This is the translated version of a document originally issued in Polish

Directors' Report on the operations of Grupa LOTOS S.A. and the LOTOS Group in 2020

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1 Overview of Grupa LOTOS S.A. and the LOTOS Group

1.1 Key facts

The history of Grupa LOTOS goes back to the 1970s, when the crude oil refinery in Gdańsk was built. As a joint-stock company, it has operated since September 18th 1991 (then as Rafineria Gdańska S.A.), renamed to Grupa LOTOS S.A. in June 2002.

Name	Grupa LOTOS S.A.
Registered address	80-718 Gdańsk ul. Elbląska 135
Industry Identification Number (REGON)	190541636
Tax Identification Number (NIP)	5830000960
KRS entry No.	0000106150
Registry court	District Court for Gdańsk-Północ in Gdańsk, 7th Commercial Division of the National Court Register
Duration	The duration of Grupa LOTOS S.A. is indefinite

The Company's principal business activity consists in the production and processing of refined petroleum products (mainly fuels) and their wholesale.

Grupa LOTOS S.A. has no divisions (establishments) within the meaning of the Polish Accounting Act.

1.2 Business overview

Grupa LOTOS S.A. is the second largest fuel producer in Poland. The Company's refinery in Gdańsk is among the newest, the most advanced and most environmentally-friendly plants of this type in Europe. In 2020, the refinery operated at close to full capacity, having processed 10.2 million tonnes of crude oil (96.8% of the nameplate processing capacity).

Figure 1. Crude oil processed by Grupa LOTOS S.A. (million tonnes)

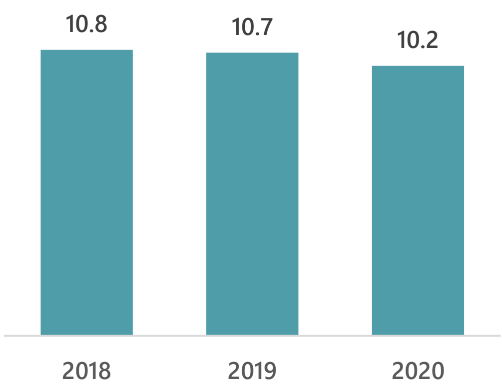
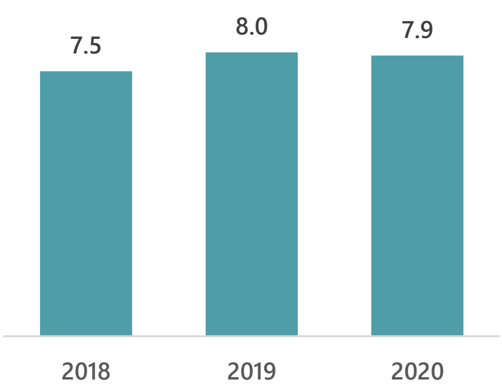


Figure 2. Sales of fuels[1] by the LOTOS Group in Poland (million tonnes)



Source: the Company.

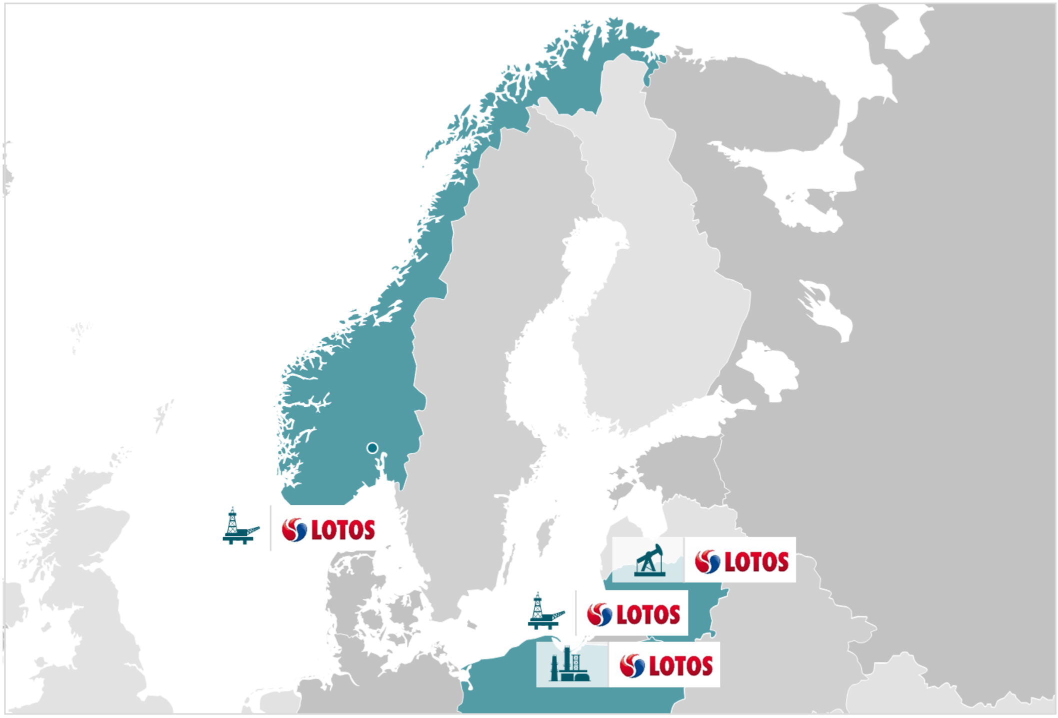
Grupa LOTOS S.A. sells its products in Poland on the wholesale market and through its own retail network of service stations. In 2020, the LOTOS Group's share in the domestic fuel market was 33.2%. As at the end of 2020,

[1]Gasolines, diesel, light fuel oil, LPG, aviation fuel (Jet)

with 513 service stations operating under the LOTOS brand, the Group's distribution network was the third largest in Poland. A significant portion of the Group's refining production, approximately 17% of the total output, is exported.

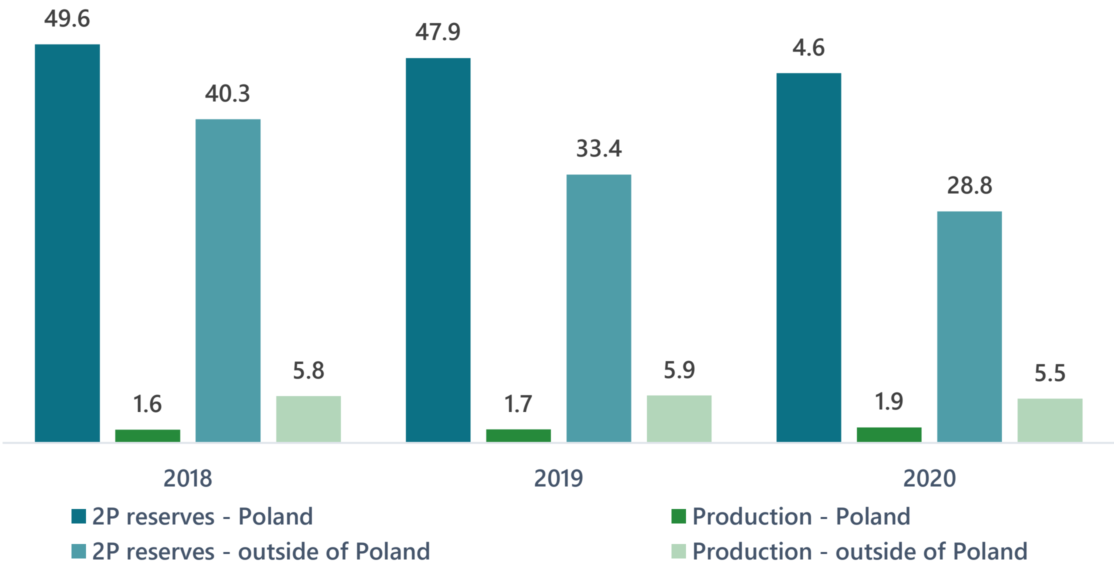
Through its subsidiaries, Grupa LOTOS produces hydrocarbons within Poland's Exclusive Economic Zone of the Baltic Sea. It also produces oil and natural gas from fields located on the Norwegian Continental Shelf and in Lithuania. As at the end of 2020, Grupa LOTOS's total proved and probable (2P) reserves of oil and natural gas were estimated at 74.8 million boe. In 2020, its total production volume reached 7.43 million boe (an average of 20.3 thousand boe per day).

Map 1. Areas of the LOTOS Group's operations



Source: the Company.

Figure 3. 2P reserves and production (million boe)



Source: the Company.

Through LOTOS Kolej sp. z.o.o., the LOTOS Group is also an important player on the Polish rail freight market. According to the Office of Rail Transport data, in 2020 LOTOS Kolej's market share amounted to 10.4% in terms of tonne-kilometres (compared with 9.8% in 2019), which gave it the second position on the market, and to 5.6% in terms of the mass of goods carried (compared with 5.4% in 2019), translating into the third position on the market in this category.

The key objectives of Grupa LOTOS's strategy for 2017–2022 are the Group's stabilisation and sustainable growth. Grupa LOTOS is Poland's leading company and a major energy group. Its vision for growth is to position itself as:

- a producer of premium quality fuels and chemicals, with the optimal degree of vertical integration,
- a provider of specialist logistics and maintenance services, and
- a leader of innovative implementations within its core business, designed to promote sustained growth in shareholder value.

In 2020, the LOTOS Group posted revenue of almost PLN 21 billion, with 96.9% of the figure coming from refining operations. The Group sells its products mainly to domestic customers. Domestic sales accounted for 84.8% of total revenue.

Figure 4. Financial performance of the LOTOS Group (PLNbn)

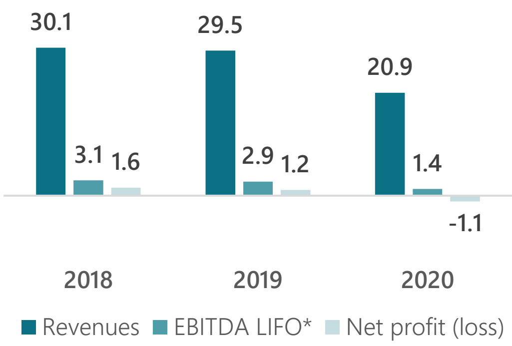
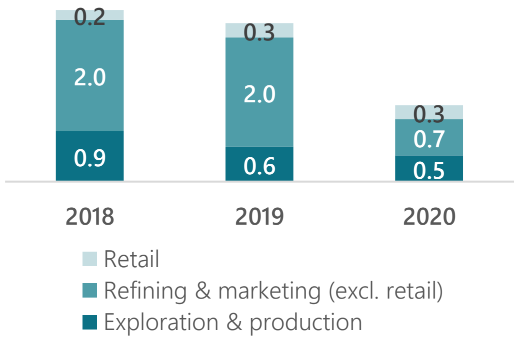


Figure 5. LIFO-based EBITDA* of the LOTOS Group by segment (PLNbn)



* Adjusted for one-off items.

Figure 6. Operating cash flows and capex (PLNbn)

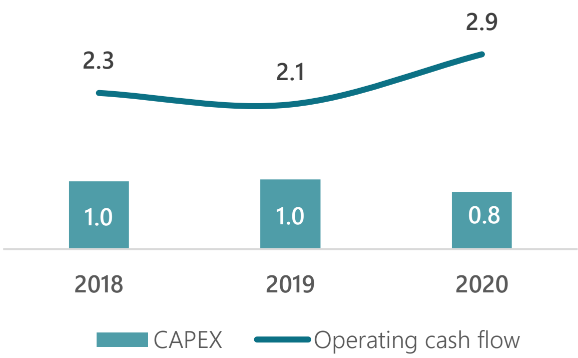
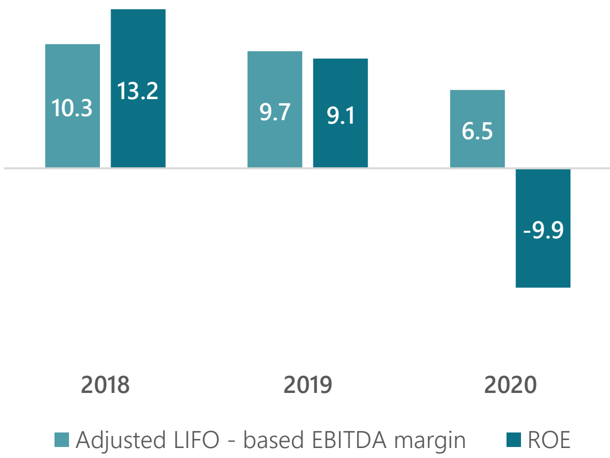


Figure 7. Adjusted LIFO-based EBITDA margin and return on equity (ROE) of the LOTOS Group (%)



Source: the Company.

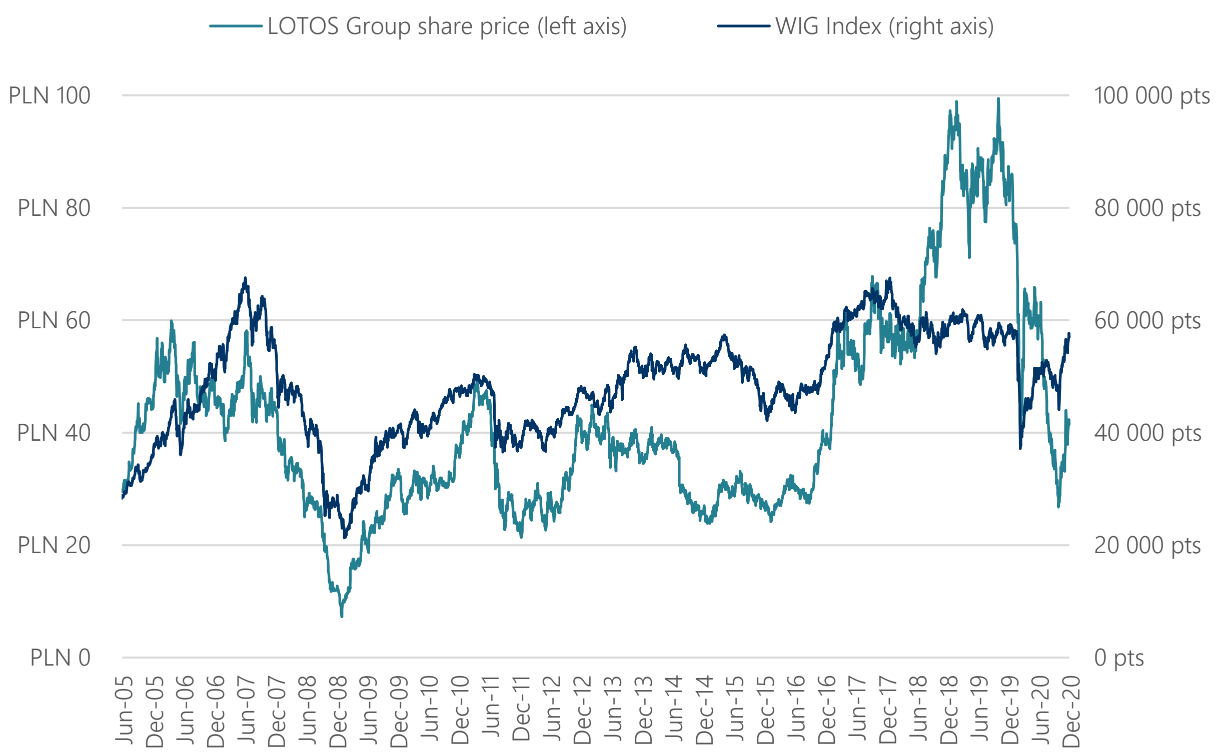
In addition to Grupa LOTOS S.A., the LOTOS Group comprises 40 entities (including 4 joint ventures) in Poland, Norway, the United Kingdom and Lithuania. As at the end of 2020, the LOTOS Group employed 5,473 staff, including 1,685 at Grupa LOTOS S.A.

One of the key paradigms underlying the LOTOS Group's operations is sustainable development, understood as efforts to continuously improve efficiency while reducing negative environmental impacts. The Grupa LOTOS refinery is among the top 10% on the list of European refineries with the lowest carbon footprint, that is refineries where CO_2 emissions are lower than 29.5 kg per tonne. Over the last decade, despite a significant increase in refining production, Grupa LOTOS reduced its CO_2 emissions by a third, to 26.8 kg per tonne in 2019.

Companies of the LOTOS Group are actively involved in projects to protect the natural environment and cut down emissions of pollutants. One of these initiatives was the launch of the *Blue Trail* project, under which 12 EV charging points have been deployed between Warsaw and the Tricity. Grupa LOTOS is also implementing the Pure H2 project, designed to sell very high purity hydrogen (99.999%) as a transport fuel, as well as the Green H2 project, which provides for the construction of a large-scale facility consisting of electrolyser units, hydrogen storage facilities and fuel cells or hydrogen turbines, producing zero emission hydrogen for the refinery's needs, while supporting the Polish power system as a hydro-pumped electricity storage facility. In 2020, the Company also completed the construction of a continuous emissions monitoring system (CEMS) and a Hydrogen Recovery Unit, which, on the one hand, will deliver new products comprising LPG, naphtha, light gasoline and hydrogen, and, on the other, will help reduce CO_2 air emissions. In December 2020, the Grupa LOTOS refinery also produced its first biocomponents: biopropane (an LPG biocomponent) and liquid biohydrocarbons (diesel biocomponents), marking the first step in its conversion towards an organic refinery using feedstocks of plant origin.

Grupa LOTOS S.A. shares have been listed on the Warsaw Stock Exchange since June 30th 2005. Its shares are included in numerous domestic and international indices, including WIG20, which comprises the 20 largest issuers listed on the Warsaw Stock Exchange. The Company's parent is the Polish State Treasury, holding 53.19% of the voting rights and share capital. After the coronavirus pandemic outbreak in 2020, the price of Grupa LOTOS S.A. shares fell by 50.4%, to PLN 41.45, from PLN 83.58 at the end of 2019. As at the end of 2020, the Company's market capitalisation was PLN 7.7 billion. In accordance with a decision of the Annual General Meeting of Grupa LOTOS S.A. of September 28th 2020, the Company paid dividend totalling approximately PLN 184.9 million, that is PLN 1 per share. The dividend yield was 2.52%.

Figure 8. Grupa LOTOS share price from June 30th 2005 to December 31st 2020



Source: In-house analysis based on WSE data.

Table 1. Key financial and operating ratios of the LOTOS Group for 2011–2020

	Unit	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Adjusted LIFO-based EBITDA	PLNm	1,357[2]	2,861	3,099	3,051	2,590	2,156	1,391	1,094	2,021	1,181
Revenue	PLNm	20,909	29,493	30,122	24,186	20,931	22,709	28,502	28,559	33,074	29,260
Net profit/loss	PLNm	- 1,146	1,153	1,587	1,672	1,015	-263	-1,466	39	928	649
Operating cash flows	PLNm	2,870	2,130	2,328	3,127	2,654	1,488	1,381	1,416	1,331	902
Production volume	thousand boe/d	20	21	20	23	27	12	11	5	6	4
Crude oil throughput	million tonnes	10.2	10.7	10.8	9.6	10.4	10.2	9.5	8.7	9.7	9.2
Service stations[3]	number	513	506	495	493	487	476	441	439	405	369

Source: the Company.

[2]The LOTOS Group’s 2020 performance was affected by fluctuations in its oil inventories and differences between the volumes purchased and processed during Q2, which resulted in the cost of crude oil processed, based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million.

[3]At end of year.

2 Material events in 2020

January–March 2020

By a decision of the Norwegian authorities, LOTOS Norge was awarded two new exploration and production licences (for Liatårnet and Trell & Trine areas)	Jan 14 2020
Grupa LOTOS signed an agreement to expand and upgrade the fuel terminal in Piotrków Trybunalski	Jan 14 2020
The Supervisory Board appointed Paweł Jan Majewski as President of the Management Board of the 10th joint term of office, with effect from February 3rd 2020	Jan 30 2020
LOTOS Kolej received a safety certificate issued by the Czech supervisory authority, Drážní Úřad, valid until October 19th 2024. It allowed LOTOS Kolej to cover the Czech market with its freight operations	Feb 19 2020
The Petro Giant rig, owned by LOTOS Petrobaltic, commenced a workover operation on the Baltic B3 field	Mar 3 2020
Through the LOTOS Foundation, Grupa LOTOS donated PLN 5 million to support the fight against the coronavirus, with the money to be used, among other things, to purchase hospital equipment. The total amount of support granted by Grupa LOTOS to combat the COVID-19 pandemic throughout 2020 was over PLN 10.5 million	Mar 14 2020
The planned launch of production from the YME field was postponed to the fourth quarter of 2021 due to the COVID-19 pandemic, one of the reasons being impossibility to hire staff from outside Norway	Mar 28 2020
A lenders reliability test of the EFRA (Effective Refining) Project unit, a milestone of Grupa LOTOS's strategy, was successfully completed	Mar 25 2020
Grupa LOTOS, LOTOS Paliwa and Remontowa LNG Systems signed an agreement to build a pilot LNG docking station at a LOTOS service station in Gdańsk-Osowa	Mar 31 2020

April–June 2020

The price of the US WTI crude went below zero for the first time ever, while the price of Brent crude fell temporarily below USD 10/bbl	Apr 2020
Demand for key refining products collapsed due to the coronavirus pandemic, resulting in a significant decline in margins, which had a negative impact on the sector worldwide over the remaining part of the year	May 2020
Grupa LOTOS and the Municipality of Tczew signed a letter of intent concerning cooperation related to hydrogen-fuelled transport	May 12 2020
The feasibility study for a small-scale LNG terminal in Gdańsk was completed	May 19 2020
LOTOS Petrobaltic, together with its partner Enspirion, launched a base station of the TETRA critical communication system on the Baltic Beta production platform	May 21 2020
Grupa LOTOS launched a research and development project focused on the electrolyser technology and its integration into the energy market. In the project, the Company will cooperate with Polskie Sieci Elektroenergetyczne	May 26 2020
Grupa LOTOS, three companies of the Grupa Azoty Group, Hyundai Engineering and KIND entered into agreements to finance the Polimery Police petrochemical project	May 31 2020
A consortium formed by municipalities of the Gdańsk Province received 100% support from the European Union for comprehensive consultancy regarding inclusion of hydrogen-fuelled vehicles into municipal transport systems. Grupa LOTOS, as a partner of Gdańsk Province cities, had been actively involved in drafting the relevant application for the grant	Jun 8 2020
Equinor and its partners decided to invest in partial electrification of the Sleipner field. Several days later, Aker BP and Equinor entered into a commercial agreement on the NOAKA project development strategy. LOTOS Exploration & Production Norge is a partner in both licences	Jun 9 2020
The Annual General Meeting of Grupa LOTOS appointed the Company's Supervisory Board for the 11th term of office	Jun 30 2020

July–September 2020

○ The Ministry of Climate as well as the main energy and transport companies signed a letter of intent to establish a partnership for building a hydrogen economy. Grupa LOTOS was among its signatories	Jul 7 2020
○ The European Commission issued a conditional approval for the intended concentration involving acquisition of control of Grupa LOTOS by Polski Koncern Naftowy ORLEN S.A.	Jul 14 2020
○ The Company's Supervisory Board removed Jarosław Paweł Kawula from the Management Board of the 10th joint term of office	Jul 30 2020
○ Grupa LOTOS launched a continuous emissions monitoring system (CEMS) supporting remote access to monitoring of the plant's environmental impact	Aug 17 2020
○ Grupa LOTOS signed an agreement with PKN Orlen and the State Treasury concerning the acquisition by PKN Orlen from the State Treasury of shares representing at least 53% of the share capital of Grupa LOTOS	Aug 18 2020
○ The Company's Supervisory Board appointed Artur Cieślik as Vice President of the Company's Management Board of the 10th joint term of office, Chief Strategy and Development Officer	Aug 20 2020
○ The Company's Supervisory Board appointed Piotr Aleksander Walczak to the Management Board of the 10th joint term of office	Sep 4 2020
○ Grupa LOTOS paid dividend of approximately PLN 185 million, that is PLN 1 per share	Sep 28 2020

October–December 2020

○ The central production facility on the B8 field, based on the converted and upgraded Petrobaltic rig, was placed in service	Oct 1 2020
○ Grupa LOTOS and the City of Rzeszów signed a letter of intent to cooperate with respect to supplies of hydrogen and related infrastructure for fuel cell vehicles. Several days later, an agreement was also finalised with Autosan, a company which is to test Grupa LOTOS's hydrogen for powering its buses	Oct 22 2020
○ Grupa LOTOS signed a letter of intent with Energa and PKN Orlen to analyse the feasibility of a joint CCGT project in Gdańsk, to be delivered by July 2026	Nov 2 2020
○ Grupa LOTOS and PGNiG carried out the first LNG bunkering operation in Szczecin	Nov 5 2020
○ Paweł Jan Majewski resigned as President of the Company's Management Board	Nov 10 2020
○ Grupa LOTOS acquired new shares in Grupa Azoty Polyolefins S.A. for PLN 300 million, in accordance with the Investment Agreement concluded in May 2020	Nov 16 2020
○ Grupa LOTOS launched the Hydrogen Recovery Unit, which helped increase the yields of high-margin products and reduce CO_2 emissions	Dec 5 2020
○ The Company's Supervisory Board appointed Zofia Maria Paryła as President of the Management Board	Dec 7 2020
○ Grupa LOTOS launched the Green H2 investment programme, under which the Company will build a large-scale green hydrogen production facility. This marked another phase of a joint initiative launched in May with Polskie Sieci Elektroenergetyczne	Dec 18 2020
○ Grupa LOTOS generated its first biocomponents: biopropane and biocomponents of diesel oil	Dec 22 2020

3 Macroeconomic environment of Grupa LOTOS and the LOTOS Group in 2020

3.1 Impact of the COVID-19 pandemic on the global fuel market

In 2020, the COVID-19 pandemic brought about unprecedented and very rapid changes in the crude oil market. The restrictions imposed by many governments altogether prohibited or impeded the movement of people and goods, which caused a decline in fuel demand by 8.8 million b/d throughout 2020 compared with 2019 (based on IEA estimates). The worst situation was seen on the market during the first wave of the restrictions, which resulted in a decline of fuel consumption in the first quarter of 2020 by a staggering 20 million b/d. Fuel demand declined across all regions, although in China, where the first coronavirus infection was identified, positive economic growth was actually recorded in 2020. As at the date of this report, only minor restrictions are in place in the Asia-Pacific region and, therefore, many agencies estimate that fuel consumption in China and India should return to pre-pandemic levels as soon as in 2021.

With the decline in fuel demand, the prices of crude oil fluctuated widely on international exchanges. In 2020, the average price of Brent crude was down by USD 22.3/bbl on 2019. Similar price reductions were recorded for Urals crude (down USD 22/bbl). Given the significant share of Russian oil in the crude slate of Grupa LOTOS S.A.'s refining units, the Urals-Brent spread changed adversely compared with 2019, having narrowed year on year, to USD -0.58/bbl, from USD -0.89/bbl (up USD 0.3/bbl). A major driver of such developments were activities of the states-parties to the OPEC+ Agreement, including Russia. The agreed production limits caused Russia to reduce its exports of crude oil (including through oil terminals on the Baltic Sea), which, combined with reduced market supplies of comparable grades (from Saudi Arabia, Iraq, Iran and Venezuela), had an adverse impact on the relation between the two grades.

In 2020, the average crack spreads on petroleum products fell significantly relative to 2019. For gasoline the decrease was USD 5.6/bbl (-66.4%), for diesel oil – USD 8/bbl (-69.9%), and for aviation fuel – USD 12.3/bbl (-81.4%). On the other hand, the crack spread on heavy fuel oil grew by USD 4.9/bbl. The declines in crack spreads on gasoline and diesel oil were driven primarily by the imposed restrictions (closed land borders, with crossing limited at times only to freight transport, restrictions on public gatherings and mobility). However, it was the aviation industry that suffered the worst impact in 2020. With the introduction of the pandemic-related restrictions, the global number of flights fell dramatically, down 41% year on year in 2020. At the same time, Revenue Passenger Kilometres plunged by 61% in 2020. Industry organisations, including IATA (the International Air Carriers Association), and analytical agencies foresee that the situation on the aviation market will not improve until 2023 or 2024. In 2020, the crack spread on heavy fuel oil (HSFO) improved unexpectedly, despite the entry into force of new regulations of the International Maritime Organisation (IMO) regarding the sulfur content cap for bunker fuel, which was reduced from 3.5% to 0.5%. In 2019, there were concerns about whether all market participants, including shipping companies, refineries and ports, would be prepared for such a large change and what its consequences would be. The prices of HSFO with a higher sulfur content (3.5%) were expected to decline significantly, while those of VLSFO fuel with a lower sulfur content (0.5%) were expected to rise, with the price spread between those two products expected to range from USD 200 to USD 300 per tonne. However, the spread was ultimately only slightly above USD 90/tonne, for several reasons. The major one was the OPEC+ countries' decision to reduce crude oil output. As a result, fewer oil grades were available from which a large amount of HSFO could be produced. In addition, there was increased interest in the product from US refineries, which started buying HSFO from Russia as feedstock for their units or for blending HSFO with light crude oil. At the same time, refineries, anticipating low HSFO prices in 2020, reduced their output of the product.

The COVID-19 pandemic has led to major transformations in the oil sector, especially in terms of global refining operations. Given the considerable excess of existing capacities over current demand for refining products, and, consequently, the persistently low margins and crack spreads, some refineries are expected to close down in the coming years, while some will be transformed into biorefineries (producing fuels based on feedstock of plant origin). This is confirmed by HSBC's analyses and estimates of December 2020, according to which, since the beginning of 2020, 14 refineries with combined capacities of approximately 1.7 million b/d have announced permanent cessation of their operations (of which 0.7 million b/d were no longer in operation at the date of issue of this report, and approximately 1 million b/d were still operational but planned to be closed down by the end of 2021), while 4 refineries with combined capacities of 0.4 million b/d are to be converted into biorefineries (3 in the US and 1 in France). Moreover, according to HSBC, the process is much faster than previously expected, but the market returning to pre-pandemic conditions would require the closure of another 1.8 million b/d of refining capacity. On the other hand, as indicated by JBC in its January 2021 report, despite the fact that global refining capacities have declined rapidly since the second quarter of 2020 (down by 2.2 million b/d in total since June 2020), in 2021 they are expected to go back up (due mainly to new capacities coming on stream in the Middle East and China), leading to a 2.5 million b/d increase in overall refining capacities by December 2022 relative to December 2019.

3.2 Demand for crude oil and natural gas

3.2.1 Globally

In 2020, the average global demand for crude oil was 91.3 million b/d, compared with 100.3 million b/d in 2019 (down 9%).

Figure 9.Crude oil demand in 2016–2020 (million b/d)

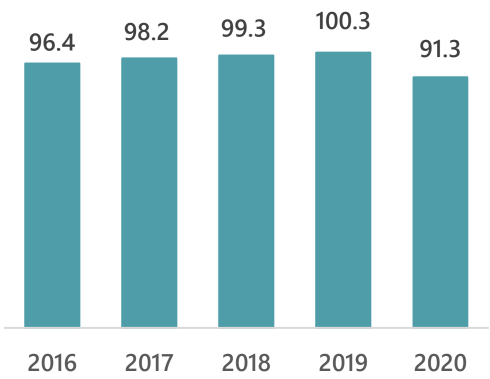
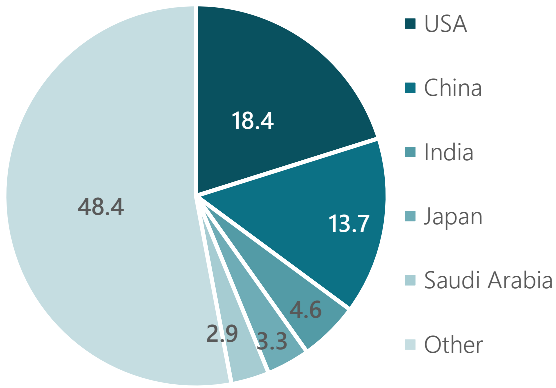


Figure 10. Key crude oil consumers in 2020 (million b/d)



Source: In-house analysis based on International Energy Agency (IEA) data.

Despite the coronavirus pandemic, the US remains the world's largest crude oil consumer. In 2020, the smallest drop in demand for crude among the world's top three consumers (US, China, India) was recorded for China (down 0.2% relative to 2019). In the US, a significant portion of crude processed is sourced from domestic reserves (mainly unconventional shale deposits).

The key drivers of oil and gas demand include:

- global population growth – according to data published by the United Nations (UN), in 2020 the world's population reached approximately 7.8 billion people, compared with 7.7 billion a year earlier. Over the past decade, the global population rose by 12% (i.e. at an average yearly rate of 1.1%), due mainly to population growth in developing countries (especially in Asia and Africa). By 2060, that number is estimated to exceed 10 billion;
- urbanisation rate trends – with access to energy closely linked to urbanisation. According to the UN data, in 2020 urban areas were inhabited by 56.2% of the world's population, with the most urbanised regions being North America (82.6% of the global population), Latin America and the Caribbean (81.2%), Europe (74.9%), and Oceania (68.2%). The urbanisation rate in Asia reached 51.1%, while Africa remains primarily rural, with 43.5% of its inhabitants living in urban areas in 2020. The urbanisation rate is expected to increase steadily in the coming years (to 68.4% worldwide by 2050), including in Asia and Africa (to 66.2% and 58.9% by 2050, respectively);
- economic growth rate – due to the COVID-19 outbreak and the resulting restrictions on social and economic activities introduced by many countries, in 2020 the global economy was pushed into a recession, with a negative GDP growth rate at -4.4%. According to the International Monetary Fund, global economy is expected to rebound in 2021, with the GDP growth reaching 5.2%;
- climate protection measures – in December 2020, the EU summit decided to increase the EU target for reducing greenhouse gas emissions by 2030 to at least 55% relative to 1990, compared with the previous 40% reduction target. In 2005, an international CO_2 emission trading system was established to help bring down greenhouse gas emissions into the atmosphere. The number of emission allowances is being gradually reduced, which, coupled with sizeable demand, is driving their prices up (to EUR 33/tonne as at the end of 2020, vs approximately EUR 25/tonne the year before). The high and steadily rising price of CO_2 emission allowances is stimulating a shift in the energy mix towards an increased share of renewables. Demand for crude oil is also contingent on legal regulations regarding the minimum share of renewable energy in transport and exhaust emission limits for vehicles. In this respect, the EU regulations provide that a minimum share of renewable energy in transport should reach 14% by 2030 (with a proposal to raise that target to 24%), with a minimum share of advanced biofuels at 3.5%. In 2020, new CO_2 emission limits for passenger cars were also introduced, with the European Commission planning a 90% reduction in overall emissions from transport by 2050 (with road transport currently accounting for one-fifth of the EU's total greenhouse gas emissions, of which 70% are generated by passenger cars and light commercial vehicles). Local measures are also taken, such as bans on entry into city centres for vehicles with internal combustion engines (ICE). In addition, amendments to the existing fuel and energy taxation regimes are planned to create preferences for alternative fuels and biofuels;
- changes in population preferences – a growing number of societies, especially in highly developed countries, are aware of the problems related to environmental pollution and climate warming. This translates, among other things, into growing interest in vehicles powered by alternative energy sources, and leads to more frequent use of public transport services and car sharing. Energy-saving and energy-efficiency practices are also observed in other areas of life;

- technology advances – in addition to the use of new alternative fuels, innovations are being introduced to reduce fuel consumption by traditional propulsion systems, e.g. by improving the efficiency of automotive engines, reducing the weight of commercial vehicles, recovering power during braking, or streamlining vehicle bodies. Technology advances have also an effect on the cost and efficiency of such solutions.

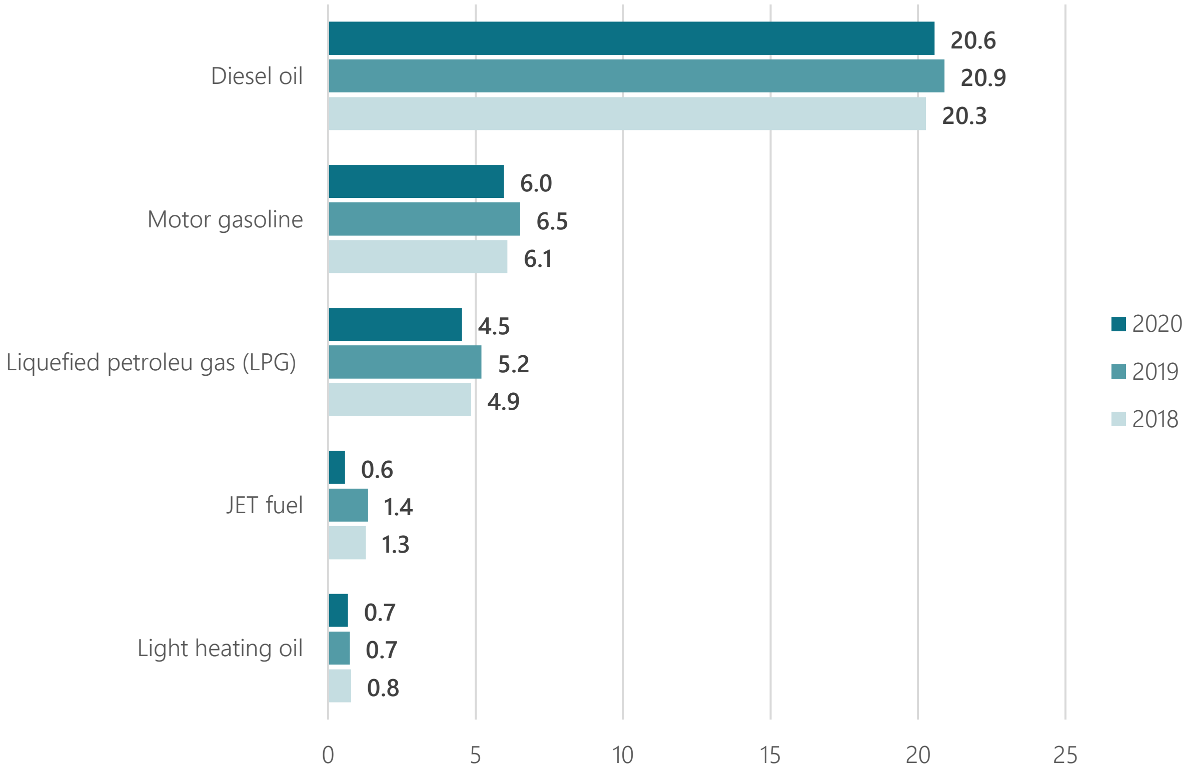
Figure 11. Growth rate of Gross Domestic Product in 2020 (%)

Source: In-house analysis based on Statistics Poland and IMF data (estimate).

3.2.2 Poland

In 2020, consumption of fuels (gasoline, diesel oil, light fuel oil, LPG, and aviation fuel) in Poland totalled 32.3 million cubic metres, down 6.9% on 2019. Due to the pandemic and numerous resulting restrictions, demand for fuels declined across all product categories, including gasoline (down 8.5%), diesel oil (down 1.6%), aviation fuel (down 57.6%), and light fuel oil (down 8%).

Figure 12. Fuel consumption in Poland (million cubic meters)



Source: In-house analysis based on Polish Organisation of Oil Industry and Trade (POPiHN) data.

3.3 Supply of crude oil and natural gas

3.3.1 Globally

In 2020, the OPEC+ agreement was still in force, but was heavily modified in the wake of the COVID-19 outbreak. The OPEC+ countries responded to market developments: although in March 2020, Russia claimed that the pandemic was unlikely to have a significant market impact and did not agree to any further production cuts (waging a price war with Saudi Arabia), the following month saw another agreement and greater coordination of policies aimed at reducing crude production levels. In April 2020, the OPEC+ members decided to cut crude oil output by 9.7 million b/d (in May and June), by 7.7 million b/d (from July to December), and by 5.8 million b/d (from January 2021 to April 2022). In 2020, the US sanctions on Iran and Venezuela continued in force, limiting the availability of heavy and sour oil grades. 2020 also saw a nine-month blockade on oil terminals in Libya, which led to a decline in Libyan oil production from 1.2 million b/d to 100 thousand b/d during the year (export of crude oil was resumed at the end of 2020, obstructing to some extent the OPEC+ market balancing efforts).

Figure 13. Crude oil production in 2016–2020 (million b/d)

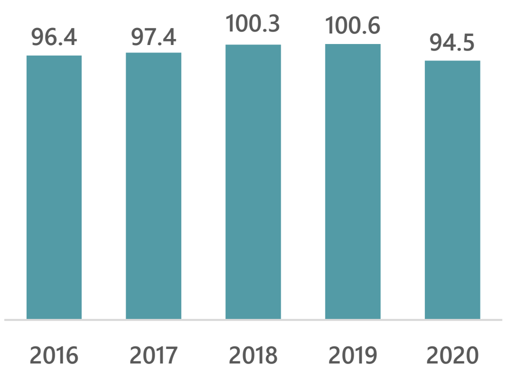
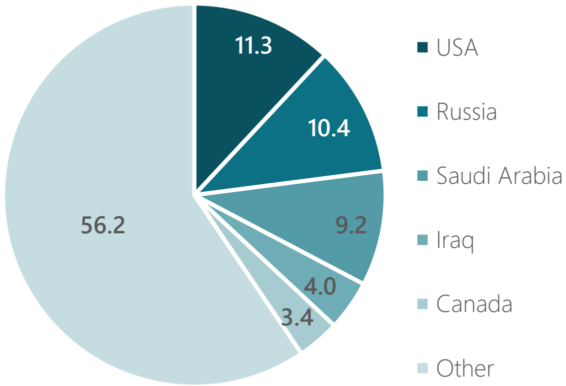


Figure 14. Main crude oil producers in 2020 (million b/d)



Source: In-house analysis based on IEA and OPEC data.

In 2020, the volume of crude oil produced globally fell from 100.6 million b/d to 94.5 million b/d. Despite the outbreak of the COVID-19 pandemic, the US remains the world's largest oil producer. In recent years, the US crude output rose significantly, from 5.5 million b/d in 2010 to 12.3 million b/d in 2019, although it went down to 11.3 million b/d in the aftermath of the recent events. However, the decline in oil demand did not affect the exports of crude oil produced in the US, which averaged 3.1 million b/d in 2020 (compared with 3.0 million b/d in 2019). Other key global oil producers included Russia (10.4 million b/d), Saudi Arabia (9.2 million b/d), Iraq (4.0 million b/d), and Canada (3.4 million b/d).

3.3.2 Poland

As at the end of 2020, a total of 87 oil fields were documented in Poland, including in the Carpathian mountains – 29 fields, in the Carpathian foreland – 12 fields, in the Polish Lowlands – 44 fields, and in the Polish economic zone of the Baltic Sea – 2 fields. The Carpathian oil fields are nearing depletion, while in the other areas production and enhanced oil recovery measures are continuing. In 2019, Poland's recoverable reserves of crude oil and condensate (both economic and subeconomic) amounted to 23 million tonnes, down 0.9 million tonnes year on year.

In 2019, crude oil and condensate production from all fields was 936.8 thousand tonnes, down by 0.3 thousand tonnes year on year. Domestic reserves cover only 3% of the total domestic oil demand.

In 2020, crude oil continued to be supplied to Polish refineries (due to their geographical location, oil availability, existing supply infrastructure, and the types of units operated by the refineries) mainly from Russia. However, the share of Russian oil in total supplies fell to 70%, from 89% in 2015. Crude oil is also supplied to Poland from Saudi Arabia (approximately 16%), Nigeria (5%), Kazakhstan (3%), Norway (2%) and the United Kingdom.

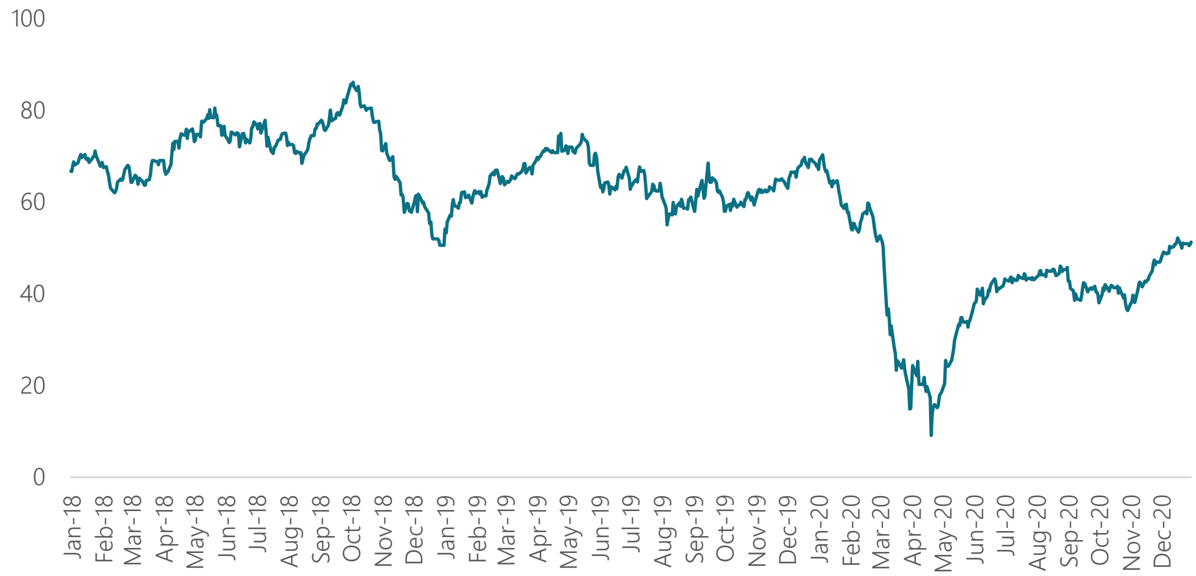
3.4 Crude oil and gas prices

In 2020, Brent crude prices fell 24.4% relative to the end of 2019 (USD 67.8/bbl). At the same time, the average price of Brent in 2020 was USD 42/bbl, down by USD 22.3/bbl (-31%) on the 2019 average, which was mainly attributable to the COVID-19 pandemic, leading to a sharp decline in global demand for crude oil. The price was also affected by the lack of a coordinated policy with respect to crude production among the OPEC+ countries, which caused a considerable slump in the value of crude oil in March and April 2020. However, since mid-2020, thanks to coordinated action by the OPEC+ members, crude prices have increased substantially to reach USD 51.2/bbl at the year's end, far above the price paid on April 21st 2020 (USD 9.1/bbl – the lowest level recorded in 2020). Other events, such as the Brexit negotiations and instability in the Middle East (Iran) and North Africa (Libya), also had an impact on crude oil prices.

At the same time, the decline in WTI grade prices was slightly lower, of 20.5% in 2020. However, it should be noted that the WTI crude market saw an unprecedented development in 2020 – as the May WTI crude futures fell below zero on NYMEX in April, temporarily plunging to as low as USD -37/bbl, which was caused by high market oversupply due to the COVID-19 pandemic and lack of available storage capacities (since such contracts are settled through physical delivery of crude oil at the Cushing terminal).

Given its inferior quality and other factors, the price of Russian crude (Urals) is generally slightly lower than that of Brent, with the average price differential between the two grades amounting to USD -0.58/bbl in 2020 (compared with USD -0.89/bbl in 2019).

Figure 15. Brent crude prices in 2018–2020 (USD/bbl)

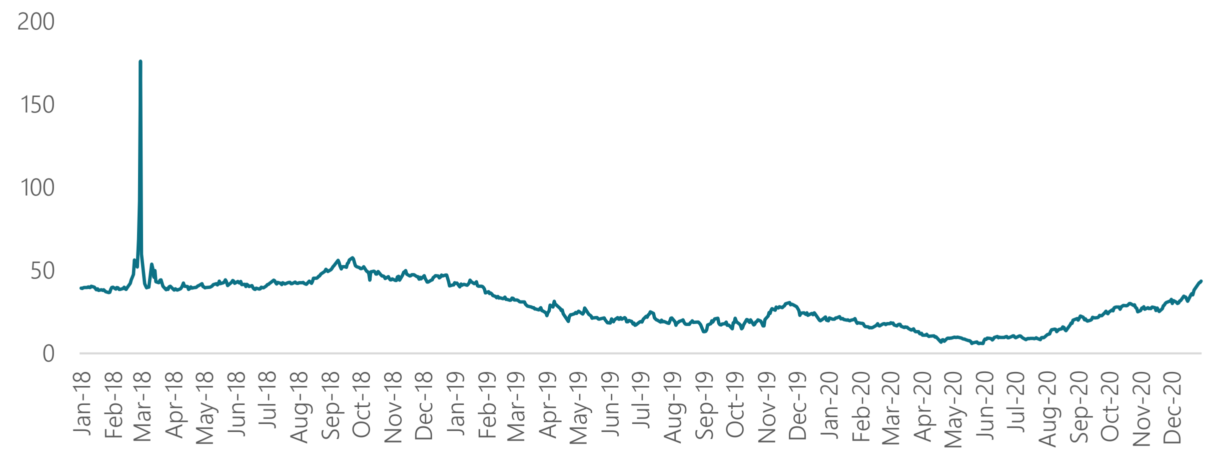


Source: In-house analysis based on Refinitiv data.

In 2020, the price of natural gas fell significantly (for instance by an average of 20.1% in the case of National Balancing Point gas), driven by a number of factors, including reduced demand (economic slowdown due to the COVID-19 pandemic), high availability of natural gas from the US and Qatar (supplied in the liquefied form), stable production levels in Norway, and supplies from Algeria (gas pipelines to Italy and Spain), with declining production in the Netherlands (the Groningen field).

Throughout 2020, the market was well supplied (with high stock levels due to the pandemic and a mild winter), having experienced no supply disruptions. In Europe, the lockdown restrictions, intensifying competition from renewable energy sources and warm winter drove down both the consumption and prices of natural gas relative to 2019. However, the end of 2020 saw a seasonal increase in natural gas consumption coupled with falling temperatures in the Asia-Pacific region, which sparked an uptrend in gas prices.

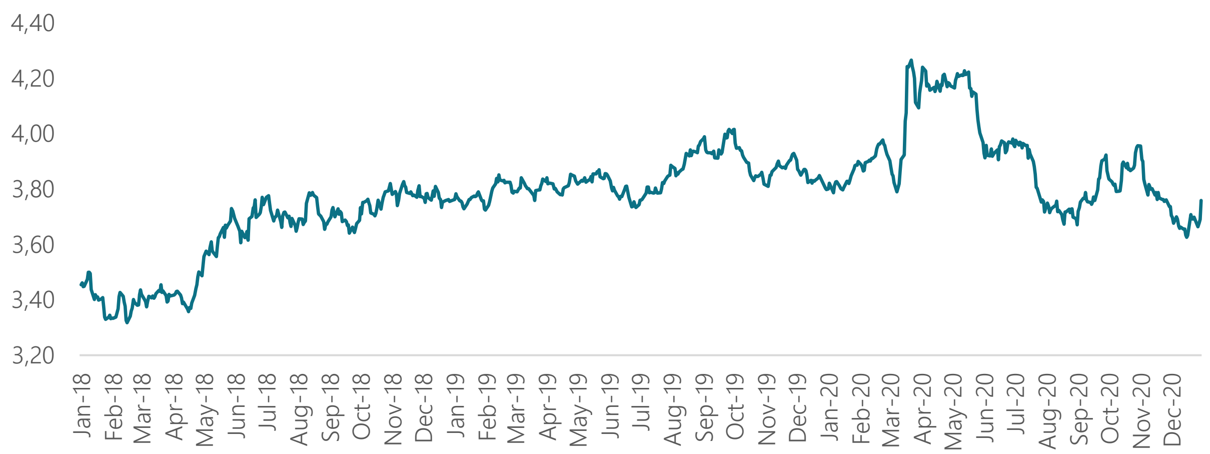
Figure 16. Natural gas prices on the National Balancing Point (NBP) (USD/million BTU[4])



Source: In-house analysis based on Refinitiv data.

Global prices of crude oil are usually denominated in US dollars. Therefore, from the perspective of refining companies, crude prices are as important as the exchange rates of their local currencies against USD. In 2020, the Polish currency appreciated slightly vs the US dollar, with the USD/PLN exchange rate falling 1%, from PLN 3.7977 at the end of 2019 to PLN 3.7584 at the end of 2020. However, for some time during the year (from March to May) the USD/PLN exchange rate was considerably higher, ranging between PLN 4 and PLN 4.2.

Figure 17. PLN/USD exchange rates in 2018–2020



Source: In-house analysis based on National Bank of Poland data.

In addition, oil and gas prices may be affected by factors such as a decline in demand (reflecting an economic downturn), geopolitical uncertainties and armed conflicts in oil extraction areas, import and export restrictions, weather conditions and natural disasters.

[4] BTU - British Thermal Unit

3.5 Crude oil throughput

3.5.1 Capacity

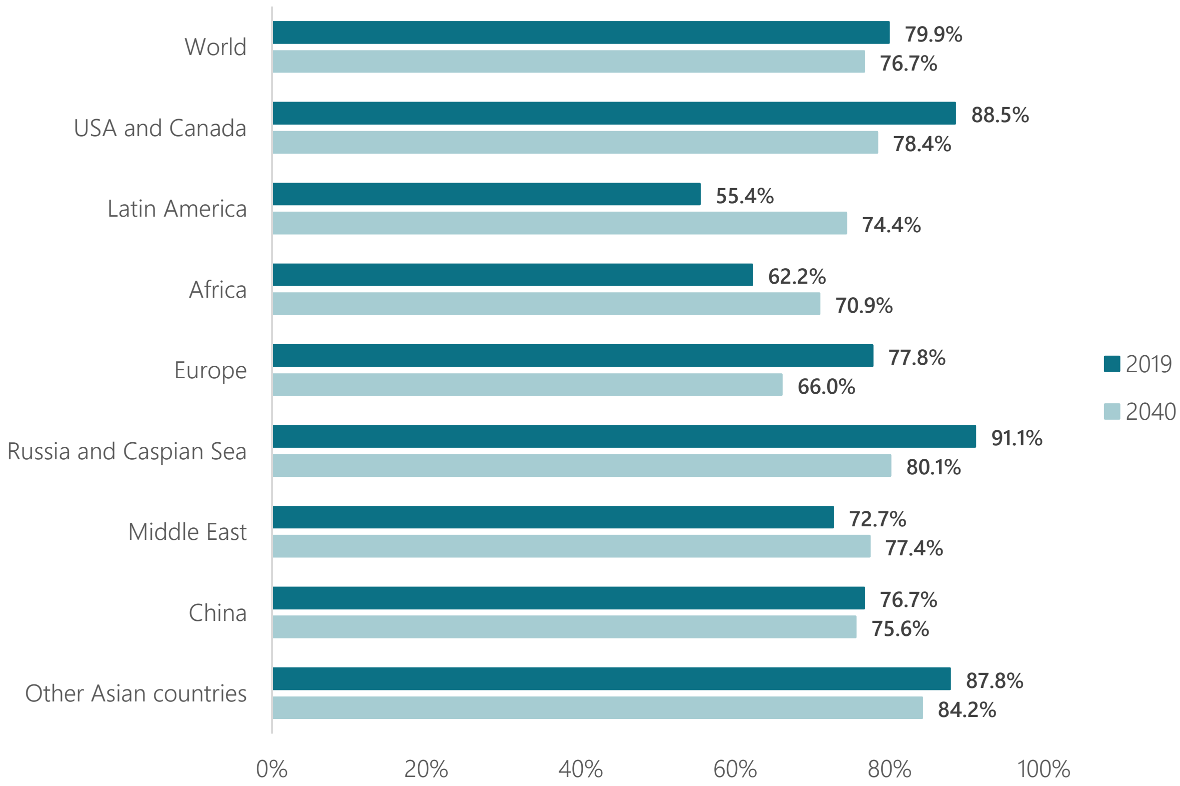
In 2020, the primary processing capacities of refineries were estimated at 102.6 million b/d globally. The largest refining units were operated in the US and Canada (20.2% in total) and in China (16.6%). In addition, refineries are becoming increasingly complex, with greater secondary processing capacities.

This long-term trend has been caused by the combination of older, simpler refineries being closed down, existing plants being extended through the addition of secondary processing capacities, and building of new, highly complex plants. This is due to growing global demand for light and 'clean' products, coupled with a gradual decline in demand for residual fuel oil. Moreover, these changes result from increasingly stricter fuel quality legislation.

Since 2012, many refineries, with a total capacity of 1.7 million b/d, have been closed down across Europe. There are more than 100 refining plants in Europe with different conversion levels, but the profitability of some of them (taking into account the prevailing market conditions) is low. In addition, the COVID-19 pandemic has had a major negative impact on global refining operations, driving down the capacity utilisation rate. In the aftermath of these events, some units have been or are to be closed down, with closures or capacity reductions having already been confirmed in Belgium, Finland, Portugal, and the United Kingdom. Conversion of traditional plants into biorefineries is another noticeable trend in the current market landscape (at least four such plants will soon be established in Finland, France, Sweden and Italy).

Due to the COVID-19 pandemic with the resulting economic slowdown and slump in fuel demand, as well as the ever-growing focus on environmental protection and the use of alternative energy sources, the global refining capacities are likely to decline, leading to the closure of more refineries (OPEC expects to see decommissioning of units with an aggregate capacity of approximately 2.5 million b/d by 2025, mainly in Europe, the US and Canada, and a further 6 million b/d by 2045).

Figure 18. Refinery capacity utilisation rate in 2019 and forecast for 2040 (%)

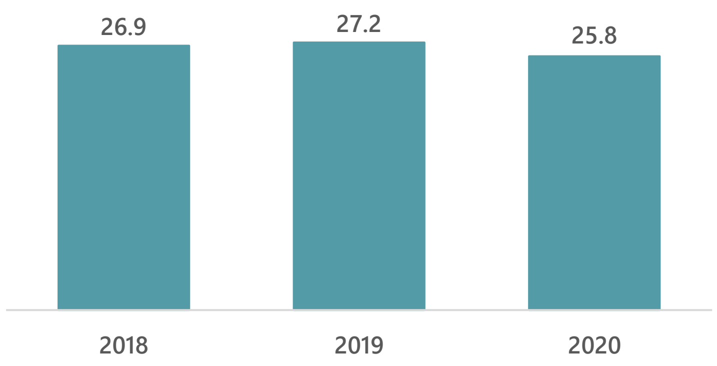


Source: In-house analysis based on OPEC data.

In the coming years, new refining capacities are expected mainly in Asia (primarily China and India) and in the Middle East, strengthening the position of those regions in the global refining market and creating additional pressures on traditional refineries operating in developed countries. According to IEA data, the regions have accounted for two-thirds of total investments in the refining sector in the last five years, and more than 80% of the refining capacities under construction.

In 2020, the volume of oil processed in Poland was 25.8 million tonnes, down 5.2% year on year.

Figure 19. Crude oil throughput in Poland (million tonnes)



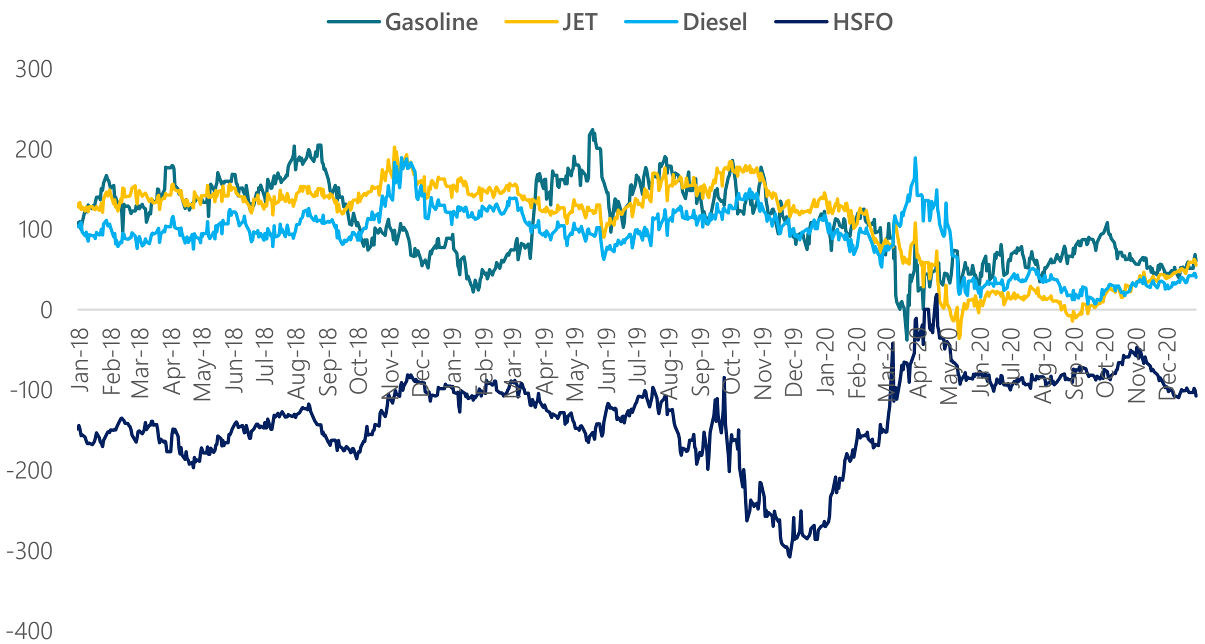
In-house analysis based on Polish Organisation of Oil Industry and Trade (POPiHN) data.

3.5.2 Product margins (crack spreads)

In 2020, crack spreads, i.e. differences between the product prices and the reference price of crude oil, were as follows:

- gasoline – the lowest: USD -38.0/tonne, the highest: USD 125.3/t, change during the year: -45.5%, or USD -51.0/tonne;
- jet fuel – the lowest: USD -35.9/tonne, the highest: USD 145.6/tonne, change during the year: -59.8%, or USD -82.8/tonne;
- diesel oil – the lowest: USD 7.0/tonne, the highest: USD 188.9/tonne, change during the year: -63.7%, or USD -70.8/tonne;
- heavy fuel oil – the lowest: USD -270.4/tonne, the highest: USD 19.0/tonne, change during the year: +60.0%, or USD +161.3/tonne.

Figure 20. Crack spreads in 2018–2020 (USD/t)



Source: In-house analysis based on Refinitiv data.

3.6 Regulatory environment

Since January 1st 2020, the regulatory landscape in Poland has evolved both at the EU and national level, which has or may have bearing on the future of Grupa LOTOS.

At the EU level, one of the key regulatory changes concerned the announced implementation of the European Green Deal, a new economic growth strategy for the European Union. Its overriding objective is a profound 'green' transformation of the EU economy, currently the world's third largest source of greenhouse gas emissions but striving to become the first climate-neutral region within three decades. As part of the European Green Deal, regulations applying to specific economic sectors are being reviewed and revised to support their transition towards climate neutrality. The final version of the individual legal acts is not yet known, but the European Commission has announced its action plans and overall directions (roadmap) for the transition.

In 2020, the implementation of phase 4 of the EU ETS (Emissions Trading System) for 2021–2030 commenced. Under a preliminary legislative procedure, the European Commission proposed the following revisions:

- a new 2.2 % linear reduction factor (LRF), which means that the number of ETS emission allowances will decline accordingly;
- expansion of the EU ETS to cover maritime transport, potential emissions from buildings and road transport, and all fossil fuel use and waste incineration;
- reinforcing the Market Stability Reserve to support more effective interventions in the event of excessive downward price shocks;
- better funding of low-carbon investments and innovations, e.g. through the Innovation Fund;
- carbon leakage rules, such as the rules for allocation of free allowances and revision of emission factors, or compensation for indirect costs.

In June 2020, the EU endorsed a classification system for environmentally sustainable economic activities (known as the 'taxonomy'), which will serve to reorient private sector capital flows and EU programmes towards 'green' investment projects.
There are six environmental objectives adopted as criteria for the classification of environmentally sustainable economic activities, for which delegated acts will be drawn up:

- climate change mitigation;
- climate change adaptation;
- sustainable use and protection of water and marine resources;
- transition to a circular economy;
- pollution prevention and control;
- protection and restoration of biodiversity and ecosystems.

In order to qualify as environmentally sustainable under any of these environmental objectives, an economic activity must meet the following four requirements:

- it must contribute substantially to one or more of the environmental objectives;
- it must not significantly harm any of the other environmental objectives;
- it must comply with technical screening criteria;
- it must be carried out in compliance with the minimum social and governance safeguards.

The European Commission's Renewed Sustainable Finance Strategy, which also covers the taxonomy, envisages four sustainable finance initiatives which have or may have a greater or lesser impact on Grupa LOTOS:

- EU Green Bond Standard – the initiative aimed at ensuring a uniform taxonomy-based EU Green Bond Standard. In the course of consultations, the Technical Expert Group (TEG) identified possible components of the future standard:
    - mandatory publication of the Green Bond Framework by the issuer of the bonds, including a description of the investment strategy and alignment of the bonds with the EU taxonomy;
    - mandatory reporting on 'use of proceeds' (allocation reporting) and environmental impact (impact reporting) of the bonds;
    - external verification of the document;
- Regulation on sustainability-related disclosures in the financial services sector – requires financial market participants and financial advisers to publish on their websites information about their policies on the integration of sustainability risks in their investment decision-making process and in their investment advice or insurance advice. Financial market participants and financial advisers are also required to publish information as to whether they intend to consider adverse impacts on sustainability factors;
- Sustainable Corporate Governance – the initiative envisaging additional obligations on limited-liability companies to identify business operations that have adverse impacts on sustainability and to prevent and mitigate such impacts. It also requires company directors to integrate all stakeholder interests and sustainability risks into the corporate strategy;
- Review of the Non-Financial Reporting Directive (NFRD) – since 2018, companies with more than 500 employees are required to publish non-financial reports on the impact of their operations on employees, the environment and society. The directive does not provide for a single financial reporting standard and does

not envisage any external report verification. In the NFRD Review, the Commission seeks, among other things, to:

- develop a single non-financial reporting standard;
- introduce the requirement to audit non-financial reports;
- extend the scope of non-financial reporting to include other companies (e.g. those with over 250 employees).

In the second half of 2020, the European Commission proposed a revision of the Energy Taxation Directive (ETD). The main objective of the revision is to support low-carbon alternatives to conventional petroleum-derived fuels, such as biofuels, electricity, or hydrogen. The revision is expected to replace the volume-based taxation model with taxation based on the energy content and carbon emissions. This year, the European Commission held another round of public consultations on the proposed revision of the energy taxation system. The Commission enquired, among other things, whether ETD should:

- tax the energy use in sectors or companies which are at risk of carbon leakage;
- tax greenhouse gas emissions if these are already subject to the carbon price under the EU Emissions Trading System (EU ETS), or introduce tax incentives for alternative energy sources (e.g. sustainable biofuels, biomethane, clean hydrogen, etc.).

Another announced legislative amendment that would have direct bearing on Grupa LOTOS's operations is the proposed revision of the directive on the promotion of the use of energy from renewable sources, which sets the general framework and mandatory targets for the minimum share of energy from renewable sources. A separate target for the share of renewable energy is defined for the transport sector (currently at 14%). As the EU's climate-related ambitions grow, the overall GHG reduction target has been raised (and the transport sector's target will soon follow). The European Commission's preliminary legislative proposals for revisions applying to the fuel sector, as presented during the consultations, relate to:

- higher mandatory minimum share of renewable energy in transport (RES-T) – of 24% (up by 10pp);
- promotion of low-emission fuels – i.e. hydrogen and synthetic fuels;
- promotion of renewable fuels – i.e. biofuels, biogas, and biomethane;
- greater ambitions for the aviation and maritime transport sectors.

In 2020, new CO_2 emission standards for passenger cars came into effect (currently at 95 g of CO_2/km). At the same time, work was launched to revise those emission standards for passenger cars, delivery vehicles and trucks. The Commission plans to cut sector-wide emissions by 90% by 2050, considering that road transport currently accounts for one-fifth of GHG emissions across the EU (of which 70% are generated by passenger cars and light commercial vehicles).
The main objectives are to:

- introduce more stringent CO_2 emission standards for new vehicles;
- introduce incentives and preferential mechanisms for zero- and low-emission vehicles;
- determine whether and how much the new mechanism contributes to achieving the emission reduction targets imposed on automotive manufacturers.

As part of the incentives to increase the number of zero-emission vehicles, the European Commission launched public consultations concerning the directive on the deployment of alternative fuels infrastructure (the Alternative Fuels Infrastructure Directive). The directive currently provides for the development of infrastructure comprising recharging points for electric vehicles, hydrogen refuelling points, and CNG/LNG refuelling points. It sets out minimum requirements for the deployment of alternative fuels infrastructure, to be implemented by means of member states' national policy frameworks.
Each member state must therefore ensure that:

- by December 31st 2020 – an appropriate number of recharging points are put in place, in order to ensure that electric vehicles can circulate in densely populated areas within networks determined by the member states;
- by December 31st 2025 – an appropriate number of hydrogen refuelling points are available (for member states which decide to include hydrogen in their national policy frameworks);
- by December 31st 2025 – an appropriate number of LNG refuelling points are put in place at maritime ports for LNG-fuelled vessels.

In the course of consultations meant to evaluate how effective the current legislation has been, the European Commission referred, inter alia, to:

- setting mandatory targets for the development of alternative fuels infrastructure at the EU level;
- increasing the number of recharging points for electric vehicles, hydrogen refuelling points, and LNG refuelling points at ports for LNG-fuelled vessels;
- coordination of polities on alternative fuels infrastructure and security of long-term investments in vehicle and fuel technologies.

2020 saw the commencement of work on sustainable aviation fuels (the 'ReFuelEU Aviation' initiative), With the overriding objective to accelerate decarbonisation of the aviation sector through increased production and uptake of sustainable aviation fuels (SAF). According to the European Commission, the existing regulations provide insufficient incentives for market participants to produce and use SAF. A number of options designed to enforce increased use of SAF in the aviation sector have been consulted, including:

- mandatory minimum share of sustainable aviation fuels to be supplied by producers and/or to be used by airlines (which would gradually increase over time);
- central auctioning mechanism for SAF;
- various EU funding mechanisms;
- prioritisation of biomass feedstocks for SAF production;
- development of a platform to facilitate SAF purchase agreements;
- various technical support mechanisms and initiatives;
- monitoring of SAF production and uptake across the EU market.

