at the year end to analyze the results of activities to improve the reliability of pipeline transport. Decisions taken at the meetings are documented in a protocol in which recommendations and instructions for LUKOIL Group entities are recorded, including the testing of pipes made of new materials and the introduction of new technologies. The meeting minutes are approved by management (including the Vice President of PJSC LUKOIL).

Results of the Network Group’s work in 2018

Due to the active work performed by the Network Group in 2018, results were achieved that lay the foundation for improving the future reliability of pipelines.

• Based on the test results, the list of suppliers of various pipe products was expanded, including pipes made of alternative materials.
• New pipe diagnostic methods were proposed for implementation.
• More effective inhibitors of corrosion and deposits of asphalts, resins, and paraffin were identified.
• Liability for products supplied in the supply chain was increased.

In order to reduce the risk of pipeline failures, the discipline and responsibility of not only specialized corporate services, but also contractors and pipe suppliers, have been significantly strengthened. The warranty period for pipes with protective coatings is set at not less than 10 years: if an independent party establishes a factory defect during this period, all costs incurred by the Company are charged to the supplier.

All contracts for construction and installation works have a warranty period of at least 60 months (five years), which increases the liability of the parties performing this work, and reduces the likelihood of the most frequent failures occurring due to the fault of contractors.

Updating industry standards

With the active participation of specialists from PJSC LUKOIL and the Russian entities of LUKOIL Group, in 2018 a national standard was for the first time elaborated and approved by the Federal Agency for Regulation and Metrology. The standard introduces requirements related to applying protective paintwork on the inner surface of steel pipes, fittings for oilfield pipelines, and tubing for oilfield equipment

4 GOST R 58346-2019 Steel pipes and fittings for the oil industry. Protective paintwork for the inner surface. General technical requirements.
ENSURING THE RELIABILITY OF PIPELINE TRANSPORT IN GAS PROJECTS IN UZBEKISTAN

Pipeline Transport Safety Improvement Program does not apply to foreign oil and gas organizations; however, specialists from the Network Group and LUKOIL Group entities work with colleagues from foreign organizations on projects in which LUKOIL is an operator, and provide necessary consultations. Gas fields in Uzbekistan are characterized by having high gas pressure (up to 200 atm), high hydrogen sulfide H2S (up to 4.5%, Southern Gissar), and carbon dioxide (up to 5%) content, as well as high chloride content in formation water (up to 60,000 ppm).

Practical experience in operating the Khauzak-Shady and Gissar fields has shown that the approaches used to ensure the reliability of pipelines in a very harsh environment have contributed to trouble-free operation for the past 10 years.

To ensure the integrity of equipment, the corporate standards of LLC LUKOIL Uzbekistan Operating Company have been elaborated and agreed with the state inspection of the Republic of Uzbekistan. These standards regulate the procedures for monitoring the technical condition, maintenance, diagnosis, and repair of equipment, taking into account the high content of hydrogen sulfide and carbon dioxide.

Advanced corrosion monitoring methods (FSM matrix, Ultracorr, Hydrosteel 6000) are used in the fields, and an automated electrochemical protection system is being designed. The Wavemaker system has been installed, which allows an object to be monitored at a distance of up to 100 meters in both directions from an installed sensor; consequently, diagnoses can be performed in hard-to-reach areas. There are plans to integrate data on the results of in-line diagnostics with the geographic information system of LLC LUKOIL Uzbekistan Operating Company.
In 2018, a water conduit failure occurred in the Kondinskie Lakes Natural Park (Khanty-Mansi Autonomous District – Yugra) for the first time in almost 20 years of work at the Talnikovoe field. LLC West Siberia employees promptly responded to the accident.

At the time of preparing this Report, the consequences of the failure of the water conduit had been completely eliminated: pollution was localized, produced water was pumped out, polluted soil was removed, and water conduit sections were replaced. The polluted area was fully cleaned up. The soil was taken to a special industrial waste landfill. Together with the SPNR “Kondinskie Lakes,” additional inspections of pipelines and water crossings were performed, and a Report on measures undertaken (Statement of Measures Performed) was drawn up.

The object is included in the Front End Engineering Design plans; the receipt of project documentation and the conclusion of the Main State Expert Review and Ecological Appraisal is expected in 2020.

In order to increase the reliability of water conduits, LUKOIL Group entities conduct pilot tests of metal-plastic pipes with ends made of corrosion-resistant steel and new Anaconda 21 pipes (manufactured in Russia) for high-pressure water conduits (in LLC LUKOIL-West Siberia and LLC LUKOIL-PERM).
LUKOIL began operations in the Komi Republic in 2001, after acquiring a 100% stake in OJSC Komi FEC, which, in turn, was created through a spin-off of state-owned shares of oil production and refining enterprises. Oil fields have been developed in the region since the 1930s.

LUKOIL Group entities operating in the Komi Republic include:

- LLC LUKOIL-Komi – the exploration and production of oil in six municipalities: the urban districts of Usinsk, Ukhta, and Vuktyl, as well as the municipal districts Pechora, Sosnogorsk, and Izhma;
- LLC LUKOIL-Ukhtaneftepererabotka (Ukhta urban district) – the oldest oil refinery operating in the Russian industry

Gross emissions of pollution into the atmosphere in 2018 fell by 24%.

42.7 thousand tons of waste were disposed of and neutralized.
Since starting work in the Komi Republic, LUKOIL has had to tackle a range of urgent tasks, including the renovation of almost entirely worn-out production assets, the restoration of the technical condition and performance of oil wells, and the elimination of the consequences of a very large oil spill that occurred in 1994 on the Kharyaga-Usinsk pipeline. Thanks to the implementation of two large-scale investment programs, the most critical tasks were largely accomplished. We voluntarily committed to eliminating the consequences of the 1994 oil spill and reclaimed over 700 hectares of contaminated land, engaging research and specialized organizations from Russia, the Czech Republic, and France. After the implementation of the Corporate Program of work on the environmental rehabilitation of contaminated areas and the prevention of emergency oil spills in the Komi Republic for 2000–2005, the Usinsk district had its emergency zone status removed.

Moreover, at the Yaregskoye oil and titanium field, production has been carried out via the mining method for approximately 80 years. During this time, rock from rock tunneling has been brought to the surface and located in three slagheaps, the storm drains from which still form a polluted discharge into local water bodies. We call this waste “pre-privatization” or “accumulated during the pre-privatization period” (before OJSC Komi FEC was incorporated into LUKOIL). The Company has also voluntarily assumed obligations to dispose of this oil-contaminated waste at its own expense and includes relevant measures in each environmental safety program. Beginning with the first environmental safety program, annual measures are taken in the Komi Republic, including to repair pipelines, rehabilitate contaminated land, and dispose of waste.

Despite the considerable efforts made, it is impossible to resolve all issues simultaneously. In order to change the environmental situation in the Komi Republic for the better, we adhere to the following approaches.

• We believe the renovation and repair of pipelines is one of the primary ways to mitigate negative impacts, and should result in a reduction in fresh oil spills.
• By including appropriate measures in each environmental safety program, we reduce the total amount of pre-privatization waste and rehabilitate contaminated land and water bodies.

• We are taking steps to conserve unique local ecosystems.

Improving the reliability of pipelines

Each year, LLC LUKOIL-Komi takes measures to improve the reliability of pipelines. In 2018, considerable work was performed in this area, as a result of which all respective indicators improved:

• The share of pipes made of anticorrosive materials reached 21% of the total, thereby reducing the risk of oil spills due to corrosion, which is the main cause of upstream pipeline failures.
• Inhibitor protection covers 32% of the length of pipelines - this is the highest proportion of pipes with inhibitor protection among LUKOIL pipelines in Russia. As a result of these measures, the service life of pipelines will rise from 10–15 to 20–35 years.
• 1,568 oil fields were surveyed as part of flood preparation measures.
• Requirements for contractors that provide repair and equipment maintenance services were increased.
In 2018, the Comprehensive Program for Improving the Reliability of Field and Main Pipelines of LLC LUKOIL-Komi for 2019–2021 was approved. Measures from previous years had a positive effect on the structure of the age composition of pipes: in 2018 the share of pipes older than 20 years declined to 24%, and pipes from 10 to 20 years old (laid in the late 1990s – early 2000s) fell to around 30%.

New pipelines are being built using pipes with improved properties. For example, in the Izhma District, the complete renovation of the Makaryel – Shchelyayur pipeline, 33 km in length, is close to completion. The pipeline is built using internal double-layer and external triple-layer industrial anti-corrosion protective coating. Crossing the Pechora River is performed via controlled drilling in an encasement pipe on the principle “pipe in pipe.” The encasement pipe is laid at a distance of 5 to 20 meters from the bed of the Pechora River in order to eliminate impacts on the animal and plant world.

A project is being implemented to eliminate oil spills in water bodies (marine and freshwater ecosystems) in northern conditions, using specially developed sorbent materials and biotechnologies. Nevertheless, despite these efforts, in 2018 two oil spills occurred as a result of pipeline corrosion. LLC LUKOIL-Komi specialists reacted swiftly to localize these spills; the average response rate\(^1\) was no more than four hours. The consequences of the spills were eliminated and measures to reclaim contaminated land are being undertaken.

**Environmental Safety**

Since 1994, within the framework of the Environmental Safety Program of LUKOIL Group entities in the Komi Republic, measures have been taken to improve environmental safety, including the environmental monitoring of waste disposal facilities and licensed areas and monitoring water bodies and indicators in water protection zones. In 2018 the following results were achieved:

- Gross emissions of pollution into the atmosphere fell by 24% in comparison with 2017, or by 23,000 tons
- 220,700 cubic meters of wastewater were cleaned
- 42.7 thousand tons of waste were disposed of and neutralized

LLC LUKOIL-Komi’s plans include introducing a system for the separate collection and recycling of waste that is not subject to disposal in landfills (paper, plastic, office equipment, etc.)

**Biodiversity**

In 2018 LLC LUKOIL-Komi developed a “Plan of measures for the preservation of biological diversity in the Russian Arctic Zone on the Territory of Activity (Fields) of LLC LUKOIL-Komi,” as part of which the following new procedures were introduced:

- Registering and keeping a log of indicative\(^2\) representatives of flora and fauna appearing in the fields of LLC LUKOIL-Komi
- Conducting a mandatory introductory briefing of LLC LUKOIL-Komi employees on the need to preserve biodiversity in the Arctic Zone, and completing related information sheets

The Action Plan includes\(^3\) nine indicative bird species (barnacle goose, eider, king eider, ivory gull, glaucous gull, black-legged kittiwake, common murre, thick-billed murre, and black guillemot) and one animal species (polar bear).

Since 2007, we have been carrying out activities to artificially reproduce fish resources in the Timan-Pechora rivers: each year, between 100,000 and 150,000 fish spawn (larvae) of grayling and whitefish were released into the Pechora, Izhmu, Kolvu, Usu, Big Synya, Ilych, and Kozhva rivers. In 2017, in honor of the Year of Ecology, the scale of the event was significantly expanded (over 3.5 million

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\(^{1}\) The time that elapses from the moment the loss of the integrity of the pipeline system is detected to the commencement of actions to eliminate the causes and consequences of the incident.

\(^{2}\) Indicative species of ecosystems are species that meet three criteria: 1) the species is widespread in the region and spends most of its life there; 2) the species is plentiful and available for study; 3) the responses of the species to changes in the habitat can be recorded and assessed (measured).

\(^{3}\) The basis for selecting indicative species are the following documents: The Red Book of the Russian Federation and the NAO, Directive No. 25-r of the Russian Ministry of Natural Resources and Ecology dated September 22, 2015 “List of Flora and Fauna Species,” and engineering surveys at oil and gas facilities of the northern fields of the Arctic Zone of TPU LUKOIL-Severneftegaz.
Log book of indicative representatives of flora and fauna

<table>
<thead>
<tr>
<th>№</th>
<th>Date, time</th>
<th>KCDNG / production field</th>
<th>Post / name</th>
<th>Specie / object</th>
<th>Number, pieces</th>
<th>Object condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>07.21.2018, 11.30 am</td>
<td>KCDNG-2, Tedinskoe</td>
<td>Process engineer – Arslanov A.R.</td>
<td>Blaucous gull</td>
<td>1</td>
<td>Normal</td>
</tr>
<tr>
<td>2</td>
<td>07.25.2018, 8 pm</td>
<td>KCDNG-4, Perevoznoe</td>
<td>Foreman – Drozdov O.A.</td>
<td>Barnacle goose</td>
<td>20</td>
<td>Good, photo report</td>
</tr>
<tr>
<td>3</td>
<td>07.28.2018, 9.30 am</td>
<td>KCDNG-4, Perevoznoe</td>
<td>Foreman – Drozdov O.A.</td>
<td>Blaucous gull</td>
<td>1</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>09.03.2018, 11.45 am</td>
<td>KCDNG-4, Perevoznoe</td>
<td>Machine operator – Evseev V.Y.</td>
<td>Kittiwake</td>
<td>1</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>09.18.2018, 4.20 pm</td>
<td>KCDNG-4, Perevoznoe</td>
<td>Foreman – Drozdov O.A.</td>
<td>Blaucous gull</td>
<td>1</td>
<td>Good, photo report</td>
</tr>
<tr>
<td>6</td>
<td>10.15.2018, 7.10 am</td>
<td>KCDNG-4, Toboyskoie</td>
<td>Operator – Shukshin I.A.</td>
<td>Barnacle goose</td>
<td>6</td>
<td>Perfect</td>
</tr>
</tbody>
</table>

Fish were released); and in 2018, 284 thousand fish were released into the rivers (in accordance with a decision from the Federal Agency for Fisheries). In 2019 it is planned to repeat the large-scale release of young fish.

In 2016, a project to monitor the state of marine animals was executed. An expedition to study the Atlantic walrus in the southeastern Barents Sea, in the area of operations of LLC Varandey Terminal, was organized jointly with the World Wildlife Federation (WWF) and the Council of Marine Mammals public organization. The results of satellite tracking were used to assess the impact of the Company’s activities on walruses during the ice-free period. At the same time, it was confirmed that the water area adjacent to the terminal is outside the main range of their summer habitat, which is located between Vaygach Island and the islands of the Nenetsky Reserve.

Interaction with communities

In 2016, a hotline on environmental safety issues began operating for Komi residents. Reports are handled by deputy general directors, the heads of structural units, and the heads of departments and divisions of LLC LUKOIL-Komi. Necessary actions are carried out for each report.

In 2018, issues related to the construction of a landfill to process solid and liquid sludge for the Shchelyayur group of fields were most actively discussed during meetings with residents. LLC LUKOIL-Komi was able to reach a common understanding with the public of the Izhma Region on a project to build a landfill. Initially, the landfill was to be built between the Krasnobor and Shchelyayur settlements; however, at the request of local residents and public organizations (“Pechora Rescue Committee”, “Izvatas”), the plans were altered. Residents, the heads of the Ministry of Natural Resources of the Komi Republic, and environmental activists representing the “Pechora Rescue Committee” took part in choosing a new location for the facility. Seven sites were proposed for consideration, and a site located within the boundaries of the Makarielskoye oil field (TPU LUKOIL-Ukhtaneftegaz) was selected by stakeholders.

LLC LUKOIL-Komi was awarded a 1st Degree Laureate Diploma at the International Ecological Awards ECOWORLD 2018, in the category “Conservation of Biodiversity and Landscapes." Project: "Conservation of biodiversity by replenishing aquatic biological resources in the territory of LLC LUKOIL-Komi’s activities." The awards are organized by the All-Russian Public Organization Russian Academy of Natural Sciences (RANS).
OCCUPATIONAL HEALTH AND SAFETY

2018 RESULTS

- Due to enhanced measures for interaction with contractors and more stringent selection criteria, the number of occupational injuries among employees of contracting organizations has declined significantly.

- The number of accidents at the Russian entities of LUKOIL Group remained at the previous year’s level.

Matters related to industrial injuries are considered at the highest management level: the heads and members of the PJSC LUKOIL Management Board are directly involved in measures to improve safety - for example, on the Safety Days of PJSC LUKOIL.

Tools for improving the safety culture

Examples of good leadership are promoted as part of systematic work to improve the safety culture.

1. Leadership visits
   Leadership safety visits are conducted at production facilities by the heads of organizations and PJSC LUKOIL. The participants of leadership visits give priority to issues related to workplace safety and demonstrate by example a commitment to safety.

2. Safety Days
   An effective tool is Safety Days, which are held in each LUKOIL Group entity at least once every six months. Attendance is mandatory for key contractors.

