

BOARD OF DIRECTORS REPORT

ON THE RESULTS OF THE PRIORITY BUSINESS DIRECTIONS DEVELOPMENT

FINANCIAL PERFORMANCE

In 2018, LUKOIL Group posted record-high financial results supported by a favorable macroeconomic environment and strong operating performance.

Revenue was RUB 8,036 billion in 2018, up 35.4% year-on-year. This growth was due to a rise in hydrocarbon prices, the ruble depreciation, and an increase in oil trading volumes and gas sales volumes.

EBITDA grew to RUB 1,115 billion, up 34.1% year-on-year. As well as due to the favorable market environment, EBITDA growth was driven by the growing share of high-margin volumes in our overall oil production, a gas production increase in Uzbekistan, increased oil production in Russia in the second half of 2018, a decline in per boe hydrocarbon lifting costs, and an increase in sales volumes via premium sales channels. EBITDA per boe of production grew by 19.7% to \$21.3 (or by 29.0% to RUB 1,336).

In 2018, **profit for the year** attributable to PJSC LUKOIL shareholders was RUB 619 billion, up 47.8% year-on-year. Apart from changes in EBITDA, our profit for the year was influenced by three factors: foreign exchange gains and losses, gain on sale of our diamond business in 2017, and higher depreciation, depletion and amortization. The ruble appreciation in 2017 resulted in foreign exchange losses, while its depreciation in 2018 resulted in foreign exchange gains. The increase in depreciation, depletion and amortization in 2018 was caused by launch of new production capacities, particularly in the Caspian region and Uzbekistan.

In 2018, our **capital expenditures** were RUB 451.5 billion, down 11.7% year-on-year. The decline was mainly due to lower investments in gas projects in

IFRS consolidated financial results

RUB billion

	2016	2017	2018	Change, 2018/2017, %
Revenue	5,227	5,937	8,036	35.4
EBITDA	731	832	1,115	34.1
Free cash flow	255	247	555	124.8
Profit attributable to PJSC LUKOIL shareholders	207	419	619	47.8

EBITDA structure in 2018

RUB billion

EBITDA	1 115
Exploration and Production in Russia	717
Exploration and Production outside Russia	153
Refining, Marketing and Distribution in Russia	232
Refining, Marketing and Distribution outside Russia	50
Corporate and other	-37

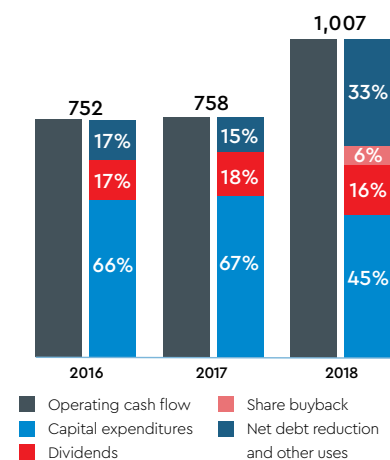
For more details on the financial performance of LUKOIL Group, see Appendix 5: Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations.

Uzbekistan following the completion of main construction works, and was partially offset by the capital expenditures increase in refining and distribution, with the delayed coker's construction having commenced at Nizhny Novgorod Refinery.

In 2018, our **free cash flow** was RUB 555 billion, up 124.8% year-on-year. The growth was due to an increase in operating cash flow before changes in working capital and a decrease in capital expenditures.

Cash sources and uses

RUB billion



EXPLORATION AND PRODUCTION

MACROECONOMIC OVERVIEW

Oil prices were highly volatile in 2018. In October, Brent prices hit a four-year high of \$86 per barrel due to a decline in oil production in Iran, Venezuela, and OPEC+ countries, among other factors. Oil prices fell to \$50 per barrel in December due to concerns regarding a slowdown in oil demand growth, continuing rapid oil production in

the US, and mounting production in OPEC+ countries.

In 2018, Urals crude oil prices averaged \$69.7 per barrel, up 31.4% year-on-year. However, the net price of Urals (net of MET and export duty) only grew by 12.6% due to the negative time lag effect of export duty and the

progressive formula used to calculate the MET and export duty rates.

The ruble depreciated against the US dollar by 7.5% on average to RUB/USD 62.7, having a positive impact on ruble-denominated Urals prices, which were up 41.2% year-on-year. The ruble-denominated net price grew by 21.0%.

Russian oil exporter's revenue breakdown

	2016	2017	2018	Change, 2018/2017, %
	\$ per barrel			
Urals crude price	41.7	53.1	69.7	31.4
Mineral extraction tax (MET)	11.8	19.1	27.2	42.7
Export duty	10.4	11.9	17.6	48.3
Net oil price	19.5	22.1	24.9	12.6
	RUB per barrel			
Urals crude price	2,795	3,098	4,374	41.2
MET	792	1,114	1,708	53.3
Export duty	695	693	1,104	59.3
Net oil price	1,308	1,291	1,562	21.0

RESERVES

LUKOIL Group has proved hydrocarbon reserves in six countries. The majority of the proved reserves are conventional, providing the Company a significant competitive advantage that ensures lower development and production costs per barrel. Moreover, LUKOIL is one of the leading international and Russian companies in terms of proved liquid hydrocarbon reserves life and volume.

As at the end of 2018, the Group's SEC proved hydrocarbon reserves amounted to 15.9 billion barrels of oil equivalent, 76% of which were liquid hydrocarbons. The Company's reserves life is 19 years, in comparison to the average of 12 years for the world's largest private international oil and gas companies.

Concentrated mainly in West Siberia, 90% of the Group's proved hydrocarbon reserves are located in Russia. Offshore fields and high-viscosity oil account

for approximately 14% of the proved reserves. Half of LUKOIL's international proved reserves are in Uzbekistan, where the Company actively develops its gas projects.

61% of the Company's proved hydrocarbon reserves have been classified as developed, in that they can be extracted from existing wells using currently available technologies and equipment.

In 2018 the LUKOIL Group proved reserves replacement ratio for liquids totaled 101% and in Russia reached 127%. In 2018, LUKOIL added 576 million barrels of oil equivalent to its proved reserves through geological exploration and production drilling, with the largest addition from production drilling in West Siberia and Timan-Pechora.

An upward revision of proved reserves in the amount of 297 million barrels of

oil equivalent resulted from the average annual oil price growth, optimization of development systems and well intervention programs at existing fields, the conversion of contingent resources into reserves (following the final investment decision on the Rakushechnoye field in the Caspian Sea), and the introduction of the profit based tax for some fields. The revision of reserves from international projects implemented under product sharing agreements (PSAs) and service contracts had a negative impact on our reserves due to the growth of the average annual oil price as well as changes in the West Qurna-2 project development plan.

Hydrocarbon reserves as at December 31¹

million boe

	2016	2017	2018	Change, 2018/2017, %
Total proved reserves	16,398	16,018	15,931	-0.5
Liquid hydrocarbons	12,482	12,077	12,082	0.0
Gas	3,916	3,941	3,849	-2.3
Developed	9,421	9,560	9,768	2.2
Undeveloped	6,977	6,458	6,163	-4.6
Russia	14,370	14,158	14,330	1.2
International projects	2,028	1,860	1,601	-13.9
Probable reserves	6,684	6,409	6,424	0.2
Possible reserves	2,981	3,087	3,242	5.0

¹ An independent audit of LUKOIL's proved reserves was carried out by Miller and Lents for the entire economic life of the fields.

LICENSES

Pursuant to the Russian legislation, hydrocarbon exploration and production operations require a subsoil license. LUKOIL continuously works to obtain subsoil rights, monitor objects of subsoil use, apply for new licenses, and have existing licenses extended.

At the end of 2018, the Group held 528 licenses in Russia, with 91% of them granting either hydrocarbon exploration and production rights or hydrocarbon prospecting, exploration, and production rights. The average remaining validity of these licenses is 30 years. Some of the licenses are entirely unique in terms of use. For example, the license for the Imilorskoye field in West Siberia is of federal significance (primary importance for the national economy) and is valid until 2127, and the license for the Pyakyakhinskoye field in the Bolshekhetskaya Depression is valid until 2170. The remaining 9% of the Company's licenses grant the right

to prospect, explore, and appraise hydrocarbon deposits, with an average remaining validity of about three years.

In the reporting period, six new licenses in our core producing regions of West Siberia, Timan-Pechora, and Volga were added to LUKOIL's portfolio. New licenses in regions with a well-developed infrastructure enable maximum synergies with the existing assets, reduce exploration and production costs, and speed up production launch.

In the reporting period, the Group obtained 51 amendments to its existing subsoil licenses, had one license renewed, registered 33 license extensions, and returned one license upon its expiry.

In 2018, the Group increased its international portfolio by acquiring new licenses in Mexico.

As a result of Licensing Round 3.1, LUKOIL was granted a subsoil use license for exploration Block 28 in consortium with Italian Eni (LUKOIL holding 25% and Eni as operator – 75%). The block is situated in the southern Gulf of Mexico. Its area is 807 square km, with sea depths between 60 to 600 meters. The Group has also entered into a farmout agreement with Eni on Blocks 10, 12, and 14. After the deal is closed, the ownership structure will be:

- Block 10: LUKOIL – 20%, Eni – 80%
- Block 12: LUKOIL as operator – 60%, Eni – 40%
- Block 14: LUKOIL – 20%, Eni – 40%, Citla Energy – 40%.

This deal will expand LUKOIL's prospect portfolio, diversify our risks, and build up our expertise in exploration.