In July 2020, the European Commission published the EU Hydrogen Strategy, describing measures intended to help the EU achieve climate neutrality by 2050. The Strategy places the greatest focus on hydrogen production using emission free technologies, such as water electrolysis. The strategic priority is to support the production and use of hydrogen in emission free technologies as an important tool for decarbonisation, particularly in energy-intensive industries or freight transport, and for stabilising the power system in view of the growing share of renewable generation sources (the role of hydrogen in energy storage). During the transition phase, low-carbon or 'blue' hydrogen (produced from methane based on a CCS (Carbon Capture and Storage) process) and other low-carbon generation technologies will also be supported. Key elements of the Strategy are to:

- identify barriers to increased production and use of clean hydrogen;
- define measures to remove those barriers and promote production and use of clean hydrogen on a large scale, as well as development of the hydrogen market and the necessary cost-effective infrastructure.

Another previously announced change is the Mobility Strategy. The Strategy sets out an action plan covering specific policy measures, divided into ten key areas of action to be dealt with by the Commission in the coming years. Main elements of the Mobility Strategy:

- its primary objective is to reduce emissions from transport, which currently account for more than one-fourth of CO_2 emissions;
- to place at least 30 million zero-emission vehicles on the roads;
- to double rail freight traffic, triple high-speed rail traffic and complete the trans-European transport network with state-of-the-art traffic management systems, with the target being 100 climate neutral cities by the end of the decade;
- ensure that intercity journeys under 300 km are carbon neutral by 2030, with the rail as the preferred mode of transport for distances below 1,000 km;
- aviation: zero-emission aircraft market-ready by 2035; the draft defines fuel targets for the aviation industry: the share of renewable and low-carbon fuels should reach 5% by 2030 and increase to over 60% by 2050, with road and rail transport expected to rely on a mix of electricity and hydrogen; the Commission is seeking to change the exhaust emission standards for passenger cars in 2021 and lorries by 2022 in order to encourage transition to non-emission vehicles.

All these EU legislative measures are aimed at reducing emissions from the EU economy, including the industrial and transport sectors, which are key to Grupa LOTOS. The entry into force of the regulations currently being developed in Brussels will have a huge impact on the Company's business environment and will probably require far-reaching adjustments.

In September 2020, the European Commission adopted new 'Guidelines on certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post-2021', which set out a list of sectors eligible to receive compensation for indirect emission costs (i.e. costs resulting from increases in electricity prices reflecting the costs of greenhouse gas emissions in the EU ETS). The purpose of this tool is to create a level playing field for EU and non-EU producers. The list includes sectors deemed to be exposed to a significant risk of carbon leakage due to indirect costs (production relocation outside the EU), including the refining sector. This means that Grupa LOTOS will be eligible to seek compensation for indirect CO_2 emission costs. The amount of compensation will depend on the prices of emission allowances in the ETS system and on the detailed provisions implementing the Guidelines into national legislation. Analyses concerning implementation of the Guidelines began in late 2020.

In 2020, work was also under way to amend statutes of great relevance to Grupa LOTOS.

Poland is required to implement the directive of December 11th 2018 on the promotion of the use of energy from renewable sources. It provides for an increase in the minimum share of renewable energy in transport (the National Indicative Target) to 14% (compared with the current 10%) and a minimum share of advanced biofuels to 3.5% by 2030. In 2020, analyses were under way regarding detailed implementation of the regulations into Polish law, including conditions for the introduction of E10 gasoline, mandatory blending of biocomponents and combined hydrotreatment technologies.

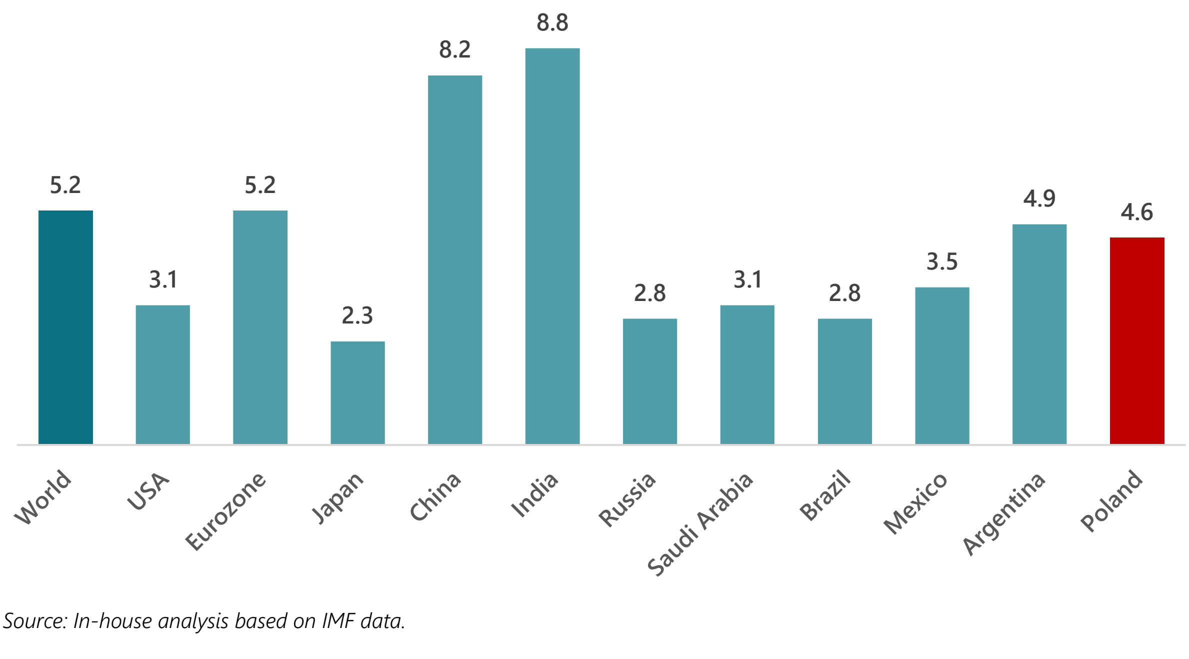
In 2020, work commenced on an amendment to the Act on Fuel Quality Monitoring and Control System of August 25th 2006, which imposes certain requirements on Grupa LOTOS, including the requirement to achieve the National Reduction Target (NRT) of a 6% reduction in fuel life cycle emissions. The amendment provides, among other things, for a change in the method of calculating penalties for failure to meet the NRT (absolute values instead of reference to the prices of emission allowances in the ETS system), confirmation of the validity of the NRT after 2020, facilitation of joint LPG settlements, and establishment of a register of documents supporting the achievement of upstream emission reductions (UER).

In 2020, work began to amend the Energy Efficiency Act of May 20th 2016. The amendment adds fuel companies to the list of entities obliged to achieve energy efficiency improvement targets. The obliged entities will have to demonstrate annually an appropriate reduction in the amount of energy delivered to end users.

3.7 Expected developments in the external environment in 2021

The International Monetary Fund (IMF) expects the global Gross Domestic Product to grow 5.2% in 2021, so the growth should be fast considering the 2020 global economic recession caused by the COVID-19 pandemic (-4.4%). The economies of Eastern Asia and the Pacific are predicted to grow significantly, by 6.7%, with China registering a growth rate of 8.2%. Interestingly, China was the sole large country to record positive economic growth in 2020, of 2.3%. GDP in Southern Asia is also expected to grow at a strong rate, by 8.1%, with India's economy expanding by 8.8%. According to the IMF, economic growth rates in developed countries will be markedly lower. The US, eurozone and Japanese economies are expected to grow by 3.1%, 5.2% and 2.3%, respectively. A comparable rate of economic growth should be recorded in Russia (up to 2.8%) and in South American countries, including Brazil (up 2.8%), Mexico (3.5%) and Argentina (4.9%)[5]. Taking into account the 2020 GDP contraction, Poland will be among the EU's fastest growing economies, with an expected growth rate of 4.6%. Importantly, growth in Europe will be driven mainly by Western European countries: Spain (7.2%), Portugal (6.5%) and France (6.0%). In Central Europe, Slovakia should play the key role, with a growth rate of 6.9%.

Figure 21. Projected economic growth rate in 2021 (%)



Source: In-house analysis based on IMF data.

International organisations forecast an increase in oil demand of 6.2% year on year in 2021, to 96.9 million b/d, still below the pre-pandemic level recorded in 2019. Many agencies also stress that certain fuels (including diesel oil) reached peak consumption back in 2019 (particularly in Europe). Having said that, oil demand will continue to grow in the coming years, mainly in Asia and the Pacific region (the economic situation of India and China as its crucial driver). Many countries will probably implement economic recovery measures in 2021, which should stimulate steady growth in fuel consumption. The proposed stimulus packages may cause fuel consumption to come close to the 2019 levels in 2022.

[5] World Economic Outlook, International Monetary Fund, October 2020.

The COVID-19 pandemic induced shifts in the use of other energy sources as well, including coal. Consequently, many of the proposed economic recovery reforms, particularly those implemented in Europe, are expected to focus on the development of renewable energy sources (RES). Offshore wind farms are beginning to play a key role in the EU. Against this backdrop, natural gas, which is relatively greener compared with coal, will be a 'transition' fuel towards greener energy. However, coal will remain an important energy source in the coming years.

The key factor affecting crude production in 2020 was the OPEC+ countries' April decision to reduce output amid the lockdown restrictions, as well as the falling fuel consumption and crude oil prices across international markets. The production cuts in effect throughout 2020 caused oil prices to stabilise. But lower fuel consumption also affected decision making of independent oil producers in the US. A production rebound is expected in 2021, which will depend on oil prices on the US exchange and a rise in the number of active rigs (the process has continued since the end of 2020). Production may be expected to increase in other countries too, including Norway, Brazil and Canada, if they gradually rebuild their economies. The political situation in the Middle East will be crucial to stabilising both production and prices. The new US administration led by President Joe Biden may return to talks with Iran regarding the nuclear programme, which would increase the availability of Iranian oil on global markets.

In addition to the COVID-19 pandemic (easing of restrictions), key challenges to European refineries will include even fiercer competition from oil refiners located in the Middle East, Asia and the Pacific (India, China) and Russia, especially when fuel demand remains subdued. Given the prevailing market conditions, many refineries on the continent may close down. Nevertheless, the vaccine rollout started in late 2020 and early 2021 may contribute to easing the restrictions and spur an increase in fuel demand.

4 Grupa LOTOS S.A. strategy for 2017–2022

4.1 Vision and key strategic objectives

The key objectives of the Grupa LOTOS Strategy are the Group's stabilisation and sustainable growth. As Poland's leading company and a major energy group, Grupa LOTOS S.A. strives to position itself as:

- a producer of premium quality fuels and chemicals, with the optimal degree of vertical integration,
- a provider of specialist logistics and maintenance services, and
- a leader of innovative implementations within its core business, designed to promote sustained growth in Grupa LOTOS S.A. shareholder value.

The Company pursues five strategic objectives:

- effective use of assets throughout the value chain: including optimum use of production licences, further technological optimisation of the refinery, launch of new products and alternative fuels, and commitment to quality;
- consistent and repeatable reduction of operating expenses and optimisation of margins along the value chain;
- readiness to develop and embrace innovation based on dedicated funding, an advanced model of cooperation with research institutions and creative engagement of employees;
- flexible response to risks, perceived also as potential business opportunities;
- commitment to fostering and developing talent within the organisation, improving safety and security (across OHS, infrastructure, and IT), and coherent standards of corporate social responsibility.

The Strategy is to be pursued within two time frames. In 2017–2018, the main goals were to stabilise cash flows, reduce debt, and effectively implement the ongoing investment projects.

In 2019–2022, the Company plans to pursue a new investment programme based on development of selected production assets, building an efficient upstream asset portfolio, further organic expansion of the retail chain and implementation of innovative projects.

As at the date of issue of this report, the Company was involved in work related to the planned acquisition of Grupa LOTOS S.A. by PKN Orlen S.A. (for more details, see Section 4.8).

Set of key metrics to assess the implementation of the Grupa LOTOS Strategy for 2017–2022:

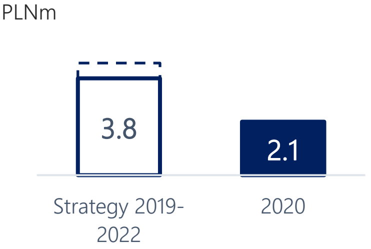
- doubling of annual average LIFO-based EBITDA in 2019–2022,
- reduction of net debt/LIFO-based EBITDA to or below 1.5,
- capital expenditure at PLN 9.4 billion over the entire Strategy period,
- acquisition and maintenance of 2P crude oil and natural gas reserves at[6] over 60 million boe, with an average annual hydrocarbon production volume in 2019–2022 at 30-50 thousand boe/d,
- increase in the number of service stations to 550,
- low accident rate (LTIF[7] <3).

[6] 2P reserves – proved and probable, according to the SPE classification.
[7] LTIF – Lost Time Injury Frequency.

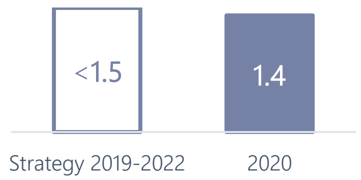
4.2 Current strategy implementation progress

Strategy outlook for 2019–2022, key strategic metrics and performance against the metrics:

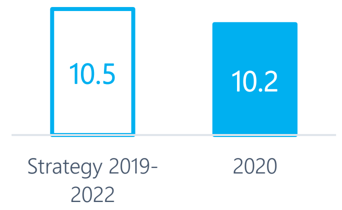
Average annual LIFO-based EBITDA*



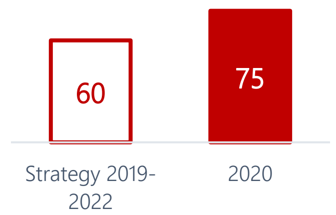
Net debt/LIFO-based EBITDA



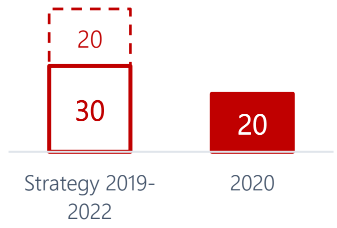
Crude oil throughput



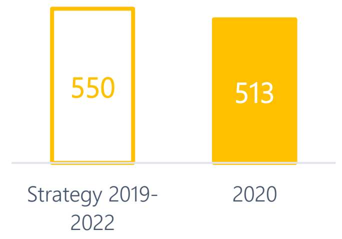
2P hydrocarbon reserves (million boe)



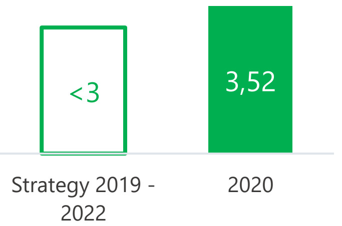
production (thousand boe/d)



Number of service stations



LTIF



**Actual – 2019-2020 average; additionally: affected by fluctuations in the oil inventories and differences between the volumes purchased and processed during Q2 2020, which resulted in the cost of crude oil processed, based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million. As a result, average EBITDA for 2019–2020 was reduced by PLN 0.2 billion.*

Source: the Company.

Average annual LIFO-based EBITDA:
- economic effects of the EFRA Project delayed due to a time overrun, affecting Grupa LOTOS' 2019 performance
- 2020 performance below strategic targets due to strong pressure created by the extremely challenging market conditions

Net debt/LIFO-based EBITDA:
- net debt to LIFO-based EBITDA maintained below the strategic target of 1.5x

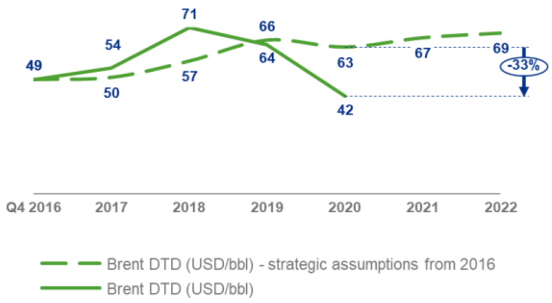
Crude throughput:
- maintaining crude throughput at the same level despite significant market turbulence triggered by the COVID-19 pandemic.

2P reserves and hydrocarbon production:
- 2P reserves (74.8 million boe) currently above the strategic target of 60 million boe, achieved mainly thanks to active efforts on the Norwegian Shelf
- production volumes lower than expected due to delays at the YME and B8 projects

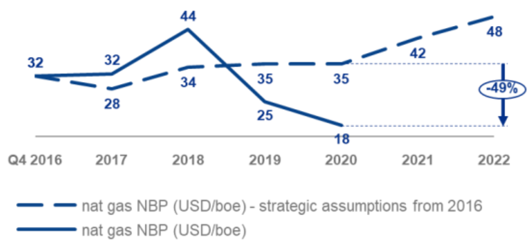
The first nine months of 2020 was historically the longest period of significant disturbance on the market of crude oil, natural gas and petroleum products due to the spread of COVID-19 and knock-on effects of measures taken to combat the pandemic. The extremely unfavourable macro conditions significantly impeded or prevented the delivery of some of the strategic metrics.

Macroeconomic assumptions underlying the Grupa LOTOS Strategy for 2017–2022 vs actual petroleum commodity prices and key product cracks

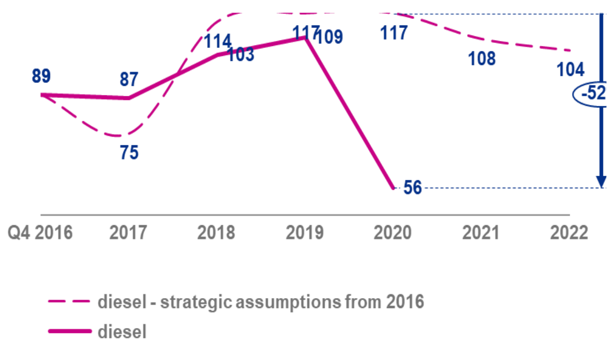
Crude oil (USD/bbl)



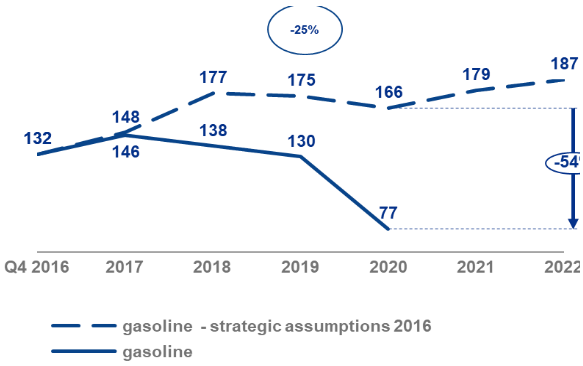
Natural gas (USD/boe)



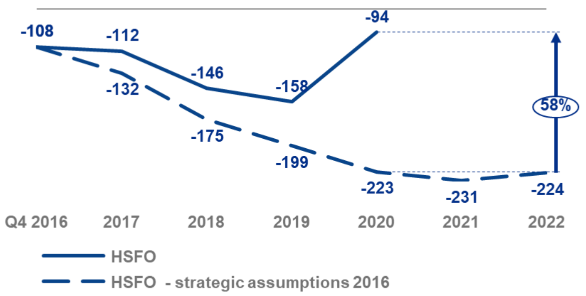
Product crack spreads – diesel oil (USD/t)



Product crack spreads – gasoline (USD/t)



Product crack spreads – HSFO



4.3 Effective use of assets along the value chain

Exploration & Production segment

As at the end of 2020, Grupa LOTOS S.A.'s total 2P oil and gas reserves amounted to approximately 74.8 million boe, above the assumed strategic metric.

In 2020, its average hydrocarbon production was 20.3 thousand boe/d, with the decline attributable to consequences of the restrictions imposed by many governments in response to the COVID-19 pandemic and subsequent waves of increased infections. The restrictions on cross-border traffic and free movement of people (including foreign workers) introduced by the Norwegian government affected the pace of work on the Company's key upstream project. Due to the unavailability of staff to upgrade and modify the production platform at the Egersund shipyard, production from the YME field, estimated to increase the volume of crude oil produced by the Company by approximately 5 thousand boe/d (on average within five years of the production launch), was postponed to the fourth quarter of 2021.

Refining segment

In 2020, the volume of crude oil processed by the Grupa LOTOS S.A. refinery was approximately 10.2 million tonnes, with the Company's installed refining capacity utilised at 96.8%, although most refineries across Europe were forced to limit their capacity utilisation rates due to deteriorated market conditions and disruption of the supply and demand balance for petroleum and petroleum products on global markets.

Stability and high operational availability of the refining units, with the refinery's complexity expanded by the EFRA Project (Nelson Complexity Index of 11.1), allowed the Company to flexibly optimise the stream of petroleum products to adjust yields to changeable and unpredictable market conditions prevailing in 2020, which resulted in improved economic viability of crude oil processing. If the merger between Grupa LOTOS S.A. and PKN Orlen S.A. is successfully carried through, the remedies described in Current Report No. 21/2020 of July 14th 2020 (European Commission clears Lotos's acquisition by PKN Orlen subject to conditions) will be implemented.

As part of smaller-scale projects undertaken to improve the efficiency of refining processes, in late 2020 the Company commenced testing of its Hydrogen Recovery Unit (HRU). In line with the design, the unit will increase the refinery's total yields pool by: 70 thousand tonnes of LPG, 43 thousand tonnes of naphtha, 39 thousand tonnes of light gasoline and almost 9 thousand tonnes of hydrogen per year. An added effect of the project will be reduced CO_2 emissions from crude oil processing. In 2020, work was nearing completion on the fourth railway loading facility project, designed to improve the efficiency and cost-effectiveness of refining production, reduce the resulting environmental nuisance and enhance logistics. The new loading facility, with an annual capacity of 2.2 million tonnes, will enable Grupa LOTOS to deliver additional volumes of diesel oil and gasoline to the domestic market.

In its forecasts regarding future development of the fuel market, CONCAWE, an association of European refineries, presented a vision of the 2050 model refinery as an energy hub relying on renewable energy sources. The first stage of a refiner's development in that direction would be to achieve operational excellence. In the second stage it would bring more low-carbon biocomponents into its product mix, and in the next stage it would become an energy hub relying on biomass and waste conversion processes and capturing CO_2, thus advancing a circular, environmentally neutral economy.

Grupa LOTOS has been consistently pursuing that transition path through a range of major development projects. In the first stage, they were milestones towards the refinery's operational excellence – the 10+ Programme and the EFRA Project. In 2020, the Company continued analytical and preparatory work under projects identified in its 2017–2022 Strategy as those that could strengthen its competitive position on the market:

- HBO project – hydrocracking oil unit for the production of Group 2 and 3 base oils

HBO is the most analytically advanced project. This direction of the refinery's technological development is based on an idea to diversify its mix towards new, non-fuel products and efficiently manage residues from the MHC unit, i.e. hydrowax. The project will enable the launch of production and sales of high-margin Group 2 and 3 base oils.

- CCGT plant project

The CCGT plant project is in line with the envisaged transition in the mix of energy sources to expand the refinery's potential and for commercial purposes. Based on a letter of intent signed between Grupa LOTOS, PKN Orlen and Energa on November 2nd 2020, the companies are looking into the possibility of joint construction of a CCGT unit in Gdańsk, to be completed by July 2026. Having a captive CHP plant, exploiting the partners' expertise and investing in the plant's energy security were the considerations underlying the decision to put the project under further analysis. The letter of intent is binding on the parties until relevant agreements are signed, but not later than until December 31st 2021.

At the same time, as part of its Strategy for 2017–2022, Grupa LOTOS is developing projects related to alternative fuels, in line with the second stage of CONCAWE's model refinery transformation. Their objective is to diversify the Group's business and build competitive advantages in new segments of the energy market, given that traditional fossil fuels are expected to play a gradually less prominent role in Europe within a dozen or so years . In the reporting period, Grupa LOTOS S.A.'s refinery delivered its first batches of biocomponents: biopropane, used as a biocomponent for LPG production, and liquid biohydrocarbons, which are biocomponents for diesel production. This marked the first step in its conversion towards an organic refinery producing fuels from feedstock of biological origin.

Grupa LOTOS is pursuing research and development projects focused on environmentally-friendly fuels of the future, i.e. electricity and gaseous fuels: CNG (compressed natural gas), LNG (liquefied natural gas) and primarily hydrogen, which can be used in transport, as well as in refining and for energy storage.

In 2020, the Company signed an agreement with Remontowa LNG Systems to build a pilot LNG docking station at a LOTOS service station in Gdańsk, which will be used to refuel LNG and CNG-powered vehicles.

In addition, the feasibility study for a small-scale LNG terminal in Gdańsk was completed. It could help increase the use of LNG as a fuel in both maritime and road transport and thus strengthen the LOTOS Group's position as a leader in alternative fuels. In 2020, Grupa LOTOS S.A. and PGNiG S.A. jointly carried out the first bunkering of a ship with liquefied natural gas (LNG) at a port supervised by the Maritime Authority of Szczecin. After Gdynia and Gdańsk, Szczecin is another city where such bunkering operation took place. LOTOS and PGNiG continued their cooperation in LNG bunkering to enhance the competitive position of Polish ports and to promote the use of LNG, as an environmentally friendly fuel, in the Baltic Sea.

The Grupa LOTOS refinery is Poland's leading producer of hydrogen, with an output of approximately 16.5 tonnes/hour. The HRU unit will increase this capacity by an additional 1 tonne/hour.

The Company's response to the changing business environment and market trends is a project to construct a large-scale hydrogen production facility.

- Green H2 project – large-scale green hydrogen production facility

The first step under the Green H2 project is to build a pilot plant, i.e. a smaller-scale electrolysis unit, extended to include functionalities such as hydrogen storage and fuel cells. The facility would be a target configuration for the large-scale project, designed not only to deliver hydrogen for the refinery's needs, but also to enable Grupa LOTOS S.A. to gain a share in the power capacity market, render services on the balancing market and, in the future, provide services to wind farm operators on the Baltic Sea. The Grupa LOTOS refinery has a uniquely advantageous location for potential cooperation with the operators of planned offshore wind farms. The geological structure of its location would allow it to store hydrogen inside salt caverns for subsequent use in electricity production during periods of increased demand. The project partner is Polskie Sieci Elektroenergetyczne, the operator of the Polish transmission system.

The Company intends to collect electricity via the transmission network, separate hydrogen through an electrolysis process and store it inside caverns. During periods of increased grid demand, e.g. in the event of power shortages (which are becoming a normal occurrence on Western markets with a strong RES exposure), the Company would flexibly use the stored hydrogen and generate electricity.

In the electrolysis process, the Company would use renewable energy sources to obtain green hydrogen, which would help it bring down CO_2 emissions and meet the National Indicative Target for motor fuels production.

The Company has already selected strategic and technical advisers and completed preliminary analyses of the Green H2 project, under which it plans to build a large-scale green hydrogen production facility. It has also applied for funding to the EU Innovation Fund. Decisions regarding details of the project are due in 2021.

- Pure H2 project

In order to power hydrogen fuel cells driving electric motors, hydrogen of very high purity is needed (99.999%). Therefore, Grupa LOTOS is implementing the Pure H2 project to build a hydrogen purification and distribution unit, as well as two hydrogen refuelling points.

The Company's target production rate is approximately 160 kg of pure hydrogen per hour. The value of the project is close to PLN 40 million, of which 20% will be covered with EU funds under the Connecting Europe Facility (CEF).

Grupa LOTOS is also involved in implementing the Clean Transport Package and in the Climate Ministry's work on a national hydrogen strategy, while exploring possible hydrogen applications – primarily in urban transport. The Company has signed letters of intent to supply hydrogen and refuelling infrastructure with the municipalities of Rzeszów, Gdynia, Tczew and Wejherowo, and a letter of intent with Toyota Motor Poland and Autosan, a bus manufacturer working to develop a hydrogen-powered vehicle and intending to test Grupa LOTOS's hydrogen for powering that vehicle.

Retail

At the end of 2020, the LOTOS retail chain comprised 513 service stations, including 318 CODO and 195 DOFO locations. The chain comprised 23 Motorway Service Areas, offering a wide range of non-fuel products.

As one of Poland's leaders in advancing electric mobility, Grupa LOTOS S.A. launched a pilot network of 12 EV charging stations between the cities of Gdańsk and Warsaw, along the A1 and A2 motorways. In line with its strategy, the Company plans to continue to expand its EV charging network under the LOTOS Blue Trail project. More charging stations will be built along Poland's main routes in order to extend the distance that can be covered by EV motorists.

In 2021, the Company also intends to open its first LNG and CNG refuelling stations.

On May 1st, Grupa LOTOS S.A. launched the 'Everyone is waiting for their BEST' campaign, in which motorists using LOTOS service stations were encouraged to transfer points collected under the Navigator loyalty scheme to finance research into COVID-19 treatments. If the merger between Grupa LOTOS S.A. and PKN Orlen S.A. is successfully carried through, the remedies described in Current Report No. 21/2020 of July 14th 2020 (European Commission clears Lotos' acquisition by PKN Orlen subject to conditions) will be implemented.

Depending on market factors, the project portfolio may also include construction of a motor gasoline complex, an olefins and ETBE complex, a marine petroleum products handling terminal on the Martwa Wisła river or a waste oils unit.

4.4 Steadily increased and repeatable operating cost savings and margin optimisation

Due to the ongoing COVID-19 pandemic, 2020 was historically the longest period of extremely adverse macroeconomic conditions. The annual average prices of both crude oil and natural gas were below strategic projections (by more than 30% and by about 50%, respectively). Also the product crack spreads were below long-term projections. The deviation was more than 50% for diesel oil and gasoline. In 2020, the annual average PLN/USD exchange rate was 3.90 vs the expected 3.70. Optimisation of the refinery's operations under these market conditions proved a key measure to deliver profits and mitigate losses caused by the economic downturn, economic recession experienced by many countries and significant unpredictability of the price behaviour of petroleum products.

An important measure taken by Grupa LOTOS S.A. to ensure the continuity and stability of crude oil supplies is to diversify their sources. The diversification was a tool to improve production efficiency and gain experience in processing various types of crude oil, such as Abo, Egina, Schiehallion and Culzean.

EBITDA was boosted by the Efficiency Improvement Programme, designed to support the identification and reporting of efficiency improvement measures at Grupa LOTOS S.A. In 2020, the largest efficiency gains were achieved in Refining, Energy, Transport and Logistics.

As part of its efforts to optimise crude oil processing, the Company took measures to maintain competitive advantages and strengthen Grupa LOTOS S.A.'s position in the Solomon Associates global refining industry ranking. The Company carried out initiatives to improve the refinery's energy efficiency, and deployed state-of-the-art IT solutions consistent with the Industry 4.0 concept (the Competence Centre operated in partnership with Microsoft, using cloud computing solutions).

4.5 Readiness to embrace innovation

In 2020, Grupa LOTOS S.A. continued its initiatives focused on fuels of the future, designed to promote hydrogen-based technologies, and actively participated in implementing the Clean Transport Package, aimed to strengthen Poland's energy security and reduce emissions from transport.

Grupa LOTOS S.A. is working out cooperative arrangements with Polish towns and cities interested in launching hydrogen-powered public transport services, as confirmed by letters of intent providing for hydrogen supplies. Last year, the Group also became involved in the Pomeranian Hydrogen Valley initiative, aiming to foster hydrogen as a fuel for bus, rail and maritime transport. In 2020, Grupa LOTOS S.A. joined Hydrogen Europe, an association actively promoting development of the EU hydrogen market.

In 2020, Grupa LOTOS S.A. signed a letter of intent with Polskie Sieci Energetyczne S.A., triggering the planning of research and development work on a large-scale electrolyser farm and its integration into the energy market.

Grupa LOTOS S.A. is also active in undertaking other projects related to new generation alternative fuels, including LNG/CNG. The Company is involved in continued work to prepare project documentation for the construction of a small scale LNG terminal in Gdańsk; studies are also under way concerning the Group's entry into the biomethane market.

The Pure H2 project and the Feasibility Study on the Construction of a Small Scale LNG Terminal in Gdańsk and Innovative LNG Bunkering Facilities received EU funding as part of the Connecting Europe Facility (CEF).

Having forged ties between science and business, in late November a consortium comprising LOTOS Asfalt and the Gdańsk University of Technology signed an agreement with the National Centre for Research and Development for co-financing of the 'Environmentally-friendly bitumens' project. The project aims is to develop an innovative road surface capable of reducing air pollution levels near the roadway.

In 2020, Grupa LOTOS S.A. became engaged in preparing the Strategic directions for innovation and the Strategic Research Agenda, setting out priorities for the Group's innovation initiatives for the next two years with an outlook until 2030, focusing on:

- modern refining technologies and oil products;
- developing a portfolio of new products and services;
- digitisation and improvement of organisational efficiency.

In 2021, Grupa LOTOS S.A. plans to continue alternative fuels projects and to implement the initiatives defined in the Strategic Research Agenda.

4.6 Active opportunity and risk management

One of the key challenges affecting the Company's business in 2020 was the market situation caused by the COVID-19 pandemic. The procedures and preventive measures in place helped maintain operational efficiency across all business areas of the LOTOS Group. What gave it a competitive advantage in 2020 was not only risk avoidance, but also deliberate risk taking and opportunity tapping.

Building a management culture based on a risk and opportunity assessment allowed the organisation to take on greater challenges presented by the demanding and volatile market. Therefore, Grupa LOTOS S.A. strengthened its openness in communicating risks in order to make swift and effective decisions. The Company actively managed business process risks and continued initiatives to harmonise risk management policies, systematising the methodologies applied by subsidiaries with diverse business profiles.

In 2021, the risks and variables seen in the previous year will become part and parcel of business activities. In an effort to further develop active management of opportunities and risks, the Company plans to more closely integrate and comprehensively manage individual risk categories, especially those driven by global megatrends, of which those related to climate change and environmental protection stand out as the most salient ones.

A number of regulations announced by the European Commission, to be implemented in 2021 as part of the New Green Deal, will create a completely different business environment for the Company. The proposed changes regarding the share of renewable energy in transport, the fuel and energy taxation regimes, electrification of transport, sustainable finance and tightening of greenhouse gas emission limits imposed on the industrial sector and transport are bound to have a direct impact on Grupa LOTOS S.A.'s business.

In 2021, the Company plans to continue its active involvement in legislative processes both at the national and EU levels, as well as to enhance the effectiveness of communicating opportunities and risks presented by changes in the regulatory environment.

4.7 Strong team, coherent CSR story, commitment to safety

Grupa LOTOS S.A.'s development initiatives planned for 2020 were carried out to help deliver the organisation's vision and strategic goals for 2017−2022. The initiatives were aimed, among other things, at enhancing staff competencies to adapt them to the requirements of the business Strategy implementation, identifying talent within the organisation and boosting their strengths, disseminating expert knowledge, and increasing commitment and job satisfaction.

Integrated CSR policy

Grupa LOTOS S.A. considers corporate social responsibility as an element of its management and improvement processes. The primary goal of the Company's CSR policy is to support the organisation in meeting its strategic objectives, taking into account the needs of all stakeholder groups.

In the process of building lasting and positive relations with its stakeholders, Grupa LOTOS S.A. strives to effectively integrate its strategy and take steps designed to address social and environmental challenges.

In 2020, Grupa LOTOS S.A. continued its involvement in sports projects with a social agenda, addressed to children and youth.

The CSR policy is also pursued through the LOTOS Foundation's activities, lending support to education, safety and environmental protection initiatives. In 2020, Grupa LOTOS S.A. and the LOTOS Foundation joined in the effort to confront the challenges posed by the COVID-19 pandemic in Poland. For instance, the Company provided funds for upgrading medical facilities in Poland and undertook to construct a temporary hospital in Gdańsk.

In 2020, the positive impacts of our CSR programmes and sustainable development initiatives were confirmed again (for the second year in a row) by the top position in the 14th Responsible Business Ranking (in the Fuels, Energy and Mineral Production category). In the overall ranking, the Company came fifth.

In 2020, Grupa LOTOS S.A. remained a constituent of the WIG-ESG index of socially responsible companies. It was also listed, for the eighth time, among the top socially responsible companies recognised by the *Polityka* weekly magazine. The Company was honoured with a Silver CSR Leaf, The award accompanied by a review of initiatives designed to support the achievement of 17 Sustainable Development Goals (SDGs). The most recent edition focused on good practices with respect to SDG 13, relating to environmental protection and climate action. For its comprehensive 'LOTOS protects the Baltic Sea's wildlife' programme, Grupa LOTOS won a distinction for its efforts to protect the environment and counteract climate change.

Our CSR, sponsorship and marketing activities are intended to build a competitive edge and coherent brand image on the market, as well as to support sales of Grupa LOTOS S.A.'s products.

Robust safety culture

The safety of employees remains Grupa LOTOS S.A.'s utmost concern across the entire organisation. We maintain an unwavering focus on building a safe work culture, raising the staff's awareness of a safe work environment and increasing their commitment to safety.

One of the strategic objectives for 2017–2022 is to reduce the LTIF rate below 3. In 2020, the LTIF was 2.9 for Grupa LOTOS S.A. and 3.5 for the Group.

4.8 Status of work on the acquisition of Grupa LOTOS S.A. by PKN Orlen S.A.

On February 27th 2018, the Energy Ministry and PKN Orlen S.A. signed a letter of intent on the acquisition of Grupa LOTOS S.A. In July 2019, PKN Orlen S.A. filed an application with the European Commission regarding its planned acquisition of an equity interest in Grupa LOTOS S.A. 2019 saw the completion of a due diligence process carried out by PKN Orlen to investigate the financial, tax, commercial and legal position of Grupa LOTOS S.A. in connection with the intended acquisition.

On July 14th 2020, the European Commission conditionally cleared the acquisition of Grupa LOTOS by PKN Orlen S.A. Therefore, PKN Orlen S.A. is required to implement remedies set out in the decision to prevent adverse effects of the proposed concentration on competition in the relevant markets.

The remedies include structural and behavioural commitments relating to the structure and policies of the undertakings involved in the concentration, as described in Current Report No. 21/2020 of July 14th 2020 (European Commission clears Lotos' acquisition by PKN Orlen subject to conditions).

As part of the transaction schedule, conditional agreements successfully concluded with pre-selected partners should be submitted to the European Commission by July 14th 2021. A number of transactions provided for in the remedies could be executed with two partners, one of them taking over logistics infrastructure, and the other one acquiring wholesale and retail operations, as well as a 30% interest in the entity to which the refining assets previously held by Grupa LOTOS S.A. and LOTOS Asfalt Sp. z o.o. would be transferred.

The European Commission's guidelines also allow for selecting, instead of such other partner, two (or more) partners between which the asset portfolio (service stations, wholesale operations, as well as the equity interest in refining assets) would be divided.

According to PKN Orlen's declarations, it would prefer exchange of assets to cash settlement in the process of Grupa LOTOS S.A.'s acquisition.

Following submission by PKN Orlen S.A. of the conditional agreements to the European Commission, implementation of the remedies would be subject to the Commission's review, which usually takes between two and four months.

In the event of the Commission's approval, PKN Orlen S.A. would commence the acquisition of control over Grupa LOTOS S.A. The companies would have six months to complete the transaction whereby PKN Orlen S.A. would become a majority shareholder of Grupa LOTOS S.A.

For successful completion of the process, a final decision of the shareholders would also be relevant. Corporate actions necessary to implement the remedies on the part of Grupa LOTOS S.A. include:

- pursuant to the Articles of Association of Grupa LOTOS S.A., the sale or lease of the Company's business or its organised part whose activities include the manufacture, processing and sale of refined petroleum products, requires a resolution of the General Meeting passed by a majority of at least four-fifths of the votes, provided that at least half of the Company's share capital is represented at the General Meeting;
- divestment by Grupa LOTOS S.A. is subject to approval by the Supervisory Board in the case of sale of assets with a market value exceeding 0.1% of the Company's total assets and the execution of all material transactions; the Supervisory Board then submits its opinion to the General Meeting;
- divestment of shares held by Grupa LOTOS S.A. in other companies, where the market value of the shares to be divested exceeds PLN 100 million or 10% of Grupa LOTOS's total assets, requires consent of the General Meeting of Grupa LOTOS S.A. under a resolution passed by an absolute majority of votes;
- actions taken by a Grupa LOTOS S.A. subsidiary may require corporate approvals granted by the governing bodies of such subsidiary.

These activities will be subject to a detailed analysis and execution in accordance with law, depending on the final structure of the transactions carried out.

In the course of the acquisition process, i.e. preparation for implementation of the remedies, Grupa LOTOS S.A. has been building shareholder value by continuing its day-to-day operations, while maintaining its independence and competitiveness against other market players.

On August 18th 2020, Grupa LOTOS S.A. signed a cooperation agreement with PKN Orlen S.A. and the State Treasury. It concerns the completion of PKN Orlen S.A.'s acquisition of Grupa LOTOS shares from the State Treasury.

On March 12th 2021, the Company announced in Current Report No. 10/2021 that it had commenced preparations to reorganise Grupa LOTOS S.A., as part of which the Management Board had given a general approval for internal organisational measures aimed at optimising the Group's structure and preparing it for implementation of the model whereby the remedies necessary to go ahead with the intended acquisition of control over the Company by PKN Orlen S.A. are to be carried out, i.e.:

- separation of an organised part of Grupa LOTOS's business comprising the refining assets and its contribution to LOTOS Asfalt Sp z.o.o (which is wholly-owned by the Company); LOTOS Asfalt Sp. z o.o. would then become a special purpose vehicle 30% of whose shares would be sold to an independent operator;
- transfer of shares in LOTOS Biopaliwa from LOTOS Terminale to the Company;
- transfer of shares in LOTOS Infrastruktura to LOTOS Terminale;
- transfer of logistic assets of LOTOS Infrastruktura to LOTOS Terminale.

The Company will keep the capital market informed of the transaction progress in accordance with applicable laws. Grupa LOTOS S.A. pursues its policy of transparent communication with the market in compliance with applicable laws and regulations governing immediate disclosure of inside information.

4.9 Initiatives supporting implementation of the Group's strategy in 2021

Key factors essential for the growth of Grupa LOTOS S.A. include decisions on allocation of capital expenditure to selected projects, proactive response to business opportunities in the Exploration & Production segment, as well as development of filling infrastructure to support the profitability of fuel sales in Poland.

In addition, the Company's growth in 2021 will be affected by the status of work on PKN Orlen's acquisition of Grupa LOTOS S.A.

In 2017–2022, Grupa LOTOS S.A. plans to allocate approximately PLN 9.4 billion to capital expenditure, of which approximately PLN 4.3 billion was spent in 2017–2020. In 2020 alone, capital expenditure amounted to PLN 0.8 billion.

The Management Board plans to carry out its capex plans for 2020 based on a mix of internally generated and borrowed funds. In 2020, the net debt/LIFO-based EBITDA ratio was 1.4x, below the target level set in the strategy, allowing the Company to safely pursue its investment plans, including equity investments.

5 Grupa LOTOS S.A.'s and the LOTOS Group's operations in the Refining & Marketing segment

5.1 Grupa LOTOS S.A. – crude oil refining

5.1.1 Oil refining market and competition in the region

The Grupa LOTOS refinery, with the annual processing capacity of approximately 10.5 million tonnes of crude oil, is one of the most advanced and newest refineries in Europe, ranking high relative to competitors in terms of crude oil processing complexity (Nelson Complexity Index). The upgraded refinery features a high distillate rate (due to a large share of fuels in the product mix) and focuses on medium distillates, which enables the Company to successfully adjust its output to the structure of domestic demand and to export opportunities.

In 2020, the refinery's technological advancement was driven by the 10+ Programme completed in 2011 and the EFRA Project delivered in 2019, followed by its full integration with the refinery's units, as well as a number of lesser capital projects designed to increase the efficiency of the refining process (e.g. the Hydrogen Recovery Unit).

The upgrade and extension of the refinery as part of the 10+ Programme resulted in increased yields of high-margin products per barrel of crude processed and an increase in the annual volumes of fuels from 4 million tonnes to 7.8 million tonnes, while enabling the Group to process more technologically demanding crude types. The EFRA Project was a continuation of the refinery's technological upgrade, naturally complementing its configuration. The main objective of EFRA was to ensure more efficient utilisation of heavy residue, which is the heavy end of crude oil used to make heavy fuel oil or bitumens. The new units constructed under the EFRA Project have supplemented the existing oil processing line at the Grupa LOTOS refinery and enabled a flexible shift in its product mix from low-margin heavy fuel oil towards more motor fuels. As a result, the refinery gained more scope to optimise its output, which allowed it to remain competitive, also amid the extremely unfavourable macro conditions prevailing for the most part of 2020 in the wake of the COVID-19 outbreak.

The EFRA facilities, integrated with the refinery's oil processing line, have enabled the Company to increase the output of middle distillates (diesel oil and, optionally, aviation fuel) by approximately 900 thousand tonnes per year, from the same volume of crude oil processed. As for the other product categories, the production capacities of naphtha and LPG have changed, their respective target levels to be reached as part of the optimisation process. The Grupa LOTOS refinery also maintained a capacity to produce bitumens, which fetched relatively high profit margins compared with other petroleum products in 2020. The maximisation of their output, with advantage taken of arising market opportunities, was a strong contributor to the LOTOS Group's profit on sales in 2020.

In 2020, the Company completed the project to construct a continuous emission monitoring system (CEMS) to continuously monitor the environmental impact of the refinery's operations. The project was implemented to meet the relevant provisions of the national and EU environmental laws. Anticipating the Industrial Emissions Directive, whereby the European Union requires that emission monitoring be adapted to the best available techniques (BAT).

Seeking to expand its capacity to dispatch fuels from the refinery extended to include EFRA units, in 2020 the Company was completing the project to construct a fourth railway loading facility with an annual capacity of 2.2 million tonnes of fuel products.

The refinery's configuration combined with its favourable location are factors enabling flexible selection of crude types to maximise margins on their processing and sale of products.

The refinery's location was a source of major competitive advantage in the region in terms of logistics (access to feedstock and product sales channels). The location close to the handling terminal provided the LOTOS Group with direct access to international markets, enabling it to export its oil products primarily to Scandinavia, north-western Europe and the Baltic states. It also helps the Company to optimise sales channels and purchase various types of crude oil and fuels.

The refinery also benefited from a unique combination of supply channels both by land from Russia via the PERN pipeline network, and by sea from numerous countries and the Group's own fields. Access to two supply channels allowed the Group to diversify feedstock deliveries and to respond flexibly to volatile petroleum product and crude oil prices. As a result, Grupa LOTOS S.A. was able to effectively diversify its crude slate and improve its bargaining power for the purchases of crude oil.

Solomon Associates, which prepares the most recognised global ranking of refining plants, has placed the LOTOS refinery among the best 25% of plants, based on key competitiveness indicators, such as the refining margin, energy efficiency, maintenance team efficiency and plant availability, while classifying it as the most advanced refinery in Central and Eastern Europe.

5.1.2 Optimisation of crude processing during the COVID-19 pandemic

The consequences of the pandemic had a huge impact on the environment in which Grupa LOTOS operated in the reporting period. The Company operates in the petroleum sector, whose environment is global. In 2020, strong volatility prevailed on the petroleum products market triggered by the pandemic spread and measures taken to contain its impact both in Poland, the neighbouring countries and globally.

In 2020, the Company's market environment was going through the historically longest downturn, struggling with a very limited degree of short-term predictability and uncertainty as to future quarters. A marked imbalance and shortage of liquidity in international trade were seen.

In the first quarter of 2020, Grupa LOTOS promptly took a number of optimisation measures. The Company's refinery was subject to intensive optimisation efforts with a view to flexibly adjusting its yields to the fast-changing market conditions. As the refinery's complexity had been expanded by the EFRA Project, the Company was flexibly managing the stream of petroleum product yields to adjust volumes to changing demand and the best achievable prices. These included reducing the output of aviation fuel given the dramatic slump in demand, as well as increased sales of bitumens (including export sales), which in 2020 fetched exceptionally high market margins. These measures allowed the Company to continue running its refinery at almost full capacity, although most European plants were forced to significantly downscale refining production during the period. At the same time, Grupa LOTOS decided to postpone some of its planned capital projects, pending an improvement of the business environment.

In addition, the seaside location of the Grupa LOTOS refinery allowed the Company to swiftly capture market opportunities, e.g. through export sales of attractively priced naphtha for delivery by sea, which helped it maintain a high level of crude throughput and enhance the refining margin during the toughest period for the industry.

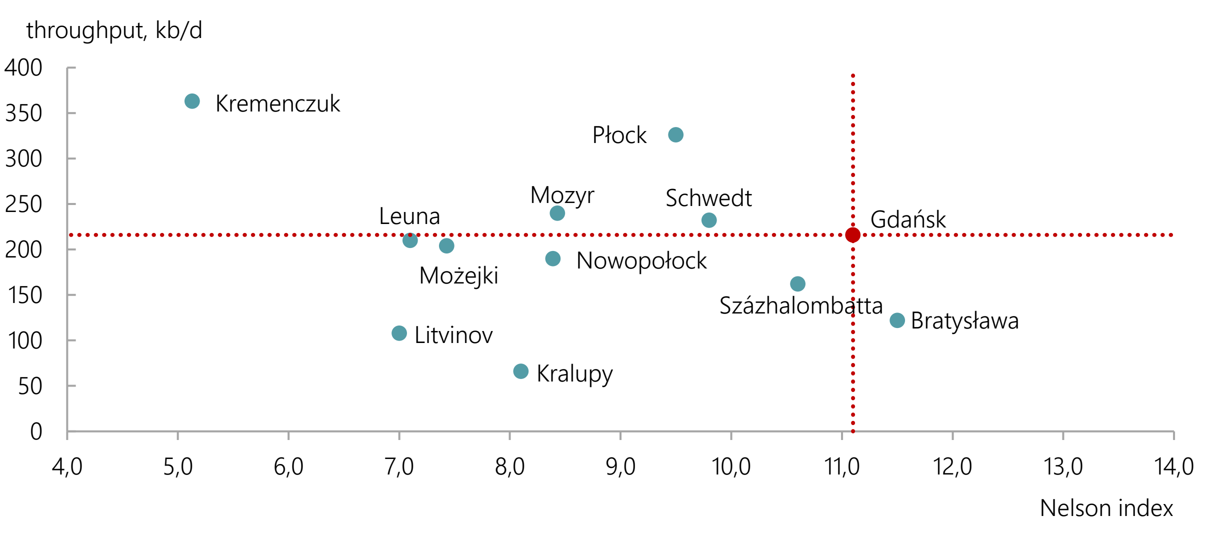
The 2020 performance did not reflect full capacity of the EFRA units as the fuel market was destabilised. One result of the restrictions imposed to combat the spread of COVID-19 was an unusual and unexpected narrowing of the difference between crack spread on diesel oil (USD 8.90/bbl in 2020 vs USD 16.94/bbl in 2019) and crack spread on heavy fuel oil (USD -6.34/bbl in 2020 vs USD -11.29/bbl) on global markets (to USD 15.24/bbl in 2020 vs USD 28.23/bbl in 2019), which resulted in the Company's generating a marginal refining margin on the EFRA Project between USD 2.9 and USD 0.0/bbl for most of 2020, i.e. below the target based on its long-term projections (between USD 2 and USD 4/bbl).

5.1.3 Refineries operating in the region

Situation on the Polish fuel and fuel products market is affected by the operations of several neighbouring refineries. Apart from the market leader, the refinery of PKN Orlen S.A. in Płock, the other refineries operating in the region also supply their products to the Polish market, thus competing with Grupa LOTOS. In 2020, due to the COVID-19 pandemic and the decline in fuel demand brought about by the restrictions introduced to counter its spread, many refineries in Europe had to limit their capacity utilisation by adjusting the volume of fuels produced to reduced consumption. According to oil sector analysts, a number of refineries, faced by a decline in refining margins, are forced to wind up their operations or close down less profitable units (as forecast by JBC Energy, at least five such plants with a processing capacity of 465 thousand bbl/d will be closed between 2021 and 2023). In addition, the trend of converting conventional refineries into plants producing fuels from feedstocks of plant origin (biorefineries) has become more pronounced since 2020. Such steps have been taken by TOTAL in France, Neste in Finland and ENI in Italy, among others. The economic recession that took hold in 2020 and continued into 2021 is a factor behind decisions of individual refineries whether to continue their operations and undertake further capital projects.

Grupa LOTOS has a technologically advanced refinery, boasting one of the highest complexity factors in the growing region of Central Europe (with the Nielsen Complexity Index of 11.1). Strong yield flexibility has enabled the Company to weather the elevated market volatility sparked by the COVID-19 pandemic, affecting demand and crack spreads.

Figure 22. Refineries in Central Europe: capacity and Nelson Complexity Index (NCI)



Source: In-house analysis based on Company data and data from PKN Orlen, MOL Group, Rosneft, S&P Global Platts.

Annual crude processing capacities of the key regional competitors are as follows:

- Płock refinery (PKN ORLEN), Poland – approximately 16.5 million tonnes,
- Leuna refinery (TOTAL Group), Germany – approximately 12 million tonnes,
- Schwedt refinery (PCK Raffinerie GmbH), Germany – approximately 12 million tonnes,
- Mažeikiai refinery (PKN Orlen), Lithuania – nameplate capacity of 15 million tonnes, but in view of the existing technology set-up and market conditions, only 8 million tonnes of the capacity is effectively utilised,
- Schwechat refinery (OMV), Austria – approximately 9.6 million tonnes,
- UniPetrol refineries in Kralupy, Litvinov (PKN Orlen), the Czech Republic – approximately 8.7 million tonnes,
- Bratislava refinery (Slovnaft, MOL Group), Slovakia – approximately 6.1 million tonnes.

Map 2. Grupa LOTOS refinery vs competitors in the region

Source: Company, refining capacity (m tonnes/year)

5.1.4 Main products

The key categories of products obtained from crude oil processing at the Grupa LOTOS refinery are:

- Fuels:
  - Unleaded gasoline. Unleaded gasoline is used in spark-ignition engines. Grupa LOTOS S.A.'s unleaded gasolines include premium gasoline – LOTOS DYNAMIC 98, containing antioxidants and cleaning additives which ensure better cleaning of the engine, extend its life, and reduce fuel consumption. This DYNAMIC brand premium fuel is marketed solely through LOTOS service stations.
  - Diesel oil. It is designed for compression-ignition engines. The Company's offering includes premium diesel oil – LOTOS DYNAMIC DIESEL which, owing to the use of friction-reducing components, offers more power efficiency and, in winter, can guarantee engine start at temperatures as low as -32°C. This DYNAMIC brand premium fuel is marketed solely through LOTOS service stations. Diesel oil has the largest share in the LOTOS Group's sales volume on the domestic market.
  - Fuel oil (light fuel oil). The product is intended for use in heating equipment. With a low sulfur content and unique additives, the product has oxidation resistance and anti-corrosive properties, helps maintain clean nozzles, and reduces noxious combustion emissions.
  - Aviation fuel. The product is intended for use in jet engines.
- Liquefied petroleum gas (LPG). The product can be used as a fuel for: engines equipped with an LPG system, heating equipment, gas tanks and bottles. It may also be feedstock for petrochemical processes.
- Naphtha. Naphtha is used as feedstock in the petrochemical industry and in production of motor gasolines. The entire output of naphtha is exported.
- Bitumens. The key product in this category are advanced road bitumens used in the construction and maintenance of roads, airports and other hard surfaces. Apart from the road construction industry, bitumens are also used in the manufacturing of construction materials with waterproofing properties, with industrial bitumens being the most popular component.
- Base oils. The key product in this category are Group 1 base oils. They are used as feedstock for lubricating oils, including motor and industrial oils. The LOTOS Group's primary motor oil product lines include: LOTOS Aurum, Hybrid, LOTOS Quazar, premium synthetic oils for passenger cars, LOTOS Thermal Control, mineral, semisynthetic and synthetic oils dedicated for passenger cars, LOTOS Turdus, mineral, semisynthetic and synthetic oils dedicated for lorries. The lines of industrial oils are Hydromil, Transmil, and Remiz, which make up a full category of hydraulic, turbine and machine oils, as well as industrial lubricants.
- Heavy fuel oil. The product has three principal applications: as a fuel for power generation, as a bunker fuel (since 2020, in vessels equipped with scrubbers), and as feedstock for further processing, including in coking units.

Other major product lines

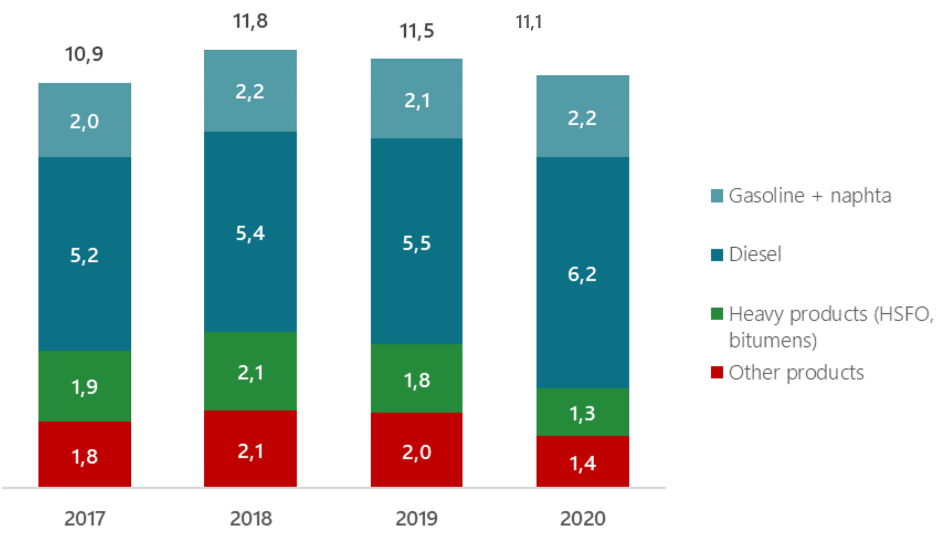
- TDAE and RAE class plasticizers marketed under the QUANTILUS T50 and QUANTILUS T60 brands, used by European and Asian tire and rubber manufacturers. These products meet the requirements of the EU REACH directive and have been approved by global tire manufacturers.
- MODBIT modified bitumens – state-of-the-art bitumens enhancing pavement resistance to rutting, and improving durability and resistance to extreme weather conditions.
- Xylene fraction is a product launched in 2012, obtained through reformate splitting. It is used as feedstock in plastics production. Xylene separation will further diversify the LOTOS Group's product portfolio and reduce the share of aromatic hydrocarbons in the range of gasoline components produced by the LOTOS refinery in Gdańsk. This will contribute to greater technological flexibility of the refinery, allowing it to sell some of the components on the fuel or petrochemical markets.
- Pet-coke – produced since 2019 (after the Delayed Cracking Unit (DCU) was launched at the Grupa LOTOS refinery), as a by-product of deep processing of heavy petroleum residue into high-margin middle distillates (diesel oil and aviation fuel).
- Biocomponents – first produced in 2020. Grupa LOTOS launched the production of its own biocomponents (liquid biohydrocarbons and biopropane) in a combined hydrotreatment process. Analyses are under way at the Company to implement a concept of using biohydrogen made from biomethane. Grupa LOTOS is an entity required to meet the mandatory targets for a minimum share of renewable energy in transport and reduction of greenhouse gas emissions from transport fuels. Measures to meet these targets include the use of biocomponents, such as fatty acid methyl esters (FAME) and ethanol, as well as liquefied petroleum gas (LPG).

5.1.5 Volumes of crude oil processing and products

In 2020, the Grupa LOTOS refinery processed 10.2 million tonnes of crude oil and the utilisation rate of its nominal refining capacity was 96.8% (i.e. close to full capacity). The mix of crudes resulted from the production optimisation process whose objective was to take advantage of opportunities for increasing the refinery's processing margin.

In 2020, the Gdańsk refinery's product output was 11 million tonnes[8]. Diesel oil accounted for the largest share of production, with an output of 5.8 million tonnes, up 5.5% year on year. Its share in total production was 52%.

Figure 23. Company's refining output structure



Source: Company (in million tonnes).

5.2 Model refining margin

The tool by means of which industry players show the refinery's production capacities is the model refining margin. The indicator represents an approximation of the refinery's profitability based on publicly available market quotations published by market data providers (for Grupa LOTOS, it is Refinitiv).

The model margin is calculated for a yield structure estimated in the averaged scenario (excluding annual seasonality) of the Grupa LOTOS refinery operation.

In the fourth quarter of 2019, the Company suspended its publication as, in connection with the launch of EFRA Project units and the changing production volumes, the model refining margin published by Grupa LOTOS ceased to reflect the yield structure and accurately present the refinery's profitability.

The Company updated its model margin calculation method (for details, see → Current Report No. 5/2021 of February 10th 2021) after the operation of the refinery integrated with the EFRA units had stabilised, released a margin calculation model adapted to the new yield structure and commenced → publication of its daily, monthly, quarterly and annual margins. The updated mathematical formula for calculating the model margin of Grupa LOTOS S.A.'s refinery is as follows:

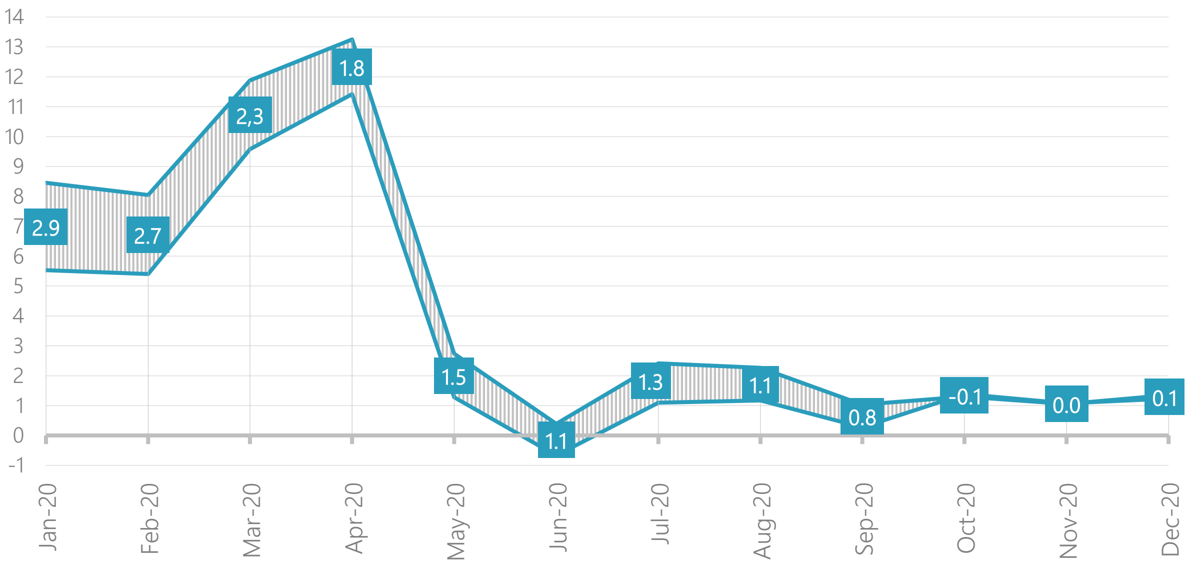
Model refining margin [USD/barrel] = revenue (products from 94% of crude processed = 23% gasoline + 63% diesel oil + 8% heavy fuel oil) – costs (100% of crude processed + cost of natural gas consumption)

The model margin provides an insight into the hypothetical profitability of a refinery operating within a specific technological setup, based on prices from NWE markets published by Refinitiv. As a result, the model margin does not reflect the actual margin generated by the Grupa LOTOS S.A. refinery subject to seasonal variations and optimisation adjustments.

The figure below presents the hypothetical difference between the previous and current margins in the period from January to December 2020 – the corridor between the two curves illustrating the incremental value delivered by the EFRA Project.

[8]The difference between the volume of crude oil processed and the refinery's output of products stems from the fact that, apart from crude oil, the processing units and finished product blenders receive biocomponent streams, enhancing additives and middle distillates purchased from third-party suppliers.

Figure 24. Difference (delta) between the Company's previous refining margin and the current margin following the launch of the EFRA Project units (USD/bbl) – corridor between the values calculated based on the current margin model (upper curve) and those calculated based on the previous margin model (lower curve)



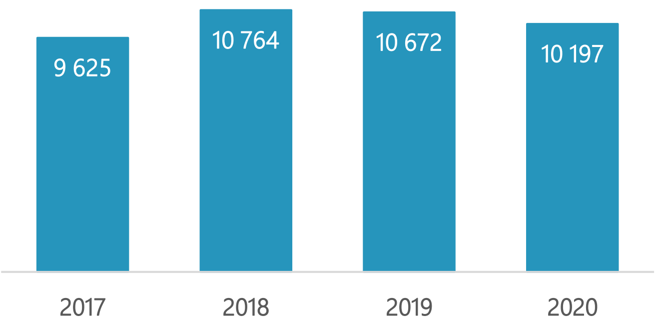
Source: the Company.

Starting from the fourth quarter of 2019 and in 2020 the Company published→ a monthly structure of its refining output to show approximate monthly effects of the EFRA Project and optimisation processes, particularly evident in the context of the extremely challenging situation that emerged on the market of crude oil and petroleum products in the wake of the COVID-19 pandemic.

5.3 Supply sources

As its main feedstock, Grupa LOTOS S.A. relies on Russian REBCO (Russian Export Blend Crude Oil). Compared with the global Brent oil benchmark, REBCO is a blend of heavier crude grades with higher sulfur content, and yields more middle distillates (diesel oil, aviation fuel). The Grupa LOTOS refinery also processed crude oil produced domestically (from the Lubiatów and Rozewie fields) and from Lithuanian assets. The balance of the feedstock was sourced from other directions.

Figure 25. Crude oil throughput at Grupa LOTOS S.A. (thousand tonnes)



Source: the Company.

In its refining production, the Company uses crude oil, intermediate products, chemicals and petroleum materials with a consolidated value shown in the table below.

Table 2. Breakdown of LOTOS Group's purchases of feedstocks, intermediate products, chemicals and petroleum materials

	2020		2019	
	(PLNm)	share (%)	(PLNm)	share (%)
Crude oil	11,450.1	82.1%	18,705.2	86.4%
Gasoline components: MTBE/ETBE	120.4	0.9%	186.6	0.8%
FAME	1,161.9	8.3%	1,114.2	5.2%
Gasolines	31.1	0.2%	-	0.0%
Ethyl alcohol	214.4	1.5%	232.6	1.1%
Additives	104.1	0.7%	87.4	0.4%
Diesel oil components	99.7	0.7%	371.6	1.7%
Natural gas	325.1	2.3%	492.4	2.3%
Bitumens, bitumen components and additives	44.5	0.3%	58.6	0.3%
Feedstock for FAME production	398.3	2.9%	374.5	1.7%
Other	12.2	0.1%	16.2	0.1%
Total	13,961.8	100.0%	21,639.3	100.0%

Source: the Company.

5.3.1 Suppliers

In 2020, the key suppliers to the LOTOS Group whose supplies accounted for more than 10% of the Group's total procurement costs were: Tatneft - Europe AG of Switzerland, VITOL SA of Switzerland, Rosneft Oil Company of Russia. Their shares in the LOTOS Group's purchases were respectively 17.1%, 16.5% and 14.9%. To the best of the Company's knowledge, there were no formal links with the Company that would be relevant to the key suppliers.

5.3.2 Customers

In 2019–2020, there were no customers with a share in excess of 10% of the LOTOS Group's total revenue. LOTOS Paliwa Sp. z o.o. (wholly owned by Grupa LOTOS S.A.) was Grupa LOTOS S.A.'s largest customer, accounting for over 50% of the Company's total revenue in 2020 and 2019. In both periods, there were no other customers whose share in the Company's total revenue would exceed 10%.

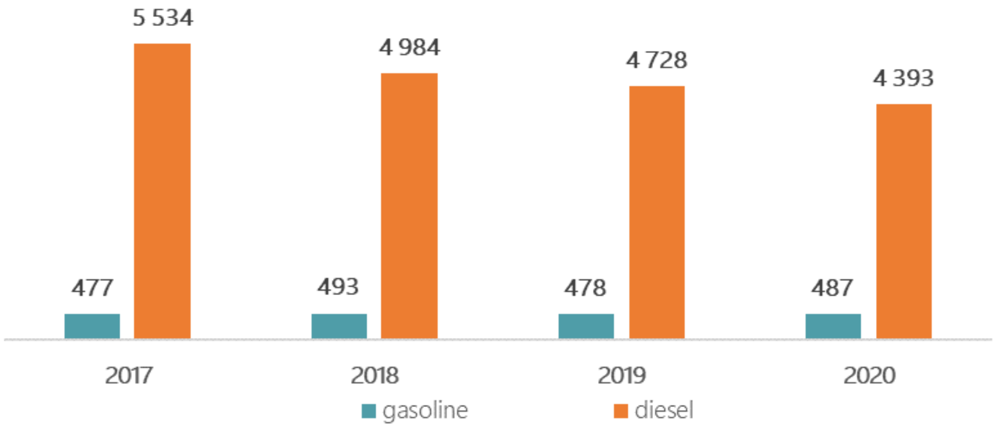
5.4 The LOTOS Group's sales of petroleum products on the domestic market

2020 was a difficult year, fraught with challenges for many industries, including fuel producers. The restrictions put in place at various stages of the COVID-19 pandemic had a huge impact on fuel consumption. According to POPiHN, declines were recorded in the consumption of gasoline (-8.5%), diesel oil (-1.6%), light fuel oil (-8%) and aviation fuel (-57.6%). A key role in managing the situation at Grupa LOTOS was played by personnel responsible for optimising its refining output and marketing activities. Thanks to their competencies and ability to actively capture market opportunities and minimise losses in the adverse macro environment, the Company's refinery was able to continue to run at close to full capacity, with the major part of the fuel output sold on the domestic market.

After the 12 months of 2020, the balance supply and demand on the Polish gasoline, diesel oil and light fuel oil market was negative. The largest deficit, in line with a trend continuing for several years, was recorded in diesel supply. The gap between diesel production and consumption was 3.6 million tonnes, with net imports of 4,903,470 cubic metres. The Polish market also saw a deficit of (358,224 cubic metres) 220 thousand tonnes of gasoline. Imports of light fuel oil amounted to 66 thousand tonnes.

An exception to those several-year-long trends was aviation fuel, since its balance was traditionally positive, meaning an excess of production over consumption volumes on the Polish market. Given an almost 58% decline in consumption (626 thousand tonnes less year on year) as most air connections had been suspended in Poland, the Polish refineries managed to optimise production delivering a surplus output of only 130 thousand tonnes.