   The Company’s two-year experience of holding Safety Days has demonstrated that this event is an effective tool for exchanging experience and best practice in the field of safety gained by the Company and its strategic contractors.

   LUKOIL Group entities are constantly working with employees to improve safety in the workplace.

   1. Notifying employees
      Employees are promptly informed about the rules of safe behavior, as well as potential hazards and dangerous situations associated with production processes. Notification procedures are governed by the local regulations of LUKOIL Group entities.

      Information about occupational health and safety is posted on the internal portal of the Company and is available to all employees. The Company has developed “Key Rules of Safety” when staying at facilities of LUKOIL Group entities, which are based on the analysis of LUKOIL Group’s long-term experience and industry experience in managing risks related to industrial, occupational and environmental safety, accident statistics, and the operational results of LUKOIL Group’s HSE Management System.

   2. Giving employees the right to refuse life-threatening work
      Employees can report to their immediate superior or the head of the organization situations that pose a potential safety hazard.

      Employees have the right to refuse to perform their duties if they consider it impossible to perform the work without endangering their lives or health. This right is enshrined in Clause 6.1.9 of the Agreement between the employer and the Trade Union of Public Joint-Stock Company “Oil company LUKOIL” for 2015-2020.

   Failure by employees of LUKOIL Group entities (as well as other people staying at the Company's facilities) to comply with the Key Rules of Safety constitutes a gross violation of workplace and shop-floor discipline.

The main priority for us is the life and health of the employees of LUKOIL Group entities, as well as contractor organizations working at our facilities.
3. Familiarization of employees with the results of investigations into accidents
We thoroughly investigate every accident, identify the causes, and analyze all circumstances in order to prevent the recurrence of similar accidents in the future. The circumstances and causes of each accident are communicated on a quarterly basis to LUKOIL Group entities in information letters.

Analyzing the causes of accidents and recording the lessons learned forms an important element within HSE risk management and forms part of improving the integrated management system. The results of investigations are used to plan and implement necessary incident prevention measures and/or to minimize potential damage in the event of similar accidents occurring.

4. Employee participation in improving the safety management system
Employees can take part in improving the HSE Management System through their authorized representatives for occupational health and safety, as well as through the activities of trade unions and joint committees (commissions) for occupational health and safety, and participation in Safety Days events.

The IATUO has an institute of technical labor inspectors which monitors the fulfillment of the Company’s obligations set forth in the collective agreements of LUKOIL Group entities.

The Trade Union Organizations of IATUO of PJSC LUKOIL pay special attention to monitoring the quality of employee training in safe practices and working methods, compliance with safety requirements, the prevention of occupational injuries and illness, conditions of medical care, the provision of individual and collective protection, and other areas in order to strengthen the occupational safety culture.

The number of authorized occupational health and safety representatives who are members of the International Association of Trade Union Organizations of PJSC LUKOIL, people

<table>
<thead>
<tr>
<th>RUSSIAN ENTITIES OF LUKOIL GROUP</th>
<th></th>
<th>FOREIGN ENTITIES OF LUKOIL GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2,122</td>
<td>2017</td>
</tr>
<tr>
<td>2018</td>
<td>2,193</td>
<td>2018</td>
</tr>
</tbody>
</table>

Notes. 1) An authorized (designated) occupational health and safety representative is a person charged with representing the interests of employees. An authorized occupational health and safety representative may be a representative of a trade union or a labor collective. Authorized occupational health and safety representatives are members of the occupational health and safety committee (commission) of the Company. 2) In view of improvements in the production process at foreign entities and the development of the system for the public monitoring of employees’ labor conditions and safety, it was decided at employee meetings to reduce the number of authorized occupational health and safety representatives.

Investigations into HSE accidents at LUKOIL Group are performed in accordance with the following regulatory documents: STO LUKOIL 1.6.13 and STO LUKOIL 1.6.14.

This issue is regulated by Section 6 “Health, Safety, and Environment” of the Agreement between the employer and the Trade Union of Public Joint-Stock Company “Oil company LUKOIL” for 2015-2020.
**Indicators related to occupational injuries**

The results for 2018 demonstrate that the indicators related to the number of accidents and injuries at LUKOIL Group organizations remained at the 2017 level. The main causes of accidents were falls of employees, traffic accidents, and exposure to harmful substances, machines, and mechanisms (11 cases out of 16).

**Indicators related to the level of occupational injuries**¹

<table>
<thead>
<tr>
<th></th>
<th>Russian entities of LUKOIL Group</th>
<th>Foreign entities of LUKOIL Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of fatalities</td>
<td>0.01</td>
<td>0</td>
</tr>
<tr>
<td>Rate of high-consequence injuries (net of fatalities)</td>
<td>0.03</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**Notes.** 1) The rate of fatalities as a result of work-related injury = the number of fatalities that occurred as a result of the work / the number of hours worked x 1,000,000 man-hours. 2) The rate of high-consequence work-related injuries is the number of serious injuries resulting from work (excluding fatalities) / number of hours worked x 1,000,000 man-hours. The lower both parameters are, the better. 3) The rate of high-consequence work-related injuries for the Russian entities of LUKOIL Group includes serious accidents qualified in accordance with Russian laws.

**Indicators related to the frequency of occupational injuries**

<table>
<thead>
<tr>
<th></th>
<th>Russian entities</th>
<th>Foreign entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost Time Accident Frequency Rate (LTAFR)</td>
<td>0.21 0.19 0.19 0.05 0.24 0.29</td>
<td></td>
</tr>
<tr>
<td>Lost Time Injury Frequency Rate (LTIFR)</td>
<td>no data no data 0.11 no data no data 0.18</td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** The Lost Time Accident Frequency Rate (LATFR) = the number of fatal accidents / the average number of employees for the reporting period x 1,000 employees. The Lost Time Injury Frequency Rate (LITFR) = the number of temporary disability injuries / the number of man-hours worked x 1,000,000 man-hours. The lower both parameters are, the better.

The main measures to reduce injuries comprise intensifying work to improve the safety culture and providing workers with modern means of individual and collective protection.

Due to greater attention in recent years from LUKOIL Group entities to occupational safety issues in contractor organizations, in 2018 the number of accidents at LUKOIL production sites saw a more than twofold decrease. At the same time, the number of injured also declined (by almost threefold). In contractor organizations in Russia, the most frequent causes of accidents are falls of people from heights and impacts from moving loads (four out of eight total cases). At this stage, the main measures related to improving safety in contractor organizations working at the Company’s facilities are:

- Pre-tender assessments
- Technical audits of employee preparedness to perform work at the production facilities of LUKOIL Group entities
- Including the provisions of the corporate standard STO 1.6.5.-2016 “Requirements for Contractor Organizations” into contracts
- Production controls

¹ In accordance with the GRI Occupational Health and Safety (2018) standard.

² High-consequence work-related injuries – an accident that led to the following consequences: an employee died or was injured to such an extent that they were unable to restore their health within six months after the date of the injury, has not restored their health, or is not expected to be able to restore their health.
Indicators related to occupational injuries in entities of LUKOIL Group and contractor organizations

<table>
<thead>
<tr>
<th></th>
<th>LUKOIL Group entities</th>
<th>Contractor organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>In Russia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Total number of occupational accidents, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fatal</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>high-consequence work-related injuries</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>2. Number of employees injured in workplace accidents (total number of injuries)</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td>number of fatalities</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>number of lost time injuries</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>Abroad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Total number of occupational accidents</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2. Number of employees injured in workplace accidents (total number of injuries)</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Notes. If during the reporting period an employee suffered more than one injury, each case is counted as a separate injury.

Occupational health and safety training

Each year LUKOIL Group entities hold events aimed at raising worker awareness surrounding industrial and fire safety, as well as occupational health and safety and developing relevant skills and improving the quality of training in this area. Core events include:

- Conducting full-time and distance education events, the retraining and advanced training of employees
- Updating training and supervising industrial safety and occupational health and safety programs
- Introducing a special training system for staff working at hazardous facilities
- Promoting increased safety culture awareness

Situational simulators are being introduced to elaborate the actions to be taken in emergency situations, as well as improve the technical skills necessary for working safely with complex equipment.

Using a distance learning system (hereinafter, DLS), employees have the opportunity to independently improve their skills, check how well they have mastered a topic, and obtain certifications. In 2018 the implementation of electronic briefings in the DLS continued.
Amount of training on industrial safety and occupational health and safety, man-courses

<table>
<thead>
<tr>
<th>Year</th>
<th>Total, including:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Russian entities</td>
<td>Foreign entities</td>
</tr>
<tr>
<td>2016</td>
<td>47,560</td>
<td>33,898</td>
</tr>
<tr>
<td>2017</td>
<td>56,481</td>
<td>42,114</td>
</tr>
<tr>
<td>2018</td>
<td>60,106</td>
<td>46,485</td>
</tr>
</tbody>
</table>

Notes. The data include actual information on in-person and remote employee training.

Working conditions

There are also no workplaces that have dangerous working conditions\(^1\) at LUKOIL Group entities.

In 2018, the five-year period of transitioning from the previous procedure for certifying workplaces to a procedure of performing special assessments of working conditions was completed in the Russian Federation.

As of January 1, 2019, a special assessment had been conducted of the labor conditions of the workplaces of 99.1% of employees\(^3\) of the Russian entities of LUKOIL Group. The Company completed a specialized assessment of working conditions of existing workplaces, in accordance with respective legislative requirements.

The number of employees at workplaces with optimal and acceptable labor conditions stood at 65% of the total number of employees covered by the special assessment of labor conditions.

During 2018, working conditions were improved at the workplaces of more than 1,300 employees, and for the third year running the Russian entities of LUKOIL Group managed to completely eliminate workplaces with the highest hazard class of labor conditions\(^2\).

In the foreign entities of LUKOIL Group, assessments of working conditions are carried out in accordance with procedures prescribed by national legislation.

Total occupational health and safety training expenses in LUKOIL Group (“employee training and professional development” category), RUB million

<table>
<thead>
<tr>
<th>Year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>329.8</td>
</tr>
<tr>
<td>2017</td>
<td>327.9</td>
</tr>
<tr>
<td>2018</td>
<td>323.2</td>
</tr>
</tbody>
</table>

Notes. Data for 2016-2018 include information on the entities LLC LUKOIL Uzbekistan Operating Company and LUKOIL MID-EAST LIMITED.

\(^1\) The remaining 0.9% of workers are employed in newly introduced workplaces and in workplaces with altered working conditions, for which a special assessment of working conditions is performed according to a schedule established by legislation.

\(^2\) Subclass 3.4 - working conditions in which an employee is exposed to harmful and (or) dangerous workplace factors, and the levels of exposure to them can lead to severe forms of occupational diseases (with loss of general working capacity) during the period of employment.

\(^3\) Class 4 - working conditions in which an employee is exposed to harmful and (or) hazardous workplace factors and the levels of exposure to them during the whole working day (shift) or a part thereof may endanger the life of the employee, and the consequences of exposure to these factors cause a high risk of developing an acute occupational disease in the period of employment.
Occupational medicine

We endeavor to minimize factors that have an adverse impact on the health of workers, and implement social programs aimed at improving health.

An authorized representative has been appointed to oversee health issues.

Most employee diseases are treated under voluntary medical insurance programs (VMI). The functions of occupational health services that help identify and eliminate hazards and minimize health risks are transferred to contractors: employees are given a choice from a wide range of medical institutions. The quality of medical care is checked on a regular basis by experts of the insurance company (as part of the VMI) and by regulatory authorities.

The Company respects the confidentiality of employee health data: this kind of information is not transferred by contractor organizations providing medical services to LUKOIL Group entities under VMI.

In close proximity to workplaces, over 100 first-aid stations, pre-trip examination rooms, and health centers with medical assistants or doctors have been established, which facilitate workers’ access to medical services in emergency situations or in cases where an employee’s health deteriorates unexpectedly.

Each year workers have an opportunity to be vaccinated against influenza, and, in endemic-prone areas, against tick-borne encephalitis and anthrax. In addition to mandatory preliminary and periodic medical examinations, targeted medical examinations are regularly conducted with the involvement of highly qualified specialists (cardiologists, oncologists, pulmonologists, endocrinologists, etc.)

To ensure that these services can be accessed by workers in remote regions, examinations are carried out by visiting teams of doctors.

A full range of occupational medicine services is provided to full-time employees of LUKOIL Group. As part of social support, material assistance can also be provided to treat the family members of employees.

Company consultations with employees on health issues are held on a regular basis through the Health Commissioner at PJSC “LUKOIL,” and periodically within the framework of interaction with the IATUO and trade union organizations of LUKOIL Group entities.
Q. How is the HR system changing in connection with the implementation of the strategic program of LUKOIL Group?

A. Our priority is to continually boost labor productivity while retaining high levels of motivation. To this end, we need to ensure that employees are constantly learning. Over the past year over 70% of the company’s employees received training, including through a corporate distance learning system – a rise of 30% on the previous year. The Company organizes seminars, training courses, internships, continuing professional development courses, professional retraining programs, and professional training days. To develop advanced management skills, a training system is being implemented at the Company in the form of an Academy and Management School, with a focus on the intensive application of acquired knowledge in practical activity at the workplace. We use state-of-the-art digital technologies and HR management programs.

Another important aspect of the HR system is employee performance appraisals. We have made changes to procedures in this area, and no longer focus on gross production factors, instead concentrating on the financial performance of our staff. The Company also pays significant attention to staff rotation issues, in order to try and prevent the risk of career stagnation.
Q. Which new forms of work are being applied to attract young professional executives to the Company?

A. Today, 43,787 young employees aged 35 and under work at the Company’s enterprises, including 2,013 young specialists. These receive social support under an Agreement between LUKOIL Public Joint-Stock Company and the Trade Union Association of LUKOIL Public Joint-Stock Company, as well as collective bargaining agreements.

LUKOIL’s youth policy comprises a system of priorities and measures aimed at attracting young employees and creating the conditions and opportunities to facilitate the successful and effective self-realization of young employees, the development of their professional potential, and management capabilities.

LUKOIL proactively cooperates and establishes partnership relations with educational institutions. In Russia, LUKOIL Group entities have concluded cooperation agreements with 62 academic institutions (universities, institutes, academies, colleges). Cooperation agreements have also been concluded with five foreign universities.

In the regions where the Company operates, employees regularly organize trips to production facilities, and deliver open lessons and masterclasses for schoolchildren.

Nine specialized departments have been opened at leading universities in Russia, located at the Company’s subsidiaries.
The HR management strategy is determined within the overall strategy of LUKOIL Group. Social orientation, as well as full compliance with the law, are our basic principles and form the basis of our partnerships with workers and trade unions.

The HR management policy determines the strategy and principles of work in this sphere. The management system is based on the Code of Business Conduct and Ethics, the Rules of Corporate Culture, and the obligations set forth in the Social Code of PJSC LUKOIL.

NEW LEADERSHIP CONCEPT

Inspired by the “Changing with the World” principle, the management of PJSC LUKOIL has set the objective of reworking its leadership philosophy so that it has a management model capable of ensuring that the Company can successfully adapt in a changing environment. The following key areas of activity have been identified, including:

- Enhancing the corporate culture, taking into account current trends
- Creating an ecosystem that will facilitate the further development of the new leadership concept
- Identifying an efficient approach to assessing the performance and capabilities of employees and to building a talent pool

As part of the new leadership concept, the systems for motivation and career development, training, and the talent pool will be changed. In order to develop the leadership qualities of its employees, the Company plans to reshape the way that staff work by employing the latest management approaches. The leadership of the heads of LUKOIL Group entities will primarily be evaluated from the perspective of increasing the Company’s competitiveness and substantial interaction with stakeholders within the regions of operation. It is not only managers that can be leaders – every employee should be given this opportunity. The career of each employee may develop either in a conventional manner (vertically, from a front-line to an executive position), or by becoming an expert. By becoming an expert, an employee also ensures career growth. Hence a wider range of up-to-date competences and incentives will be developed within the Company, which will result in greater productivity and a higher quality of work performed.
DIGITALIZATION PROGRAM

Technologies are developing much faster than they were 10 years ago. That is why the issue of employee skills and expertise corresponding to the level of production technologies and tools used is much more acute than before. As part of the digitalization program (the Digital Personnel area), we plan to include employee training in the use of modern digital technologies and devices, and create a database of key competences and technologies. Within this program we expect the following results:

- Reduced risks of incidents and improved labor conditions
- Enhanced employee productivity
- An improvement in employee qualifications and the quality of work performed

QUALIFICATION OF PERSONNEL

As of December 31, 2018, LUKOIL Group entities employed over 105,000 people, including around 88,000 in Russia, around 11,000 in Europe, around 1,000 in Asia, 5,000 in Post-Soviet countries, and about 150 in other foreign countries. The vast majority of employees of the Russian entities of LUKOIL Group worked under permanent contracts and full-time.