Number of LUKOIL Group's licenses as at December 31

licenses

	2016	2017	2018
Total	514	523	528
Exploration and production	361	365	366
Prospecting and appraisal	47	46	49
Geological survey, exploration and production	106	112	113

EXPLORATION



2018 RESULTS

- Six fields and 43 deposits discovered
- An 86% success rate of exploration



2019 PRIORITIES

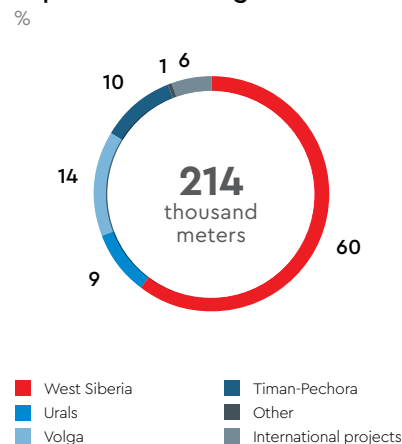
- Further exploration of existing fields
- Drill exploration wells on Block 10 in Mexico, Block 30 in Romania, and Block 10 in Iraq
- Preparations for drilling prospecting wells on the Khazri and Titonskaya structures in the Caspian Sea

LUKOIL Group is carrying out exploration in ten countries, concentrated mostly in Russia. Internationally, we participate in exploration projects in Mexico, Iraq, the Gulf of Guinea, the Black Sea, and the Norwegian shelf in the Barents Sea.

Our exploration activities have consistently been delivering good results. In 2018, LUKOIL completed 64 prospecting wells with an 86% overall success rate, and a 100% success rate for the Bolshekhetskaya Depression, the Caspian Sea, the Urals and Komi regions, as well as in international projects. Six fields and 43 deposits were discovered. Our high efficiency is driven by advanced exploration techniques and selection of the most promising areas based on research results.

Our 3D seismic surveys covered 8,632 square km, up 32% year-on-year, mainly driven by an increase in surveys updating our geological models on field boundaries in West Siberia. 2D seismic works decreased by 37% year-on-year to 2,050 km due to a lower volume of seismic surveys being conducted in Russia. The scope of our international seismic surveys increased due to growth at Block 10 in Iraq, with international projects accounting for 58% of all our 2D seismic surveys.

Exploration drilling in 2018



During the year, we completed 214 thousand meters of exploration drilling, down 5% after a significant rise in 2017. In West Siberia, our core operating region, exploration drilling grew by 12% to 129 thousand meters, while our international drilling doubled to 12 thousand meters due to increased drilling in Cameroon, Ghana, and Mexico.

LUKOIL's 2018 exploration costs totaled RUB 29.4 billion.

Exploration

	2016	2017	2018	Change, 2018/2017, %
2D seismic surveys, km	2,371	3,245	2,050	-36.8
3D seismic surveys, square km	6,332	6,522	8,632	32.3
Exploration drilling, km	191	225	214	-4.9
Exploration costs [†] , RUB million	36,295	33,506	29,355	-12.4

[†] Including non-cash items.

Key Exploration Projects In 2018

Caspian Sea

One of LUKOIL's priorities is further exploration in the Caspian Sea, given the potential synergies with the prior major field discoveries in the region.

In 2018, we started building a seismic model for the key prospective horizons of the Yuzhnaya structure based on comprehensive interpretation of seismic data as well as data from well No. 1, drilled in 2017.

3D seismic surveys covering 772 square km were conducted at the Khazri, Titonskaya and Druzhba structures to more precisely define their geology and identify prospects. Following 3D seismic interpretation, the resource base is planned to be estimated to finalize exploration well placement point on the Khazri structure.

West Siberia and Timan-Pechora

In West Siberia, we focused on exploring the Tyumen formation and Achimov deposits to identify

hydrocarbons in stratigraphic traps. 3D seismic surveys were conducted to update our geological models of field boundaries as well as further hydrocarbon exploration to prepare sites for production drilling. Low-permeability reservoirs were also explored.

In Timan-Pechora, exploration focused mainly on the Denisovskaya Depression, where two highly productive oil fields (Verkhne-Ipatskoye and Prokhorovskoye) were discovered during the year. The new fields confirmed positive outlooks on further exploration within the Denisovskaya Depression.

International projects

Most of our international exploration activities in 2018 were concentrated at Block 10 in Iraq (LUKOIL holding 60% as project operator and INPEX CORPORATION holding 40%). 3D seismic surveys were conducted at Block 10 within the approved exploration program, with a fourth

well drilled to completion at the large discovered Eridu field, producing a commercial flow of dry crude oil. The surveys confirmed the field's current geological model and expanded the oil-bearing area in the Mishrif Formation. In the medium term, several more appraisal wells are planned for drilling and testing, along with more 3D seismic surveys to finalize the field's reserves estimate. 2D seismic surveys are planned to be completed within the remaining area of Block 10 to determine further targets for exploration.

Two prospecting wells were drilled and completed, producing an oil flow and further delineating the reservoir area at the Etinde project offshore Cameroon in West Africa (LUKOIL – 30%, New Age as operator – 30%, EurOil – 20%, and Société Nationale des Hydrocarbures, the National Hydrocarbon Company of Cameroon – 20%). The field's geological model was also updated and its reserves estimated.

DEVELOPMENT AND PRODUCTION

2018 RESULTS

- Launched production at three new fields in Russia
- Ramped up production at the V. Filanovsky field and projects in Uzbekistan to designed capacity
- Commenced drilling on Phase 2 of the Yu. Korchagin field in the Caspian Sea
- Increased high-viscosity oil production in Timan-Pechora by 24.8%
- Launched an efficiency improvement program
- Production decline rates slowed in West Siberia
- Commenced production drilling in the Baltic Sea

2019 PRIORITIES

- The V. Filanovsky field in the Caspian Sea – complete construction works at the wellhead platform within Phase 3; the Rakushechnoye field – perform construction works
- The Baltic Sea – commission the D41 field
- Timan-Pechora – drive further growth in high-viscosity oil production
- The Bolshekhetskaya Depression – prepare the Yuzhno-Messoyakhskiye field for test production
- Iraq, West Qurna-2 – activities within second development stage
- Implementation of the efficiency improvement program

LUKOIL Group produces oil and gas in six countries. Our core operations are concentrated in five federal districts of the Russian Federation, specifically in the North-Western Federal District (the Nenets Autonomous Area, the Komi Republic, and the Kaliningrad Region), the Volga Federal District (the Perm Territory and the Republic of Tatarstan), the Urals Federal District (the Yamal-Nenets Autonomous Area and the Khanty-Mansi Autonomous Area – Yugra), and the Southern Federal District (the Volgograd Region, the Astrakhan Region, and the Republic of Kalmykia).

Hydrocarbon production in 2018 totaled 2.3 million barrels of oil equivalent per day, with liquid hydrocarbons accounting for 77% of the total, and natural and associated gas accounting for the remaining 23%. Excluding the West Qurna-2 project, LUKOIL's hydrocarbon production increased by 3.8% year-on-year despite external limitations, following the Group's development of gas projects in Uzbekistan.

Capital expenditures for oil and gas development and production, including non-cash items, decreased by 21.1% year-on-year to RUB 338.6 billion in 2018.

Hydrocarbon production

thousand boe per day

	2016	2017	2018	Change, 2018/2017, %
Total hydrocarbons	2,276	2,269	2,347	3.4
Liquid hydrocarbons	1,875	1,804	1,806	0.1
Gas	401	465	541	16.2
Total hydrocarbons, excluding the West Qurna-2 project	2,181	2,235	2,319	3.8

Crude oil

Excluding the West Qurna-2 project, our oil production was flat year-on-year in 2018, totaling 85.6 million tonnes.

In 2017 and 2018, the volume and dynamics of LUKOIL Group's daily oil production were mainly influenced by external production limitations under the agreement between Russia and OPEC. After the limitations had been changed in the second half of 2018, LUKOIL quickly ramped up its oil production in Russia through effective production management at its mature fields.

In 2018, LUKOIL produced 82.0 million tonnes of crude oil in Russia, in line with the 2017 levels and accounting for 14.8% of Russia's total production, as reported by CDU TEK.

Given the limited total volume of oil production, we continued to ramp up our production at large, highly productive fields as planned while further reducing production at our mature fields in West Siberia and Timan-Pechora.

In particular, we ramped up the highly productive V. Filanovsky

and Pyakyakhinskoye fields to their designed capacity, launched Phase 2 at the Yu. Korchagin field, and increased high-viscosity oil production at the Yaregskoye and Usinskoye fields in Timan-Pechora. As a result, the share of these highly productive fields in the total production of LUKOIL Group, excluding the West Qurna-2 project, totaled 15% in 2018, up 3 percentage points year-on-year. Oil production was launched at three new fields in the Timan-Pechora and Volga regions during the year.

Our international oil production, excluding the West Qurna-2 project, was 3.6 million tonnes in 2018, down 4.0% year-on-year. The production was mainly affected by reduced volumes of

compensatory oil from projects under PSAs and service contracts due to the growth in the average annual oil price.

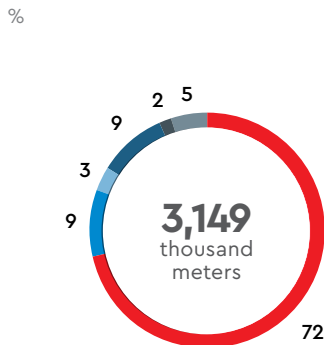
During the year, the Group completed 3,149 thousand meters of exploration drilling, down 2% after a significant rise in 2017. In Russia, our exploration drilling rose by 1.2%, mainly through increased exploration activities in the Bolshekhetskaya Depression (West Siberia) and in the Caspian Sea. Total of 944 new production wells were commissioned, including 870 in Russia with 32% share of horizontal wells. A total of 30 thousand oil production wells were in operation at the end of the reporting year.