Figure 26. Imports of gasoline and diesel oil into Poland (thousand tonnes)



Source: In-house analysis based on Polish Organisation of Oil Industry and Trade (POPiHN) data.

In 2020, the LOTOS Group held a 33.2% share in the domestic fuel market, up 0.6pp year on year.

Figure 27. LOTOS Group's share in Poland's total domestic fuel market (%)

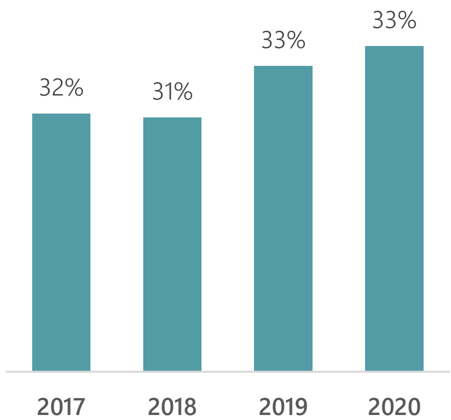
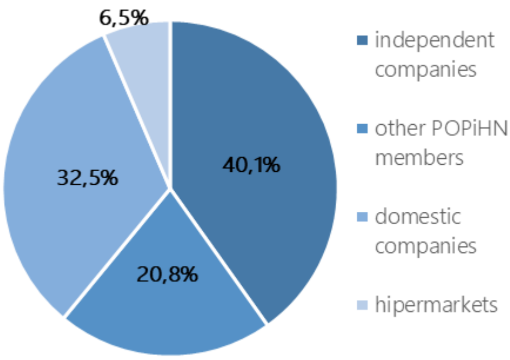


Figure 28. Share of individual operator groups in the retail fuel market in Poland (%)



In-house analysis based on Polish Organisation of Oil Industry and Trade (POPiHN) data.

5.4.1 Retail fuel sales

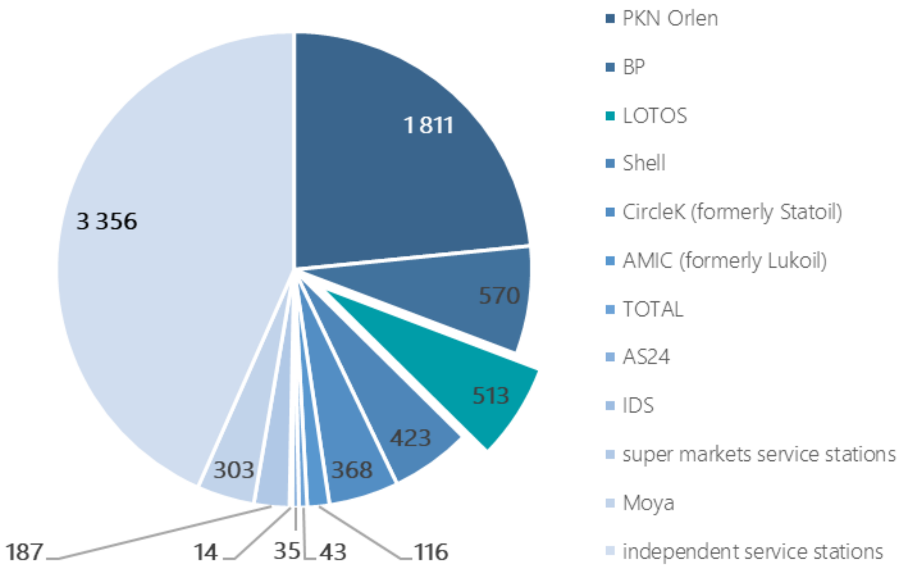
In 2020, the share of domestic oil companies in the retail market fell from 34.2% in 2019 to 32.5% in 2020, that is by 1.7pp. The share of other POPiHN stations (operated by foreign companies and the MOYA chain) in the retail market increased by 0.9pp, to 20.8%. The market share of independent operators also rose, from 39.3% to 40.1%. The market share of service stations operated by hypermarket chains remained unchanged at 6.5%.

According to POPiHN, there were over 7.7 thousand service stations on the Polish fuel market at the end of 2020. As in previous years, 30% of them belonged to Polish companies, 20.3% were operated by international corporations, while 47.3% were owned by independent operators. The chains owned by oil companies were developed by opening both company-owned dealer-operated (CODO) and dealer-owned franchised (DOFO) stations.

The largest service station chains included:

- PKN Orlen – 1,811
- BP – 570
- LOTOS – 513
- Shell – 423
- Circle(K) – 368

Figure 29. Service stations in Poland at the end of 2020



Source: Polish Organisation of Oil Industry and Trade (POPiHN).

Operations on the Polish retail fuel market are conducted by LOTOS Paliwa through: development and management of the CODO (*Company Owned Dealer Operated)* and DOFO (*Dealer Owned Franchise Operated*) service station networks. The company sells:

- fuels through CODO stations, including Motorway Service Areas,
- fuels to DOFO stations,
- non-fuel goods, including food products, through CODO stations,
- services, including car wash services, through CODO stations.

As at the end of 2020, 513 service stations operated under the LOTOS logo, including:

- 318 CODO stations,
- 195 DOFO stations.

In 2020, the network expanded by a total of 7 locations:

- 7 new CODO stations were launched, while 1 station was removed from the network.
- 8 new DOFO stations were added to the network while 7 franchises were terminated.
- also, 24 DOFO agreements expiring in 2020 were extended.

The LOTOS Group's objective is to maximise the utilisation of its resources by enhancing fuel sales and non-fuel revenues.

One of the elements of its strategy is to develop the service station chain at motorways and expressways (Motorway Service Areas). Sales in the Motorway Service Area format will take place at locations where LOTOS Paliwa operates or will launch service stations following successful tenders.

To reinforce its position in the strategic segment of service stations located at motorways and expressways, in 2020 the Company launched two new MSA sites.

In 2020, 1.56 million cubic metres of fuels were sold by service stations bearing the LOTOS logo, down 7.2% on 2019. The year-on-year decline recorded over the same period by the other POPiHN stations was 8.5%.

In 2020, the average daily fuel sales at LOTOS service stations fell by 9.5% (as compared with 11% for the other POPiHN stations).

The LOTOS Group's average monthly store sales were down 7.8%, Relative to 8.6% for the other POPiHN stations.

To conclude, in 2020 the LOTOS chain did record a drop in sales caused by THE COVID-19 pandemic, but it was less significant than the decline recorded by the other companies associated within POPiHN. Consequently, the share of sales generated by LOTOS service stations in total POPiHN sales rose to 10.8% year on year (up 0.2pp).

5.4.2 Wholesale of gasoline, diesel oil and light fuel oil

In 2020, the LOTOS Group strengthened its existing and developed new trading relationships with key customers. Further development of these key customer relationships was supported by the Group's reliability as a supplier, the services offered and the quality of fuels supplied.

Within individual business units, Grupa LOTOS took steps to maximise profits, focusing on customers with the greatest growth potential and reviewing its geographical structure to exploit the logistics network in an economically viable way.

Seeking and optimising wholesale synergies between Grupa LOTOS S.A. and LOTOS Paliwa were a factor taken into account in defining the scale and scope of business relationships with customers. The aim of these measures was to maximise margin amid the fluctuating product prices and changing demand for fuels due to the government-imposed restrictions to combat the spread of COVID-19.

Given the volumes of diesel oil obtained from EFRA Project units, the Company has established relationships with new trade partners and expanded the scale of its operations.

In 2020, the LOTOS Group's wholesale operations focused on:

- expanding its business with customers to place the volumes of diesel oil delivered by EFRA Project units;
- flexibly managing target groups/sales channels in Poland to place fuel products in the most efficient way while ensuring transaction security;
- consolidating sales within the group of strategic customers;
- strengthening its position on existing markets,
- effectively implementing the pricing policy.

5.4.3 Sale of aviation fuel

The LOTOS Group company responsible for marketing aviation fuel on the home market is LOTOS Air BP Polska. In 2020, LOTOS Air BP Polska recorded a considerable decline in into-plane sale volumes, driven by a sharp year-on-year reduction in demand and a lower volume of aviation fuel produced by the LOTOS Group. As part of optimisation efforts, the LOTOS refinery in Gdańsk produced more diesel oil, which was sold on the home and international markets.

Production and sale of LPG

2020 saw continued marketing efforts to build the position of Grupa LOTOS on the Polish LPG market. The outbreak of the COVID-19 pandemic in the first quarter of the year and the related mobility restrictions had a material impact on delivering sales targets in that period. Retail sales of LNG fell by as much as 50%.

Following full integration of the DCU and test run of the HRU, the sales force focused on building the market for expected higher LPG yields from the new production units. Work also continued in the logistics and refining areas to upgrade and organise product storage and loading at the refinery.

The steady growth in LPG sales year over year confirms that the measures taken have been effective and need to be intensified going forward.

5.4.4 Production and sale of motor and industrial oils

Production and distribution of lubricants: automotive, industrial and lubricating oils, base oils, automotive fluids and car care products are the business of LOTOS Oil Sp. z o.o.

In 2020, LOTOS Oil's sales efforts were focused on the automotive segment, particularly on increasing the share of synthetic and semi-synthetic oil products for passenger cars. In response to the COVID-19 pandemic crisis, the company also launched the production of liquid hand sanitisers and surface disinfectants.

Key factors affecting the profitability of the LOTOS Group's lubricating oil business in 2021 and beyond include:

- availability and prices of raw materials (base oils and enhancing additives),
- with regard to motor oils – strengthening cooperative relationships with smaller distributors and automotive wholesalers, as well as stepping up direct sales, supported by effective marketing campaigns,
- with regard to industrial oils – changing the sales structure towards a reduced share of machine oil sales.

As part of its efforts to create added value and drive economies of scale, LOTOS Oil was active in the Polish Automotive Group and the Association of Polish Enterprises in Ukraine. The aim of these efforts was to attract new customers for the company's own products, exchange databases with foreign operators and pursue joint projects to further business expansion within the sector.

5.4.5 Production and sale of bitumens and marine fuels

The Group subsidiary dedicated to the bitumens business is LOTOS Asfalt Sp. z o.o., a producer and distributor of a broad range of road bitumens, soft road bitumens, modified bitumens (MODBIT, including HIMA highly-modified asphalts), WMAs (warm mix asphalts) for application in badly accessible places (e.g. tunnels) and industrial bitumens. The Company also delivers speciality bespoke products.

In 2020, LOTOS Asfalt Sp. z o.o. was making consistent efforts to retain its position as a leader in speciality bitumens (modified and industrial bitumens) and as a leading supplier of road bitumens in Poland. The Company's bitumen products were sold to support work under a number of road contracts, both in Poland and abroad. In 2020, as in the previous years, the key market for bitumens was Poland. According to the Company's estimates, its share of the Polish bitumen market in 2020 was close to 45%. It also found a particularly ready market in Europe (mainly Romania). An important factor behind the Company's sales performance was the situation prevailing on the road infrastructure market. Road construction was the busiest sector of the economy both in Poland and in neighbouring countries, despite the pandemic-induced slowdown across other industries. Leveraging market opportunities, the Company expanded its bitumen sales year on year both domestically and abroad. The year-on-year drop in bitumen prices was markedly lower (by 10%) than the decline in crude oil prices, i.e. Brent crude, which had a positive effect on the Grupa LOTOS Refining & Marketing segment, boosting its margin on bitumen production and sales. The significantly steeper decline in fuel prices added to the economic viability of bitumen production.

In 2020, the Company was also marketing bunker fuels, with vessel operators on the Baltic Sea as its key target market. The objectives pursued in 2020 were to efficiently market marine fuel, that is to maintain sales of MGO, and to further develop alternative (hybrid) fuels. Despite challenging market conditions and strong fluctuations in crude oil, LOTOS Asfalt leveraged opportunities associated with growing market demand for the product and delivered its best ever sales result (in volume terms).

5.5 Export markets

In 2020, Grupa LOTOS S.A. exported over 1.8 million tonnes of products, mostly LPG and naphtha, driven primarily by the launch of the DCU and additional supply of the products.

Its other main export products by volume were bitumens, diesel oil, motor gasoline, heavy fuel oil, aviation fuel, base oils, xylene fraction, and reformate.

Grupa LOTOS S.A.'s export fuels are shipped by land and sea, with the majority of such products delivered by tankers through the handling infrastructure managed by Naftoport. Transhipment takes place through dedicated product pipelines, approximately 12 kilometres in length, for unleaded petrol, reformate, diesel oil, aviation fuel, naphtha, and fuel oil. Tankers with a capacity of 6 to 30 thousand tonnes are used to carry the products.

5.6 Logistics supporting the Refining & Marketing segment

The LOTOS Group consistently adapts its logistics operations to the requirements of its trading operations and builds an efficient distribution system meeting the expectations of its customers, while being continually optimised. The purpose of those measures is to build an optimum logistics chain that would function efficiently in the constantly changing external and internal environments.

Grupa LOTOS enjoys considerable cost advantages because of its direct access to product and feedstock pipelines linking the refinery in Gdańsk to the liquid fuel handling facilities at Port Północny. Maritime transport plays the key role in the Company's export of oil products, while accounting for a significant portion of feedstock deliveries and components used in production processes. Approximately 5.7 million tonnes of crude oil, petroleum products, and fuel components were loaded and unloaded by the Company at sea ports in 2020. During the year, 234 tankers were received or dispatched, including 60 transporting crude oil.

Map 3. **Logistics infrastructure of the LOTOS Group**

Source: the Company.

In 2020, the Company secured additional storage capacities for fuels and crude oil, increasing its feedstock security and operational capabilities. The structure of stocks was enhanced to minimise related costs, while ensuring sufficient stocks were held to meet the LOTOS Group's trading requirements.

As part of its efforts to optimise operating expenses, work related to rolling stock deployment was continued by the Company, resulting in numerous benefits in terms of costs and the number of rail tank cars used. At the same time, some of the railway infrastructure was upgraded to accommodate tank cars with a payload capacity of up to 22.5 tonnes per axle, which significantly increased daily shipments of oil products and eliminated the need to load and dispatch about 2,800 rail tank cars per year while keeping the volume unchanged.

In secondary logistics of fuels, the Company adopted a model of cooperation with transport companies that guaranteed appropriate flexibility in customer service with fixed costs curbed to the minimum.

In 2020, the Company continued to develop small marine cargo handling. Its transhipment terminal on the Martwa Wisła river is planned to be launched in 2024.

Seeking to expand its capacity to dispatch refinery products and to adapt its infrastructure to conditions prevailing on the domestic fuel market, the Group was engaged in a project to construct a railway loading facility, scheduled to be placed in service in the second quarter of 2021.

In 2020, the Company deployed B2B interfaces for electronic data exchange with AmeriGas's LPG depot network. Grupa LOTOS expanded its interfaces with PERN's depots and Batchem's fuel depot in Szczecin with an online mechanism for B7 fuels blending and dosing of customer additives. Following the introduction of changes to the SENT system, the Company implemented a function in SAP to support fuel oil sales in compliance with the amended Act on the Monitoring System for the Carriage of Goods by Road and Rail and on Fuel Oil Trading. The Company also deployed a mechanism for automatic filling out of reports to SENT on behalf of the carrier.

In response to market demand, contracts to expand and upgrade the fuel terminal in Piotrków Trybunalski were signed by the Company on January 14th 2020. The project will quadruple the terminal's storage capacity, to about 11,000 cubic metres, while doubling the amount of fuels it can handle. The project is scheduled for completion in 2021–2022.

5.6.1 Storage and distribution of fuels

LOTOS Terminale S.A. is the business centre responsible for professional fuel storage and distribution operations throughout Poland.

The company operates four fuel depots in Czechowice-Dziedzice, Poznań, Piotrków Trybunalski and Rypin, where it handles more than 2 mcm of fuels annually. LOTOS Terminale has a subsidiary LOTOS Biopaliwa, which produces 100 thousand tonnes of biofuel components per year.

5.6.2 Railway transport

Rail transport of products from the refinery in Gdańsk is a mainstay of the Group's production security. Comprehensive rail logistics services are provided to the entire Group by LOTOS Kolej, a rail operator.

In 2020, LOTOS Kolej provided the following railway services:

- rail freight transport in Poland,
- independent freight transport services in Germany and the Czech Republic,
- traction services,
- trainload and non-trainload services,
- maintenance of rolling stock,
- eco-friendly cleaning of rail tank cars,
- international rail freight,
- railway siding services for the LOTOS Group,
- lease of rail cars,
- train driver training services.

2020 saw a downward trend in the Polish rail freight market. As at the end of December 2020, 84 carriers provided freight transport services under licences issued by the President of the Office of Rail Transport. Between January and December 2020, they transported 223.22 million tonnes of cargo, 5.57% less than the year before. Concurrently, the average rail freight distance declined, leading to a 6.62% decrease in tonne-kilometres in 2020.

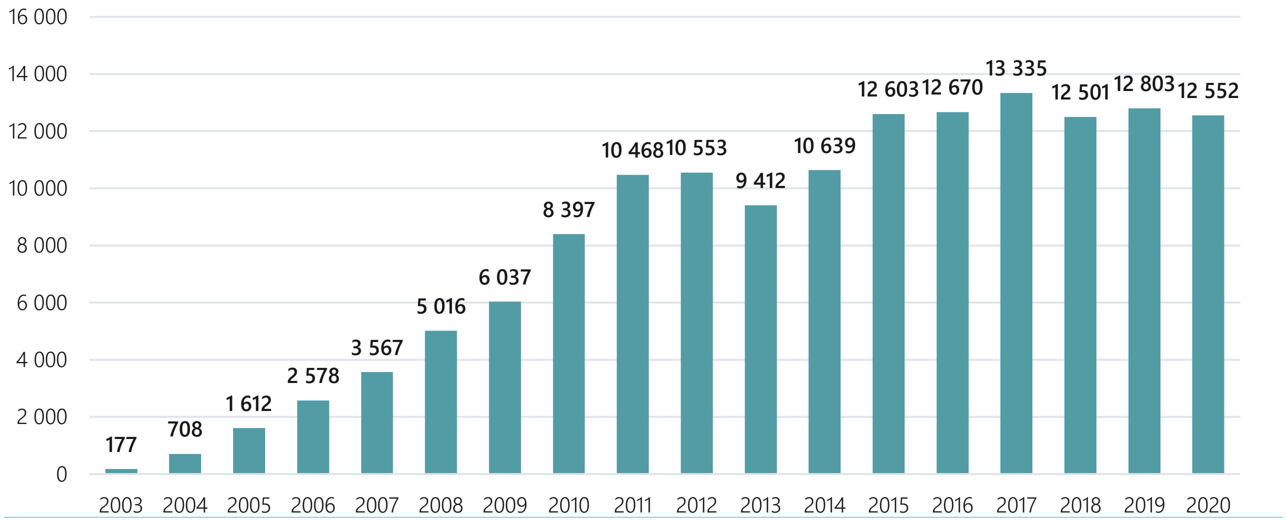
Table 3. Changes in the Polish rail freight market

	2020	2019	2020/2019
mass of cargo carried (million tonnes)	223.22	236.40	-5.6%
tonne-kilometres (million)	52,203.39	55,905.46	-6.6%
train-kilometres (million)	77.50	82.34	-5.9%

Source: LOTOS Kolej's in-house analysis based on the Office of Rail Transport data.

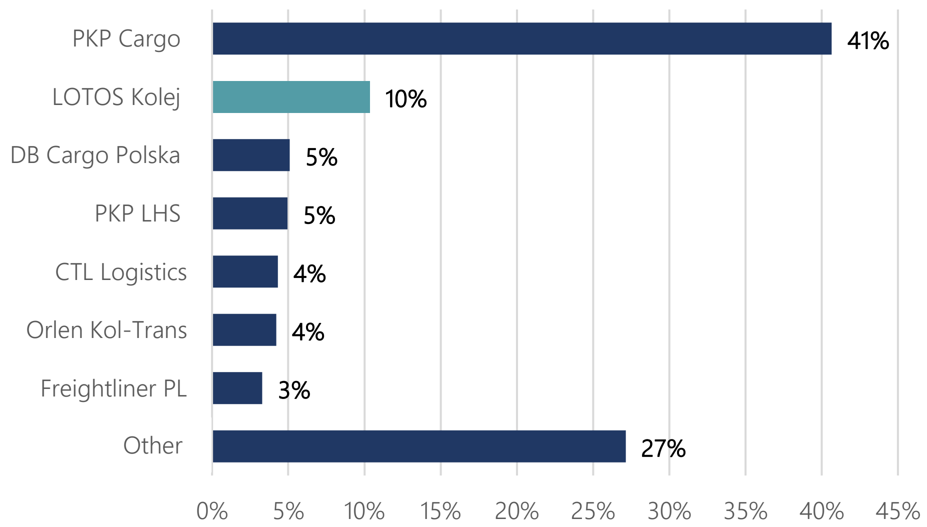
Despite the overall downward trend seen in 2020, LOTOS Kolej maintained its second position among Polish rail carriers in terms of tonne-kilometres. In 2020, the company increased its share of the Polish rail freight market (in terms of tonne-kilometres) from 9.79% as at the end of December 2019 to 10.36% a year later Despite a drop in traffic volumes, from 5,474 million ntkm (net tonne-kilometres) in 2019 to 5,407 million ntkm in 2020 (down by 1.2%) and a 2% decrease in the total tonnage carried (from 12,803 thousand tonnes in 2019 to 12,552 thousand tonnes in 2020), of which 8.4 million tonnes were hazardous materials – the company has been the market leader in the transport of such materials for years.

Figure 30. Rail transport services performed by LOTOS Kolej in 2020 (thousand tonnes)



Source: LOTOS Kolej's in-house analysis.

Figure 31. Share in domestic rail freight transport in January–December 2020 (tonne-kilometres)



Source: in-house analysis based on the Office of Rail Transport data.

The company continues to develop its business relations with customers from outside the LOTOS Group in both domestic and international freight transport.

Due to the COVID-19 pandemic and its economic impact, in 2020 the Company implemented the Anti-Crisis Shield Programme in place at the LOTOS Group. Thanks to the programme, the Company achieved considerable savings, especially by reducing fixed costs, optimising margins, reducing capex, optimising the use of rail cars and lowering lease payments for locomotives.

Under its contracts with NEWAG S.A. and Millenium Leasing Sp. z o.o., in 2020 the Company added four new E6ACTab Dragon 2 locomotives to its fleet. In 2019–2020, the Company operated six new locomotives of this type under those contracts.

In 2020, LOTOS Kolej continued its project to purchase modern intermodal rolling stock, co-financed with approximately PLN 74 million under the Infrastructure and Environment Operational Programme for 2014–2020. The project was designed to increase LOTOS Kolej's share in the intermodal transport market starting from 2020. Under the project, suppliers were selected and contracts were signed for the purchase of 324 specialised flat wagons and one electric locomotive.

On January 10th 2020, LOTOS Kolej obtained a Safety Certificate, enabling the company to independently carry out rail freight operations over Czech rail infrastructure.

In 2020, the company continued its contract with the Polish Armed Forces for the transport of F-34 aviation fuel and entered into another such four-year framework contract. The contract was signed after a successful tender procedure.

In 2020, the company continued to provide its freight transport services in Germany. Using its own and German train drivers, it transported more than 527 thousand tonnes of goods, but it plans to consistently increase that volume. By expanding the operations in Germany, LOTOS Kolej broadened its offering, while providing its customers with fast and reliable transport services between Poland and Western Europe.

5.7 Refining & Marketing sales structure

In 2020, the LOTOS Group's Refining & Marketing segment sold 10,960 thousand tonnes of products (down 4.4% year on year), the bulk of which (9,137 thousand tonnes, or 83.4%) having been placed on the domestic market. Domestic sales grew 2.2%, while exports fell 27.9% year on year.
At 6,046 thousand tonnes (up 1.9%), diesel oil accounted for the major part of overall sales. Nearly its entire volume (98%) was sold domestically. Another product category with a significant share in total sales were gasolines (which sold 1,643 thousand tonnes (down 0.3%)). Sales of heavy products also fell off (to 982 thousand tonnes, down 45.4%), due mainly to lower exports, which accounted for the majority of sales within this product category.

Table 4. **Refining & Marketing sales structure (tonnes)**

	2020			2019		
	domestic sales	exports	total	domestic sales	exports	total
Gasolines	1,447,539	195,528	1,643,066	1,411,177	236,049	1,647,227
Pyrolysis gasoline	0	567,401	567,401	0	474,031	474,031
Reformate	0	43,867	43,867	0	0	0
Diesel oil	5,912,456	133,837	6,046,294	5,932,327	0	5,932,327
Bunker fuel	109,331	0	109,331	94,537	0	94,537
Light fuel oil	235,141	0	235,141	228,816	0	228,816
Heavy products	528,047	454,395	982,443	528,637	1,269,442	1,798,080
Jet	75,086	153,538	228,624	192,200	252,508	444,707
Lubricants	34,570	42,673	77,243	26,752	42,295	69,047
Base oils	13,166	166,987	180,153	12,310	174,880	187,189
LPG	246,785	975,318	247,760	243,252	0	243,252
Other petroleum products	534,643	63,581	598,224	265,724	79,747	345,471
TOTAL	9,136,763	1,822,784	10,959,547	8,935,732	2,528,951	11,464,683
Crude oil (material)	80,583		80,583		0	0
TOTAL	9,217,346	1,822,784	11,040,130	8,935,732	2,528,951	11,464,683

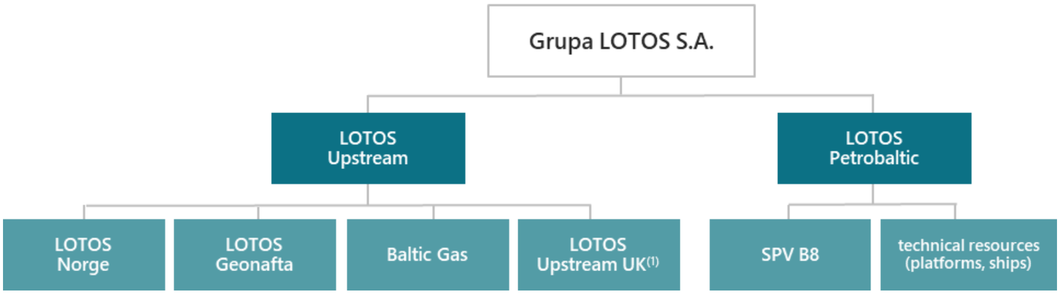
Source: the Company.

6 LOTOS Group's exploration & production activities

6.1 Organisation of the Exploration & Production segment

As at December 31st 2020, the LOTOS Group's Exploration & Production segment was organised in accordance with the business structure chart shown below.

Chart 1. **Business structure of the Exploration & Production segment**



(1) The company is in liquidation from November 25th, 2020

Source: the Company.

The LOTOS Group's exploration and production activities are carried out by two dedicated entities: LOTOS Petrobaltic and LOTOS Upstream.

LOTOS Upstream (LUPS) pursues its business development plans with the support of the following subsidiaries: LOTOS E&P Norge AS (operations on the Norwegian Continental Shelf), AB LOTOS Geonafta and its subsidiaries (onshore operations in Lithuania), Baltic Gas Sp. z o.o., Baltic Gas i wspólnicy sp. z o.o. sp.k. (special purpose vehicles established to carry out the B4/B6 gas field development project in the Baltic). LOTOS Upstream UK Ltd was established as a vehicle for potential E&P business expansion in the UK. However, in 2020 a decision was made to abandon plans to gain an upstream foothold on the British Continental Shelf. On November 25th 2020, LOTOS Upstream UK was formally placed in liquidation.

LOTOS Petrobaltic and its subsidiaries focus on the exploration and production as well as oilfield operation and services in the Baltic Sea, including production from the B3 field, development of the B8 field to start full-scale production, and execution of exploration projects in the Baltic Sea and within onshore licence areas in Poland. Simultaneously, LOTOS Petrobaltic is launching business development initiatives to leverage its engineering, project execution and design capabilities and to provide services for the offshore sector. Their objective is to diversify the company's business and revenue sources.

6.2 Upstream assets and production volume

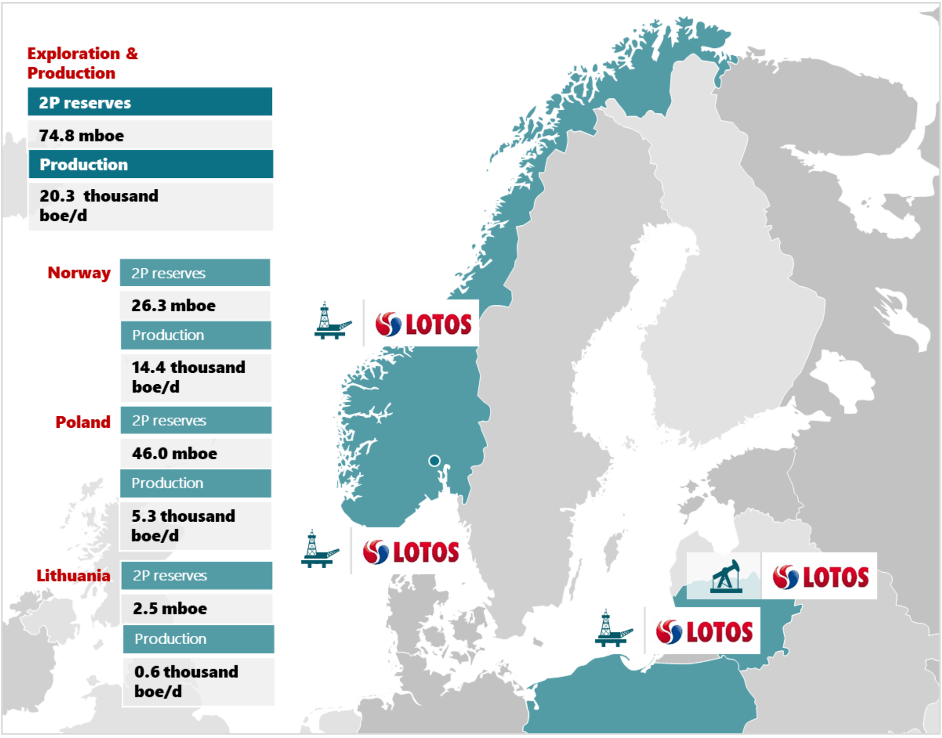
The LOTOS Group is engaged in exploration and production activities in Poland, Norway and Lithuania. In 2020, hydrocarbons were produced from fields located in:

- the Baltic Sea – mainly crude oil with a small amount of associated natural gas,
- Norwegian Continental Shelf – natural gas and condensate (i.e. light crude oil) with a higher share of the gas,
- onshore Lithuania – crude oil.

In 2020, the LOTOS Group's average daily volume of oil and gas production was 20.3 thousand boe, which translates into an annual volume of some 1 million toe. Approximately 71% of that total output, i.e. 14.4 thousand boe/d, came from the Norwegian fields.

At the end of 2020, the LOTOS Group's total 2P (proved and probable) reserves were estimated at 74.8 million boe, including 61.0 million boe of crude oil (82% of the total 2P reserves) and 13.8 million boe of natural gas (18% of the total 2P reserves).

Map 4. **LOTOS Group's hydrocarbon reserves and output** 2P oil and gas reserves as at December 31st 2020
Average daily oil and gas output in 2020



Source: the Company.

Table 5. **Oil and gas sales structure**

	2020		2019	
	(by volume)	(%)	(by volume)	(%)
Natural gas (million boe)	3.55	44.1%	3.95	57.9%
Oil (million bbl)	4.50	55.9%	2.87	42.1%
Total oil and gas (million boe)	8.06		6.83	

Source: the Company.

6.3 Exploration and production activities in Poland

The LOTOS Group's exploration and production activities in Poland are carried out through two companies, LOTOS Petrobaltic and LOTOS Upstream, as well as their subsidiaries and jointly-controlled entities. The activities are concentrated within the Polish zone of the Baltic Sea. In addition, they are carried out in Polish onshore areas.

The LOTOS Group's exploration and production activities in Poland are conducted through its subsidiaries and jointly-controlled entities under a total of nine licences, including: three offshore oil and gas exploration and appraisal licences covering the Łeba, Rozewie and Gotlandia areas, four offshore licences for the production of hydrocarbons from the B3, B8, B4 and B6 fields, and two onshore licences for the exploration for, appraisal and production of oil and gas in the Młynary and Górowo Iławeckie areas.

In 2020, the LOTOS Group's average daily hydrocarbon output in Poland was 5.3 thousand boe/d (+15.7% year on year), which accounted for 26% of its total production volume. Hydrocarbons were produced from the B3 and B8 fields in the Baltic Sea.

As at the end of 2020, the LOTOS Group's 2P hydrocarbon reserves in Poland totalled 46.0 million boe (including 42.0 million boe of crude oil and 4.0 million boe of natural gas), accounting for 61% of the LOTOS Group's total 2P reserves.

In parallel to its exploration and production operations in Poland, in 2020 LOTOS Petrobaltic launched development initiatives to diversify its business and revenue sources, including work to enable its entry into the newly emerging offshore wind farm market. Moreover, conceptual work was under way for a geo-sequestration programme of carbon capture and underground storage within water flooded formations of the Baltic Sea.

6.3.1 Competition for the upstream business

Operators exploring for hydrocarbon deposits, appraising them and producing hydrocarbons from fields in Poland are mainly companies majority-owned by the Polish state. The leader is PGNiG, which:

- is engaged in exploration and appraisal work within 46 licence areas (of which 41 it operates by itself and 5 – jointly with partners) (as at the end of 2020, this number accounted for 62% of all licences for exploration and appraisal of crude oil and natural gas deposits issued in Poland);
- holds 189 oil and gas production licences (96% of all licences issued).

The LOTOS Group is the leader in exploration and production within the Polish zone of the Baltic Sea. All the three combined offshore hydrocarbon exploration, appraisal and production licences and all the four licences for production of hydrocarbons from oil and gas fields within the Polish Economic Zone of the Baltic Sea have been issued to the LOTOS Group's subsidiaries and their joint ventures. Under the production licences covering the B4/B6 gas fields, work is being carried out in partnership with CalEnergy Resources Poland Sp. z o.o. The project is to be delivered through special purpose vehicles Baltic Gas Sp. z o.o. and Baltic Gas Sp. z o.o. i wspólnicy Sp.k. LOTOS holds a 51% interest in the project.

Table 6. Companies holding licences for exploration and production of hydrocarbons from Polish fields As at Dec 31 2020

	Licences for exploration and appraisal of hydrocarbon deposits	Licences for production of hydrocarbons from sources in Poland
PGNiG S.A.	46 (including 4 with Orlen Upstream and 1 with LOTOS Petrobaltic)	189 (including 1 with Orlen Upstream)
Orlen Upstream Sp. z o. o.	14 (including 4 with PGNiG)	1 (with PGNiG)
LOTOS Group	5 (including 1 with PGNiG)	4
Northam Sp. z o.o.	4	
Gemini Resources Ltd.	2	
Palomar Capital - San Leon Energy BV	2	
San Leon Energy PLC	2	
Blue Gas N'R'G Sp. z o.o.	1	
Central European Petroleum Ltd	1	
KGHM Polska Miedź SA	1	
Trias Sp. z o.o.	1	1
ZOK Sp. z o.o.		2
Total number of licences awarded[9]	74	196

Source: Public Information Bulletin of the Climate Ministry, Reports and statements on licence awards – December 2020.
→ *https://bip.mos.gov.pl/pl/koncesje-geologiczne/raporty-i-zestawienia-dotyczace-udzielonych-koncesji-w-tym-zestawienia-otworow-wiertniczych/raporty-i-zestawienia-rok-2020/raporty-i-zestawienia-grudzien-2020-r/*

6.3.2 Key assets of the LOTOS Group (production levels and licences)

The LOTOS Group's key licence assets in Poland include:

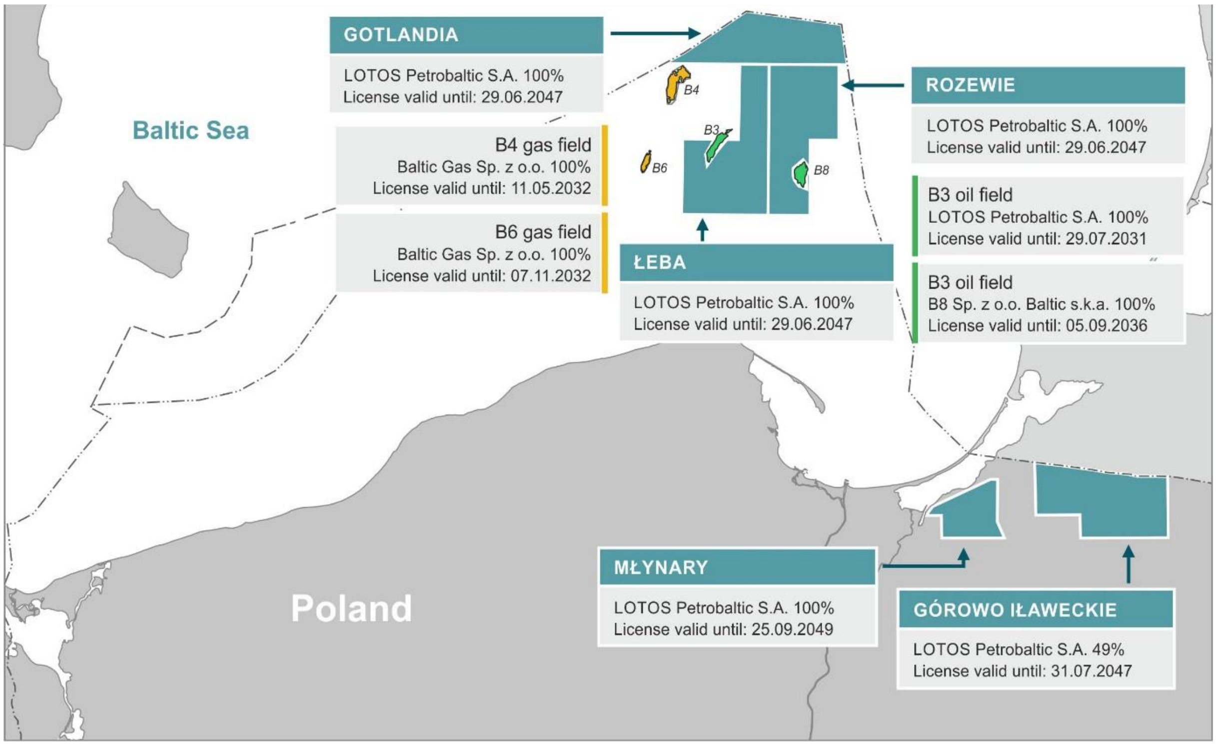
- B3 production field: In 2020, the average daily output of crude oil and associated natural gas was 1.6 thousand boe/d (up 22% year on year). The year-on-year increase in production rates was a result of a successful workover programme, with a total of eight wells (including two injectors) worked over on the B3 field in 2020. As at the end of 2020, the B3 field's remaining recoverable reserves were estimated at 12.6 million boe. Based on the current licence validity date, production from the field is expected to continue until 2031;

[9] Several companies may be awarded the same licence. Therefore, the total number of licences awarded is higher than the number of licensed companies.

- B8 production field: In 2020, the average daily output of crude oil and associated natural gas was 3.7 thousand boe/d (up 13% year on year). As at the end of 2020, the B8 field's remaining recoverable reserves were estimated at 33.4 million boe. Based on the current licence validity date, production from the field is expected to continue until 2036;
- B4/B6 gas fields under preparation for development. The project is to be delivered through special purpose vehicles Baltic Gas Sp. z o.o. and Baltic Gas Sp. z o.o. i wspólnicy Sp.k. in partnership with CalEnergy Resources Poland Sp. z o.o. LOTOS holds a 51% interest in the project. The 2C (contingent) recoverable resources of the B4/B6 fields are estimated at 4.8 billion cubic metres (for the 100% interest). A final investment decision (FID) for the project is under way.

In addition, the Company is engaged in exploration and appraisal work within the areas covered by its licences to discover additional oil and gas resources. In 2020, work was ongoing in the Gotland, Łeba and Rozewie offshore licence areas (LOTOS Petrobaltic's interest: 100%) to develop a regional structure and tectonic model. In the Młynary onshore licence area (LOTOS Petrobaltic's interest: 100%), preparatory work was under way to acquire 3D seismic data, as part of which Attachment 1 to the Plan of Geological Operations for 3D seismic surveys was developed and the boundaries of the planned 3D seismic imaging were being analysed. In the Górowo Iławeckie onshore licence area (PGNiG operator interest: 51%, LOTOS Petrobaltic's interest: 49%), work was under way to proceed to the exploration drilling stage.

Map 5. **Licences held by the LOTOS Group companies in Poland**
As at Dec 31 2020



Source: the Company.

6.3.3 Logistics

Crude oil and associated natural gas are produced from the B3 field using the Baltic Beta rig and the PG-1 unmanned drilling rig. All produced crude oil is transported by tankers and sold to Grupa LOTOS S.A. Natural gas is transported via a subsea 80 km pipeline to the CHP plant in Władysławowo, owned by Energobaltic Sp. z o.o. (wholly-owned subsidiary of LOTOS Petrobaltic).

Production of crude oil from the B8 field is supported by the Central Production Facility, commissioned on October 1st 2020. All produced crude oil is transported by tankers and sold to Grupa LOTOS S.A. Natural gas will be transported via a subsea pipeline to Energobaltic's CHP plant in Władysławowo.

The Petro Giant drilling rig purchased in 2019, following the necessary adaptation work and crew training, commenced workover operations on the B3 field in 2020. Throughout 2020, the workover programme covered a total of eight wells (including two injectors) on the B3 field. The ongoing well workover programme is designed to maximise recovery rates and enhance production.

Sea logistics services in the Baltic Sea region are provided by the Miliana Shipholding Group. The services consist in the receipt and storage of crude oil at production sites, transport of crude from the field onshore, and rescue assistance services for offshore rigs.

6.4 Exploration and production activities in Norway

Exploration and production activities in Norway are carried out through subsidiary LOTOS Exploration & Production Norge AS (LOTOS Norge) of Stavanger.

At the end of 2020, LOTOS Norge held interests in 28 licences for exploration, appraisal and production of hydrocarbon reserves in the Norwegian Continental Shelf. Under a decision issued on January 19th 2021, LOTOS Norge was awarded interests in three new licences in Norway following the APA (Awards in Predefined Areas) 2020 licensing round: PL 1098 (50% interest), PL 1099 (30% interest) and PL 1091 (20% interest). The PL 1098 and PL 1099 licences are located within the area of the new NOAKA development project. The operator of PL 1098 is Sval Energi AS, which, like LOTOS Norge, holds a 50% interest in the licence. In the case of PL 1099, the operator will be AkerBP ASA (with a 40% interest) and the consortium will also include Lundin Energy Norway AS (with a 30% interest). The PL 1091 licence is located within Sleipner, currently the main producing area for gas and natural gas liquids in Norway. Under the licence, LOTOS Norge will be working jointly with Lundin Energy Norway AS the operator (40% interest) and with KUFPEC Norway AS (20% interest) and Petoro AS (20% interest) as partners. Following formal inclusion of the newly awarded licences, the LOTOS Group's portfolio of Norwegian assets will comprise 31 licences.

In 2020, the LOTOS Group's average daily hydrocarbon output in Norway was 14.4 thousand boe/d (-6.6% year on year), which accounted for 71% of its total production volume. It produced natural gas and condensate from fields located in the Heimdal and Sleipner areas (including the Utgard field brought on stream in the third quarter of 2019). As at the end of 2020, the LOTOS Group's 2P hydrocarbon reserves in Norway totalled 26.3 million boe (including 16.5 million boe of crude oil and 9.8 million boe of natural gas), which accounted for 35% of the Group's total 2P reserves.

6.4.1 Competition for the upstream business

In 2020, exploration and production activity on the Norwegian Continental Shelf remained busy despite the ongoing COVID-19 pandemic and crisis affecting the petroleum commodity market. 2020 saw an increase in both hydrocarbon production levels and new field development investment relative to 2019. The following key statistics provide a picture of the market environment in Norway[10]:

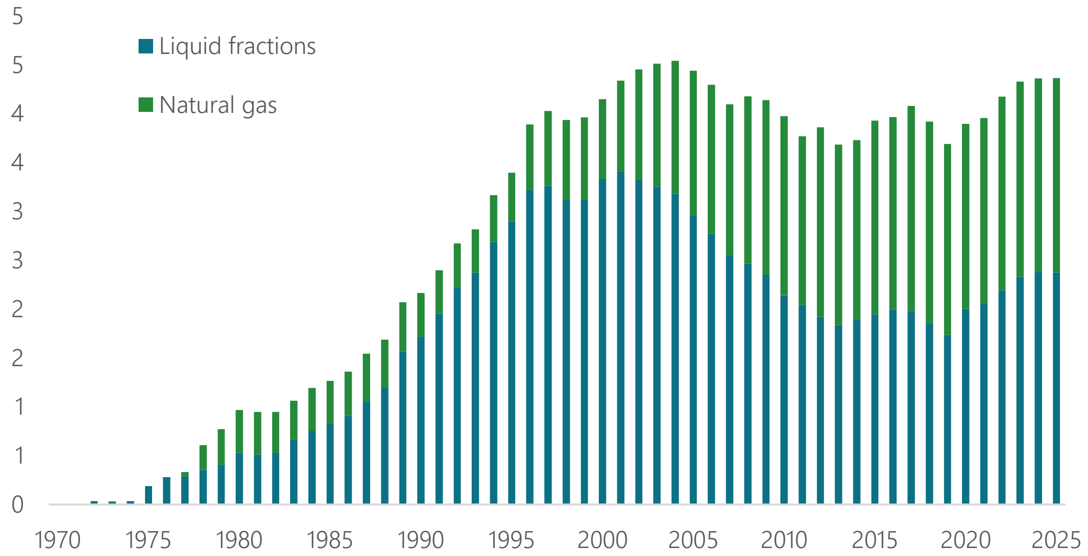
- NOK 155 billion worth of completed investment projects (excluding exploration) (+ 2% year on year),
- 3.89 million boe/day of average hydrocarbon production (up 6% year on year),
- 14 new discoveries,
- 4 new fields brought on stream (Tor, Skogul, Ærfugl and Dvalin),
- 31 exploration wells drilled.

As at the end of 2020, a record-high number of fields (90) were under production.

In 2020, the daily hydrocarbon production in Norway averaged 3.89 million boe/d (up 6% year on year). Accounting for half of that production volume were liquid fractions, i.e. crude oil, condensate and NGL (natural gas liquids). According to the Norwegian Petroleum Directorate, production should rise incrementally until 2025, with the average level of hydrocarbon production expected to stabilise at approximately 4.0-4.4 thousand boe/day. Importantly, another forecast trend is towards optimised field operation costs and lower greenhouse gas emissions, which, with production volumes on the rise, should translate into improved efficiency and profitability of upstream projects.

[10] Source: *Norwegian Shelf statistics based on publications and data from the Norwegian Petroleum Directorate*.
→https://www.npd.no/en/facts/publications/reports2/the-shelf/the-shelf-in-2020/

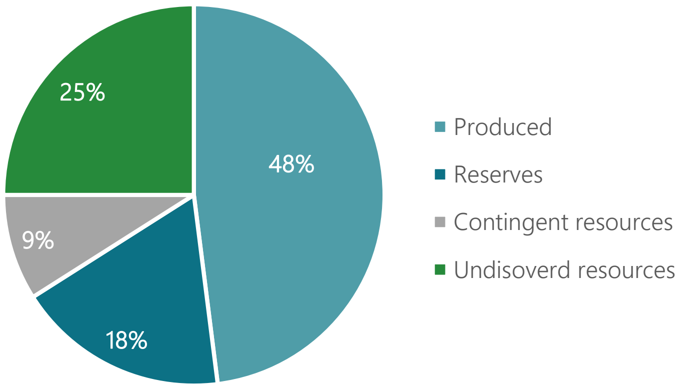
Figure 32. Historical and planned hydrocarbon production levels on the Norwegian Continental Shelf (million boe/day)



Source: In-house analysis based on publications and data from the Norwegian Petroleum Directorate. →
https://www.npd.no/en/facts/publications/reports2/the-shelf/the-shelf-in-2020/

The Norwegian Continental Shelf still offers attractive growth and value addition potential for exploration and production companies. According to data from the Norwegian Petroleum Directorate, a governmental authority, out of Norway's total oil and gas resources estimated at approximately 15.7 billion cubic metres, about a half are still potentially producible, including the remaining recoverable reserves of producing fields or fields under development (approximately 18% of the total), contingent resources of new discoveries (approximately 9%), as well as prospective resources identified within exploration areas (approximately 25%). In the coming years, the level of investment in the development of new fields is expected to remain broadly stable, supported by new tax credits introduced by Norway in 2019.

Figure 33. Potential resources of the Norwegian Continental Shelf



Source: In-house analysis based on publications and data from the Norwegian Petroleum Directorate. →
https://www.npd.no/en/facts/publications/reports2/the-shelf/the-shelf-in-2020/

The competitive environment in Norway is changing, with the key trends of recent years including very active consolidation of assets and businesses, increased market activity of players supported by private equity funds, as well as continued divestment of production asset portfolios in the North Sea by international majors, with a resulting reduction of their market shares. As at the end of 2020, a total of 37 companies were involved in exploration and production operations in Norway. Over the past decade, the number of active market players, has declined on account of the ongoing consolidation processes (from the record-high number of 56 companies active in 2013). Equinor remains the leader on the Norwegian Shelf, accounting for approximately 70% of the shelf's aggregate oil and gas output. A prominent group of industry investors, which have expanded their market shares in recent years, are middle-sized companies, such as AkerBP, LOTOS E&P Norge, Lundin, MOL, Neptun, OMV, Vår Energi and Winterare DEA. Another group of investors are small companies, including OKEA, Pandion, Sval Energy, Wellesley and utilities such as Edison and PGNiG. International majors are also active in Norway, although their market shares have lately been reduced. LOTOS E&P Norge, with a current daily production volume of some 14.4 thousand boe/d and 2P reserves of approximately 26 million boe, holds a 0.4% share in the market.

Table 7. Categories of upstream investors active in Norway.

	2020	2019
Large Norwegian companies (Equinor, Petoro)	2	2
International majors (ConocoPhillips, Shell, Total)	3	3
Medium-sized companies (e.g. AkerBP, LOTOS, Lundin, MOL, Vår Energi)	19	20
Small companies (e.g. OKEA, Pandion, Sval Energy, Wellesley)	11	12
Utilities (Edison, PGNiG)	2	2
Total number of companies	37	39

Source: In-house analysis based on publications and data from the Norwegian Petroleum Directorate.→https://www.npd.no/en/facts/publications/reports2/the-shelf/the-shelf-in-2020/

Highly prospective in terms of resources and still offering considerable potential for new oil and gas discoveries, the Norwegian Continental Shelf remains an attractive area of activity for companies in the upstream industry, given the prevailing positive trends in cost reduction, efficiency improvement and technology advancement, the active trading market as well as the stable fiscal and regulatory environment.

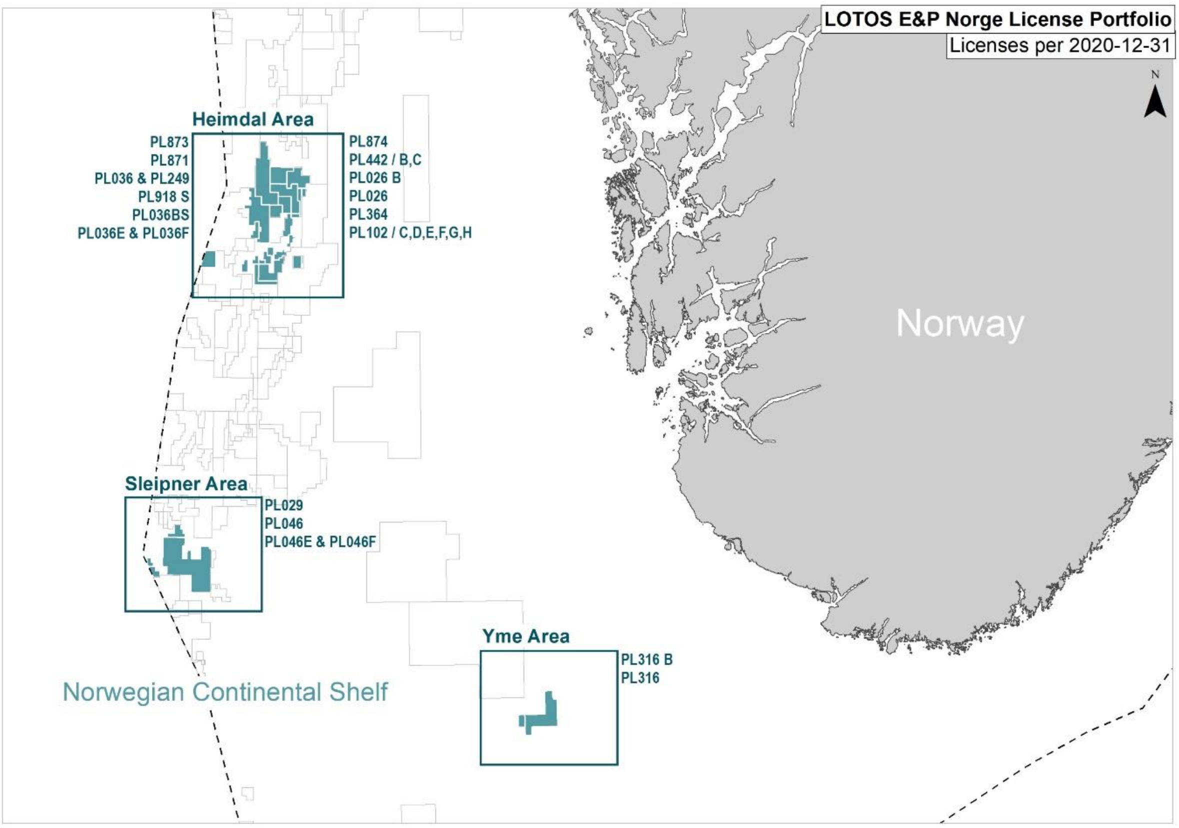
6.4.2 Key assets of the LOTOS Group (production levels and licences)

The LOTOS Group's key licence assets in Norway include:

- production fields in the Heimdal area: Atla (20% interest held by LOTOS Norge), Skirne (30% interest), Vale (25.8% interest) and Heimdal (5% interest). The remaining 2P recoverable reserves are estimated at 1.0 million boe as at December 31st 2020 (LOTOS Norge's interest). In 2020, the company's average production from Heimdal fields was 2.1 thousand boe per day;
- Sleipner producing fields, namely Sleipner Vest and Sleipner East, with Gungne and Loke satellite fields (15% interest held by LOTOS Norge). The remaining 2P recoverable reserves are estimated at 11.2 million boe as at December 31st 2020 (LOTOS Norge's interest). In 2020, the company's average production from Sleipner fields was 8.7 thousand boe per day;
- Utgard producing field (17.36% interest held by LOTOS Norge). The field came on stream in the third quarter of 2019. Hydrocarbons from the field are produced using Sleipner infrastructure. The remaining 2P recoverable reserves are estimated at 1.6 million boe as at December 31st 2020 (LOTOS Norge's interest). The average production achieved by the company in 2020 was 3.7 thousand boe per day. The Utgard field's reserves and recovery rates are lower than expected due to considerable break-through of water into the production wells. In the second half of 2020 and early 2021, measures were taken (well interventions) to halt a strong downward trend in the Utgard field's output. In early March 2021, oil was being produced from two wells, at a stable rate of approximately 3.5 thousand boe per day for the LOTOS Norge interest;
- Yme field under development (20% interest held by LOTOS Norge). The field operator is Repsol, and the development activities are being carried out in accordance with the approved new PDO, using a leased platform – Maersk Inspirer. The project is at an advanced stage, with first oil expected in the fourth quarter of 2021. The field's 2P recoverable reserves are estimated at 12.5 million boe as at December 31st 2020 (LOTOS Norge's interest);
- new NOAKA development project: development of deposits discovered north of the Heimdal hub: Frigg Gamma Delta, Rind, Langfjellet, Liatårnet, Fulla, Frøy (with LOTOS Norge's average interest of 10%), as well as Krafla and Askja fields, in which LOTOS holds no interests. An optimum field development concept is being prepared for the project. The total potential of the NOAKA project is more than 500 million boe of recoverable reserves (for the 100% interest).

In addition to its interests in the fields, LOTOS Norge also holds interests (of 5% and 15%, respectively) in the Heimdal and Sleipner area gas hubs, i.e. the gas and condensate processing and transporting centres of strategic importance to gas export from Norway to Central Europe and the United Kingdom.

Map 6. **Licences held by LOTOS Exploration & Production Norge AS**
As at Dec 31 2020



Source: the Company.

6.4.3 Logistics

LOTOS Norge holds interests in licences covering the production infrastructure in the Heimdal and Sleipner fields, including: the Heimdal gas and condensate processing and transport hub (operated by Equinor, LOTOS Norge holds a 5% interest), and the Sleipner gas and condensate processing and transport hub (operated by Equinor, LOTOS Norge holds a 15% interest).

Gas produced from the Heimdal and the Sleipner fields is injected into the Gassled pipeline system, and then delivered to off-take points in the UK and continental Europe (the Netherlands, Germany).

Condensate from the Heimdal field is injected into the Forties Pipeline System (FPS), and then delivered to an off-take point at the Kinneil Terminal/Hound Point in Scotland, where it is processed into final products, i.e. Forties Blend crude oil and gas fractions. Condensate from the Sleipner field is transported via a pipeline to an off-take point in Karsto (Norway), where it is processed into final products, i.e. Gudrun Blend light crude and liquid fractions (NGL).

6.5 Exploration and production activities in Lithuania

Exploration and production operations in Lithuania are carried out through a subsidiary, AB LOTOS Geonafta of Gargždai. The company is the parent of another group of companies, comprising:

- UAB Genciu Nafta (100% owned by AB LOTOS Geonafta),
- UAB Manifoldas (100% owned by AB LOTOS Geonafta),
- UAB Minijos Nafta (50% owned by AB LOTOS Geonafta).

6.5.1 Competition for the upstream business

There is no active E&P market in Lithuania. The AB LOTOS Geonafta Group companies are the only entities engaged in production of oil from Lithuanian fields. The LOTOS Group owns 100% of the Lithuanian assets, except for UAB Minijos Nafta, where it owns 50% and the remaining investors are: Tethys Oil AB, Odin Energy A/S and private investors.

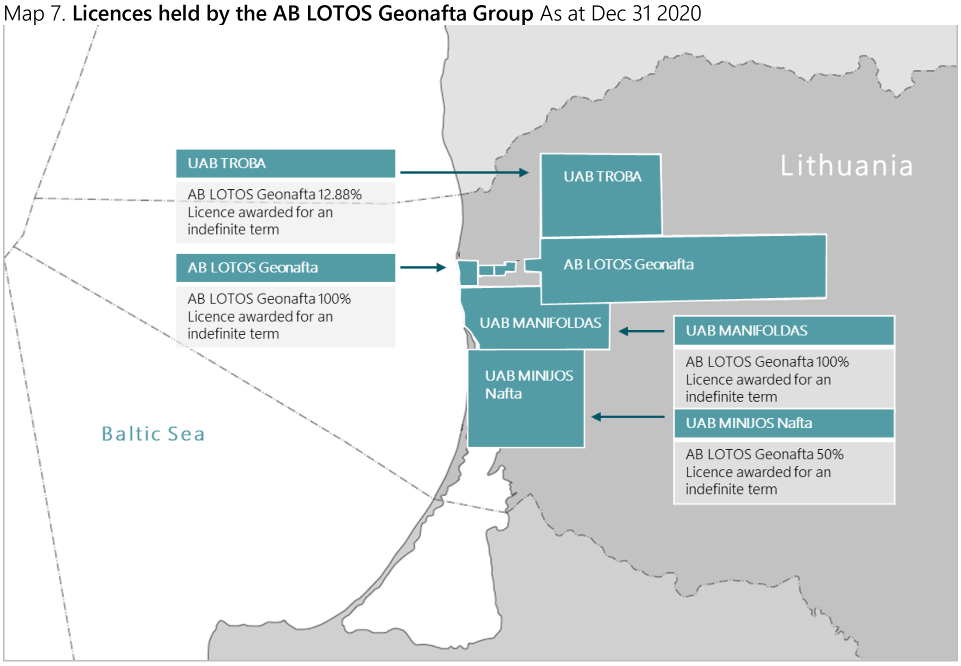
6.5.2 Key assets of the LOTOS Group (production volumes and licences)

The LOTOS Group's average daily output in Lithuania in 2020 was 0.6 thousand boe/d (down 17% year on year), which accounted for 3% of the Group's total production volumes.

Production operations were being conducted within the following onshore blocks: Girkaliai, Genciai, Kretinga, Nausodis, Klaipėda, and Gargždai.

As at the end of 2020, the LOTOS Group's 2P hydrocarbon reserves in Lithuania totalled 2.5 million boe (100% of crude oil), representing 3% of the Group's total 2P reserves.

Map 7. **Licences held by the AB LOTOS Geonafta Group** As at Dec 31 2020



Source: the Company.

6.5.3 Logistics

Crude oil from the Lithuanian fields is produced using onshore production infrastructure. Produced crude oil is transported by road to a marine terminal in Liepāja (Latvia), and then is taken to Gdańsk by a tanker ship, where it is fully processed by the LOTOS refinery. All associated natural gas is flared.

6.6 Key development projects of the Exploration & Production segment

B8 project
Development of a crude oil field in the Baltic Sea

The project is being carried out by the SPV B8 Sp. z o.o. Baltic S.K.A. In 2020, crude oil and associated natural gas were being produced from the B8 field at an average rate of 3.7 thousand boe per day (up 13% year on year). In parallel, work related to launching the Central Production Facility on the B8 field was under way. In particular, the start-up of process units at the Central Production Facility was completed and a 30-day test of the oil separation and export unit, APG gas turbine and water injection systems was successfully performed. The Central Production Facility obtained a PRS class certificate in accordance with the applicable P105 standard. On October 1st 2020, the Central Production Facility was placed in service. In addition, work was carried out on the launch of a gas compression system, enabling gas transmission from the B8 field to the Energobaltic CHP plant in Władysławowo, and completion of the field development project.

Key parameters of the B8 project (for the LOTOS Group interest):

- LOTOS Group interest: 100%
- 2P reserves: 33.4 million boe as at December 31st 2020 (91% crude oil, 9% natural gas)
- current output: 3.5 thousand boe/d (Q4 2020)

The Central Production Facility achieved full capacity in the fourth quarter of 2020. However, whether oil production volumes will be increased to an average level of 5.0 thousand boe/d within five years will depend on satisfaction of all assumed technical conditions and on prevailing macroeconomic conditions, in particular the global oil prices.

YME project
Development of an oil field in Norway

The YME project is at an advanced development stage. The field operator is Repsol, and LOTOS Norge's interest in the project is 20%. In the fourth quarter of 2020, an important milestone in the process leading to timely completion of the work was reached. The Maersk Inspirer platform, which will be used to support production from the YME field, was towed from the Egrsund shipyard, where conversion work on the platform had been carried out. On December 31st 2020, the platform was successfully placed on the field. The offshore start-up phase, involving the tie-in and commissioning of production systems, is currently under way. First oil for the Yme field is currently expected in the fourth quarter of 2021. The project schedule may be affected by restrictions related to COVID-19, as well as the identified risks to offshore operations, including extended time of work related to the start-up phase and subsea infrastructure, as well as weather windows during which work can be performed at offshore locations in winter.

Key parameters of the Yme project (for the LOTOS interest)

- LOTOS Group interest 20%
- 2P reserves 12.5 million boe/d as at December 31st 2020 (100% crude oil)
- first production Q4 2021
- expected average output 5.0 thousand boe/d (for 5-year period from production launch)
- operator Repsol Norge AS.

B4/B6 project
Development of natural gas fields in the Baltic Sea

The B4/B6 project consists in the development of natural gas deposits in the Baltic Sea, in partnership with CalEnergy Resources Poland Sp. z o.o. It is being implemented by special purpose vehicles Baltic Gas Sp. z o.o. and Baltic Gas Sp. z o.o. i wspólnicy Sp. k. LOTOS's interest in the project is 51%. The 2C recoverable resources of the B4/B6 fields are estimated at 4.8 billion cubic metres (for the 100% interest). The final investment decision (FID) has not yet been reached, but preparatory work is under way.
The project has been defined in technical terms. However, difficult conditions in the wake of the COVID-19 pandemic coupled with turbulence on the contractor market and sharp declines in commodity prices are far from conducive to the taking of FID. FID is expected to be reached, ushering in the construction phase, once the crisis recedes and project execution risks lessen. In the meantime, work is ongoing to complete certain formalities and administrative procedures necessary for effective implementation of the project. In particular, the following key tasks were carried out in 2020: (i) steps were taken to secure relevant administrative and environmental permits and to update production licences; (ii) approval of amendments to the production licences was obtained; (iii) an environmental permit for the onshore facility was obtained; (iv) preparations for archaeological surveys along the route of the planned pipeline were launched; (v) approvals of geological and engineering documentation for the construction of platforms were obtained; (vi) specialist geotechnical surveys for platform installation purposes were carried out; (vii) work on contracts for sale of petroleum products from the B4/B6 fields was under way, and key commercial terms of contracts for sale of products were agreed with Grupa LOTOS.

Key parameters of the B4/B6 project (LOTOS interest):

- LOTOS interest: 51%
- 2C reserves: 17.9 million boe as at December 31st 2020
- Final investment decision depending on market developments
- expected average output: 4.3 thousand boe/d (for 5-year period from production launch)

NOAKA development project
Planned development of discoveries in the Greater Heimdal area in Norway

The NOAKA project involves the development of discoveries north of Heimdal: Frigg Gamma Delta, Langfjellet, Liatårnet, Rind, Fulla and Froy, in which LOTOS holds an average interest of 10% and AkerBP is the operator, as well as the Krafla and Askja fields, where LOTOS has no interests and Equinor is the operator. At the current stage, an optimum development concept for the project is to be selected. In the second quarter of 2020, an important milestone in the process to complete the project was reached: on June 11th, AkerBP and Equinor entered into an agreement defining the commercial terms of the project execution, Which will be the basis for proceeding to the preparation of a Plan for Development and Operations (PDO). In accordance with the project schedule, the PDO is to be developed and submitted for approval by the Norwegian authorities by the end of 2022.

NOAKA is one of the key development projects on the Norwegian Continental Shelf, with total potential of more than 500 million boe of recoverable reserves (for the 100% interest). For the LOTOS Group, the project will be a foundation for long-term development in Norway, in cooperation with key operators on the NCS: AkerBP and Equinor.

6.7 Scheduled shutdowns in 2021

Norway:

- Heimdal area: scheduled shutdown in the second quarter due to maintenance work on the Forties Pipeline System (21 days);
- Sleipner area: scheduled shutdown in the third quarter due to infrastructure upgrade work (21 days).

Poland:

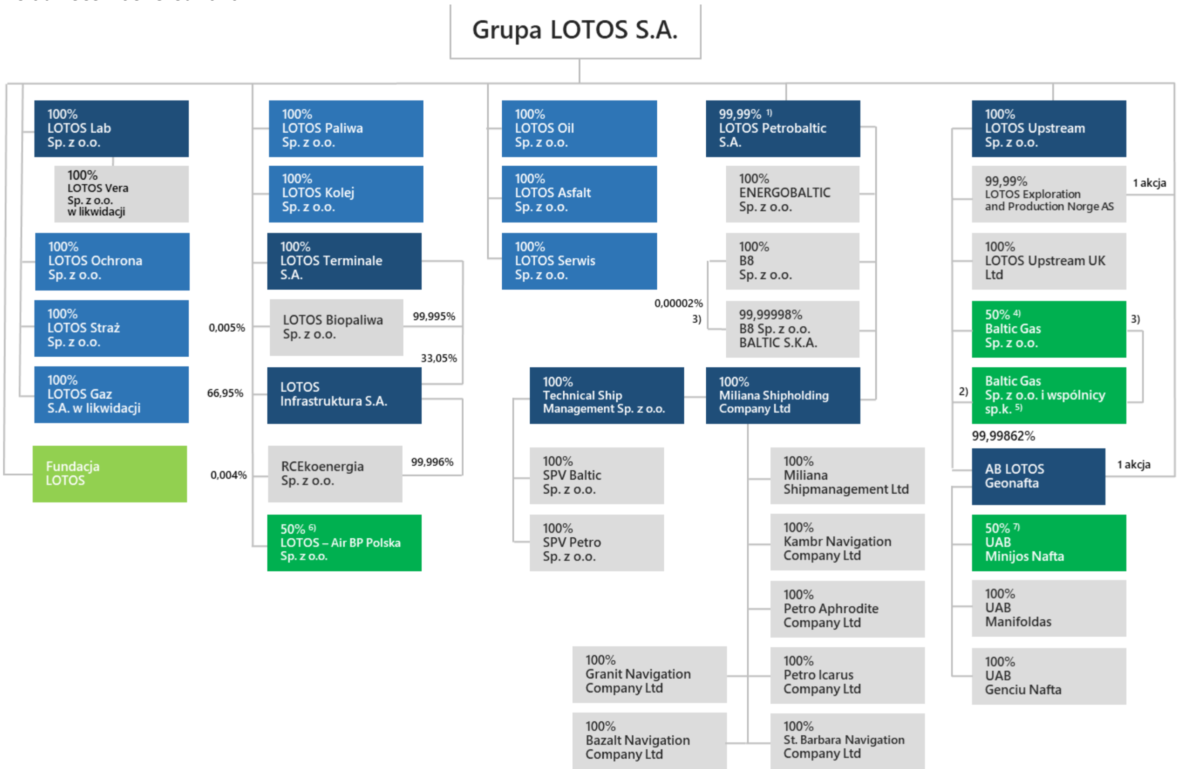
- one short periodic shutdown scheduled on the B3 field in the second quarter to disconnect a tanker and unload oil (3 days).