The structure of personnel has been stable for the past three years (in terms of age, employee categories, and the ratio of men to women). In terms of categories of employees, managers make up 12%, specialists 27%, and workers and other employees 61%. The proportion of female and male employees is 41% and 59%, respectively. Among personnel there are many young employees under 35 (39%); the second-largest employee group is employees aged 41-50.

Over half of employees (about 60%) are employed in the Refining, Trade, and Sales business segment, and over a third (about 35%) are employed by oil and gas producers. Around 14% of employees work on a rotational basis.

We continuously monitor the employee turnover rate and analyze the reasons for dismissals at each LUKOIL Group entity. We try to respond in a timely manner and to make adjustments to events over which the Company can exert influence.

Average number of employees, people

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for LUKOIL Group, including:</td>
<td>105,539</td>
<td>103,647</td>
<td>102,508</td>
</tr>
<tr>
<td>Russian entities</td>
<td>85,391</td>
<td>85,790</td>
<td>85,105</td>
</tr>
<tr>
<td>Foreign entities</td>
<td>20,148</td>
<td>17,857</td>
<td>17,403</td>
</tr>
</tbody>
</table>

Number of employees as of December 31 of each year, people

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for LUKOIL Group, including:</td>
<td>110,101</td>
<td>107,405</td>
<td>105,991</td>
</tr>
<tr>
<td>Russian entities</td>
<td>90,112</td>
<td>89,323</td>
<td>88,019</td>
</tr>
<tr>
<td>Foreign entities</td>
<td>19,989</td>
<td>18,082</td>
<td>17,972</td>
</tr>
</tbody>
</table>

Staff turnover, %

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for LUKOIL Group, including:</td>
<td>7.2</td>
<td>6.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Russian entities</td>
<td>5.9</td>
<td>5.6</td>
<td>7.0</td>
</tr>
<tr>
<td>Foreign entities</td>
<td>12.8</td>
<td>11.6</td>
<td>11.5</td>
</tr>
</tbody>
</table>

Notes. 1) The personnel turnover rate is calculated as the ratio of the number of employees dismissed to the average staff number as of the reporting period. Dismissed employees include employees fired for absenteeism and for other workplace discipline violations, and employees resigning of their own accord and without good cause (due to a change of residence, retirement, to care for a child aged under 14, etc.) or by mutual agreement between the parties (with the exception of employees that were rehired within a year).
2) The main reason for the increase in the personnel turnover rate in 2018 was a restructuring of the Oil Product Supply in the Russia business sector (four entities were combined with four other entities, with associated redundancies eliminated).
Employment and diversity of labor resources

We strive to apply consistent principles and approaches to working with staff in all countries and regions of operation, always taking into account local specifics and features. The principles and norms set forth in the personnel policy and other local regulations are mandatory for all LUKOIL Group entities. The documents determine the procedure for recruiting, selecting, and assessing personnel; the conditions of employment; actions to be taken in relation to seconded employees and their family members in the event of an emergency; and other issues.

In local labor markets, LUKOIL provides job opportunities for suitably qualified candidates, including for executive positions. Our main approach is to employ the best specialists and to provide them with opportunities to fulfill their potential; in foreign countries, we aim to employ as many locals as possible, and to provide employee training where necessary.

Quality recruitment and a well-organized management team ensure that consistently high results are achieved and that LUKOIL Group entities are effectively managed. In the absence of personnel on local markets, high-potential Russian employees are appointed to senior positions in order to maintain and promulgate the same standards and corporate culture within LUKOIL Group, as well as expand competencies by gaining experience in international projects.

In Russia, the share of women heading companies or units within companies is about 6%, and in middle management the share is around 44%.

Moreover, we respect the strive of employees to achieve family and work balance: for example, in LUKOIL Group organizations parental leave is granted to both women and men.

<table>
<thead>
<tr>
<th>Data on local executives in the foreign entities of LUKOIL Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top managers, people, including locals Share of local top executives (percent)</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>26</td>
</tr>
<tr>
<td>26%</td>
</tr>
</tbody>
</table>

Notes. 1) Top managers are understood to be the CEO (Managing Director / General Director) and their deputies for functional areas. 2) Locals are understood to mean employees that have permanently registered in or are citizens of the foreign countries in which the Company operates. 3) Figures differ from those provided in LUKOIL Group 2017 Sustainability Report due to a change in the data collection methodology. The 'regions of operations significance principle' has been applied: significant regions comprise countries where the staff numbers at LUKOIL Group-entities amount to 500 employees or more (Belarus, Bulgaria, Georgia, Iraq, Italy, Romania, Uzbekistan).

We provide career development opportunities to both men and women.

Share of female executives out of total number of executives of the respective tier
**Personnel expenses in LUKOIL Group entities, RUB million**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total:</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wages</td>
<td>137,664</td>
<td>132,022</td>
<td>136,475</td>
</tr>
<tr>
<td></td>
<td>social benefits and payments, social support of employees</td>
<td>14,698</td>
<td>9,294</td>
<td>8,403</td>
</tr>
<tr>
<td></td>
<td>training</td>
<td>1,053</td>
<td>825</td>
<td>828</td>
</tr>
</tbody>
</table>

**Notes.** 1) The indicator “wages” was prepared in accordance with the instructions for completing the forms of federal statistics, approved by order of Rosstat of 12.11.2008 No. 278. Labor remuneration includes amounts of labor remuneration in monetary and non-monetary form for time worked and not worked, compensation payments related to work and working conditions, additional payments and increments, bonuses, one-time incentive payments, and payments for food and accommodation that are systematic in nature, in accordance with the methodology of completing the indicator of the fund of accrued wages (taking into account the personal income tax and other withholdings) of workers in form No. P-4, Information on the Number and Salaries of Employees. 2) The reduction in social benefit expenses and payments related to a reduction in limits for certain benefits (e.g., accommodation rental compensation) for employees assigned to foreign oil and gas producers, as well as to the ongoing restructuring of LUKOIL Group foreign entities and Russian oil product supply entities.

**Scope of services provided to LUKOIL Group Russian entities under employee social programs**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health protection, services</td>
<td>261,509</td>
<td>276,063</td>
<td>229,781</td>
</tr>
<tr>
<td>2. Social support for families with children, services</td>
<td>61,398</td>
<td>61,461</td>
<td>58,664</td>
</tr>
<tr>
<td>3. Non-state pension support, people</td>
<td>6,262</td>
<td>5,795</td>
<td>6,363</td>
</tr>
<tr>
<td>4. Support for pensioners, people</td>
<td>43,429</td>
<td>43,116</td>
<td>44,884</td>
</tr>
<tr>
<td>5. Other, services</td>
<td>18,036</td>
<td>16,274</td>
<td>17,585</td>
</tr>
</tbody>
</table>

**Notes.** Services provided to an employee under a social program are understood to mean providing a service at the employee’s request or the payment of monetary funds to an employee to obtain a service or to compensate for a service provided.

**INCENTIVIZING EFFECTIVE WORK**

**Our goal** is to recruit, retain, and motivate employees whose qualifications and performance will ensure the successful performance of the Company’s mission and the attainment of stated business goals.

We strive to maintain an effective employee remuneration system. Under an agreement between PJSC LUKOIL and trade unions, the minimum labor rate in Russian companies is set at being at least equal to the minimum subsistence level of the working population. The level of base...
salary depends on the duties performed, the complexity of tasks to be solved, and the respective responsibility level, and is established for each employee taking into account their education and practical experience.

In 2018, the initial level salary\(^1\) in the Russian entities of LUKOIL Group in significant regions of activities\(^2\) corresponded to or exceeded the regional minimum wage. The initial salary of the employees of LUKOIL Group foreign entities is set as being no lower than the minimum wage in the respective country of operation, as established by labor legislation regulations, collective agreements, and/or local regulations.

The employee motivation system in Russian entities also consists of a wide range of benefits and compensations, established by an agreement between the employer and the professional organization, collective agreements, and other bylaws. Issues relating to the living standards of employees, such as health care, providing support to employees and their families, and housing assistance, are given significant attention in the benefits and compensation structure. Social support is also provided to employees that have retired from the Company.

The average salary in the Russian entities of LUKOIL Group in significant regions of operation was at least 1.3 times higher than the average salary in the respective regions.

The employee motivation system in Russian entities also consists of a wide range of benefits and compensations, established by an agreement between the employer and the professional organization, collective agreements, and other bylaws. Issues relating to the living standards of employees, such as health care, providing support to employees and their families, and housing assistance, are given significant attention in the benefits and compensation structure. Social support is also provided to employees that have retired from the Company.

**Voluntary medical insurance**

Voluntary medical insurance programs cover over 90% of the employees of Russian entities; employees can at their own expense tailor these programs to meet their personal needs.

**Housing program**

The housing program is implemented in accordance with the Basics of the Housing Policy of LUKOIL Group and is aimed at providing housing to production personnel (invited and young specialists) and at helping employees improve their living conditions by subsidizing mortgage interest rates. In 2018, 1,400 employees participated in the program.

**Pension plan**

In 2018, pension programs covered more than 49,000 employees of the Russian and foreign entities of LUKOIL Group.

The Russian entities of LUKOIL Group finance a fixed-payment corporate pension program that covers over half of personnel. One type of pension plan is calculated based on years of employment and the salary amount as of the end of 2003, as well as awards received while being employed at the Company. The other type of pension plan is calculated in proportion to salary. These programs are solely financed using LUKOIL Group entity funds. Employees can also make pension contributions via share participation by the Company (up to 4% of the employee’s annual salary). Over 41,000 employees participate in the corporate pension plan. JSC Non-Governmental Pension Fund Otkritie manages the pension plan assets of LUKOIL Group and pays pensions.

**Non-state pension support in Russian entities of LUKOIL Group**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of former employees receiving a corporate pension</td>
<td>43,094</td>
<td>46,294</td>
<td>49,441</td>
</tr>
<tr>
<td>Average size of non-state pension, RUB</td>
<td>2,290</td>
<td>2,240</td>
<td>2,272</td>
</tr>
</tbody>
</table>

\(^1\) A maximum of three values is used as the initial level salary in subsidiaries operating in a particular region: the subsistence minimum in the Russian Federation as a whole, the subsistence minimum in the respective region of the Russian Federation, and the regional minimum monthly wage.

\(^2\) The key (significant) regions of activity are the constituent entities of the Russian Federation and countries where LUKOIL Group entities with a staff of 500 or more (within one entity) are located, as well as the constituent entities of the Russian Federation and countries where the total number of people employed by the Company’s entities is 500 or more.
Pension support for employees of LUKOIL Group foreign entities is calculated in accordance with the legislation of the country of operation, as well as the local regulations of the entities on pension plans, and are financed both using only an entity’s funds and on a shared basis (both the employee and employer contribute).

### Pension liabilities of LUKOIL Group, RUB million

<table>
<thead>
<tr>
<th>Year</th>
<th>Pension liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>8,049</td>
</tr>
<tr>
<td>2017</td>
<td>8,910</td>
</tr>
<tr>
<td>2018</td>
<td>10,367</td>
</tr>
</tbody>
</table>

**PERSONNEL DEVELOPMENT**

LUKOIL Group personnel corporate training and development system is focused on strategic plans and the Company’s need for employees who have a certain level of qualifications and competences.

We consider the Company’s corporate training system to be a tool that mitigates risks related to a lack of qualified personnel.

**Training programs**

Corporate development programs are based on an analysis of the differences between the requirements for employees and their competence level. Personnel training is performed on the basis of the annual Plans for the Advanced Training of the Employees of PJSC LUKOIL and LUKOIL Group Entities. A wide range of training means and methods is deployed. Our main strategic partners are higher education organizations and training centers established as leading providers of educational services.

Employee training programs help the Company achieve its objectives related to new business areas and to maintain the necessary level of competitive performance.

**Information on employee training at LUKOIL Group entities**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of people trained</th>
<th>Amount of training, man-courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>69,571</td>
<td>161,560</td>
</tr>
<tr>
<td>2017</td>
<td>70,183</td>
<td>193,761</td>
</tr>
<tr>
<td>2018</td>
<td>74,684</td>
<td>243,467</td>
</tr>
</tbody>
</table>

**Note.** The rise in training in 2018 was due to the mass training of the Company’s employees in the field of civilian and emergency protection, as well as the implementation of corporate training programs and compulsory education programs on labor protection and information security.

**Corporate internship**

We train the employees of the Russian entities of LUKOIL Group through corporate internships. Each year, employees participating in internship programs share advanced experience with colleagues and master new practical skills through interacting with colleagues. An individual assignment is prepared for each intern, which sets out the objectives to be achieved and issues for study. Based on the results of the internship, the employee and the receiving entity prepare reports containing a description of the results achieved.

**Distance learning**

The Corporate Distance Learning System (DLS) makes it possible to successfully meet mass training and knowledge assessment objectives prescribed under corporate and legislative requirements and to develop the professional and managerial competences and personal effectiveness of employees.

As of the end of 2018, over 60 LUKOIL Group entities were connected to the system, and more than 134,000 man-courses were completed successfully (a third more than in 2017).
A new management training format is being developed, the corporate Academy and School of Management, with a focus on developing intensive skills and on-the-job training, including via the use of mobile services and augmented reality technology. In 2018 the new training format was successfully tested as part of training for deputy general directors in the Company.

In 2018, the Corporate Competence Center of LLC LUKOIL-Severo-Zapadnepetropolud developed two corporate programs to train filling station managers when they are hired and at later training stages. The programs are aimed at increasing the professional and management competencies of filling station managers. During the development of the corporate training system for filling station managers, significant attention was paid to developing distance learning and assessments. Seventeen electronic courses, a situational test, and an online exam were created.

In order to ensure the continuous professional development of the business coaches of the Training Centers of Russian oil production supply companies of LUKOIL Group, two methodological seminars were held on developing a unified methodology for training filling station personnel.

Knowledge Management Corporate System

We pay considerable attention to increasing the knowledge of personnel, with a view to ensuring the innovative development of the Company. As part of the Knowledge Management Corporate System, personnel training programs and collaborations with recognized experts at LUKOIL Group entities are developed.

The effective development of the Knowledge Management Corporate System has been confirmed in high assessments from the external expert community.

In 2018, PJSC LUKOIL was awarded the Grand-Prix of the Fifth All-Russian competition of employers’ best practices in human capital development “Creating the Future”.

YOUTH POLICY

Working with young employees is a major aspect of the Company’s HR management policy, and includes a system of measures aimed at recruiting and creating the conditions and opportunities for the successful and effective personal fulfillment of young employees.

New employee induction activities are performed in two areas: introduction to the entity and introduction to the position. The HR Service is responsible for the introduction to the entity: during introductory courses, employees receive information about the history and structure of the entity, including the Code of Business Conduct and Ethics and corporate policies.

Introduction to the position events are held by the immediate superiors of new employees and comprise:

1. Learning about bylaws that touch upon the unit’s activity
2. The procedure for interacting with other units
3. Learning about employment conditions

In 2018, PJSC LUKOIL was awarded the Grand-Prix of the Fifth All-Russian competition of employers’ best practices in human capital development “Creating the Future”.

LUKOIL Group entities conduct their own adaptation events. For example, School of Young Energy Specialists events have been held for six years, and have reduced the turnover of young employees and increased their motivation levels. LLC LUKOIL-Engineering implements the Young Innovator Academy Project, which is aimed at developing young employees’ engineering and creative thinking.

1 The mentorship procedure is described in the Regulation on the Adaptation of New Employees in LUKOIL Group Entities, approved by a Resolution of the Management Board of OJSC LUKOIL dated December 15, 2008 (Minutes No. 33). The regulation establishes the structure and procedure for holding induction events for new employees in LUKOIL Group entities.
manufacturing traditions, and the corporate culture. Mentors are appointed from among the superiors or peers in a unit and must meet the following requirements:
• Personal desire to serve as a mentor
• a high level of professional competence
• Personable attitude towards the new employee
• Ability to combine their main job functions and mentorship functions, thanks to proper planning

Mentor candidates are approved through an order from the respective LUKOIL Group entity; an additional payment is established for mentors for the duration of their mentorship (the amount is determined independently by LUKOIL Group entity). A mentorship lasts from three months to one year. The mentor develops an individual professional development plan for the new employee and makes assessments of their performance.