Gas

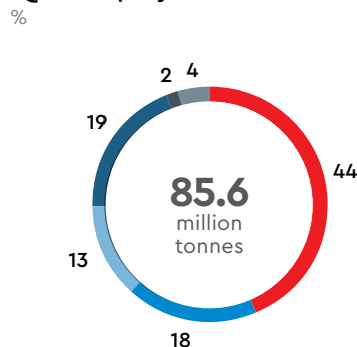
In 2018, gas production increased by 16.2% year-on-year to 33.5 billion cubic meters as our projects in Uzbekistan ramped up to designed capacity.

Our overall gas production in Russia decreased by 2.0% year-on-year to 17.8 billion cubic meters. Gas production from our international projects increased by 47.3% to 15.7 billion cubic meters and provided 46.9% of LUKOIL's total gas production, up 9.9 percentage points year-on-year.

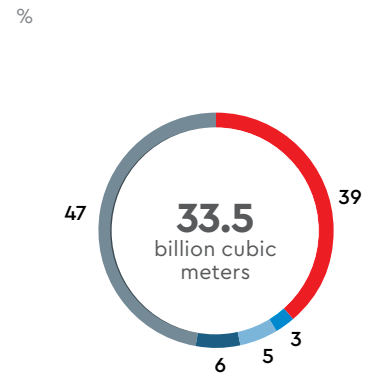
Production drilling in 2018



Oil production structure in 2018, excluding the West Qurna-2 project



Gas production structure in 2018



■ West Siberia

■ Urals

■ Volga

■ Timan-Pechora

■ Other

■ International projects

GROWTH PROJECTS

With its vast resource base, LUKOIL is especially focused on developing new projects to ramp up production. The new projects include both developing green fields and boosting recovery at mature fields through advanced technologies, increased production drilling, and a higher number of EOR operations.

North Caspian

LUKOIL has pioneered the development of the Russian sector of the Caspian Sea bed, its efforts resulting in the discovery of ten fields in the region with combined initial recoverable reserves of 1 billion tonnes of oil equivalent (7 billion barrels of oil equivalent).

V. Filanovsky field

The V. Filanovsky field, discovered in 2005, is the largest oil field in the Russian sector of the Caspian Sea bed. In 2018, production at the field reached an annual plateau level of 6 million tonnes of crude oil. The field's development comprises three phases.

Phase 1 infrastructure includes a riser block, an ice-resistant fixed platform, a central processing platform, a living quarters platform, and head onshore facilities.

Phase 2 construction comprises an ice-resistant fixed platform and a living quarters platform.

Phase 3 construction comprises a wellhead platform (mini-platform).

The field has a unique geology, with highly permeable collectors yielding record-high initial flow rates.

In 2018, as part of Phase 2 construction, an ice-resistant fixed platform was launched, from which five production wells were drilled and commissioned. Three of these were intelligent TAML Level-5 bilateral wells. The average depth for drilled wells exceeds 3 thousand meters, while the length of each horizontal section is over 1 thousand meters.

The average initial flow rate was about 2.4 thousand tonnes per day for single bore production wells and 3 thousand tonnes per day for bilateral wells, which is 70 times higher than the average initial flow rates of other new LUKOIL wells.

The field produced 6.1 million tonnes of oil in 2018, up 32% year-on-year. At the end of 2018, 14 wells (12 production and 2 injection wells) have been drilled at the field.

As part of Phase 3 construction in 2018, jackets for a wellhead platform were installed in the sea, while the topside construction works of the wellhead platform were carried out at a shipbuilding facility in Astrakhan. Mounting the topside on the support base and the commencement of drilling operations have both been scheduled for 2019.

The V. Filanovsky field's infrastructure generates considerable synergies for our other Caspian projects. For example, the Rakushechnoye field output is planned to be delivered for treatment to the V. Filanovsky field's central processing platform and then exported via the CPC pipeline system. The Yu. Kuvykin field could also benefit from the V. Filanovsky field's transportation infrastructure.

Yu. Korchagin field

The Yu. Korchagin field was discovered in 2000 and became the first field in the Caspian put on stream by LUKOIL. Production at the field began in 2010.

The field's development comprises two phases. The Phase 1 infrastructure comprises an ice-resistant fixed platform with drilling facilities, a living quarters platform, and an offshore transshipment facility which was used to ship all crude oil output prior to the infrastructure launch at the V. Filanovsky field. We commenced additional drilling within Phase 1 field development in 2018, which included drilling and commissioning one production well and two sidetracks.

Phase 2 construction comprises a wellhead platform which was commissioned in the reporting year. Within Phase 2, two production wells were drilled and commissioned.

Drilling commencement within Phase 2 of the field development and the additional drilling program has driven an increase in average daily production since Q2 2018.

Rakushechnoye field

The Rakushechnoye field was discovered in 2001 and became LUKOIL's third field under development in the Caspian region. Commercial oil production is scheduled for 2023 with a projected plateau rate of 1.2 million tonnes per year.

We made a final investment decision in 2018 to develop the Rakushechnoye field. The project will use the existing infrastructure of the V. Filanovsky field for hydrocarbons treatment, thereby driving considerable capital expenditures savings. In 2018, the main contractor was selected, the development of detailed design documentation began, tenders were held for the supply of equipment and materials, and manufacturing of support bases and metal topsides commenced.

The Baltic Sea

LUKOIL has unparalleled expertise in the Baltic Sea operations. Our first offshore field, Kravtsovskoye, was put on stream in the Baltic in 2004. New fields in the Baltic Sea were discovered in 2015, opening up new prospects for the region's development.

D41 field

In 2018, production drilling commenced at the D41 field situated near the coastline. The first long-reach horizontal well with a reach of almost seven kilometers was drilled to completion from the shore. Production launch has been scheduled for 2019.

D33 field

We have begun developing detailed design documentation for the D33 field

and an update of the Exploration and Development Concept for the Baltic Sea in 2018 to speed up the commissioning of this field.

Bolshekhetskaya Depression (Northern Part of West Siberia)

The Bolshekhetskaya Depression fields are LUKOIL's key gas producing assets in Russia. Our largest gas field, Nakhodkinskoye, put on stream in 2005, produced 5.4 billion cubic meters of gas in 2018, while the Pyakyakhinskoye field, put on stream in 2016, produced 1.6 million tonnes of oil and gas condensate and 3.9 billion cubic meters of gas. In 2018, we began preparing the Yuzhno-Messoyakhskoye field for commercial production launch.

Pyakyakhinskoye Field

The Pyakyakhinskoye field has a challenging geology complicated by gas caps and oil rims, therefore its core assets are developed through horizontal drilling and multi-hole wells. The oil reservoir development method of using both multi-hole production wells and horizontal injection wells is unique for Russia and protected by the Company's patent.

Four well pads were constructed at the field in 2018, one of which is for oil production. A total 19 oil production wells and 3 gas condensate wells were commissioned. In late 2018, 31 gas wells and 80 oil wells were in operation at the field. The average daily flow rate of a single gas well at the Pyakyakhinskoye field is more than 300 thousand cubic meters, while that of an oil well is over 50 tonnes.

Timan-Pechora

The Timan-Pechora oil and gas province has strong potential for high-viscosity oil production growth. High-viscosity crude oil accounts for 5.9% of the Group's proved hydrocarbon reserves, which are predominantly located in the Yaregskoye and Usinskoye fields. The development of these reserves has been stimulated by special tax rates.

Yaregskoye field

The Group's largest source of high-viscosity oil is located at the Yaregskoye field, which is comprised of two main producing structures: the Yaregskoye structure, developed by underground mining techniques and thermal steam treatment methods; and the Lyael structure, where oil is produced using counter steam-assisted gravity drainage (SAGD) technology. In 2018, the field's output grew by 50.7% to 1,630 thousand tonnes.

LUKOIL develops the Yaregskoye structure using underground mining techniques. Our commercial use of underground low-angle upward boreholes of up to 800 meters in length has significantly reduced the scope and cost of mining operations while speeding up reserves development. In 2018, 162 underground boreholes were commissioned at this field. Within Phase 3 of the Yaregskoye structure development, LUKOIL began holding tenders to select equipment suppliers and construction and assembly contractors.

LUKOIL is developing the Lyael structure using SAGD technology in a horizontal production and injection well system with a bore length of up to one thousand meters. In 2018, 21 SAGD production wells were commissioned.

The 75 MW Yarega power generating center has been operating at the field since 2017, providing the Yaregskoye field production facilities with an independent source of power supply. In 2018, LUKOIL continued to expand its steam-generating facilities by commissioning two steam generators with a combined capacity of 175 tonnes of steam per hour.

Usinskoye field

The Permian reservoir at the Usinskoye field has high-viscosity oil and is developed using thermal recovery methods. In 2018, the reservoir produced 2,648 thousand tonnes of crude oil, up 12.9% year-on-year, due to the commissioning of 68 production

wells, the optimization of cyclic steam injection technology, and efficient tapping of the reserves on the margins of the deposit.

The introduction of day rate contracts helped achieve record commercial drilling speeds, with an increase of over 30%. New small-diameter well designs demonstrated good drilling efficiency and delivered cost savings of over 10%. A full-scale rollout of this technology will yield significant capital expenditures savings due to the high number of wells planned for drilling at the field.

Commissioned in 2016, the 100 MW Usa power generating center operates at the Usinskoye field, providing an independent source of power supply to production facilities and Denisovskaya Depression fields. In 2018, three steam generators with a combined capacity of 60 tonnes of steam per hour were commissioned at the field.

In line with the roadmap for developing the Permian Reservoir of the Usinskoye field, two waste heat recovery boilers with a combined heat capacity of 63 Gcal per hour were constructed in 2018. The boilers are scheduled for commission in 2019. Main construction of the working fluid (hot water) treatment unit was completed at the Usa power generating center to meet its needs for a heat-transfer medium. The commissioning of this unit will help enhance oil recovery due to reservoir pressure stabilization and further recovery.