7 Development of the organisation and infrastructure

7.1 Structure of the LOTOS Group

As at December 31st 2020, Grupa LOTOS S.A. was the parent of the following group:

Chart 2.**Structure of the LOTOS Group**
As at December 31st 2020



1) State Treasury – 0.01% 2) Limited partner 3) General partner
4) CalEnergy Resources Poland Sp. z o.o. – 50%
5) CalEnergy Resources Poland Sp. z o.o. – Limited partner
6) BP Europa SE – 50%
7) Odin Energi A/S – 50%
Companies classified as joint ventures; they are not part of the LOTOS Group
Grupa LOTOS S.A. owns an 8.97% equity interest in P.P.P.P.
Naftoport Sp. z o. o. (a company of the PERN Group of Płock)
– 17.3% of shares in Grupa Azoty Polyolefins S.A.
Source: the Company.

The LOTOS Group comprises a number of production, trading and service companies, as well as a foundation.

Apart from companies classified as joint ventures and the LOTOS Foundation, all entities shown in the chart above are consolidated using the full method.

As the parent, Grupa LOTOS S.A. defines the Group's business growth strategy and – through participation in their governing bodies – has the power to influence key decisions concerning the scope of business and finances of the Group companies. Equity links between Grupa LOTOS S.A. and its subsidiaries strengthen their trading ties. Grupa LOTOS S.A's transactions with its subsidiaries are executed on arm's length terms.

Changes in the LOTOS Group's structure in 2020:

- Grupa Azoty Polyolefins S.A. – Grupa LOTOS S.A. became a shareholder in Grupa Azoty Polyolefins S.A., with a 17.3% equity interest.
  - → On November 16th, Grupa LOTOS S.A. acquired 15,967,352 new shares in Grupa Azoty Polyolefins S.A. (Series G), making an aggregate cash contribution of PLN 300,000,000 to cover the issue price of the new shares. The share premium was allocated to the statutory reserve funds of Grupa Azoty Polyolefins S.A.
  - → On November 27th, the increase in the share capital of Grupa Azoty Polyolefins S.A. from PLN 599,283,310 to PLN 922,968,300 through the issue of 32,368,499 Series G non-preference shares with a par value of PLN 10 per share was entered in the Business Register of the National Court Register.

- LOTOS Vera Sp. z o.o. – On December 31st, the Extraordinary General Meeting of LOTOS Vera Sp. z o.o. passed a resolution to dissolve the company.
- Infrastruktura Kolejowa Sp. z o.o. w likwidacji (in liquidation) – deletion from the National Court Register. The entry of September 21st concerning the company's deletion from the Business Register of the National Court Register becoming final was disclosed in the Business Register of the National Court Register on January 22nd 2021.
- LOTOS Upstream UK – opening of liquidation proceedings: On November 25th, the company's shareholders passed a resolution on opening liquidation proceedings regarding the company.

Exploration and production segment companies which received capital injections in 2020:

- LOTOS Exploration and Production Norge AS – registration of a share capital increase:
  - → On January 7th, an additional amount of NOK 745,046,878 was entered in the Norwegian Business Register (Brønnøysundregistrene), upon which the company's share capital was increased from NOK 3,686,843,122 to NOK 4,431,890,000.
  - → The share capital was increased through a private placement of allotment certificates with LOTOS Upstream Sp. z o.o. (one allotment certificate for NOK 1 = one share with a value of NOK 1) in exchange for a cash contribution.
- Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp.k. – registration of an agreed contributions increase:
  - → On January 10th, an increase in agreed contributions from the company's existing shareholders was entered in the Business Register of the National Court Register:
    - – for LOTOS Upstream Sp. z o.o. – by PLN 13,520,435, from PLN 104,363,301 to PLN 117,883,736,
    - – for CalEnergy Resources Poland sp. z o.o. – by PLN 12,990,223, from PLN 125,440,241 to PLN 138,430,464.
- SPV Petro Sp. z o.o. – registration of a share capital increase:
  - → On March 10th, a PLN 15,000 increase in the company's share capital was entered in the Business Register of the National Court Register, from PLN 5,000 to PLN 20,000, through the issue of 300 new shares with a par value of PLN 50 per share.
  - → All the new shares were subscribed and paid for with a cash contribution by the existing shareholder, i.e. Technical Ship Management Sp. z o.o.
- Baltic Gas Sp. z o.o. – share capital increase:
  - → June 19th. The General Meeting of Baltic Gas Sp. z o.o. passed a resolution to increase the share capital by PLN 50,000 from PLN 414,500 to PLN 464,500.
  - → The General Meeting decided that 1,000 new shares with a par value of PLN 50 per share would be issued.
  - → All the new shares were paid for with cash contributions from the existing shareholders, i.e. LOTOS Upstream Sp. z o.o. and CalEnergy Resources Poland Sp. z o.o., which did not change the ownership structure.
  - → On September 15th, the share capital increase was entered in the Business Register of the National Court Register.
- LOTOS Upstream UK Ltd. – share capital increase:
  - → On September 23rd, the shareholders of LOTOS Upstream UK Ltd passed a resolution to increase the company's share capital by GBP 100,000 from GBP 409,042 to GBP 509,042 by creating 100,000 ordinary shares with a par value of GBP 1 per share.
  - → On September 25th, the share capital increase was entered in the Registrar of Companies, Companies House.

Share capital reductions in 2020:

- LOTOS Vera Sp. z o.o.
  - → On June 15th, the Extraordinary General Meeting of LOTOS Vera Sp. z o.o. passed a resolution to reduce the company's share capital by PLN 39,995,000, from PLN 40,000,000 to PLN 5,000, by cancelling 799,900 shares in the company.
  - → On December 18th, the share capital reduction was entered in the Business Register of the National Court Register.

Changes in the LOTOS Group's structure after the end of the reporting period:

- LOTOS Lab Sp. z o.o.
  - → Disposal of shares for cancellation in connection with a share capital reduction at LOTOS Lab
    - – On February 25th 2021, Grupa LOTOS S.A. and LOTOS Lab Sp. z o.o. signed a share transfer agreement under which Grupa LOTOS moved to LOTOS Lab 196,000 shares in the share capital, with a par value of PLN 500 per share, adding up to a total of PLN 98 million.

7.2 Employment and remuneration policy

7.2.1 Employment

On December 31st 2020, the LOTOS Group employed a headcount of 5,473, compared with 5,368 at the end of 2019 (up 105 employees). The increase in employment was attributable to the partial takeover of shared processes carried out internally and outside the LOTOS Group and to the preparations for maintenance shutdowns. As at the end of 2020, Grupa LOTOS S.A. had 1,685 employees, up 46 relative to a year earlier.

Significant headcount additions were also made at the following companies: LOTOS Serwis Sp. z o.o. (33 persons), LOTOS Kolej Sp. z o.o. (17 persons), LOTOS Asfalt Sp. z o.o. (16 persons).

Table 8. Employment at the LOTOS Group (persons)

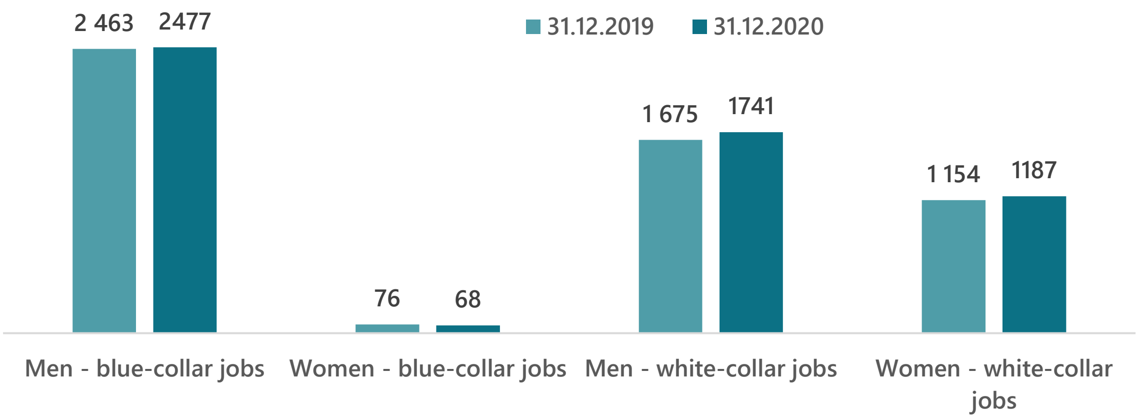
	Dec 31 2020			Dec 31 2019		
	Blue-collar jobs	White-collar jobs	Total	Blue-collar jobs	White-collar jobs	Total
Grupa LOTOS S.A.	537	1,148	1,685	522	1,117	1,639
LOTOS Paliwa Sp. z o.o.	0	313	313	0	299	299
LOTOS Kolej Sp. z o.o.	726	365	1,091	727	347	1,074
LOTOS Oil S.A.	74	186	260	78	180	258
LOTOS Lab Sp. z o.o.	7	125	132	10	114	124
LOTOS Serwis Sp. z o.o.	387	147	534	359	142	501
LOTOS Straż Sp. z o.o.	81	16	97	81	15	96
LOTOS Asfalt Sp. z o.o.	141	141	282	134	132	266
LOTOS Upstream Sp. z o.o.	0	13	13	0	13	13
LOTOS Ochrona Sp. z o.o.	168	24	192	168	23	191
LOTOS Infrastruktura S.A.	42	33	75	43	32	75
LOTOS Terminale S.A.	62	50	112	63	48	111
RC Ekoenergia Sp. z o.o.	40	24	64	39	28	67
LOTOS Biopaliwa Sp. z o.o.	24	19	43	24	14	38
LOTOS Petrobaltic S.A.	218	233	451	249	241	490
ENERGOBALTIC Sp. z o.o.	3	27	30	3	27	30
LOTOS E&P Norge AS	0	31	31	0	29	29
AB LOTOS Geonafta	24	14	38	32	9	41
Other LOTOS Group companies	11	19	30	7	19	26
LOTOS Group	2,545	2,982	5,473	2,539	2,829	5,368

Source: the Company.

Because of the specific nature of the work, men are a predominant group of the LOTOS Group's employees. As at the end of 2020, they accounted for 77.1% of the total workforce. At Grupa LOTOS S.A., the share of men in total workforce was 68.8%. As an oil sector operator, the LOTOS Group needs men to fill a major part of job positions, including the operation of refinery units, rolling stock, as well as exploration and production platforms.

As at December 31st 2020, 46.5% of the LOTOS Group's workforce were employed in blue-collar jobs (down 0.7% year on year). Blue-collar jobs were held mainly by men: 97.3% of the total blue-collar workforce. At Grupa LOTOS S.A., employees in blue-collar jobs accounted for 31.9% of the total workforce and were only men.

Figure 34. **Structure of the LOTOS Group workforce, by sex and job category (persons)**



Source: the Company.

7.2.2 Remuneration of members of the governing bodies

The remuneration of Members of the Company's Management Board and Supervisory Board was determined in accordance with the provisions of the Act on Rules of Remunerating Persons Who Direct Certain Companies of June 9th 2016 (the "Act") and resolutions adopted thereunder.

The remuneration of Members of the Company's Supervisory Board is defined in Resolution No. 3 of the Extraordinary General Meeting on the rules of remunerating members of the Supervisory Board dated December 22nd 2016, as amended by Resolution No. 25 of the Annual General Meeting dated June 28th 2019. Members of the Company's Supervisory Board are entitled to monthly remuneration calculated as the product of the reference salary amount referred to in Art. 1.3.11 of the Act and a multiplier of:

- 1.7 – for the Chair of the Supervisory Board;
- 1.5 – for other Members of the Supervisory Board.

The remuneration of Members of the Company's Management Board is defined in Resolution No. 2 of the Extraordinary General Meeting on the rules of remunerating Members of the Management Board dated December 22nd 2016, as amended by Resolution No. 5 of the Extraordinary General Meeting dated March 17th 2017, as later amended by Resolution No. 24 of the Annual General dated of June 28th 2019, and as further specified by Resolution No. 168/IX/2017 of the Supervisory Board of Grupa LOTOS dated March 8th 2017, as amended.

In fulfilment its obligations under the Act Amending the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading and Public Companies, and Certain Other Acts of October 16th 2019, in 2020 the Company implemented the 'Remuneration Policy for Members of the Management Board and Supervisory Board of Grupa LOTOS S.A.' (the "Remuneration Policy"). The Remuneration Policy was adopted by a resolution of the General Meeting of June 30th 2020. Responsibility for the information contained in the Remuneration Policy rests with Members of the Management Board. The Remuneration Policy sets out the remuneration framework applying to Members of the Company's Management Board and Supervisory Board and the rules to be followed by the Supervisory Board in preparing annual remuneration reports, in accordance with the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading and Public Companies of July 29th 2005 and the Act on Rules of Remunerating Persons Who Direct Certain Companies of June 9th 2016. The purpose of the Remuneration Policy is to contribute to the implementation of the Company's business strategy, its long-term interests and stability. The full text of the Remuneration Policy as currently in effect is available on the Company's website at → https://inwestor.lotos.pl/226/lad_korporacyjny/dokumenty_spolki
The aggregate remuneration of a Member of the Company's Management Board comprises a fixed component in the form of the monthly base pay ("Fixed Remuneration") and a variable component representing additional remuneration for the Company's financial year ("Variable Remuneration").

Fixed Remuneration of the President and other Members of the Management Board is an amount determined within the range from 7 to 15 times the reference amount[11]. Additional remuneration for a financial year (Variable Remuneration) depends on the level of achievement of management objectives and may not exceed 100% of the Fixed Remuneration in the previous financial year.

In 2020, the total amount of benefits paid to Members of the Management Board was PLN 5.39 million, relative to PLN 6.42 million in 2019.

Table 9. Remuneration paid and payable to Members of the Management Board of Grupa LOTOS S.A. in 2020 (PLNm)[12]

	Fixed remuneration	Variable remuneration	Non-compete compensation	Severance payment[13]	Other[14]	Total paid	Provision for variable remuneration[15]
Mateusz Aleksander Bonca	-	0.28	0.18	-	-	0.46	-
Patryk Demski	-	0.15	0.04	-	-	0.19	-
Marcin Jastrzębski	-	-	-	-	0,003	0,003	-
Jarosław Kawula	0.46	0.28	0.03	0.17	-	0.94	0.30
Marian Krzemiński	0.69	0.12	-	-	0.03	0.84	0.42
Mariusz Machajewski	-	0.17	-	-	-	0.17	-
Paweł Jan Majewski	0.57	-	-	-	0.03	0.60	0.38
Zofia Paryła	0.69	0.12	-	-	0.04	0.85	0.46
Robert Sobków	-	0.22	0.04	-	0.01	0.27	0.27
Jarosław Wittstock	0.71	-		-	-	0.71	0.70
Artur Cieślik	0.19	-	-	-	0.01	0.20	0.21
Piotr Walczak	0.17	-	-	-	0.01	0.18	0.17
Total	3.48	1.34	0.29	0.17	0.13	5.41	2.91

Source: the Company.

Table 10. Remuneration paid and payable to Members of the Management Board of Grupa LOTOS S.A. in 2019 (PLNm)[12]

	Fixed remuneration	Variable remuneration	Non-compete compensation	Severance payment[13]	Other[14]	Total paid	Provision for variable remuneration[1515]
Mateusz Aleksander Bonca	0.75	0.70	-	0.18	-	1.63	0.50
Patryk Demski	0.42	0.24	0.31	-	0,002	0.97	0.27
Jarosław Kawula	0.69	0.73	-	-	-	1.42	0.51
Marcin Jastrzębski	-	0.38	-	-	-	0.38	-
Marian Krzemiński	0.21	-	-	-	0.01	0.22	0.22
Mariusz Machajewski	-	-	-	-	-	0.00	0.17
Zofia Paryła	0.23	-	-	-	0.01	0.24	0.22
Robert Sobków	0.42	-	0.31	-	0.03	0.76	0.47
Jarosław Wittstock	0.69	0.12	-	-	-	0.81	0.51
Total	3.41	2.17	0.62	0.18	0.05	6.43	2.87

Source: the Company.

[11] Reference amount – average monthly remuneration in the non-financial corporate sector (net of bonuses paid from profit) in the fourth quarter of the preceding year, as announced by the President of Statistics Poland.
[12] Sum of subtotals may not exactly match totals due to rounding
[13]for termination of the management service contract
[14] Includes: costs of renting an apartment and reimbursement of pension contributions
[15]Provision for payment of variable remuneration, conditional on the achievement of objectives set for the Management Board Members and subject to consent of the Supervisory Board.

In 2020, Members of the Management Board of Grupa LOTOS S.A. did not receive any remuneration for serving on the supervisory boards of the LOTOS Group subsidiaries.

In consideration of his or her compliance with the non-compete obligation, a Management Board Member is entitled to compensation equal to 0.5 times the monthly Fixed Remuneration x6. The compensation is paid in six equal monthly instalments.

A management service contract ("Contract") is concluded for the term of office of a Management Board Member. In the event of expiry of a Management Board Member's mandate, including in particular as a result of the Member's death, removal or resignation, the contract is terminated on the last day of the Member's holding the position, without notice and with no further action required.

Either party may terminate the contract on:

- 1 (one) month notice if the Management Board Member held the position for less than 12 (twelve) months,
- 3 (three) months notice if the Management Board Member held the position for 12 (twelve) months or longer,
- with immediate effect in the event of a material breach of the Contract.

If the Company terminates the Contract for reasons other than a breach of basic obligations under the Contract, the Management Board Member may receive a severance payment of up to three times the Fixed Remuneration, provided that the Member has held the position for at least twelve months prior to the termination.

Remuneration of Supervisory Board Members is shown in Table 11. Members of its Supervisory Board did not receive any remuneration or awards for serving on the governing bodies of LOTOS Group companies.

Table 11. Remuneration of the Supervisory Board Members (PLNm)

	2020	2019
Ciach Piotr	0.08	0.08
Figura Dariusz	0.08	0.08
Golecki Mariusz	-	0.07
Kozłowska-Chyła Beata	0.10	0.10
Lewandowska Katarzyna	0.08	0.08
Lewandowski Adam	0.08	0.08
Rybicki Grzegorz	0.08	0.08
Szklarczyk-Mierzwa Agnieszka	0.05	0.09
Total	**0.55**	0.66

Source: the Company.

7.2.3 Non-financial remuneration components for Members of the Management Board and key managers

Members of the Management Board and key managers were entitled to the following additional benefits:

- the use of a company car, depending on the scope of duties, in line with the procedure on the allocation, acquisition and use of company cars in place at the Company, or based on Supervisory Board resolutions in the case of company cars used by Management Board Members,
- employer-funded medical care, available to the employees and members of their immediate family, on preferential terms and with preferential rates negotiated by Grupa LOTOS. The costs of such benefits are borne by Members of the Management Board (as relevant amounts are deducted from their remuneration),
- life insurance agreement for the duration of the employment contract on preferential terms negotiated by the Company, with the proviso that its costs are borne by Members of the Management Board as relevant amounts are deducted from their remuneration,
- unit-linked group life insurance with the monthly premium paid by Grupa LOTOS (PLN 250). Members of the Management Board bear its costs as relevant amounts are deducted from their remuneration,
- financial support towards training costs, of PLN 15 thousand per year.

On January 22nd 2020, the Grupa LOTOS Management Board repealed the existing employment and remuneration rules applicable to key managerial positions. Pursuant to that decision, all employees of Grupa LOTOS S.A. receive the same additional benefits described in the Collective Bargaining Agreement. However, the existing provisions concerning additional benefits set out in the managers' contracts of employment remain in force, as more favourable than the provisions of the Collective Bargaining Agreement.

7.2.4 Liabilities arising from pensions or similar benefits to former members of its management or supervisory bodies

The Company has no liabilities arising from pensions or similar benefits to former members of its management or supervisory bodies.

7.2.5 Remuneration policy and its assessment

As an employer, Grupa LOTOS S.A. optimises remuneration, especially base pay and bonuses, so that its employees receive a competitive performance-linked compensation package, while the Company and its shareholders receive a return on capital invested.

Aware of the incentive role of remuneration, Grupa LOTOS S.A. promotes especially those employees who, through their attitudes, behaviour, competence and performance, contribute to its development. The terms of remuneration offered by the Company take into account:

- the job type as well as the qualifications and competencies required to perform it,
- the level of output, according to which individual remuneration is differentiated,
- satisfactory performance against objectives and targets,
- outstanding professional achievements, generating considerable, unexpected added value for the Company.

In addition to the base pay, consistent with the assigned pay grade, a staff member is entitled to additional remuneration calculated and paid in accordance with the generally applicable labour law, i.e. for overtime and night work. The Company has had Employee Capital Plans in place since 2019.

Employees may receive individual annual bonuses in accordance with the rules laid down in the Collective Bargaining Agreement and special bonuses for outstanding professional achievements. Once a year, a periodic payroll review is undertaken.

Employees in managerial and executive roles as well as advisers to directors and Management Board Members may have their annual bonus criteria linked to performance against individual annual targets. Objectives are cascaded and set in line with the SMART principles (they must be Specific, Measurable, Ambitious, Realistic and Time-bound). Individual targets are linked to the Company's objectives, so that activities undertaken across the organisation are coherent and employees are focused on delivering the corporate strategy.

At the same time, Grupa LOTOS S.A. takes care of the professional development of its employees, offering individual training plans and providing talent with promotion and career paths.

Under the present arrangements, a significant portion of the remuneration of Grupa LOTOS S.A.s' management personnel depends on the Company's overall performance. In the Company's opinion, the current remuneration system is sufficient to ensure achievement of the Company's objectives, in particular those related to long-term growth in shareholder value and stability of the Company's business.

8 The LOTOS Group's finance in 2020

8.1 Policies followed in the preparation of full-year financial statements

The LOTOS Group's consolidated financial statements and Grupa LOTOS S.A.'s separate financial statements have been prepared in accordance with the International Financial Reporting Standards ("IFRSs") endorsed by the European Union, issued and effective as at December 31st 2020.

The list of amendments to the applicable standards is presented in Note 4 to the consolidated financial statements (page 10).

8.2 Key factors affecting the financial performance

In 2020, the LOTOS Group's operating profit before depreciation and amortisation and adjusted for one-off items (adjusted LIFO-based EBITDA) came in at PLN 1,356.6 million, compared with PLN 2,861.1 million in 2019 (down by 52.6%).

Key drivers of the LOTOS Group's performance:

- revenue was PLN 20,908.6 million, down by PLN 8,584.7 million (-29.1%) compared with 2019, due mainly to falling prices of crude oil and petroleum products on global markets and lower sales volumes. Average net revenue per tonne of the volume sold in 2020 was PLN 1,770, down by PLN 665 (-27.3%) relative to 2019. The total sales volume of petroleum products, merchandise and materials decreased by 2.5% on 2019. The largest decline was recorded for heavy products (bitumens and heavy fuel oil). For detailed revenue breakdown, see item 8.2.1 of the present section;
- gross profit was reported at PLN 1,466.9 million (down by PLN 2,377.3 million on 2019), driven by volatile crude oil prices and low petroleum product crack spreads. As the Group applies the weighted average cost method to measure inventories, the impact of price changes on cost of sales is deferred in time. Therefore, Grupa LOTOS S.A. presents its earnings net of inventory valuation (so called LIFO-based EBIT and LIFO-based EBITDA), which more accurately approximates the Refining & Marketing segment's actual profitability (for more information on the calculation of LIFO-based EBITDA, see item 8.2.4);
- selling expenses decreased by 0.9%, mainly on lower export volumes;
- a 6.2% increase was recorded in administrative expenses, attributable mainly to higher employee benefits, primarily as a result of an increase in staffing levels;
- significant net other expenses of PLN -929.8 million were attributable mainly to impairment losses in the Exploration & Production segment;
- net finance costs of PLN -254.1 million were driven mainly by interest expense, fee and commission expense and impairment losses on investment in the B4/B6 project (gas development project in the Baltic Sea).

As a result of the application of cash flow hedge accounting with respect to foreign-currency loans contracted to finance the 10+ Programme, intended as hedges of future USD-denominated petroleum product sales transactions, in 2020 foreign exchange gains on cash flow hedges of PLN 221.2 million were taken to reserve capital.

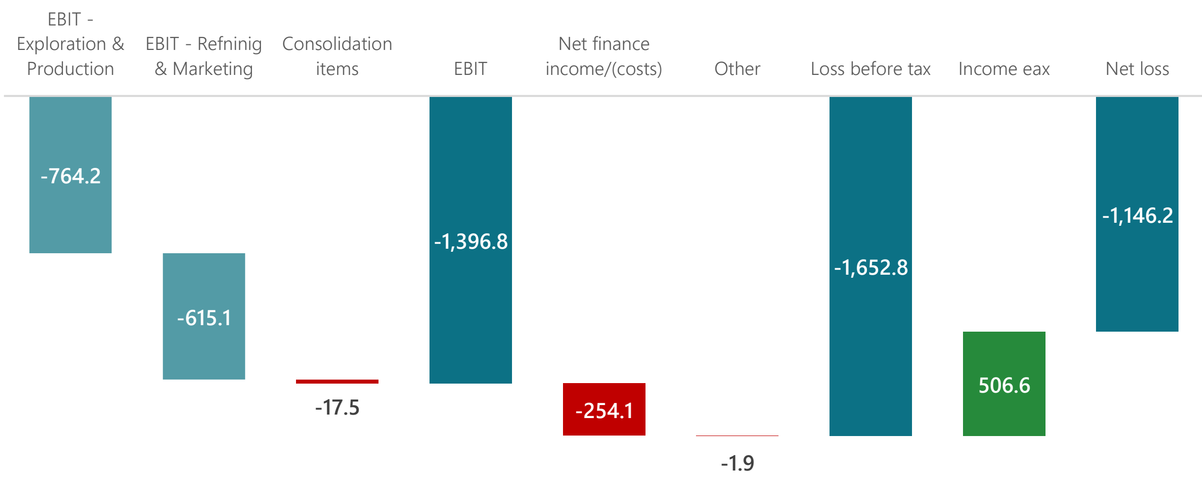
Table 12. Key items of the LOTOS Group's statement of profit or loss (PLNm)

	2020	2019	2020/2019	
			(PLNm)	(%)
Revenue	20,908.6	29,493.3	-8,584.7	-29.1%
Cost of sales	-19,441.7	-25,649.1	6,207.4	-24.2%
Selling expenses	-1,412.9	-1,425.6	12.7	-0.9%
Administrative expenses	-521.0	-490.8	-30.2	6.2%
Net other income/(expenses)	-929.8	41.9	-971.7	-2,319.1%
Operating profit/(loss)	-1,396.8	1,969.7	-3,366.5	-170.9%
Net finance income/(costs)	-254.1	-281.7	27.6	-9.8%
Share in net profit/(loss) of equity-accounted joint ventures	-1.9	4.2	-6.1	-145.2%
Profit/(loss) before tax	-1,652.8	1,692.2	-3,345.0	-197.7%

Income tax	506.6	-539.3	1,045.9	-
Net profit/(loss), of which:	-1,146.2	1,152.9	-2,299.1	-199.4%
– attributable to owners of the parent	-1,146.2	1,152.9	-2,299.1	-199.4%

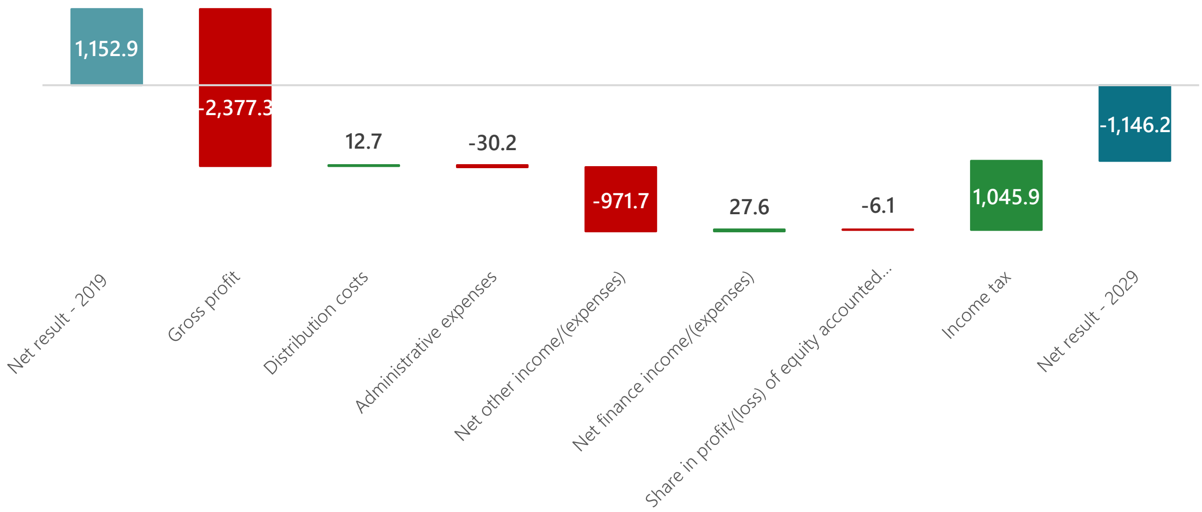
Source: the Company.

Figure 35. Breakdown of factors affecting the LOTOS Group's net profit/(loss) in 2020 (PLNm)



Source: the Company.

Figure 36. Sources of the LOTOS Group's net profit/(loss) in 2020 (PLNm)



Source: the Company.

8.2.1 Revenue

In 2020, the LOTOS Group's revenue was PLN 20,908.6 million (down 29.1% year on year). Sales of diesel oil accounted for the major share of revenue, having totalled PLN 11,814.0 million (56.5% of the Group's total revenue). In 2020, they were up 27.3% year on year. Sales of gasolines were also an important contributor to revenue, Amounting to PLN 3,032.7 million (14.5% of total revenue), which represented a 30.2% decrease year on year. In 2020, heavy products accounted for 5.8% of the LOTOS Group's revenue. Their value was PLN 1,209.0 million (down by 54.2% compared with 2019).

In 2020, the share of domestic sales in the LOTOS Group's revenue went up. However, revenue from domestic sales dropped 26.3% compared with the previous year, to PLN 17,782.7 million (84.9% of total revenue).

Table 13. LOTOS Group's revenue by products, merchandise and services (PLNm)

	Exploration & Production		Refining & Marketing		Total	
	2020	2019	2020	2019	2020	2019
Gasolines			3,032.7	4,346.6	3,032.7	4,346.6
Naphtha			752.7	936.9	752.7	936.9
Diesel oils			11,814.0	16,246.8	11,814.0	16,246.8
Bunker fuel			156.3	211.0	156.3	211.0
Light fuel oil			492.1	618.8	492.1	618.8
Heavy products			1,209.0	2,639.7	1,209.0	2,639.7
Aviation fuel			418.1	1,114.2	418.1	1,114.2
Lubricants			345.4	291.4	345.4	291.4
Base oils			320.7	460.1	320.7	460.1
LPG			470.5	513.0	470.5	513.0
Crude oil commodity			37.6		37.6	0.0
Crude oil product	332.7	233.9			332.7	233.9
Natural gas	248.1	434.6	1.1	1.0	249.2	435.6
Xylene fraction			140.1	235.4	140.1	235.4
Other refining products, merchandise and materials	0.2		410.7	338.0	410.9	338.0
Other products, merchandise and materials	5.7	8.3	546.0	568.2	551.7	576.5
Services	60.7	53.8	354.4	372.8	415.1	426.6
Effect of cash flow hedge accounting			-240.2	-131.2	-240.2	-131.2
Total	647.4	730.6	20,261.2	28,762.7	20,908.6	29,493.3
Domestic sales	15.6	8.0	17,720.0	24,113.8	17,735.6	24,121.8
Export sales	631.8	722.6	2,541.2	4,648.9	3,173.0	5,371.5

Source: the Company.

8.2.2 Operating expenses

Operating expenses of the LOTOS Group in 2020 totalled PLN 21,375.6 million, 22.5% less than in the previous year.

The main items of operating expenses were:

- raw materials and consumables used – down by 30.6%, or PLN 6,820.6 million, year on year due mainly to lower volumes and value of crude oil processed;
- services – totalling PLN 1,433.1 million (down by 2.4% on 2019). The drop resulted mainly from lower costs of transport services reflecting a decrease in export volumes;
- employee benefits expense – amounting to PLN 938.7 million (up by 2.0%);
- depreciation and amortisation – of PLN 1,089.9 million, 19.9% more than in 2019. The increase was largely attributable to the EFRA Project units being placed in service, mainly the Delayed Coking Unit (DCU)

in the Refining & Marketing segment, as well as depreciation of the Norwegian upstream assets using the units-of-production method;
- taxes and charges – of PLN 764.1 million, having increased 28.5% or PLN 169.5 million year on year. The increase included a PLN 75.1 million provision for the National Reduction Target, a PLN 71.7 million increase in the provision for a deficit of CO_2 emission allowances, and a PLN 62.6 million increase in the provision for NIT emission charge.

Table 14. LOTOS Group's operating expenses by nature (PLNm)

	2020	2019	Change in %
Depreciation and amortisation	1,089.9	909.3	19.9%
Raw materials and consumables used	15,462.7	22,283.3	-30.6%
Services	1,433.1	1,468.1	-2.4%
Taxes and charges	764.1	594.6	28.5%
Employee benefits expense	938.7	920.4	2.0%
Other costs by nature of expense	273.8	235.8	16.1%
Merchandise and materials sold	977.7	1,046.5	-6.6%
Total costs by nature of expense	20,940.0	27,458.0	-23.7%
Change in products and adjustments to cost of sales	435.6	107.5	305.2%
Total operating expenses, including:	21,375.6	27,565.5	-22.5%
Cost of sales	19,441.7	25,649.1	-24.2%
Selling expenses	1,412.9	1,425.6	-0.9%
Administrative expenses	521.0	490.8	6.2%

Source: the Company.

8.2.3 Net other income/(expenses)

In 2020, the LOTOS Group reported a negative net balance of other income and expenses, at PLN -929.8 million, compared with net other income of PLN +41.9 million in 2019. It was mainly an outcome of non-recurring events:

- impairment loss on assets related to the YME field of PLN -460.6 million (vs a PLN +105.4 million impairment reversal in the previous year),
- impairment losses on assets related to the Utgard field of PLN -155.0 million,
- impairment losses on the B3 field assets of PLN -118.3 million;
- impairment losses on the B8 field assets of PLN -135.0 million;
- impairment losses on assets related to Lithuanian fields of PLN -29.1 million (2019: PLN -8.9 million),
- impairment losses on assets in the Młynary and Górowo Iławieckie areas of PLN -15.8 million,
- impairment losses on service stations in the amount of PLN -8.8 million (vs PLN -21.3 million in 2019),
- reversal of impairment losses on Heimdal assets in the Vale field of PLN +16.6 million,
- provision for unfavourable court rulings at LOTOS Petrobaltic of PLN -32.1 million,
- reversal and remeasurement of the provision for costs of decommissioning of oil and gas extraction facilities in the Heimdal area of PLN +13.8 million,
- reversal and remeasurement of the provision for liabilities in respect of contingent payments related to the acquisition of Sleipner assets, in the amount of PLN +4.5 million (2019: PLN +44.5 million).

Other than those listed above, the Company has not identified any non-recurring items that would have bearing on its operations, profits earned or losses incurred.

8.2.4 LIFO-based EBITDA

In line with its inventory measurement policy, the LOTOS Group applies the weighted average cost method to measure any changes in inventories. This method defers the impact of changes in crude oil prices on the prices of finished goods. Thus, an increase in crude oil prices has a positive effect on financial performance, while the effect of a decrease is negative.

To account for such distortions, a management standard in the refining sector is the use of LIFO-based EBITDA, which eliminates the time-lag effect.

Table 15. LIFO-based EBITDA (PLNm)*

	2020	2019	Change 2020/2019	
			(PLNm)	(%)
EBIT (1)	-1,396.8	1,969.7	-3,366.5	-170.9%
Depreciation and amortisation (2)	1,089.9	909.3	180.6	19.9%
One-off items[16] (3)	923.6	-159.1	1,082.7	-
LIFO effect (4)	739.9	141.2	598.7	-
LIFO-based EBITDA ** (1+2+3+4)	1,356.6	2,861.1	-1,504.5	-52.6%

**The LOTOS Group's 2020 performance was affected by fluctuations in its oil inventories and differences between the volumes purchased and processed during Q2, which resulted in the cost of crude oil processed, based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million.*

*** LIFO-based EBITDA adjusted for one-offs.*

Source: the Company.

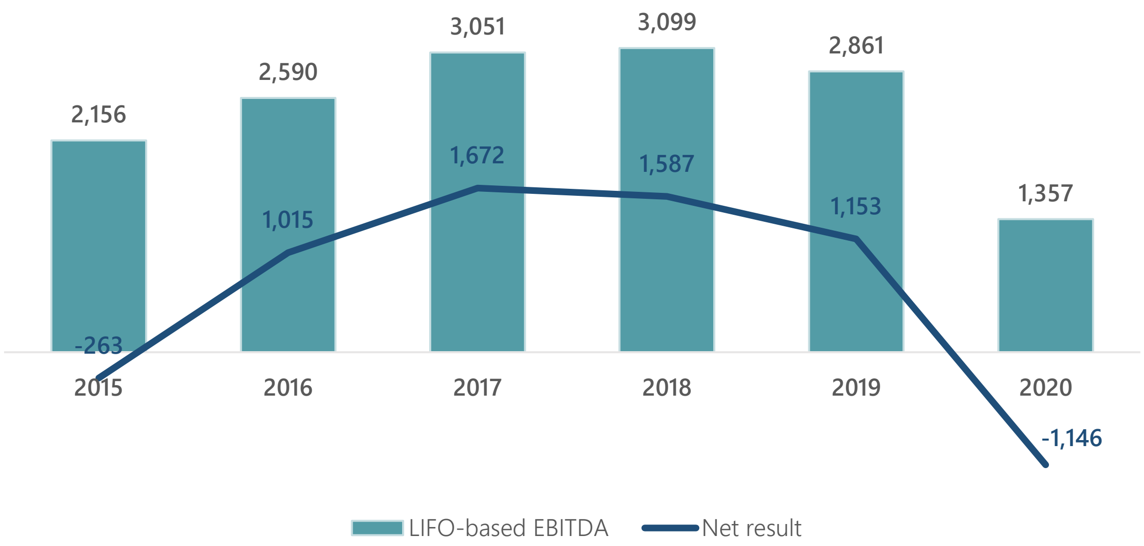
The LOTOS Group's adjusted LIFO-based EBITDA for 2020 was PLN 1,356.6 million. Given the significant price decline in the Exploration & Production segment and deteriorated margins on the four key products of the Refining & Marketing segment (gasoline, diesel oil, aviation fuel, light fuel oil), the Company believes the decline in the Group's key performance metric should be considered justified (down PLN 1,504.5 million, or -52.6%, on 2019).

The adjusted LIFO-based EBITDA was calculated based on the results delivered by:

- the Refining & Marketing segment of PLN 905.3 million – with fluctuations in the oil inventories and differences between the volumes purchased and processed during Q2 2020, the result reflected the cost of crude oil processed based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million;
- the Exploration & Production segment – PLN 468.8 million;
- consolidation adjustments of PLN -17.5 million.

[16] 2020: impairment losses on YME assets of PLN -460.6 million, impairment losses on assets related to the Utgard field of PLN -155.0 million, impairment losses on B3 assets of PLN -118.3 million, impairment losses on B8 assets of PLN -135.0 million, impairment losses on assets related to Lithuanian fields of PLN -29.1 million, impairment losses on assets in Młynary and Górowo Iławieckie of PLN -15.8 million, impairment losses on service stations of PLN -8.8 million, reversal of impairment losses on Heimdal assets in the Vale field of PLN +16.6 million, provision for unfavourable court rulings at LOTOS Petrobaltic related to AGR's claims of PLN -32.1 million, reversal and remeasurement of the provision for costs of decommissioning of oil and gas extraction facilities in the Heimdal area of PLN +13.8 million, reversal and remeasurement of the provision for contingent liabilities related to the acquisition of Sleipner assets of PLN +4.5 million, and foreign exchange losses on operating activities of PLN -3.8 million.
In 2019: reversal of impairment loss on the YME field of PLN +105.4 million, reversal and remeasurement of the provision for liabilities on account of contingent payments related to the acquisition of Sleipner assets of approximately PLN +44.5 million, loss ondiscontinued projects in Norway of PLN -41.2 million, impairment loss on assets associated with Lithuanian fields of PLN -8.9 million, impairment loss on ships at the Miliana Group of PLN -5.9 million, impairment losses on service stations of PLN -21.3 million, foreign exchange gains on operating activities of PLN +66.0 million, reversal of LIFO write-downs of PLN +20.5 million.

Figure 37. LOTOS Group's adjusted LIFO-based EBITDA and net profit in 2015–2020 (PLNm)



Source: the Company.

8.2.5 Net finance income/(costs)

Key factors behind the net finance costs in 2020, totalling PLN 254.1 million (vs PLN -281.7 million in the previous year):

- net balance of interest on debt, interest income, and commission fees of PLN -223.8 million (2019: PLN -259.7 million),
- impairment losses on investment in the B4/B6 project of PLN -114.5 million,
- net foreign exchange gains of PLN +42.1 million (2019: net foreign exchange losses of PLN -46.0 million),
- net gain on measurement and settlement of market risk hedging derivative instruments of PLN +65.7 million (2019: PLN +15.8 million).
- impairment loss on financial instruments of PLN -9.4 million related to a loan advanced to Grupa Azoty Polyolefins S.A.

8.3 Financial position

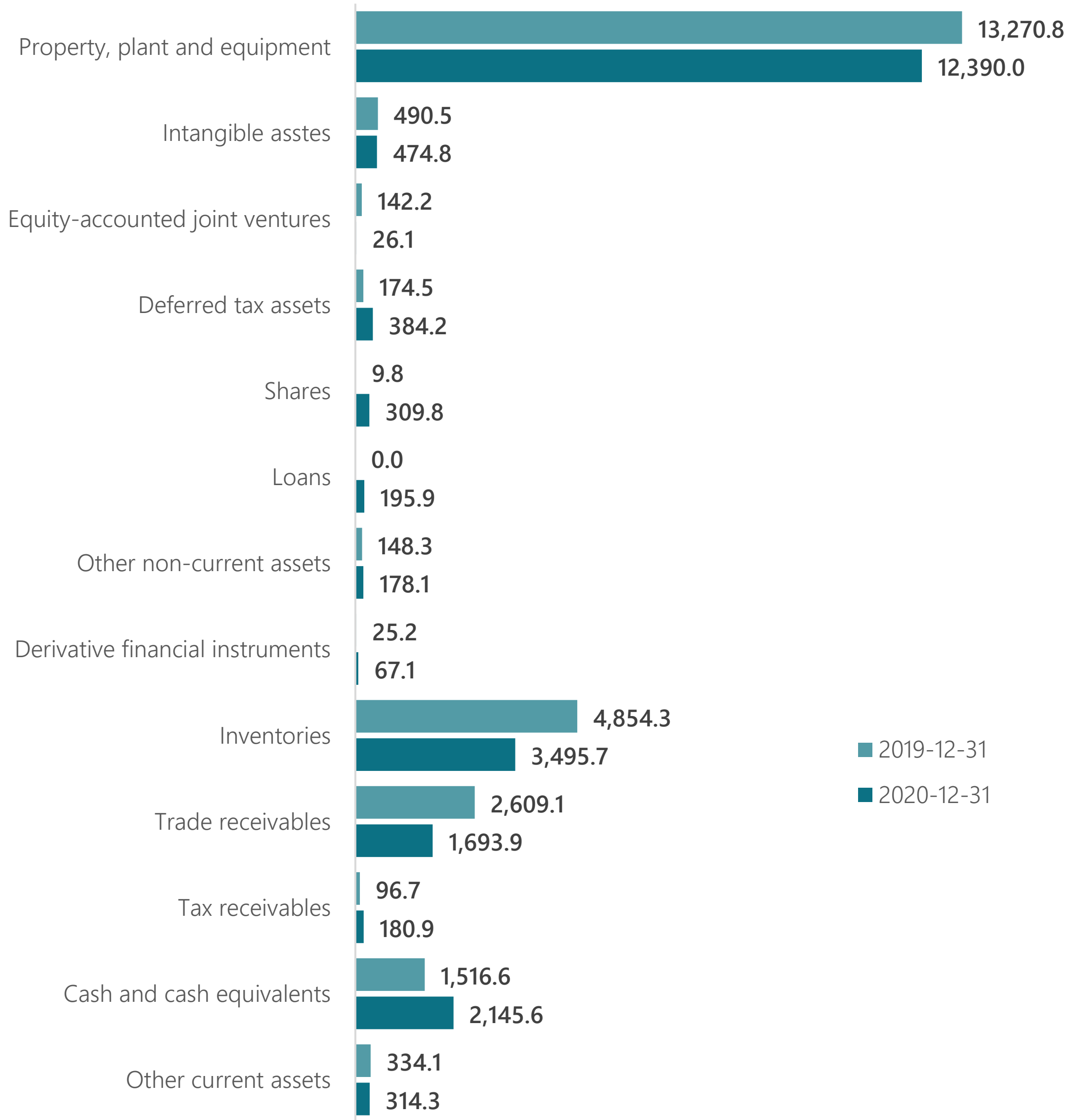
8.3.1 Assets

As at December 31st 2020, the LOTOS Group's total assets amounted to PLN 21,856.4 million, compared with PLN 23,672.1 million a year earlier (down 7.7%).

The main asset categories were:

- property, plant and equipment worth PLN 12,390.0 million (56.7% of the Group's total assets). Their value fell by 6.6% compared with the end of 2019. The main components of these assets were property, plant and equipment of the Refining & Marketing segment. They amounted to PLN 9,466.9 million, having decreased by 1.8% year on year. Property, plant and equipment of the Exploration & Production segment fell 19.5%, to PLN 2,923.1 million (due mainly to impairment losses on non-current assets in the Exploration & Production segment);
- inventories measured at PLN 3,495.7 million (16% of the Group's assets). They decreased by 28% as a result of falling prices;
- trade receivables totalling PLN 1,693.9 million, i.e. 7.8% of total assets. They were PLN 915.2 million lower year on year due to lower prices of crude oil, natural gas and petroleum products on global markets;
- shares in the amount of PLN 309.8 million resulting from the acquisition of shares in Grupa Azoty Polyolefins S.A. and loans of PLN 195.9 million advanced in the performance of the investment agreement related to financing of the Polimery Police project;
- deferred tax assets of PLN 209.7 million, higher than in the previous year, related mainly to impairment losses at LOTOS Norge;
- other current and non-current assets of approximately PLN 492.4 million;
- cash and cash equivalents. The item amounted to PLN 2,145.6 million (9.8% of total assets), which was PLN 629.0 million more relative to the end of 2019.

Figure 38. LOTOS Group's assets (PLNm)



Source: the Company.

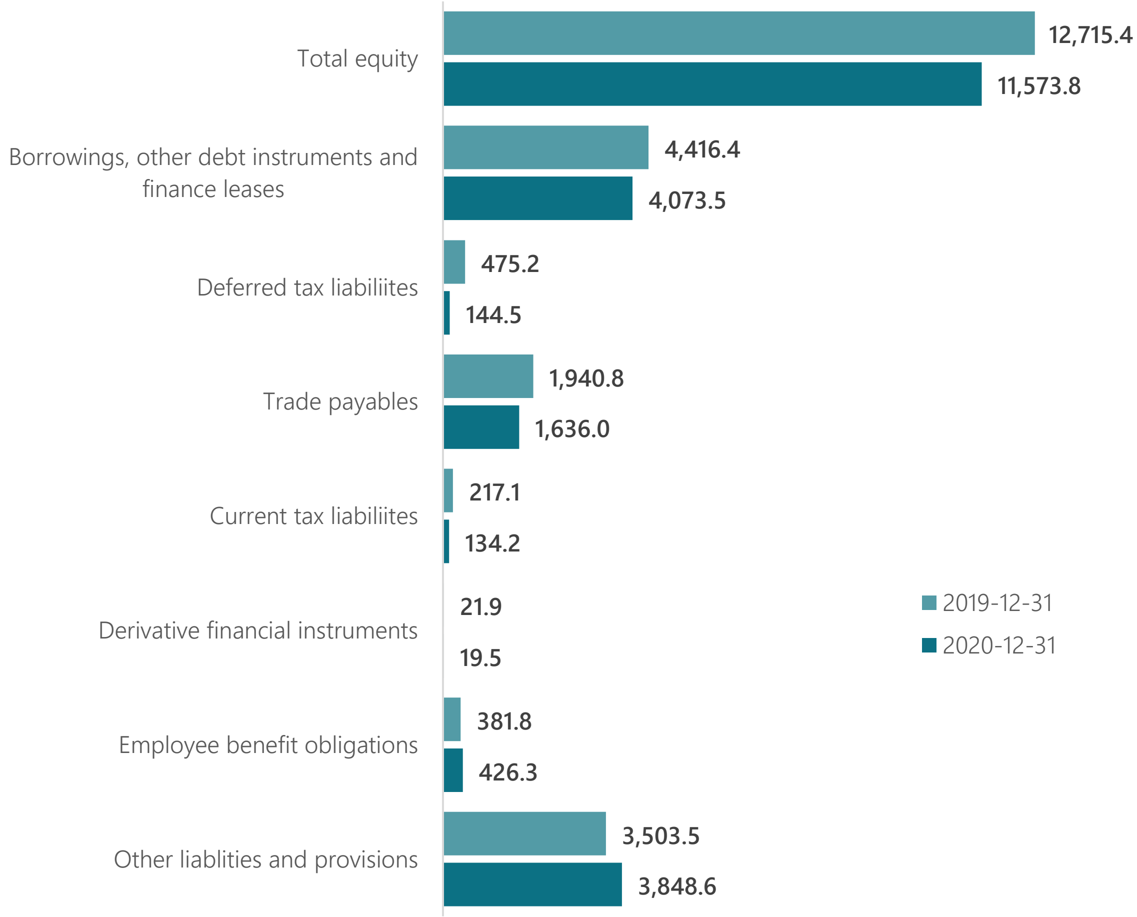
8.3.2 Equity and liabilities

On December 31st 2020, equity totalled PLN 11,573.8 million (53.0% of total equity and liabilities). It fell by 9.0% compared with the end of 2019, due mainly to a PLN 1,337.5 million decrease in retained earnings. The decrease was partly offset by foreign exchange gains on cash flow hedges adjusted by the tax effect of PLN 179.2 million, taken to reserve capital, and a PLN 16.7 million increase in currency translation differences.

The main items of liabilities were:

- PLN 342.9 million decrease in borrowings, other debt instruments and finance lease liabilities, led by debt repayments and remeasurements at an exchange rate lower relative to the end of 2019;
- trade payables of PLN 1,636.0 million (7.5% of total equity and liabilities). They decreased 15.7% year on year due to lower volumes of crude oil purchased outside the LOTOS Group in December 2020 compared with December 2019, and a considerable reduction in purchase prices;
- PLN 345.1 million increase in other liabilities and provisions following recognition of a provision for the National Reduction Target, a rise in provisions for a deficit in CO_2 emission allowances and NIT emission charge, and an increase in provisions for decommissioning and remediation costs in the Exploration & Production segment;
- PLN 330.7 million decrease in deferred tax liabilities (mainly at the parent).

Figure 39. LOTOS Group's equity and liabilities (PLNm)



Source: the Company.

As at December 31st 2020, the LOTOS Group's debt totalled PLN 4,073.5 million, down by PLN 342.9 million on the end of 2019, mainly as a result of repayment of investment credit facilities. Net debt was PLN 1,927.9 million, compared with PLN 2,899.8 million as at the end of 2019. The ratio of net debt to adjusted LIFO-based EBITDA as at December 31st 2020 was 1.42x, up 0.41x relative December 31st 2019.

8.4 Cash flows

As at December 31st 2020, the LOTOS Group's cash balance (including current account overdrafts) amounted to PLN 1,923.4 million.

In 2020, net cash flows increased the amount of cash and cash equivalents by PLN 406.8 million, where:

- cash flows from operating activities generated by the LOTOS Group were positive at PLN 2,869.9 million, which confirms the effective use of assets and healthy business despite the pandemic-induced headwinds. This was strengthened by favourable development of working capital and the use of liquidity improvement tools (factoring arrangements used as at the end of 2020);
- cash flows from investing activities equalled PLN -1,388.5 million driven mainly by expenditure on key development projects, including EFRA, related to crude oil and gas production from the Norwegian and Baltic Sea fields. They also reflected the acquisition of Grupa Azoty shares and a loan advanced to Grupa Azoty;
- negative cash flows from financing activities, of PLN -1,089.8 million, were mainly attributable to the negative balance of proceeds from borrowings and repayment of borrowings (facilities taken out by Grupa LOTOS S.A. to finance inventories and the 10+ Programme; LOTOS Asfalt's investment loan), as well as interest paid, dividend distributed and payments due under lease contracts.

Table 16. Cash flows (PLNm)

	2020	2019
Cash and cash equivalents at beginning of period	1,516.6	1,938.3
Cash flows from operating activities	2,869.9	2,130.2
Cash flows from investing activities	-1,388.5	-407.9
Cash flows from financing activities	-1,089.8	-2,141.2
Effect of exchange rate fluctuations on cash held	15.2	-2.8
Change in net cash	406.8	-421.7
Cash and cash equivalents at end of period	1,923.4	1,516.6

Source: the Company.

8.5 Financial ratios

In 2020, key profitability ratios of the LOTOS Group were lower than in the previous year. Negative profitability/deficit ratios, ROE, ROA, ROACE are directly attributable to the LOTOS Group's net loss reported for 2020. The profitability ratios linked to EBIT/LIFO-based EBITDA adjusted for one-off items were also lower year on year. This was due to the overall economic situation, especially the related decline in crude oil and natural gas prices and lower crack spreads for fuels on global markets.

Table 17. LOTOS Group's profitability ratios

	2020	2019
LIFO-based EBIT margin (Adjusted LIFO-based EBIT/revenue) (%)	1.3	6.6
LIFO-based EBITDA margin (Adjusted LIFO-based EBIT + amortisation/depreciation)/revenue) (%)	6.5	9.7
Net margin (Net profit (loss)/revenue) (%)	-5.5	3.9
Return on equity – ROE (Net profit (loss)/equity at end of period) (%)	-9.9	9.1
Return on assets – ROA (Net profit (loss)/total assets at end of period) (%)	-5.2	4.9
Return on average capital employed – ROACE (Operating profit/(loss) after tax/equity + Net debt at end of period) (%)	-8.4	10.2

Source: the Company.

Figure 40. LOTOS Group's profitability ratios (%)*

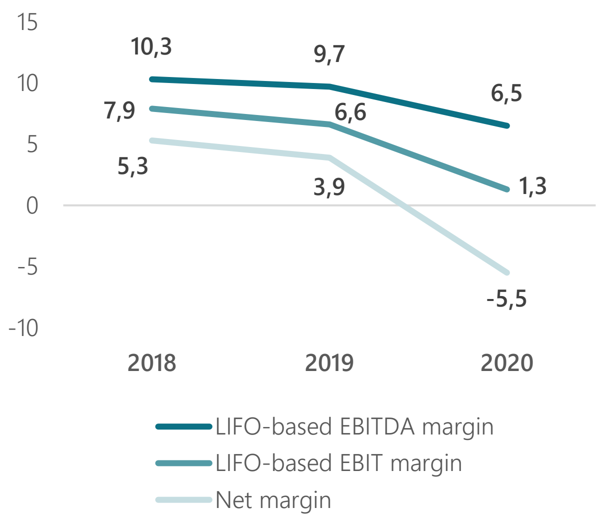
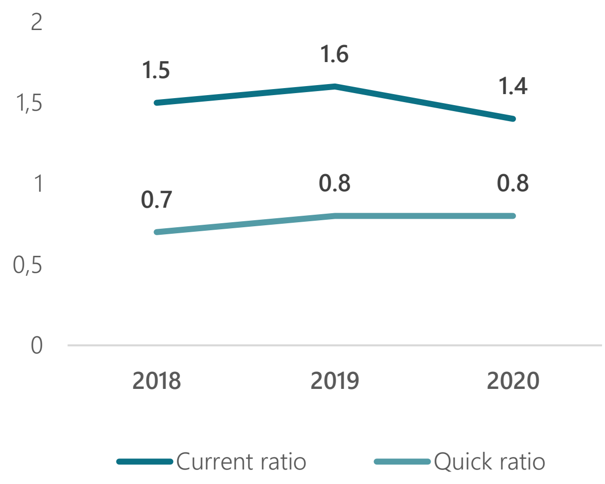


Figure 41. LOTOS Group's liquidity ratios



LIFO-based EBITDA and LIFO-based EBIT margins adjusted for one-off items.

Source: the Company.

As at the end of 2020, the LOTOS Group maintained its liquidity ratios at satisfactory levels:

- current ratio of 1.4, compared with 1.6 at the end of the previous year, resulting from a decrease in current assets (-16.3%) and current liabilities (-1.0%);
- quick ratio close to the previous year's level of 0.8.

Total debt ratio was also at a safe level. Working capital to total assets was 9.7% relative to 15.1% in 2019, following a PLN 1,449.5 million decrease in working capital (with current assets down PLN 1,539.6 million and current liabilities down PLN 90.1 million).

Table 18. LOTOS Group's liquidity and debt ratios

	Dec 31 2020	Dec 31 2019
Current ratio (Current assets/current liabilities)	1.4	1.6
Quick ratio ((Current assets - inventories)/current liabilities)	0.8	0.8
Working capital to assets ((Current assets - current liabilities)/total assets) (%)	9.7	15.1
Total debt ratio (Total liabilities/total assets) (%)	47.0	46.3

Source: the Company.

Turnover ratios in 2020 were as follows:

- the inventory cycle was 73.1 days, i.e. 13.1 days longer than in the previous year;
- the average collection period was 37.7 days, having lengthened by 9.9 days on 2019 due to a 4.2% decrease in average trade receivables, with revenue down 29.1%;
- the average payment period was 33.7 days, i.e. 6.3 days longer as a result of lower average trade payables (-7.2%) and lower cost of sales (-24.2%).

As a result of these changes, the cash conversion cycle increased by 16.7 days relative to the year before.

Table 19. LOTOS Group's turnover ratios

	Dec 31 2020	Dec 31 2019
Inventory cycle (Average inventories/revenue) x 365) (days)	73.1	60.0
Average collection period (Average trade receivables/net sales) x 365) (days)	37.7	27.8
Average payment period (Average trade payables/cost of sales) x 365) (days)	33.7	27.4
Cash conversion cycle (Inventory turnover period+ average collection period - average payment period) (days)	77.1	60.4

Source: the Company.

8.6 The LOTOS Group's financial performance by business segment

8.6.1 Refining & Marketing

In 2020, the Refining & Marketing segment's revenue came to PLN 20,319.5 million, down by 29.5% compared with 2019. The decrease was mainly attributable to a 26.8% drop in the segment's average selling price, to PLN 1,841 per tonne in 2020. The segment's sales volume fell by 3.7% year on year, to 11,040.1 thousand tonnes.

Sales of diesel oil accounted for the major share of revenue, And totalled PLN 11,814.0 million, down 27.3% year on year. Sales of gasolines were also an important contributor to the segment's revenue, amounting to PLN 3,032.7 million, which represented a 30.2% decrease year on year.

The LOTOS Group's 2020 operating loss in the Refining & Marketing segment was PLN -615.1 million.

In order to eliminate the effect of inventory measurement with the weighted average cost method on operating profit, and the deferred effect of changes in crude oil prices on the prices of finished products, the LIFO-based EBITDA is used in the refining sector as management standard. Additionally, for management purposes, operating profit/(loss) is adjusted to account for any non-recurring/one-off items (e.g. foreign exchange gains or losses on operating activities, impairment losses on assets).

LIFO-based EBITDA adjusted for one-off items fell 59.3% year on year, to PLN 905.3 million in the Refining & Marketing segment. The fall mainly reflected lower crack spreads for key petroleum products.

Table 20. Financial results of the Refining & Marketing segment (PLNm)

	2020	2019	2020/2019 (PLNm)	2020/2019 (%)
Revenue	20,319.5	28,826.2	-8,506.7	-29.5%
EBIT	-615.1	1,474.7	-2,089.8	-141.7%
Depreciation and amortisation	767.9	673.1	94.8	14.1%
EBITDA	152.8	2,147.8	-1,995.0	-92.9%
LIFO effect	739.9	141.2	598.7	423.9%
One-off items[17]	12.6	-65.2	77.8	-
Adjusted LIFO-based EBITDA[18]	905.3	2,223.8	-1,318.5	-59.3%

Source: the Company.

8.6.2 Exploration & Production

In 2020, revenue in the Exploration & Production segment was PLN 1,111.5 million, a decline of PLN 75.2 million compared with 2019. The main reason was a drop in the Brent dtd prices (-34.7%) and natural gas prices (-27.6%) on global markets. The decrease in prices was significantly offset by an 18.0% increase in hydrocarbon sales volumes.

The major decline in hydrocarbon prices resulted in a PLN 160.7 million decrease in adjusted EBITDA compared with the previous year.

Table 21. Financial results of the Exploration & Production segment (PLNm)

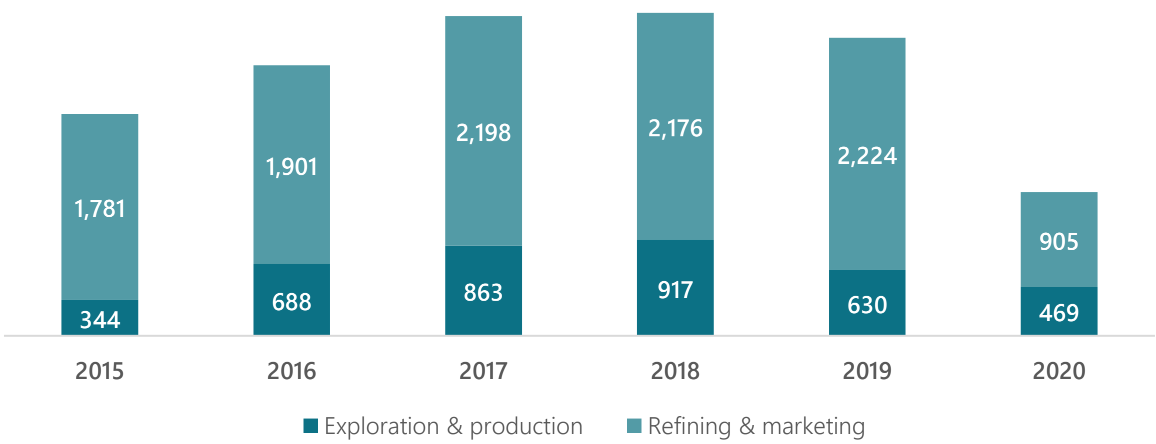
	2020	2019	2020/2019 (PLNm)	2020/2019 (%)
Revenue	1,111.5	1,186.7	-75.2	-6.3%
EBIT	-764.2	487.2	-1,251.4	-256.9%
Depreciation and amortisation	322.0	236.2	85.8	36.3%
EBITDA	-442.2	723.4	-1,165.6	-161.1%

[17] 2020: impairment losses on service stations of PLN -8.8 million and foreign exchange losses on operating activities of PLN -3.8 million. 2019: impairment losses on service stations of PLN -21.3 million, foreign exchange gains on operating activities of PLN +66.0 million, and reversal of write-downs on LIFO-measured inventories of PLN +20.5 million.
[18] The LOTOS Group's 2020 performance was affected by fluctuations in its oil inventories and differences between the volumes purchased and processed during Q2, which resulted in the cost of crude oil processed, based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million.

One-off items[19]	911.0	-93.9	1,004.9	-
Adjusted EBITDA	468.8	629.5	-160.7	-25.5%

Source: the Company.

Figure 42. LOTOS Group's adjusted LIFO-based EBITDA by segment (PLNm)[20]



Source: the Company.

8.7 Bank and non-bank borrowings

8.7.1 Bank borrowings of Grupa LOTOS S.A.

Inventory financing and refinancing facility

As at December 31st 2020, the nominal amount drawn under the credit facility for the refinancing and financing of inventories, advanced by a bank syndicate (1 – in accordance with Table 22 on page 81), was PLN 187.9 million (USD 50.0 million).

On December 2nd 2020, an amendment was signed to the agreement for the financing and refinancing of inventories of October 10th 2012 to extend the term of the agreement until December 17th 2021. The composition of the bank syndicate changed, as mBank S.A. and Intesa Sanpaolo S. p. A. withdrew from the syndicate and Erste Group Bank AG, ING Bank Śląski S.A. and PKO BP S.A. joined as members.

Also, the shares of individual banks in the facility amount changed, and the list of bank accounts covered by a registered pledge as security for the facility was amended. In addition, the amendment introduced or updated provisions on sanctions, FATCA, tax schemes/arrangements, events of default as well as anti-corruption provisions.

Refinancing of the 10+ Programme credit facilities

On July 2nd 2019, Grupa LOTOS S.A. and a bank syndicate (2 – in accordance with Table 22 on page 81) comprising:

- ING Bank Śląski S.A.,
- Bank PEKAO S.A.,

[19] In 2020, the balance of impairment losses and provisions was PLN -911.0 million, compared with PLN 93.9 million in 2019. For details, see footnote 16 on page 70).

[20] The LOTOS Group's 2020 performance was affected by fluctuations in its oil inventories and differences between the volumes purchased and processed during Q2, which resulted in the cost of crude oil processed, based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million.

- PKO BP S.A.,
- Sumitomo Mitsui Banking Corporation Bank EU AG,
- Intesa Sanpaolo S.p.A,
- Caixabank S.A. (Spółka Akcyjna),
- Industrial and Commercial Bank of China (Europe) S.A.,
- and Erste Group Bank AG,

signed credit facility agreements for a total amount of USD 500 million to refinance credit facilities contracted in 2008 to finance the 10+ Programme.

Under the agreements, the bank syndicate extended to the Company:

- a USD 400 million term facility,
- a USD 100 million working capital facility, disbursable in USD, EUR or PLN.

As at December 31st 2020, the nominal amount drawn under the facilities was PLN 1,424.9 million, including PLN 1,202.7 million (USD 320 million) under the term facility and PLN 222.2 million under the working capital facility.

Under the facility agreements discussed above, Grupa LOTOS S.A. is required to maintain its net debt/ EBITDA ratio at a specified level. As at December 31st 2020, one of the ratios specified in the credit facility agreements were exceeded. In view of the expected failure to meet the ratios, the Company requested the financing banks for a waiver of their right to terminate the agreement and accelerate the loan repayment. On December 29th 2020, the Company received a letter from the banks confirming their consent to waive a breach of covenants as at December 31st 2020.

Other credit agreements

On December 5th 2019, Grupa LOTOS S.A. signed a EUR 2.0 million credit facility agreement with PKO BP S.A. The purpose of the agreement is to finance the Pure H2 project, which is to build and launch infrastructure for the production and distribution of high purity hydrogen. The facility repayment date falls on December 23rd 2023. The facility bears interest at a floating rate based on 3M EURIBOR. Repayment is secured by a declaration of voluntary submission to enforcement. As at December 31st 2020, the Company carried no liabilities under the facility.

The parent has access to working-capital facility financing totalling PLN 150 million. The Company carried no liabilities under these facilities as at December 31st 2020 or December 31st 2019.

Financing of LOTOS Exploration and Production Norge AS production projects

On March 21st 2019, LOTOS Exploration and Production Norge AS entered into an RBL credit facility agreement (financing of upstream projects collateralised by oil and gas reserves) with a bank syndicate, with a limit of up to USD 220 million. The syndicate comprises BNP Paribas, Skandinaviska Enskilda Banken AB, PKO BP S.A., PEKAO S.A. and Bank Gospodarstwa Krajowego. The facility is secured by pledges over Company shares, licences, inventories, bank accounts, assignment of receivables, and assignment of any amounts due under insurance contracts.

The RBL facility agreement provides for two guarantees issued by banks:

- a NOK 1.070 million guarantee in respect of Sleipner DSA decommissioning liabilities, issued by Bank BNP Paribas in favour of Exxon Exploration and Production Norge AS,
- a NOK 167 million guarantee in respect of Heimdal decommissioning liabilities, issued by PKO Bank Polski in favour of Spirit Energy Norway AS.

In July 2020, the agreement was amended, with the amendment introducing certain changes favourable to the company, including the following:

- decommissioning liabilities (the company had already secured cash to cover those liabilities) were excluded from the calculation of the borrowing capacity, which helped to increase it,
- currency risk was mitigated by increasing the frequency of translation of the facility drawdown amount from NOK to USD,
- a guarantee from Grupa LOTOS S.A. was added as security for payment of the decommissioning liabilities in case the Company has insufficient borrowing power.

Under the agreement, the company may use a line of credit with BNP Paribas. On December 17th 2020, the company signed a credit facility agreement for NOK 10 million under the available limit. The facility will be used to cover the costs related to licence expenses. The repayment date is January 19th 2021. As at December 31st 2020, the amount outstanding under the credit facility was PLN 4.4 million (NOK 10.0 million).

8.7.2 Bank borrowings of other Group companies

As at December 31st 2020, the aggregate liabilities outstanding under credit facility agreements of other Group companies were PLN 942.8 million (December 31st 2019: PLN 1,178.0 million). The outstanding amount comprised mainly liabilities incurred by LOTOS Asfalt Sp. z o.o. and LOTOS Paliwa Sp. z o.o., as well as by the Exploration & Production segment companies SPV Baltic Sp. z o.o.

Agreement for the financing of the EFRA Project

On June 30th 2015, LOTOS Asfalt Sp. z o.o. and a consortium of financial institutions signed a credit facility agreement (and auxiliary agreements) under which the company obtained additional funds necessary to finance the EFRA Project.

As at December 31st 2020, the amount of outstanding liabilities under the above facility agreements was PLN 804.0 million (December 31st 2019: PLN 956.7 million).

Bank borrowings of LOTOS Paliwa Sp. z o.o.

Liabilities of LOTOS Paliwa Sp. z o.o. under bank borrowings include primarily amounts outstanding under investment facilities granted by PKO BP S.A., Pekao S.A and mBank S.A. for the refinancing and financing of service station acquisitions.

As at December 31st 2020, the outstanding amount of liabilities under the investment facility agreements was PLN 84.2 million (December 31st 2019: PLN 110.9 million).

Bank borrowing of SPV Baltic Sp. z o.o.