The mentor’s effectiveness is demonstrated by the new employee’s attainment of the aims and objectives specified in the individual development plan. Assessments are conducted during the initial and interim stages. In order to ensure that the most active employees are involved in the mentorship process, the Best Mentor of the Year contest is held.

After the completion of the individual professional development plan, the mentor prepares a report on the work of the new employee and the results achieved. The new employee is interviewed by the head of their unit; during the interview, they are given an assessment of their work. The HR Management Service of the respective entity organizes a ceremony for new employees called “Joining the Lukoil Family”.

### Work indicators for young employees and professionals, people

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of young employees</td>
<td>42,772</td>
<td>41,174</td>
</tr>
<tr>
<td>Share of young employees from the staff listing</td>
<td>40%</td>
<td>39%</td>
</tr>
<tr>
<td>Number of young professionals</td>
<td>1,945</td>
<td>1,639</td>
</tr>
<tr>
<td>Young employees hired, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>young professionals</td>
<td>12,125</td>
<td>14,624</td>
</tr>
<tr>
<td>Number of students studying under LUKOIL Group entity agreements</td>
<td>706</td>
<td>589</td>
</tr>
<tr>
<td>Number of students that have completed internships in LUKOIL Group entities</td>
<td>2,950</td>
<td>2,800</td>
</tr>
</tbody>
</table>

**Note.** The decline in the indicators is proportional to LUKOIL Group headcount and also relates to demographic specifics in Russia in the 1990s.

### Research and technology competitions and conferences

Research and technology competitions and conferences for young professionals are held annually. In 2018, such events were held in 25 Russian organizations. A new conference format, in the form of a case competition, was tested.

**Councils of Young Professionals.** The goal of the Councils is to help young employees adapt to working conditions.

Council of Young Professionals field meetings are held annually in Russian regions.

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2 If the immediate manager of an employee serves as their mentor, there is no extra payment.
3 Young employees are employees of PJSC LUKOIL and LUKOIL Group entities aged under 35, including young professionals. Young professionals are employees aged under 30 who have a higher or secondary vocational education and who began working for the Company in an area that related to their educational specialization, including in manual professions, within six months after graduating or within three months after serving in the Russian Armed Forces.
Q Which social issues in local communities are you managing to resolve via the social programs you are implementing?

A In 2018 we celebrated two anniversaries simultaneously: the 25th anniversary of the LUKOIL Charity Foundation and the 20th anniversary of the LUKOIL Sports Club, thus attesting to the tradition of charitable initiatives at the Company. Thanks to support programs for local communities in the areas of education, health care, culture and sport, we make a significant contribution to raising living standards in the regions where we operate. We proactively develop social infrastructure, thereby facilitating improvements in the quality of health care and educational services, and also foster greater opportunities for children and young people, including individuals with development challenges.

Gleb Ovsyannikov
Head of Public Relations Department of PJSC LUKOIL
The Company has exceptional experience in interacting with the indigenous peoples of the North. Is LUKOIL planning any new projects in this area?

The Company believes it is essential that its activities do not infringe on the economic and cultural rights and traditional lifestyles of indigenous peoples. Through our agreements with indigenous peoples of the North, as well as social infrastructure investments, we also support initiatives aimed at preserving the identities of indigenous peoples. As part of our partnership with the Federal Agency for Nationalities Affairs in 2018, we became participants of the All-Russian Cultural and Educational Project “Talents of the Arctic. Children”.
EXTERNAL SOCIAL POLICY PRIORITIES

We recognize the importance of interacting on a regular basis with the residents of the regions in which LUKOIL entities operate. Our social policy has been developed in accordance with the principles of constructive cooperation and responsible partnership, and we have also established priorities for charity and sponsorship activities.

Our social support of the regions of production helps improve the living standards of local people where we work. Our joint projects with local authorities and social and municipal organizations have resulted in the building and renovation of kindergartens, schools, sports facilities, medical centers, hospitals, cultural institutions, and other socially significant facilities. The external social policy focuses on the interests of territories and residents, and is carried out using various mechanisms:

- PARTNERSHIPS WITH AUTHORITIES AS PART OF COOPERATION AGREEMENTS WITH CONSTITUENT ENTITIES OF THE RUSSIAN FEDERATION
- AN ANNUAL SOCIAL AND CULTURAL PROJECTS COMPETITION IN THE RUSSIAN FEDERATION FOR A WIDE RANGE OF SOCIAL AND MUNICIPAL ORGANIZATIONS IN RUSSIA
- CHARITY PROJECTS AND PROGRAMS, TARGETED SUPPORT
- CORPORATE VOLUNTEERING
- SPONSORSHIP

For a quarter of a century our priority areas of social activity have remained unchanged and are the same for all the regions and countries in which LUKOIL Group entities operate; some programs and regional projects are long term in nature. Programs and projects are financed both by LUKOIL Charity Fund (hereinafter, the “LUKOIL CF,” the “Fund”) and directly by LUKOIL Group entities.

In 2018, external social support expenses in all areas amounted to around RUB 9 billion, including charitable social programs and events held under 27 cooperation agreements with Russian constituent entities.
MAIN PROGRAM AREAS AND EXAMPLES OF SOCIAL POLICY IMPLEMENTATION

Examples of Social Policy Implementation

Support for orphanages and orphaned children

Each year, LUKOIL CF awards 50 personal scholarships to the graduates of Russian orphanages under its patronage who wish to continue their education in secondary professional and higher education institutions.

The institutions under our patronage include two boarding facilities for children with health impairments in Bukhara, which serve around 400 children. Required equipment and textbooks are bought for them, and they receive presents on holidays.

Supporting children with health impairments

Within this program, tactile books for visually impaired children are published, taking into account the special features of their visual and tactile perception of images. The books help blind children perceive the world around them and to gain knowledge, and also introduce them to the best examples of children’s literature. Each year, the Fund purchases new sets of books and adds to the libraries of specialized children’s institutions in many Russian cities.

Alongside this project, the “Museum at My Fingertips” project was created in Samara. The project authors have created copies of pictures in bold relief and a graphic guide in bold relief to the museum, so as to provide additional opportunities to visually impaired children.

Educational program for retirees

For many years, an educational program for LLC LUKOIL-Permnefteorgsintez retirees has been implemented. The goal of this program is to encourage elderly people to lead an active social life. Lectures on social, legal and health issues and meetings with artists and musical ensembles are held for them.
EDUCATIONAL PROGRAMS

The goal of our programs aimed at the younger generation is to train young qualified oil industry specialists to make substantial contributions to ensuring a bright future for both the industry and society at large.

The Company supports oil industry higher and secondary education institutions by developing their technical and research potential and improving their material resources, which in turn helps organize the education process in accordance with current standards. The funds provided are used to establish research centers, laboratories, and academic departments and to publish new textbooks and collections of articles dedicated to the oil and gas industry.

SUPPORT FOR HEALTH CARE INSTITUTIONS

The Company has for many years supported a number of large medical centers and regional health care institutions and promoted enhancing the quality of medical service systems in the regions in which we operate.

Since 2000 we have been supporting high-potential students, young teachers, and job training instructors by providing personalized scholarships and grants. In 2018 the program covered 11 higher education institutions, four colleges, and one high school in Russia.

Support programs for students and teachers of higher and secondary education organizations in Russia

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student scholarships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of scholarship holders</td>
<td>186</td>
<td>180</td>
<td>190</td>
</tr>
<tr>
<td>Financing amount, RUB million</td>
<td>5.8</td>
<td>6.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Grants to teachers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of teachers</td>
<td>88</td>
<td>89</td>
<td>79</td>
</tr>
<tr>
<td>Financing amount, RUB million</td>
<td>9.6</td>
<td>10.3</td>
<td>9.0</td>
</tr>
</tbody>
</table>

LUKOIL Group entities also support education in their regions of operation and execute programs that have wider coverage. For example, since 2016 JSC RITEK has held the annual Formula of Success contest, which supports innovation projects and new methods of cooperation among research institutions, higher education institutions, engineering and technical centers, specialists, inventors, and students.

LLC LUKOIL Uzbekistan Operating Company successfully collaborates with a number of higher education institutions in Uzbekistan in the field of training oil and gas industry specialists.

In the Perm Territory, we supported the renovation of M.A. Tverye Primary Health Care Unit No. 9. Since 2018, thanks to the establishment of the Pathology Department for Newborn and Prematurely-Born Children, it has been possible to arrange all stages of care for such children in one institution. Now babies can stay in the ward with their mothers, and they are discharged after a full course of treatment. In 2018, 176 young patients received care.
Environmental campaigns have been held at LUKOIL Group entities throughout the Company’s existence, and are a part of our corporate culture that is much loved by our employees. Following established tradition, as part of these events our employees and partners plant trees and flowers and clear litter from urban and natural areas, river banks, and rivers.

More than 10 years ago, at the initiative of our employees, the projects “An Oil Workers’ Town is a Town of Flowers,” “Children and LUKOIL for the Environment,” and “A Cozy Yard with LUKOIL” were launched in a number of Perm Territory districts. Currently these projects, which have become annual events, are held in each area of the territory and attract people of various ages and occupations into the ranks of volunteers.

For 16 years, the International Environmental Campaign “Save and Preserve”, which we consider to be a tool for raising environmental awareness, has been held in the Khanty-Mansi Autonomous District – Yugra. 77 regions of Russia and around 50 neighboring and distant countries have participated in the event – a total of around half a million people. The campaign features many events: during the year, hundreds of environmental events are held in the region with the participation of schoolchildren, social organizations, businessmen, and guests from other regions.

Constantin Stere Park, Ploiești (Romania), has hosted a summer environmental school for a number of years; its motto is “Think Green, Think Clean”. The project is organized by the Romanian Environmental Protection Agency, with support from Petrotel LUKOIL S.A. In 2018, 50 high high school students from Olari and Potigraph participated in the project.

The “Give Paper a New Life” environmental project has been developed by the Young Specialist Council of LUKOIL-Nizhegorodnefteorgsintez, which organized the collection and removal of wastepaper to recyclable material collection points. Using the funds raised, the young specialists have planted linden trees in Chkalov Park, Kstovo, in the Nizhny Novgorod Region.

In 2002–2018, the competition received more than 30,000 applications from 20 constituent entities of Russia; over 6,000 projects, with a total value of over RUB 1 billion, were completed.

Examples of Social Policy Implementation
CULTURAL HERITAGE PRESERVATION PROGRAM

The cultural heritage preservation program is aimed at developing Russian culture, promoting spirituality, and preserving national values.

For many years we have supported museums, theaters, creative groups, and festivals. With our support exhibitions and guest appearances are organized, cultural heritage items are restored, and cultural and art centers are renovated.

Moscow Kremlin museums

We have for a long time worked with the main museum complex of Russia to organize exhibitions at Kremlin venues and off-site exhibitions in Russian towns/cities and abroad. Off-site exhibitions always contain a social element, in the form of educational programs for children. Museum employees deliver lectures and hold excursions for orphaned children and children from needy families and organize painting contests for them.

Pushkin State Museum of Fine Arts

A special feature of our partnership with the museum is that we collaborate in various formats, including exhibitions, restorations, multimedia events, publishing, and children’s educational projects.

For example, the Fund’s support has helped implement a unique project based on information technologies, which make it possible to reproduce a three-dimensional image of cuneiform tablets stored in the museum on a screen. The project allows professionals and amateurs to access the exhibits without direct contact.

In 2018, an exhibition of works by Vassily Kandinsky, called Little Worlds, was held in Mexico with support from LUKOIL. The exhibition included the most significant works from the most important periods of Kandinsky’s life and aesthetic evolution: the beginning of his artistic journey in Munich, his return to Moscow after the beginning of World War I, his period of teaching in the Bauhaus in Germany, and his life in Paris.
SUPPORTING SPORTS TEAMS AND EVENTS

LUKOIL sports program is aimed at promoting healthy lifestyles and sports. We help both professional and amateur teams, and are constantly in search of new ideas for the implementation of social initiatives in this area. The consistent nature of our approach is demonstrated by our continuous support of sports organizations (clubs, federations, leagues, etc.) through LUKOIL Sports Club.

We support the following sports: soccer, motor racing, basketball, competitive skiing, water polo, and handball.

In 2018, LUKOIL Sports Club (hereinafter, the “Club”) celebrated its 20th anniversary. Since 1998, the Club has implemented programs to support sport on a large scale, in accordance with the social priorities of LUKOIL Group.

The Company supports car racers (the Lukoil Racing Team), FC Spartak Moscow, the national skiing team, United Basketball League athletes, the national speedway team, and a number of regional teams recorded a number of memorable victories in various sports. All supported professional clubs cooperating with LUKOIL develop children sports. In addition, the Company supports the development of youth soccer at the international level through the Lukoil Cup (www.lukoilcup.com) and the Children’s Soccer League (www.dfl.org.ru).

Attention is also paid to sports veterans; LUKOIL is one of the founders of the Russian Olympian Support Fund.

Generally, our corporate programs are targeted to the specific regional experience and its human resources. Any decision to support a project is based on an assessment of its potential ability to resolve local issues. The criteria and methods for evaluating projects include:

- Regularly monitoring the social and economic situation in the regions of operation
- Interacting with citizens of the regions of operation
- Meetings with the administrations of the constituent entities of Russia to discuss the effective implementation of cooperation agreements
20TH ANNIVERSARY OF LUKOIL SPORTS CLUB

During this period, in addition to supporting professional and amateur sports teams, LUKOIL Sports Club has held many events aimed at developing children’s sports. These include: the nationwide "We Are One Team!" campaign, the nationwide "Believe in Yourself!" charity program, the "Live with Sports" campaign, and the nationwide "Relay of Kindness" charity project.

NATIONWIDE RELAY OF KINDNESS CHARITY PROJECT

This project is aimed at consolidating and structuring the support of professional sports clubs and athletes for children from needy families, orphans, and disabled athletes. During the implementation of this project, 10 public charity events were organized as part of large sports competitions. The events were held in soccer stadiums, at a skiing trail, and in basketball and ice hockey arenas in Moscow and the Astrakhan, Nizhny Novgorod, and Arkhangelsk regions.

"REFUELING THROUGH SPORT" CAMPAIGN

In 2018, the club organized another project, "Refueling through Sport," intended to support young athletes aged 6-14 engaged in Olympic sports. Applications can be submitted by national sports federations, executive bodies of Russian constituent entities, youth athletic centers, and sports groups. In addition to monetary prizes, winners receive sports equipment and train under the guidance of Olympic champions. In 2018, over 1,000 young sportsmen participated in the contest, representing 53 regions of the country in 45 sports. There were 10 winners in the contest.

"BELIEVE IN YOURSELF!" CHARITY CAMPAIGN

A series of charity events held by LUKOIL Sports Club for young people, organized with support from the radio station Russkoye Radio. "Believe in Yourself!" is a call to young people to believe in their abilities, use their skills and talents, and tell other people about what they have achieved. As part of the event, young people who demonstrate a proactive attitude and showcase their abilities are rewarded. At various times the project has been executed in the Moscow Region, Tomsk, the Republic of Komi, Perm Territory, and Vladimir; it has included skiing and roller-skiing competitions, a soccer championship for children’s and youth teams, a carting competition, and an Olympic champion car rally entitled "Light a Fire in Yourself!" in which 30 prominent athletes and Olympic medalists participated in a car rally around the Golden Ring of Russia. LUKOIL Sports Club has also created an initiative to organize children’s skiing races and become an official partner of Russialoppet races. A charity ski race was held in which around 500 children participated, including boarding school students and children from the Sergiev-Posad Rehabilitation Center for Minors.

THE ESTABLISHMENT OF OUR SPORTS CLUB HAS ALLOWED US TO TRANSITION FROM ONE-TIME SPONSORSHIP EVENTS TO SYSTEMATICALLY SUPPORTING PROFESSIONAL SPORTS TEAMS, CHILDREN’S AND YOUTH SPORTS, AND BUILDING VARIOUS SPORTS FACILITIES IN THE REGIONS OF LUKOIL’S OPERATION.

Vagit Alekperov, President, PJSC LUKOIL
Q.: Why did LUKOIL’s management decide to establish a charity fund at the same time as establishing the Company?

A.: For LUKOIL and its management, social responsibility is not just a phrase but an understanding of our social responsibility to past and future generations. This is not an exaggeration. Think back to 1994. It was a tough period even for oil-producing regions, not to mention the rest of the country. That is why, initially, the Fund was established to support people and organizations in the most challenging situations in the regions where the Company operates. LUKOIL’s President has always maintained a clear position - where we work, people must live a decent life.