West Siberia (excluding the Bolshekhetskaya Depression)

West Siberia is LUKOIL's core oil producing region, accounting for 41.1% of LUKOIL Group's crude oil output, and its core resource base constituting 49.1% of LUKOIL Group's proved crude oil reserves.

Imilorskoye field

The Imilorskoye field has considerable geological potential, and its

proximity to existing, well-developed infrastructure supported the field's preparation for commercial development within a brief period of about three years. The classification of over 70% of the field's reserves as hard-to-recover (with a permeability of less than 2 millidarcy) was substantiated, making the project eligible for special tax rates. Considering the field's complex multilayer structure, a wide range of advanced well construction and completion technologies are applied in its development.

We were able to increase the designed oil production level to 2.5 million tonnes per year through cost optimization initiatives and the use of modern approaches to developing hard-to-recover reserves efficiently. Crude oil output from the field grew by 31% to 783 thousand tonnes in 2018 following 67 production wells and 26 injection wells being put on stream.

V. Vinogradov field

The V. Vinogradov field is located within two license areas, Bolshoy and Olkhovsky. Consisting mostly of low-permeability reservoirs, the field has

a complex geology and is therefore developed using unique technologies while receiving special tax rates to stimulate its development. In 2018, crude oil output from the field grew by 15% to 352 thousand tonnes while 20 production wells and 6 injection wells were commissioned.

In 2018, the final stage of pilot testing a system unique for Russia was conducted at the field. This system is designed to drill horizontal wells using MSHF for both oil production and reservoir pressure maintenance. Actual results have proven the solution effectiveness, and we have subsequently launched preparations to move the field into commercial development.

International Projects

Uzbekistan

In 2018, Uzbekistan accounted for 39.5% of the gas produced by LUKOIL Group and 84.3% of the Group's overall gas production from international projects. The Group's production in Uzbekistan increased by 66.6% year-on-year to 13.4 billion cubic meters of gas. We

are developing two gas projects in Uzbekistan: Kandym and Gissar.

In 2018, almost six months ahead of schedule, LUKOIL launched the Kandym gas processing complex (GPC), with a capacity of 8 billion cubic meters. It is one of the largest in Central Asia. The early launch of the complex ramped up our average daily gas production in Uzbekistan to designed capacity in the second half of 2018, equivalent to about 14.5 billion cubic meters per year in LUKOIL's production share. The GPC converts high-sulfur gas into marketable gas, stable gas condensate, and marketable sulfur. The plant consists of the first and second process lines, external power and water supply facilities, a gas production and gathering system, and an export gas pipeline, as well as a field camp, a fire station, and other facilities.

Gas production at the Gissar project was maintained at the plateau annual production level of 4.3 billion cubic meters in LUKOIL's production share achieved in 2017 following the commissioning of the main production facilities.

TECHNOLOGIES

LUKOIL has been actively developing and deploying advanced technologies to maximize hydrocarbon recovery and streamline its operations and technological solutions. These efforts help improve our operational efficiency, reduce costs, bring new reserves into production, increase oil recovery ratios, and develop new products. We have been pursuing our R&D program, which is focused on innovative development through the deployment of cutting-edge technologies and solutions. Using the latest technologies has a major positive effect on our oil recovery and production rates as well as on the commercial development of high-viscosity, tight, and hard-to-recover oil reserves at mature fields.

Hi-tech drilling

In 2018, across the Company's fields we commissioned 275 horizontal wells with an average daily flow rate of 66 tonnes, 125 of which are MZHF wells. Horizontal wells accounted for 32% of total wells put into operation across the Group's Russian assets in 2018, up 4 percentage points year-on-year. Over 70% of horizontal wells were drilled in West Siberia.

Enhanced oil recovery

In 2018, 27% of LUKOIL's oil in Russia was produced through enhanced oil recovery (EOR) projects implemented during the reporting year or in previous years. LUKOIL uses physical, chemical, hydrodynamic, and thermal techniques to stimulate productive formations. EOR methods were used at 9.7 thousand wells in 2018, up 12.7% year-on-year. Mechanical methods were the biggest contributor to the Group's incremental production growth (13.2 million tonnes).

Sidetracking is a highly efficient EOR method, and the Group continued to rely heavily on this technique in 2018. LUKOIL drilled a total of 210 sidetracks in Russia in 2018, which brought incremental production to 5.7 million tonnes of crude, including production from sidetracks drilled in previous years. The high efficiency of this technique is primarily due to robust R&D mini-

projects based on hydrodynamic modeling and more accurate forecasting of geology and reserves where sidetracks are drilled.

Small-diameter wells

The small-diameter well (SDW) construction technique, first successfully applied in the Urals, was tested in West Siberia and the Republic of Komi, where nine SDWs were drilled and completed. A total of 24 small-diameter wells were drilled in the Volga region and in Tatarstan in 2018. A total of 48 small-diameter wells were drilled by the Group in Russia in 2018. Small-diameter wells speed up construction, enabling more

oil reserves to be brought on stream. The average savings exceeded 30% of standard well costs, while some wells reached savings of as high as 50%. Another advantage of small-diameter wells is the reduced well pad costs. The technology has huge potential, and we plan to considerably increase the number of small diameter wells in the next few years.

During the year, we successfully tested small-diameter wells of simplified design in the Perm Territory as part of our efforts to enhance oil recovery. Four wells were drilled to completion, while the use of simplified technology increased the average commercial drilling speed by 10%.

Three-string wells

We have been successfully applying three-string horizontal well construction technology in West Siberia, which has accelerated construction by 40% on average (or by 50% in some cases) and reduced costs by approximately 15% as compared to the standard four-string design of horizontal wells.

In 2018, we drilled a three-string horizontal well in West Siberia in a record short time of 8.7 days.

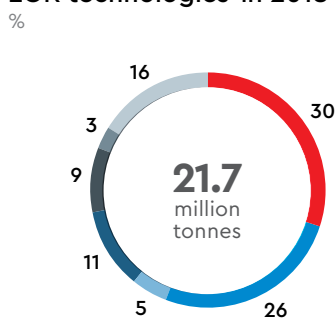
A total of 43 three-string horizontal wells were drilled in 2018, and the number of such wells is planned to be substantially increased in the medium term.

Three multi-hole three-string wells with three horizontal branches were drilled in 2018 using this design. The full drilling and cementing cycle for a single multi-hole well took 14.4 days.

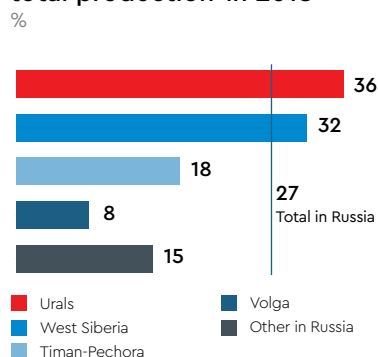
Hard-to-recover reserves

We continued consistent efforts in 2018 to identify and deploy the best technologies for developing hard-to-recover reserves, primarily in West Siberia. A good example of progress in this area is the Imilorskoye field, where LUKOIL began commercializing development technologies such as drilling multi-hole horizontal wells with MZHF. Crude oil output from the field grew by 31% in 2018.

Incremental production from EOR technologies¹ in 2018



Share of incremental production from EOR technologies in each region's total production¹ in 2018



¹ Including carry-overs.

Pilot plots development was completed at the V. Vinogradov field by drilling a number of horizontal production and injection wells with various placement and completion options. The field was the first in Russia to successfully test and adopt a horizontal drilling technique using a unique method for completing horizontal boreholes reaching over 2 thousand meters and with up to 16 fracturing ports.

High-viscosity oil

LUKOIL actively applies advanced technologies to recover high-viscosity oil. Most of our expertise in recovering high-viscosity oil reserves comes from Timan-Pechora, where LUKOIL develops the Yaregskoye field and the Permian reservoir of the Usinskoye field. In 2018, LUKOIL used thermal EOR techniques at both fields to recover 4.3 million tonnes of high-viscosity oil, up 25% year-on-year. Thermal EOR techniques are used in production.

In 2018, a number of projects were delivered at the Permian reservoir of the Usinskoye field to improve technologies such as cyclic steam injection for wells on the margins of the deposit, which was first tested in 2017. The Usinskoye field was also the first to successfully test SDW drilling technology in 2018.

Research and development

LUKOIL's Research and Development (R&D) Program is focused on methodological support and the Company's innovative development through deploying cutting-edge technologies and solutions as well as adopting international best practices and lessons learned in developing hard-to-recover reserves.

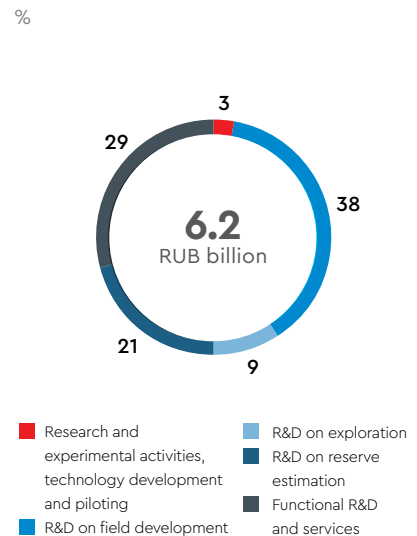
At refineries operated by the Group, research efforts are focused on achieving enhanced energy and economic performance. Our R&D program also benefits from partnerships with field-specific universities.