On January 31st 2014, SPV Baltic Sp. z o.o. signed an investment facility agreement with Nordea Bank Polska S.A. (currently PKO BP S.A.) to finance the purchase of a drilling rig (agreement of December 20th 2013). As at December 31st 2020, the outstanding amount of liabilities under the facility was PLN 32.6 million (December 31st 2019: PLN 39.8 million).

Bank borrowings of the other Group companies include a credit facility of LOTOS Terminale S.A. (December 31st 2020: PLN 22.0 million).

8.7.3 Non-bank borrowings

The Group's non-bank borrowings include mainly liabilities of SPV Baltic Sp. z o.o. (an upstream company) under a loan agreement executed with Agencja Rozwoju Przemysłu S.A. on January 31st 2014 to finance the purchase of a drilling rig (contract of December 20th 2013). As at December 31st 2020, the outstanding amount of liabilities under the loan was PLN 32.6 million (December 31st 2019: PLN 39.8 million).

Non-bank borrowings of other Group companies include a loan of LOTOS Kolej Sp. z o.o. (December 31st 2020: PLN 3.0 million) contracted to partly finance the upgrades of locomotives.

In 2020, no loan agreements with LOTOS Group companies were terminated.

Table 22. LOTOS Group’s bank and non-bank borrowings as at December 31st 2020

Company	Lender	Principal amount as per agreement		Outstanding amount (current portion)		Outstanding amount (non-current portion)		Maturity date of		Financial terms (interest rate, interest payment schedule, etc.)	Security
		PLN (million)	Foreign currency (million)	PLN (million)	Foreign currency (million)	PLN (million)	Foreign currency (million)	current portion	non-current portion		
Grupa LOTOS S.A.	Bank syndicate (1)	-	USD 400.0	188.2	USD 50.1	-	-	Dec 20 2021	-	3M or 6M LIBOR USD, depending on the interest period selected at a given time + bank margin	registered pledge over inventories, registered pledge over bank accounts, assignment of rights under inventory insurance agreements, assignment of rights under inventory storage agreements, voluntary submission to enforcement
Grupa LOTOS S.A.	Bank syndicate (2)		USD 400.0	300.2	USD 79.9	902.0	USD 240.0	Jul 15 2021	Jul 15 2024	1M, 3M or 6M LIBOR USD, depending on the interest period selected at a given time + bank margin	voluntary submission to enforcement
			USD 100.0	195.2	USD 51.9	-	-	overdraft facility	-		
				27.0	EUR 5.8	-	-	overdraft facility	-		
LOTOS Paliwa Sp. z o.o.	Bank syndicate (3)	150.0	-	16.6	-	25.0	-	Dec 31 2021	Jun 30 2023	3M WIBOR + bank margin	mortgages
LOTOS Paliwa Sp. z o.o.	Bank syndicate (4)	100.0	-	10.0	-	32.6	-	Dec 31 2021	Mar 31 2025	3M WIBOR + bank margin	mortgages
LOTOS Kolej Sp. z o.o.	Fund for Environmental Protection and Water Management in Gdańsk	6.9	-	0.7	-	2.3	-	Nov 30 2021	Jul 31 2024	0.8 of the rediscount rate on promissory notes, not less than 3%	blank promissory note, assignment of claims
LOTOS Asfalt Sp. z o.o.	Consortium of financial institutions (5)	300.0	-	0.2	-	-	-	Feb 20 2021	-	1M WIBOR + bank margin	ceiling mortgage; registered pledges over inventories, all assets and rights, and on receivables; power of attorney over bank accounts; voluntary submission to enforcement; assignment of rights under project agreements, insurance policies, trade contracts; pledge over the parent’s shares In LOTOS Asfalt Sp. z o.o.;
		-	USD 357.0	164.1	USD 43.7	639.7	USD 179.6	Mar 22 2021	Dec 31 2024	3M LIBOR or 6M LIBOR + bank margin	

											assignment of rights under conditional loan agreement
LOTOS Terminale S.A.	Bank Millennium S.A.	50.9	-	5.0	-	17.0	-	Dec 31 2021	Apr 30 2025	3M WIBOR + bank margin	mortgage and registered pledge, assignment of receivables and assignment of rights under insurance policies
SPV Baltic Sp. z o.o.	PKO BP S.A.	100.0	-	7.5	-	25.1	-	Dec 31 2021	Dec 31 2024	1M WIBOR + bank margin	registered and financial pledges over shares and assignment of rights under insurance policies
SPV Baltic Sp. z o.o.	Agencja Rozwoju Przemysłu S.A.	100.0	-	7.5	-	25.1	-	Dec 31 2021	Dec 31 2024	1M WIBOR + bank margin	registered and financial pledges over shares, assignment of rights under insurance policies and blank promissory note
LOTOS Exploration and Production Norge AS	BNP Paribas	-	NOK 10.0	4.4	NOK 10.0	-	-	Jan 19 2021	-	1M NIBOR + bank margin	mortgage, registered pledge over inventories, pledge over bank accounts, assignment of receivables, pledge over company shares
				47.5	-	127.1	-				
				847.7	USD 225.6	1,541.7	USD 419.6				
			TOTAL	27.0	EUR 5.8	-	-				
				4.4	NOK 10.0	-	-				
				926.6		1,668.8					

Bank syndicate (1): Pekao S.A., Société Générale S.A., Bank Handlowy w Warszawie S.A., Industrial and Commercial Bank of China (Europe) S.A. (Spółka Akcyjna) Poland Branch, Banco Santander S.A., CaixaBank S.A. Poland Branch, Sumitomo Mitsui Banking Corporation Bank EU AG, Erste Group Bank AG, ING Bank Śląski S.A., PKO BP S.A.,
Bank syndicate (2): ING Bank Śląski S.A., PEKAO S.A., PKO BP S.A., Sumitomo Mitsui Banking Corporation Bank EU AG, Intesa Sanpaolo S.p. A, Caixabank S.A., (Spółka Akcyjna) Industrial and Commercial Bank of China (Europe) S.A., (Spółka Akcyjna), Erste Group Bank AG,
Bank syndicate (3): Pekao S.A., PKO BP S.A.,
Bank syndicate (4): Pekao S.A., mBank S.A
Consortium of financial institutions (5): Bank Gospodarstwa Krajowego, Bank Millennium S.A., Pekao S.A., Bank Zachodni WBK S.A., PKO BP S.A., Powszechny Zakład Ubezpieczeń S.A., Powszechny Zakład Ubezpieczeń na Życie S.A. and Société Générale S.A.

Source: the Company.

Table 23. LOTOS Group's intercompany loans as at December 31st 2020

Lender	Borrower	Principal as per loan agreement Foreign currency (million)	Amount outstanding as at Dec 31 2020 (current portion) PLN (million)	Amount outstanding as at Dec 31 2020 (current portion) Foreign currency (million)	Amount outstanding as at Dec 31 2020 (non-current portion) PLN (million)	Amount outstanding as at Dec 31 2020 (non-current portion) Foreign currency (million)	Maturity date of current portion	Maturity date of non-current portion	Financial terms (interest rate, interest payment schedule, etc.)	Security	Agreement date
LOTOS Petrobaltic S.A.	Energobaltic Sp. z o.o.	PLN 9.9	5.1	-	-	-	Dec 31 2021		1M WIBOR + margin	Blank promissory note with a 'protest waived' clause and promissory note declaration	Oct 30 2013
LOTOS Petrobaltic S.A.	Energobaltic Sp. z o.o.	PLN 5.8	2.3	-	2.6	-	Dec 31 2021	Dec 31 2022	1M WIBOR + margin	Blank promissory note with a 'protest waived' clause and promissory note declaration	Jul 16 2019
LOTOS Petrobaltic S.A.	Energobaltic Sp. z o.o.	PLN 10.0	10.2	-	-	-	Jun 30 2021	-	1Y WIBOR + margin	Mortgage, blank promissory note	Apr 23 2020
LOTOS Petrobaltic S.A.	SPV Petro Sp. z o.o.	PLN 22.3	7.5	-	8.1	-	Dec 31 2021	Jan 15 2023	1M WIBOR + margin	Blank promissory note	Jun 6 2019
LOTOS Petrobaltic S.A.	SPV Petro Sp. z o.o.	PLN 14.8	5.0	-	5.4	-	Dec 31 2021	Jan 15 2023	1M WIBOR + margin	Blank promissory note	Aug 2 2019
LOTOS Petrobaltic S.A.	SPV Petro Sp. z o.o.	PLN 16.0	-	-	16.0	-	-	Jan 15 2023	3M WIBOR + margin	Blank promissory note	Apr 30 2020
LOTOS Petrobaltic S.A.	B8 Sp. z o.o. SKA	PLN 8.5	-	-	10.8	-	-	Dec 31 2022	3M WIBOR + margin	Blank promissory note	Oct 20 2015
LOTOS Petrobaltic S.A.	B8 Sp. z o.o. SKA	PLN 80.0	4.7	-	80.0	-	Dec 31 2020	Jul 1 2022	1Y WIBOR + margin	Blank promissory note	Oct 30 2018
LOTOS Petrobaltic S.A.	SPV Baltic Sp. z o.o.	USD 14.0	-	-	71.5	USD 19.0	-	Jan 31 2022	6M LIBOR + margin	Blank promissory note	Dec 23 2013
LOTOS Petrobaltic S.A.	SPV Baltic Sp. z o.o.	PLN 46.3	-	-	42.4	-	-	Jan 31 2022	6M WIBOR + margin	Blank promissory note	Jan 27 2014
Kambr Navigation Company Limited	Miliana Shipmanagement Limited	USD 0.2	0.2	USD 0.1	0.1	USD 0.0	Dec 31 2021	Jun 30 2022	1M LIBOR + margin	None	May 29 2013

Petro Icarus Company Limited	Miliana Shipmanagement Limited	USD 1.1	1.3	USD 0.3	0.7	USD 0.2	Dec 31 2021	Jun 30 2022	1M LIBOR + margin	None	May 29 2013
Granit Navigation Company Limited	Miliana Shipmanagement Limited	USD 0.2	0.3	USD 0.1	0.1	USD 0.0	Dec 31 2021	Jun 30 2022	1M LIBOR + margin	None	May 29 2013
Bazalt Navigation Company Limited	Miliana Shipmanagement Limited	USD 0.2	0.2	USD 0.1	0.1	USD 0.0	Dec 31 2021	Jun 30 2022	1M LIBOR + margin	None	May 29 2013
Granit Navigation Company Limited	Miliana Shipmanagement Limited	USD 0.6	3.3	USD 0.9	-	-	Jun 30 2020	-	1M LIBOR + margin	None	Dec 10 2014
Petro Icarus Company Limited	Miliana Shipmanagement Limited	USD 3.6	14.2	USD 3.8	-	-	Jun 30 2020	-	1M LIBOR + margin	None	Dec 10 2014
Kambr Navigation Company Limited	Miliana Shipmanagement Limited	USD 0.7	3.5	USD 0.9	-	-	Jun 30 2020	-	1M LIBOR + margin	None	Dec 10 2014
Bazalt Navigation Company Limited	Miliana Shipmanagement Limited	USD 0.6	3.1	USD 0.8	-	-	Jun 30 2020	-	1M LIBOR + margin	None	Dec 10 2014
Miliana Shipping Group	Miliana Shipmanagement Limited	USD 0.2	0.8	USD 0.2	-	-	Dec 31 2021	-	1M LIBOR + margin	None	Aug 25 2016
Miliana Shipmanagement Limited	St. Barbara Navigation Company Limited	USD 1.1	1.1	USD 0.3	0.8	USD 0.2	Dec 31 2021	Apr 30 2023	1M LIBOR + margin	None	Nov 10 2016
Petro Aphrodite Company Limited	Miliana Shipmanagement Limited	USD 0.2	0.9	USD 0.2	-	-	Jun 30 2020	-	1M LIBOR + margin	None	Aug 19 2016
Grupa LOTOS S.A.	SPV Petro Sp. z o.o.	USD 0.7	-	-	2.6	USD 0.7	-	Dec 31 2022	1M LIBOR + margin	Blank promissory note with a 'protest waived' clause, security interest in a drilling platform	May 16 2019
Grupa LOTOS S.A.	LOTOS Straż Sp. z o.o.	PLN 6.0	0.9	-	0.3	-	Dec 31 2021	Apr 30 2026	1M WIBOR + margin	Blank promissory note	Jan 9 2020
			35.7 28.9	PLN USD 7.7	165.6 75.9	PLN USD 20.1					
			64.6		241.5						

Source: the Company.

Table 24. LOTOS Group's intercompany loans in 2020

Lender	Borrower	Principal as per loan agreement	Amount outstanding as at Dec 31 2020 (current portion)		Amount outstanding as at Dec 31 2020 (non-current portion)		Maturity date of		Financial terms (interest rate, interest payment schedule, etc.)	Security	Agreement date
		Foreign currency (million)	PLN (million)	Foreign currency (million)	PLN (million)	Foreign currency (million)	current portion	non-current portion			
Grupa LOTOS S.A.	LOTOS Straż Sp. z o.o.	PLN 6.0	0.9	-	0.3	-	Dec 31 2021	Apr 30 2026	1M WIBOR + margin	Blank promissory note	Jan 9 2020
LOTOS Petrobaltic S.A.	Energobaltic Sp. z o.o.	PLN 10.0	10.2	-	-	-	Jun 30 2021	-	1Y WIBOR + margin	Mortgage, blank promissory note	Apr 23 2020
LOTOS Petrobaltic S.A.	SPV Petro Sp. z o.o.	PLN 16.0	-	-	16.0	-	-	Jan 15 2023	3M WIBOR + margin	Blank promissory note	Apr 30 2020
LOTOS Upstream Sp. z o.o.	LOTOS Upstream UK Ltd.	GBP 0.1	-	-	-	-	loan repaid		3M LIBOR + margin	None	May 29 2020

Source: the Company.

8.8 Financing of the B8 project under a notes issue

In 2016, the SPV B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A. (Exploration & Production segment) concluded agreements with Bank Gospodarstwa Krajowego S.A. (BGK) and Polski Fundusz Rozwoju S.A. (the Polish Development Fund, PFR) (Fundusz Inwestycji Infrastrukturalnych – Dłużny Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych) for the financing of the development of the B8 oil field in the Baltic Sea, including senior notes and subordinated notes programme agreements.

On July 25th 2018, B8 spółka z ograniczoną odpowiedzialnością Baltic S.K.A. and Bank Gospodarstwa Krajowego executed an amendment to the senior note programme agreement and amendments to the terms and conditions of the notes issued by the company and acquired by BGK. On July 27th 2018, B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A. issued notes with a total nominal value of USD 30 million. The issue proceeds were used to redeem all notes acquired by Polski Fundusz Rozwoju S.A. All the issued notes are due at dates falling in the period from September 30th 2020 to December 31st 2021. With respect to the currently outstanding notes of B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A., as at December 31st 2020 the project schedule and budget were exceeded and one of the covenants was breached, and therefore the long-term portion of the liabilities under the agreement is presented in current liabilities. On December 14th 2020, an amendment to the senior note programme agreement and amendments to the terms and conditions of the notes were signed, whereby the liabilities were not accelerated by BGK as at December 31st 2020, and the stand still was extended until January 31st 2021. On January 29th 2021, an amendment to the senior note programme agreement, amendments to the terms and conditions of the notes and an amendment to the commission letter were signed, extending the funding availability period until June 30th 2021 and setting the repayment dates for the end of each quarter from September 30th 2021 to December 31st 2024.

As at December 31st 2020, the liability under the outstanding notes issued by B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A., net of issue costs, was PLN 231.7 million (December 31st 2019: PLN 231.8 million).

8.9 Capital expenditure

In 2020, the LOTOS Group's capital expenditure amounted to PLN 842.4 million, most of which was spent on the construction of a delayed coking unit (EFRA Project), expansion of the service station network, construction of a railway loading facility, purchase of rolling stock and oil and gas production, mainly from the B8 field in the Baltic Sea and the YME field on the Norwegian Continental Shelf.

Table 25. LOTOS Group's capital expenditure on key projects in 2020 (PLNm)

Refining & Marketing		Exploration & Production	
Project	(PLNm)	Project	(PLNm)
EFRA	64.6	B8 field	98.0
Expansion of service station network	140.5	B3 field, including the Giant platform	13.2
Railway loading station	50.3	Sleipner, Norway	9.2
Rolling stock	54.3	Norway – Heimdal	14.8
Other	147.7	YME, Norway	228.5
		Other	21.1
Total	457.4	Total	384.8

Source: the Company.

8.10 Contingent liabilities

An unconditional and irrevocable guarantee issued by LOTOS Upstream Sp. z o.o. for the benefit of the government of Norway, covering the exploration and production activities of LOTOS Exploration and Production Norge AS on the Norwegian Continental Shelf, was effective as at December 31st 2020. In the guarantee, LOTOS Upstream Sp. z o.o. undertook to assume any financial liabilities which may arise in connection with the operations of LOTOS Exploration and Production Norge AS on the Norwegian Continental Shelf, consisting in exploration for and extraction of the natural resources from the sea bottom, including their storage and transport using means of transport other than ships.

As at December 31st 2020, an excise bond in the form of two promissory notes for a total lump sum of PLN 240 million, valid from August 20th 2020 to August 19th 2021, which were submitted by Grupa LOTOS S.A. to the Head of the First Tax Office in Gdańsk, continued in effect.

8.11 Assessment of the management of financial resources

The Company optimally managed its own financial resources and the resources of all the other LOTOS Group entities. Despite severe headwinds caused by the COVID-19 pandemic, all material financial and liquidity ratios remained at safe levels in 2020, and all liabilities were met when due. Cash flows provided by operating activities were more than sufficient to meet the capex requirements and partly repay the outstanding debt. The LOTOS Group's liquidity position is safe and as at the date of issue of this report the Company did not identify any significant risks that could adversely affect that position.

8.12 Financial performance guidance

Grupa LOTOS S.A. did not publish consolidated or separate financial guidance for 2020.

9 Grupa LOTOS S.A.'s finances in 2020

9.1 Key factors affecting the financial performance

In 2020, Grupa LOTOS S.A. generated a net loss of PLN -881.4 million. The Company's operating loss was PLN -1,512.5 million (compared with an operating profit of PLN 744.5 million in 2019).

In 2020, the Company's net profit was impacted by the following factors:

- a decline in net revenue, which amounted to PLN 17,736.9 million, down 32.6% year on year. The decline in revenue was attributable to lower prices of petroleum products on global markets. The total volume of petroleum products, merchandise and materials sold by the Company in 2020 was 11,656.7 thousand tonnes (up +23.2 thousand tonnes, or +0.2%, on 2019). The average net selling price was PLN 1,522 per tonne, down by PLN 740 (-32.7%) year on year;
- lower cost of sales. It amounted to PLN 18,202.4 million (down 25.7% year on year). The average unit cost of sales was PLN 1,562 per tonne (down PLN 545 on 2019). The average cost was higher than the average net selling price by PLN 40 per tonne;
- a 4.2% decrease in selling expenses, due mainly to a 34.8% decrease in the volumes of products sold abroad;
- increase in administrative expenses (up 6.2%), due mainly to a higher employee benefits expense, reflecting a higher headcount of employees at the Company;
- net other expenses of PLN -24.8 million;
- net finance income of PLN 374.2 million.

Table 26. Key items of the statement of profit or loss of Grupa LOTOS S.A. (PLNm)

	2020	2019	2020/2019	
			(PLNm)	(%)
Revenue	17,736.9	26,313.0	-8,576.1	-32.6%
Cost of sales	-18,202.4	-24,509.4	6,307.0	-25.7%
Selling expenses	-743.2	-775.8	32.6	-4.2%
Administrative expenses	-279.0	-262.8	-16.2	6.2%
Net other income/(expenses)	-24.8	-20.5	-4.3	21.0 %
Operating profit/(loss)	-1,512.5	744.5	-2,257.0	-303.2%
Net finance income/(costs)	374.2	210.7	163.5	77.6%
Profit/(loss) before tax	-1,138.3	955.2	-2,093.5	-219.2%
Income tax	256.9	-120.9	377.8	-
Net profit/(loss)	-881.4	834.3	-1,715.7	-205.6%

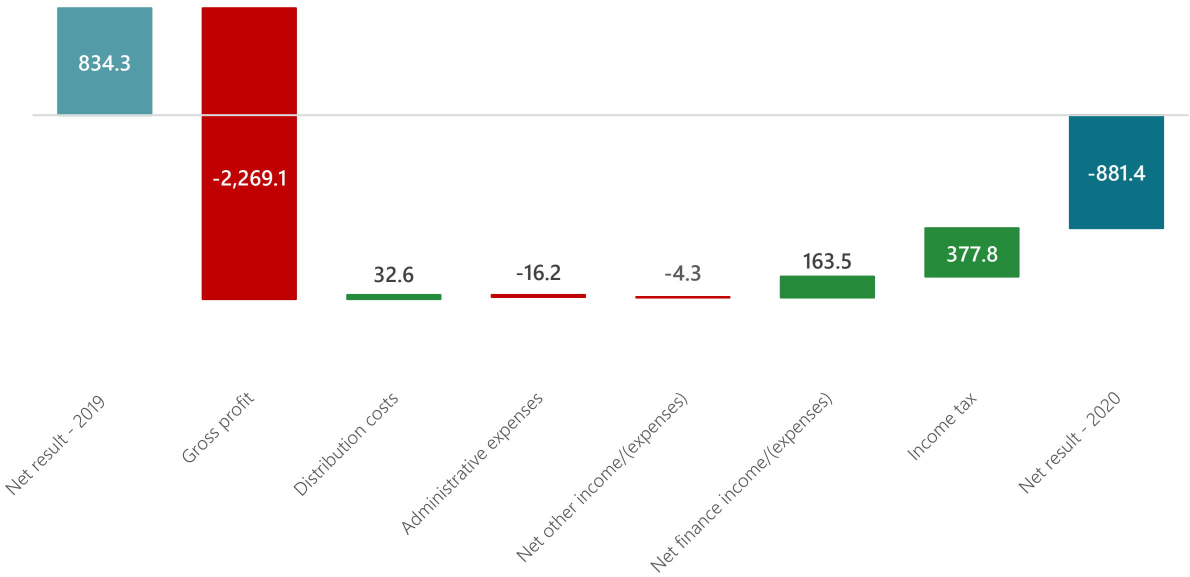
Source: the Company.

Table 27. LIFO-based EBITDA for Grupa LOTOS S.A.[21]

	2020	2019	2020/2019 (PLNm)	2020/2019 (%)
EBIT	-1,512.5	744.5	-2,257.0	-303.2%
Depreciation and amortisation	403.3	393.6	9.7	2.5%
EBITDA	-1,109.2	1,138.1	-2,247.3	-197.5%
LIFO effect	726.1	115.3	610.8	529.6%
One-off items[22]	4.2	-86.6	90.8	-
Adjusted LIFO-based EBIT	-782.2	773.2	-1,555.4	-201.2%
Adjusted LIFO-based EBITDA	-378.9	1,166.8	-1,545.7	-132.5%

Source: the Company.

Figure 43. Sources of net profit earned by Grupa LOTOS S.A. in 2020 (PLNm)



Source: the Company.

[21]The LOTOS Group's 2020 performance was affected by fluctuations in its oil inventories and differences between the volumes purchased and processed during Q2, which resulted in the cost of crude oil processed, based on the LIFO (Last in First out) inventory method, being calculated at a higher unit cost than the currently prevailing price, as the effect of old (significantly more expensive) oil inventories. This effect reflects a shortcoming of the adopted inventory valuation model and does not affect the generated flows. This negative effect on the LIFO-based result for 2020 is estimated at approximately PLN 370 million.

[22] 2020: foreign exchange losses on operating activities of PLN -4.2 million.
2019: foreign exchange gains on operating activities of PLN +66.1 million, reversal of LIFO write-downs of PLN +20.5 million.

9.1.1 Revenue

The 32.6% decline in revenue was mainly attributable to a significant decline in the prices of petroleum products on global markets.

9.1.2 Operating expenses

In 2020, Grupa LOTOS S.A.'s operating expenses amounted to PLN 19,224.6 million, down 24.8% year on year.

The main items of the Company's operating expenses were:

- raw materials and consumables used – totalling PLN 15,930.1 million, They fell 29.8% year on year mainly as a result of lower volumes and a significantly lower unit cost of processed crude oil;
- services – of PLN 974.1 million (down -4.6%). The drop resulted mainly from lower costs of transport services reflecting a decrease in export volumes;
- taxes and charges – at PLN 652.6 million (up PLN 155.1 million on 2019). The increase included a PLN 75.1 million provision for the National Reduction Target, a PLN 71.7 million increase in the provision for a deficit of CO_2 emission allowances, and a PLN 62.6 million increase in the provision for NIT emission charge.
- depreciation and amortisation – PLN 403.3 million (up 2.5%), following the commissioning of EFRA units;
- employee benefits expense – PLN 314.0 million (up 6.6%), driven by rising employment levels, an increase in salaries and wages, and actuarial remeasurement of payables to employees.

Table 28. Operating expenses of Grupa LOTOS S.A. (PLNm)

	2020	2019	%
Depreciation and amortisation	403.3	393.6	2.5%
Raw materials and consumables used	15,930.1	22,707.4	-29.8%
Services	974.1	1,021.2	-4.6%
Taxes and charges	652.6	497.5	31.2%
Employee benefits expense	314.0	294.5	6.6%
Other costs by nature of expense	117.3	93.0	26.1%
Merchandise and materials sold	272.5	349.1	-21.9%
Total costs by nature of expense	18,663.9	25,356.3	-26.4%
Change in products and adjustments to cost of sales	560.7	191.7	192.5%
Total	19,224.6	25,548.0	-24.8%
including:			
Cost of sales	18,202.4	24,509.4	-25.7%
Selling expenses	743.2	775.8	-4.2%
Administrative expenses	279.0	262.8	6.2%

Source: the Company.

9.1.3 Net finance income/(costs)

The Company's net finance income was PLN 368.8 million. It comprised primarily:

- dividends received of PLN +319.5 million,
- gains on measurement and settlement of financial instruments of PLN +78.8 million,
- net interest on debt, interest income, bank commission fees and guarantees of PLN -32.7 million,
- net foreign exchange gains of PLN +17.4 million,
- impairment loss on financial instruments of PLN -9.4 million related to a loan advanced to Grupa Azoty Polyolefins S.A.

9.2 Financial position

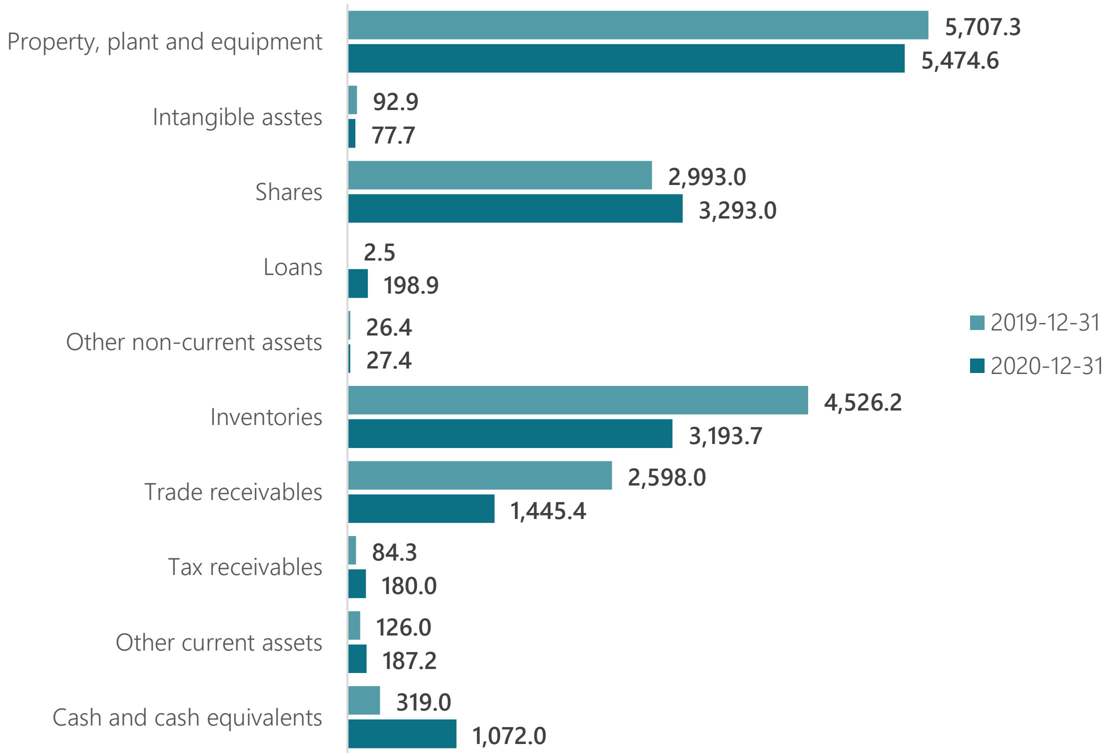
9.2.1 Assets

As at December 31st 2020, Grupa LOTOS S.A.'s total assets amounted to PLN 15,149.9 million, down 8% relative to the end of 2019.

Key factors that contributed to the increase in assets included:

- PLN 1,332.5 million decrease in inventories, attributable mainly to lower volumes and lower prices/costs of inventories of crude oil, finished goods and semi-finished products,
- PLN 1,152.6 million decrease in trade receivables, also due to a significant decrease in selling prices,
- PLN 232.7 million decrease in property, plant and equipment, due mainly to depreciation, offset by purchases of property, plant and equipment for the EFRA Project,
- PLN 300 million increase in shares following the performance of the investment agreement providing for the financing of the Polimery Police project – through the acquisition of shares in the SPV;
- PLN 196.4 million increase in loans following the execution of an agreement to provide a PLN 200m loan to Grupa Azoty Polyolefins S.A. as part of the Company's participation in the financing of the Polimery Police project.
- PLN 753.0 million increase in cash and cash equivalents.

Figure 44. Assets of Grupa LOTOS S.A. (PLNm)



Source: the Company.

9.2.2 Equity and liabilities

At the end of 2020, Grupa LOTOS S.A.'s equity was PLN 9,449.4 million (having decreased PLN 889.9 million compared with the end of 2019). The decrease was chiefly attributable to the net loss of PLN -881.4 million, dividend payments of PLN 184.9 million and actuarial losses relating to defined post-employment benefits, adjusted for the tax effect, of PLN -2.8 million. Equity included foreign exchange gains on cash flow hedges, adjusted for the tax effect, recognised in reserve capital in the amount of PLN 179.2 million.

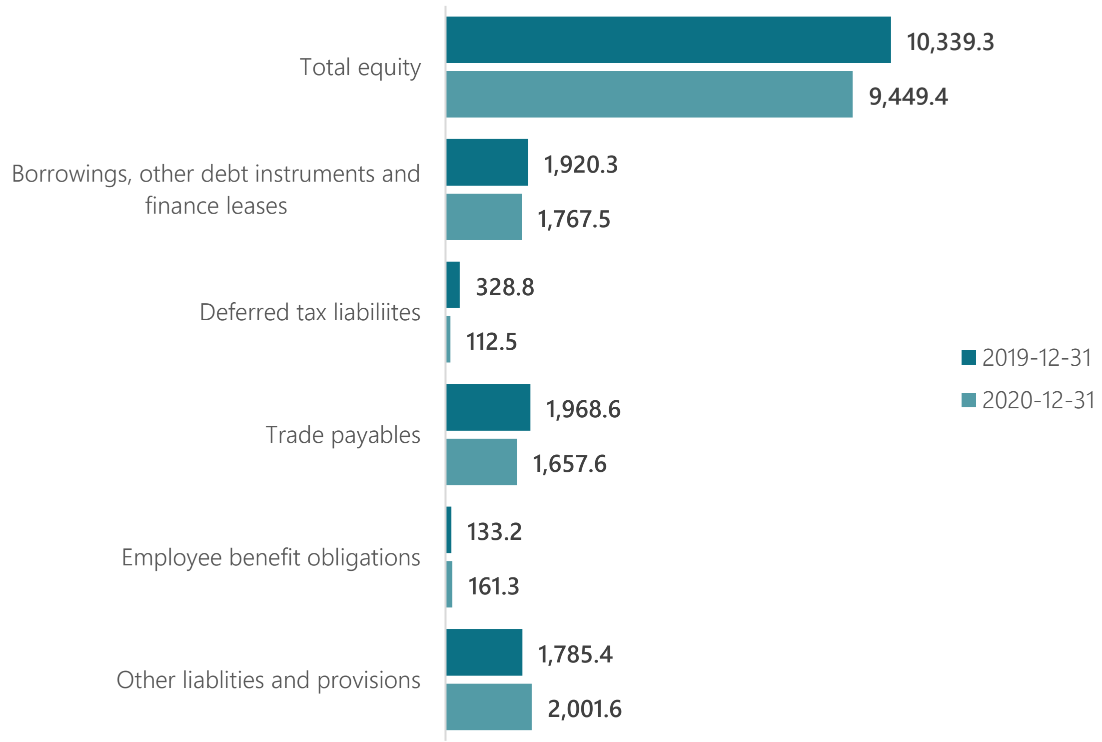
As at December 31st 2020, the share of equity in total equity and liabilities fell to 62.4% (from 62.8% at the end of 2019).

As at the end of December 2020, the Company's liabilities amounted to PLN 5,700.5 million, having gone down PLN 435.8 million year on year. Key factors behind the change in Grupa LOTOS S.A.'s liabilities relative to the end of 2019:

- PLN 152.8 million decrease in bank borrowings and leases, due mainly to repayment of investment credit facilities,
- PLN 311.0 million decrease trade payables, due mainly to a lower value of crude oil purchased in December 2020 relative to December 2019.
- PLN 216.3 million decrease in deferred tax liabilities.
- PLN 216.2 million increase in other liabilities and provisions, mainly liabilities to the state budget on account of excise duty and fuel charge, a provision for the National Reduction Target, and an increase in provisions for a deficit of CO_2 emission allowances and NIT emission charge.

As at December 31st 2020, Grupa LOTOS S.A.'s debt was PLN 1,767.5 million (having been reduced by PLN 152.8 million on December 31st 2019). The ratio of debt adjusted for free cash to equity was 7.4%, down 8.1pp on December 31st 2019.

Figure 45. Equity and liabilities of Grupa LOTOS S.A. (PLNm)



Source: the Company.

9.3 Cash flows

As at December 31st 2020, the Company held cash of PLN 849.8 million. Net cash flows in 2020 amounted to PLN 530.8m (2019: PLN -871.7 million).

This change was a combined result of the following cash flows:

- positive cash flows generated by the Company from operating activities of PLN 1,370.3 million (up PLN 362.4 million on 2019), which confirms the effective use of assets and healthy business despite the pandemic-induced headwinds. This was strengthened by favourable development of working capital and the use of liquidity improvement tools (factoring arrangements used as at the end of 2020);
- cash flows from investing activities were PLN -281.5 million and involved mainly the acquisition of shares in Grupa Azoty (PLN -300 million), loans (PLN -201.2 million) and purchase of property, plant and equipment (PLN -171.3 million). At the same time, the Company received dividends (PLN +318.9 million);

- negative cash flows from financing activities of PLN -558.7 million, related chiefly to repayment of borrowings and interest (PLN -370.3 million), as well as dividend paid for 2019 (PLN -184.9 million).

Table 29. Cash flows (PLNm)

Cash flows (PLNm)	2020	2019
Cash and cash equivalents at beginning of period	319.0	1,190.7
Cash flows from operating activities	1,370.3	1,007.9
Cash flows from investing activities	-281.5	-119.1
Cash flows from financing activities	-558.7	-1,759.9
Change in net cash	530.8	-871.7
Cash and cash equivalents at end of period	849.8	319.0

Source: the Company.

10 Risks in the LOTOS Group's operations

Risks inherent in the LOTOS Group's operations include risks specific to the Oil & Gas industry, such as market risk, exploration risk, crude oil production and processing risks, related to process safety, human safety and the environment, as well as risks related to development projects and initiatives pursued by the Group. The organisation understands risk as a potential threat that needs to be managed in line with the adopted risk appetite policy, and as an opportunity that can be exploited to its advantage.

One of the key challenges affecting the LOTOS Group's business in 2020 was the market situation caused by the COVID-19 pandemic. The procedures and preventive measures in place helped maintain operational efficiency across the LOTOS Group, from the upstream segment to downstream refining and marketing.

It is anticipated that in the near term the pandemic will continue to have strong implications for the Group's day-to-day operations and macroeconomic trends that affect its business and performance.

The other key risk factor in the current period that will have bearing on the LOTOS Group's further growth is the global trend towards a low- and zero-emission economy. Climate risks, as a source of both threats and opportunities, are increasingly better identified and managed by the LOTOS Group. Aware of their magnitude, the organisation puts them high on the list of priorities in setting new business goals and development plans.

Market risk related to the prices of crude oil, gas and petroleum products is one of the key risks with material bearing on the Group's financial performance. These prices depend on international market quotations, which are beyond the Company's control. Although this is a natural risk for all industry operators, the LOTOS Group has put in place various measures to mitigate its adverse impact, but also capture the resulting opportunities.

Any identified risks at the LOTOS Group are managed via the Enterprise Risk Management (ERM) system, which has been continually refined. As part of the system:

- risks are identified and evaluated, with performance figures and possible deviations planned and forecast in the context of a volatile and uncertain environment,
- business decisions are made on an informed basis, taking into account the risks involved,
- and the Group's risk profile is actively managed by mitigating risks to the achievement of its objectives and capturing opportunities.

All the LOTOS Group companies have in place an Enterprise Risk Management Policy accompanied by a detailed procedure.

10.1 Risk categories at the LOTOS Group

The LOTOS Group has classified risks into the following categories:

Main category	Subcategories	Description
Strategic risks	Megatrends Climate Regulatory Strategic projects Geopolitical Technology Competence	Strategic risks are understood as the possibility of negative financial consequences from mistaken decisions, based on wrong assessment of the LOTOS Group's strategic development directions (megatrends and technology risk). A new category of climate risks has been established within strategic risks, which are associated with climate change and related legislative changes. Given its relevance to the Group's operations, it has been separated from the megatrend subcategory. These risks are mostly regulatory in nature, as they arise from proposed new regulations or regulatory changes. Strategic risks also include potential inability to fully achieve the Group's strategic objectives due to delayed delivery of, or changes in the scope of work under, strategic projects (risk in strategic projects). Another risk identified within this category is associated with geopolitical factors affecting the organisation's activities (geopolitical risk). A significant risk area affecting the Group's operations and growth prospects in the strategic perspective is access to competent staff (competence risk).

Operational risks	HSE Exploration Production Refining Sales Services Logistics Procurement Financial operations IT Force majeure (e.g. natural disasters) Security risk	Operational risks are identified as part of ongoing processes carried out at the LOTOS Group, as factors with a potential impact on the achievement of the Group's operational objectives. Significant operational risks include categories related to safety and security of people, the environment and processes in general, as well as the availability and security of IT systems, which could affect the continuity of business, production/refining operations and customer service. Operational risks may relate both to processes carried out by the LOTOS Group's own staff, and by suppliers and subcontractors along the length of the supply chain.
Financial risks	Market Liquidity and financing Credit	Under financial risks, the LOTOS Group identifies market risk associated with the prices of petroleum commodities and products, prices of CO_2 emission allowances, currency exchange rates and interest rates. In addition, financial risks include the credit risk of trade partners and counterparties in financial contracts, liquidity risk, risk of constraints or changes in the terms of credit provision, and debt service risk.
Reputation and compliance risks	Legal Employees Investors Customers Social and environmental	Reputation risk relates to the perception of the LOTOS Group by its key stakeholders – customers, investors, employees and local communities. Compliance risk, on the other hand, involves risks of non-compliance with existing legal requirements (legal risks).

On next pages there is a description of selected key risk categories, which, given their current levels, are included in the Group's risk map. A detailed list of these risk categories, along with their current assessment and mitigation methods, is shown in Table 31 on page 102 of this report.

10.1.1 Strategic risks

Risk from megatrends

Development of the LOTOS Group and its financial performance are correlated with the overall economic climate in Poland and globally. The year 2020 was a difficult time of the COVID-19 pandemic, which is bound to shape the oil industry in the years to come.

The pandemic wrought havoc on global fuel markets, as the restrictions imposed by many governments altogether prohibited or impeded the movement of people and goods. This led to a slump in fuel demand, which caused the OPEC+ countries to reduce crude oil output.

The pandemic-related situation remains a major challenge for the aviation industry. Flights worldwide shrank 40% year on year in 2020. Industry organisations (including IATA) predict that the situation on the aviation market will not improve to pre-pandemic levels until several years from now.

The dynamic changes in the oil industry in recent months were also due to other developments, such as the US maintaining its sanctions on Iran and Venezuela, blockade of ports in Libya, the OPEC+ countries competing for market shares, and US presidential election.

The coming months and years will also be subject to strong uncertainty and risks arising from the COVID-19 pandemic and other global trends. Adverse factors, including an estimated 2.8% decline in Poland's GDP in 2020 and restrictions imposed on the social and economic activity, reduced demand for fuel products, affecting the LOTOS Group's financial performance. The coming months will show whether the vaccination programme leads to the easing of lockdown restrictions and, consequently, to an increase in fuel consumption.

The economic impacts of the pandemic, but also the energy transition, are reflected in forecasts predicting gradual reductions in refinery production, as more plants are closed down or converted into biorefineries or other operations. This may affect not only simple refineries but also more complex plants with a large share of middle distillates in their product mix (→for more information, see Section 3).

Climate risk

In recent years, wide-ranging efforts have been afoot (both globally and locally) to tackle climate change. The European Green Deal is the new economic development strategy for the European Union. The transition of the EU economy towards climate neutrality is a means of achieving the objective of changing the EU's status from the world's third largest greenhouse gas emitter into the first climate neutral region. The transition is expected to be completed within three decades. This will have a significant impact on the operation and further development of the refining industry. Through changes in the taxation regime, higher prices of CO_2 emission allowances, higher costs to finance certain projects and growing requirements regarding the share of renewable energy in transport, these initiatives will affect the LOTOS Group's operating expenses and performance. These changes may also have an indirect effect through changes in consumer expectations and behaviour, as well as changes in the operating models of the various transport sub-sectors (decarbonisation of public transport and car sharing).

However, the LOTOS Group notes not only challenges, but also opportunities arising from climate change, striving to exploit them through innovative projects, such as production of alternative fuels.

Detailed information on identified climate risks is presented in the table below.

Table 30. Climate change risks

Risk factors	Threats	Opportunities
Revision of the Directive on the promotion of the use of energy from renewable sources (RED)		
Increased mandatory share of renewable energy in transport, which will increase the use of low-emission fuels, including advanced biofuels, synthetic liquid and gaseous fuels, and hydrogen.	- Increase in costs related to the purchase and production of biofuels and possible penalties for failure to meet the targets regarding the share of renewable energy in transport	+ Possibility of entering new markets for advanced biofuels or hydrogen + Possibility of obtaining dedicated support for low-emission projects and possibility of new investments in the sector whose products may be in greater demand across the European Union.
Revision of the Energy Taxation Directive (ETD)		
The proposed changes in the fuel and energy taxation system will increase the minimum tax thresholds and diversify them so that low-emission alternative fuels can be as cheap as possible compared with petroleum-based counterparts.	- Possible gradual decline in demand for conventional fuels - Increased tax burden on conventional fuels, disruption of the existing relations between taxes on diesel oil, gasoline and LPG	+ Growing interest in low-emission alternatives, such as electricity, hydrogen or fuels with a higher content of advanced biocomponents + Potentially higher profitability of projects connected with the production and use of alternative fuels in transport, given their preferential tax treatment.
Introduction of EU regulations on sustainable aviation fuels (ReFuelEU Aviation initiative)		
The initiative concerns the development of sustainable (low-emission) aviation fuels (SAF); various options are considered, including commitment for the refining industry to produce a specified volume of low-emission aviation fuels.	- High costs of the mandatory production of SAF (if this option is ultimately included in the regulations), due, among other things, to limited availability of the raw materials and costly certification procedures for such fuels; it is estimated that the cost of introducing SAF is several times higher than for conventional fuels	+ Entry into the prospective and probably high-margin nascent market for sustainable aviation fuels.

Risk factors	Threats	Opportunities
Revision of the Alternative Fuels Infrastructure Directive		
The initiative focuses on establishing mandatory targets for the development of alternative fuels infrastructure in the EU, with the objective of increasing the number of electric vehicle charging stations, hydrogen, CNG and LNG refuelling stations, as well as LNG refuelling stations at ports for LNG-fuelled vessels.	- Growing number of electric vehicles may, as a result, contribute to a decline in demand for conventional fuels, especially gasoline - Need to incur new infrastructure construction costs	+ Expansion of the electric mobility segment gives opportunities to offer recharging services and expand the non-fuel business (longer charging times for electric vehicles relative to combustion ones means more time spent by customers in a station's retail space) + Development of the alternative fuels market and generation of revenue from sale of such fuels (electricity, hydrogen, CNG/LNG).
Revision of the EU ETS		
The proposed changes to the ETS are intended to accelerate growth in the prices of CO_2 emission allowances and thus to stimulate investments in emission free technologies.	- Increase in operating expenses of Grupa LOTOS S.A. due to higher prices of emission allowances and lower number of free allowances	+ Increased profitability of innovative decarbonisation projects (e.g. the Green H2 project)
EU hydrogen strategy and legislation promoting the use of hydrogen		
The strategy is designed to identify barriers to increased production and use of clean hydrogen, to define measures to remove those barriers and promote the production and use of clean hydrogen on a large scale, as well as development of the hydrogen market and the necessary cost-effective infrastructure. Proposals of legal acts that would comprehensively regulate the production and use of hydrogen in the economy are expected in 2021.	- Establishment of too stringent criteria for the recognition of energy for hydrogen production as renewable - Introduction of binding hydrogen share targets, without adequate demand-side tools	+ Possibility of entry into the promising green hydrogen market + Possibility of achieving the (growing) targets imposed on Grupa LOTOS S.A. with regard to the share of renewable energy in transport + Access to preferential financing models for hydrogen projects.
Introduction of a legislative package on sustainable financing (EU taxonomy)		
The legislative package introduces a general framework to support the gradual development of a classification system for environmentally sustainable economic activities, which will be used to reorient private sector capital flows and EU programmes towards investments classified as climatically sustainable.	- Increase in finance costs and possible impediments to the financing of projects not classified as sustainable ('green') - Increase in the cost of insurance covering economic activities not considered environmentally sustainable in the taxonomy	+ Preferential funding for projects included in the taxonomy, i.e. designed to reduce emissions, e.g. production of green hydrogen, advanced alternative fuels, or generation of energy from renewable sources.

Risk factors	Threats	Opportunities
National Reduction Target specifies a minimum reduction of greenhouse gas emissions over the fuel life cycle – amendment to the Act on Fuel Quality Monitoring and Control System		
The amendment to the Act on Fuel Quality Monitoring and Control System provides for a change in the method of calculating penalties for failure to meet the fuel life cycle emissions reduction target – National Reduction Target. It provides for the introduction of absolute values into the model instead of reference to the prices of emission allowances. In addition, the amendment provides for confirmation of the NRT validity beyond 2020, facilitation of joint LPG settlements, and establishment of a register of documents supporting the achievement of upstream emission reductions.	- Additional costs for the LOTOS Group resulting from the extension of the obligation beyond 2020 and increase in the fine amount	+ Possibility of paying an emission charge, reduced risk from introducing certificates of upstream emission reductions (UER) and facilitated joint LPG settlements after the amendment takes effect.
National Indicative Target defines a minimum share of renewable energy in transport and implements the amended RED Directive (RED II) by amending the Act on Biocomponents and Liquid Biofuels		
RED II provides for an increase in the minimum share of renewable energy in transport to 14% (compared with the current 10%) and a minimum share of advanced biofuels of 3.5% by 2030.	- Increase in operating expenses due to higher requirements regarding the share of renewable energy in transport (e.g. necessity to use more expensive, advanced biofuels; potential penalties)	+ Entry into the new market of advanced biofuels, for which demand in the EU should grow.
Amendment to the Energy Efficiency Act		
The amendment provides for an extension of the catalogue of entities obliged to achieve energy efficiency improvement targets. The obliged entities will have to demonstrate annually an appropriate reduction in the amount of energy delivered to end users.	- Increase in costs due to the need to meet the efficiency targets set out in the Act, which will most likely require payment of an emission charge or purchase of white certificates.	

Source: the Company.

Regulatory risk

Regulatory risk at the national and European level has strong relevance to the LOTOS Group's operations. This risk is closely associated with the climate risks described in Table 30. The Company keeps monitoring the legal environment and communicates its position as part of legislative processes, which is always formulated so as to make the best use of opportunities and reduce the potential adverse impact of new regulations. The Company intends to remain in compliance with all the regulatory requirements.

Risk in strategic projects

One of the key risk categories relevant to the LOTOS Group's strategy is the risk related to its ongoing and planned strategic projects. In 2020, a number of exploration and production projects, including development of the B8 field and development of the YME field in the Norwegian Continental Shelf, were delayed due mainly to the COVID-19 pandemic (→ Current Report No. 7/2020). The delays were due, among other things, to the subcontractors' inability to perform the full scope of oilfield services and shipyard work.

Another challenge for the coming years lies in the implementation of other projects, currently in the planning phase, which would enable further growth of the LOTOS Group, including the construction of an oil hydrocracker (HBO) to produce modern base oils, the CCGT project, and the Green H2 project to create a large-scale green hydrogen production facility, consisting of electrolysers, hydrogen storage facilities and fuel cells or, alternatively, hydrogen turbines.

By regularly monitoring the progress of, and risks related to, its strategic projects, the LOTOS Group is able to anticipate the situation and thus to implement measures designed to control risks or leverage opportunities. As part of project management, the Group applies portfolio management practices, taking into consideration the organisation's internal condition and external market environment, and directing capital flows to various projects at different stages of the delivery cycle.

Competence risk

Competence risk is related to the difficulty in attracting or retaining competent and experienced staff, necessary for the Group to attain its strategic objectives. Recent years have shown that the labour market in Poland is transforming. The industrial sector and niche industries often face a shortage of qualified specialist workforce. This is an important issue, requiring employers to be flexible and make active efforts in recruiting and retaining staff with appropriate qualifications.

10.1.2 Financial risks

For detailed information on financial risk and policies to manage that risk, see Note 27 on p. 73 to the consolidated financial statements for 2020. A general overview of individual financial risks is presented below.

Market risk: prices of petroleum commodities and products

Grupa LOTOS S.A.'s margins on sale of petroleum products are largely dependent on a spread between its selling prices and the prices of crude oil. The prices of refining products, crude oil and natural gas may fluctuate widely driven by external events, such as changes in the supply and demand forces globally or regionally, dynamic geopolitical factors or shifts in market preferences.

Grupa LOTOS S.A. identifies the following risk factors related to the prices of petroleum commodities and products:

- volatility of the refining margin, measured as the difference between liquid indices of a reference petroleum product basket (e.g. aviation fuel, gasoline, diesel oil, fuel oil) and a liquid index of reference commodity (e.g. Urals crude),
- volatility of prices with respect to the commodity and product inventory volumes deviating from the required levels of emergency and operational stocks,
- volatility of differentials between the reference indices and indices used in commercial contracts (e.g. Urals-Brent differential, i.e. the difference between different types of crude oil),
- use of non-standard pricing formulae in trade contracts.

Market risk: currency exchange rates

In its operations the LOTOS Group is exposed to currency risks related to:

- trading in raw materials, petroleum products and other commodities,
- investment cash flows,
- cash flows from financing activities, including deposits and borrowings,
- measurement of derivatives indexed to or denominated in a currency other than the functional currency (PLN).

The LOTOS Group has a structurally long position in USD (which means it benefits from a rise in the exchange rate of the US dollar against the Polish złoty) as its cash inflows dependent on the USD exchange rate (mainly revenue from sale of petroleum products) are higher than the corresponding cash outflows (e.g. outflows on purchase of crude oil). On the other hand, some of the LOTOS Group's debt is denominated in foreign currencies, primarily the US dollar, as a result of which an appreciation of the US currency against the Polish złoty increases the cost of servicing these liabilities, as well as the value of the liabilities disclosed in the financial statements as at the measurement date.

Market risk: interest rates

Grupa LOTOS S.A is exposed to the risk of changes in cash flows caused by interest rate movements, as interest income and expense related to certain assets and liabilities accrues based on floating interest rates. This is driven primarily by the expected facility repayment schedules, as well as the amount of interest computed by reference to the floating LIBOR USD rate.

In connection with the ongoing reform of inter-bank offered rates (LIBOR), which will result in cessation of the currently applied interest rates (including the planned discontinuation of LIBOR at the end of 2021) and their replacement with other benchmarks, Grupa LOTOS S.A. is actively monitoring the progress of the reform to the extent applicable to the Company, taking all necessary decisions and steps to prepare for the transition to new interest rates.

In 2021, the Company plans to hold talks with its financial partners so that relevant clauses relating to new interest rate benchmarks are included in due time into its existing agreements.

Market risk: prices of carbon dioxide (CO_2) emission allowances

Grupa LOTOS S.A. participates in the European carbon dioxide (CO_2) emission trading scheme and manages the related risk on an ongoing basis in accordance with a detailed risk management strategy it has adopted for carbon dioxide emission prices. The current trading period (Phase III) ended in 2020. At present, Grupa LOTOS S.A. holds surplus allowances, purchased in view of the prevailing market situation and the strategic nature of a deficit of allowances expected after 2020. The new allocation of allowances for 2021–2025 is due in the first half of 2021.

Financial risk: liquidity and financing

Liquidity risk is associated with ensuring that all liabilities are settled in a timely manner. The risk can materialise because of a mismatch between streams of receivables and payables or inadequate sources of funding. Liquidity is managed across the LOTOS Group based on current liquidity forecasts.

Some investment projects undertaken by Grupa LOTOS S.A. and its subsidiaries, as well as their day-to-day operations, are partly financed with borrowed funds. Therefore, there is a risk that LOTOS Group companies may face difficulties in raising external finance or obtaining acceptable terms of such finance for their further development. This may be caused by instability on financial and capital markets in Poland or abroad, more restrictive policies applied by financing institutions with respect to new agreements or interpretation and performance of existing agreements, any adverse economic developments in Poland or abroad, and non-performance or improper performance by LOTOS Group companies of their obligations under financing agreements. There is also a noticeable trend of limiting access to external financing for conventional fuel projects.

The ability to raise additional debt is also constrained by the LOTOS Group companies' obligations to service their existing debt. Currently, their economic performance, liquidity position and debt levels are satisfactory.

Financial risk: credit

In the course of its trading operations, the LOTOS Group sells products and services to other business entities on a deferred payment basis, which may give rise to the risk of default on the part of its trading partners (credit risk of trade partners).

In entering into financial contracts with financial institutions, due consideration is given to the risk that the counterparty may default on amounts owed to Grupa LOTOS S.A. on settlement of a given transaction. In addition, the credit exposure also includes bank deposits and cash held in bank accounts (credit risk of financial transaction counterparties).

10.1.3 Operational risks

Operational risks are identified as part of ongoing processes carried out at the LOTOS Group, as factors with a potential impact on the achievement of the Group's operational objectives. Operational risk factors are identified in the LOTOS Group's internal processes and in its environment, including the supply chain.

Exploration risk

Exploration projects undertaken by the LOTOS Group involve both the risk of drilling a well without a hydrocarbon flow, as well as the risk of inaccurate estimation of hydrocarbon resources and reserves discovered by drilling. It is possible that the presence of resources inferred from geological and seismic data is not confirmed after a well is drilled, and that the estimated resources are smaller than originally expected. There is also a risk that further drilling to appraise a deposit will result in a downward revision of resource estimates due to unfavourable changes in the reservoir properties. For this reason, analyses and decisions in exploration activities involve multiple stages, with different risk mitigation methods used along the way.

Production risk

Hydrocarbon production processes are often carried out in challenging conditions, mainly offshore. High pressure and increased corrosive effects compound the risk of failures of production equipment, such as downhole pumps, extraction equipment and transmission facilities, which in turn may negatively affect production volumes and financial performance.

Failure to achieve production targets may also result from declining well capacity rates (changes in reservoir pressure) and reservoir properties differing from those documented at the field development stage.

A production process involves the risk of an oil spill, fire or blowout, which may result in environmental contamination, risks to the health and lives of staff, reduction or discontinuation of production, as well as the need to incur significant financial expenditure to remove the damage or pay the resulting fines. The risk is attributable to the quality of operation of the exploration and production infrastructure, application of inadequate technical and organisational solutions, as well as the level of awareness and skills possessed by staff and subcontractors.

In 2020, the pandemic made it necessary to define a new risk that production may be limited due to the spread of COVID-19. To date, there has been no interruption in or limitation of oil or gas production at LOTOS Petrobaltic S.A. or the LOTOS Upstream Group, thanks mainly to the crisis scenario procedures to be followed in the event of detection of COVID-19 infections, especially on drilling platforms.

Refining risk

One of the two key pillars of the LOTOS Group's operations is the processing of crude oil and refining of petroleum products. Its essential element is to ensure the safety of people, processes, infrastructure and the environment. A potential industrial accident taking place at the refinery could disrupt refining production and, in extreme cases, cause a fire or release of hazardous substances. Such incidents could potentially pose a risk to people in the vicinity. Any hydrocarbon leaks could contaminate land and surface water or, in the case of emergencies resulting in major emissions into the atmosphere, cause air pollution. At Grupa LOTOS S.A., all risks to process, human and environment safety are managed with the utmost care and measures are taken to minimise such risks.

2020 brought a new risk factor: the COVID-19 pandemic. It involves a risk that production may be stopped if key human resources are unavailable. Grupa LOTOS S.A. has identified COVID-19 infections among its employees, but proper monitoring and effective response allowed it continuously sustain safe refining operations. Based on the accumulated experience, effective organisational solutions have been developed in recent months to prevent the risk from materialising, although its materialisation cannot be ruled out if the epidemic continues to spread at a significant rate.

Having no upstream production assets that would fully cover its demand for crude oil, the LOTOS Group has also identified the risk of disruption of the continuity of crude oil supplies. The continuity of crude oil supplies to the Group may be affected by the following main factors:

- technical failures, including failures of the pipeline system used to supply crude oil, terrorist attacks, acts of sabotage, riots, revolutions, war, natural disasters, adverse weather conditions, or other events of force majeure,
- uneven deliveries of crude oil resulting in a temporary decrease in work-in-process stocks, and consequently in the refinery's lower throughput volumes and failure
- to meet the oil quality requirements.

Grupa LOTOS S.A. follows the adopted *Crude Oil Supply Policy* to ensure operational continuity and security of crude oil supplies through, among other measures, diversification of supply directions, crude oil grades and suppliers. The Company maintains the availability of crude oil supplies by pipeline, rail and sea. Thanks to the LOTOS refinery's convenient location near the sea coast and successful measures taken within the supply chain, in 2019, when oil supplies over the Druzhba pipeline were temporarily discontinued (see Current Reports No. 7/2019 and 16/2019), the Company was not forced to shut down its refining units and customers did not suffer any adverse consequences of the oil contamination incident.

Risk related to purchase of products and services

The LOTOS Group identifies a risk from its relations with suppliers and subcontractors along the entire length of the supply chain. The market of suppliers of goods and services meeting the requisite quality standards expected by the organisation has been shrinking visibly in recent years. This aspect is particularly relevant to the plant maintenance and overhaul policy, but also to the smooth execution of major development projects.

Effective management of this risk is crucial in the context of the maintenance shutdown scheduled for the spring of 2021. A maintenance shutdown is a project for which Grupa LOTOS S.A. prepares in advance. Several independent contractors were selected to perform the main tasks. This approach enables the contractors to properly prepare for the work, which can be carried out efficiently on the back of well-planned cooperation.

HSE risk[23]

Safety risk is one of the key risks identified at the LOTOS Group. Because of the nature of its industry, accidents may occur at every stage of the Group's production processes and along its logistics chain. They may happen during oil production and refining processes, during transport of products by road or by rail, and while rig crews are being carried by helicopters.

These risk factors may stem from human errors or non-compliance with the applicable requirements and procedures, plant failures, releases of harmful substances, as well as natural disasters or other incidents likely to endanger human health and lives.

In order to minimise HSE risks, Grupa LOTOS S.A. undertakes a number of concurrent initiatives to improve the functioning of the personal and process safety areas. One of them is to build a safety culture based on the involvement of employees and subcontractors. At the same time, steps are taken to ensure operational process stability by maintaining the highest standards of safety. Having implemented and refined a Process Safety Management (PSM) system, in which processes are analysed and monitored on a comprehensive basis, Grupa LOTOS S.A. is able to continuously raise the level of human safety, as well as the safety of its natural and social environments.

HSE risks will be under special supervision during the maintenance shutdowns scheduled for 2021 and 2022. The nature of the maintenance work and the fact that an additional 2,000 people from various companies and regions will come to work on the plant premises can be a source of additional risks related to occupational safety and the potential spread of COVID-19. Based on the experience gathered so far by Grupa LOTOS S.A. as part of its epidemic risk management at a large production plant, additional organisational solutions and procedures are being put in place to mitigate such risks.

Security risk

In addition to physical security of the organisation and its business partners, Grupa LOTOS S.A. is highly aware – given the ever increasing reliance on IT resources and process automation – of the risks associated with cybercrime. As a business technologically opens up to the world, new opportunities arise to access its strictly protected valuable business assets or resources stored in telephone or computer memories. Given the risk of interference that may lead to major accidents or damage, key information, operational control systems (OT) and production processes are strategic surveillance and security areas.

10.1.4 Reputation and compliance risk

Reputation risk relates to the perception of the LOTOS Group by its key stakeholders – customers, investors, employees and local communities. The development of social media has brought with it increasingly more opportunities but also risks, which, given the speed of reaction and very wide audiences, call for particular attention and caution.

Should the reputation risk materialise, it could undermine the public's approval for the continuation and development of the Group's business, thereby affecting its long-term financial performance.

Legal risk

Legal risk relates to non-compliance or partial compliance with existing laws (by contrast, the regulatory risk discussed above applies to possible future regulations). The legal requirements impose a number of obligations on the LOTOS Group, which have to be complied with by an operator engaged in licensed/regulated activities. In addition, given the scale of the Group's operations, it is under particular scrutiny by the supervision authorities, social stakeholders and supply chain participants.

The application of legal provisions in practice indicates that they are often quite imprecise, and different interpretive approaches may yield varying interpretations. The LOTOS Group companies take all due care to minimise this risk.

Personnel risk

Existing and future employees are the LOTOS Group's key stakeholders. How they perceive and understand the LOTOS Group's activities is vital for the effectiveness of its operations and implemented changes. However, if its internal communication is deficient, there is a risk that any changes planned will ultimately prompt employee protests or industrial action.

[23]HSE – Health, Safety and Environment

Social and environmental risks

Processes carried out by the LOTOS Group, such as exploration for, development and production of hydrocarbons, refining production, product transport and logistics, may have an impact on the environment. This impact may be significant especially in the event of industrial failures and release of hazardous substances into the environment. In particular, oil spills from existing platforms or during transport of crude oil or petroleum products may have massive consequences. Therefore, the LOTOS Group companies apply measures and use tools to ensure maximum protection against potential oil spills and environmental contamination.

Social risk is analysed in the context of the LOTOS Group's impact on the environment and stakeholders. The Group's production processes or infrastructure projects may give rise to objections, in extreme cases expressed as social protests. So far, its communication with stakeholders has significantly mitigated that risk.

Table 31. List of key risks at the LOTOS Group, including materiality levels and mitigation methods

Risk level:

1– low risk
2– moderate risk
3– significant risk

Risk trend:
→ stable risk
↘diminishing risk
↗ growing risk

Risk type	Level	Trend	Risk response
Risk from megatrends			
Fluctuating supply and demand trends on the fuel market	3	↗	○ Performing long-term trend analyses and updating strategy to mitigate adverse effects or seize new opportunities to gain a competitive advantage (e.g. in electric mobility) ○ Implementation of development projects to expand and diversify the existing asset portfolio ○ Implementation of development projects to improve the flexibility of production/refinery processing operations and energy efficiency ○ Implementation of innovation projects
Climate risk			
Climate change threats and opportunities	2	↗	○ Undertaking new initiatives and projects, such as advanced biofuels, alternative fuels, e.g. hydrogen, LNG, CNG, as well as energy efficiency projects – measures to reduce emissions and increase the share of energy from renewable sources ○ Commitment to research and development projects aimed at developing solutions with a favourable impact on the environment and climate change ○ Monitoring and active participation in legislative processes (presentation of analyses, proposing regulatory solutions beneficial to the organisation), both at the EU and national level – for the LOTOS Group, key climate risks relate to its transformation and pertain to regulatory changes

Risk type	Level	Trend	Risk response
Regulatory risk			
Impact from amended legislation or failure to comply with new national or EU regulations (it can be the both a threat and opportunity)	2	→	o Development of a compliance management system by the Compliance Department and External Regulation Department o Monitoring new regulations and regulatory changes o Active participation in legislative dialogue led by the Regulator and non-governmental organisations o Scenario analysis of potential impacts of regulations o Implementation of measures for adapting to planned or enacted regulatory changes
Risk in strategic projects			
Delays, failure to achieve objectives/targets in the implementation of strategic projects	3	→	o Comprehensive, step-by-step project planning o Qualification of contractors o Systematic risk review and management for each project o Monitoring of progress made on projects, forecasting of project parameters, and mitigation of emerging risks o Active project management, including close oversight and communication with contractors
Geopolitical risk			
Disrupted or delayed supplies of crude oil or other essential feedstocks	2	→	o Diversification of crude oil supplies (e.g. maintaining the availability of supply sources for oil supplied by pipeline and sea) o Maintaining adequate levels of work-in-process stocks o Production scheduling and procurement planning o Providing for relief measures in supply contracts in case a delivery route becomes unavailable o Following Grupa LOTOS S.A.'s *Crude Oil Supply Policy*
Competence risk			
Difficulties with recruitment of qualified staff and retention of competent and experienced employees	2	→	o Building an engaging work environment to enhance productivity o Creating space for development and innovation within the organisation (activities of the LOTOS Academy, financing of training and higher education, possibility of participating in the PhD Theses Implementation Programme) o Building a good employer image inside and outside the organisation o Building a knowledge management system to enable effective knowledge sharing/transfer and develop staff competencies necessary to achieve near- and long-term business goals
Market risk			
Fluctuating prices of feedstock and petroleum products, fluctuating foreign exchange and interest rates.	3	↗	o Following the adopted feedstock and petroleum product price risk management policy and currency risk management policy o Monitoring market risk exposure on a daily basis o Selecting a trading strategy in line with policy objectives, current market situation and applicable risk limits

Risk type	Level	Trend	Risk response
Risk that could pose both threats and opportunities to the LOTOS Group's operations			
Liquidity and financing risk			
Mismanagement of working capital and constrained financing capacity	2	→	o Assessing and forecasting the Group's cash flows and liquidity o Analysis of financing sources available to the Group o Diversification of financing sources. o Optimising liquidity and debt across the Group o Effective management of strategic project portfolio
Credit risk			
Insolvent trade partners or counterparties in financial contracts	2	→	o Monitoring of partners' ratings and financial standing o Setting trade credit limits and limits for counterparties in financial contracts in accordance with internal procedures o Employment of diverse financial tools to minimise risk
Exploration risk			
Incorrect estimation of resources, including incorrect estimation of hydrocarbon resources and reserves discovered by exploration wells; drilling of dry wells (without hydrocarbon flows)	2	→	o Conduct of geological and reservoir engineering studies depending on the well (exploratory, appraisal, or appraisal and production well) o Decision points included in the project (initial phase, execution phase, well results analysis and reservoir evaluation, design phase) to minimise dry well risk o Applying international probability-of-success (PoS) standards o Cooperation with experienced field operators on the Norwegian Continental Shelf
Production risk			
Risk of drilling or production failure, resulting in reduced availability of affected infrastructure	2	→	Implementing a range of measures to mitigate such risks as blowout, well failure, oil spill, fire, and collision at sea and to monitor their effective oversight, including: o monitoring of process parameters o equipment performance tests o use of appropriate safety measures o compliance with applicable safety and operating procedures
Geological reservoir risk and downhole equipment-related risk	3	→	o Reservoir analysis (updating integrated static and dynamic models) o Assessing well and pump performance o Workover of production wells o Injection of chemicals (hydrate inhibitors) reducing the risk of downhole pump failures
Refining risk			
Failure of refinery processing units	2	→	o Inspecting the technical condition of processing equipment and components in line with maintenance schedules o Risk-based inspections of infrastructure o Having equipment inspected by the Technical Inspection Office and Company Technical Inspection o Identifying Critical Equipment subject to special inspection rules

Risk type	Level	Trend	Risk response
			○ Carrying out annual Failure Prevention Plans and Maintenance/Overhaul Plans ○ Improving staff qualifications, including simulation-based training ○ Automatic control, alarm and shutdown systems
Sales			
Risk of product sales below the target	2	↗	○ Ongoing analysis of demand change scenarios in each sales channel ○ Adjustment of the refining product mix to market demand changes ○ Standards of maintaining good relations with customers
HSE risk			

Accidents along the entire production cycle and logistics chain (including road and rail accidents during product transport and aircraft accidents during rig crews transport)	2	→	○ Raising employees' and subcontractors' awareness of and commitment to safety culture
			○ Health and safety risk assessment and process risk analysis
			○ Regular inspections of OHS compliance at the workplace
			○ Implementation of the annual Health and Safety Plan for the LOTOS Group
			○ Supervision of subcontracting; operation of the contractor portal (with updated procedures and guidelines for subcontractors performing work on the premises of Grupa LOTOS S.A.)
			○ Given the air transport of crews to offshore drilling platforms, with respect to aviation accident risk:
			    ○ high safety requirements for aircraft fleet – AOC and E12 certificates, IFR approval,
			    ○ ongoing monitoring of weather conditions and proper logistics of passenger transport by sea,
			    ○ supervision of the terms of contracts with carriers.