Gradually, external social activity priorities were created. These focused on people who had no one to rely on. Helping children, especially orphans, is a natural thing for a charity fund, since children are unable to solve their problems on their own. Helping orphanages became our first and favorite program.

Social and cultural institutions (hospitals, museums, schools, and higher education institutions) also needed support. We had to literally save some creative groups! That is why we launched the health care institution support area and the cultural heritage preservation program. We often went to regions to ensure that our support really does improve the situation.

Q.: Why have the Company’s external social policy priorities never changed?

A.: Our top priority is people, their present and future. That is what all our programs are about. Health care, education, cultural development, children’s welfare, and support for the elderly - to provide a dignified life for each person and society as a whole. This is why we have not changed the areas of our charity activities. Nevertheless, the essence of the Fund’s stance is that charity should not teach people to be dependent. Hence we use the mechanism of competition and implement an extensive volunteer program.

Q.: Why are the activities of the LUKOIL Charity Fund not advertised in the media?

A.: We believe that charity does not need to be advertised. Otherwise, it will cease to be what it is supposed to be – a good thing that comes from the heart.

During its operation, thousands of projects have been supported which have changed the appearance of Russian cities.

The Fund was founded in 1993 at the initiative of the management of PJSC LUKOIL. The Fund’s activity is based on the following principles: consistency, striving for maximum efficiency, openness, and responsibility.

The work of the Fund has been honored with awards and appreciation from the leaders of the country, regions and cities, ministries and departments, as well as the Russian Orthodox Church.

I AM PLEASED TO NOTE THAT IN ITS ACTIVITIES THE FUND NOT ONLY AIMS TO FOLLOW THE REMARKABLE TRADITIONS OF RUSSIAN PHILANTHROPY, BUT ALSO USES MODERN FORMS OF WORK, INCLUDING COMPETITIVE TECHNOLOGIES, ACTIVELY INTERACTING WITH SOCIAL AND PUBLIC ORGANIZATIONS ENGAGED IN THE SOCIAL SECTOR TO IMPROVE LIVING STANDARDS. THE FUND HAS MANAGED TO ENGAGE MANY EMPLOYEES OF THE COMPANY IN ITS PROGRAMS, WHO PROMOTE SUCCESSFUL IMPLEMENTATION OF THESE PROGRAMS THROUGH THEIR PERSONAL CONTRIBUTIONS.

Vagit Alekperov, President, PJSC LUKOIL, in a speech honoring the Fund’s anniversary.
SOCIAL AND CULTURAL PROJECT COMPETITION

In 2018, a new Youth Initiatives award category was established to honor the 25th anniversary of the Fund, in addition to existing categories (Environment, Spirituality and Culture, and Sports). This category supports projects to implement new methods and techniques for working with children, teenagers, and young people in the field of R&D to develop their scientific, technical, and creative potential.

SOCIAL AND CULTURAL PROJECTS COMPETITION RESULTS IN 2018

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>Participants</th>
<th>Winners</th>
<th>Financial support for winners' projects, RUB million</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,645</td>
<td>773</td>
<td>141</td>
</tr>
</tbody>
</table>

| LLC LUKOIL-Nizhnevolzhskneft, LLC LUKOIL-Perm, LLC LUKOIL-Permnefteprodukt, LLC LUKOIL-Permnefteorgsintez | Perm Territory, Bashkortostan Republic, Udmurta | 1,104 | 182 | 28 |
| LLC LUKOIL-Nizhnevolzhskneft | Republic of Kalmykia | 91 | 48 | 10 |
| LLC LUKOIL-Komi, LUKOIL Charity fund | Republic of Komi, Nenets Autonomous District | 197 | 69 | 16 |
| LLC LUKOIL-Volganefteprodukt, LLC LUKOIL-Nizhegorodnefteorgsintez, LUKOIL Charity Fund | Nizhny Novgorod, Vologda, Vladimir Regions, Republic of Mordovia, Mari El, Chuvashia | 367 | 57 | 15 |
| LLC LUKOIL-Kaliningradmor Neft | Kaliningrad Region | 85 | 17 | 4 |
| JSC RITEK, LUKOIL Charity Fund | Samara Region | 394 | 79 | 15 |
| JSC RITEK, LUKOIL Charity Fund | Tartarstan Republic | 610 | 146 | 25 |
| LLC Stavrolen, LLC LUKOIL-Yugnefteprodukt, LUKOIL Charity Fund | Stavropol Territory | 22 | 18 | 3 |

Total Competition budget, RUB million

- 2018: 141
- 2017: 125
- 2016: 103

1 With the contribution of the LUKOIL Charity Fund.
2018 operation results and examples of projects financed

1

Improving the social climate in Russian regions

Theater without Borders,
Samara, Samara Region

A festival for visually impaired people was held at the Samara Regional Library for the Blind; over 100 people participated. The program included participating in theatrical performances and a quiz about the history of the Samara Region.

We are Ready to Compete!
Perm, Perm Territory

The first regional sports festival for children with disabilities and their parents was held. 187 families (374 people) from 23 Perm Territory locations and the city of Perm participated in the event.

2

Increasing the activity of the residents of Russian regions in relation to resolving issues faced in their regions.

Molodyozhnyi Park,
Kinel District, Samara Region

Schoolchildren from the Village of Skolkovo and their supervising teacher initiated creating a park in the center of the village. The young people enthusiastically took part in the project and developed a design for a family recreation area.

3

Preservation of national and cultural identity

Khadris,
Republic of Kalmykia

A Kalmyk dance children festival was organized. During the events, participants learned about the national culture of the Kalmyk people.

Craftsman Town,
Mendeleyevsk, Republic of Tatarstan

A national craft studio was created at School No. 3, open not only to schoolchildren but also pensioners and other residents of the town (500 participants).

4

Enhancing the environmental situation.

The Crystal Tinkling of a Brook
Shentala District, Samara Region

An abandoned spring was restored in order to provide the residents of a rural settlement in Tuarma (over 1,700 people) with clean potable water.

Forest Fairytale
Votkinsk, Udmurt Republic

The visiting area in Berezovsky Forest was improved: children’s playgrounds and benches were installed, and paths for pedestrians were made.

5

New jobs were created.

Courtyard of a Saigatka Kurkul
Chaikovsky District, Perm Territory

For a number of years we have assisted in the restoration of the Saigatka Historical and Architectural Complex in the Chaikovsky District of Perm Region; the complex consists of three houses that belonged to the first settlers of the Kama Region, which are still located in their original historical locations. In 2018, one of the houses was renovated, and the “Village Store of the Late 19th – Early 20th Century” exhibition was opened.

Detailed information is available on the website of the LUKOIL Charity Fund and on the website of PJSC LUKOIL
VOLUNTEER YEAR IN RUSSIA

In 2018, Russia celebrated Volunteer Year. The practice of volunteering in campaigns and events for the good of the residents of cities and villages has long been part of the corporate culture of LUKOIL. The employees of our entities organize their own volunteer projects and participate in local and federal initiatives. Young professionals from our entities organize, inspire, and actively participate in volunteer campaigns.

According to rough estimates, in 2018 alone LUKOIL’s young professionals held over 190 events, and contributed over 2,000 volunteering days.

Despite the large variety of campaigns held, our volunteers have common priorities in all the regions where LUKOIL operates. These include the following types of support and social participation:

Support for combat and oil industry veterans: visiting the elderly, household assistance, and gifts.

Information about volunteering activities for the following LUKOIL Group entities is provided: LLC LUKOIL-Komi, LLC LUKOIL-West Siberia, LLC LUKOIL-PERM, LLC LUKOIL-Kaliningradmoerneft, LLC LUKOIL-Nizhnevolskneft, LLC Stavrolen, LLC LUKOIL-Severozapadnefteprodukt, LLC LUKOIL-Yugnefteprodukt, LLC LUKOIL-Astrakhaneft, LLC LUKOIL-Kubanenergo, and LLC LUKOIL-Stavropolenergo.

Volunteering day means the participation of one young specialist in one campaign (regardless of its duration). The participation of one person in several campaigns is counted as several man-days.
Child welfare, including:
- Visiting orphanages and hospitals (we do not just give gifts, but also play games and arrange competitions, for example, “There Are No Strange Children” campaign a tradition initiated by young employees to visit orphanages and boarding schools in order to help children develop through communication (including support for children with cognitive impairments)
- Meetings with schoolchildren as part of a recruitment campaign to attract young people to work at LUKOIL enterprise

Environmental events. Young specialists hold their own events and participate in regional and Russia-wide initiatives, e.g.:
- In West Siberia: Green Spring, Spring-Cleaning of Russia, Save and Protect, Water of Russia, etc. (LLC LUKOIL-West Siberia)
- In the Perm Territory: the ECO Territory environmental quest (LLC LUKOIL-Perm)
- Clean-up events in Curonian Spit National Park, Kaliningrad Region (LLC LUKOIL-Kaliningradmorneft)
- In the South of Russia: Clean Shore (LLC LUKOIL-Kubanenergo) and a wastepaper collection event (LLC LUKOIL-Yugnefteprodukt)

Since 2016 the Company’s employees have taken part in restoring the ecological balance of the islands of Belyi and Vilkitskogo, the goal of which is clearing the islands of waste accumulated during Arctic development. The Company also provides financial support to environmental expeditions to Arctic islands whose vulnerable environment is in the greatest need of restoration.

Sports events (bicycle and running races, relays, rafting events, hiking tours, etc.)
Young specialists of OOO LUKOIL-Western Siberia regularly hold sports events in Kogalym to promote a healthy lifestyle, including gymnastics or yoga on grass, jogging in parks as part of the “We are always in motion!” campaign, and the “Free GAMES 2018”.

Patriotic events, such as the Immortal Regiment and the St. George’s Ribbon.

Charity events, e.g. “Magic Fair and Let’s Play Father Frost” (Perm Territory), “There Are No Strange Children” (the Republic of Komi), “Good Deed Week” (Astrakhan Region), “Home of Amazing Children” (Nizhny Novgorod Region).

Donor events. LUKOIL Group entities in Russia and abroad participate in donor events.
An interesting initiative was proposed by young energy company specialists working in the South of Russia: in 2018, the regional meeting “DOBROFORUM” and a social projects competition for young specialists were held for the first time. The forum is held as a “mobile” event at which participants can exchange experience in youth work and volunteering. The 2019 forum is planned in the Volgograd Region.

Foreign entities also organize volunteering events. For example, Petrotel LUKOIL S.A. arranges sports activities for young people in Bucharest and in the district of Prahova to promote healthy lifestyles. Since 2016, LLC LUKOIL Uzbekistan Operating Company employees have held the Green Earth event: in 2018, they planted 100 trees in the Rusanov Botanical Garden in Tashkent and held a clean-up event in Bukhara, in collaboration with the Bukhara Professional College of the Oil and Gas Industry, planting over 200 saplings.
SOCIAL ENTREPRENEURSHIP

The More than Buying project is a unique joint initiative between LUKOIL Group oil product supply entities and the “Our Future” regional social program fund (http://www.nb-fund.ru/). Its purpose is to support social entrepreneurs, who are given the opportunity to sell their products at LUKOIL filling stations. By “social entrepreneurship,” we mean a special type of activity aimed at solving or mitigating social problems using income from business activities. Both small businesses and social non-profit organizations can become social entrepreneurs.

In 2018, the project saw comprehensive development due to a new concept of interaction between the project team and PJSC LUKOIL. The task was to make the project more targeted and dynamic in order to expand the range of products sold. As a result, 21 new companies joined the project, and the number of filling stations participating expanded to 1,500. Collaborative relations between social entrepreneurs were initiated; for example, some produce goods and others produce packaging for them.

Thirty workshops have reached a stable business level, which we believe is a testament to the success of the program. For example, “Northern Manufactory” from Arkhangelsk and “Rukotvorenie” from Nizhny Novgorod Region successfully sell textiles and souvenirs; the Shetrik factory from Shuya sells knitted rugs; and the Blind Society enterprise “Vladimirskaya ETK” makes air fresheners and reflectors. In the Republic of Komi, the products of indigenous artisans were sold for the first time at filling stations.

As of December 31, 2018, the project included 45 regions of the Russian Federation, 180 entrepreneur start-ups and over 50 suppliers; this is the widest sales network for goods used by social entrepreneurs in Russia.

^ According to Russian legislation, ethnic groups with no more than 50,000 people are referred to as minorities.
INDIGENOUS MINORITIES OF THE NORTH

We abide by the principles set forth in the UN Declaration on the Rights of Indigenous Peoples, in the UN Global Compact, and in the Resolution of the World Conference on Indigenous Peoples, and strive to achieve a harmonious combination of economic activities from our subsidiaries in the territories of the Indigenous Minorities, by ensuring that traditional lifestyles and economic activities can be maintained.

Indigenous minorities of the North live in four regions of LUKOIL operations: in Khanty-Mansi Autonomous District - Yugra, Yamal-Nenets Autonomous District, Nenets Autonomous District, and Krasnoyarsk Territory.

Interaction with the Indigenous Minorities is carried out as part of the federal and regional legislation of the Russian Federation, the licensing obligations of LUKOIL Group entities, and federal and regional support programs for the Indigenous Minorities. The main forms of interaction comprise:

- Cooperation agreements between PJSC LUKOIL and regional administrations
- Economic agreements with the heads of territories of traditional natural resource use
- Social and economic development agreements with reindeer farms
- Cooperation with social organizations
- Supporting specific projects through grants, as part of the PJSC LUKOIL Social and Cultural Projects Competition

Since 2017, a cooperation agreement has been in effect between PJSC LUKOIL and the Federal Agency for Nationality Affairs, under which joint working and coordination advisory bodies have been established on issues related to the social, economic, and cultural development of indigenous minorities.

Compensation payments are made annually to indigenous people on the territory of the Khanty-Mansi Autonomous District-Yugra (LLC LUKOIL-West Siberia, JSC RITEK, LLC LUKOIL-AIK) under licensing obligations, and on the territory of Nenets Autonomous District (LLC LUKOIL-Komi) under agreements with reindeer farms. We also implement charity projects (for example, the “Red Chum” project in the Nenets Autonomous District).

Mechanisms which enable representatives of the Indigenous Minorities and social organizations to address LUKOIL Group entities on issues related to the support and protection of the rights of indigenous peoples have been created and are operating successfully. In 2018, no claims related to violations of the rights of Indigenous Minorities were submitted.

Support for Indigenous Minorities in Russia as part of the licensing obligations of LUKOIL Group entities, RUB million

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<tr>
<th></th>
<th>TOTAL</th>
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<tr>
<td></td>
<td>2016</td>
<td>2017</td>
<td>2018</td>
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<tr>
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<td>304.3</td>
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including:

KHANTY-MANSI AUTONOMOUS DISTRICT - YUGRA

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<th>2018</th>
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<td></td>
<td>274.8</td>
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NENETS AUTONOMOUS DISTRICT

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<td>29.5</td>
<td>30.5</td>
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</table>
"RED CHUM"

2018 marked the 88th anniversary of the project “Nyaryana Mya” (in Nenets, “Red Chum”). In 2017, the project was praised by the Chair of the United Nations Permanent Forum on Indigenous Issues, Mariam Wallet Aboubakrine, who proposed extending it to other territories where indigenous peoples live. The project has also been praised by the famous Russian pediatrician Leonid Roshal, who recommended extending its use to hard-to-reach mountainous areas.

In 2002, PJSC LUKOIL and the social organization Yasavey revived the Red Chum medical and social project (launched in 1930 but suspended until 1975). The purpose of the project is to make medical care available to the nomadic population of the North. Each year, a medical team arrives by helicopter at the tundra to conduct field medical examinations of local reindeer herders and their families. This is particularly essential in the Nenets Autonomous District, where most indigenous peoples have no road access to administrative centers.

In 2008, the project became long-term, annual, and scheduled: since that year, Red Chum has been administered by PJSC LUKOIL in collaboration with the Administration of the NAD; examinations are conducted by Central District Medical Center employees of the Zapolyarnyi District of the NAD.

In 2008-2018, around 6,500 indigenous people underwent medical examinations. Total financing of the Red Chum project for this period was over RUB 17.5 million.

ALL-RUSSIAN CULTURAL AND EDUCATIONAL PROJECT "TALENTS OF THE ARCTIC. CHILDREN"

In 2018, we participated in the cultural and educational project “Talents of the Arctic. Children”. The project’s goal is to support gifted young people of the indigenous minorities of the North. The project was initiated by our partners, the Federal Agency for Nationality Affairs of Russia, the Association of Indigenous Peoples of the North, Siberia and the Far East of the Russian Federation, and the Association of Artists. Financial support was provided by the LUKOIL Charity Fund.