The Company has major segment-specific R&D centers – three in Exploration and Production and one in Refining and Distribution:

- VolgogradNIPImorneft – the Group's general designer for the construction of offshore oil and gas fields
- KogalymNIPIneft is a leading research and project center in Russia, engaged in well construction design and responsible for the R&D support of LUKOIL's operations in West Siberia
- PermNIPIneft provides R&D support for the Group in the Urals and Timan-Pechora, specializing in high-viscosity oil production technology
- LUKOIL-Nizhegorodniinefteproyekt is the Group's general designer in Refining and Distribution

Projects implemented in 2018 under the R&D program for Exploration and Production focused on drilling enhancement, field development, enhanced oil recovery, and hard-to-recover reserves, while the R&D projects in Refining and Distribution focused on developing advanced lubricants and petrochemicals such as motor oils, additives, solvents, and cleaners, modernizing bitumen production processes, and optimizing the operating modes of hydrocarbon treatment units to mitigate their environmental impact.

R&D cost breakdown in 2018



DIGITALIZATION

Technological advances and business process automation are increasingly driven by digital data enablement which offers considerable competitive advantages in a dynamic external environment.

In 2018, the Board of Directors approved the IT Strategy of LUKOIL Group, a functional program focused on digitizing the Company's business processes to improve efficiency. The IT Strategy forms an essential part of our long-term Strategic Development Program for 2018–2027 and includes close to 100 initiatives.

LUKOIL focused on building digital programs across its business segments in 2018 as part of the IT Strategy.

Digitalization in Exploration and Production business segment

Our digital programs in Exploration and Production business segment are mainly focused on enhancing oil recovery, reducing operating expenses, and increasing the efficiency of field development.

Successful examples of digitalization in 2018 include testing neural networks to control flooding at pilot plots of mature oil fields in West Siberia. The test results have confirmed the effectiveness of this technology.

Adoption of the intelligent field concept is an important digital project for LUKOIL.

Intelligent field

The intelligent field concept (LIFE-Field) integrates field management processes based on automated computer systems and high-tech data collection systems. The concept covers the entire

project development cycle from prospecting and exploration through to decommissioning, and includes integrated modeling, integrated planning, integrated operations center, and other modules. The concept has strong potential for operational process optimization aimed at boosting production and cutting costs. The key source of this optimization is identifying bottlenecks and developing methods of their efficient elimination. Specifically, enhancing alignment between geological modeling and modeling of the field's infrastructure enables considerable savings.

By the end of 2018, 29 integrated models had been built for fields across the Company's operating regions in Russia. These fields produced 29% of the Group's total hydrocarbon output in 2018.

The intelligent field concept can also be highly effective when applied to greenfields. The V. Filanovsky field is an example of a greenfield where an integrated model was built to efficiently adjust the existing solutions for placing and designing production wells at the implementation stage. As a result, the field was ramped up to designed capacity in a record time of less than two years.

Intelligent field technology has been used at the Yu. Korchagin field in the Caspian Sea since 2015. Based on the results of the technology in 2018 in addition to the hydraulic systems of well completion we applied a state-of-the-art electric system for the first time to support the existing hydraulic intelligent completion systems. The new solution enables more flexible flow control across individual well zones, including the ability to quickly stop potential gas leaks from the field's gas cap.

The advantages provided by these leading-edge intelligent completions open up a wide range of opportunities for development control, including previously unavailable proactive reservoir drainage control based on production tests run in real time for each completion interval.

Digitalization in Refining, Marketing and Distribution business segment

Digital programs in Refining, Marketing and Distribution business segment primarily aim to enhance equipment efficiency and reliability, improve control over the environmental impact of operations, and provide better customer service.

We ran a series of successful digital initiatives in Refining, Marketing and Distribution business segment in 2018, including the adoption of a solution streamlining the distribution of energy flows for improved energy efficiency at Perm Refinery.

Digitalization in Corporate business segment

Digital programs for the Corporate business segment mainly focus on accelerating and improving management decision-making processes while increasing workforce productivity, automating HR management and organizational development processes, and reducing the risk of external and internal cyberattacks.

Successful examples of digitalization in this segment include an RPA solution automating routine tasks rolled out at the Perm Regional Accounting Center and at international LUKOIL Group entities.

REFINING, MARKETING, AND DISTRIBUTION

MACROECONOMIC OVERVIEW

The average benchmark refinery margin in the European part of Russia declined by 29% year-on-year to slightly above \$3 per barrel in 2018. The decline was driven by lower refining margins in Europe, higher motor fuel excise tax rates from January to May 2018, as well as domestic wholesale prices being below export parity. The positive impact came from a larger difference between export duties for crude oil and

petroleum products, driven by rising oil prices, as well as lower excise tax rates from June to December 2018.

Average refining margins across LUKOIL's Russian refineries were considerably higher than the benchmark margins in the European part of Russia due to a higher light products yield in the slate alongside a low fuel oil and vacuum gas oil yield.

In 2018, the benchmark refinery margin in Europe was 11% lower year-on-year, primarily due to deterioration of spreads for gasolines and fuel oil.

Excise tax rates on petroleum products in Russia

RUB per tonne

	2016	2017	2018	Change, 2018/2017, %
Motor gasoline				
Below Euro-5	12,454	13,100	13,100	0.0
Euro-5	9,484	10,130	9,454	-6.7
Diesel fuel	5,009	6,800	6,492	-4.5

Petroleum product export duty rates

as % of crude oil rate

	2016	2017	2018	Change, 2018/2017, %
Motor gasoline	61	30	30	0
Diesel fuel	40	30	30	0
Fuel oil and vacuum gas oil	82	100	100	0
Straight-run gasoline	71	55	55	0

OIL REFINING

2018 RESULTS

- Launched the construction of the delayed coker complex at Nizhny Novgorod Refinery
- Launched the construction of the isomerization unit at Nizhny Novgorod Refinery
- Progressed further on enhancing operational efficiency and cost optimization programs
- Drafted an action plan for optimizing the petroleum product range to comply with the International Maritime Organization's (IMO) new global sulfur cap in bunker fuels (MARPOL) beginning in 2020

LUKOIL Group integrates four refineries in Russia (in Perm, Volgograd, Nizhny Novgorod, and Ukhta), three refineries in Europe (Italy, Romania, and Bulgaria), and has a 45% interest in a refinery in the Netherlands. The aggregate capacity of these refineries is 84.6 million tonnes.

In 2018, the Group's refinery throughput at own refineries remained almost flat year-on-year at 67.3 million tonnes or 77% of LUKOIL's total oil production in 2018. Refineries in Russia accounted for 64% of total throughput volumes.

Refineries in Russia

The throughput at LUKOIL's refineries in Russia remained flat year-on-year at 43.2 million tonnes, while capital expenditures amounted to RUB 45 billion in 2018, up 76.9% year-on-year. The increase was primarily driven by the launch of the new units construction at Nizhny Novgorod Refinery.

Construction of the delayed coker complex at Nizhny Novgorod Refinery was launched in 2018. The facility's feedstock capacity is 2.1 million tonnes. The complex will use heavy residuals from the refining process as feedstock and produce mainly diesel fuel, straight-run gasoline, and gas fractions,

as well as heavy products such as vacuum gas oil and coke. The launch of the delayed coker complex and related optimization measures will increase the light product yield at Nizhny Novgorod Refinery by more than 10 percentage points. The increased secondary refining capacity and optimized refinery utilization will help reduce fuel oil output by 2.7 million tonnes per year. Several EPC contracts were awarded in 2018. Preparations for pile driving and laying the foundation for the process units were commenced during the year.

The second project aimed at improving the high value-added product output at Nizhny Novgorod Refinery is the construction of an isomerization unit to ramp up our output of motor gasolines. In 2018, an EPC contract was awarded and preparations began for launching the active construction phase.

Major efforts were made during the year to develop and launch new types of products at our refineries in Russia. In particular, processes were developed at Volgograd Refinery for producing MARPOL 2020-compliant low-sulfur heavy bunker fuel.

In the reporting year, LUKOIL continued increasing its refining depth through the use of alternative feedstock and a higher utilization of secondary

2019 PRIORITIES

- Construct the delayed coker complex and the isomerization unit at Nizhny Novgorod Refinery
- Progress further on enhancing operational efficiency and cost optimization programs
- Continue implementation of integrated programs on increasing reliability

processes, including strengthening its inter-plant integration. Specifically, cross-supplies between the Group's refineries amounted to 1.6 million tonnes in 2018. The fuel oil loading infrastructure was also brought on stream at Perm Refinery in 2018, improving delayed coker utilization rate and strengthening inter-plant optimization across the Group.

Commissioning new refining units from 2015 to 2016 and optimizing the utilization of secondary processing units considerably improved the refining depth and reduced the fuel oil yield from 22% in 2014 to 11% in 2018.

Excluding mini-refineries, light product yield was 69.3% (69.2% in 2017) in the reporting year, while the refining depth

reached 88.0% (86.7% in 2017). Fuel oil and vacuum gas oil output reduced by 4% year-on-year, mainly due to the lower output of these products at the Volgograd and Ukhta refineries.

Refineries in Europe

In 2018, the throughput at the Group's refineries in Europe remained flat at 24.1 million tonnes. The decreased refining due to scheduled maintenance at Burgas Refinery in Bulgaria was offset by a ramp-up at the refineries in Italy and Romania.

Following a change in the market environment, we modified the utilization structure at some of our European refineries in 2018 by cutting crude oil refining in favor of a higher heavy prod-

uct refining due to wider price spreads between heavy products and crude oil. These developments, along with the scheduled maintenance at our Bulgarian refinery, led to a reduced light product yield at LUKOIL's European refineries, at 72.8% (75.1% in 2017). However, this reduction was partially offset by optimizations in the feedstock slate at Zeeland Refinery.

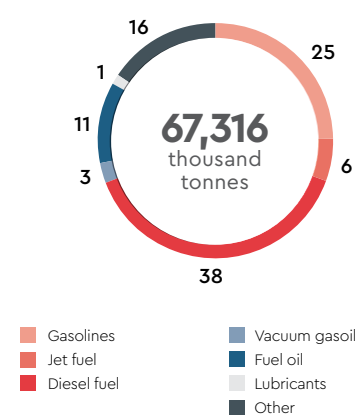
The capital expenditures of the Group's refineries in Europe totaled RUB 12 billion in 2018, up 25.8% year-on-year. The growth was due to a depreciation of the Russian ruble, as well as scheduled maintenance at our Bulgarian and Italian refineries.