Release of substances which may halt production processes and impact humans and the environment	2	→	○ Continuous improvement of the Process Safety Management (PSM) system ○ Implementation of change management policies and procedures ○ Risk analysis for each upgrade and new build project ○ Process safety training for personnel ○ Occupational safety instructions and procedures ○ Registration and reporting of process safety incidents
Security risk			
Destruction of critical infrastructure in an act of terrorism	2	→	○ Periodical drills to check security and communication systems ○ Implemented procedures in case of physical security or protection breaches ○ Participation in the Government Centre for Security's training ○ Communication with the Provincial Emergency Management Centre
External or internal interference with IT and OT systems (cyberattack) and failures	2	→	○ Implementation of the ISO 27001 system and Cybersecurity Act requirements ○ Implementation of the *Cybersecurity Rules at the LOTOS Group* ○ Use of internal system security management procedures ○ IT security audits ○ Regular security tests for ICT infrastructure ○ Raising employees' awareness of cyber security issues (training, information, tests) ○ Cooperation with CERT ABW Computer Security Incident Response Team ○ Operation and development of the Security Operation Centre (SOC) Office
Procurement risk			
Shrinking market of suppliers of goods and services	2	→	○ Supplier selection procedures ○ Rules for dealing with key suppliers

Risk type	Level	Trend	Risk response
meeting the requisite quality standards			o Maintaining good relations with suppliers based on transparent procedures
Buying from unreliable suppliers involved in VAT 'carousel frauds'	2	→	o Application of the split payment mechanism o Detailed checks of trade partners o Inclusion of relevant clauses in contracts with trade partners o Due diligence
Legal risk			
An intentional act or omission which constitutes violation of the law or a breach of the LOTOS Group's internal regulations, committed to secure an unlawful gain or causing the Company to sustain undue losses (including corrupt practices).	2	→	o Operation of the LOTOS *Group's Misconduct Prevention Policy*, defining a systematic approach to misconduct prevention, including the rules of conduct and methods of communication. Operation of the Ethical Conduct Programme, which is pursued through the Code of Ethics, the Ethics Officer and the Ethics Hotline, as well as training activities. o Application of the *LOTOS Group's gift policy* o Conducting audits and inspections
Violation of data protection laws	2	→	o Application of internal data protection standards, including as part of personal data protection procedures and the security policy o Audits, also by external auditors, to verify whether the organisation observes the applicable rules and how it is prepared to comply with the GDPR requirements o Raising employees' awareness (training, meetings)
Environmental risk			
Leakage from vessels carrying crude oil / products made by the LOTOS Group	2	→	o Working with service providers that observe the performance standards set out in resolutions of the International Maritime Organization (IMO) and comply with the maritime security conventions o Including clauses on technical condition of ships in contracts with trading partners and providers of sea transport services o Working with shipowners that are members of the International Tanker Owners Pollution Federation Ltd. (ITOPF) and hold the required insurance certificates o Insurance coverage and membership in the International Oil Pollution Compensation Fund (IOPCF)
Oil spill on rig	2	→	o Maintaining offshore equipment in good technical condition to minimise the risk of accidents on rigs o Taking steps to control the risk of formation fluid invasion at the stage of planning and conducting well drilling operations o Holding annual drills in oil spill control o Selecting the right anti-spill equipment o Insurance coverage
Periodical spikes in emissions from the refining process	1	→	o Constantly monitoring the process and emission parameters, including through a continuous emission monitoring system (CEMS) launched in 2020 o Maintaining high technical standards application of the best available techniques (BAT) requirements o Implementation of environmental management plans

Risk type	Level	Trend	Risk response
Personnel risk			
Employees resisting changes introduced in the LOTOS Group	2	→	o Open communication with employees, trade unions and Works Council about the planned changes o Communicating the changes to media o Opportunities for employees to gain new qualifications/ retrain o Offering support in the event of a change of workplace and relocation; financial assistance o Ongoing monitoring of employee sentiment
Social risk			
Social protests against the Group's projects	2	→	o Maintaining good relations with stakeholders. Holding meetings to inform stakeholders about the Group's projects o Open communication on the Group's current operations and projects o Maintaining good relations with industry, local, nationwide and foreign media o Working with the supervisory bodies and public authorities to prevent crises that may arise in the course of legislative procedures, whether Polish or EU. o Supporting local communities through various CSR programmes/projects

Source: the Company.

10.2 Risk management model

Mechanisms of the risk management model are embedded in the existing business processes. The model comprises three defence lines which are adjusted to the nature of particular activities and the possible impact of risks on the Group's performance.

Table 32 Risk management model

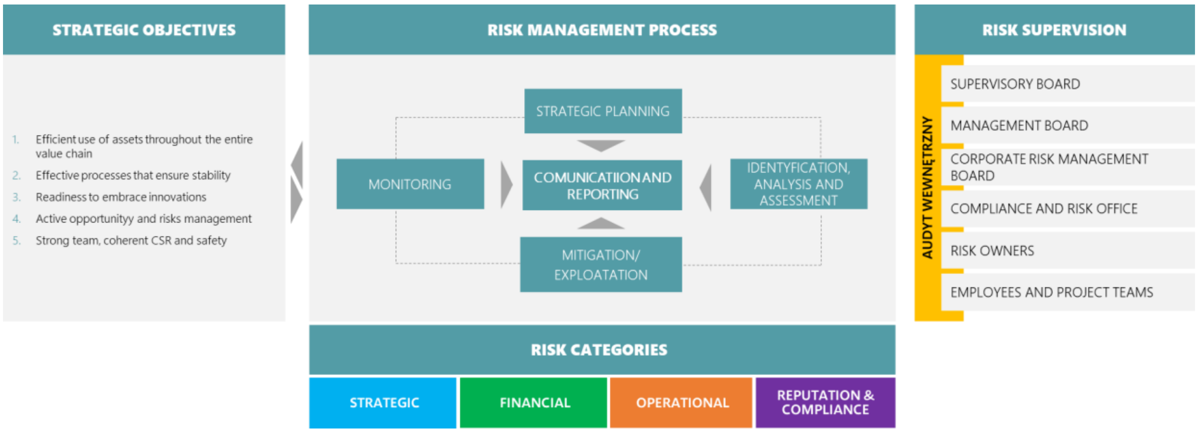
1ST line of defence Business	→ operational risk management → development of operational procedures → risk identification and assessment at the decision-making stage and periodic risk reviews in processes and projects
2ND line of defence Risk, Finance, Compliance	→ definition of risk management policies at the LOTOS Group → linking risk management to the LOTOS Group's strategy → forecasting and shaping the LOTOS Group's risk profile
3RD line of defence Internal audit	→ independent assessment of the effectiveness and adequacy of the LOTOS Group's risk management process

Source: the Company.

Structure of the enterprise risk management (ERM)

The ERM system focuses on key risks and forecasts their impact on the company's operations and performance, thus facilitating the development of pre-emptive measures that may help mitigate risks or exploit opportunities. This key functionality of the system is currently being strengthened at the LOTOS Group. One of the key objectives of the Compliance and Risk Office is to provide the most useful management information in order to efficiently manage any identified risks.

Chart 3.ERM system



Source: the Company.

10.2.1 Risk management process

Management of threats at the corporate level is carried out as part of a process involving:

- analysis of the external environment (e.g. regulatory framework, macroeconomic factors, global trends) and the internal environment (including business objectives) – a context analysis;
- risk identification – risks are identified in reference to the strategic and operational (annual) objectives, as well as the organisation's long-term growth;
- risk analysis and assessment, by type – the assessment is carried out in two time horizons: annual and long-term. Criteria taken into account in the risk assessment include the financial impact, the impact on human and environmental safety, as well as reputational issues;
- establishing a risk treatment plan – for each material risk type, an operational management procedure as well as controls and protection measures are defined. For TOP RISKS, relevant risk mitigation and opportunity exploitation measures are prepared, as well as response plans to be followed in case of materialisation of such risks;
- implementation of risk mitigation and opportunities enhancement measures – performing tasks defined in risk treatment plans and monitoring their progress on an ongoing basis;
- monitoring of risk indicators – for top risk categories, key risk indicators (KRIs) are defined, which allow risk exposure levels and risk materialisation probability to be monitored in accordance with relevant rules;
- risk reviews – periodically (every six months), all identified risk types are reviewed and re-evaluated;
- communication and reporting – standards for communicating and reporting the results of risk management are in place at every stage of the process. The Management and Supervisory Boards receive regular, quarterly reports on existing risks to the organisation and on the effectiveness of risk mitigation or exploitation measures;
- the effectiveness and adequacy of the ERM system are assessed and its future development directions are defined on an annual basis.

Chart 4. Risk management process

Source: the Company.

10.2.2 Risk oversight – ERM participants

Oversight level	Role
Supervisory Board	→ monitors the effectiveness of the enterprise risk management
Management Board	→ determines risk appetite in the context of the adopted strategy → takes key decisions regarding TOP RISKs, including resources and the ERM
Corporate Risk Committee	→ provides opinions on and recommends measures applicable to TOP RISKs and the ERM, including risk appetite → monitors the performance of planned tasks → the Committee consists of representatives of key corporate functions
Compliance and Risk Office	→ coordinates and supports measures taken by the process participants → supports risk coordinators at LOTOS Group companies → collates information on risks to the organisation → assesses the Group's risk exposure → provides tools and methodological support, and is responsible for developing enterprise risk management
Risk owners	→ manage individual risks, which includes defining risk treatment plans, monitoring risk levels, and overseeing risk mitigation and opportunities enhancement measures
Project teams/individuals	→ identify new risks → implement risk mitigation or opportunities enhancement measures
Internal Audit Office	→ identifies and evaluates risks to the LOTOS Group's operations → verifies relevant controls and examines their effectiveness → assesses the effectiveness of the risk management system

Source: the Company.

11 Other information

11.1 Information on the auditor

Pursuant to a resolution of the Supervisory Board of Grupa LOTOS S.A. of March 11th 2018 and March 9th 2020, Deloitte Audyt Sp. z o.o. sp.k. was appointed as the auditor of the Company's financial statements for 2018–2019 and 2020–2022.

Under the agreement executed with Grupa LOTOS S.A. on June 20th 2018 (as amended), Deloitte Audyt Sp. z o.o. sp. k. of Warsaw performed the following services:

- review of the separate and consolidated financial statements for the first six months of 2018, 2019 and 2020,
- audit of the full-year separate and consolidated financial statements for 2018, 2019 and 2020.

Previously, Grupa LOTOS S.A. used the services of Deloitte Audyt Sp. z o.o. sp. k. of Warsaw under an agreement executed on June 29th 2007, as amended, which mandated Deloitte Audyt Sp. z o.o. sp. k. to perform the following services:

- Review of the separate and consolidated financial statements for the first six months of 2007-2009,
- Audit of the full-year separate and consolidated financial statements for 2007-2009.

Table 33.Total fees for audit, review and verification procedures performed by Deloitte Audyt sp. z o.o. sp. k. in 2020 (PLNm)

	2020
Audit of full-year separate and consolidated financial statements of selected companies of the LOTOS Group, including: (1)	1.2
Grupa LOTOS S.A.	0.8
Assurance services, including:	0.4
Grupa LOTOS S.A.	0.4
Tax advisory services	-
Other services	-
Total	1.6

(1) Fees for the audit of accounts of selected LOTOS Group companies are paid under separate agreements between the auditor and each of the LOTOS Group companies.

Source: the Company.

Fees for the audit, assurance services, tax advisory services and other services for LOTOS Exploration and Production Norge AS and the AB LOTOS Geonafta Group due to, respectively, Deloitte AS and Deloitte Lietuva (companies of the Deloitte Group) for 2020 amounted to PLN 0.5 million.

In 2019, total fees for the audit, review and verification procedures amounted to PLN 1.3 million (Grupa LOTOS S.A.: PLN 0.9 million), of which: for the audit of full-year separate and consolidated financial statements of selected companies of the LOTOS Group – PLN 1.0 million (Grupa LOTOS S.A.: PLN 0.6m), for assurance services – PLN 0.3 million (Grupa LOTOS S.A.: PLN 0.3 million).

11.2 Disputes

11.2.1 Material court proceedings to which Grupa LOTOS S.A. is a party

Tax settlements

The Company's tax settlements are subject to customs and tax inspections carried out by competent authorities. As at December 31st 2020, the Company disclosed a provision for tax risk, recognised in connection with such proceedings, of PLN 87.3 million (see Note 25.1 to the consolidated financial statements for 2020).

In connection with a judgment by the Court of Justice of the European Union of October 16th 2019 in Case C-189/18 Glencore, on January 15th 2020 the Company filed a petition for resumption of proceedings in which the following decisions had been issued:

- Decision by the Director of the Tax Chamber in Gdańsk, dated December 29th 2015, upholding the decision by the Director of the Tax Audit Office in Bydgoszcz, dated September 28th 2015, assessing the Company's VAT liabilities for individual months of 2010 at a total amount of PLN 48.4 million,
- Decision by the Director of the Tax Chamber in Gdańsk, dated February 29th 2016, upholding the decision by the Director of the Tax Audit Office in Bydgoszcz, dated September 28th 2015, assessing the Company's VAT liabilities for individual months of 2011 at a total amount of PLN 112.5 million,
- Decision by the Director of the Tax Administration Chamber in Gdańsk, dated October 25th 2018, upholding the decision by the Head of the Gdańsk Province Customs and Tax Office in Gdynia, dated January 19th 2018, assessing the Company's VAT liabilities for January 2012 at a total amount of PLN 7.3 million,

and after resumption of the proceedings, for:

- reversal of the decisions by the tax authorities of both instances and discontinuation of the tax proceedings – with respect to the proceedings for 2010–2011;
- suspension of the proceedings until final conclusion of the court proceedings – with respect to the proceedings for 2012, in connection with proceedings pending before the Supreme Administrative Court, initiated by the Company's cassation complaint.

On October 8th 2020, the Head of the Tax Administration Chamber in Gdańsk upheld the decisions of the Head of the Tax Chamber in Gdańsk, dated December 29th 2015 and February 29th 2016. On November 23rd 2020, the Company appealed against the unfavourable decisions of the Head of the Tax Administration Chamber in Gdańsk. On December 23rd 2020, the Head of the Tax Administration Chamber in Gdańsk issued decisions refusing to revoke its decision of October 8th 2020, against which the Company filed complaints with the Provincial Administrative Court in Gdańsk.

11.2.2 Court proceedings instigated by or against companies of the LOTOS Group

Proceedings to which LOTOS Petrobaltic S.A. is party

In March 2013, LOTOS Petrobaltic S.A. received a call for payment from AGR Subsea Ltd. ("AGR") for approximately GBP 6.5 million as the contract sum payable to AGR for dredging the Baltic Beta rig's legs. LOTOS Petrobaltic S.A. challenged the amount claimed by AGR and proposed that its liability to AGR be set at PLN 16 million (i.e. GBP 3.2 million at the mid-rate quoted by the National Bank of Poland for December 31st 2012). The dispute between the parties concerns the nature of the contract, reasons for its delayed and incomplete performance, validity of its termination by LOTOS Petrobaltic S.A., as well as the demand for reimbursement of costs incurred to employ the replacement contractor engaged by LOTOS Petrobaltic S.A. to complete the work. AGR Subsea Ltd. did not accept the terms of the settlement proposed by LOTOS Petrobaltic S.A. and took its claim to court. The court decided to refer the case for mediation, to which LOTOS Petrobaltic S.A. agreed. The mediation, initiated in April 2014, was extended on several occasions. Under the Regional Court's decision of February 2016, the case was consolidated for joint examination with LOTOS Petrobaltic S.A.'s claim against AGR, described below.

In October 2013, an action for payment of GBP 5.6 million for replacement performance was brought against AGR by LOTOS Petrobaltic S.A. before the Regional Court of Gdańsk. In March 2014, the Regional Court of Gdańsk, 9th Commercial Division, issued an order of payment in writ-of-execution proceedings, against which AGR appealed. In April 2015, the Court referred the parties to mediation, but LOTOS Petrobaltic S.A. did not agree to take part in the mediation process. Pursuant to the Regional Court's decision of February 2016, LOTOS Petrobaltic S.A.'s claim will be consolidated for joint examination with AGR's claim against LOTOS Petrobaltic S.A. On December 16th 2019, a court expert's opinion was delivered stating that no allegation of failure to exercise due care may be raised against AGR for its selecting the dredging equipment. In its pleading, LOTOS Petrobaltic S.A. raised objections to the opinion and requested that a new opinion be prepared; however, the request was dismissed by the Court.

On November 27th 2020, a court hearing was held during which the case was closed and the date of entry of the Court's decision was set. On December 11th 2020, the Court issued a judgment awarding the full claimed amount to AGR, i.e. GBP 6.5 million increased by default interest, court expenses and legal representation costs, and dismissed LOTOS Petrobaltic S.A.'s claim.

As the notice stating the date of the Court's hearing closing the case and announcement of the judgment was not effectively served upon LOTOS Petrobaltic S.A.'s attorney, the attorney, without his fault, did not participate in the hearing closing the case held on November 27th 2020, did not become aware of the date of entry of the judgment issued on December 11th 2020, was absent on the date of entry of the judgment, and did not read its content. Therefore, on January 7th 2021 a request was submitted to reinstate the deadline for submitting a request to prepare and deliver the statement of reasons for the judgment. The Company's attorney is of the opinion that the judgment is not final and that the Court will not be able to confirm the final nature of its judgment until a decision regarding reinstatement of the deadline becomes final.

On March 23rd 2021, the Court held a session to hear the request for deadline reinstatement and conduct certain other inquiries, including hearing of the witnesses called by LOTOS Petrobaltic S.A. Furthermore, in view of certain information of which LOTOS Petrobaltic S.A. had become aware, objections were raised to the Court regarding AGR's capacity and standing as well as its attorneys' authority to represent it. These questions arose in March 2021 as LOTOS Petrobaltic S.A. was notified of the commencement (on May 25th 2015) of a procedure to wind up AGR and of the related appointment of a liquidator to administer and represent AGR. In view of the foregoing, the Court ordered AGR to address these issues. The case was adjourned to a date set by the Court. Following the submission by LOTOS Petrobaltic S.A. of the said objections, the Court should ex officio undertake inquiries to clarify and decide the questions raised. This will certainly delay the entry of the final and unappealable judgment. Given various procedural options now available to the Court to further address the matter at hand, no certain time frame when the Court is expected to hold the next session or decide the deadline reinstatement request can be provided.

In view of the above, as at December 31st 2020 LOTOS Petrobaltic S.A. recognised a provision for disputed claims of PLN 49.7 million (see Note 25.1 to the consolidated financial statements for 2020), including a PLN 32.1 million principal receivable (see Note 9.4 to the consolidated financial statements for 2020) and interest of PLN 17.6 million (see Note 9.6 to the consolidated financial statements for 2020).

Tax settlements of LOTOS Exploration and Production Norge AS

Given the COVID-19 pandemic crisis and sharp declines in petroleum commodity prices, LOTOS Exploration and Production Norge AS applied to tax authorities for postponement of the deadline for responding to a preliminary decision of the Oil Taxation Office (OTO) concerning thin capitalisation in 2015–2016, challenging the company's ability to include in its tax deductible expenses all debt service costs and exchange differences on debt financing due to its equity being too low in the stated period. On September 30th 2020, the company submitted its position on the draft decision for 2015–2016, along with its response to the 'deviation notice' for the following years 2017 and 2018. In the first case, the expected tax surcharge for 2015 and 2016 is NOK 172 million. The estimated amount to be paid for 2017 and 2018 is NOK 19 million, with the proviso that the letter pertaining to this period has not yet received the status of a tax decision. The company was creditworthy during the period and, therefore, no provision was recognised for the stated amount. Furthermore, in its tax returns for 2017 and 2019 the company did not include in its taxable income finance income arising from foreign exchange gains realised on loans in the case of which the OTO had previously questioned the deductibility of related finance costs. Tax deductions made on this account totalled NOK 86 million. As at the date of these financial statements, the company received no information concerning the issuance of a final tax decision by the OTO for 2015 and 2016. As at December 31st 2020, the total amount of the provision for thin capitalisation liabilities was NOK 259 million (PLN 114 million).

In the twelve months ended December 31st 2020, there were no material settlements under court or other proceedings, save for those presented above.

11.3 Material events subsequent to the reporting date

Changes in the Management Board of Grupa LOTOS S.A.

On January 22nd 2021, Mr Marian Krzemiński resigned as Vice President of the Management Board, with effect from March 1st 2021, citing personal reasons.

Following completion of the recruitment procedure for the position of Vice President of the Management Board of Grupa LOTOS S.A., on January 22nd 2021 the Supervisory Board appointed Mr Krzysztof Nowicki as Management Board Vice President for Mergers and Acquisitions, with effect from January 26th 2021.

Mr Krzysztof Nowicki is a graduate of the Faculty of Law and Administration of the Adam Mickiewicz University of Poznań. He has also completed postgraduate studies in company law at the University of Łódź. He holds the professional title of legal counsel. Winner of MANAGER AWARD 2018. He was the founder of and partner in a law firm specialising in labour, civil and administrative law. In 2010, he became Head of the Legal Department of PGE Górnictwo i Energetyka Konwencjonalna of Bełchatów, and then Management Board Vice President for Corporate Affairs and Asset Management. He was also Chairman of the GKS Bełchatów football club. In 2016, he was appointed President of the LOTOS Oil Sp. z o.o. Management Board. In 2018-2020, he additionally served as Head of Corporate Affairs at Grupa LOTOS S.A. Since 2020, has been Head of Strategy and Investors Relations at Grupa LOTOS S.A. and Chairman of the Supervisory Boards of LOTOS Asfalt, LOTOS Infrastruktura, and RCEkoenergia. He acts in an advisory capacity for the purposes of important investment projects and organisation development.

On February 17th 2021 the Company's Supervisory Board appointed Mr Jarosław Piotr Wróbel as Vice President of the Management Board of the 10th joint term of office, Chief Investment and Innovation Officer, with effect from March 2nd 2021.

Jarosław Piotr Wróbel completed a master's degree programme and doctoral studies at the University of Economics in Katowice. He also completed a postgraduate professional improvement course in electrical engineering at the

Warsaw University of Technology's Faculty of Electrical Engineering. He is a holder of an Executive MBA diploma (from the University of Gdańsk and RMS Erasmus University) and a Post-MBA certificate in strategic financial management (from the University of Gdańsk and Swiss Bussiness School). Since 1992, he has worked in the energy sector. From 1993 to 1999, Mr Wróbel worked at Elektrociepłownia Będzin S.A., a CHP plant operator, where he was responsible for the development and implementation of a restructuring plan, as well as the preparation and implementation of the first privatisation process in the Polish power industry. He has been involved in the PGNiG Group since 2002. In 2003–2013, he served as Vice President for economic matters at Górnośląska Spółka Gazownictwa sp. z o.o. ("PSG"), where he was the originator and sponsor of a programme to deploy an integrated process support platform based on ERP and CIS solutions. From 2016 to 2018, President of the Management Board, and since 2020 – Chairman of the Supervisory Board of PSG, which, under his stewardship, developed and implemented a strategic package of changes for the Polish gas distribution sector for 2016–2022, called the Gas Sector Constitution. Between 2018 and 2020, President of the Management Board of ORLEN Południe S.A., where he was a co-author and sponsor of a programme to construct a biorefinery based on the refineries in Trzebinia and Jedlicze, serving as the ORLEN Group's competence centre for biocomponents and biofuels. Since 2020, Mr Wróbel has been Vice President of the PGNiG Management Board and Member of the Board of Directors of PGNiG Upstream Norway AS. From October 28th to November 12th 2020, he was acting President of the PGNiG S.A. Management Board.

On March 2nd 2021, Artur Cieślik resigned as Vice President of the Management Board, Chief Strategy and Development Officer, with effect from the end of March 15th 2021. As the reason for his resignation, Artur Cieślik cited his appointment as Vice President of the Management Board of Polskie Górnictwo Naftowe i Gazownictwo S.A.

More details:

→ Current Report No. 1/2021
→ Current Report No. 2/2021
→ Current Report No. 6/2021
→ Current Report No. 8/2021

Publication of a new model refining margin

In order to facilitate an assessment of the impact of changes in global raw material and product prices on the profitability of its refinery, on February 10th 2020 Grupa LOTOS S.A. resumed publication of the model refining margin and released a revised margin calculation model, adapted to the new product yield structure and reflecting the increased complexity of crude oil processing following completion of the Effective Refining Project (the "EFRA Project") as well as a number of lesser capital projects designed to increase the efficiency of the refining process (e.g. the Hydrogen Recovery Unit).

The new model refining margin replaced the previous margin, published on June 27th 2016 in Current Report No. 26/2016. Due to the launch of the EFRA Project units and the changing output structure, the previous model refining margin ceased to reflect the refinery's profitability and its product yield structure, which is why its publication was suspended in October 2019.

The updated formula for calculating Grupa LOTOS S.A.'s model refining margin is as follows:

Model refining margin [USD/barrel] = revenue (products from 94% of crude processed = 23% gasoline + 63% diesel oil + 8% heavy fuel oil) – costs (100% of crude processed + cost of natural gas consumption)

The model margin provides an insight into the hypothetical profitability of a refinery operating within a specific technological setup, based on prices from NWE markets published by Refinitiv. As a result, the model margin does not reflect the actual margin generated by the Grupa LOTOS S.A. refinery subject to seasonal variations and optimisation adjustments.

More details:

→ Current Report No. 5/2021

Commencement of preparations for reorganisation of Grupa LOTOS S.A.

On March 12th 2021, the Management Board of Grupa LOTOS S.A. gave a general approval for internal organisational measures aimed at optimising the Group's structure and preparing it for implementation of the model whereby the remedies necessary to go ahead with the intended acquisition of control over the Company by PKN Orlen S.A. are to be carried out, i.e.:

- separation of an organised part of Grupa LOTOS's business comprising the refining assets and its contribution to LOTOS Asfalt Sp z.o.o (which is wholly-owned by the Company); LOTOS Asfalt Sp. z o.o. would then become a special purpose vehicle 30% of whose shares would be sold to an independent operator;

- transfer of shares in LOTOS Biopaliwa from LOTOS Terminale to the Company;
- transfer of shares in LOTOS Infrastruktura to LOTOS Terminale;
- transfer of logistic assets of LOTOS Infrastruktura to LOTOS Terminale.

More details:

→ Current Report No. 10/2021

Other events subsequent to the reporting period are discussed in Note 32 (page 55) to the financial statements of Grupa LOTOS S.A. for 2020.

11.4 Grupa LOTOS S.A. on the capital market

11.4.1 Grupa LOTOS share price performance

Grupa LOTOS S.A. shares have been listed on the Warsaw Stock Exchange since June 30th 2005. Its shares are included in multiple Polish and international stock market indices.

Table 34. Grupa LOTOS shares in Polish and international stock market indices

Return indices[24]	→ WIG – comprises all stocks traded on the WSE Main Market which satisfy the basic eligibility criteria → WIG-paliwa (WIG-oil&gas) – comprises WIG index companies operating in the fuels and gas sector → WIG Poland – comprises only shares of Polish companies included in the WIG index → WIG ESG – features socially responsible companies, i.e. those that comply with the principles of socially responsible business, in particular with respect to environmental, social, economic and corporate governance matters
Price indices[25]	→ WIG20 – calculated based on the value of the 20 largest and most liquid stocks traded on the WSE Main Market → WIG30 – calculated based on the value of the 30 largest and most liquid stocks traded on the WSE Main Market
Foreign indices	→ MSCI Poland Index (Small Cap) – includes key companies listed on the WSE → CECE index – established by the Vienna Stock Exchange, comprises stocks from Poland, the Czech Republic and Hungary → FTSE All World – includes large and mid cap stocks from around the world → FTSE4Good Index – designed to measure the performance of companies demonstrating strong environmental, social and corporate governance (ESG) practices

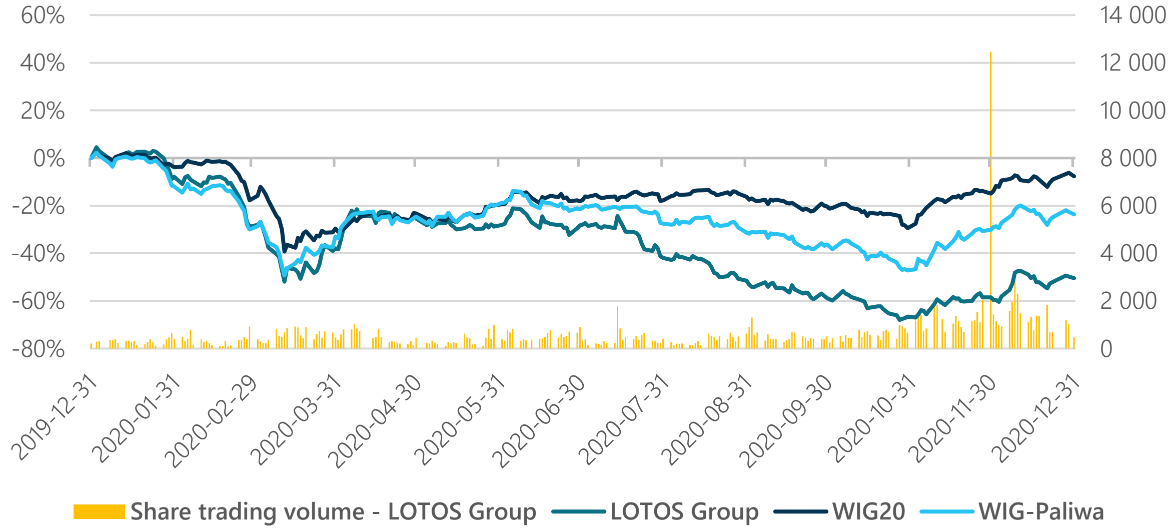
Source: In-house analysis based on WSE, MSCI, Wiener Börse, and FTSE Russell data.

The outbreak of the coronavirus pandemic in Poland and globally, the related social and economic restrictions and heightened investor uncertainty over future developments led to strong price declines on the Warsaw Stock Exchange during 2020. The steepest drops were recorded in late February and early March 2020, when the WIG20 index shrank by approximately 40% in less than a month, to its lowest since February 2009, as capital markets were hit by a sell-off stampede. Since then, investor sentiment has been gradually improving, supported by the news of large economic stimulus packages as well as successful development of vaccines against COVID-19. As a result, WIG20 closed on December 31st 2020 at 1,983.98 points, down 7.7% year on year. Small and mid-cap companies did even better, with mWIG40 and sWIG80 having ultimately gone up by 1.8% and 33.6%, respectively. By sectors of the economy, the largest gains were seen in the case of the WIG-górnictwo (WIG-mining) (82.1%), WIG-budownictwo (WIG-construction) (60.7%) and WIG.GAMES (53.9%) indices. On the other end of the spectrum were banks and refining companies, with the WIG-banki (WIG-banking) and WIG-paliwa (WIG-oil&gas) indices having declined by, respectively, 29.6% and 23.6%.

In 2020, the Grupa LOTOS shares traded within the range from PLN 25.67 (intraday of October 28th 2020) to PLN 87.96 (intraday of January 2nd 2020). The closing price of Grupa LOTOS shares on the last day of trading in 2020 was PLN 41.45 vs PLN 83.58 at the end of 2019, down by 50.4%. As a result, the Company's market capitalisation fell to PLN 7.7 billion, relative to PLN 15.5 billion the year before.

[24]Return index – calculated to reflect the prices of constituent stocks as well as dividend and rights income.
[25]Price index – calculated to reflect only the prices of constituent stocks, excluding dividend income.

Figure 46. Grupa LOTOS share price performance vs index performance (left axis) and Grupa LOTOS share trading volume (right axis, number of shares)



Source: In-house analysis based on WSE data.

Table 35. Grupa LOTOS shares – key figures

	2017	2018	2019	2020
Free float shares	184,873,362			
Low (PLN)	36.36	51.58	71.04	25.67
High (PLN)	68.85	89.62	99.60	87.96
Closing price at end of period (PLN)	57.70	88.50	83.58	41.45
Share price change (%)	50.8	53.4	-5.6	-50.4
Average trading value (PLNm)	20.2	19.5	26.5	29.2
Average trading volume per session	372,519	299,578	302,415	629,846
Trading multiples				
Market capitalisation (PLNbn)	10.7	16.4	15.5	7.7
EV (PLNbn)	13.2	18.3	18.4	9.6
Earnings per share (PLN)	9.0	8.6	6.2	-6.2
P/E (x)	6.4	10.3	13.4	-
P/BV (x)	1.0	1.4	1.2	0.7
EV/EBITDA (x)[26]	4.3	5.9	6.4	7.1

Source: the Company.

[26]LIFO-based EBITDA adjusted for one-offs.

11.4.2 Investor relations

At Grupa LOTOS, day-to-day contact with investors is the responsibility of the Investor Relations Office. In 2020, Company representatives participated in five international and national investor conferences and held a number of meetings with investors and equity analysts (a total of 150 meetings). The Company also held quarterly earnings conferences. However, given the outbreak of the coronavirus pandemic in Poland, the conferences were held only online or as conference calls.

Enquiries concerning Grupa LOTOS share performance on the WSE should be sent to: → ir@grupalotos.pl, or by phone; contact details are available at → inwestor.lotos.pl/en/.

11.4.3 Investment recommendations

In 2020, 14 investment firms (including brokerage houses and investment banks) issued recommendations on Grupa LOTOS S.A. shares.

Table 36. Financial institutions that provide research coverage of Grupa LOTOS S.A.

Based in Poland	Based abroad
DM Banku Handlowego (Citi)	HSBC
DM mBanku	Renaissance Capital
BM Santander	Raiffeisen Centrobank
DM BOŚ	Societe Generale
DM PKO BP	Wood & Company
Ipopema Securities	
DM Trigon	
DM Pekao	
Erste Securities	

Source: the Company.

The following table presents certain investment recommendations issued in 2020 on Grupa LOTOS shares.

Table 37. Recommendations on Grupa LOTOS S.A. issued in 2020

Institution	Date	Recommendation	Price target
Trigon DM	Dec 10 2020	buy	PLN 45.90
BM mBanku	Dec 8 2020	buy	PLN 49.01
Trigon DM	Dec 7 2020	buy	PLN 45.90
BM mBanku	Oct 2 2020	buy	PLN 47.09
DM BOŚ	Oct 1 2020	buy	PLN 75.00

BM mBanku	Sep 2 2020	accumulate	PLN 47.09
BM mBanku	Jun 3 2020	hold	PLN 60.39
BM mBanku	Apr 7 2020	reduce	PLN 59.22
DM BOŚ	Mar 31 2020	buy	PLN 88.00
BM mBanku	Mar 4 2020	hold	PLN 67.19
Trigon DM	Feb 28 2020	buy	PLN 72.30
BM mBanku	Feb 5 2020	reduce	PLN 68.47
DM BOŚ	Jan 12 2020	buy	PLN 111.00

Source: In-house analysis based on Stockwatch.pl data.

11.4.4 Dividend policy

As a public company, Grupa LOTOS S.A. paid its first dividend in 2007 (from the 2006 profit). Between 2007 and 2015, the Company did not pay any dividends.

In the Grupa LOTOS strategy for 2017–2022, the Management Board declared that the Company's objective would be to gain and maintain a dividend capacity. In 2017, Grupa LOTOS S.A. started to share its profits with shareholders again.

Pursuant to the Annual General Meeting's resolution of June 30th 2020, Grupa LOTOS S.A. paid dividend from the 2019 profit, totalling PLN 184.9 million, i.e. PLN 1 per share. The dividend record date was set for September 14th 2020 and the dividend payment date – for September 28th 2020. The dividend yield was 2.5%.

Table 38. Dividend from Grupa LOTOS S.A. for 2016-2019

	2016	2017	2018	2019
Net profit of Grupa LOTOS S.A. (PLNm)	1,160.8	1,419.5	1,333.9	834.3
Pre-tax dividend (PLNm)	184,873.4	184,873.4	554,620.1	184,873.4
Dividend payout ratio (%)[27]	15.9	13.0	41.6	22.2
Dividend per share (PLN)	1	1	3	1
Dividend yield (%)[28]	1.7	1.4	3.5	2.5
Dividend record date[29]	Sep 12 2017	Sep 12 2018	Sep 12 2019	Sep 14 2020
Dividend payment date[30]	Sep 29 2017	Sep 28 2018	Sep 27 2019	Sep 28 2020

Source: the Company.

[27] Dividend payout ratio – profit paid out as dividend to total net profit for a given financial year.
[28] Dividend yield – dividend per share to price per share.
[29] Dividend record date – the date on which the list of shareholders entitled to receive dividend for a given financial year is determined.
[30] Dividend payment date – the date on which dividend is paid to the shareholders.

12 Corporate governance

12.1 Corporate governance standards and scope of application

Since its shares were publicly floated in June 2005, Grupa LOTOS has adhered to most of the recommendations contained in the Best Practices for Public Companies. Since 2016, the Company has been bound by the corporate governance standards set out in the Code of Best Practice for WSE Listed Companies 2016, which was approved by the WSE Supervisory Board's Resolution No. 26/1413/2015 of October 13th 2015.

The corporate governance code is publicly available on the website of the Warsaw Stock Exchange at: → www.gpw.pl/pub/GPW/o-nas/DPSN2016_EN.pdf

Corporate governance principles that were not applied by Grupa LOTOS S.A. in 2016–2020 with comments on reasons for the non-application.

Principle	Grupa LOTOS S.A. comment
	I. Disclosure policy and investor communication
	I.Z.1. A company should operate a corporate website and publish on it, in a legible form and in a separate section, in addition to information required under the legislation:
I.Z.1.16. Information about the planned transmission of a general meeting not later than seven days before the date of the general meeting: not applied.	The Company has never broadcast any of its General Meetings, but may do so in the future.
I.Z.1.20. An audio or video recording of a general meeting: not applied.	The Company has never made audio or video recordings of its General Meeting. In the Company's opinion, the existing form of documentation of its General Meetings has ensured transparency and protection of shareholder rights. Moreover, the information on resolutions passed by the Company is disclosed in current reports and published on the www.lotos.pl website. The Company does not rule out documenting the proceedings of its General Meeting in the form of audio or video recordings in the future.
	IV. General meeting and shareholder relations
IV.Z.2. If justified by the structure of shareholders, companies should ensure publicly available real-time broadcasts of general meetings: Not applied.	The Company enables its Shareholders to attend General Meetings in person or by proxy. Additionally, General Meetings are held at the Company's registered office in Gdańsk, which facilitates attendance by Shareholders or their proxies. The Company complies with the disclosure requirements imposed by legal regulations and promptly, within 24 hours of the close of a General Meeting, issues current reports with information on resolutions passed, ballot results and objections raised, and also publishes such information on its corporate website. Furthermore, the Company publishes questions posed by, and answers given to, Shareholders during General Meetings. In the Company's opinion, these measures are sufficient to ensure Shareholders' participation in General Meetings.

Source: the Company.

Extended comment on reasons why the Company has not yet decided to apply the above principles:

I.Z.1.16.

According to the PFSA's position of April 29th 2020, the obligation to ensure real-time broadcast of General Meetings applies only to those public companies which will give their shareholders the possibility of participating in General Meetings via electronic means of communication.

The Company has carried out preliminary analyses of the possibility of organising General Meetings using electronic means of two-way communication. However, due to legal, organisational and technical risks, it has not yet broadcast its General Meetings for attendance by shareholders using electronic means of communication. In the Company's opinion, no practices have yet been developed to ensure reliable identification of shareholders and the security of electronic communication, including the voting procedure. The Company believes there is a risk that shareholders may challenge resolutions in the event of any technical or organisational issues. In addition, the Company shareholders have not yet requested that General Meetings be broadcast in real time.

I.Z.1.20.

In the Company's opinion, the documentation of its General Meetings in the form of a notarial deed drawn up by a notary public in attendance, which is available for inspection by shareholders at the Company's registered office, ensures full transparency and protection of shareholder rights.

All documents related to a General Meeting's agenda, i.e. draft resolutions with reasons, resolutions passed, voting results on the proposed resolutions, questions submitted by, and answers given to, shareholders during the General Meeting are provided by the Company promptly and on time, in current reports and on its website at → www.lotos.pl in Polish and English. The Company shareholders have not yet requested to be provided with audio or video recordings of the General Meetings.

IV.Z.2.

The Company monitors the development of electronic tools for organising General Meetings, including the application deployed by the CSDP in 2020, while maintaining a cautious approach and taking into account the potential risk of a wide range of legal, organisational or technical issues that may arise during an online General Meeting.

The Company recognises, among others, the organisational risk of disruptions to a General Meeting due to a broken connection with any of the voting participants, which would, in turn, render the vote invalid and trigger the need to resume it.

The broadcast of General Meetings may be delayed, making them difficult to follow, depending on the internet connection quality, speed, local and global load, as well as on many other parameters, such as the location of servers used in the broadcast, or the internet connection access technology (cable, Wi-Fi, LTE).

12.2 Internal control and financial reporting risk management systems

The Management Board of Grupa LOTOS S.A. is responsible for the internal control function and its effective application in the financial reporting process. The Internal Audit Office of Grupa LOTOS S.A. makes an annual assessment of the internal control framework. Its findings show that in 2020 there were no changes in the internal control system that would affect the financial reporting process. Taking into account the assumptions adopted in assessing the systems, the Company has put in place organisational and process solutions making up the internal control, corporate governance, compliance and risk management framework. The solutions set out in the assessment model (good business practices) have been implemented in each of the systems and are applied in practice.

Financial statements are prepared, approved and released to the public in line with an internal procedure, whereunder oversight of the financial reporting process lies within the remit of the Head of the Finance and Accounting Centre's Office, Chief Accountant. Responsibility for preparing the consolidated and separate financial statements lies with the Financial Reporting Office of Grupa LOTOS S.A.

The consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRSs), based on the financial statements of Grupa LOTOS S.A. and the entities controlled by Grupa LOTOS S.A.

Consolidated financial statements include adjustments which are absent from the accounting books of the Group's entities applying accounting standards other than IFRSs, and which have been introduced to ensure consistency of the entities' financial information with the IFRSs.

In order to ensure accounting uniformity, the accounting policies effective at the Company were implemented across the LOTOS Group companies for application in preparing their consolidation packages.

12.3 Shares and shareholders of Grupa LOTOS S.A.

As at December 31st 2020 and the date on which this report was authorised for issue, the share capital of Grupa LOTOS S.A. was PLN 184,873,362 and was divided into 184,873,362 shares, with a par value of PLN 1 per share, including:

- 78,700,000 Series A ordinary bearer shares,
- 35,000,000 Series B ordinary bearer shares,
- 16,173,362 Series C ordinary bearer shares,
- 55,000,000 Series D ordinary bearer shares.

In 2020, the Company's share capital did not change.

All Grupa LOTOS S.A. shares are ordinary bearer shares. The Company's Articles of Association do not impose any restrictions on the transferability of its shares.

To the best of the Company's knowledge, in 2020 neither the Company, nor entities of its group or persons acting on their behalf, understood as members of the management or supervisory personnel, held or bought back any Company shares, or took any steps to buy back Company shares in that period.

The Articles of Association do not provide for any special rights of Management Board members to decide on the issue or buy-back of shares.

Grupa LOTOS S.A. does not operate an employee stock option schemes and therefore does not have any control systems for employee stock option plans.

As at December 31st 2020 and the date on which this report was released for issue, the list of shareholders holding, directly or indirectly through subsidiaries, 5% or more of total voting rights at the General Meeting of Grupa LOTOS S.A. was as follows:

	Number of shares/Number of voting rights at the General Meeting	Ownership interest and share in total voting rights at the General Meeting (%)
State Treasury	98,329,515	53.19
Other	86,543,847	46.81
Total	184,873,362	100.00

Grupa LOTOS S.A. has not issued any securities conferring special control powers.

Special rights of the State Treasury and their exercise at companies Limitations on exercise of voting rights at the General Meeting of Grupa LOTOS S.A.

One share in Grupa LOTOS S.A. confers the right to one vote at its General Meeting. However, pursuant to the Company's Articles of Association, the voting rights of Company shareholders are limited so that none of them can exercise more than 10% of total voting rights at the Company as at the day on which the General Meeting is held, with the proviso that for the purpose of determining the obligations of buyers of major shareholdings provided for in the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading and Public Companies of July 29th 2005, and the Act on Insurance Activity of May 22nd 2003, such limitation of voting rights is deemed non-existent.

The above limitation does not apply to:

- shareholders who as at the date of the General Meeting's resolution imposing the limitation on voting rights are holders of shares conferring more than 10% of total voting rights at the Company;
- shareholders acting in concert with the shareholders referred to above under agreements concerning joint exercise of voting rights.

For the purpose of limiting the voting rights referred to above, the voting rights of shareholders bound by a parent-subsidiary relationship are aggregated in the following manner:

a shareholder is any person, including a parent and a subsidiary of such person, directly or indirectly entitled to exercise voting rights at the General Meeting under any legal title, including persons who do not hold shares in the Company, in particular usufructuaries, pledgees, holders of rights under depositary receipts, as defined in the Act on Trading in Financial Instruments of July 29th 2005, as well as persons entitled to participate in the General Meeting despite having disposed of their shareholdings after the record date.

A parent or a subsidiary is any person which:

- meets the relevant criteria set forth in Art. 4.1.4) of the Commercial Companies Code, or
- is a parent, a subsidiary or both a parent and a subsidiary within the meaning of the Act on Competition and Consumer Protection of February 16th 2007, or
- is a parent, ultimate parent, subsidiary, lower-tier subsidiary, jointly-controlled entity or both a parent (including an ultimate parent) and a subsidiary (including a lower-tier subsidiary and a jointly-controlled entity) within the meaning of the Accounting Act of September 29th 1994, or
- exerts (in the case of a parent) or is subject to (in the case of a subsidiary) decisive influence within the meaning of the Act on the Transparency of Financial Relations between State Authorities and State-Controlled Enterprises, as well as on Financial Transparency of certain Entrepreneurs, of September 22nd 2006, or
- whose voting rights conferred by Company shares held directly or indirectly are aggregated with voting rights of other person or persons pursuant to the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading and Public Companies of July 29th 2005, in connection with the holding, disposal or acquisition of major shareholdings in the Company.

Shareholders whose voting rights are aggregated or reduced pursuant to the rules described above, are jointly referred to as a Grouping. The aggregation of voting rights consists in adding up all voting rights held by individual shareholders comprising a Grouping. The reduction of voting rights involves decreasing the total number of voting rights at the General Meeting held by shareholders comprising a Grouping.

The reduction of voting rights is made as follows:

- the number of voting rights of the shareholder holding the highest number of voting rights in the Company from among all the shareholders comprising a Grouping is reduced by the number of voting rights in excess of 10% of the total number of voting rights in the Company held by all the shareholders in the Grouping;
- if, despite the reduction referred to above, the total voting rights held by the shareholders comprising the Grouping exceeds 10% of total voting rights at the Company on the date the General Meeting, the number of voting rights held by the other shareholders in the Grouping is further reduced. Such further reduction is made in a sequence established based on the number of voting rights held by individual shareholders comprising the Grouping (from the highest to the lowest). The number of voting rights of the Grouping is further reduced until the number of voting rights held by shareholders comprising the Grouping does not exceed 10% of the total vote at the Company;
- if the sequence for the purpose of the reduction of voting rights cannot be established because one or more shareholders hold the same number of voting rights, the voting rights of shareholders holding the same number of voting rights are reduced proportionally, with fractional numbers rounded down to the whole number of shares. To the extent not provided for above, the rules specified in the preceding items apply accordingly; in any case, a shareholder whose voting rights have been limited retains the right to exercise at least one vote;
- the limitation of voting rights also applies to shareholders absent from the General Meeting.

In order to determine the basis for aggregation or reduction of voting rights, each of the Company's shareholders, the Management Board, the Supervisory Board, and individual members of these bodies, as well as the Chairperson of the General Meeting, may request that a Company shareholder subject to the limitation of voting rights disclose whether it is a parent or a subsidiary of any other Company shareholder within the meaning of the Company's Articles of Association. The authority referred to in the previous sentence also includes the right to request a Company shareholder to disclose the number of voting rights held individually or jointly with other shareholders with respect to which it is a parent or a subsidiary within the meaning of the Company's Articles of Association. A person who fails to perform or improperly performs the above disclosure obligation may exercise its voting rights from a single share only, until the disclosure obligation is duly fulfilled, and any attempts to exercise its voting rights from the remaining shares are ineffective.

When in doubt, the provisions on the restriction of voting rights will be interpreted in accordance with Art. 65.2 of the Civil Code.

The limitation of voting rights expires once the shareholding of a Company shareholder who as at the date of the General Meeting's resolution imposing the limitation of voting rights held shares conferring more than 10% of total voting rights at the Company falls below 5% of the Company's share capital.

Subject to the relevant provisions of the Commercial Companies Code, a material change in the Company's business profile may be introduced without a buyout of Company shares held by the shareholders who do not agree to such change.

To the best of the Company's knowledge, as at April 2nd 2021 the Management and Supervisory Board members did not hold any shares in Grupa LOTOS S.A. or any shares in Grupa LOTOS S.A.'s related companies.

On February 27th 2018, the State Treasury (Grupa LOTOS S.A.'s main shareholder) and PKN ORLEN S.A. signed a letter of intent concerning PKN ORLEN S.A.'s acquisition of control over Grupa LOTOS S.A., understood as PKN ORLEN S.A.'s direct or indirect acquisition of at least 53% of Grupa LOTOS S.A.'s share capital. The transaction is subject to a number of conditions precedent, including receipt of relevant corporate approvals and antitrust clearance.

After PKN Orlen S.A. had collected the required documents, on July 14th 2020 the European Commission conditionally approved its acquisition of Grupa LOTOS S.A. and the remedy package that needed to be implemented to go ahead with the process.

On August 18th 2020, the State Treasury (as the majority shareholder of Grupa LOTOS S.A.), PKN Orlen S.A. ("PKN Orlen") and the Company signed a memorandum of understanding for the proposed transaction in which PKN Orlen would acquire Company shares representing at least 53% of its share capital and voting rights at its general meeting from the State Treasury (the "Transaction") (the "MoU").

The Transaction would result in the acquisition by PKN ORLEN, directly or indirectly, of equity control of the Company.

The scope and structure of the Transaction have not yet been determined. The MoU is not binding on, and does it give rise to any obligations for, the parties with respect to achieving the result of consummating the Transaction, but only defines their joint understanding of the expected structure of the Transaction and further cooperation in its implementation as at the MoU date.

The MoU remains in force until March 31st 2022.

On March 12th 2021, the Company's Management Board gave a general approval for internal organisational measures aimed at optimising the Group's structure and preparing it for implementation of the model whereby the remedies necessary to go ahead with the intended acquisition of control over the Company by PKN Orlen S.A. are to be carried out.

12.4 Rules governing amendments to the Company's Articles of Association

An amendment to the Articles of Association requires that a relevant resolution be passed by the General Meeting by an absolute majority of votes, save for amendments to Article 10.1 of the Articles of Association, which require that four-fifths of votes be cast in favour of the amending resolution and at least half of the Company's share capital be represented at the General Meeting.

After the General Meeting passes a resolution on amending the Company's Articles of Association, the Management Board of Grupa LOTOS S.A. notifies the registry court of the amendments. The amendments come into force upon their registration by the court.

A consolidated text of the Articles of Association incorporating the amendments is then produced by the Supervisory Board, provided that the Supervisory Board receives relevant authorisation from the General Meeting.

The Articles of Association of Grupa LOTOS S.A. currently in effect were approved by General Meeting resolution No. 26 to amend the Articles of Association of Grupa LOTOS S.A. dated June 28th 2019. The amendments related to:

- powers of the General Meeting to approve to any subscription for, acquisition or disposal of shares in another company, and any disposal or acquisition of non-current assets;
- powers of the Supervisory Board to give its opinions on financial statements submitted to the General Meeting, and to approve any disposal of non-current assets or execution of contracts;
- responsibilities of the Management Board concerning the reporting obligations;
- rules governing disposal of non-current assets by the Company.

12.5 General Meeting

The powers and proceedings of the General Meeting (GM) of Grupa LOTOS S.A. are defined in detail in the Company's → Articles of Association (consolidated text of August 1st 2019) and the → Rules of Procedure for the General Meeting (consolidated text of August 26th 2009).

Powers of the General Meeting include in particular:

- Review and approval of the Company's full-year financial statements, Directors' Report on the Company's operations, the Group's consolidated financial statements, and Directors' Report on the Group's operations, for the previous financial year;
- Grant of discharge to members of the Management Board and Supervisory Board in respect of their duties;
- Decision on the allocation of profit or coverage of loss, as well as application of funds and accounts created from profit, subject to any specific provisions which may require different application of such funds;
- Appointment and removal of Supervisory Board members;
- Increase in or reduction of the Company's share capital;

- Decisions concerning claims for redress of any damage caused upon formation of the Company or when managing or supervising the Company;
- Sale or lease of, or creation of limited property rights in, the Company's business or its organised part;
- Approval of acquisition of real property, right of perpetual usufruct of or interest in real property, with a value exceeding PLN 5,000,000, as determined based on appraiser valuation; as well as approval of disposal of real property, right of perpetual usufruct of or interest in real property, with a value exceeding PLN 200,000, as determined based on appraiser valuation;
- Approval of encumbrance or disposal of shares in LOTOS Petrobaltic S.A. or Przedsiębiorstwo Przeładunku Paliw Płynnych Naftoport Sp. z o.o.;
- Approval of disposal of shares in another company if the market value of such shares exceeds:
  - PLN 100,000,000; or
  - 10% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements.
- Subject to Art. 9.7, approval of disposal of non-current assets within the meaning of the Accounting Act of September 29th 1994 (Dz.U. of 2019, items 351), classified as intangible assets, property, plant and equipment or long-term investments, including contribution thereof to a company or cooperative, if the market value of such assets exceeds 5% of total assets within the meaning of the Accounting Act of September 29th 1994, determined based on the most recent approved financial statements, as well as granting to another entity the right to use such assets for a period longer than 180 days in a calendar year, under a legal transaction, if the market value of the subject matter of such legal transaction exceeds 5% of total assets, with the proviso that in the event of granting the right to use under:
  - a lease, rental or other contract for granting rights to use an asset to a third party against consideration – the market value of the asset to be understood as the amount of consideration for:
    - one year – if the right to use the asset was granted under an agreement concluded for an indefinite term,
    - The entire term of the agreement – if the right to use the asset is granted under an agreement concluded for a definite term;
  - Commodate or other agreements for granting to another entity the right to use an asset free of charge – the market value of the asset involved in the legal transaction is the amount of consideration which would have been payable to the Company if a lease or rental agreement had been concluded, for:
    - One year – if the right to use the asset is granted under an agreement concluded for an indefinite term;
    - The entire term of the agreement – if the right to use the asset was granted under an agreement concluded for a definite term;
- Subject to Art. 9.8, approval of acquisition of non-current assets within the meaning of the Accounting Act of September 29th 1994, where the value of such assets exceeds:
  - PLN 100,000,000; or
  - 5% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements;
- Approval of a purchase of or subscription for shares in another company where the value of such shares exceeds:
  - PLN 100,000,000; or
  - 10% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements.
- Amendment to the Company's Articles of Association;
- Creation and release of special accounts, including capital reserves;
- Decision on cancellation of Company shares and buy-back of shares for cancellation, and definition of terms for share cancellation;
- Issue of notes and bonds;
- Dissolution, liquidation or transformation of the Company, or its merger with another entity;
- Issue of subscription warrants;
- Approval of buy-back of Company shares (own shares) and creation of a pledge over Company shares in the case specified in Art. 362.1.2 of the Commercial Companies Code;
- Approval of the implementation of incentive schemes;
- Approval of payment of interim dividend if the Supervisory Board has not approved it;
- Determination of rules of remuneration for members of the Management and Supervisory Boards.

Unless the Commercial Companies Code or the Articles of Association provide otherwise, resolutions of the General Meeting are passed by an absolute majority of votes. Resolutions concerning the following matters may be adopted by a majority of at least four-fifths of the votes, provided that at least half of the Company's share capital is represented at the General Meeting:

- Dissolution of the Company;
- Relocation of the Company's registered office abroad;

- Change of the Company's business profile in a way that would limit its operations in the area of manufacture, processing and sale of refined petroleum products;
- Sale or lease of, or creation of limited property rights in, the Company's business or its organised part whose activities include manufacture, processing and sale of refined petroleum products;
- Merger with another company;
- Demerger of the Company;
- Creation of preference rights attached to shares;
- Establishment of a European company (societas Europaea), transformation into such company or joining such company;
- Amendments to the relevant section of the Articles of Association.

Both documents are available in the → Corporate Governance section of the Company's website.

General Meetings are convened by the Management Board of Grupa LOTOS S.A., as provided for in the Articles of Association or in the Commercial Companies Code, by publishing an announcement on the Company's website and in the manner prescribed for publication of current reports, in accordance with the provisions of the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading and Public Companies.

Extraordinary General Meetings (EGM) may be convened by the Management Board on its own initiative, by the Supervisory Board (if the Supervisory Board deems it appropriate), or by shareholders representing at least half of the Company's share capital or at least half of total voting rights at the Company.

A shareholder or shareholders representing at least 1/20 of the Company's share capital may request that an EGM be convened and that certain items be placed on its agenda. If an EGM is not convened within two weeks of the submission of such a request to the Management Board, the Registry Court may authorise the requesting shareholders to convene an Extraordinary General Meeting.

A request to convene a General Meeting and put particular items on its agenda, made by parties entitled to do so, should be presented with grounds. A shareholder or shareholders representing at least 1/20 of the Company's share capital may, before a GM, submit to the Company draft resolutions for items which have been or are to be placed on the agenda of the General Meeting.

Only persons who are the Company shareholders sixteen days prior to the date of a General Meeting (i.e. on the date of registration of participation in the GM) are entitled to participate in the General Meeting. Holders of rights under registered shares or provisional certificates as well as pledgees and usufructuaries holding voting rights are entitled to participate in the General Meeting, provided that they are entered in the Share Register on the registration date. A Shareholder may participate in a General Meeting and exercise voting rights in person or by proxy. The proxy is obliged to disclose to the shareholder any circumstances leading to any actual or potential conflict of interest and may vote exclusively in line with the voting instructions issued by the appointing shareholder.

Any matter to be discussed at a General Meeting is subject to prior consideration by the Supervisory Board. No resolution may be passed on matters not included in the agenda of the General Meeting, unless the Company's entire share capital is represented at the GM and no objections to the adoption of such resolution are raised by any of the persons participating in the GM, with the exception of motions to convene an Extraordinary General Meeting and procedural motions. Resolutions of a General Meeting are adopted by an absolute majority of votes, unless the Articles of Association or Commercial Companies Code provide otherwise. Resolutions and proceedings of a General Meeting are recorded by a notary public. The minutes of the GM are signed by the Chairman of the GM and the notary public.

12.6 Supervisory Board activity

12.6.1 Appointment and removal of Supervisory Board members

In accordance with Grupa LOTOS S.A.'s Articles of Association, the Supervisory Board consists of five to nine members, including the Chair, Deputy Chair and Secretary. Members of the Supervisory Board are appointed and removed from office by the General Meeting. Notwithstanding the foregoing, as long as the State Treasury remains a shareholder in the Company, the entity authorised to exercise voting rights attached to the shares held by the State Treasury will have the right to appoint one member of the Supervisory Board by way of a written statement to that effect. Members of the Supervisory Board nominated by the State Treasury should meet the requirements laid down in *the Act on State Property Management of December 16th 2016 (Dz.U. of 2016, No. 2259)*.

Supervisory Board members are appointed for a joint term of three years. Any or all Supervisory Board members may be removed at any time prior to expiry of their term of office. The Chair of the Supervisory Board is appointed by the General Meeting. The Deputy Chair and the Secretary are elected by the Supervisory Board from among the other Supervisory Board members. The Supervisory Board elected by block voting consists of five members.

As the 10th joint term of office of the Supervisory Board expired at the end of June 2020, on June 30th 2020 the General Meeting appointed Supervisory Board members for the 11th joint term of office. Accordingly, the General Meeting resolved to:

- appoint, by Resolution No. 25, Ms Beata Kozłowska-Chyła as Chair of the Grupa LOTOS S.A. Supervisory Board of the 11th joint term of office;
- appoint, by Resolution No. 26, Ms Katarzyna Lewandowska to the Grupa LOTOS S.A. Supervisory Board of the 11th joint term of office;
- appoint, by Resolution No. 27, Mr Dariusz Figura to the Grupa LOTOS S.A. Supervisory Board of the 11th joint term of office;
- appoint, by Resolution No. 28, Mr Piotr Ciach to the Grupa LOTOS S.A. Supervisory Board of the 11th joint term of office;
- appoint, by Resolution No. 29, Mr Adam Lewandowski to the Grupa LOTOS S.A. Supervisory Board of the 11th joint term of office;
- appoint, by Resolution No. 29, Mr Grzegorz Rybicki to the Grupa LOTOS S.A. Supervisory Board of the 11th joint term of office.

12.6.2 Composition

As at December 31st 2019, the composition of the Company's Supervisory Board was as follows:

	Position held	On the Supervisory Board of the 10th term of office since:
Beata Kozłowska-Chyła	Chair	June 14th 2017
Piotr Ciach	Deputy Chair	June 14th 2017
Katarzyna Lewandowska	Secretary	June 14th 2017
Dariusz Figura	Member	June 14th 2017
Adam Lewandowski	Member	June 14th 2017
Agnieszka Szklarczyk-Mierzwa	Member	June 14th 2017
Grzegorz Rybicki	Member	June 28th 2018

As at December 31st 2020 and the date on which this report was released for issue, the composition of the Company's Supervisory Board was as follows:

	Position held	On the Supervisory Board of the 11th term of office since:
Beata Kozłowska-Chyła	Chair	June 30th 2020
Piotr Ciach	Deputy Chair	June 30th 2020
Katarzyna Lewandowska	Secretary	June 30th 2020
Dariusz Figura	Member	June 30th 2020
Adam Lewandowski	Member	June 30th 2020
Grzegorz Rybicki	Member	June 30th 2020

12.6.3 Powers and responsibilities

The Supervisory Board of Grupa LOTOS S.A. operates on the basis of the Company's Articles of Association (consolidated text of August 1st 2019) and the Rules of Procedure for the Supervisory Board of Grupa LOTOS S.A. Summary information on the individual Supervisory Board members:

- Beata Kozłowska-Chyła has been a member of the Company’s Supervisory Board since May 25th 2016. Since June 30th 2016, she has served as Chair of the Supervisory Board.
  A graduate of the Faculty of Law and Administration of the University of Warsaw. She obtained a PhD degree in law, followed by a post-doctoral degree (doctor habilitatus) in law.
- Piotr Ciach has sat on the Supervisory Board since December 22nd 2016. He is a graduate of the Faculty of Law at the Maria Curie-Sklodowska University in Lublin. He completed an MBA programme run by the Gdańsk Foundation for Management Development in cooperation with the IAE Aix-en-Provence Graduate School of Management.
- Katarzyna Lewandowska first became a member of the Company’s Supervisory Board on January 27th 2016. A graduate of the Faculty of Domestic Trade at the Warsaw School of Economics.
- Dariusz Figura first became a member of the Company’s Supervisory Board on January 27th 2016. Graduate of the Warsaw University of Technology (Faculty of Electronics and Information Technology), he completed with honours an Executive MBA programme at Warsaw Business School of the Warsaw University of Technology (joint programme with the HEC School of Management - Paris, London Business School and Norwegian School of Economics).
- Adam Lewandowski has sat on the Supervisory Board since December 22nd 2016. A graduate of the University of Warsaw with a master’s degree in law, Mr Lewandowski is a legal counsel, member of the Regional Chamber of Legal Counsels in Warsaw.
- Grzegorz Rybicki was first appointed member of the Company’s Supervisory Board on June 28th 2018. A graduate of the Faculty of Law and Administration of the University of Warsaw. In 1990–1992, he completed judge training at the Regional Court of Warsaw, and in 1992–1994 he completed legal training as an attorney-at-law. Since 1995, he has worked as an attorney-at-law in a Warsaw-based law firm. In 1993, he completed training and internship for attorneys-at-law in Chicago, USA, organised by the American Bar Association, the Polish Bar Council, and DePaul University of Chicago.

The following persons have knowledge and skills in law:

- Beata Kozłowska-Chyła,
- Piotr Ciach,
- Adam Lewandowski,
- Grzegorz Rybicki.

The following persons have knowledge and skills in accounting or financial auditing:

- Dariusz Figura – has completed MBA studies, has served as Vice President – Chief Financial Officer of a joint-stock company, and has been involved in annual audits of financial statements of a joint-stock company,
- Katarzyna Lewandowska – holds a university degree in economics, a graduate of the Warsaw School of Economics,
- Adam Lewandowski – 10 years of service within the fuel and energy industry (PGNiG and its Group companies) and experience gained serving on the supervisory boards of fuel and energy companies,
- Grzegorz Rybicki – has had professional contact with accounting and financial reporting through the provision of legal services to companies and skills acquired while serving on supervisory boards.

The following persons have the knowledge and skills specific to the fuel industry:

- Dariusz Figura – knowledge and skills gained while serving on the Supervisory Board of Grupa LOTOS S.A.
- Katarzyna Lewandowska – knowledge and skills gained while serving on the Supervisory Board of Grupa LOTOS S.A.
- Adam Lewandowski – knowledge and skills gained over 10 years of work within the fuel and energy industry (PGNiG and the Group companies) and experience gained serving on the supervisory boards of fuel and energy companies.
- Piotr Ciach – knowledge and skills gained while working at the Energy Ministry’s Department responsible for supervision of fuel companies such as PKN Orlen S.A., Grupa LOTOS S.A., PGNiG S.A., and Enea S.A.
- Grzegorz Rybicki – knowledge and skills gained while serving on the Supervisory Board of Grupa LOTOS S.A.

According to the representations received by the Company, the following persons meet the independence criteria:

- Beata Kozłowska-Chyła,
- Dariusz Figura,
- Adam Lewandowski,
- Grzegorz Rybicki.

It should be noted that most of these persons served on the Company’s Supervisory Board while the *Grupa LOTOS Strategy for 2017–2022* was being approved, published and implemented.

The Supervisory Board exercises ongoing supervision of the Company’s business, across all areas of its operations. The powers and responsibilities of the Supervisory Board include in particular:

- Appointment and dismissal of members of the Company's Management Board following a recruitment procedure;
- Suspension, for a good reason, of any or all Management Board members from their duties, as well as delegation of its member(s) to temporarily stand in for Management Board members who are unable to perform their duties;
- Approval of the rules of procedure for the Management Board;
- Selection and appointment of the auditor to audit the Company's and the Group's financial statements, in compliance with the provisions of the Accounting Act;
- Assessment of the Company's financial statements in terms of their consistency with the accounting records and documents, as well as with facts; assessment of the Directors' Report on the Company's operations and the Management Board's recommendations as to the allocation of profit or coverage of loss, and submission of written reports on the findings of such assessments to the General Meeting;
- Giving opinions on any matters to be submitted for consideration by a General Meeting, whether annual or extraordinary;
- Grant of approval to members of the Management Board to serve, and receive remuneration for serving, on supervisory or management bodies of other entities;
- Approval of the implementation of an investment project and to the assumption of related liabilities if these involve expenditure or charges exceeding the equivalent of a half of the Company's share capital;
- Definition of the scope and required level of detail for annual budgets and long-term strategies, as well as dates for their submission by the Management Board;
- Approval of strategies for Grupa LOTOS S.A. and the LOTOS Group;
- Giving opinions on annual budgets;
- Giving opinions on reports on entertainment expenses, legal costs, marketing costs, public relations and social communication expenses, and management consultancy fees, and reports on best practices defined by the Prime Minister on the basis of the Act on State Property Management, for companies in which the State Treasury is a shareholder;
- Representation of the Company in agreements or contracts, and in any disputes, with Management Board members;
- Adoption of the rules for management of special accounts;
- Approval of the rules and plan of sponsorship activities and assessment of the results of such activities;
- Approval of the rules of procedure for the Supervisory Board committees;
- Making decisions concerning appointment of external experts, as required by the Supervisory Board or its committees;
- determination of the dividend payment date in the circumstances described in Art. 7.3 of the Company's Articles of Association.
- Setting up a foreign establishment within the meaning of double-tax treaties to which the Republic of Poland is a party;
- Disposal of non-current assets whose market value exceeds 0.1% but does not exceed 5% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements;
- Assumption of any other liability or disposal of an asset whose value – under a single transaction or a series of related transactions, other than transactions performed in the ordinary course of management – exceeds the equivalent of a half of the Company's share capital, unless the power to approve such transactions has been assigned to the General Meeting;
- Any foreign equity investments made by the Company if the value of such investments does not exceed PLN 100,000,000 or 10% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements, as well as any investments in property, plant and equipment;
- Exercise by the Company of its voting rights at the general meeting of any subsidiary or other company if the value of shares held by the Company, measured at the acquisition or subscription price, exceeds one-fifth of the Company's share capital, where the vote relates to:
  a) allocation of profit or coverage of loss;
  b) share capital increase or reduction;
  c) mergers with other companies or transformations;
  d) sale or lease of the company's business or its encumbrance with usufruct rights;
  e) amendment to the company's articles of association.
- Formation of commercial-law companies or joining other companies, contributions to be made to pay for shares in companies, and disposals of shares, if the Company's existing equity interest in a given company, or interest to be held by the Company following the acquisition of or subscription for the shares, measured at the acquisition or subscription price, does not exceed PLN 100,000,000 or 10% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements;
- Acquisition of real property, right of perpetual usufruct of or interest in real property, with a value of up to PLN 5,000,000, as determined based on appraiser valuation, as well as disposal of real property, right

of perpetual usufruct of or interest in real property, with a value of up to PLN 200,000, as determined based on appraiser valuation;
- Payment of interim dividend;
- Execution of any contract for the provision of legal services, marketing services, public relations and social communication services, or management consultancy services, if the aggregate amount of fees for the services provided under such contract or any other contract concluded with the same entity exceed PLN 500,000, VAT exclusive, per year;
- Amendment to an agreement for the provision of legal services, marketing services, public relations and social communication services, or management consultancy services whereby the fees under the agreement are increased above the amount referred to in item 9;
- Execution of any agreement for the provision of legal services, marketing services, public relations and social communication services, or management consultancy services where no maximum fees are specified;
- Execution of a donation agreement, or any other agreement having a similar effect, with a value exceeding PLN 20,000 or 0.1% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements;
- Execution of an agreement on release from debt, or any other agreement having a similar effect, with a value exceeding PLN 50,000 or 0.1% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements;
- From among its members, the Supervisory Board appoints an Audit Committee and may also appoint other committees, whose remits, organisation of work and operating procedures are defined by the Rules of Procedure for the Supervisory Board and rules of procedure defined separately for each such committee. The committees' rules of procedure as well as any amendments thereto will become effective once approved by the Supervisory Board.