In 2018, the first summer camp for children of primary and middle school age was organized in Anapa (Krasnodar Territory). The children took part in workshops on fine and applied arts, local arts and crafts, and learned folk songs in local languages.
LUKOIL, a leading company on the Russian market and a participant in the global supply chain, is fully supportive of the United Nations 2030 Agenda for Sustainable Development. The Company recognizes that the goals outlined in this document are becoming more and more relevant for success in the global marketplace and for ensuring a sustainable future for all of us.

The Company is a major employer and taxpayer and works in many Russian regions, as well as internationally. Hence, LUKOIL’s policies have an impact on local communities as well as on global development. In this Report, we have highlighted 11 global goals and 15 objectives. We are already making significant progress in attaining these goals, thanks to implementation of our corporate strategy. We intend to continue with programs aimed at achieving these important social, environmental and economic objectives in line with our capabilities, always striving to integrate best practices and forward-looking solutions into our business processes.

We pay close attention to the issue of climate change and acknowledge the importance of the changes we are seeing for the future of our Company and the world. We strive to participate in the ongoing global dialogue and seek to anticipate the steps required to deal with new challenges. Lukoil will continue to present to its stakeholders: government and non-government bodies, local communities, shareholders and investors the actions we are taking in this and other areas in the Company’s yearly reports on sustainability.
## APPENDIX 1. **GRI CONTENT INDEX**

### GRI Standards and Indicators Table

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<td>Information about share capital and PJSC LUKOIL’s securities is available on the corporate website: <a href="http://www.lukoil.com/InvestorAndShareholderCenter/Securities/sharecapital">http://www.lukoil.com/InvestorAndShareholderCenter/Securities/sharecapital</a></td>
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<td>Significant changes to the organization and its supply chain</td>
<td>In the reporting year, the following changes took place in the structure of LUKOIL Group:</td>
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<td></td>
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<td>1) ООО LUKOIL-Volganefteprodukt reorganized by joining ООО LUKOIL-Tsentrnefteprodukt,</td>
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<td></td>
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<td>2) ООО LUKOIL-Nizhnevolzhsknnefteprodukt reorganized by joining ООО LUKOIL-Yugnefteprofukt,</td>
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<td>3) ООО LUKOIL-Permnefteprodukt reorganized by joining ООО LUKOIL-Uralnefteprodukt,</td>
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<td>4) ООО LUKOIL-Chernozemnyennefteprodukt reorganized by joining ООО LUKOIL-Yugnefteprofukt,</td>
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<td>5) ООО LUKOIL-Aero Nizhniy Novgorod reorganized by joining ООО LUKOIL-Aero Samara,</td>
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<td>6) ООО LUKOIL-Aero Surgut renamed LUKOIL-Aero Vostok,</td>
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<td>7) IMMANIS reorganized by joining LUKOIL Belgium,</td>
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<td>8) Sold outside LUKOIL Group: LUKOIL INVESTMENTS CYPRUS LTD, LUKOIL Overseas Anaran Ltd.,</td>
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<td></td>
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<td>LUKOIL Overseas Aral Ltd,</td>
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<td>9) Registered: INTEGRATED EXPLORATION AND PRODUCTION SERVICES, S. De R.L. de C.V.; LUKOIL</td>
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<td></td>
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<td>UPSTREAM PRODUCTION NIGERIA LTD; LUKOIL Lubricants Africa, S.A.R.L.; LLP LUKOIL Kazakhstan</td>
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<td>Upstream; LUKOIL Kazakhstan Limited; LUKOIL SECURITIES LIMITED; ООО Tennisny tsentr;</td>
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<td>10) Liquidated: ООО LUKOIL Engineering affiliate in Dubai. Supply chain data are not</td>
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<td>consolidated.</td>
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<td>102-11</td>
<td>Precautionary Principle or approach</td>
<td>As part of its existing risk management system, the Company employs the precautionary</td>
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<td></td>
<td></td>
<td>approach in the exercise of Environmental and Social Impact Assessment (ESIA) procedures and</td>
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<td></td>
<td></td>
<td>in planning its Environmental Safety Program activities.</td>
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<td>4. Governance</td>
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<td>102-18 - 102-19</td>
<td>The corporate governance system is detailed in the Annual Report for 2018, page 82, as well as on the corporate website (<a href="http://www.lukoil.com/Company/CorporateGovernance">http://www.lukoil.com/Company/CorporateGovernance</a>)</td>
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<td>The corporate governance system is detailed in the Annual Report for 2018, page 82, as well as on the corporate website (<a href="http://www.lukoil.com/Company/CorporateGovernance">http://www.lukoil.com/Company/CorporateGovernance</a>)</td>
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<td>102-29</td>
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<td></td>
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<td>The indicator is disclosed partially</td>
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<td>No restatements was carried out</td>
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Compared with the LUKOIL Group Sustainability Report for 2017, the list of material topics was changed slightly: the topics are consolidated by combining several topics into one. The material topics boundaries have slightly changed compared with 2017 – a number of indicators are given taking into account the foreign organizations of the LUKOIL Group, which is reflected in the notes to the respective indicator tables. The boundaries of the indicators are also given in Appendix 4.

102-50 | Reporting period | About the Report | 5-6
102-51 | Date of most recent report | 5-6
102-52 | Reporting cycle | 5-6
102-53 | Contact point for questions regarding the report |  
Contact information on issues related to the content of the Report:
Coordination Center for Corporate Activities
Tel.: +7(495) 981-79-77, +7(499) 973-70-56. E-mail: csr@lukoil.com
Investor Relations Department
Tel.: +7(495) 627-16-96. E-mail: ir@lukoil.com
Press Service
Tel.: +7(495) 627-16-77. E-mail: media@lukoil.com

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103-3 | Evaluation of the management approach |  
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<td>The data include only Russian organizations of the LUKOIL Group.</td>
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<td>GHG emissions intensity</td>
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<td>Emissions of ozone-depleting substances (ODS)</td>
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<td></td>
<td>The Company does not use ozone-depleting substances (ODS) on an industrial scale.</td>
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<td></td>
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<td>305-7</td>
<td>Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions</td>
<td>Emissions and Waste</td>
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<td><strong>GRI 306 Effluents and Waste (2016)</strong></td>
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<td>103-1, 103-2, 103-3</td>
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<td>Regulations: the HSE policy of PJSC LUKOIL in the 21st Century. Department responsible – HSE Department of PJSC LUKOIL.</td>
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<td>Water discharge by quality and destination</td>
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<td>Information on volumes and quality of wastewater is provided without its destination.</td>
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<td>Waste by type and disposal method</td>
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<td>306-4</td>
<td>Transport of hazardous waste</td>
<td>LUKOIL Group organizations do not transport of hazardous waste. Waste stewardship methods are disclosed in section “Emissions and Waste”.</td>
<td></td>
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<td><strong>GRI 307 Environmental Compliance (2016)</strong></td>
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<td></td>
<td>Regulations: Regulations on Holding Tenders to Select Suppliers and Contractors of LUKOIL Group Subsidiaries; the HSE policy of PJSC LUKOIL in the 21st Century; PJSC LUKOIL Standard Health, Safety and Environment Management System: Contractors Requirements. Department responsible – HSE Department of PJSC LUKOIL.</td>
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<td>New suppliers that were screened using environmental criteria</td>
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<td>Regulations: The Social Code of PJSC LUKOIL. Department responsible - Personnel Policy Department of PJSC LUKOIL. For more information see the corporate website: <a href="http://www.lukoil.com/Responsibility/SocialPartnership/HumanResources">http://www.lukoil.com/Responsibility/SocialPartnership/HumanResources</a></td>
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<td>New employee hires and employee turnover</td>
<td>HR Management</td>
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<td></td>
<td>The indicator is disclosed partially: employee turnover disclosure is presented.</td>
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<td>Benefits provided to full-time employees that are not provided to temporary or part-time employees</td>
<td>Work-related performance incentives</td>
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<td></td>
<td>Social benefits are granted to all employees, regardless of the type of employment.</td>
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<td><strong>GRI 402 Labor/Management Relations (2016)</strong></td>
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<td>Minimum notice periods regarding operational changes</td>
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<td>Occupational health and safety management system</td>
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<td>Regulations: STO LUKOIL 1.6.14-2016 Health, Safety and Environment management system. Procedure for registration, recording and investigation of accidents and incidents. Department responsible: the HSE Department of PJSC LUKOIL.</td>
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<td></td>
<td>Since the Company has in place an integrated HSE management system certified under ISO14001 and OHSAS 18001 standards, the proportion of employees covered by this management system is the same in terms of environmental protection management and labor protection management.</td>
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## GRI 404 Training and Education (2016)

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<td>The information provided refers to the number of employees trained and courses attended. This information is disclosed without breakdown by gender and categories of employees in accordance with Company data collecting system.</td>
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<td>Information is provided without breakdown by gender and categories of employees, as this information is not consolidated and is not used to manage this issue in the Company.</td>
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<td>Ratio of basic salary and remuneration of women to men</td>
<td>Incentivizing Effective Work</td>
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<td></td>
<td></td>
<td>The standard entry level wage is disclosed. Wages do not differ according to gender.</td>
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<td><strong>GRI 406</strong> Non-Discrimination (2016)</td>
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<td>406-1</td>
<td>Incidents of discrimination and corrective actions taken</td>
<td>No such incidents were identified in 2018.</td>
<td></td>
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<td><strong>GRI 407</strong> Freedom of Association and Collective Bargaining (2016)</td>
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<td><strong>GRI 411</strong> Rights of Indigenous Peoples (2016)</td>
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<td>Indigenous Minorities of the North</td>
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<td>413-1</td>
<td>Operations with local community engagement, impact assessments, and development programs</td>
<td>External social policy priorities</td>
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<td></td>
<td>All Company subsidiaries of business segments “Exploration and production” and “Refining, marketing, and distribution” (except subsidiaries conducting trade operations) have programs in place related to local community engagement.</td>
<td></td>
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## APPENDIX 2.
### INDIVIDUAL GRI STANDARDS AND INDICATORS

**GRI 102. General information**

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<td>The National Council for Professional Qualifications of the President of the Russian Federation.</td>
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<tr>
<td></td>
<td>The Council for Professional Qualifications in the Oil and Gas Industry of Russia.</td>
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<td>UN Global Compact – Network Russia.</td>
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<td>Russian Union of Industrialists and Entrepreneurs.</td>
</tr>
<tr>
<td></td>
<td>The Airport Civil Aviation Association – LUKOIL-AERO is a member.</td>
</tr>
<tr>
<td></td>
<td>The Bulgarian Oil and Gas Association.</td>
</tr>
<tr>
<td></td>
<td>The Macedonian-Russian Chamber of Commerce and Industry, the Chamber of Commerce of Montenegro.</td>
</tr>
<tr>
<td></td>
<td>The National Oil Committee of Serbia, which is a member of the WPC (World Petroleum Council). Representatives from LUKOIL Serbia PLC Belgrade occupy positions in the management bodies (the Board of Directors and Executive Council); participate in ongoing activity, including committee work (for example, in the Young Specialists Committee). The Company does not provide substantial financing outside standard membership dues, and does not consider its membership to be strategic.</td>
</tr>
<tr>
<td></td>
<td>The Association of Fuel Distribution Companies of Turkey (ADER). Akpet GAZ A.S. and Lukoil Eurasia Petrol A.S are members of the organization; a LUKOIL representative was its chairman in 2017.</td>
</tr>
<tr>
<td></td>
<td>The Association of Oil and Petroleum Product Distributors of Montenegro.</td>
</tr>
<tr>
<td></td>
<td>The Union of Energy and Extractive Industry of Montenegro – LUKOIL Montenegro DOO is a member of the Management Board of the organization.</td>
</tr>
<tr>
<td></td>
<td>The Union of Oil Companies of Serbia. Representatives from LUKOIL Serbia PLC Belgrade hold positions in the management bodies; the subsidiary is an active participant in all the organization’s undertakings.</td>
</tr>
<tr>
<td></td>
<td>The Turkish LPG Association (Türkiye LPG Derneği) and the Union of Chambers and Commodity Exchanges of Turkey (TOBB). LUKOIL subsidiaries participate actively in discussions of practical issues related to the development of the Turkish gas market.</td>
</tr>
<tr>
<td></td>
<td>The Belgian Petroleum Federation.</td>
</tr>
<tr>
<td></td>
<td>The Croatian Energy Regulatory Agency (Hrvatska energetska regulatorna agencija). LUKOIL Croatia Ltd. does not occupy a position in the management bodies and regards its membership as strategic.</td>
</tr>
<tr>
<td></td>
<td>The Croatian Chamber of the Economy (Hrvatska gospodarska komora) – LUKOIL Croatia Ltd. does not occupy a position in the management bodies and views its membership as being strategic.</td>
</tr>
<tr>
<td></td>
<td>The Netherlands Organization for the Energy sector.</td>
</tr>
<tr>
<td>Annual total compensation ratio for the organization’s highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual)</td>
<td></td>
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Compensation of members of the Board of Directors and Management Board, RUB thousand

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<th>2017</th>
<th>2018</th>
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<td>Members of the Board of Directors compensation</td>
<td>192,421</td>
<td>262,091</td>
<td>816,787</td>
</tr>
<tr>
<td>Members of the Management Board compensation</td>
<td>1,636,289</td>
<td>1,738,788</td>
<td>5,502,415</td>
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| Collective bargaining agreements |

The Company’s obligations to its workforce are set forth in the Social Code of PJSC LUKOIL, specified in the course of collective negotiations with trade-union organizations, and enshrined in the Agreement between the Company and the Trade Union Association of Public Joint-Stock Company LUKOIL Oil Company for 2015-2020, as well as in internal regulations. The freedom of collective negotiations is set out in the following points of the Agreement:

“2.5.7. To provide representatives of trade-union organizations with the ability to participate in the work of the management bodies of the controlled organizations”.

“2.5.9. To adopt internal regulations and decisions with due consideration for the opinions of (by agreement with) the union committee (council) of the corresponding trade-union organization in cases stipulated by the Russian Labor Code, the Industry Agreement, this Agreement, and the collective agreements of the controlled organizations”.