Refinery throughput and production of petroleum products at LUKOIL Group refineries

	2016	2017	2018	Change 2018/2017
Refinery throughput, thousand tonnes	66,061	67,240	67,316	0.1%
Petroleum products production, thousand tonnes	62,343	63,491	63,774	0.4%
Light product yield, %	67	71	71	-
Refining depth, %	85	87	88	1 p.p.
Nelson Index	8.8	8.8	8.8	-

Product slate

% of refinery throughput



LUBRICANTS PRODUCTION AND MARKETING

2018 RESULTS

- Sales in our LUKOIL branded and high value-added lubricant ranges grew by 2% and 12% respectively
- Launched joint product development with leading global automotive and industrial equipment manufacturers
- Certified the Group's production assets in Russia, Austria, and Finland to the new international automotive standard IATF 16949
- Successfully completed an audit under the German Association of the Automotive Industry VDA 6.3 standard at our Perm production site
- Launched LUKOIL-branded online stores and sales through global marketplaces
- Launched an innovative lubricants and bitumen loading facility in Volgograd
- Entered the West and North African markets

LUKOIL Group produces lubricants at seven of its own sites, within two joint ventures, and at 25 contracted plants. Our Russian assets comprise full cycle lubricants production facilities at the refineries in Perm and Volgograd, a lubricant blending plant in Tyumen, and joint venture between LUKOIL and Russian Railways, INTESMO, producing greases in Volgograd. LUKOIL's overseas production assets include its own plants in Romania, Finland, Turkey, and Austria, as well as LLK-NAFTAN joint venture in Belarus producing additives.

In 2018, 45% of lubricants in Russia were produced at facilities operated by LUKOIL Group. LUKOIL's lubricant production (full cycle) in 2018 was 961 thousand tonnes, while sales of LUKOIL-branded lubricants were up 2% year-on-year to 594 thousand tonnes.

LUKOIL markets lubricants and greases in over 100 countries. One of the Group's key priorities is to develop its product range in line with modern requirements. In 2018, we have developed over 60 new lubricant solutions, including motor and transmission oils, industrial oils, products for original equipment

manufacturers (OEMs), as well as metalworking fluids and process oils. We have over 700 products within the lubricants category. In 2018, consumers of LUKOIL's oils included all Russia-based plants of foreign automotive manufacturers where car engines are assembled and filled, including Volkswagen, Ford, Renault, MAN, and others. We launched an ambitious joint product development program in 2018 with leading global automotive and industrial equipment manufacturers, under which the development of 20 new lubricant solutions was commenced. Our Perm production site was successfully audited under the German Association of the Automotive Industry VDA 6.3 standard in 2018. Companies certified under the VDA 6.3 become priority suppliers when German car manufacturers issue orders related to new car models.

Launched in 2014, the largest Russian grease producer and joint venture between LUKOIL and Russian Railways, INTESMO, increased its output by 25%. The plant houses an engineering center, unique in Russia, where greases are developed and tested. In just three years of operation, the center adopted

2019 PRIORITIES

- Launch the lubricants plant in Kazakhstan
- Increase the share of high value-added products
- Launch the R&D center for industrial lubricants and specialty products at the INTESMO engineering center

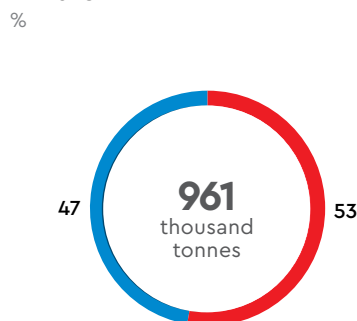
Lubricant production and blending

thousand tonnes

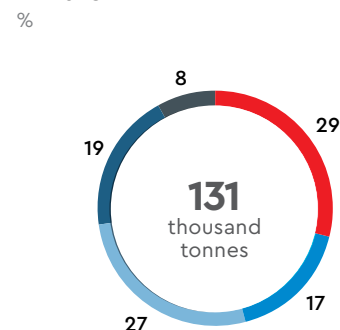
	2016	2017	2018	Change, 2018/2017, %
Full cycle lubricant production	917	998	961	-3.7
Lubricant blending	118	128	131	2.1

200 testing methods of greases and lubricants and also developed and launched the production of 115 types of greases, many of which outperform foreign counterparts by operational characteristics. In 2019, we plan to launch the R&D center for industrial greases and specialty products at the INTESMO engineering center.

Full cycle lubricant production in 2018



Lubricant blending in 2018



GAS PROCESSING



2018 RESULTS

- Increased processing volumes due to the higher capacity utilization at Stavrolen



2019 PRIORITIES

- Maximize synergy from vertical integration by increasing our APG use, growing our output of liquid hydrocarbons and marketable gas, and providing feedstock to our power generating assets

■ Volgograd Refinery ■ Perm Refinery

■ Russia, Tyumen ■ Turkey
■ Finland ■ Romania
■ Austria

LUKOIL Group processes gas and natural gas liquids at three gas processing plants (GPPs) in West Siberia, Timan-Pechora, and Volga regions, as well as at its Perm Refinery and Stavrolen petrochemical complex in the Stavropol Territory. The Group's GPPs process the APG produced by LUKOIL into liquid hydrocarbons and marketable gas.

In 2018, gas processing increased by 6.7% to 4.3 billion cubic meters, mainly due to the increased capacity

utilization at Stavrolen and higher processing volumes at Perm Refinery and Korobkovsky GPP.

The output of liquefied petroleum gases and liquid hydrocarbons at the Group's GPPs was 1.7 million tonnes, up 4.1% year-on-year in 2018 due to the increased output at Perm Refinery. Marketable gas production increased by 5.9% year-on-year to 2.6 billion cubic meters in 2018 due to the higher output at Stavrolen.

Gas processing

million cubic meters

	2016	2017	2018	Change, 2018/2017, %
Total	3,901	4,038	4,308	6.7
Lokosovsky GPP	953	1,497	1,454	-2.9
Perm Refinery with gas processing complex	1,134	1,162	1,211	4.3
Korobkovsky GPP	418	362	383	5.9
Usinsk GPP	137	161	149	-7.2
Stavrolen gas processing complex	1,259	856	1,110	29.8

PETROCHEMICALS

2018 RESULTS

- Completed reconstruction of the polyethylene production facilities, capacity of ethylene polymerization units ramped up to 40 tonnes per hour at Stavrolen
- Increased the acrylonitrile and sodium cyanide production capacities at Saratovorgsintez

2019 PRIORITIES

- Complete feasibility studies and launch projects for developing petrochemical facilities at the Group's refineries
- Complete the pyrolysis furnace upgrades at Stavrolen

LUKOIL Group produces petrochemicals at two plants in Russia and at its refineries in Italy and Bulgaria. The output includes a wide range of polymers, organic synthesis products and other petrochemicals. LUKOIL meets a significant portion of domestic demand for various petrochemicals and is also a large petrochemicals exporter to more than 30 countries.

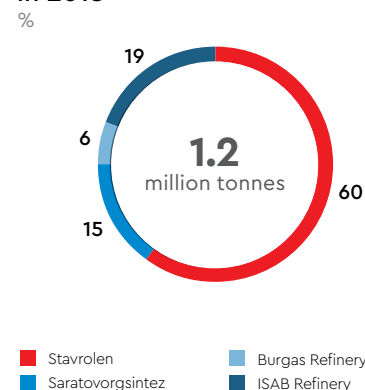
In 2018, we increased our petrochemicals output by 6.4% to 1.2 million tonnes, primarily due to an increase in the marketable products output at Stavrolen.

Retrofitting the polyethylene production facilities at Stavrolen was completed in 2018, which helped increase the output of premium high-density polyethylene products. In particular, we launched the production of modern bimodal polyethylene suited for pipe applications.

Growth prospects in petrochemicals depend on the development of petrochemicals production at existing

sites and the monetization of available feedstock. In 2018, LUKOIL completed a large portion of the feasibility studies for a polypropylene facility at Nizhny Novgorod Refinery. The project provides for retrofitting the existing catalytic cracking units to increase the propylene yield. Feasibility studies were also conducted for a styrene production facility at Nizhny Novgorod Refinery. The project provides for using ethylene recovered from fuel gas catalytic cracking units and benzene from the reforming unit as feedstock for the facility.

Petrochemicals output in 2018



Petrochemicals output

	2016	2017	2018	Change, 2018/2017
Marketable products output, thousand tonnes	1,270	1,171	1,246	6.4%
Polymers and monomers, %	34.8	34.8	37.4	2.6 p.p.
Organic synthesis products, %	39.9	40.4	36.1	-4.3 p.p.
Pyrolysis products, %	25.1	24.6	26.4	1.8 p.p.
Other, %	0.1	0.2	0.2	-

POWER GENERATION

2018 RESULTS

- Commissioned Hydroelectric Unit 1 as part of the renovation project at Belorechensk HPP
- Commissioned five steam-generating units at the Yaregskoye and the Usinskoye fields

2019 PRIORITIES

- Complete the renovation project at Belorechensk HPP by commissioning Hydroelectric Unit 2 (24 MW)
- Commission the steam generators at the Yaregskoye and the Usinskoye fields
- Construct a 16 MW GTPP to cover the electricity consumption across several fields in the Urals

LUKOIL's power generation segment is represented by a fully vertically integrated chain, from generation to transmission and distribution of heat and power to external consumers (commercial power generation) and for its own needs (supporting power generation). Our aggregate power generation capacity is 6.2 GW, with commercial power generation accounting for 74% of the total and supporting power generation for the remaining 26%. The power generating facilities in our asset portfolio help to strengthen vertical integration and ensure high efficient APG use rates while reducing the electricity costs at our production facilities.