Supervisory Board meetings are held on a regular basis, every four–six weeks and, as a rule, are attended by all Supervisory Board members. In the financial year 2020, the Supervisory Board held 16 meetings and 13 voting procedures using means of remote communication.

In 2020, by Resolution No. 334/X/2020 of June 1st 2020, the Supervisory Board recommended that the General Meeting approve the Remuneration Policy for Members of the Management Board and Supervisory Board of Grupa LOTOS S.A. For more information on the introduction of and obligations arising from that Policy, see Section 12.7.4. Remuneration Policy.

Moreover, by Resolution No. 26/XI/2020 of September 28th 2020, the Supervisory Board approved the 'Rules for periodic assessment by the Grupa LOTOS S.A. Supervisory Board of material related-party transactions'. The document sets out the rules for periodic assessment by the Supervisory Board of material transactions, within the meaning of the *Public Offering Act*, concluded by Grupa LOTOS S.A. and its subsidiaries with related parties, and seeks to ensure transparency and legality of such transactions. The Rules were introduced in accordance with the *Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading and Public Companies of July 29th 2005 (Dz.U. of 2019, item 623, as amended) (the "Public Offering Act").*

The Supervisory Board performs its duties collectively, but may set up ad hoc or standing committees to supervise specific areas of the Company's activities or investigate specific issues.

The following committees operate within the Supervisory Board of Grupa LOTOS S.A.

- Audit Committee,
- Strategy and Development Committee, and
- Organisation and Management Committee.

Audit Committee

The Audit Committee of the Supervisory Board of Grupa LOTOS S.A. is a statutory organisational unit of the Company's Supervisory Board with a supporting and advising role.

The obligation to establish the Audit Committee is imposed by the Act on Qualified Auditors and Their Self-Government, Entities Qualified to Audit Financial Statements and Public Supervision of May 7th 2009 (Dz.U. of 2020, item 1415, as amended).

As Polish law requires that audit committees be established at entities supervised by the Polish Financial Supervision Authority, the Office of the Polish Financial Supervision Authority has prepared a code of best practice for audit committees. The code was prepared based on international standards, press articles, guidelines from international organisations, as well as knowledge and experience of audit firms and internal auditors. The purpose of the recommendations was to provide audit committee members with a tool that may contribute to a more effective performance by committee members by providing guidance on how the committee should operate, and identify areas that require special attention of the supervisory board considering the statutory tasks and responsibilities imposed on the audit committee.

Acting as an analytical and controlling body and giving the Supervisory Board material recommendations, the Audit Committee perform its activities pursuant to the Rules of Procedure for the Supervisory Board and the Rules of Procedure for the Audit Committee.

The main tasks of the Audit Committee include the provision of ongoing advice to the Supervisory Board on proper implementation of the budget reporting, financial reporting and internal control standards at the Company, as well as collaboration with the Company's auditors, including in particular:

- monitoring of the financial reporting process,
- monitoring of the effectiveness of the Company's internal control, internal audit and risk management systems,
- monitoring of financial auditing procedures, including monitoring of the audit of full-year and consolidated financial statements,
- monitoring of the work and reports of the independent qualified auditor, including monitoring of the independence of the auditor and the audit firm, including active participation in selecting the audit firm,
- analysing selected economic events relevant to the Company's operations,
- ongoing reporting of any material issues related to the Audit Committee's operations to the Supervisory Board,
- monitoring of the implementation by the Management Board of any proposals and recommendations submitted by the Audit Committee,
- assessing the auditor's independence and giving consent to the provision of permitted non-audit services by the auditor,
- developing a policy for the audit firm selection and a policy for the provision of permitted non-audit services by the audit firm, and defining a procedure for the audit firm selection,
- giving recommendations to the Supervisory Board regarding the appointment of auditors or audit firms,
- providing recommendations to ensure reliability of the financial reporting process,
- approving proposals from the Company or its related entity to assign permitted non-audit services to the audit firm selected to audit the financial statements.

The Audit Committee, appointed by the Supervisory Board from among its members, consists of three to five members.

As at December 31st 2020 and the date on which this report was released for issue, the composition of the Audit Committee was as follows:

- Dariusz Figura – Chairman,
- Katarzyna Lewandowska – Member,
- Piotr Ciach – Member,
- Adam Lewandowski – Member,
- Grzegorz Rybicki – Member.

From January 1st to December 31st 2020, the Audit Committee held 11 meetings.

Strategy and Development Committee

The Strategy and Development Committee of the Grupa LOTOS Supervisory Board is a standing collective body operating within the Supervisory Board with an advisory and opinion-forming role. Its duties are discharged by presenting to the Supervisory Board proposals, recommendations, opinions and reports, based on the Rules of Procedure for the Supervisory Board and the Rules of Procedure for the Strategy and Development Committee.

The main tasks of the Strategy and Development Committee include presenting to the Supervisory Board opinions and recommendations on planned investment projects with a material effect on the Company's assets, including in particular:

- giving opinions on the Company's and the Group's long-term development strategies,
- assessing the effect of proposed and actual investment projects on the Company's assets,
- monitoring the implementation of investment projects,
- assessing any actions, agreements, and other documents related to steps taken to acquire, sell, encumber or otherwise dispose of the Company's material assets,
- giving opinions on all strategic documents submitted to the Supervisory Board by the Management Board.

The Strategy and Development Committee, appointed by the Supervisory Board from among its members, consists of three to five members. The Committee is chaired by the Chairperson of the Supervisory Board.

As at December 31st 2020 and the date on which this report was released for issue, the composition of the Strategy and Development Committee was as follows:

- Beata Kozłowska-Chyła – Chairwoman,
- Piotr Ciach – Member,
- Katarzyna Lewandowska – Member,

- Adam Lewandowski – Member,
- Dariusz Figura – Member.

From January 1st to December 31st 2020, the Strategy and Development Committee held ten meetings.

Organisation and Management Committee

The Organisation and Management Committee is a standing advisory and opinion-forming body operating collectively within the Supervisory Board.

Discharging its duties by providing the Supervisory Board with material resolutions, proposals, recommendations, opinions and reports, the Organisation and Management Committee operates on the basis of the Rules of Procedure for the Supervisory Board and the Rules of Procedure for the Organisation and Management Committee of the Supervisory Board of Grupa LOTOS S.A.

The main tasks of the Organisation and Management Committee include the provision of ongoing advice to the Supervisory Board on the Company's management structure, including organisational solutions, remuneration scheme and choice of personnel, to enable the Company to achieve its strategic objectives, and in particular:

- developing detailed rules for recruitment procedures to appoint members of the Management Board,
- performing the recruitment procedures to appoint members of the Management Board (except for activities reserved for the Supervisory Board),
- recommending the terms of employment for members of the Management Board,
- assessing the performance of members of the Management Board, including satisfaction of criteria for awarding variable remuneration components,
- periodically reviewing and assessing the Company's remuneration system,
- assessing the HR management system in place at the Company.

Members of the Organisation and Management Committee, including its Chairperson, are appointed by the Supervisory Board from among its members. The Committee consists of three to five members.

As at December 31st 2020 and the date on which this report was released for issue, the composition of the Organisation and Management Committee was as follows:

- Beata Kozłowska-Chyła – Chairwoman,
- Katarzyna Lewandowska – Member,
- Grzegorz Rybicki – Member,
- Adam Lewandowski – Member,
- Piotr Ciach – Member.

From January 1st to December 31st 2020, the Organisation and Management Committee held fourteen meetings.

12.7 Management Board activity

12.7.1 Appointment and removal of Management Board members

The composition of the Management Board and the manner of appointing Management Board members are defined by the Company's Articles of Association, the Supervisory Board's resolutions and laws of general application.

The Management Board consists of three to seven members, including the President and Vice Presidents of the Management Board. The President and Vice Presidents of the Management Board are appointed by the Supervisory Board following a recruitment and selection procedure carried out pursuant to the Regulation of the Polish Council of Ministers of December 16th 2016 on the management of state property (Dz. U. of 2016, item 2259, as amended), taking into consideration 'The Best Practices to be Followed in the Selection of Candidates to Governing Bodies of Companies of Key Importance to the State Treasury', defined by the Minister of State Treasury.

Members of the Management Board should also meet the requirements laid down in the Act on State Property Management of December 16th 2016 (Dz.U. of 2020, No. 735). Management Board members are appointed for a joint term of three years.

Each member's mandate expires no later than on the date of the General Meeting which approves the financial statements for the previous full financial year. A Management Board member's mandate will also expire upon their resignation from office.

The President, Vice Presidents, as well as the entire Management Board may be removed from office or suspended from duties for a good reason by the Supervisory Board at any time prior to expiry of their term of office.

Supervisory Board resolutions to appoint or remove any or all members of the Management Board require that at least two-thirds of Supervisory Board members are present and participate in the vote.

The current 10th joint term of office of the Management Board commenced on May 22nd 2018 and will expire in 2021.

12.7.2 Composition

As at December 31st 2019, the Management Board of Grupa LOTOS consisted of:

- Jarosław Wittstock – acting President, Vice President of the Management Board, Corporate Affairs
- Zofia Paryła – Vice President of the Management Board, Chief Financial Officer
- Marian Krzemiński – Vice President of the Management Board, Chief Investment and Innovation Officer
- Jarosław Kawula – Vice President of the Management Board, Chief Refining and Marketing Officer.

Following a recruitment procedure, on January 30th 2020 the Supervisory Board resolved to appoint Paweł Jan Majewski as President of the Management Board of Grupa LOTOS S.A. of the 10th joint term of office, with effect from February 3rd 2020.

On July 30th 2020, the Supervisory Board, acting pursuant to Art. 368.4 of the Commercial Companies Code and Art. 13.2.1 in conjunction with Art. 14.4 and 14.5 of the Company's Articles of Association, removed Jarosław Paweł Kawula from the Grupa LOTOS Management Board of the 10th joint term of office, with effect from July 30th 2020.

Also on July 30th 2020, the Supervisory Board initiated a recruitment procedure for the positions of Vice President of the Management Board, Chief Refining and Marketing Officer of Grupa LOTOS S.A., and Vice President of the Management Board, Chief Strategy and Development Officer of Grupa LOTOS S.A.

Following the recruitment procedure, on August 20th 2020 the Supervisory Board resolved to appoint Artur Cieślik as Vice President of the Management Board, Chief Strategy and Development Officer, of Grupa LOTOS S.A. of the 10th joint term of office, with effect from August 24th 2020. On September 4th 2020 the Supervisory Board resolved to appoint Piotr Aleksander Walczak as Vice President of the Management Board, Chief Refining and Marketing Officer of Grupa LOTOS S.A. of the 10th joint term of office, with effect from September 4th 2020.

On November 10th 2020, Paweł Majewski, acting as President of the Management Board of Grupa LOTOS S.A. of the 10th joint term of office, resigned from the position as of November 11th 2020.

On November 12th 2020, the Supervisory Board appointed Zofia Maria Paryła as President of the Management Board of Grupa LOTOS S.A. of the 10th joint term of office.

On November 23rd 2020, the Supervisory Board initiated a recruitment procedure for the position of President of the Grupa LOTOS S.A. Management Board of the 10th joint term of office.

Following the recruitment procedure, on December 7th 2020 the Supervisory Board resolved to appoint Zofia Maria Paryła as President of the Management Board of Grupa LOTOS S.A. of the 10th joint term of office, with effect from December 7th 2020.

As at December 31st 2020, the composition of the Grupa LOTOS Management Board was as follows:

- Zofia Paryła – President of the Management Board
- Jarosław Wittstock – Vice President of the Management Board, Corporate Affairs
- Marian Krzemiński – Vice President of the Management Board, Chief Investment and Innovation Officer
- Artur Cieślik – Vice President of the Management Board, Chief Strategy and Development Officer
- Piotr Walczak – Vice President of the Management Board, Chief Refining and Marketing Officer

- Zofia Paryła is a graduate of the Executive Master of Business Administration (MBA) offered by the Apsley Business School of London and Collegium Humanum, Warsaw Management University. She holds numerous certificates confirming her management, bookkeeping and accounting skills, as well as a certificate confirming completion of training for candidates for members of the supervisory bodies of state-owned companies. Ms Paryła started her professional career in 1985, at Krajowa Państwowa Komunikacja Samochodowa (public transport company) of Kraków. In 1997–2017, she worked in the private sector, including as chief accountant in 2010–2017. Then, for two years, Ms Paryła served as Vice President of the Management Board at Energa Centrum Usług Wspólnych Sp. z o.o. She has served on the Company's Management Board since July 25th 2019.

- Artur Cieślik is a graduate of the Faculty of Law, Canon Law and Administration at the Catholic University of Lublin, and the Faculty of Law and Administration of the University of Warsaw in partnership with the University of Florida Fredric G. Levin College of Law, Center for American Law Studies). Lawyer and manager with over 20 years of professional experience gained working for capital market institutions, public companies and an international law firm. He began his professional career in 1997 at the Legal Department of the Warsaw Stock Exchange, where he was employed until 2004. Lecturer at the Faculty of Law and Administration of the Lazarski University from 2000 to 2005. In 2004–2006, he held a post at

SYGNITY S.A. Between 2006 and 2018, he worked with DENTONS Europe Dąbrowski i Wspólnicy sp.k., an international law firm, as Senior Associate and then Counsel. From 2018, he was involved with PKN ORLEN S.A., serving as Adviser to the Management Board and Executive Director for Strategy.

- Marian Krzemiński is a graduate of the Wrocław University of Technology and Central Connecticut State University. He began his professional career in 1985 at Polkowice Mining Company, a branch of KGHM Polska Miedź S.A. in Lubin, where in 1999-2002 he held the position of President of the Management Board and CEO. He also worked for the Second National Investment Fund in Warsaw (Investment Director/Commercial Proxy), cooperated with Ernst&Young on internal audit, and conducted advisory projects for the BNP Paribas Assurance Group. He also provides advisory and consulting services as a sole proprietor. In 2016-2019, he served as Adviser to the Management Board of Polski Fundusz Rozwoju S.A. He has served on the Company's Management Board since July 25th 2019.

- Piotr Walczak is a graduate of the Gdańsk University of Technology. He holds an Executive MBA diploma from the Gdańsk Foundation for Management Development (GFKM). He is a manager with experience in operational, risk and safety culture management within the energy industry, in the area of network infrastructure design and construction. From 1992 to 2007, he was responsible for managing the investment project department, small hydro department and operation/maintenance department at Energa Operator, Olsztyn Branch. From 2007, he was associated with Eltel Networks Energetyka, where in 2012-2017 he served as a Member of the Management Board, Production Organisation, responsible for managing the bidding division, procurement process in the area of supplies and subcontracting, building and managing an order book and active management of relations with state-owned companies to promote Eltel Networks Energetyka's image as a responsible contractor. Then, until 2020, he was a Member of the Management Board, Managing Director of Eltel Networks Energetyka's Business Unit in Poland, responsible for defining the organisation's strategy and development directions, preparation of annual business plans and performance reporting, operational management, organisational culture, safety and quality management, as well as other areas. In 2020, he became Managing Director at Przedsiębiorstwo Badawczo Wdrożeniowe OLMEX (a research and implementation firm), responsible for internal audits, development of effective cost models and performance monitoring tools, creating agile project teams and fostering an open communication culture.

- Jarosław Wittstock graduated from the Faculty of Management of the University of Gdańsk. He is a manager with nearly 25 years of experience in managing the workforce of several to several hundred at both Polish and international companies. He has extensive managerial experience, including in the leasing industry (BG Leasing S.A. – Director of the Trading Office at the company headquarters, Hanza Leasing S.A. – President of the Management Board), pharmaceuticals (PZF Cefarm – Managing Director), and medical industry (President of the Management Board of ZKS Szpital Gdańsk Sp. z o.o., Managing Director of Swissmed Centrum Zdrowia S.A.). He was also a sole trader operating through his own consulting practice. In 2016–2017, he headed the Gdańsk Branch of the Agency for Restructuring and Modernisation of Agriculture (ARiMR). Since March 2017, he has worked for the Energa Group, first as Director of the Marketing and Communication Department of Energa S.A., and since May 2017 as Vice President of the Management Board of Energa Obrót S.A., responsible for corporate governance, wholesale, sales to business customers, and marketing. He has served on the Company's Management Board since September 11th 2018.

As at the issue date of this report, the Management Board of Grupa LOTOS S.A. consisted of:

- Zofia Paryła – President of the Management Board
- Krzysztof Nowicki – Vice President of the Management Board, Mergers and Acquisitions
- Piotr Walczak – Vice President of the Management Board, Chief Refining and Marketing Officer
- Jarosław Wittstock – Vice President of the Management Board, Corporate Affairs
- Jarosław Wróbel – Vice President of the Management Board, Chief Investment and Innovation Officer

On January 22nd 2021, Marian Krzemiński resigned as Vice President of the Company's Management Board with effect from March 1st 2021, citing personal reasons.

Following a recruitment procedure, on January 22nd 2021 the Supervisory Board appointed Krzysztof Nowicki as Vice President of the Management Board, Mergers and Acquisitions, of Grupa LOTOS S.A. of the 10th joint term of office, with effect from January 26th 2021.

- Krzysztof Nowicki is a graduate of the Faculty of Law and Administration of the Adam Mickiewicz University of Poznań. He has also completed postgraduate studies in company law at the University of Łódź. He holds the professional title of legal counsel. Winner of MANAGER AWARD 2018. He was the founder of and partner in a law firm specialising in labour, civil and administrative law. In 2010, he became Head of the Legal Department of PGE Górnictwo i Energetyka Konwencjonalna of Bełchatów, and then Management Board Vice President for Corporate Affairs and Asset Management. He was also Chairman of the GKS Bełchatów football club. In 2016, he was appointed President of the LOTOS Oil Sp. z o.o. Management Board. In 2018-2020, he additionally served as Head of Corporate Affairs at Grupa LOTOS S.A. Since 2020, has been Head of Strategy and Investors Relations at Grupa LOTOS S.A. and Chairman of the Supervisory Boards of LOTOS Asfalt, LOTOS Infrastruktura, and RCEkoenergia. He acts in an advisory capacity for the purposes of important investment projects and organisation development. He has worked for the LOTOS Group since 2016.

Following a recruitment procedure, on February 17th 2021 the Company's Supervisory Board appointed Jarosław Piotr Wróbel as Vice President, Chief Investment and Innovation Officer, of the Management Board of the 10th joint term of office, with effect from March 2nd 2021. Appointment of Vice President of Grupa LOTOS Management Board

- Jarosław Piotr Wróbel completed a master's degree programme and doctoral studies at the University of Economics in Katowice. He also completed postgraduate studies designed to advance professional development in electrical engineering, offered by the Warsaw University of Technology's Faculty of Electrical Engineering. He is a holder of an Executive MBA diploma (from the University of Gdańsk and RMS Erasmus University) and a Post-MBA certificate in strategic financial management (from the University of Gdańsk and Swiss Bussiness School). Since 1992, he has worked in the energy sector. From 1993 to 1999 he worked at Elektrociepłownia Będzin S.A., a CHP plant operator, where he was responsible for the development and implementation of a restructuring plan, as well as the preparation and implementation of the first privatisation process in the Polish power industry. He has been involved in the PGNiG Group since 2002. In 2003–2013, he served as Vice President for Economic Affairs at Górnośląska Spółka Gazownictwa Sp. z o.o. ("PSG"), where he was the originator and sponsor of a programme to deploy an Integrated Process Support Platform based on ERP and CIS (Customer Information System) solutions. From 2016 to 2018, President of the Management Board, and since 2020 – Chairman of the Supervisory Board of PSG, which, under his stewardship, developed and implemented a strategic package of changes for the Polish gas distribution sector for 2016–2022, called the Gas Sector Constitution. In 2018–2020, as President of the Management Board of ORLEN Południe S.A., he was a co-author and sponsor of a programme to construct a biorefinery on the basis of the Refinery in Trzebinia and Refinery in Jedlicze, the ORLEN Group's competence centre in the field of biocomponents and biofuels. Since 2020, Mr Wróbel has been Vice President of the PGNiG Management Board and Member of the Board of Directors of PGNiG Upstream Norway AS. From October 28th to November 12th 2020, he was acting President of the PGNiG S.A. Management Board.

On March 2nd 2021, Artur Cieślik resigned as Vice President of the Management Board, Chief Strategy and Development Officer, with effect from the end of March 15th 2021. As the reason for his resignation, Artur Cieślik cited his appointment as Vice President of the Management Board of Polskie Górnictwo Naftowe i Gazownictwo S.A.

12.7.3 Powers and responsibilities

The Management Board manages the affairs of Grupa LOTOS S.A. and represents it in all dealings, except for those expressly reserved for the General Meeting or the Supervisory Board and those falling beyond ordinary course of management, which require a prior resolution of the Management Board.

The matters requiring a resolution are set out in the Rules of Procedure for the Management Board.

The following matters require resolutions by the Management Board:

- adoption or amendment of the Rules of Procedure for the Management Board,
- adoption or amendment of the Organisational Rules for the Company, including the Company's organisational structure,
- adoption of any rules, regulations and policies which are required for the Company by law,
- granting of powers of proxy (which requires unanimous vote by all Management Board members),
- adoption of the Company's annual budget,
- adoption of the strategy for the LOTOS Group,
- adoption of the Company's financial statements for the previous financial year, prepared in accordance with the International Financial Reporting Standards, along with the Directors' Report on the Company's operations in the previous financial year (not later than within three months of the reporting date),
- adoption of the consolidated financial statements for the previous financial year, prepared in accordance with the International Financial Reporting Standards, along with the Directors' Report on the LOTOS Group's operations in the previous financial year (not later than within three months of the reporting date),
- convening of annual and extraordinary General Meetings on the Management Board's own initiative or at the request of a shareholder or shareholders representing at least one-twentieth of the share capital, as well as in other cases provided for in the Commercial Companies Code (in due time),

- determining a General Meeting's agenda,
- any equity or capital investments undertaken by the Company that will result in incurring obligations, or divestments, if such investments or divestments are expected to give rise to expenditures, charges or disposals exceeding PLN 500,000 (VAT exclusive) in total,
- any agreements resulting from the transactions referred to in the preceding item 11 that cause the Company to incur obligations exceeding PLN 5,000,000 (VAT exclusive), as well as any other acts (annexes, agreements, etc.) that increase the Company's obligations under an obligational relationship above the stated amount or, in the case of a contract involving periodic performance, if the value of performance over its entire term exceeds PLN 5,000,000 (VAT exclusive),
- execution of debt relief agreements or other agreements having a similar effect,
- execution of donation agreements or other agreements having a similar effect,
- execution (or amendment) of any agreement for the provision of legal services, marketing services, public relations and social communication services, or management consultancy services, if the total fees for the services to be provided under such agreement exceed PLN 500,000 (VAT exclusive) per year or if the maximum amount of remuneration has not been specified,
- undertaking by the Company of one or a series of related legal transactions other than those referred to in items 11 through 15 above, which result in incurring an obligation or making a disposal for an amount exceeding PLN 5,000,000 (VAT exclusive) under an obligational relationship, and, in the case of an indefinite-term contract involving periodic performance, if the value of performance over four years exceeds the stated amount, except for:
    - contracts entered into by the Company based on framework agreements defining a cap on the Company's total liabilities, approved by resolutions of the Management Board,
    - agreements entered into with companies of the Grupa LOTOS Group,
    - purchase and sale of:
        - crude oil,
        - fuels and other petroleum products/intermediates/goods,
        - natural gas,
        - electricity,
        - biocomponents and fuel components,
        - maritime transport services,

  as well as any related agreements on ancillary, support, transaction quality and quantity control, handling and storage services (primary and secondary logistics services),
    - contracts for the sale of:
        - scrap and waste,
        - storage services (ticketing services),
    - contracts in financial transactions:
        - foreign exchange contracts (spot, forward, swap),
        - commodity swap contracts,
        - CO_2 emission allowances futures,
        - and other transactions hedging against changes in petroleum product prices, foreign exchange rates, and interest rates,
        - negotiated deposits,

  unless the applicable laws, provisions of the Company's Articles of Association or the Company's internal regulations adopted by the Management Board provide otherwise,
- the procedure to be launched and a contract to be signed for the purchase of goods or services with a value exceeding PLN 5,000,000 (VAT exclusive) from a specified contractor, in conformity with the procedure for the purchase of goods and services applied by the Company, except for contracts signed with other LOTOS Group companies, with the proviso that the total value of the obligation, if specified, will be used for determining the value of the contract, and in the case of indefinite-term contracts involving periodic performance – if the value of performance over four years exceeds the stated amount,
- amendments to an agreement, where the initial agreement required the Management Board's approval in the form of a resolution, except for indexation agreements based on previously agreed indexation rates,
- exercise by the Company of voting rights at general meetings of its subsidiaries with respect to:
    - share capital increase or reduction,
    - mergers with other companies or company transformations,
    - sale or lease of the company's business and/or its encumbrance with usufruct rights,
- formation of companies under commercial law and foreign companies,
- acquisition and disposal of shares and interests in companies,
- acquisition and disposal of shares, except where the shares are acquired or disposed of in public trading in securities, unless such acquisition or disposal results in gaining or losing the status of the parent,
- acquisition or disposal of property, perpetual usufruct rights or an interest in property,
- establishment and joining of partnerships, organisations or ventures which involve unlimited liability enforceable against the Company's assets,

- any matters which require the Supervisory Board's or General Meeting's resolution,
- matters falling outside the scope of day-to-day management of the business,
- matters which have been objected to by at least one of the Management Board members,
- any matters to be decided by way of a Management Board resolution at the request of the President or any other member of the Management Board.

Any matters not listed above are managed by the individual Management Board members in accordance with the provisions laid down below, or by persons to whom the Management Board or its members have entrusted such matters based on a power of attorney or through a designated scope of duties.

Subject to the sentence below, ordinary matters of the Company, not requiring a Management Board resolution, are carried out by the President independently and by individual Management Board members in line with the division of powers and responsibilities defined under the Organisational Rules of Grupa LOTOS S.A.

In special circumstances, including a given Management Board member's prolonged absence (due to sickness or other reasons), the President of the Management Board may delegate a matter to another Management Board member or may decide to deal with the matter personally, contrary to the division of powers and responsibilities. The President of the Management Board's decision in this respect must be made in writing and contain a statement of reasons.

Any disputes between members of the Management Board relating to the division of powers and responsibilities are resolved by the President of the Management Board.

Any matters not reserved for individual members of the Management Board in accordance with are conducted and supervised by the President of the Management Board or by a person designated by the President.

Rules of procedure for the Management Board, including procedures for convening meetings, passing and archiving resolutions, as well as the powers and duties of individual Board members, are set forth in → Rules of Procedure for the Management Board of Grupa LOTOS S.A.

In 2020, the Grupa LOTOS Management Board held a total of 50 meetings and passed 533 resolutions, including 74 resolutions passed in accordance with the procedure (as amended) set out in Section 21.1 of the Rules of Procedure for the Management Board.

Due to the COVID-19 pandemic, since March 2020 the Management Board meetings have been held via means of remote communication, so as to comply with sanitary restrictions.

Ordinary matters of the Company, not requiring a Management Board resolution, are carried out by the President independently and by individual Management Board members. The respective remits and the responsible organisational units correspond to the division of powers and responsibilities defined by the Company's Organisational Rules.

As at December 31st 2020, the Organisational Chart of Grupa LOTOS S.A. was as follows:

President of the Management Board, managing the Management and Finance Segment, and responsible (within its remit) for:

- Management Board Office
- Internal Audit Office
- Human Resources Division
- Legal and Ownership Supervision Division
- Security and Internal Control Division
- Marketing Division
- Communication Division
- Procurement Division
- Financial Supervision and Tax Division
- Finance Division
- Accounting and Finance Centre – Chief Accountant.

In addition, all members of the Company's Management Board also acted as Heads of the relevant Segments:

Head of the Corporate Segment, managing the following divisions:

- Corporate Division
- IT Management Division.

Head of the Strategy and Development Segment, managing the following divisions:

- Strategy and Investor Relations Division,
- Supply Chain Optimisation and Market Information Division.

Head of the Investment and Innovation Segment, managing the following divisions:

- Innovation Division
- Upstream Project Monitoring Division
- Projects Division.

Head of the Refining and Marketing Segment, managing the following divisions:

- Domestic Trade Division
- Foreign Trade Division
- Logistics Division
- Technical Division
- Refining Division
- Refining Efficiency and Technological Support Division
- Process Safety, OHS and Environmental Protection Division.

12.7.4 Remuneration Policy

In 2020, the Company implemented the 'Remuneration Policy for Members of the Management Board and Supervisory Board of Grupa LOTOS S.A.', which sets out transparent rules of remuneration for members of the Company's governing bodies and contributes to the delivery of the Company's business strategy and pursuit of its long-term interests and stability.

The obligation to prepare the Remuneration Policy was set forth in Directive (EU) 2017/828 of the European Parliament and of the Council of May 17th 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement, implemented into Polish law by way of the *Act Amending the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, Public Companies and Certain Other Acts of October 16th 2019.*

Under the Directive, the Supervisory Board must further prepare a Report on delivery of the Remuneration Policy presenting a comprehensive overview of remuneration, including all benefits, regardless of their form, received by or due to individual members of the Management Board and the Supervisory Board in the previous financial year in accordance with the Remuneration Policy.

Prior to the effective date of the Remuneration Policy, the remuneration paid to members of the Company's Management Board and Supervisory Board was based on the provisions of *the Act* and the provisions of the *Extraordinary General Meeting's Resolution on the remuneration scheme* adopted thereunder.

The aggregate remuneration of a member of the Company's Management Board comprises a fixed component in the form of the monthly base pay and a variable component representing additional remuneration for the Company's financial year.

- Fixed remuneration is an amount determined by the Company's Supervisory Board in accordance with *the Act* and *the Resolution*, within the range from 7 to 15 times the reference amount;
- Variable remuneration is contingent on the delivery of the Management Objectives defined by the General Meeting and the Supervisory Board.

Members of the Company's Supervisory Board are entitled to monthly fixed remuneration calculated as the product of the reference amount referred to in *the Act* and a multiplier of:

- 1.7 – for the Chair of the Supervisory Board;
- 1.5 – for other members of the Supervisory Board.

In accordance with *the Act*, the amount of fixed remuneration was set based on the scale of the Company's business operations, in particular the value of its assets, revenue and workforce.

The *Policy* has been prepared by the Company's Management Board and submitted to the Supervisory Board for an opinion, to be subsequently presented to the General Meeting for endorsement.

12.7.5 Auditor selection policy

On October 10th 2017, the Supervisory Board of Grupa LOTOS S.A. approved the Policy for the selection of an audit firm to audit financial statements of Grupa LOTOS S.A. and the LOTOS Group companies.

Key provisions of the Policy:

- pursuant to the Articles of Association of Grupa LOTOS S.A., the Supervisory Board selects an audit firm or extends the agreement with the existing audit firm;
- the selection or extension is made on the basis of the Audit Committee's recommendation. The Audit Committee's recommendation is based on an assessment of the bids submitted by audit firms in the selection procedure, or based on the grounds for extending the agreement with the audit firm;
- the selection of an audit firm or extension of the agreement with the existing audit firm is made in compliance with the laws in force at the time of selection or extension;

- in selecting an audit firm, the Company applies the supervisory body's guidelines concerning the rules and procedures for selection of qualified auditors to audit financial statements of companies in which the State Treasury holds equity interests;
- audit firms with small market shares may also submit their bids in the selection procedure;
- the selection procedure should not exclude an audit firm which has obtained less than 15% of its total audit remuneration from public-interest entities in a given EU country in the preceding calendar year, and which is included in the list of audit firms published by the Polish Audit Oversight Commission on its website;
- it is prohibited to introduce any contractual clauses that would require the Supervisory Board to select an audit firm from among a specific category or list of audit firms. Such clauses are invalid by law;
- in order to ensure the highest consistency, and thus reliability of the consolidated financial statements, while taking into account the optimisation of the Group's audit costs, it is deemed reasonable and advisable that the financial statements of the Group's key companies be audited by the audit firm/a member of the network of the audit firm selected to audit the financial statements of Grupa LOTOS S.A. (the leading audit firm);
- the Supervisory Board's resolution to appoint an audit firm or extend an agreement with the existing audit firm is a recommendation for the supervisory boards of companies covered by the audit firm selection procedure;
- while selecting an audit firm to audit their own financial statements, the other LOTOS Group companies apply the rules set out in the Policy;
- The Supervisory Board – while making the final selection, and the Audit Committee – while preparing its recommendation, act in line with the following guidelines concerning the audit firm:
  - compliance with formal requirements;
  - the auditor's independence and impartiality, including in the context of agreements already signed by the audit firm/member of the audit firm's network with the LOTOS Group companies;
  - position in the audit services market;
  - the price for the audit taking into consideration the workload (quoted as an aggregate amount and separately for each Group company covered by the audit firm selection procedure);
  - knowledge of the industry and the Group companies;
  - experience in the audit of listed companies applying IAS/IFRS;
  - audit schedule;
  - composition of the team appointed to audit the parent and the Group companies covered by the audit firm selection procedure; i) draft audit engagement agreement;
- tender documentation contains transparent and non-discriminatory selection criteria to be used in the evaluation of bids;
- The Supervisory Board is guided by the principle of audit firm and lead auditor rotation, as described in the procedure for selecting an audit firm to audit financial statements;
- agreements with audit firms are made for at least two and not more than five years.

12.8 Diversity policy

Diversity, cooperation and openness are the values which form an integral part of Grupa LOTOS S.A.'s business activities, as well as the hiring and promotion policy.

As in previous years, in 2020 the Company pursued the principles of diversity management and a policy of equal treatment with due respect for a diversified, multi-cultural society and with particular focus on equal treatment irrespective of gender, age, disability, health, race, nationality, ethnic origin, religion, religious denomination, irreligiousness, political beliefs, trade union membership, gender identity, family status, lifestyle etc.

In 2020, the diversity policy pursued by Grupa LOTOS helped better leverage the potential of the Group workforce, their diverse skills, experience and talents in the atmosphere of mutual respect and cooperation. At the LOTOS Group we appreciate experience that comes with age, Employees aged 50 or more provide support to new hires as part of induction processes (shadowing and mentoring meetings), such relationships bringing numerous advantages and benefits to both parties.

The Company implemented the principles of equal treatment and diversity management at the workplace, starting from recruitment (as a member of the Coalition for Friendly Recruitment), through access to training and promotion, remuneration, work-life balance (as confirmed by the Top-Quality HR certificate issued by the Polish Human Resources Management Association (PSZK) and Biznes Magazyn's Economy Zones - Responsible Employer - HR Leader 2019 certificate), protection against workplace bullying and discrimination (during the induction training for newly hired employees and generally available e-learning training).

The Company's approach to diversity is presented in the Code of Ethics, compliance with which was declared by all new hires. Aspects related to the Ethical Conduct Programme were also covered by the annual employee assessment.

Initiatives addressed to the disabled included those operated under the LOTOS Group Employee Volunteering Programme:

- 'Despite Everything' is a project to upgrade the premises of the Occupational Therapy Workshop of the Polish Association for Persons with Intellectual Disabilities;
- 'Closer to Culture' consists in arranging theatre visits for individuals with disabilities;
- 'Double LOTOS of Good' consists in arranging workshops and musical concerts involving people with disabilities;
- 'Different Yet the Same' consists in arranging educational workshops in schools and an inclusion event for children with the Down syndrome.

In 2009, Grupa LOTOS signed up to the 10 UN Global Compact Principles committing, inter alia, to the principles of diversity.

Directors' Report on the operations of Grupa LOTOS S.A. and the LOTOS Group in 2020

Non-financial statement
of Grupa LOTOS S.A. and the LOTOS Group



13 Non-financial statement of Grupa LOTOS S.A. and the LOTOS Group

13.1 Key non-financial performance indicators

Key non-financial performance indicators are monitored on a consolidated basis only (at the Group level).

Table 39. Key non-financial performance indicators

	Unit	2019	2020	Yoy change	Target
Management					
Dividend-paying capacity	yes	yes	yes	unchanged	yes
LTIF	LTIF	3.4	3.5	+3.5%	< 3
Operations					
Daily oil production	thousand boe/d	21	20	-2%	30-50
2P reserves	million boe	81.3	74.8	-8%	60
Oil throughput	million tonnes	10.7	10.2	-0.4%	10.5
Number of service stations	service station	506	513	+7	550
Natural environment					
Greenhouse gas emissions (Scopes 1+2) per tonne of crude oil processed	Mg CO_2e/Mg	0,205	0.22	+7%	↓
Primary energy consumption per tonne of product	MJ/t	4,044	4,265	+5%	↓
Personnel					
Lost Time Injury Frequency Rate (accidents per 1,000 employees)	n.a.	7.93	6.76	-15%	0
NPS (net promoter score) – survey based on feedback from Navigator customers	NPS	positive	positive	unchanged	positive trend

Source: the Company.

/201-1/

Table 40. Financial highlights (PLNm)

	2019	2020	Yoy change
LOTOS Group			
Revenue	29,493	20,909	-29.1%
Adjusted LIFO-based EBITDA	2,861	1,357	-52.6%
Profit/(loss) before tax	1,692	-1,653	-197.7%
Net profit/(loss)	1,153	-1,146	-199.4%
Operating cash flows	2,130	2,870	34.7%
Grupa LOTOS S.A.			
Revenue	26,313	17,737	-32.6%
Adjusted LIFO-based EBITDA	1,167	-379	-132.5%
Profit/(loss) before tax	955	-1,138	-219.2%
Net profit/(loss)	834	-881	-205.6%
Operating cash flows	1,008	1,370	36.0%

Source: the Company.

13.2 About the LOTOS Group

The LOTOS Group is one of the largest business organisations operating in Poland, the second largest fuel producer, and also a leader of many other domestic markets, including oils, bitumens and rail freight services. Apart from producing and processing crude oil and natural gas, the Group also sells high-quality petroleum products and provides specialist logistics and maintenance services.

Grupa LOTOS is well aware of its environmental and community impacts, and therefore, as a socially responsible company, is strongly committed to compliance with the rules of ethics and international standards, such as ISO 26000, with respect to corporate governance, human rights, labour practices, the environment, fair operating practices, consumer matters, as well as community engagement and development. The Company pursues the Sustainable Development Goals (SDGs) and the United Nations Global Compact objectives.

The LOTOS Group companies engage strongly in CSR initiatives. Together with the inhabitants of neighbouring cities, towns and villages, they form local communities, often integrating businesses, local governments and higher education institutions. Such initiatives bring long-lasting benefits to all stakeholders. At the same time, Grupa LOTOS strives to find sustainable solutions to existing social and environmental problems, including through energy efficiency investments.

102-1/ /102-3/ /102-5/

The Group comprises: Grupa LOTOS S.A., its production, trading and service subsidiaries, and a corporate foundation (for more information, see Section 13.4.6). The parent Grupa LOTOS S.A. is a joint-stock company 53.19% owned by the State Treasury as the majority shareholder. Grupa LOTOS shares have been listed in the WIG 20 index on the Warsaw Stock Exchange since 2005. Grupa LOTOS S.A.'s headquarters are located at ul. Elbląska 135 in Gdańsk, Poland.

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Grupa LOTOS has a major direct and indirect impact on its immediate environment. It is Poland's second largest fuel company and is of critical importance to the country as an employer, taxpayer, sponsor, donor, and partner for a number of suppliers, institutions and organisations. It has partnered with small and medium-sized enterprises and, as the region's trustworthy employer, offers jobs to many local residents. In addition, through cooperation with many businesses in the region, it contributes to the creation and maintenance of jobs for its trading partners. The Company is a major taxpayer in the regions where it operates, and a significant long-time contributor to the budget of the city of Gdańsk.

13.2.1 Business model

/102-1/ /102-4/

In its principal business activity, the Company focuses on three areas:

- hydrocarbon exploration and production,
- crude oil refining, and
- marketing of petroleum products.

The LOTOS Group's operations are split into two segments:

- upstream (Exploration & Production),
- downstream (Refining & Marketing).

Exploration & Production

The segment is engaged in the acquisition of deposits and production of crude oil and natural gas, with the related auxiliary, transport and maintenance activities.

We are the only group engaged in hydrocarbon production within Poland's Exclusive Economic Zone of the Baltic Sea. As regards our foreign operations, we produce hydrocarbons on the Norwegian Continental Shelf and in Lithuania.

/102-4/ /102-7/

The average daily production volume of crude oil and natural gas of the LOTOS Group in 2020 was 20.3 thousand boe, of which:

- Norway 71%
- Poland 26%
- Lithuania 3%

At the end of 2020, the LOTOS Group's total oil and gas 2P reserves stood at 74.8 million boe, including 82% crude oil and 18% natural gas. The geographic structure of 2P reserves was as follows:

- Norway 35%
- Poland 62%
- Lithuania 3%

Refining & Marketing

The segment is engaged in petroleum processing into refined petroleum products as well as wholesale and retail sale of petroleum products with the related auxiliary, transport and maintenance activities.

/102-2/ /102-6/

The LOTOS Group's marketing activities in 2020 were carried out by Grupa LOTOS and its subsidiaries: LOTOS Paliwa, LOTOS Oil, LOTOS Asfalt, and LOTOS-Air BP. The Group's operations are highly efficient – the new technologies used in refining processes enable the Group to obtain from crude oil up to 86% of white products, (i.e. high-margin fuel) with an additional 8% of heavy products (including bitumen, pet-coke and heavy fuel oil), sold to the Group's trading partners.

In 2020, the refinery operated by Grupa LOTOS S.A. processed 10.2 million tonnes of crude oil into 11 million tonnes of refined petroleum products. Diesel oil accounted for the largest share of production, with an output of 5.8 million tonnes, up 5.5% year on year. Its share in total production was 52%. Our oil refining products are sold in Poland and abroad, through wholesale and retail channels (the latter being our own service station chain). As at the end of 2020, the LOTOS retail chain comprised 513 outlets (seven more compared with the end of 2019).

13.2.2 Products and services

/102-2/ /102-4/ /102-6/ /102-7/

Grupa LOTOS sells its products mainly in Poland and other European countries, including Germany, the Netherlands, Belgium, Sweden, Denmark, the United Kingdom, France, Estonia and the Czech Republic.

A vast range of products and services sold under the LOTOS brand include high-quality motor fuels sold at LOTOS service stations located all over Poland, a wide range of lubricating oils (for automotive and industrial applications), various types of road and industrial bitumens, the JET A1 speciality aviation fuel, as well as many services provided under the LOTOS brand, such as logistics and maintenance.

The LOTOS Group offers a complete range of products and services, including:

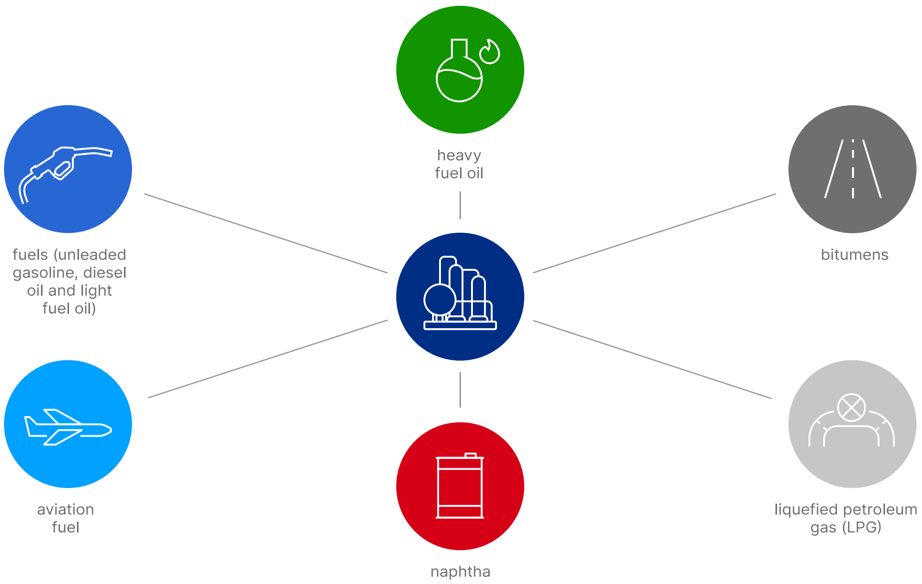
- high-quality fuels (including aviation and marine fuels);
- a broad selection of superior performance oils for automotive, agricultural, industrial and marine applications, and even for military vehicles;
- paving-grade bitumens, MODBIT modified bitumens (including MODBIT HIMA highly-modified bitumens), WMA bitumens (for the production of aggregate-bitumen mixtures), and industrial bitumens;
- rail transport services.

/416-1/

LOTOS Group's products in the context of health and safety

Every customer of Grupa LOTOS can gain access to information on the safe use of the Group's products, either online or directly at points of sale. The LOTOS Group companies disclose product information in keeping with the relevant guidelines provided for in applicable laws. All products of the Group companies have Product Information or Product Safety Data Sheets, as per the applicable international requirements. All related measures are taken in accordance with the EU REACH and CLP Regulations. An up-to-date registration dossier is maintained for each substance forming part of the products offered, containing information on its physical and chemical properties, health and environmental impacts. Hazard classification is also of major importance, with the contents of particularly hazardous substances kept under constant monitoring.

Products obtained from crude processing:



Grupa LOTOS brands:

Grupa LOTOS takes every effort to make its service stations increasingly eco-friendly. Our network includes 12 EV charging stations located along the A1 and A2 motorways between Warsaw and Gdańsk, forming the 'Blue Trail'.

Soon, Grupa LOTOS will become the first producer of purified hydrogen in Poland and will build two hydrogen filling stations. In late 2018, a decision was made to grant EU funding for the Pure H2 project, to construct hydrogen purification and dispensing units.

Upgrading with an eye to environmental sustainability is also undertaken by LOTOS Lab and LOTOS Kolej. By 2022, the companies plan to develop two prototypes of shunting locomotives with advanced hybrid drive systems.

Grupa LOTOS makes every effort to ensure that its operations and products are safe at each stage of the value chain. All the semi-finished and finished products, components and additives used to produce fuels, oils and bitumens, as well as the water used to produce energy and wastewater generated in the process, undergo rigorous testing by LOTOS Lab.

13.2.3 Value chain

/102-9/

Our operations are based on a segment management model building a full value chain: from upstream production to downstream sale of finished products.

The Company operates in line with the concept of sustainable development and energy security policy. Grupa LOTOS manages its impact on the environment, people and the economy to make it as beneficial as possible, driving the Company's value growth and benefiting its stakeholders.

/102-10/

The following processes make up the LOTOS Group's operations:

- Oil and gas exploration and production in three countries:

Poland, Lithuania and Norway (the largest player in the region). Most of the production (71%) originates from Norway. The Group's 2P reserves are mainly below the floors of the Baltic and Norwegian Seas (62% and 35%, respectively).

- Crude oil throughput

The LOTOS Group's refinery in Gdańsk is one of the newest and most advanced plants of this kind in Europe. Boasting a nameplate throughput capacity of approximately 10.5 million tonnes of crude oil per year, the refinery also benefits from a unique combination of supply channels by land from east of Poland, via the PERN pipeline network, and by sea through Naftoport. The access to supply channels allows the Group to diversify feedstock deliveries and to respond flexibly to volatile petroleum product and crude oil prices. Russia's Urals crude accounts for the largest share of the refinery's crude slate. The balance is imported from other sources, including Saudi crude and crude produced by LOTOS Group companies. At the refinery, crude oil is refined into the following key products: fuels (unleaded gasoline, diesel oil, light diesel oil), aviation fuel, bitumens, and heavy fuel oil. The refinery's Nelson Complexity Index is the highest in Poland and one of the highest in Europe.

- Distribution and sales

Fuel products delivered by the LOTOS Group's refinery in Gdańsk are sold on the domestic retail market, exclusively via our chain of CODO and DOFO stations. Customers for the Group's products in the wholesale market include international companies, the Material Reserves Agency, the Military Property Agency, domestic wholesalers, and independent operators. The number of LOTOS-branded service stations operated in Poland as at the end of 2020 was 513. As part of the chain, the Group's portfolio included 23 Motor Service Areas on the A1, A2, A4 and A6 motorways, as well as the S3 and S7 expressways. The Group also established a business relationship with an external partner for a corporate franchise of Subway restaurants, The LOTOS Group delivers its products to customers via different channels, including rail through its subsidiary LOTOS Kolej.

Besides moving the LOTOS Group's products, the subsidiary LOTOS Paliwa provides other transport services, including transport of dangerous goods. For instance, the company has a contract with the Polish Armed Forces for the transport of F-34 aviation fuel. For the purposes of its fuel distribution operations, the LOTOS Group uses a modern fuel depot for road tankers in Czechowice-Dziedzice, as well as fuel depots in Poznań, Piotrków Trybunalski and Rypin.

13.2.4 Market situation and outlook

/102-15/

The LOTOS Group is an active participant of the fuel market, leveraging the refinery's favourable location in the proximity of its target markets. The Group's business is specific in that it depends heavily on the global economic climate and macroeconomic conditions.

In 2020, the COVID-19 pandemic brought about unprecedented and very rapid changes in the crude oil market. As free movement of people and goods was prohibited or restricted by national governments, there was a decline in fuel demand, down 8.8 million b/d throughout 2020 relative to 2019. As a result, global refining margins fell significantly, affecting the Refining & Marketing segment's profitability, and crude oil prices continued to plunge, weighing down on the Exploration & Production business.

International organisations forecast an increase in oil demand of 6.2% year on year in 2021, to 96.9 million b/d, still below the pre-pandemic level recorded in 2019. Many agencies also stress that certain fuels (including diesel oil) reached peak consumption back in 2019 (particularly in Europe), which suggests the world may see a slow decline in demand for certain products of oil refining. Having said that, oil demand will continue to grow in the coming years, mainly in Asia and the Pacific region (the economic situation of India and China as its crucial driver). Many countries will probably implement economic recovery measures in 2021, which should stimulate steady growth in fuel consumption. The stimulus packages proposed by national governments may cause fuel consumption to come close to the 2019 levels in 2022.

The market situation and outlook are described in more detail under 'Macroeconomic environment of Grupa LOTOS and the LOTOS Group in 2020'.

13.2.5 Growth strategy

/102-14/ /102-15/

The key objectives of Grupa LOTOS's strategy for 2017–2022 are the Group's stabilisation and sustainable growth. Grupa LOTOS is Poland's leading company and a major energy group. Its vision for growth is to position itself as:

- a producer of premium quality fuels and chemicals, with the optimal degree of vertical integration,
- a provider of specialist logistics and maintenance services, and
- a leader of innovative implementations within its core business, designed to promote sustained growth in shareholder value.

The strategy sets out five strategic objectives:

- effective use of production licences, further technological optimisation of the refinery, launch of new products and alternative fuels, and commitment to quality;
- consistent and repeatable reduction of operating expenses and optimisation of margins along the value chain;
- readiness to develop and embrace innovation based on dedicated funding, an advanced model of cooperation with research institutions and creative engagement of employees;
- flexible response to risks, perceived also as potential business opportunities;
- commitment to fostering and developing talent within the organisation, improving overall safety and security (across OHS, infrastructure and IT), and raising the standards of corporate social responsibility.

The strategy is to be pursued within two time frames. In 2017–2018, the main goals were to stabilise cash flows, reduce debt, and effectively implement the ongoing investment projects.

In 2019–2022, the Company plans to pursue a new investment programme based on development of selected production assets, building an efficient upstream asset portfolio, further expansion of the retail chain and implementation of innovative projects. See 'Grupa LOTOS S.A. strategy for 2017–2022' for a more detailed presentation of the Company's strategy.

/102-26/

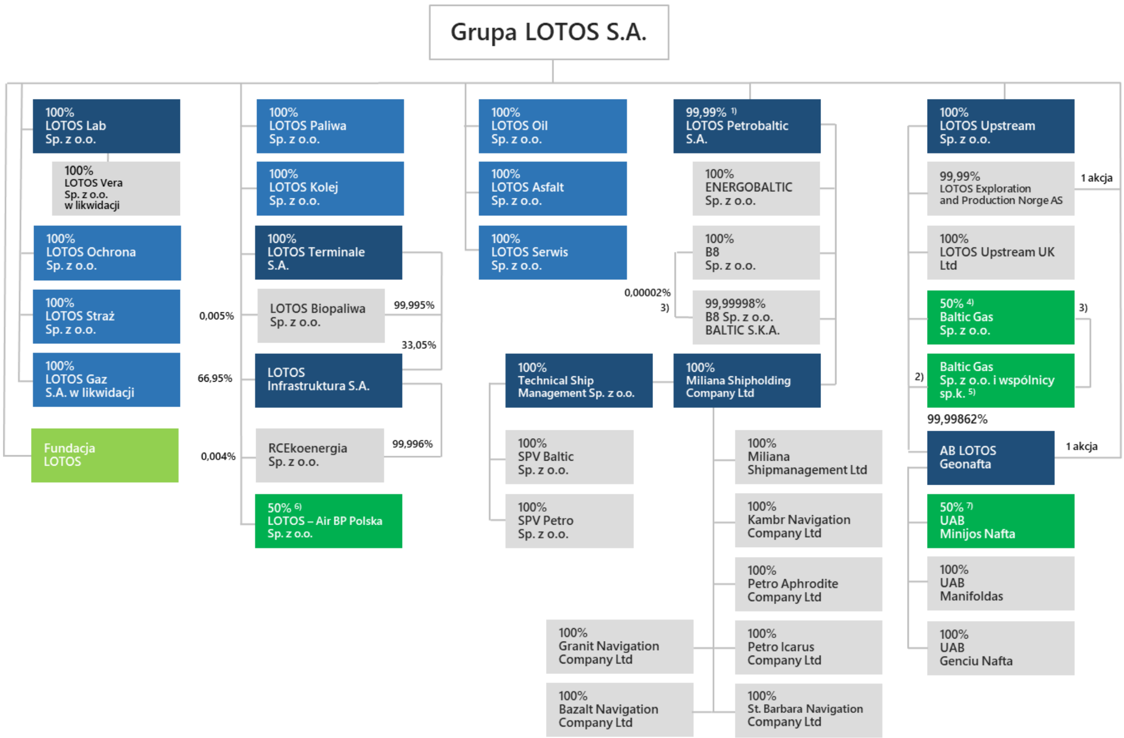
The body responsible for implementing the strategy is the Grupa LOTOS Management Board.

13.2.6 Corporate governance

Structure of the LOTOS Group

/102-18/ /102-45/

As at December 31st 2020



1) State Treasury – 0.01% 2) Limited partner 3) General partner
4) CalEnergy Resources Poland Sp. z o.o. – 50%
5) CalEnergy Resources Poland Sp. z o.o. – Limited partner
6) BP Europa SE – 50%
7) Odin Energi A/S – 50%

panies classified as joint ventures; they are not part of the LOTOS Group

Grupa LOTOS S.A. owns an 8.97% equity interest in P.P.P.P.
Naftoport Sp. z o. o. (a company of the PERN Group of Płock)
– 17.3% of shares in Grupa Azoty Polyolefins S.A.

Source: the Company.

Shares and shareholding structure

/102-18/ /102-19/ /102-24/

The powers and responsibilities of the General Meeting cover a range of matters as set out in the Articles of Association of Grupa LOTOS. All matters are first presented for consideration by the Supervisory Board. The Rules of Procedure for Grupa LOTOS S.A. General Meetings specify the procedures for convening and cancelling General Meetings, the proceedings of the Meetings, holding elections to the Supervisory Board, as well as the rules of attendance and voting at General Meetings.

Supervisory Board

/102-18/ /102-22/ /102-28/ /405-1/

The Supervisory Board of Grupa LOTOS S.A. exercises ongoing supervision of the Company's business, across all areas of its operations. It performs its duties collectively, but may set up ad hoc or standing committees to supervise specific areas of the Company's activities or investigate specific issues. Standing committees of the Supervisory Board: the Audit Committee, Strategy and Development Committee, and Organisation and Management Committee. In accordance with the applicable laws, the Supervisory Board selects an auditor and recommends it to the key companies of the Group to audit their financial statements.

Composition of the Grupa LOTOS Supervisory Board as at December 31st 2020:

- Beata Kozłowska-Chyła – Chairwoman
- Piotr Ciach – Deputy Chairman
- Katarzyna Lewandowska – Secretary
- Dariusz Figura – Member
- Adam Lewandowski – Member
- Grzegorz Rybicki – Member

Management Board

/102-18/ /102-20/ /102-22/ /102-23/ /405-1/

The Management Board represents Grupa LOTOS S.A. before third parties and manages all its corporate affairs. Individual members of the Management Board perform duties in line with the division of powers and responsibilities resulting from their operational functions within the Company. Each member of the Management Board is also authorised to represent the Company in all judicial and non-judicial business relating to the Company's operations, excluding matters reserved for the General Meeting or Supervisory Board under the Commercial Companies Code or the Company's Articles of Association, as well as matters falling outside the scope of ordinary management of the business where they require the Management Board's prior resolution and matters within the powers of another member of the Management Board.

Composition of the Grupa LOTOS Management Board as at December 31st 2020:

- Zofia Paryła – President of the Management Board
- Artur Cieślik – Vice President of the Management Board
- Marian Krzemiński – Vice President of the Management Board
- Piotr Walczak– Vice President of the Management Board
- Jarosław Wittstock – Vice President of the Management Board

Composition of the Grupa LOTOS Management Board as at March 31st 2021:

- Zofia Paryła – President of the Management Board
- Krzysztof Nowicki – Vice President of the Management Board
- Piotr Walczak – Vice President of the Management Board
- Jarosław Wittstock – Vice President of the Management Board
- Jarosław Wróbel – Vice President of the Management Board.

Management Board members' remits

Table 41. Allocation of responsibilities among members of the Grupa LOTOS S.A. Management Board as at March 31st 2021

President of the Management Board	Vice President of the Management Board, Chief Investment and Innovation Officer	Vice President of the Management Board, Chief Refining and Marketing Officer	Vice President of the Management Board, Chief Strategy and Development Officer	Vice President of the Management Board, Corporate Affairs	Vice President of the Management Board, Mergers and Acquisitions
Support for corporate bodies	Innovation	Refining	Strategy	Organisation building	Mergers and acquisitions
Critical infrastructure	Investments	Technology	Development	Process management	
Human resources	LNG and CNG business	Assets	Investor Relations	Enterprise risk	
Physical security and protection	Upstream support	Refining efficiency	SCM	Compliance	
Information security		Domestic sales and purchases of products		IT	
Corporate supervision		Biofuel component purchases		Administration	
Finance and accounting		Trading			
Legal support		Occupational health and safety			
Internal audit		Process and product safety			
Internal control		Environmental protection			
Communication		Technology development			
Sponsorship and CSR		Feedstock purchases			
Marketing		Logistics			
Financial management					
Management control					
Reporting					
Taxes					
Financial risks					
Purchases					
Financial control					
Security Operation Center					

Source: the Company.

13.2.7 LOTOS in ESG Rankings

- Sustainalytics Rating

Sustainalytics rates the sustainability of listed companies based on their environmental, social and corporate governance performance. Its ESG Risk Rating analyses an organisation's ESG risk exposure and the quality of how each risk is managed. The ESG risk profile of Grupa LOTOS shows a medium risk level, with a total score of 28.8 (on a scale 1–100, where 1 denotes low risk; report dated October 2020).

- MSCI Rating

MSCI ESG Ratings are calculated by Morgan Stanley, a US-based investment bank. Companies are rated on a scale from AAA to CCC according to their ESG risk exposure and how they manage this exposure compared with competitors. Grupa LOTOS's rating assigned by MSCI is ESG Average (BBB) (as at December 2020), including 5.6 (with 10 as the maximum) scored in the area of corporate governance. Companies are evaluated within key environmental, social and governance areas.

- S&P Global ESG Score

S&P Global ESG Scores measure a company's ESG aspects relevant to its financial performance. The methodology is based on the SAM Corporate Sustainability Assessment against ESG criteria. S&P Global ESG Score for Grupa LOTOS came in at 19 (as at February 2021). Grupa LOTOS scored 15 in environmental dimension, 21 in social dimension, and 20 in governance & economic dimension.

- ESG Corporate Rating

ISS-oekom, the author of the ESG Corporate rating, conducts paid ESG surveys and ratings at country and company levels. In an analysis carried out by ISS-oekom in 2018, the LOTOS Group was rated C.

- WIG ESG Index

The WIG ESG Index covers companies included in the WIG-20 and WIG-40 indices. The company weights in the index are based on their free float adjusted by reference to the ESG ranking and rating of compliance with the Code of Best Practice for WSE Listed Companies 2016. As at November 30th 2020, Grupa LOTOS's ESG and Code of Best Practice ratings were 0.7 and 1.00, respectively (both on a scale 0–1).

- FTSE4good Index

In 2020, Grupa LOTOS shares continued to be included in FTSE4Good, a global index of companies demonstrating strong commitment to responsible business. The FTSE4Good series of indices measures the performance of companies demonstrating good ESG practices. Starting from 2018, Grupa LOTOS shares have been included by FTSE Russel (a global rating agency) in FTSE4Good, the London Stock Exchange's index of ethical investment stocks. In 2020, Grupa LOTOS scored 3.5 (on a scale 0–5), with the environmental score at 3, social score at 2.9, and governance score at the solid 4.5.

- Refinitiv

Grupa LOTOS is also featured in the Refinitiv rating, part of the LSEG (London Stock Exchange Group), which measures a company's ESG performance, commitment and effectiveness across 10 main themes based on publicly reported and auditable data. Grupa LOTOS's rating came in at 60 (with 100 being the maximum score).

- Bloomberg ESG Rating

Grupa LOTOS's ESG performance is also featured in the international Bloomberg ESG ranking, which puts a spotlight on corporate governance, social matters (including, in particular, the share of female workers and employee turnover, as well as environmental performance). The Company's total score was 51.7.

13.3 The environment

13.3.1 Approach to sustainable development

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Sustainable development is consistent with the LOTOS Group's strategy and mitigating its environmental impact is the Group's constant objective. The Company is committed to prudent environmental management.

Grupa LOTOS reduces the consumption of energy and materials, controls and drives down gas emissions and wastewater discharge, minimises waste and protects biodiversity. Being aware that the LOTOS Group's operations affect various components of the ecosystem, the organisation keeps monitoring and analysing its environmental impacts on an ongoing basis.

With each passing year Grupa LOTOS is more effective in controlling air pollutant emissions, and in the oil production segment it strives to generate less waste and wastewater, while minimising water pollution. Given its environmental aspect, energy management is equally important. The Group analyses energy consumption at each stage of the value chain and monitors the technical condition of equipment, identifying and eliminating any sources of energy losses. All these aspects are also considered when working on new investment projects.

The LOTOS Group takes care of its impact on local communities. Despite the absence of relevant legal requirements , the Group has sealed certain sections of the water treatment facility in Gdańsk to reduce odour nuisance, developed a treated wastewater and steam condensate recirculation unit, and built a recovery system to convert released gases into fuel (instead of flaring them). During the refinery upgrade, the neighbouring towns and villages were connected to the gas distribution network.

List of procedures, regulations, rules, instructions and strategies put in place across the LOTOS Group to ensure sustainable environmental management:

- IMS Policy
- Waste management
- Waste management plan
- Noise management plan
- Environmental monitoring plan
- Environmental and energy objectives and targets
- List of environmental and energy objectives
- Identification of environmental aspects
- Environmental aspects
- Monitoring of processes and activities with environmental impacts
- Environmental sampling and measurement procedures
- Monitoring of carbon emissions from Grupa LOTOS S.A.'s refining units
- Prevention of and preparation for emergencies and accidents at work
- Emergency response
- Investigation of emergencies
- Emergency and hazard preparedness drills
- Directive on the rules of communication regarding environmental performance of the LOTOS Group companies with the Environmental Protection Office of Grupa LOTOS S.A.
- Environmental impact procedures – instructions for third-party contractors under the EFRA Project
- Rules of waste management at Grupa LOTOS S.A. – information for third-party contractors

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In 2020, no fines or non-monetary sanctions were imposed on the LOTOS Group for non-compliance with any environmental laws or regulations.

13.3.2 Approach to climate change

Year by year, climate aspects are becoming increasingly pressing, also for the fuel and energy industry. In its operations, Grupa LOTOS focuses on enhancing its energy efficiency. As a result of these efforts, coupled with the introduction of natural gas as a fuel for the refinery, Grupa LOTOS's emission benchmark, expressed as CO_2/CWT emissions, is ranked among 10% of Europe's best refineries.

The LOTOS Group is a dynamically growing business which carries out research into new, more eco-friendly energy solutions.

The Group focuses on natural gas, whose low emission intensity makes it a widely used fuel at its plants. At the CHP plant it replaced fuel oil, becoming the main fuel in steam generation. It is also the main component of fuel gas at the refinery. Natural gas is used as feedstock for hydrogen generation (previous, LPG and naphtha were used to produce hydrogen, both more emission intensive than natural gas). Thanks to these efforts, Grupa LOTOS is able to maintain carbon dioxide emissions at a stable, relatively low level.

/TCFD: Governance Disclosure A, B/

A number of projects are under way at the LOTOS Group designed to reduce the organisation's negative environmental impacts and leverage opportunities arising with climate change. The Management Board of Grupa LOTOS S.A. is monitoring and overseeing the progress of key projects. A relevant report, presenting the current status of key initiatives and projects and the identified risks, is discussed at the Management Board's meeting on a monthly basis.

Both the Company Management Board and Supervisory Board are involved in the operation of the risk management system, which is designed to identify risks and opportunities and to mitigate all threats relevant to the LOTOS Group's operations, including those related to climate change. In keeping with the allocation of responsibilities within the Management Board, Piotr Walczak, Vice President of the Management Board , is responsible for environmental protection, which includes the management of climate impacts, emissions and energy efficiency.

The LOTOS Group is currently pursuing its 2017–2022 strategy, under which the Group has highlighted climate policy changes as one of the key long-term market challenges, and launched relevant measures. One of the strategy objectives is to engage in innovations related, among other things, to hydrogen and CNG/LNG, as well as new business areas such as electric mobility (for more information, see 'Grupa LOTOS S.A. strategy').

/TCFD: Targets and Metrics Disclosures C/

Climate-related risks stem from the Company's obligation to meet certain targets relating to a minimum share of other renewable fuels and biocomponents contained in fuels used across all modes of transport, relative to the total amount of liquid fuels and biofuels consumed during a calendar year in road and rail transport, calculated according to their calorific value. This National Indicative Target (NIT) obligation is stated in the Act on Biocomponents and Liquid Biofuels of August 25th 2006. The following targets and nominal values for each year have been defined:

Table 42. Target 5-year NIT values

	Mandatory share of other renewable fuels and biocomponents in total fuels
2020	8.5%
2021	8.7%
2022	8.8%
2023	8.9%
2024	9.1%

Source: In-house analysis based on → www.ure.gov.pl

To date, Grupa LOTOS has met its National Indicative Target, in keeping with the applicable regulations (adjusted by the reduction coefficient and emission charge).

A reduction of greenhouse gas emissions over the entire fuel life cycle per energy unit is another metric used. It should reach at least 6% relative to the average EU life cycle greenhouse gas emissions per unit of energy from fossil fuels in 2010. This obligation, referred to as the National Reduction Target, follows from the Act on Fuel Quality Monitoring and Control System of August 25th 2006.

Grupa LOTOS also takes measures on its own initiative to enhance energy efficiency. In 2020, the dedicated Energy Efficiency Office partnered with the refining area to identify and implement 22 process optimisation projects, generating savings of over PLN 2.5 million. Also in 2020, Grupa LOTOS S.A. secured its first white certificates – an investment support instrument under the Energy Efficiency Act, worth more than PLN 1.1 million. More applications for support under the Energy Efficiency Act are under way.

Delivery of the LOTOS Group’s Strategy for 2017–2022 is reviewed by the Management Board on a quarterly basis. The discussion revolves around key issues related to the achievement of current strategic objectives, as well as circumstances, including climate issues, that may have bearing on the LOTOS Group’s future operations.

Given that Grupa LOTOS is currently undergoing a change-of-ownership process, as at the date of this report the Company’s strategy after 2022 based on various climate change scenarios has not yet been developed.

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/TCFD: Strategy Disclosure A/

/TCFD: Risk Management Disclosures A, B, C/

/TCFD: Metrics and Targets Disclosure A/

13.3.3 Climate-related risks and opportunities

Climate-related risks and opportunities are part of the comprehensive Enterprise Risk Management (ERM) system in place at the LOTOS Group. As part of the system, an Enterprise Risk Committee was established, chaired by the President of the Management Board of Grupa LOTOS S.A. The Committee’s role is to ensure that all enterprise risk management measures are consistent with the LOTOS Group’s overall operations. The Committee monitors the delivery and evaluates the effects of efforts taken to manage key enterprise risks across the LOTOS Group, including climate risks.

Additionally, at each quarter end, the Risk and Compliance Office prepares the LOTOS Group risk management reports for the Management Board and Supervisory Board, covering key matters related to threats and opportunities, including those concerning climate and related regulatory changes.

At least twice a year, all risks (including climate-related risks) identified under the ERM system are reviewed with respect to their validity and assessment. In 2020, the LOTOS Group identified climate risks as a new risk category, so as to highlight their importance and pave the way towards their end-to-end management. Climate change risks that may result in significant changes in the Group’s operations, revenue or expense are of transformational rather than physical nature.

The Integrated Management System in place at Grupa LOTOS, which includes the Environmental Management System, operates an environmental monitoring plan covering, among other things:

- emissions of gaseous and particulate pollutants introduced into the air in a controlled manner by Grupa LOTOS emitters,
- hydrocarbon emissions and weather conditions,
- the intake and quality of abstracted deep-well water,
- the intake and level of water in the Motława river and in the water reservoir, and the quality of surface water abstracted for industrial purposes,
- the level of subsoil water around the water reservoir in Przejazdów,
- the quantity and quality of discharged water and wastewater,
- measurement of the quality of rainwater and meltwater,
- the quality of river water in Rozwójka and Martwa Wisła,
- the quantity and type of generated waste,
- the quality of soil on the Grupa LOTOS premises,
- noise levels.