Trade unions are also granted the right to participate in management decision-making processes on an equal basis with the Company’s management (members of the Board of Directors).
Entities included in consolidated financial statements

Russian organizations of the LUKOIL Group (the share of PJSC LUKOIL is 50 % and over)

- OOO Astrakhanskie Teplovye Seti
- OOO Varandey Terminal
- OOO Volgodonskie Teplovye Seti
- OOO Volzhskie Teplovye Seti
- OAO KamyshteploEnergo
- OOO LLK Marin Rus
- OOO LLK-International
- OOO LUKOIL-AIK
- OOO LUKOIL-Astrakhaneenergo
- OOO LUKOIL-AERO
- OOO LUKOIL-BUNKER
- OOO LUKOIL-Volgogradneftepererabotka
- OOO LUKOIL-Volgogradenergo
- OOO LUKOIL-Western Siberia
- OOO LUKOIL-Engineeiring
- OOO LUKOIL-INFORM
- OOO LUKOIL-Kaliningradmorneft
- OOO LUKOIL-Komi
- OOO LUKOIL-Kubanenergo
- OOO LUKOIL-MarineBunker
- OOO LUKOIL-Nizhegorodnefteorgsintez
- OOO LUKOIL-Nizhnevolzhskneft
- OOO LUKOIL-Permnefteorgsintez
- OOO LUKOIL-Perm
- OOO LUKOIL-Primoryeneftegaz
- OOO LUKOIL-Rezervnefteprodukt
- OOO LUKOIL-RNP-Trading
- OOO Rostovnefteprodukt
- OOO Rostovenergo
- OOO LUKOIL-Seveno-zapadnefteprodukt
- OOO LUKOIL-Stavropolenergo
- OOO LUKOIL-Trans
- OOO LUKOIL-Tekhnologii
- OOO LUKOIL-Uralnefteprodukt
- OOO LUKOIL-Ukhtaneftepererabotka
- OOO LUKOIL-Tsentrenefteprodukt
- OOO LUKOIL-Ekoenergo
- OOO LUKOIL-Energoengineering
- OOO LUKOIL-ENERGOSERVICE
- OOO LUKOIL-ENERGOSETI
- OOO LUKOIL-EPU Service
- OOO LUKOIL-Yugnefteprofukt
- PSJC LUKOIL
- OOO Rulek
- OOO Rostovskie Teplovye Seti
- AO RPK-Vyotsk LUKOIL-II
- OOO Saratovorgsintez
- OOO Stavrolen
- OOO UralOil
- ZAO Arkhangelskegeolrazvedka
- OOO LUKOIL-Nizhevolzhskneft-Kalmykia
- OOO NK Yugranefteprom
- OOO Perm-Invest
- OOO SP Neftestroy
- OOO TURSUNT
- OOO UTTIIST
- OOO Chumpassnetedobycha
- OOO AERO-NEFTO
- OOO Volgodonskaya Teplovaya Generatsia
- OOO Donbunker
- OOO INTESMO
- OOO KamyshteploCHPP
- OOO K.N. Holding
- OOO LICARD (LUKOIL-Inter-Card)
- OOO LUKOIL-AVIA
- OOO LUKOIL-AERO
- OOO LUKOIL-Aero Volgograd
- OOO LUKOIL-Aero Domodedovo
- OOO LUKOIL-Aero Perm
- OOO LUKOIL-Aero Samara
- OOO LUKOIL-Aero Vostok
- OOO LUKOIL-Aero Tyumen
- OOO LUKOIL-Aero Chelyabinsk
- OOO LUKOIL-Varandey-AVIA
- OOO LUKOIL-KGPZ
- OOO LUKOIL-KNT
- OOO LUKOIL-Nizhegorodniinefteproekt
- OOO LUKOIL-URTs Volgograd
- OOO LUKOIL-URTs Perm
- OOO LUKOIL-TSUR
- AO LUKOIL Chernomohye
- OOO LUKOIL PERSONNEL
- AO Maritime Agency Novotorik
- OOO Sports and cultural complex
- OOO Teplovaya Generatsia G. Volzhskogo
- OOO TSK-Arkhangelsks
- AO LUKOIL-Aero-Sheremetevo
- OOO Tennisny tsentr
- OOO Gas-Oil trading
- ZAO KalmTtaneft
- OOO KNGK
- OOO Oil Company Vostok NAO
- OOO PermTOTneft
- AO SOVEKS
- OOO SF Volgodeminoil
- OOO TSK Volga
- OOO TSK Severo-Zapad
- OOO TsentrKaspneftegaz
### Foreign organizations of the LUKOIL Group

- LUKOIL-Bulgaria Bunker EOOD
- LICARD Euro Services GmbH
- LUKOIL-Inter-Card-Bel
- LUKARCO B.V. (group of sub-consolidated reporting)
- LUKARCO Finance B.V.
- LUKARCO B.V. (group of sub-consolidated reporting)
- AC MANAGEMENT COMPANY LIMITED
- Akdeniz Boru Naktari Nakliyat ve Isletmeclik Ic ve Dis Tic. Ltd Sti
- Akpet Akaryakit Dag. A.S.
- Akpet Gaz A.S.
- ARJ LTD
- Auto Maas Tankstations B.V.
- EIGER SHIPPING SA
- INTEGRATED EXTRACTION AND PRODUCTION SERVICES, S. de R.L de C.V.
- IRAQ PETROLEUM TRADING DMCC
- ISAB S.r.l.
- ISTASYON YONETIMI VE PETROL URUNLERI TICARETI ANONIM SIRKETI
- Kiinteisto Oy Nurmiijanen Liikennepalvelukeskus
- LAND POWER S.A.
- LITASCO SA
- LITASCO Middle East DMCC
- LUKINTER FINANCE B.V.
- LUKOIL Accounting and Finance Europe s.r.o.
- Lukoil Americas Corporation
- LUKOIL ASIA PACIFIC PTE LTD.
- LUKOIL Aviation Bulgaria EOOD
- LUKOIL Belgium N.V.
- LUKOIL Benelux B.V.
- LUKOIL Capital Markets Ltd
- LUKOIL Croatia Ltd.
- LUKOIL Eurasia Petrol Anonim Sirketi
- LUKOIL Europe Holdings B.V.
- LUKOIL Hamburg GmbH
- LUKOIL Holding B.V.
- LUKOIL Holding GmbH
- LUKOIL International Finance B.V.
- LUKOIL ISRAEL LIMITED (Cyprus)
- Lukoil Istasyon Isletmecligii Limited Şirketi
- LUKOIL Italia S.r.l.
- LUKOIL MACEDONIA LTD Skopje
- LUKOIL MONTENEGRO DOO
- LUKOIL Netherlands B.V.
- LUKOIL Neftehims Burgas AD
- LUKOIL NORTH AMERICA LLC
- LUKOIL International Upstream Holding B.V.
  - Esh El Mallaha Petroleum Company (ESHPETCO)
  - LUKOIL International Secondment B.V.
  - LUKOIL International Upstream West Inc.
  - LUKOIL MID-EAST LIMITED
  - LUKOIL Overseas Atash B.V.
  - LUKOIL OVERSEAS EGYPT LIMITED
  - LUKOIL Overseas Etinde Cameroon Sarl
  - LUKOIL OVERSEAS GHANA TANO LIMITED
  - LUKOIL Overseas Iraq Exploration B.V.
  - LUKOIL Overseas Karachaganak B.V.
  - LUKOIL Overseas Kumkol B.V.
  - LUKOIL Overseas Nigeria Limited
  - LUKOIL Overseas North Shelf AS
  - LUKOIL Overseas Riyadh Ltd.
  - LUKOIL Overseas Shah Deniz Ltd.
  - LUKOIL Overseas Shah Deniz Midstream Ltd.
  - LUKOIL Overseas Supply and Trading Ltd.
  - LUKOIL Overseas Uzbekistan Ltd.
  - LUKOIL SAUDI ARABIA ENERGY LIMITED
  - LUKOIL UPSTREAM MEXICO, S. de R.L. de C.V.
  - LUKOIL UPSTREAM PRODUCTION NIGERIA LTD
  - LUKOIL Uzbekistan Operating Company LLC
  - SOYUZNEFTEGAZ VOSTOK LIMITED
  - TURGAI-PETROLEUM JSC
  - LLP LUKOIL Kazakhstn Upstream
  - LUKOIL Kazakhstan Limited
  - LUKOIL Pan Americas, LLC
  - LUKOIL ROMANIA S.R.L.
  - LUKOIL SECURITIES LIMITED
  - LUKOIL SERBIA PLC Belgrade
  - LUKOIL Sweden AB
  - OOO LUKOIL Unnefeprodukt
  - LUKOIL-Azerbaidjan, ZAO
  - LUKOIL-BULGARIA EOOD
  - LUKOIL-Georgia Ltd.
  - LUKOIL-Moldova S.R.L.
  - LUKOIL Moldova Holding B.V.
  - MEROIL TANK S.L.
  - Oy Teboi Ab
  - PETROTEL-LUKOIL S.A.
  - S.C. LUKOIL ENERGY & GAS ROMANIA S.R.L.
  - TOTAL Opslag en Pijpleiding Nederland N.V.
  - Verolma Mineralol GmbH
  - LITASKO Central Asia
  - IOOO LUKOIL Belarus
  - LUKOIL Lubricants (China) Co., Ltd.
  - LUKOIL LUBRICANTS International Holding GmbH (group of sub-consolidated reporting)
  - LUKOIL Lubricants Africa, S.A.R.L.
  - LUKOIL Lubricants Middle East Madeni Yaq Sanayi ve Ticaret Limited Şirketi
  - LUKOIL Lubricants Central Asia LLP
  - LUKOIL LUBRICANTS EAST EUROPE S.R.L.
  - LUKOIL Lubricants Europe GmbH
  - LUKOIL Lubricants Mexico S.de R.L.de C.V.
  - LUKOIL LUBRICANTS UKRAINE, TOV
  - LUKOIL MARINE LUBRICANTS DMCC
  - LUKOIL Marine Lubricants Germany GmbH
  - LUKOIL MARINE LUBRICANTS USA INC.
  - SOOO LLK-NAFTAN
  - LUKOIL Technology Services GmbH
  - VARS
Defining report content and topic boundaries

In the process of preparing reporting information, we performed actualization of material topics. The analysis of the following sources was conducted:

- SASB standards,
- topics raised by the Company’s management and senior executives during their public speeches and presentations in Russia and abroad,
- a survey of the heads of the main structural departments,
- queries for information received from stakeholders during the reporting year,
- personal visits with the representatives of stakeholders in various formats (round tables, conferences, working meetings, etc.),
- publications on the Company in business and public-affairs periodicals, as well as in internet publications,
- the reports of Russian and foreign oil & gas companies that are commensurate in scale,
- analyzing events that are important to the industry which occurred during the reporting period, including legislative requirements on the disclosure of non-financial information, the requirements of financial marketplaces, etc.,
- monitoring non-financial reporting systems and the main initiatives in this area.

The Report also reflects certain indicators of the Environmental Responsibility Rating of Oil & Gas Companies (WWF-Creon), as well as the indices Responsibility and Openness and Vector of Sustainability (RSPP).

Minimum notice periods regarding operational changes

<table>
<thead>
<tr>
<th>Region</th>
<th>Minimum notice period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>3 months</td>
</tr>
<tr>
<td>Russia, Azerbaijan, Bulgaria, Moldova, Serbia, and Uzbekistan</td>
<td>2 months</td>
</tr>
<tr>
<td>Austria</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Germany, Switzerland, Italy, Macedonia, Norway</td>
<td>1 month</td>
</tr>
<tr>
<td>Romania</td>
<td>For specialists 20 days; for executives 45 days</td>
</tr>
<tr>
<td>Finland, Turkey</td>
<td>14 days</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>15 business days or 1 month</td>
</tr>
<tr>
<td>Belarus</td>
<td>7 days (in the event of staff reductions or the liquidation of the enterprise - 2 months)</td>
</tr>
<tr>
<td>Egypt</td>
<td>1 week</td>
</tr>
<tr>
<td>Georgia</td>
<td>3 days</td>
</tr>
<tr>
<td>Iraq, Montenegro, Mexico</td>
<td>No notice period is established for employees</td>
</tr>
<tr>
<td>The USA</td>
<td>No universal period has been established for substantial changes to working conditions, however, under certain circumstances the law may prescribe special procedures and periods. For example, during mass staff reductions, a notice period of at least two months</td>
</tr>
</tbody>
</table>
404-2 Programs for upgrading employee skills and transition assistance programs

Employee skills development programs

<table>
<thead>
<tr>
<th>Type of training</th>
<th>Training programs and courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>External training or education</td>
<td>Professional retraining, education in MBA, EMBA, DBA programs</td>
</tr>
<tr>
<td></td>
<td>The Company pays 50% of the cost of employee education.</td>
</tr>
</tbody>
</table>

External training programs to develop managerial and professional competencies

<table>
<thead>
<tr>
<th>Program</th>
<th>Frequency. Educational institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s in Business Administration - Oil &amp; Gas Management</td>
<td>Annually. Gubkin Russian State University of Oil and Gas</td>
</tr>
<tr>
<td>Development of the company's management resources</td>
<td>Annually. The Russian Presidential Academy of National Economy and Public Administration</td>
</tr>
<tr>
<td>Professional training for the general directors of LUKOIL Group</td>
<td>Annually</td>
</tr>
<tr>
<td>subsidiaries</td>
<td></td>
</tr>
<tr>
<td>Head of Oil and Gas Production Department</td>
<td>Annually</td>
</tr>
</tbody>
</table>

404-3 Percentage of employees receiving regular performance and career development reviews

Regular performance and career development review of PJSC LUKOIL employees for 2016-2018

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total employees who received a regular performance and career development review, people</td>
<td>2,015</td>
<td>2,109</td>
<td>2,121</td>
</tr>
<tr>
<td>Percentage of total employees who received a regular performance and career development review</td>
<td>88.5%</td>
<td>90.5%</td>
<td>90.2%</td>
</tr>
</tbody>
</table>

Notes. The percentage of employees who received a regular performance and career development review is calculated according to the formula: the numerator is the total number of workers who received review; the denominator is the headcount of personnel as of December 31 of the relevant year.
APPENDIX 3.

Independent Practitioner’s Limited Assurance Report on Sustainability Report of LUKOIL Group for 2018

To the Management of PJSC LUKOIL

Introduction

We were engaged by the Management of PJSC LUKOIL (the “Management”) to perform an engagement to issue a report on Sustainability Report of LUKOIL, Group (the “Group”) for 2018 (the “Report”) with a limited assurance conclusion that, based on our work performed, nothing has come to our attention that causes us to believe that Management’s statement that the Report is prepared, in all material respects, based on the “core” version of the Global Reporting Initiative Sustainability Reporting Standards (the “GRI Standards”) and is free from material misstatement, is not fairly stated.

Management’s Responsibilities

Management is responsible for the preparation and presentation of the Report that is free from material misstatement in accordance with the GRI Standards, and for the information and statements contained therein.

This responsibility includes designing, implementing and maintaining internal control system relevant to the preparation of the Report that is free from material misstatement, whether due to fraud or error. It also includes: determining the Group’s objectives in respect of sustainable development performance and reporting, including the identification of key stakeholder groups and their material issues; selecting applicable requirements of the GRI Standards; preventing and detecting fraud; identifying and ensuring that the Group complies with the laws and regulations applicable to its activities; selecting and applying appropriate policies; making judgments and estimates that are reasonable in the circumstances; maintaining adequate records in relation to the information included in the Report; ensuring that staff involved with the preparation of the Report are properly trained, information systems are properly updated and that any changes in the reporting system encompass all key business units.

Our Responsibilities and Applicable Standards

Our responsibility is to perform procedures to obtain evidence in respect of the Report prepared by Management, and to issue a report with an independent limited assurance conclusion regarding Management’s statement in respect of the Report based on the evidence obtained.

We conducted our engagement in accordance with the International Standard on Assurance Engagements 3000 Assurance Engagements Other Than Audits or Reviews of Historical Financial Information

Engaging entity: PJSC LUKOIL
Registration No. in the Unified State Register of Legal Entities 1027700237003
Moscow, Russia

Audit firm (practitioner): KPMG, a company incorporated under the laws of the Russian Federation, a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (“KPMG International”), a Swiss entity
Registration No. in the Unified State Register of Legal Entities 1027700129023
Member of the Self-regulated organization of auditors “Russian Union of Auditors” (Moscow). The Prague Registration Number of the Entity in the Register of Auditors and Audit Organizations: No. 11630053530.
Financial Information (ISAE 3000) issued by the International Auditing and Assurance Standards Board.

ISAE 3000 requires that we plan and perform our procedures to obtain a meaningful level of assurance about whether Management’s statement that the Report is prepared, in all material respects, based on the GRI Standards and is free from material misstatement, is fairly stated.

Our Independence and Quality Control

We have complied with the independence and ethical requirements established by the Rules on Independence of Auditors and Audit Firms and the Code of Professional Ethics for Auditors approved by the Audit Council of the Ministry of Finance of the Russian Federation and by the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which are based on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply the 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.

Procedures Performed

The procedures selected, and our determination of the nature, timing and extent of these procedures, depend on our professional judgment, including the assessment of risk of material misstatement during the preparation of the Report, whether due to fraud or error, our understanding of the Group’s activities, as well as other engagement circumstances.

In making these risk assessments, we considered the internal control system relevant to the Group’s preparation of the Report, in order to design procedures that are appropriate in the circumstances, but not for the purposes of expressing a conclusion as to the effectiveness of the Group’s internal control.

Our engagement also included: assessing the appropriateness of the information included in the Report and the suitability of the GRI Standards used by Management in preparing the Report in the circumstances of the engagement; evaluating the appropriateness of the methods, policies and procedures used in the preparation of the Report and the reasonableness of estimates made by Management.

The procedures we developed based on the performed risk assessment are a combination of inspections, recalculations, analytical procedures and inquiries.

Our procedures included, but were not limited to, the following:

— Inspection of the processes used by PJSC LUKOIL to identify topics and issues material to the Group’s key stakeholder groups, with the purpose of understanding such processes in the Group, as well as analysis of information from open sources on topics and issues material to key stakeholder groups of other organizations in the industry, with the purpose of determining the level of completeness of disclosure of such topics and issues in the Report;
— Interviews with Management representatives and officers at corporate headquarter level and subsidiaries regarding the sustainable development strategy and policies regulating material issues in areas of importance for the Group, stage of implementation of such policies, and procedures for collecting information on sustainable development;
— Interviews with staff at the corporate headquarter level and subsidiaries responsible for providing the information for the Report;
— Visits to the following subsidiaries:
  - LUKCIL West Siberia LLC, Kogalym, Langepas;
  - LUKCIL Komi, Usinsk;
  - LUKCIL Perm, Perm;
  - LUKCIL Uzbekistan Operating Company, Tashkent,
which were selected based on risk analysis using both qualitative and quantitative criteria;
— Comparing the information presented in the Report with data from other sources to determine its completeness, accuracy and consistency;
— Assessing the completeness of qualitative and quantitative information on sustainable development against recommendations of the GRI Standards;
— Reading and analysing information on sustainable development included in the Report to determine whether it is in line with our understanding and knowledge of the Group’s sustainable development activity;
— Recalculation of quantitative data and inspection of underlying documentation.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Criteria Used

To evaluate the Report, GRI Standards were used which are available at the link:
https://www.globalreporting.org/standards/

Management’s Statement

Management states that the Report is prepared, in all material respects, based on the GRI Standards and is free from material misstatement.