Commercial power generation

LUKOIL's main commercial heat and power generating facilities are located in the south of the European part of Russia, accounting for 97% of electricity

generation in the Astrakhan Region and 59% in the Krasnodar Territory. Our commercial electricity generation in 2018 totaled 19.9 billion kWh, while heat supplies totaled 11.0 million Gcal.

Renewable power generation

Renewable power generating facilities also contribute to commercial power generation. The Group's core assets comprise four hydroelectric power plants (HPPs) located in Russia with a combined capacity of 291 MW and a combined output of 1,156 million kWh in 2018.

One of our important hydroelectric generation projects is the reconstruction of Belorechensk HPP. The two hydroelectric units are to be fully replaced, increasing the installed capacity of each from 16 MW to 24 MW, totaling 48 MW of hydroelectric installed capacity post-renovation. In 2018, we

Commercial electricity and heat generation

	2016	2017	2018	Change, 2018/2017, %
Electricity, million kWh	21,704	20,189	19,919	-1.3
Including renewable power generation, million kWh	977	1,053	1,365	29.5
Heat, million Gcal	12.4	10.7	11.0	2.3

completed Phase 1 of the project by commissioning Hydroelectric Unit 1 and completing comprehensive upgrades across almost all auxiliary systems at Belorechensk HPP.

The project will extend the operation of Belorechensk HPP by at least 40 years, increasing the efficiency and reliability of its green electricity generation.

We also operate three solar power plants in Russia at Volgograd Refinery (10 MW), Romania (9 MW), and Bulgaria (1.3 MW). These plants are built on unutilized industrial sites of the

refineries and supply electricity to local grids. In 2018, the annual output of the plants totaled 17 million kWh.

LUKOIL also owns the 84 MW Land Power wind power plant in Romania. The annual output of the plant totaled 192 million kWh in 2018.

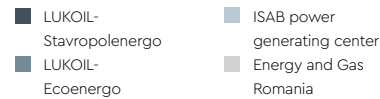
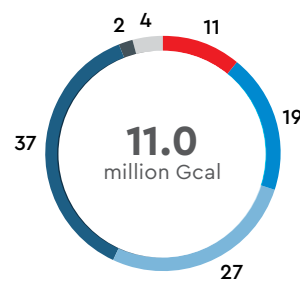
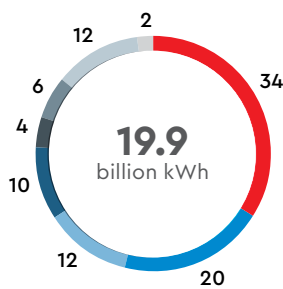
Supporting power generation

Development of in-house electricity generation at fields and plants helps the Group reduce its electricity costs and use APG more rationally, for example as a fuel for gas power plants. In 2018, sup-

porting power generation by the Group totaled 7,319 million kWh, while its share in LUKOIL's total electricity consumption for production purposes was 34%.

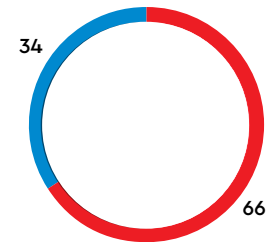
Commercial electricity output and heat supplies in 2018

%



Power consumption by the Group's production entities in 2018

%



WHOLESALE AND TRADING

2018 RESULTS

- Increased trading volumes
- Increased the share of pipeline supplies in petroleum products exports from 26 to 52%

2019 PRIORITIES

- Diversify sales markets
- Increase transportation via LUKOIL's own infrastructure

LUKOIL sells crude oil, gas, and petroleum products in the domestic and international markets, distributing optimal flows to suit the market environment. We own both pipelines and crude oil and petroleum product transshipment facilities, which help to minimize transportation costs. A well-developed trading arm within the Group maximizes efficient sales of our crude oil and petroleum products while generating additional income from sales of purchased hydrocarbons.

The combined sales of crude oil, petroleum products, and petrochemicals totaled 210.5 million tonnes in 2018, up 2.7% year-on-year primarily due to increased oil trading.

Crude oil

Crude oil sales volumes increased by 14.0% to 85.2 million tonnes in 2018, primarily due to higher volumes of international trading. The markets outside of the Customs Union accounted for approximately 94.4% of LUKOIL's total crude oil sales volumes, while 2.4% was sold in Russia and 3.2% in other countries of the Customs Union.

LUKOIL sold 2.1 million tonnes of crude oil in the domestic market, a 10.2% year-on-year decline, primarily due to the lower crude oil demand from key consumers. Following lower domestic sales, LUKOIL's exports subsequently increased by 0.3% to 36.7 million tonnes in 2018. The share of exports outside the Customs Union increased from 92.3% to 92.5%, primarily due to the production growth in the North Caspian and at the Yaregskoye field, both of which enjoy export duty benefits. International crude oil sales increased by 14.7% to 83.2 million tonnes, primarily due to the higher trading volumes.

As with the year prior, the most efficient way to monetize LUKOIL's crude oil in 2018 was processing it at its own refineries. Crude oil supplies to the Group's refineries in Russia amounted to 43.2 million tonnes in 2018, up by 0.2% year-on-year. Crude oil supplies to the Group's refineries in Europe totaled 24.1 million tonnes in 2018, almost flat year-on-year. Supplies of oil for processing at third-party refineries amounted to 6.5 million tonnes, almost flat year-on-year.

Oil supplies and sales

million tonnes

	2016	2017	2018	Change, 2018/2017, %
Sales in Russia	7.1	2.3	2.1	-10.2
Supplies to LUKOIL's Russian refineries	41.8	43.1	43.2	0.2
Exports from Russia	33.9	36.6	36.7	0.3
International sales	70.3	72.5	83.2	14.7
Supplies to LUKOIL's European refineries	20.4	22.0	21.3	-3.2

Petroleum products

Sales of petroleum products amounted to 123.5 million tonnes in 2018, down 3.9% year-on-year, primarily due to downward pressure on trading volumes from the market environment.

Sales volumes of petroleum products in Russia accounted for approximately 20.8% of the total or 25.6 million tonnes. Sales volumes in Russia grew by 3.3% year-on-year, mostly driven by retail sales due to higher demand for LUKOIL's products. To meet the higher demand, we redirected some of our export supplies to the domestic market. LUKOIL's retail sales volumes in Russia amounted to 10.9 million tonnes, up 8.4% year-on-year.

Russian exports of petroleum products declined in 2018 by 7.3% to 16.2 million tonnes following a higher demand for gasoline and diesel fuel in the domestic market and a lower fuel oil output. Fuel oil exports were down by 45.1% and their share in LUKOIL's total exports of petroleum products declined from 15.8% in 2017 to 9.3% in 2018.

A total of 79.2% of LUKOIL's petroleum products were sold in the international market. International wholesale sales decreased by 5.9% to 93.7 million tonnes, mostly driven by lower trading volumes of petroleum products. International retail sales grew by 1.5% to 4.2 million tonnes due to increased average daily sales per filling station.

Gas

In 2018, LUKOIL Group sold 27.9 billion cubic meters of gas (natural gas, APG, and dry stripped gas), up 22.2% year-on-year. Russia accounted for 49.2% of the Group's total gas sales volumes, at 13.7 billion cubic meters, 11.9 billion cubic meters of which were sold to Gazprom Group.

International gas sales volumes amounted to 14.2 billion cubic meters, up by 56.0% year-on-year, due to the gas production growth in Uzbekistan. As a result, the share of international sales in the total sales volumes was up by 11 percentage points year-on-year, at 50.8%.

Sales of petroleum products¹

million tonnes

	2016	2017	2018	Change, 2018/2017, %
Total	121.6	128.5	123.5	-3.9
Russia	21.7	24.8	25.6	3.3
Outside Russia	99.9	103.7	97.9	-5.6

Exports of petroleum products¹

million tonnes

	2016	2017	2018	Change, 2018/2017, %
Total	18.7	17.5	16.2	-7.3
Diesel fuel	8.0	10.1	9.8	-2.9
Gasoline	0.4	0.3	0.2	-29.9
Jet fuel	0.2	0.1	0.05	-41.7
Lubricants	0.6	0.6	0.6	-3.7
Fuel oil	3.7	2.8	1.5	-45.1
Other	5.8	3.6	4.1	11.2

Gas sales

million cubic meters

	2016	2017	2018	Change, 2018/2017, %
Total	18,908	22,837	27,896	22.2
Russia	11,845	13,751	13,723	-0.2
To Gazprom Group	8,794	11,140	11,925	7.0
To other consumers	3,051	2,611	1,798	-31.1
Outside Russia	7,063	9,086	14,173	56.0

¹ From 2016, including gas products produced at LUKOIL's GPPs.

Own transportation infrastructure and dedicated supply channels

Our priority when selling crude oil and petroleum products is efficient logistics and maximum reliance on our transportation infrastructure to reduce transportation costs and optimize routes. LUKOIL Group owns three terminals in Russia (Varandey Oil Terminal in Timan-Pechora on the Barents Sea, an oil terminal in the port of Svetly in the Kaliningrad Region, and a petroleum products terminal in the port of Vysotsk on the Baltic Sea) and one terminal in the port of Barcelona in Spain, with a combined capacity of 36 million tonnes of oil and petroleum products per year. LUKOIL also uses its own floating oil storage unit in the Caspian Sea for oil transshipment.

In 2018, transshipment via LUKOIL's own infrastructure was down 3.9% year-on-year and totaled 21.0 million tonnes of crude oil and petroleum products.