Inherent Limitations

Due to the limitations inherent in any internal control structure, it is possible that errors or irregularities in the information presented in the Report may occur and not be detected. Our engagement is not designed to detect all weaknesses in the internal control system over the preparation and presentation of the Report, as the engagement has not been performed
continuously throughout the reporting period, and the procedures were performed on a test basis.

Conclusion

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

Based on the procedures performed and described in this report, nothing has come to our attention that causes us to believe that Management's statement that the Report is prepared, in all material respects, based on the GRI Standards and is free from material misstatement, is not fairly stated.

Oussoy A.
JSC “KPMG”
Moscow, Russia
20 June 2019
APPENDIX 4.
CONCLUSION OF THE BOARD OF NON-FINANCIAL REPORTING OF THE RUSSIAN UNION OF INDUSTRIALISTS AND ENTREPRENEURS ON THE PUBLIC ASSURANCE REVIEW RESULTS OF THE SUSTAINABILITY REPORT OF LUKOIL GROUP FOR 2018

The Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs (hereinafter, the Board), established in accordance with a decision of the Administrative Office (Resolution dated 28 June 2007), have reviewed, at the initiative of LUKOIL PJSC, the Sustainability Report for 2018 (hereinafter, the Report) of LUKOIL Group (hereinafter, the Company, Group, LUKOIL).

The Company requested that the Board perform a public assurance review of the Report. The Board forms an opinion on the relevance and completeness of the information disclosed in the Report relating to the Company’s performance, in accordance with the principles of responsible business practice set out in the Social Charter of Russian Business, and whether the Report complies with the provisions of the UN Global Compact, as well as Russian and international social responsibility standards.

In the period from 4 June to 20 June 2019 members of the Board studied the contents of the Report submitted by the Company and prepared this Conclusion in accordance with the Regulations for the Public Assurance Review of Corporate Non-Financial Reporting approved by the Board. Members of the Board have the necessary expertise in corporate social responsibility, sustainability, and non-financial reporting, comply with ethical requirements pertaining to independence and objectivity, and express their personal opinions as experts, and not the opinion of the organizations that they represent.
The Report was assessed based on the following criteria on the completeness and relevance of the information contained in it:

Information is considered relevant to the extent that it reflects the Company’s activities in implementing the principles of responsible business practices disclosed in the Social Charter of Russian Business (www.rspp.ru).

Completeness implies that the Company has comprehensively presented its activities in the Report – its underlying values and strategic benchmarks, governance system and structure, achievements and key performance results, and its system of interacting with stakeholders.

The application by the Company of the international reporting system is taken into account during the public assurance review of the Report. However, confirmation of the Report’s level of compliance with international reporting systems is outside the scope of this Conclusion.

The Company is responsible for the information and statements contained in the Report. The reliability of the data contained in the Report is not the goal of this public assurance review.

This Conclusion has been prepared for the Company, which may use it for internal corporate purposes, as well as for communications with stakeholders, publishing it without making any changes.
CONCLUSIONS

Based on a review of the Report, public information posted on the official corporate website of the Company, and a collective discussion of the results of the independent assessment of the Report conducted by the members of the Board, the Board confirms the following:

The LUKOIL Group Sustainability Report for 2018 contains relevant information on key areas of responsible business practices, in accordance with the principles of the Social Charter of Russian Business, and discloses sufficiently complete information about the Company's activity in these areas.

The recommendations of the Board, based on the results of the public assurance review of the Company's previous report for 2017, are reflected in the 2018 Report, which discloses in particular the compliance of key performance indicators with the Sustainable Development Goals of the United Nations prioritized by LUKOIL Group, including on labor productivity, and expands coverage of business ethics issues.

The 2018 Report of the Company contains relevant information on the following aspects of responsible business practice.

Economic freedom and responsibility: The Report discloses key financial and production indicators and the events and results of the year, including the attainment by flagship projects of projected capacity. It describes global development trends in the industry and the business model of the vertically integrated Company, which controls its entire production chain – from the production of oil and gas to the marketing of products and services, including electrical power and heat supplied to industrial and private clients in 28 countries. The Report discloses that the Company has approved a Digital Development Information Strategy, is working to expand the list of fuel products and services on offer at LUKOIL filling stations, and deploys effective technologies that boost operating efficiency and optimize expenses. The Report highlights successes in implementing occupational health and safety programs and describes the international sustainable development projects, programs, and initiatives in which the Company participates. The corporate governance and risk management structure is described, with a focus on sustainability issues. Information is presented on the combination of the UN's 10 Sustainable Development Goals and 14 objectives prioritized by the Company with the operating programs being implemented at Group entities and constituting part of corporate planning and budgeting. The adoption of a new Code of Business Ethics is mentioned; this code contains new sections and anti-corruption principles. Links are provided to the main documents regulating the norms of corporate ethics. Information is provided on improvements to levels of compliance with antitrust legislation.

Business partnerships: The Report covers issues relating to interactions with the main stakeholder groups and highlights the participation of the Company's representatives in expert appraisals of draft laws, the work of advisory groups and expert platforms on issues of environmental protection, the regulation of greenhouse gas emissions, charity, and labor relations. Information is provided on the Company's interaction with representatives of the investment and financial
communities as part of investment conferences and roadshows in different countries. The participation of LUKOIL in the most prestigious ESG ratings is highlighted. The Report highlights the social partnership system, based on agreements between the employer, trade unions, and employees, the participation of trade union organizations in the expert appraisal of collective bargaining agreements and contracts, and the consideration of appeals from employees and the holding of public opinion surveys. It covers the mechanisms used by the Company to impose on suppliers and contractors occupational health and safety requirements, and to monitor their implementation, and also to ensure compliance with anticorruption standards. The Report describes the mechanism for interacting with clients in accordance with the corporate standard on handling consumer claims and complaints, as well as monitoring the satisfaction of such claims, and refers to the audit of LUKOIL production sites by clients. The Report cites as the mechanisms used for interacting with the representatives of local communities in the regions where the Company operates agreements with the state authorities, the participation of non-governmental organizations in the implementation of social projects, and interacting with the environmental community on environmental protection issues. The Report provides information on the Company’s membership of international and Russian associations and unions, and participation in various events, including those related to the development of the industry.

**Human rights:** In the Report the Company emphasizes a zero tolerance of discrimination on any grounds and the Company’s commitment to observing employment rights, as well as the rights of local communities and indigenous peoples. The Report lists the Company’s obligations to protect human rights, and indicates its compliance with respective international documents and the UN Global Compact, as well as corporate documents. The Report contains information on training programs for employees, measures to improve working conditions and occupational health and safety, and HR audits conducted to monitor compliance with employment rights at Group entities. Information is provided on the measures and projects implemented by the Company to support the indigenous peoples of the North and the expenses incurred on attaining these goals as part of the licensing obligations of Group entities in Russia. It notes that, in the reporting year, no complaints were filed regarding any violations of the rights of the indigenous peoples of the North.

**Environmental protection:** The Report discloses that the Company has approved a new version of the Policy on Health, Safety, and the Environment in the 21st Century and that the Health, Safety, and the Environment Management System has been certified in terms of compliance with ISO 14001 and OHSAS 18001 standards in the overwhelming majority of Group entities, and that an environmental management system has been implemented at Group entities in Russia, in compliance with the ISO 50001:2012 standard. The Report notes that climate change issues are given close attention by the Board of Directors and Management Board, and reports a material reduction by Russian entities in greenhouse gas emissions, including as a result of implementing a program to increase the utilization level of associated petroleum gas. The Report cites the implementation of measures under the energy conservation program of LUKOIL Group entities in Russia and the attainment of savings targets for each type of energy resource. The Report presents the main goals and areas of implementing the Company’s renewable energy projects and cites examples of research aimed at addressing urgent challenges, such as mitigating adverse environmental impacts and promoting waste reduction and recycling. The main approaches
to resolving the issue of sustainable water use are outlined. The Report describes projects implemented to provide local communities with drinking water in 2018 in the Astrakhan Region, Uzbekistan, and Iraq. It covers biodiversity conservation activities and cites examples of protecting the safety of marine ecosystems, using the zero discharge principle at all offshore projects. The Report presents a wide range of gross and specific indicators on environmental impacts, energy consumption, and energy efficiency, details expenditure on environmental measures in Russia, and sets out the goals of the Environmental Safety Program for 2012.

**Participation in the development of local communities:** The Report discloses the Company’s external social policy and the mechanisms used, including partnerships with state authorities as part of cooperation agreements, the annual Competition of Social and Cultural Projects for a wide range of public and municipal organizations in Russia, charity and sponsorship projects and programs, targeted assistance, and corporate volunteering. The Report lists the main program areas: support for orphans, the disabled, combat veterans, and other social groups in need of assistance; educational programs; support for medical institutions and environmental projects; a cultural heritage conservation program; and support for sports teams and events. The Report highlights the Company’s participation in the All-Russian Cultural and Educational Project “Talents of the Arctic. Children.” It sets out the criteria used to appraise the efficacy of implemented projects, and gives related examples, as well as the results of the Competition of Social and Cultural Projects in 2018. The Report presents data related to the engagement of young specialists in volunteering activities, and the priority areas of volunteering campaigns. Also covered is the implementation of the project “More than just a Purchase” – a joint initiative between the Russian product marketing and distribution entities of the Group and the Regional Social Foundation program “Our Future”, aimed at supporting social entrepreneurs. Total costs are disclosed on external social support and charity activities in the reporting year.

**CONCLUDING REMARKS**

Overall, the Report provides a full picture of the responsible business practices of LUKOIL Group, its strategies and governance system, and the Company’s impact on society and the environment. The Report applies an integrated approach to disclosing information across key lines of business, including a substantial number of performance indicators related to the economic, environmental, and social aspects of the Company’s operations. The Report shows the extent to which the Company’s performance complies with the UN’s Sustainable Development Goals and the objectives for their implementation, which are in line with the Company’s own strategy benchmarks.

The Report was prepared based on the recommendations, standards, and guidelines used both in Russian and international practice (the Global Reporting Initiative (GRI), the UN Global Compact, the Social Charter of Russian Business, the Basic Performance Indicators of the Russian Union of Industrialists and Entrepreneurs, and the Corporate Reporting Guidelines for Sustainable Development Goals), which ensures consistency across a number of reporting cycles as well as comparability with the reports of other companies.
The 2018 Report is the Company’s ninth non-financial report, which attests to consistent progress in this area. The Company uses various methods to make independent assessments and to confirm the information contained in the Report (professional audits and public assurance), thereby reaffirming its responsible approach to ensuring the quality of the information disclosed.

RECOMMENDATIONS

While noting the merits of the Report, the Board draws the Company’s attention to a number of aspects that are important for stakeholders relating to the relevance and completeness of the information disclosed, and recommends taking them into account in future reporting cycles.

The Board notes that the recommendations, based as they are on an analysis of the Company’s previous reports, will prove useful in the future reporting practices of the Group.

We recommend that the Company’s sustainable development goals defined in the Report, as well as corresponding strategic objectives, be accompanied in future by plans on their implementation in the next reporting period and over the medium term, and to include in reports measurable targets in key sustainability areas.

The Report contains significant information on sustainability risk management issues in the risk management system. In view of increasing investor demand for such information, it might be advisable in future to supplement this information with data and examples characterizing the financial assessment of the successful implementation of risk management and mitigation measures, which would increase the information value of the reporting for representatives from the investment community, financial institutions, and business partners.

The Report notes that the Company has implemented a procedure for updating material topics during the preparation of the Report, and provides a list of sources of information. We recommend focusing more in future on clarifying the methodology used and the procedure applied to selecting material issues, thereby enhancing transparency during the selection of information for inclusion in the Report.

The Report contains information on the social projects of the Company, many of which are long term in nature, and the specific results achieved. It would be useful to include in future reports the feedback of program participants and also factor in the opinions of representatives of local communities on the further development, planning, and implementation of social programs. Such information would confirm the effectiveness of the interaction mechanisms used by the Company and the feedback from stakeholders.

Attention should also be paid to enhancing the positive perception by stakeholders of the reporting information, via a wider inclusion in reports of stakeholder feedback.
on the Company’s performance in areas that are priorities for particular groups, material issues, and topical public issues pertaining to the Company. We also recommend including information on the Company’s responses to stakeholder requests, including those from investors.

We recommend covering in more detail the impact of the digitalization of the Company’s activity on performance improvements, resource conservation, and risk management.

The Report contains information on the size and extent of work to rehabilitate contaminated land. We recommend in future supplementing this information with data on the total area of land that required rehabilitation.

The Company’s experience in relations with suppliers in terms of the procedures used and the results of assessing the environmental and social operating aspects of tender participants merits more extensive coverage, as a way of implementing the principle of supply chain responsibility.

The Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs, after issuing a positive assessment of the Report which supports the Company’s adherence to the principles of responsible business practices and highlighting the consistent development of the reporting, confirms that the LUKOIL Group 2018 Sustainability Report has passed public assurance.
CERTIFICATE

of Public Endorsement
of a Corporate Non-Financial Report

LUKOIL GROUP
SUSTAINABILITY REPORT 2018

has received public endorsement
by the RSPP Council on Non-Financial Reporting

A detailed opinion of the RSPP Council regarding public endorsement of the LUKOIL Group's sustainability report 2018 has been sent to the Company, which may publish it without amendment and use it both for corporate purposes and for the purposes of stakeholder engagement.

Registration number 139.01.014.01.18

RSPP President

A. Shokhin

Moscow, 2019
APPENDIX 5. ACRONYMS AND ABBREVIATIONS

Names of LUKOIL Group organizations

Nizhny Novgorod oil refinery – ООО LUKOIL-Nizhegorodnefteorgsintez
Oil refinery in Ploiești/Romania – PETROTEL-LUKOIL S.A.

Ukhta refinery – ООО LUKOIL-Ukhtaneftepererabotka
Burgas refinery – LUKOIL Neftochim Burgas AD
ISAB plant – ISAB S.r.l.

Abbreviations

RES – renewable energy sources
VMI – voluntary medical insurance
KPIs – key performance indicators
OIRFP – offshore ice-resistant fixed platform
NAD – Nenets Autonomous District
ORP – oil refining plants, oil refinery
OOO – limited-liability company
HSE – health, safety, and the environment
APG – associated petroleum gas

IPEC – integrated system of in-process environmental control
DLS – distance learning system
STO – the standards of the organization
SPP – solar power plant
FEC – fuel and energy complex
SDG – Sustainable Development Goals (UN Agenda 2030)
EBITDA – Earnings before Interest, Taxation, Depreciation & Amortisation
ESG – Environmental, Social and corporate Governance

Names of organizations

IATOUO – International Association of Trade-Union Organizations of PJSC LUKOIL
ILO – the International Labour Organization
UN – United Nations
PJSC LUKOIL – Public Joint-Stock Company LUKOIL
RSPP – Russian Union of Industrialists and Entrepreneurs

HELCOM – the Helsinki Commission (the Helsinki Commission for the Protection of the Marine Environment of the Baltic Sea Region)
CDP – Carbon Disclosure Project
GRI – Global Reporting Initiative
MSCI – Morgan Stanley Capital International
WWF – World Wildlife Fund

Units

BOE – barrel of oil equivalent
APPENDIX 6. REPORTING BOUNDARIES
# CONTACT INFORMATION ON THE REPORT

LUKOIL Company welcomes your feedback. Your feedback, suggestions and comments on the Report’s contents will help us identify the topics and indicators that are of the greatest interest, and balance properly the amount of information published, when the Company prepares the next Sustainability Report.

<table>
<thead>
<tr>
<th>Legal address and corporate headquarters</th>
<th>Central office information service</th>
<th>Coordination Center for Corporate Activities</th>
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</thead>
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<tr>
<td><a href="http://www.lukoil.com">www.lukoil.com</a> (английский)</td>
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<table>
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