Crude oil transshipment through our own terminals declined by 13.1% year-on-year to 9.6 million tonnes, driven by lower production volumes at the A. Titov and R. Trebs fields operated by Bashneft-Polyus joint venture, in which LUKOIL has a 25.1% stake. This resulted in the share of crude oil exports via our own transportation infrastructure declining to 23.9% in 2018 (25.3% in 2017).

Petroleum products transhipped via our terminals increased by 5.6% to 11.4 million tonnes, driven by higher

transshipment rates of fuel oil and vacuum gas oil. In 2018, petroleum product shipments via LUKOIL's terminal in the port of Vysotsk totaled 10.6 million tonnes.

LUKOIL also holds a 12.5% stake in the Caspian Pipeline Consortium (CPC). LUKOIL's oil exports via the CPC increased by 38.0% in 2018 to 4.8 million tonnes due to production growth at the Caspian Sea fields. The CPC's oil quality bank ensures that LUKOIL's selling prices reflect the high quality of its crude.

In 2018, LUKOIL Group exported 1.2 million tonnes of crude oil via the East Siberia – Pacific Ocean (ESPO) pipeline, up 8.8% year-on-year. This route enables transporting our light oil from West Siberia with a corresponding premium for its quality as compared to conventional Urals crude exports to the west. In addition, supplies of light West Siberian crude oil transported to the port of Novorossiysk, via a separate pipeline preventing mixing with heavy oils and helping sell it with a corresponding premium for its quality, grew by 9.1% in 2018 to 959 thousand tonnes.

In December 2017, LUKOIL began supplying the diesel fuel produced at its Volgograd Refinery to the port of Novorossiysk via Transneft's new petroleum product pipeline, Volgograd Refinery – Tinguta – Tikhoretsk – Novorossiysk (the South project). LUKOIL transported 3.9 million tonnes of crude oil via the 8.7-million-tonne pipeline in 2018.

In June 2017, LUKOIL launched transportation of the motor gasoline produced at its Nizhny Novgorod Refinery to the Moscow Region via Transneft's petroleum product pipeline. The pipeline capacity is 3 million tonnes per year. Transportation totaled 0.9 million tonnes in 2018.

After launching transportation through these two pipelines, LUKOIL was able to significantly increase the share of pipeline shipments in its total petroleum product supplies and subsequently reduce the share of costly rail transportation, achieving major savings in transportation costs. In particular, pipelines accounted for 52% of LUKOIL's petroleum product supplies in 2018 compared to 26% in 2017.

Trading

LUKOIL performs its trading operations in all key regions of the world through its subsidiary, LITASCO. LITASCO's main functions include maximizing sales efficiency for LUKOIL's crude oil and petroleum products and boosting profits through trading third-party volumes.

To maximize the efficiency of its trading operations, LITASCO builds long-term relations with major refineries in South-East Asia, the USA, Canada, and other countries, and supplies crude oil and petroleum products to the Group's refineries in Europe. Crude oil and petroleum products produced by LUKOIL Group accounted for one third of LITASCO's total trading volumes in 2018, while trading third-party crude oil and petroleum products accounted for the remaining two thirds.

PREMIUM SALES CHANNELS



2018 RESULTS

- Increased the average daily sales volumes per filling station by 6.3% to 10.7 tonnes
- Reorganized the retail business management system
- Increased sales volumes of bunker fuels by 4%
- Increased into-plane jet fuel sales volumes by 17%
- Increased gross profit from sales of non-fuel goods and services at filling stations by 20%
- Increased sales volumes of ECTO-branded fuels by 12%



2019 PRIORITIES

- Increase the efficiency of our retail network
- Expand our non-fuel business
- Increase sales volumes of premium ECTO-branded fuels
- Retain our high market share in aircraft refueling and marine bunkering
- Focused growth and launch of new products in our lubricants and bitumen segments

Retail Sales

LUKOIL sells the bulk of its petroleum products in the retail market via its well-diversified retail network of 5,168 filling stations located in 18 countries.

In 2018, our total retail sales volumes grew by 6.4% and amounted to 15.1 million tonnes of petroleum products, 10.9 million tonnes of which was sold in Russia and 4.2 million tonnes sold abroad.

Our main focus during the year in retail was on improving efficiency and maximizing free cash flow, and we also optimized the geographic footprint and formats of our filling station network.

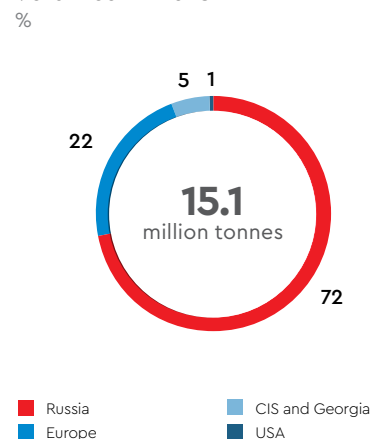
Retail sales volumes of petroleum products in Russia grew by 8.4% year-on-year. Our customer-oriented policy and the constructions and upgrades made to our filling stations helped boost the average daily sales volumes per filling station in Russia to 13.8 tonnes. As part of our operational excellence program in Russia, 21 filling stations were sold in 2018, seven were built, nine were bought, and 95 were reconstructed.

We made an important step in 2018 toward further cost optimizations within our Russian filling stations network by reorganizing the retail management system and reducing the

number of our distribution subsidiaries from eight to four organizations through a merger and redistribution of our distribution assets. We also expect additional benefits from both consolidating our procurement and logistics management and unifying our marketing policy. Additionally, we began enhancing our IT platform to further improve efficiency of retail network and product range management.

International retail sales volumes of petroleum products were up by 1.5% year-on-year in 2018 following increased average daily sales volumes per filling station.

Breakdown of retail sales volumes in 2018



Branded fuel

LUKOIL actively promotes sales of its fuels under the ECTO brand, with improved efficiency and environmental performance. In 2018, sales volumes of ECTO-branded fuels were up 12% at 9.6 million tonnes. Sales volumes of ECTO-branded gasoline and diesel fuels increased both in Russia and abroad. Sales of the premium ECTO 100 motor gasoline were launched in June 2017. LUKOIL's retail network of filling stations has fully replaced ECTO Sport (Euro-5 AI-98) with the new, improved, higher performance ECTO 100 fuel. The launch of ECTO 100 led to increased demand, with sales volumes of ECTO 100 gasoline amounting to 111 thousand tonnes in 2018.

Non-fuel goods and services

In 2018, we continued our efforts in developing sales of non-fuel goods and services at our filling stations. Gross profit from non-fuel sales in Russia reached RUB 8.0 billion, a 21% increase year-on-year, and gross profit from international sales was RUB 5.9 billion, up 19% year-on-year. LUKOIL's revenues from non-food sales are boosted by product range

Retail sales of petroleum products

	2016	2017	2018	Change, 2018/2017, %
Number of filling stations¹ as at December 31	5,309	5,258	5,168	-1.7
Russia	2,603	2,609	2,556	-2.0
Outside Russia	2,706	2,649	2,612	-1.4
Total retail sales volumes, thousand tonnes	14,193	14,238	15,144	6.4
Russia	9,900	10,083	10,927	8.4
Outside Russia	4,293	4,155	4,217	1.5
Average daily sales volumes at LUKOIL's filling stations, tonnes per day	9.9	10.0	10.7	6.3
Russia	12.7	12.8	13.8	7.8
Outside Russia	6.5	6.6	6.8	1.7

¹ Including owned, leased, franchised, and suspended stations.

optimizations, continuous marketing efforts, developing value-added services, rolling out the best retail practices, focusing on customer service excellence, and upgrading filling stations.

The higher revenue from our Russian filling stations in 2018 was driven by higher foot traffic, a 23% increase in food sales, and higher sales of café products.

LUKOIL plans to continue focusing on accelerated growth and efficiency improvements in retail sales of non-fuel goods and services to better cover the operating costs of filling stations. In 2018, the gross profit from non-fuel sales covered 39% of the expenses of our Russian filling stations, compared to 33% in 2017.

Marine bunkering

LUKOIL is one of the largest suppliers of bunker fuels, with bunkering operations in 21 ports and six Russian regions. LUKOIL also carries out its overseas operations in Bulgarian and Romanian ports. We operate mainly in ports on the Baltic Sea, the Barents Sea, and the Black Sea, and on inland waterways.

The Group sold 4.7 million tonnes of bunker fuel in 2018, up 4% year-on-year, including supplying 1.7 million tonnes of bunker fuel through retail channels – to the final consumers of the fuel, with additional margin. The high quality of our bunker fuel helps LUKOIL retain its significant market share.

Bunker fuel sales

million tonnes



Aircraft refueling

LUKOIL sells both its own and purchased jet fuel, mostly into-plane, at airports in Russia, Bulgaria, and Turkey, either through its own sales network or third-party refueling companies.

Jet fuel sales exceeded 3.2 million tonnes in 2018, down 1.2% year-on-year, while high margin into-plane fuel sales grew by 17% to 2.2 million tonnes.

This growth was primarily driven by the launch of our jet refueling complex with a capacity of 1.2 million tonnes per year at Moscow Sheremetyevo airport in July 2018. The facility is one of the most advanced in Russia and equipped with

an automated process control system as well as a fuel testing lab. Strong infrastructure, a fuel farm, and a hydrant system for centralized refueling enable the facility to refuel aircraft at 27 parking stands.

Over the past five years, the share of into-plane refueling grew from 45% to 70% in the total volume of LUKOIL's jet fuel sales. LUKOIL's long-standing consumers of jet fuel include major Russian and international airlines and civil aviation companies.

Today, our into-plane refueling network covers 33 Russian airports, in which 18 of the jet-refueling complexes are operated by LUKOIL or are joint ventures.

Into-plane jet fuel sales

million tonnes