As part of enterprise risk management across the LOTOS Group, risks are identified and assessed based on two time horizons:

- on an annual basis (short-term perspective) and

- until the end of 2022 (medium-term perspective covered by the LOTOS Group's current strategy).

In 2020, additional risks were identified whose profiles and assessment go beyond 2022. These risks are classified as long-term risks, with the time horizon until 2030.
An enterprise risk assessment matrix is used to determine the materiality of individual climate risks. The risk assessment criteria are as follows:

- financial impact, mainly in terms of the LOTOS Group's EBITDA figure,
- impact on human and environmental safety, as well as reputational issues.

Risks that may currently have a material financial impact are medium- and long-term risks, related mainly to proposed regulatory changes at both the national and EU level. These new regulations will translate into higher costs required to deliver the Company's targets, including the National Indicative Target, the National Reduction Target, and energy efficiency targets, including the cost of investments in low-emission economy projects.

Table 43 Climate change risks that may result in significant changes in the LOTOS Group's operations, revenue or expenses

Risk type	Opportunity for the organisation	Threat to the organisation	Risk management methods
Revision of the Renewable Energy Directive (RED). The revision will increase the mandatory share of renewable energy in transport, which will drive up the use of low-emission fuels.	Opportunity: possibility of entering new markets of advanced biofuels or hydrogen, possibility of obtaining dedicated support for low-emission projects and possibility of new investments in the sector whose products may be in greater demand across the European Union.	Threat: increase in operating expenses related to the purchase and production of biofuels and possible penalties for failure to meet the targets regarding the share of renewable energy in transport.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Investment projects (including in advanced biofuels, hydrogen) aimed at reducing emissions and increasing the share of energy from renewable sources.
The proposed changes in the fuel and energy taxation system will increase the minimum tax thresholds and diversify them so that low-emission alternative fuels can be as cheap as possible compared with petroleum-based counterparts.	Opportunity: growing interest in low-emission alternatives, such as electricity, hydrogen or fuels with a higher content of advanced biocomponents, potentially higher profitability of projects connected with the production and use of alternative fuels in transport, given their preferential tax treatment.	Threat: one effect, especially in the long run, may be a gradual decline in demand for traditional fuels and growing interest in low-emission alternatives, such as electricity, hydrogen or fuels with a higher content of advanced biocomponents given their preferential tax treatment.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Investment projects in alternative fuels and biofuels that will be given preferential tax treatment.

Risk type	Opportunity for the organisation	Threat to the organisation	Risk management methods
Introduction of EU regulations on sustainable aviation fuels ("ReFuelEU Aviation").	Opportunity: at the same time, demand for the product will be created, opening up opportunities for entering a new market, which may be offering high margins.	Threat: the proposed regulations would result in high costs of mandatory production of SAF (if this option is ultimately included in the regulations). The high costs would be due, among other things, to limited availability of the raw materials and costly certification procedures for such fuels.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Analysis of the possibility of entering the newly emerging sustainable aviation fuel market.
Revision of the Alternative Fuels Infrastructure Directive The objective is to increase the number of electric vehicle charging stations, hydrogen, CNG and LNG refuelling stations, as well as LNG refuelling stations at ports for LNG-fuelled vessels.	Opportunity: expansion of the electric mobility segment gives opportunities to offer recharging services and expand the non-fuel business (longer charging times for electric vehicles relative to combustion ones means more time spent by customers at stations), growth of the alternative fuels market and earning revenue from sales of such fuels.	Threat: if the assumptions are met, the number of electric vehicles may be growing, which will probably lead to a decline in demand for conventional fuels, in particular gasoline, and a need to incur costs on building new infrastructure.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Investment in alternative fuel infrastructure projects, e.g. construction of a network of fast charging stations: LOTOS Blue Trail and Pure H2 (hydrogen refuelling stations).
Revision of the EU ETS – the proposed changes are aimed at accelerating a price increase of CO_2 emission allowances and increasing potential for political interference on the market in the event of a price depression.	Opportunity: increased profitability of innovative decarbonisation projects (e.g. Green H2).	Threat: prices of emission allowances are expected to grow, pushing up the costs for Grupa LOTOS. At present, Grupa LOTOS emits approximately 1.9 million tonnes of CO_2 per year. A part of these emissions are covered with free allowances, which however will be phased out.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Investment in projects to increase energy efficiency and reduce CO_2 emissions, such as emission-free production of hydrogen via an electrolysis process for the refinery's needs (Green H2 project).

Risk type	Opportunity for the organisation	Threat to the organisation	Risk management methods
EU hydrogen strategy and legislation promoting the use of hydrogen.	Opportunity: the strategy indicates that emission-free production of hydrogen will be one of the EU's key economic priorities. Given Grupa LOTOS's existing capabilities, there is an opportunity for it to develop into a new promising market. As green hydrogen will be used far more widely than only in the refining sector, this business area appears to have huge potential. There is also a possibility of achieving the targets imposed on Grupa LOTOS with regard to the share of renewable energy in transport and access to preferential financing models for hydrogen projects.	Threat: too stringent criteria for the recognition of energy as renewable may be established and binding targets for the hydrogen share may be set without adequate tools on the demand side.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Investment in emission-free hydrogen production and application projects (Green H2, Pure H2).
Introduction of a legislative package on sustainable financing (EU taxonomy)	Opportunity: preferential financing will be available for projects recognised as sustainable.	Threat: financing and insuring of projects not recognised as sustainable (green) will be much more difficult and expensive than they are now. In addition, large enterprises (with over 500 employees) will be required to identify and determine whether their activities comply with the Directive.	Monitoring and active participation in the legislative process (presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS), both at the EU and national level. Implementation of projects consistent with the taxonomy, such as those aimed at reducing greenhouse gas emissions or increasing renewable energy use.
Amendment to the Act on Fuel Quality Monitoring and Control System. The amendment to the Act on Fuel Quality Monitoring and Control System provides for a change in the method of calculating penalties for failure to meet the National Reduction Target (absolute value instead of reference to the prices of emission allowances) and an almost two-fold increase in the penalties. In addition, the amendment provides for confirmation of the NRT validity beyond 2020, facilitation of joint LPG settlements, and establishment of a register of documents supporting the achievement of upstream emission reductions (UER).	Opportunity: possibility of paying an emission charge, reduced risk from introducing UER certificates and facilitated joint LPG settlements after the amendment takes effect.	Threat: higher penalties.	Keeping in touch with the national regulator, presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS. Working towards achievement of the target at the maximum reasonable level – keeping in touch with UER traders, holding talks with entities selling LPG on the market in order to make joint settlement arrangements, using biocomponents with a maximum possible reduction rate.

Risk type	Opportunity for the organisation	Threat to the organisation	Risk management methods
National Indicative Target (minimum share of renewable energy in transport), implementation of RED II by amending the Act on Biocomponents and Liquid Biofuels. RED II provides for an increase in the minimum share of renewable energy in transport (NIT) to 14% (compared with the current 10%) and a minimum share of advanced biofuels of 3.5% by 2030.	Opportunities: entry into the new market of advanced biofuels, for which demand in the EU should grow.	Threat: Grupa LOTOS is required to achieve the target for the share of renewable energy in transport and therefore has to incur growing costs.	Keeping in touch with the national regulator, presenting analyses and positions, proposing regulatory solutions favourable to Grupa LOTOS. Working towards achievement of the NIT at the maximum reasonable level by purchasing and using biocomponents. If economically viable, combined hydrotreatment may also be used. Analyses of the use of biohydrogen from biomethane are under way as well.
Amendment to the Energy Efficiency Act The amendment seeks to extend the catalogue of entities obliged to achieve energy efficiency improvement targets. The obliged entities will have to demonstrate annually an appropriate reduction in the amount of energy delivered to end users.		Threat: increase in costs due to the need to achieve the efficiency targets set out in the Act. Due to lack of realistic tools to achieve the targets, payment of an emission charge and purchase of white certificates will most likely be necessary.	Currently, there are no tools to achieve the efficiency targets, so there may be a need to purchase white certificates or pay an emission charge.

Source: the Company.

13.3.4 Projects and initiatives to minimise negative impacts on climate and the environment

Grupa LOTOS carries out research and development projects focused on environmentally friendly fuels of the future, including electricity and gas fuels: CNG (compressed natural gas), LNG (liquefied natural gas) and in particular hydrogen, which can be used in transport, as well as for the production and storage of energy. For a description of the projects and initiatives, see below.

RES at service stations

Grupa LOTOS is engaged in studies into the implementation of various technologies related to renewable energy sources (RES). The Company is predominantly oriented toward projects that would help it achieve the National Indicative Target. It also deploys RES-based solutions at its service stations. Since 2019, electric vehicle chargers have been in place at selected service stations. As part of a pilot project, solar panels were installed on a service station in Warsaw. Another element with environmental benefits is a hybrid lighting system powered by solar and wind energy. Finally, a rainwater recovery system is in place at the station, to reduce the consumption of utility water.

Biohydrogen

Grupa LOTOS is engaged in conceptual work on hydrogen production not only based on natural gas steam reforming, but also from renewable sources. One option is to use biogas, which after purification produces biomethane with a composition close to natural gas. Biohydrogen obtained from biomethane (green hydrogen) could be used in the future as an independent hydrogen fuel or – embedded in liquid fuel molecules – as a component of traditional fuels. The project offers great potential with respect to achieving the EU's targets for the use of advanced ILUC-free biofuel components and biofuels in Poland, because the feedstock would mainly be gas produced at biogas plants from agricultural or municipal waste rather than raw materials used in the food industry.

The Company is also considering projects to produce hydrogen via an electrolysis process (green hydrogen) using RES (power to gas technology to convert electricity into renewable gases).

Electric mobility

Active entry into the electric mobility market is another project that fits in with the climate change strategy. Grupa LOTOS joined the first social education campaign promoting electric mobility in Poland. The initiative by the National Centre for Climate Change and the Polish Alternative Fuels Association was launched on October 27th 2020. The Company joined the elektromobilni.pl campaign to steadily raise public awareness of zero-carbon technologies used in transport. Its aim is to build knowledge and social confidence in zero- and low-carbon means of transport. As part of the campaign, the elektromobilni.pl website was launched to provide information on electric mobility in Poland. It contains tools that can help anyone who is interested in the subject to make informed decisions about switching to electric vehicles. Moreover, the Electromobile Poland Programme for central administration, local governments, trade organisations and the Polish industry was established to present and promote places that are EV user-friendly and to support electric mobility.

Grupa LOTOS is a leader in advancing the uptake of alternative fuels on the Polish market and is involved in projects supporting alternative energy sources.

The Company carries out the Blue Trail project, under which the first 12 electric vehicle charging points have already been launched at LOTOS service stations on the motorways between Gdańsk and Warsaw. Each charging point has four connectors to charge electric vehicles and plug-in hybrids of almost all makes. Its total capacity is up to 150 kW. The locations of the EV charging stations will be presented on the Electromobile Poland virtual map, which will appear on elektromobilni.pl.

Marine fuel

2020 has seen further environmental restrictions coming into force. The International Maritime Organisation (IMO) reduced the global limit on sulfur content in marine fuels from 3.5% to 0.5% m/m. Therefore, LOTOS embarked on a series of projects to increase the share of low-emission fuels through the use of LNG as marine fuel.

Another response to the new regulations is the EFRA Project, which has helped address the problem of heavy residue from crude oil processing. Heavy residue was previously used for the production of asphalt, an important component in road construction, as well as high-sulfur heavy fuel oil, used primarily as marine fuel. It is a product with a negative crack spread, i.e. its price is lower than that of crude oil. The EFRA Project will make it possible to sell approximately 1.1 million tonnes of excellent quality fuels, mainly diesel oil, produced from the heavy residue.

New generation fuels

As part of its strategy, the LOTOS Group seeks to become a leader in new generation fuels. In order to implement these plans, in March 2019 the Group's representatives signed documents to launch joint research and development activity with the Gdańsk University of Technology (in 2018 similar documents were signed with the Warsaw University of Technology). The cooperation involves the development of prototypes of selected low-carbon transport and energy storage equipment.

LOTOS supports a hydrogen economy

Grupa LOTOS also actively engages in promoting the use of hydrogen. On its initiative, the Hydrogen Technologies and Clean Energy Technologies Cluster was established, with a mission to promote hydrogen technologies.

Grupa LOTOS is also involved in implementing the Clean Transport Package and in the Climate Ministry's work on a national hydrogen strategy. In July 2020, the Ministry announced the launch of work on Poland's hydrogen strategy until 2030. The programme's key objectives were announced and a letter of intent was signed to set up a partnership with energy and transport companies for the development of a hydrogen economy. Grupa LOTOS was among its signatories. Development of the hydrogen sector in the coming decade may significantly reduce Poland's greenhouse gas and other pollutant emissions, in particular from the transport sector. Hydrogen consumption in the heating sector is also expected to grow, driven by advances in the power-to-gas/liquid technology.

Key objectives of the Polish Hydrogen Strategy are to:

- create a value chain for low-emission hydrogen technologies,
- increase the role of hydrogen in supporting Poland's energy security,
- introduce hydrogen as a transport fuel,
- prepare new regulations for the hydrogen market.

Another element of the hydrogen strategy is to build new infrastructure for hydrogen distribution across Poland.

The Company is launching research and development projects in this respect. It is working with Polskie Sieci Elektroenergetyczne in a project to develop a cost-effective, but most importantly an environmentally friendly, hydrogen production method. An important element of the project are electrolysers and a check of how they interoperate with variable RES-based power generation. Green hydrogen can be obtained through decomposition of water into hydrogen and oxygen.

Grupa LOTOS is also collaborating with Polish research institutions in projects geared towards improving the efficiency of pure hydrogen generation. At the same time, the Company is entering competitions for project funding held both in Poland and in the EU, e.g. by the National Centre for Research and Development (NCBiR) and under the National Recovery Plan.

Hydrogen as a way to improve urban air quality

LOTOS representatives regularly attend working meetings with local transport operators and assist them in preparing for the 'hydrogenation' of municipal transport vehicles. Letters of intent have been signed with representatives of Gdynia, Wejherowo and Tczew. Rzeszów is another city with which Grupa LOTOS will cooperate with respect to supplies of hydrogen and related infrastructure for fuel cell vehicles. The relevant letter of intent was signed in October 2020. It also covers the related infrastructure for fuel cell electric buses (FCEBs), which Rzeszów and its subordinate units intend to buy. In addition, an agreement was also signed with Autosan, a Polish bus maker, which is to test Grupa LOTOS's hydrogen for powering its buses.

Grupa LOTOS wants to promote hydrogen as a zero-emission fuel of the future under its Pure H2 project. As the most common element in the universe, hydrogen is also one of the key substances used in the modern refining and petrochemical industries. At present, the Grupa LOTOS refinery in Gdańsk produces about 16.5 tonnes of hydrogen per hour. The newly constructed Hydrogen Recovery Unit increased its output by an additional 1 tonne per hour.

In November 2019, Grupa LOTOS and Toyota Motor Poland signed a letter of intent to intensify work on the development of technologies supporting the use of hydrogen in road transport. The cooperation is aimed at building hydrogen refuelling stations in Poland. Thanks to this, the hydrogen transport technology can have a real and practical application in Poland, with tangible benefits for motorists.

Grupa LOTOS has also become involved in the Pomeranian Hydrogen Valley initiative, aiming to foster hydrogen as a fuel for bus, rail and maritime transport (short sea passenger shipping between the Tricity and Hel). Thanks to Grupa LOTOS, a consortium formed by municipalities of the Gdańsk Province received 100% support from the European Union for comprehensive consultancy regarding inclusion of hydrogen-fuelled vehicles into municipal transport systems. The use of hydrogen as an alternative source of energy will contribute to tackling air pollution caused by emissions of exhaust gases from conventional vehicles, especially in urban areas.

The Company is actively looking for new business opportunities in this area and invites new partners. Cooperation between all participants in this value chain can effectively accelerate the uptake of hydrogen as a transport fuel in Poland.

13.3.5 Emissions to air

The key source of environmental impacts caused by operations of Grupa LOTOS are gas emissions into the atmosphere. Therefore, we strive to employ the best available techniques and practices to minimise the environmental impacts of our processes involving air emissions. Direct greenhouse gas emissions from the LOTOS Group's industrial units (including those not covered by the emissions trading scheme) are determined based on the methodology set out in Commission Implementing Regulation (EU) 2018/2066. The amount of fuel combusted or source stream processed is multiplied by relevant factors (net calorific value, emission factor or oxidation factor), resulting in total greenhouse gas emissions. Indirect emissions are determined based on the amount of electricity and heat purchased outside the Group, multiplied by relevant emission factors published periodically by the National Centre for Emissions Balancing and Management (KOBiZE)

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Reducing GHG emissions is a vital element of our efforts in this respect. Efficiency improvement initiatives taken by Grupa LOTOS resulted in reduced CO_2 emissions in 2020.

Table 44. Reduction of GHG emissions, by type,

in metric tonnes of CO_2 equivalent Grupa LOTOS	2019	2020[31]
Direct (Scope 1)	N/A	7,682
Indirect (Scope 2)	N/A	N/A
Other indirect (Scope 3)	N/A	N/A
Total	N/A	7,682

Source: the Company.

The LOTOS Group companies do not monitor Scope 3 emission reductions.

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Direct GHG emissions at the LOTOS Group (Scope 1)

Table 45. Gross direct GHG emissions

in metric tonnes of CO_2 equivalent	2019	2020
CO_2	2,027,970	2,090,947
CH4	0	0
N_2O	0	0
HFC	0	0
PFC	0	0
SF_6	0	0
NF_3	0	0
Total	2,027,970	2,090,948

Source: the Company.

The installations participating in the EU ETS (Grupa LOTOS, LOTOS Asfalt, Energobaltic) calculate emissions in accordance with the methodology set out in Regulation (EU) 2018/2066. The methodology is largely consistent with the GHG Protocol methodology.

[31] The monitoring of energy savings, which can be converted into a reduction of CO_2 equivalent emissions, was launched in 2020.

The other LOTOS Group companies calculated direct emissions by multiplying the volume of fuels consumed in boilers, furnaces and power generating units by benchmarks regularly published by the National Centre for Emissions Balancing and Management (KOBiZE).

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Table 46. Gross indirect GHG emissions (Scope 2) calculated in metric tonnes of CO_2 equivalent according to the location-based methodology

	2019	2020
Indirect GHG emissions	554,167	475,560

Source: the Company.

Only the electricity and heat purchased and consumed within the Group were taken into account for the calculation. Indirect emissions were calculated by multiplying the purchased and consumed electricity and heat by benchmarks periodically published by KOBiZE.

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Table 47. GHG emissions intensity

Grupa LOTOS		2019	2020
Greenhouse gas emissions (Scopes 1+2) per tonne of crude oil processed	Mg CO_2e/Mg	0,205	0,220
Greenhouse gas emissions (Scopes 1+2) according to CWT methodology	kg CO_2e /CWT	26.8	27.3

Source: the Company.

The increase is attributable to adverse impacts of the COVID-19 pandemic on the fuel market. The refinery units operated at lower loads, and thus less efficiently, which translated into higher GHG emissions intensity. Units operating at reduced loads emit more CO_2 relative to the volume of processed feedstock than those operating at higher loads.

/OG6/

Table 48. Volume of flared and vented hydrocarbons at the LOTOS Group

['000 m^3]	2019	2020	2019	2020
Location	Volume of gases to be flared		Volume of gases released into the atmosphere	
Poland	15,126	17,564	0	0
International waters, Polish Exclusive Economic Zone (LOTOS Petrobaltic and BB platforms)	17,527	17,087	0	0
Lithuania	0	164	0	0
Total	32,653	34,815	0	0

Source: the Company.

Other air emissions (other than greenhouse gases)

Data on other air emissions is reported at the consolidated level, i.e. for the entire LOTOS Group.

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Table 49. Other air emissions at the LOTOS GROUP

Weight [t]	2019	2020
Nitrogen oxides (NO_X)	1,032.4	1,029.4
Sulfur oxides (SO_X)	865.2	998.5
Volatile organic compounds	125.4	154.9
Particulate matter (PM)	39.2	37.9
Other categories - CO	350.5	250.0
Metals	N/A	0.2
Total	2,412.7	2,470.9

Source: the Company.

The LOTOS Group companies emit gases and particulate matter into the air in connection with a wide range of their operations. In accordance with national legal requirements, companies emitting the largest volumes of emissions incidental to energy generation measure them on a continuous or periodic basis. Continuous measurements allow emissions to be calculated directly, based on signals sent from measuring devices on a continuous basis. Emissions measured periodically are referred to the volume of fuel used during the measurements. Based on this data, benchmarks are determined to be used for calculating emissions during the remainder of the year. Those companies which do not perform measurements emit air pollutants usually as a result of boiler operation.

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In 2020, emissions of ozone-depleting substances (ODS, HCFC) at the LOTOS Group reached 321.11 kg.

13.3.6 Energy production and consumption

The Company operates in a systemic manner, with optimised energy consumption as its primary objective. To that end, it keeps monitoring the energy efficiency of its units and their sub-processes. It analyses specific areas of its business and engages in projects designed to reduce energy consumption.

Grupa LOTOS sets for itself ambitious goals – in 2020 it initiated certification of the energy management system compliant with the ISO 50001 standard. The Company improves its energy management, as evidenced by the acquisition of energy efficiency certificates (white certificates) issued by the Energy Regulatory Office. The certificates are traded on the Polish Power Exchange.

Energy efficiency improvements at Grupa LOTOS translate directly into cleaner air and lower water consumption. A significant improvement in its energy efficiency profile was achieved due to upgrades carried out in previous years (conversion of CHP boilers into gas-fired units), which markedly reduced sulfur and particulate matter emissions.

Thanks to Grupa LOTOS's strategic approach to the management of energy consumption, it is among Europe's most efficient refineries according to Solomon Associates. In 2020, the LOTOS Group's total energy consumption was 34,740,518.65 GJ.

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Optimisation of the Grupa LOTOS refinery units helped reduce the consumption of nearly all energy carriers (reduction calculated relative to the level prior to the optimisation).

Table 50. Reduction of energy consumption achieved directly through measures to reduce energy consumption and improve energy efficiency

[MWh]	2019	2020
Reduction of energy consumption	N/A	54,914

Source: the Company.

Energy production and consumption data is reported only at the consolidated level, for the entire LOTOS Group.

In 2020, the refining processes were optimised, leading to lower consumption of almost all types of energy carriers; examples include: reduced steam consumption and temperature, as well as automated and reduced minimum steam flow at the units).

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Energy consumption within the organisation

Table 51. Total energy consumption from non-renewable sources (purchased and generated internally) and types of fuels used

[MWh]	2019	2020
Coal	90,909	73,117
Natural gas	3,599,022	2,461,763
Diesel oil	117,872	28,085
Fuel gas	3,434,286	4,129,895
Tail, special gas	1,197,164	1,106,443
Light fuel oil	137,607	16,472
LPG	11,410	8,131
Diesel oil (B7/B8)	N/A	55,572
Gasoline	N/A	2,954
Total	8,588,270	7,882,432

Source: the Company.

Table 52. Energy purchased from other entities

[MWh]	2019	2020
Electricity	2,022,341	1,825,485
Thermal energy (including steam and cooling)	62,599	27,345
Total	2,084,940	1,852,831

Source: the Company.

Table 53. Energy sold to other entities from outside the Group

[MWh/t]	2019	2020
Electricity	53,165	21,538
Steam	228,855	34,588
Heat (in water)	126,593	28,993
Total	40 8613	85,118

Source: the Company.

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Energy intensity ratios

Table 54. Grupa LOTOS energy intensity ratios

[MWh]	2019	2020
Primary energy consumption per tonne of crude oil processed	815	903
Primary energy consumption per tonne of product	1,123	1,185

Source: the Company.

The increase in energy intensity ratios was attributable, among other things, to the change in the refinery's setup – launch of the DCU in late 2019 and of the HRU in the last quarter of 2020; scheduled (in most cases) shutdowns of several units in the second quarter of 2020 and operational adjustments of the refinery units to match current demand.

13.3.7 Raw materials

The Company's upstream production and refining operations are in keeping with environmental protection requirements. The Company makes high quality products causing the lowest possible environmental nuisance and takes care to minimise their environmental impacts already at the production stage. Grupa LOTOS's growth plans embrace innovative technologies supporting the sustainable use of natural resources. Feedstock consumption is reported at the consolidated level, for the entire LOTOS Group.

/301-1/ Feedstock used in production processes:

Table 55. Crude oil throughput ('000 tonnes)

	2019	2020
Crude oil throughput	10,672	10,197

Source: the Company.

Table 56. Other feedstock used in refining operations

[tonnes]	2019	2020
demineralised water	270,869	298,123
FAME (fatty acid methyl ester)	280,094	300,444
gas oil	161,541	75,822
ETBE (ethyl tert-butyl ether)	11,355	11,770
ethanol	69,973	65,607
MTBE (methyl tert-butyl ether)	49,465	49,880
natural gas	368,168	350,823
additives	2,809	3,037
LPG – EFRA component		20,406
Off-specification LPG – EFRA		1,069
Naphtha – EFRA component		98,293

Off-specification naphtha – EFRA		3,008
LCGO – EFRA		240,837
HCGO – EFRA		171,266
other		92,393
Total	1,366,750	1,782,779

Source: the Company.

Table 57. Raw materials and feedstock used within the refinery

[Mg]	2019	2020
fuel gas	346,055	353,085
tail gas	381,669	423,496
fuel oil	10,794	422
other	110,137	107,885
Total	848,655	884,888

Source: the Company.

Table 58. Consumption of final products

[tonnes]	2019	2020
gasolines (including reformates)	1,659,677	1,587,760
kerosene	474,031	567,401
xylene	89,694	81,106
diesel oil	5,537,200	5,755,434
gas oil	225,486	234,978
fuel oil	1,038,047	184,596
MGO fuel	69,087	74,108
jet fuel	446,913	217,225
bitumen components	775,676	811,918
LPG	198,214	205,123
base oils	252,385	262,194
slack waxes	46,732	60,638
plasticisers	29,872	24,809
sulfur	88,351	111,212
naphtha from EFRA	252,064	869,162

other,[32]		90,963
Total	11,183,428	11,138,626

Source: the Company.

13.3.8 Waste

The Company opts for the 'greenest' waste management methods, such as recycling and recovery, while taking steps to eliminate less environmentally-friendly methods such as waste incineration with no energy recovery, landfilling and other forms of waste disposal.

The LOTOS Group companies are involved in various that are in line with the circular economy concept. Grupa LOTOS focuses on waste management issues. The refinery produces a small amount of petroleum waste. Waste from the wastewater treatment facility (sludges and dregs) as well as waste from water decarbonation account for the largest volumes of waste. Instead of managing such waste, the Company transfers it to specialised, licensed waste collectors for recovery and recycling. In 2020, the refinery transferred approximately 10.6 thousand tonnes of hazardous waste to external waste collectors, of which as much as 99.7% went through a recovery and recycling process. The percentage of recovered and recycled non-hazardous waste is even higher – 99.9% out of approximately 16.2 thousand tonnes.

/OG7/

In 2020, neither LOTOS Petrobaltic nor LOTOS Geonafta were engaged in drilling operations, and therefore did not generate any drilling waste.

13.3.9 Water and effluents

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The Company uses water resources based on water usage and integrated permits. Using those resources entails no significant impact on any protected areas or areas of outstanding natural value, and the amount of abstracted water is kept substantially below the applicable limits, as confirmed by analyses of the environmental impact of water abstraction.

In accordance with the permit requirements, the Company continuously monitors the impact on water resources in terms of the quantity of abstracted water and quality of discharged wastewater. On a regular basis, Grupa LOTOS reports information on its water usage to the relevant authorities. The Company is also committed to re-using as much water as possible in its refining processes to reduce the amount of water ultimately abstracted from the environment.

No LOTOS Group companies operate in any areas exposed to water shortage risks (according to the WWF Water Risk Filter).

The Grupa LOTOS refinery has an in-house wastewater treatment facility, receiving wastewater both from the refinery and from smaller companies operating on its premises. In addition to wastewater generated by refining processes (industrial effluents), the plant treats drainage water, clean stormwater (collected from roads and yards), oil-contaminated wastewater (discharged from refining facilities), as well as grey and black water.

The treated water and wastewater streams are directed to one of the two discharge points: drainage water and clean stormwater is discharged into the channel of the Rozwójka river, flowing along the southern boundary of the plant, while the remaining streams (namely, industrial effluents, oil-contaminated wastewater, grey/black water) are discharged into the Martwa Wisła river, flowing along the northern boundary of the plant.

[32] including: 2,509 tonnes of fuel gas sold to LOTOS Asfalt

The LOTOS Group monitors its impacts on water purity on an ongoing basis, both in terms of water abstraction volumes and the environmental parameters in the affected areas. Each investment project is subject to stakeholder dialogue, and all reported issues and complaints are duly considered. On signing their respective contracts with LOTOS Group companies, all suppliers and contractors undertake to act responsibly, in accordance with applicable laws and with due respect for the environment, and are subject to regular audits to verify that undertaking.

Each Grupa LOTOS industrial facility is well prepared for potential emergencies and leakage. There are procedures in place meant primarily to effectively prevent and, if needed, contain leakage. For that purpose, Grupa LOTOS has established a dedicated chemical emergency team. Any waste generated due to leakage (for instance soil contaminated with petroleum products) is handed over to specialist waste management companies for disposal in line with applicable laws.

Data on water used and effluents discharged is reported at the consolidated level, i.e. for the entire LOTOS Group.

Implementation of a continuous emission monitoring system (CEMS)

In 2020, Grupa LOTOS formally closed a project to significantly expand its Continuous Emission Monitoring System. The system helps monitor the refinery's operations while processing various types of crude, showing the effect of different production regimes on pollutant emissions into the environment. Because Grupa LOTOS upgrades its infrastructure and allows its employees to work remotely, they can precisely monitor the refinery's operations while staying at home.

CEMS is a set of tools for persons involved in technological processes that produce an environmental impact . In addition to monitoring the refinery's operations under various conditions, the system helps detect potential risks, such as process leaks that can lead to contamination of fuel gas with sulfur.

CEMS allows employees to monitor the quality of wastewater discharged into the Martwa Wisła river in real time. The wastewater is monitored for the chemical oxygen demand (water and wastewater pollution indicator) and the content of total nitrogen, petroleum hydrocarbons and total suspended solids.

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Table 59. Water abstraction and use by source and type in 2020

[megalitres]	From all areas	From water-stressed areas
Surface waters:	5,220	0
Low-mineralised water (total amount of dissolved minerals below 1,000 mg/l)	5,220	0
Other water (total amount of dissolved minerals above 1,000 mg/l)	0	0
Groundwater:	301	0
Low-mineralised water (total amount of dissolved minerals below 1,000 mg/l)	301	0
Other water (total amount of dissolved minerals above 1,000 mg/l)	0	0
Sea water:	0.4	0
Low-mineralised water (total amount of dissolved minerals below 1,000 mg/l)	0	0
Other water (total amount of dissolved minerals above 1,000 mg/l)	0.4	0
Produced water:	211	0
Low-mineralised water (total amount of dissolved minerals below 1,000 mg/l)	0	0
Other water (total amount of dissolved minerals above 1,000 mg/l)	211	0

Water from other organisation:		293	0
Low-mineralised water (total amount of dissolved minerals below 1,000 mg/l)		293	0
Other water (total amount of dissolved minerals above 1,000 mg/l)		0	0
Water from other organisation:	Surface water	0	0
	Groundwater	0	0
	Sea water	0	0
	Produced water	0	0
Total water abstracted from other organisation		293	0
Total water abstraction (surface water, groundwater, sea water, produced water, water from other organisation)		6,025	0

Source: the Company.

13.3.10 Biodiversity

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In the vicinity of the Grupa LOTOS refinery, there is the 'Ptasi Raj' nature reserve, a Natura 2000 site 'Ostoja w Ujściu Wisły' (PLH220044).

The refinery's area is 235 hectares, while the nature reserve covers 1,015 hectares. The largest group of birds living in the reserve are various species of ducks (dabblers and divers), swans and greater white-fronted geese. The area is primarily a habitat for various species of seagulls, terns and wading birds, as well as cormorants, ducks, geese and swans. The Eurasian oystercatcher and plovers also nest in the reserve. When implementing environmental impact mitigation standards, the Company takes care of the safety of the neighbouring nature reserve.

The licence areas held by LOTOS Petrobaltic, a specialised E&P operator, are located outside the Baltic Protected Areas and thus do not affect the Baltic Sea's biodiversity levels. One of the key tasks faced by Grupa LOTOS in its operations on the Baltic Sea is to deploy the best environmental solutions, with a view to preserving the region's biodiversity. LOTOS Petrobaltic is seeking to implement the already initiated measures under the Baltic Sea Action Plan, including the 'zero discharge' requirement for offshore platforms.

13.4 Society

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13.4.1 People as top priority

People have always been at the centre of Grupa LOTOS's business. Stakeholders play a part in how the Company generates not only economic, but also social and environmental value.

The Company keeps these values in mind in its decision making, striving to build good and lasting relations with its environment. Grupa LOTOS is committed to safety and respects human dignity both within the organisation and in relations with its business partners and customers. This approach extends both to employees of Grupa LOTOS and to those with whom it works in its operational activity and communication.

The quality of our relationships is not only a goal in itself, but also a source of mutual benefits. Hence the efforts to engage in fruitful dialogue with our social stakeholders and market environment.

The key efforts in this area include:

- regular surveys to gauge the level of satisfaction among our customers and trade partners;
- regular exchange of information with capital market participants through our Investor Relations site as well as during press conferences and meetings with analysts and investors;

- maintaining contacts with regulatory, inspection/audit and monitoring bodies;
- dialogue with employees going beyond their daily work, as well as regular discussions with trade unions and the Works Council;
- regular employee satisfaction surveys.

13.4.2 Corporate social responsibility values

The Company's responsibility towards society and the natural environment manifests itself in that its refining activities are carried out with due respect for the natural and social capitals. The LOTOS Group takes responsibility for its products and respects the needs of all its stakeholders, including the state, the market, its partners, customers and employees.

The four primary values underlying the LOTOS Group's corporate social responsibility are:

1. Transparency

   The Company undertakes to comply with the most exacting environmental standards, remain committed to ethical and fair competition, and counteract the abuse of human rights.

2. Openness

   It is open to change, the world's needs and people's expectations.

3. Innovation

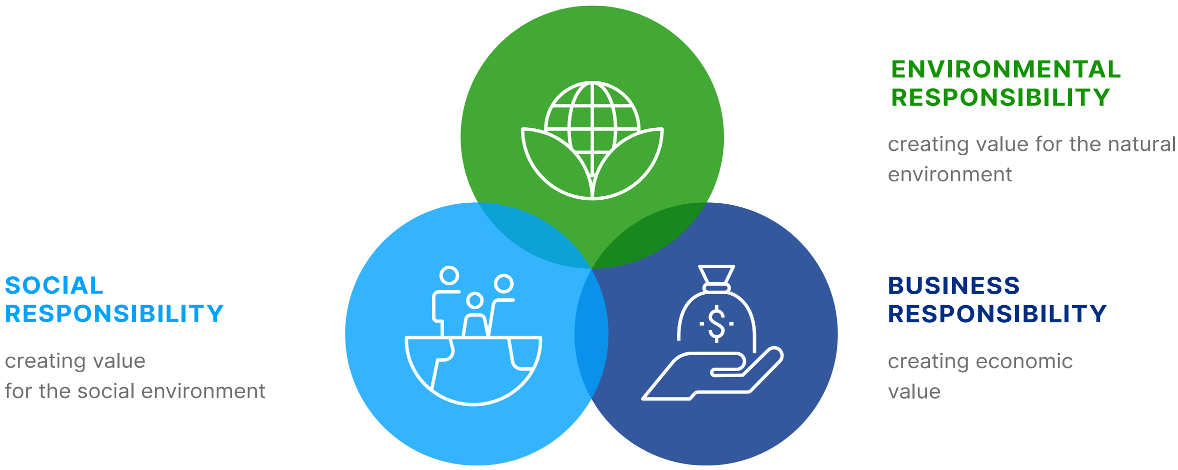
   It takes an innovative approach to solving social and environmental issues; by acting in accordance with the principles of sustainable development, it achieves business benefits and gains competitive advantage on the market.

4. Responsibility

   The underlying principle of the Company's attitude towards the future of mankind, the environment, the home country and its international status.

The Company is committed to compliance with international standards, such as ISO 26000, with respect to corporate governance, human rights, labour practices, the environment, fair operating practices, consumer matters, as well as community engagement and development.

Strategic pillars of the LOTOS Group's approach to sustainable development



The LOTOS Group addresses the challenges defined by 17 Sustainable Development Goals (SDGs) until 2030, Vision of Sustainable Development for Business in Poland until 2050, and the ten UN Global Compact principles.

In line with the Vision of Sustainable Development for Business in Poland until 2050, the Group has undertaken to:

- base its efforts on broad cooperation, innovative thinking and education of its employees and members of the public;
- conduct business activities relying on trust and dialogue;
- initiate cooperation with academic centres and schools to educate future employees;
- create conditions and opportunities conducive to employee development;
- promote and support the implementation of new technological solutions;

- develop infrastructure and implement investment projects based on dialogue and in accordance with the principles of sustainable development;
- take measures to reduce its environmental footprint;
- introduce solutions to reduce energy consumption, including through implementation of new technological solutions, process optimisation and education;
- engage in dialogue with the government and share experience in issues that are material to entrepreneurs and economy;
- raise ethical standards in business, including in relationships with all stakeholder groups.

13.4.3 Relations with local communities

Grupa LOTOS considers corporate social responsibility as an element of its management and improvement processes. It builds lasting and positive relations with its stakeholders, striving to effectively integrate its Strategy and measures taken to face social and environmental challenges.

A uniform CSR policy is in place across the LOTOS Group, focusing on goals within the following three areas:

- improving the quality of life (health, road safety, education);
- caring for the environment (ecology and environmental protection);
- advancing innovation.

The Company supports social initiatives and projects. Sponsorship activities focus on sports, culture and art, as well as social and environmental initiatives carried out primarily in the counties and provinces where its plants are located, and in places where its marketing activities are run, including through its service station chain.

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All the LOTOS Group companies are involved in initiatives for local communities.

Projects implemented by LOTOS Group companies in 2020:

- 23 sports sponsorship projects;
- 26 cultural sponsorship projects.

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The Company engages in dialogue with its key stakeholders as an important tool for building stakeholder trust. By actively communicating with its environment, the Company seeks to mitigate threats and nuisances associated with its day-to-day operations, while actively responding to the needs of its stakeholders. For instance, public consultation is held whenever an important project is to be launched at the refinery.

Particular attention is also given to projects promoting young people's development, including in particular ensuring equal opportunities and counteracting social exclusion among children and youth. The LOTOS Foundation's activities in this area are addressed to children and young people from the Company's immediate local communities.

Initiatives for local communities

Relations with local communities living in the Company's impact areas are an important aspect of the LOTOS Group's social responsibility. Many of the Group companies work actively for the benefit of local communities. For instance, LOTOS Paliwa became involved in helping children with cancer as part of the 'Golden Ribbon' campaign organised by the 'Cape of Hope' Foundation and the 'Rescue for Children with Neoplastic Diseases' Foundation. As a result, more than PLN 100 thousand was donated to support sick children. In 2020, LOTOS Kolej:

- made a cash donation to St. Bridget's Church in Gdańsk to organise a free Christmas songs and carols concert for residents of Gdańsk;
- together with the LOTOS Foundation, joined in a charity campaign organised by the PKP Group Foundation; by making a cash donation, helped ten railway families to buy computers with appropriate software to facilitate online learning for children;
- made an in-kind donation to the State Fire Service in Poznań as a token of gratitude for their efforts to eliminate a fuel leak hazard;
- organised a competition to mark the Children's Day called 'My own train – LOTOS Kolej'.

Key programmes implemented by Grupa LOTOS:

- LOTOS – In Search for the Champion's Successors
  - Since 2004, Grupa LOTOS and the Polish Ski Association have been running the National Ski Jumping Development Programme 'In Search for the Champion's Successors', which provides support to sports clubs with ski jumping and Nordic combined sections. LOTOS Cup competitions are also organised as part of the programme, which stands out as the largest social engagement initiative in the history of Polish skiing.
- Football Future with LOTOS
  Under the Football Future with LOTOS programme, young football players and coaches are able to hone their skills at the LG Football Academy and one of the 15 football centres. Grupa LOTOS sponsors the purchase of sports equipment, football camps and sports scholarships for the most promising players and for children from disadvantaged backgrounds.
- LOTOS Racquets
  2019 saw the inception of the LOTOS Racquets' National Tennis Promotion Programme. It is a third initiative implemented through partnership with Grupa LOTOS S.A. and Poland's largest tennis support programme. U10, U12, U14, and U16 players, as well as LOTOS PZT Team members, including the reigning Polish champions Magdalena Fręch and Kacper Żuk, continue to be picked through the Polish Tennis Association's LOTOS Racquets programme. The National Tennis Promotion Programme ensures stability, offers developmental opportunities for children and teenagers, and also gives a chance to athletes from economically disadvantaged families. More than 100 sports clubs receive support under the LOTOS Racquets programme. The youngest tennis players participating in the National Tennis Promotion Programme were the largest group (over half a thousand athletes) during each of the previous three editions of the National Tennis Day, supported by Grupa LOTOS.
- LOTOS Safety Belt Champions
  Launched in 2014, the 'LOTOS Safety Belt Champions' programme teaches car passengers about safety principles, correct fastening of safety belts, and installation of safety seats for children. More than 8,000 motorists and passengers have received individual training since the programme's inception. 2020 saw the first, pilot edition of the new 'Road Champions' Programme, a multifaceted initiative designed to educate and involve young motorists in efforts to improve road safety. Kajetan Kajetanowicz, World Rally Vice-Champion in the WRC2 classification, is the Programme's Ambassador.
- Talent from Czechowice-Dziedzice, a Town of Fiery Enthusiasm
  'Talent from Czechowice-Dziedzice, a Town of Fiery Enthusiasm' is a joint project of Grupa LOTOS, the LOTOS Foundation and the Czechowice-Dziedzice Municipality, targeted at primary school pupils interested in arts and humanities or science. The programme aims to encourage children to enhance their knowledge and develop project thinking.
- E(x)plory
  Since 2013, Grupa LOTOS has been a patron of the E(x)plory Programme, organised by the Advanced Technologies Foundation, the largest initiative in Poland to support talented youth in the implementation of innovative research projects and promote their achievements internationally. Since the Programme's inception, a community of more than 2,400 young innovators has been created, who have submitted over 1,500 research projects and inventions for the E(x)plory competition. E(x)plory provides a one-of-a-kind opportunity for direct contact between young talent and experts from the world of science, business and social innovation. E(x)plory fosters the development of talent through work placements, mentoring and grant programmes, and searches for talent by organising E(x)plory Festivals in schools and regions. 59 events, attended by more than 40 thousand innovation and new technology enthusiasts, were held during the nine editions of the Programme.
- Headed for the Baltic
  Grupa LOTOS has operated the 'Headed for the Baltic' programme since 2009 together with partners: the Gdańsk University Development Foundation, the Hel Marine Station of the University's Institute of Oceanography, and the Biologic Station of the Gdańsk University in Sobieszewo. It is a set of initiatives to protect biodiversity of the Baltic Sea, including the porpoise, an endangered species also known as the Baltic dolphin. Strong focus was placed on environmental education and on raising the awareness of the presence of plastics and microplastics in the Baltic Sea.

13.4.4 Involvement in countering the effects of the coronavirus pandemic

Due to the global coronavirus pandemic, 2020 was a challenging year, both for business and community engagement activities. To ensure uninterrupted access to its services in a safe and responsible manner, the Company has flexibly adapted its activities to a wide range of stakeholders: customers, trading partners and other external stakeholders.
The Group allocated a total of PLN 12 million to fight the pandemic (data as at February 2021), having also procured and donated personal protective equipment such as: 500 thousand coveralls, 300 thousand face shields and 100 thousand shoe covers.

Customers

Safety at service stations

As soon as the state of epidemic emergency was announced, LOTOS Paliwa took steps to ensure the continuity of operation of all its service stations, ensuring the safety of their customers and staff. Procedures consistent with the Ministry of Health's regulations and requirements were deployed in a prompt manner , including the need to use disposable gloves while refuelling.

Most of the LOTOS service stations started to operate on a drive-thru basis already at the pandemic's onset. Where this was not possible, plexiglas screens were installed to separate the cash desk from the store area. Social distancing markers were placed, and the number of customers allowed inside at any one time was limited. The service station staff were provided with liquid hand sanitisers and face covers. Disposable gloves were made available to both staff and customers. To ensure maximum safety, staff shift patterns were organised so that the same staff worked together during the same shift.

The B2B 24 service, which was launched last year and which minimises direct contact, proved its worth during the pandemic, enabling self-service fuel purchase and collection using the customers' own road tankers. The service is offered to franchisees and B2B customers buying fuel in bulk volumes. A dedicated website enabled full automation of the service, from placing an order to issuing an electronic invoice.

Trade partners

LOTOS Oil, a manufacturer and distributor of oils and lubricants, launched an aid scheme to support its trade partners during the coronavirus pandemic. The 'Together towards the Future' scheme provided multiple solutions: from the availability of liquid sanitisers to amendments being introduced in distributor agreements. The company also added new, less expensive oils to its product range.

Poland's economy was hit hard by the COVID-19 pandemic. The 'Together towards the Future' aid scheme was designed in the hope of stabilising market conditions and restoring financial liquidity for many businesses. The company's trade partners were offered a number of options under the 'Together towards the Future' scheme, mainly those related to their respective distributor agreements. One of them is the possibility of making bulk purchases of engine products such as LOTOS Quazar or AURUM, with a bonus in the form of vouchers which trade partners can use to buy food, hygiene products, electronic equipment or pay for meals in restaurants. The trade partners were given an extended deadline of as many as 100 days to pay for items and services bought as part of the bonus package.

Social environment – campaigns

'Everyone is waiting for their BEST' is a campaign of Grupa LOTOS and the LOTOS Foundation and, at the same time, the Company's contribution to combating the pandemic. Starting from May 1st, motorists at LOTOS service stations were encouraged to transfer points collected under the Navigator loyalty scheme to finance research into COVID-19 treatments. The campaign involved, among other entities, the athletes and institutions of culture with which the Company has partnered. With the #wDomuTezJestNAJ (#BESTatHome) initiative, the Company decided to step up its efforts and provide support to all Poles who, due to the current epidemic situation, remain homebound.

As part of the campaign, Grupa LOTOS launched a street-art project to present snippets of our everyday lives taken away by the pandemic. Five murals created in Gdańsk, Kraków, Poznań, Warsaw and Wrocław depict our seemingly mundane everyday emotions which we used to take for granted, but which are now impossible to be expressed freely due to the COVID-19 pandemic. Each mural also shows a symbol of the pandemic – protective gloves, face masks, a face shield, protective overalls, or a tablet. The street artists' idea was to highlight a clash between our normal lives and those items – they look out of place at first glance, but they are part and parcel of your lives now. The project was born from collaboration between Polish painters, graphic artists and illustrators.

Social environment – support for the healthcare system

- Through the LOTOS Foundation, PLN 5 million worth of support was earmarked for four healthcare facilities in the Provinces of Gdańsk and Szczecin: University Centre of Maritime and Tropical Medicine in Gdynia, Mikołaj Kopernik Provincial Hospital in Koszalin, 7th Naval Hospital with the independent public health care centre in Gdańsk, and the Independent Public Provincial Polyclinic Hospital in Szczecin.

- The University Centre of Maritime and Tropical Medicine in Gdynia received an ultrasound system and intensive-care beds purchased by the LOTOS Foundation. State-of-the-art equipment was also provided to hospitals in Szczecin, Gdańsk and Koszalin.
- Six medical facilities in the Pomerania region received transport vehicles from Grupa LOTOS, intended to carry patients, samples and medical materials.
- 1,500 litres of sanitiser were provided to the Provincial Emergency Medical Service Station in Szczecin.
- Grupa LOTOS also supported the construction of a temporary hospital at the AMBEREXPO exhibition centre in Gdańsk.

Social environment – support for medical and uniformed services

- Grupa LOTOS provided several hundred face masks to the Provincial Police Headquarters in Gdańsk, and police officers then handed them out to tourists and local residents at the Sopot Pier during summer holiday, reminding them of the obligation to cover their mouths and noses wherever the 1.5-metre physical distance is impossible to keep.
- As part of the 'Help at the border' campaign, support was given to all uniformed services on duty at Poland's borders. At selected LOTOS service stations, all uniformed officers or those using marked vehicles were entitled to receive a free hot beverage or a Dynamic energy drink. The campaign also covered the Polish Armed Forces, Fire Service, Police, City Guards, as well as Customs and Tax Officers.
- Moreover, at selected service stations, vehicles used by the 7th Pomeranian Brigade of the Territorial Defence Force were refuelled free of charge. Free fuel was also available to ambulances and other vehicles used by nineteen COVID-only hospitals, which received PLN 2 million worth of fuel cards.

13.4.5 Sponsorship activities

Sports sponsorship projects carried out in 2020

- Sponsorship of Poland's national football team (Polish Football Association), ski jumping and cross-country skiing teams (Polish Skiing Association), and sponsorship of Poland's largest cycling event (Tour de Pologne).
- Sponsorship of men's and women's national tennis teams, youth team and national tennis championship of all age categories (Polish Tennis Association), and the status of main partner of Hubert Hurkacz, one of the young Polish tennis players.
- Motor rallying – partnership with the LOTOS Rally Team featuring Kajetan Kajetanowicz and Maciej Szczepaniak, three-time European Rally Champions.
- Sponsorship of men's and women's national basketball teams and basketball league tournaments (Polish Basketball Association and Polish Basketball League).
- Sponsorship of Fight Exclusive Night (FEN) as the Title Sponsor all FEN 2020 events.
- Regional projects: LOTOS Gdańsk Summer Stadium, LOTOS Nord Cup regatta, LOTOS Gryffin CUP, and 48th 'Memoriał Żylewicza' track & field competition.
- Physical education of children and youth – we continued our involvement with sports projects with a social agenda, addressed to children and youth and focusing mainly on football ('Football Future with LOTOS') and winter sports ('In Search for the Champion's Successors'), as well as tennis (the 'LOTOS Racquets' project run in partnership with the Polish Tennis Association). We also extended our partnership with the Academic Sports Union as the Strategic Sponsor of the Academic National Team. The Company also continued the 'Olympic Rising Stars' programme, supporting seven talented athletes in various Olympic disciplines.

Culture sponsorship projects carried out in 2020

- Cooperation on the following projects: LOTOS Siesta Festival, Agnieszka Osiecka Atelier Theatre, Ladies Jazz Festival, Gdansk Shakespeare Festival, The Metropolitan Opera, '1920. Thankful to the Heroes' concert, 12th 'Unruly Unbreakable Cursed' International Film Festival (NNW Film Festival), and support for the launch of the 'Road to Freedom' exhibition by the *Tygodnik Solidarność* weekly, and premiere of 'The Barber of Seville' at the Polish Royal Opera.
- Patronage over the Baltic Opera in Gdańsk and The General Ryszard Kukliński Museum,
- Patronage over the Music Theatre in Gdynia,
- Support for the 'Adult children' concert commemorating the 40th anniversary of the NSZZ Solidarność trade union, and 'Solidarity with Belarus' concert,
- due to the pandemic, many regional-level events were cancelled, but we traditionally supported the following events held in the south of Poland: Bielska Zadymka Jazzowa LOTOS Jazz Festival, Jasło Days, Autumn Theatre Days, and the Major Henryk Dobrzański 'Hubal' commemorative show jumping competition,

- other local events sponsored by the Group included: the 100th anniversary of the Battle of Warsaw event and support for the Patria Nostra history competition.

13.4.6 LOTOS Foundation

In 2020, the LOTOS Foundation received 1,250 requests for donations. 148 projects received funding totalling PLN 14 million (around 75% more than in the previous year). This significant increase of the value of donations in 2020 was linked to the unprecedented event, namely the global pandemic caused by SARS-CoV-2 coronavirus.

Table 60. Structure of the LOTOS Foundation's 2020 spending (%)

health protection and promotion of healthy lifestyle	72%
arts and culture	12%
science and education	8%
social assistance	2%
support for search and rescue services and protection of people	1.1%
public safety and order	1%
promotion of physical culture and sports	1%
preservation of national traditions	1%
development of local social and business projects	0.9%
charitable activities	0.1%
sightseeing and leisure activities for children and youth	0.1%

Source: the Company.

Key activities of the LOTOS Foundation in 2020

- The LOTOS Foundation supported the neurosurgery ward of the Nicolaus Copernicus Hospital in Gdańsk. Modern endoscopic spine surgery equipment will enable the hospital to perform non-invasive surgeries. With the support of the LOTOS Foundation, patients insured under the National Health Fund will be offered such surgeries for free; previously, this was only possible in private healthcare centres;
- For many years, the LOTOS Foundation as the patron of the 'Jasło Science League with LOTOS' programme has been helping students pursue their scientific interests and passion. 103 students and 28 teachers participated in the latest edition of the programme. The Foundation sponsored the main award – a language lab for students of the Municipal School Complex No. 3 in Jasło. 'Jasło Science League with LOTOS' is a programme supporting talented students since 2013. The idea is to support the development of young talents, foster scientific thinking, and promote the project method among the youngest;
- The LOTOS Foundation supported the fifth edition of the 'Learn to Stay Safe' project, under which police officers in the Province of Gdańsk talk to children about road safety rules. The first-graders received, among other things, high-visibility vests and bags. The LOTOS Foundation has supported the project since its very inception. Devised by the Gdańsk police in 2016, the 'Learn to Stay Safe' Voivodship Educational Project covers approximately 6,000 first-grade pupils in the Province of Gdańsk every year. Its goal is to teach road safety rules to the youngest kids;
- The PKP Group Foundation and LOTOS Kolej provided computer hardware and software necessary for online learning to children from the poorest families of railway workers. Other railway companies also got involved in the project. LOTOS Kolej provided necessary funds to the PKP Group Foundation via the LOTOS Foundation, enabling the purchase computer hardware and software for children from the poorest families of railway workers. In total, the project covered 17 families;
- The LOTOS Foundation partnered with the ORLEN Foundation under the most recent edition of the Bona Fide scholarship programme. Ten Polish students received scholarships allowing them to study at one of the world's top 50 universities. To date, three editions of the programme have covered 22 scholarships. Bona Fide (Latin for 'in good faith') is a unique project at the national level, providing assistance to students who may in the future contribute the knowledge and experience gained through the scholarships to building the country's economic strength;
- The LOTOS Foundation provided a donation to the Czechowice-Dziedzice Municipality to support the project for children 'Talent from Czechowice-Dziedzice, a Town of Fiery Enthusiasm';
- The LOTOS Foundation provided a donation to the CARITAS centre at the St. Adalbert Parish in Kartuzy to co-finance construction of an inpatient hospice care centre;
- The LOTOS Foundation provided assistance to Voluntary Fire Brigades all around the country to co-finance the purchase of equipment and gear necessary to carry out rescue and firefighting operations;

- The LOTOS Foundation also provided financial assistance in the form of donations to treat and save the lives of sick children and adults.

13.4.7 Human rights in the value chain

At any stage of the supply chain, there are people who create, transport or sell the product. The LOTOS Group respects human rights. Therefore, it cooperates only with legally operating companies, and pursues business activities in an environment where human rights are governed by a legal system in force.

The LOTOS Group's trade partners are obliged to comply with the generally accepted system of values, respect their employees and their dignity. Observing these principles makes it possible to create an ethical supply chain.

The LOTOS Group seeks to ensure that all requests for proposals in the process of selecting a trade partner, and contracts concluded with both new and existing suppliers, contain CSR clauses regarding: OHS, rules and standards of conduct, ethics, conflicts of interest, anti-corruption, environmental protection, respect for human rights, and social impacts. Inclusion of such clauses in contracts signed by the LOTOS Group companies is mandatory.

13.4.8 Membership of industry associations and CSR

The LOTOS Group companies and representatives are members of numerous Polish and international organisations, some of which bring together specialist fuel, energy and chemical sector entities.

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Grupa LOTOS has also joined business organisations working towards Poland's economic growth and those promoting the principles of corporate social responsibility.

Grupa LOTOS's membership of organisations and associations in 2020

- Polish Chamber of Chemical Industry (PIPC)
- Polish Organisation of Oil Industry and Trade (POPiHN)
- Fuels Europe (European Petroleum Refiners Association)
- Polish Committee of the World Energy Council (PKŚRE)
- ISP 3 Smart Specialisation Board of the Pomerania Region
- Hydrogen and clean carbon technologies cluster
- Business & Science Poland (BSP)
- Union of Entrepreneurs and Employers (ZPP)
- IAA Poland International Advertising Association
- ISO 14000 Polish Forum Club
- ISO 9000 Polish Forum
- Transfer Pricing Centre Association
- Wojewódzki Klub Techniki i Racjonalizacji w Gdańsku (Provincial Technology and Rationalisation Club in Gdańsk)
- Polish Association of Stock Exchange Issuers
- Polish HR Management Association (PSZK)
- Pomeranian Employers
- Pomorskie in the European Union Association
- Hydrogen Europe

including the following organisations promoting the ideals of corporate social responsibility:

- Responsible Business Forum
- United Nations Global Compact

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Selected organisations and associations of which LOTOS Group companies were members in 2020

- Polish Alternative Fuels Association
- ATIEL
- European Lubricating Greases Institute
- Polish Committee for Standardisation
- Polish Association of Oil and Gas Industry Engineers and Technicians
- Association of Polish Offshore Industry Forum

- 'Safe Mining' Foundation
- Association of Polish Maritime Industries 'Forum Okrętowe'
- Polish Maritime Technology Forum
- Polish Wind Energy Association
- Polish Offshore Wind Energy Society
- AGH (University of Science and Technology) Alumni Association
- Polish Asphalt Pavement Association
- National Chamber of Road-Building Industry
- Polish Research Laboratories Club POLLAB
- Railway Business Forum
- Association of Independent Rail Carriers
- Railway Energy Efficiency Centre
- Netzwerk Europaeischer Eisenbahnen
- Polish 'Private Train Wagons' Association
- German and Austrian Association of Private Wagon Keepers VPI
- AVV, General Contract of Use for Wagons
- Internationaler Controller Verein
- Land Transport Chamber of Commerce
- UIC ATTI (Agreement on Freight Train Transfer Inspection)

13.4.9 Awards and distinctions

Our commitment to corporate social responsibility is beneficial for many entities, and highly appreciated by experts. This appreciation has earned Grupa LOTOS numerous awards and distinctions.

They confirm we are heading in the right direction, with a due focus placed on the Company's relations with employees, improving the workplace safety, relations with its investors and business partners, environmental protection and social initiatives.

- Another year in a row, Grupa LOTOS was awarded the CSR Silver Leaf in the annual poll organised by the *Polityka* weekly and Deloitte. The award given to businesses which make regular efforts to conform to the stringent ISO 26000 standard of social responsibility. The organisers also decided to recognise 13 business initiatives addressing climate issues, which may be an inspiration for other companies in terms of their themes, scale or method of implementation. Grupa LOTOS was recognised for its comprehensive 'LOTOS protects the Baltic Sea's wildlife' project;
- Grupa LOTOS is one of the leaders of the Responsible Business Ranking, ranked fifth in the general classification and first in its industry sector of 'Fuels, Energy and Mineral Production'. The Responsible Business Ranking is a list of companies operating in Poland, assessed in terms of the quality of the CSR management systems. The ranking has been compiled by Kozmiński Business Hub together with the Responsible Business Forum as the expert partner. Deloitte verifies the submissions, while *Dziennik Gazeta Prawna* is the media partner;
- 15 good practices of the LOTOS Group were included in the Responsible Business Forum Report. These were: 'Headed for the Baltic', 'Blue Trail', 'For Suppliers' website, OHS Days, 'In Search for the Champion's Successors', Employee Volunteering Programme, 'LOTOS Safety Belt Champions', 'Good Start for Beginners', 'Railway Technology Day', 'Talent with LOTOS', and 'Football Future with LOTOS'.

Other awards and distinctions received by the LOTOS Group in 2020:

- In August 2020, LOTOS Oil received a golden medal as the '2020 Consumer Quality Leader' in the 'Motor oils' category ;
- LOTOS Kolej ranked third in terms of: 'Revenue from declared core business – transport' in the TSL Ranking, in the category including transport companies. The ranking also covers major companies representing the transport, forwarding and logistics sectors;
- For the fourth time, the LOTOS Biznes card was selected as the best fuel card in Poland in the 'Fleet Derby' poll. The Blue Trail project, entered in the competition for the first time, won in the Electromobility category;
- The LOTOS Biznes card took the first place in the Fleet Card category of the '2020 Consumer Quality Leader' poll. The programme is organised by the editorial team of 'The Economy Zones' – a supplement to the *Dziennik Gazeta Prawna* daily;

- The Leaders' Forum at the Central Institute for Labour Protection awarded Grupa LOTOS a prestigious Green Card for Safe Work. The distinction was granted in recognition of the Company's proactive and effective efforts to improve its employees' safety and protection at the workplace;
- During the 7th edition of the Polish Chemical Industry Congress, Grupa LOTOS received the honorary title of the Ambassador of the Polish Chemical Industry for its active involvement to further the sector's interests.

13.5 Employees

13.5.1 HR policy

/403-3/

Employees are the pillar of the LOTOS Group. Highly qualified, motivated and committed employees are essential for the organisation, improve its efficiency and gives it a competitive advantage on the market. To attract the best candidates and retain existing staff, the Company has established an HR policy governing various aspects of the recruitment and employee management processes.

Our new employees are included in the 'Good start for beginners' onboarding programme, helping them to learn about the Group's values and organisational culture under the supervision of an experienced colleague. The purpose is to facilitate their entry into the new work environment and integration with the team, as well as to reduce stress involved in starting a new job. The LOTOS Group employees are provided with a wide range of medical services. Care is taken to protect their health and ensure safe and ergonomic work conditions. High standards are also vitally important at the recruitment stage – transparent rules allow the Company to attract the best candidates (Grupa LOTOS is a member of the Coalition for Friendly Recruitment).

Easy access to training and promotion opportunities, the possibility of reconciling professional duties with private and family life, as confirmed by the Top-Quality Human Resources Certificate issued by the Polish Human Resources Management Association (PSZK), as well as internal standards of protection against mobbing and discrimination increase loyalty towards the company, reduce employee turnover and minimise the risk of loss of valuable employees.

13.5.2 Workforce structure

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Table 61. Total number of employees by contract type and sex

Type of employment contract:	Women	Men	Total
fixed time (temporary employment)	159	555	714
open-ended (permanent employment)	1,096	3,663	4,759
TOTAL	1,255	4,218	5,473

Table 62. Number of employees by employment type and sex

	Women	Men	Total
full-time	1,230	4,181	5,411
part-time	25	37	62
TOTAL	1,255	4,218	5,473

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Table 63. Total number of new employees by sex and age

	Women	Men	Total
under 30 years	49	151	200
from 30 to 50 years.	85	243	328
over 50 years	3	50	53
TOTAL	137	444	581

Table 64. Total employee attrition by sex and age

	Women	Men	Total
under 30 years	17	59	76
from 30 to 50 years.	74	168	242
over 50 years	32	147	179
TOTAL	123	374	497
Employee turnover rate (%)	10%	9%	9%

Source of data in Tables 61 to 64: the Company.

13.5.3 Occupational health and safety

Staff safety is a key priority for the LOTOS Group. Employee health and safety at work take precedence in the Group's business.

Golden rules of occupational safety for a LOTOS Group employee

GOLDEN RULES OF SAFETY

FOR A LOTOS GROUP EMPLOYEE

I work safely.	**I react to threats.**	**I move around safely.**	**I drive carefully.**
I keep things clean and tidy.	**I apply protective equipment.**	**I only use tools which are in good repair.**	**I care for my health.**

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The LOTOS Group strives to maintain high safety standards, minimise risks, and raise employee awareness of safe working culture. The LOTOS Group's certified Integrated Management System (which also includes an occupational health and safety management system) covers all of its operations, including all employees, workstations and activities carried out by our staff. The LOTOS Group consults its employees on occupational health and safety measures, in particular those related to changes in the work organisation and in equipment provided for individual positions, or the introduction of new technological processes or chemical substances and preparations. As regards occupational safety issues, the LOTOS Group engages in cooperation with employee representatives, as required under the 45001 standard implemented in 2020 and certified by PCBC.

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All the LOTOS Group employees and other persons temporarily engaged by the Group companies are covered by the OHS management systems.

Table 65 Employees covered by the OHS system

Aggregation method applied to employees covered by the OHS system	Audit	Employee percentage
Persons formally employed by the organisation and persons who are not formally employed by the organisation, but whose work or workplace is controlled by the organisation	none	100%
Persons formally employed by the organisation and persons who are not formally employed by the organisation, but whose work or workplace is controlled by the organisation	internal	100%
Staff whose work or workplace is controlled by the organisation	internal or external certification	100%

Source: the Company.

The data cover only employees of the LOTOS Group companies, it is not possible to perform the calculations for third-party workers. Internal audits are understood as audits complying with ISO standards, e.g. 9001. Certification means a process of objective testing of the organisation's compliance with the PN-N-18001/ISO 45001 OHS management standard by an external certification body.

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The LOTOS Group has an OHS function in place, serving as the advisory and controlling body and acting in accordance with applicable laws. The OHS function's key tasks are to identify and eliminate possible risks through inspections and reviews, as well as face-to-face discussions with staff. The OHS function staff regularly enhance their knowledge and skills by participating in training, benchmarking meetings and by sharing experience with other production facilities. The OHS function education process is also supported through the employee training initiative in place at the LOTOS Group – the LOTOS Academy, and through projects and activities implemented by the OHS function for other employees, such as educational campaigns and annual OHS Days.

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To ensure optimum OHS and working conditions for its employees, the LOTOS Group takes wide-ranging measures, including assessment of the workplace risks. As required by applicable laws and internal regulations, the identification of occupational hazards and assessment of the likelihood of occupational risks are performed on a regular basis, including risks such as noise, vibration, chemical substances, biological agents, explosive atmospheres, machinery and equipment, occupational nuisance involved in positions equipped with display-screen equipment. Risk assessment is performed for the positions occupied by the Company's own employees, but also for job applicants, interns, trainees and contractors performing work on the Grupa LOTOS S.A. premises. This is done with the use of commonly available methods, such as Risc SCORE or PN, recommended by CIOP PIB, and in the case of high-risk works – immediately prior to their commencement.

The LOTOS Group has addressed health and process risks by implementing procedures aimed at preventing breakdowns, incidents and accidents at work and at ensuring adequate response. Through consistent implementation of appropriate controls, it is able to eliminate such risks and increase safety.

At the LOTOS Group there are several whistleblowing channels to report work-related hazards. There are OHS mail boxes available to all employees around the premises, an intranet application for reporting incidents, and a dedicated email address. Safety incidents reported by employees are eliminated as they occur, and when a thorough analysis or adequate human and financial expenditure are needed, they are implemented as part of the so called Working Environment Improvement Plan.

One of the key strategic objectives stated in the Group's 2017–2022 strategy, is the 'Strong Team, Coherent CSR Story, and Commitment to Safety' and the complementing 'Robust Safety Culture' initiative. This demonstrates the Management Board's concern about the safe working conditions, but also highlights the fact that occupational safety is a priority and value in itself. There is also a special policy in place allowing employees to leave their workstation in a situation which, in their opinion, poses a hazard to their health or could lead to an injury. The regulations concerning this employee right are incorporated in the Occupational Risk Assessment Sheets applicable to all workstations, and in OHS training procedures. Employees are informed of their rights in this respect during initial and periodic OHS training.

To improve safety at work, we have formulated a set of golden OHS rules to be followed by the LOTOS Group employees, based on applicable laws and internal regulations. The rules were defined following an analysis of risks and hazards which occurred over the last decade. They aim to reduce the risk of accidents and incidents posing threat to employees' lives and health, set high occupational safety standards, and foster the right behaviour among employees.

Major training events and other initiatives

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One of the major elements enhancing safety at work is a responsible employee fully aware of the risks involved in their work. Therefore, the LOTOS Group maintains a strongly focus on prevention and information, organising educational, training and preventive programmes aimed at minimising the impact of diseases among the Company's employees. Employees, trainees and interns undergo initial OHS training, covering topics defined in the training syllabus. Regardless of the position held and type of work performed, the Group's employees receive both initial and periodic training.

Out of concern for employee health and in order to provide them with easy access to a wide range of medical services, every employee of LOTOS Petrobaltic S.A. may apply for a Patient's Card, getting access to professional medical care, free of charge, at LUXMED healthcare facilities across Poland.

The healthcare package is available to all employees with active subscription, offering access to free medical appointments and recommended diagnostic procedures. The possibility to join the LUXMED healthcare programme is communicated already in job postings and during recruitment interviews.

Additionally, employees are offered education in the form of internal training courses or initiatives promoting health and safety.

Key training events and other initiatives include stress management workshops and events aimed at promoting and facilitating: healthy eating habits, quitting smoking, safe handling of heavy loads, physical activity and exercising, office ergonomics, organisation of work at the workstation, safe use of chemicals, and protection against noise.

the LOTOS Group has also launched a skin-care programme addressed to employees, mainly those operating refinery units, comprised of three stages, each focusing on a different problem: skin protection – application of skin protection products prior to commencing work, intended to protect the employee in the event of contact with various substances present at the workstation that may dehydrate and irritate the skin, skin treatment – application of products intended to remove contamination from the skin surface after work has been completed.

As part of the efforts to minimise risks associated with the COVID-19 pandemic, the Group companies offered COVID-19 diagnostic tests to employees, so that the employees returning to work after being in isolation or quarantine could feel safe and be sure they have fully recovered.

As part of additional staff training provided on the premises and online, employees participate, for example, in practical training on providing first aid to adults and children, on using AED and on quitting smoking. They have free access to medical consultations concerning occupational diseases and other health conditions not directly related to their work.

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In order to better familiarise the employees with safety issues and promote healthy lifestyle, each year 'OHS Days' are organised at the LOTOS Group refinery in Gdańsk. In 2020, during the 11th edition of OHS Days, employees of the LOTOS Group companies had an opportunity to get individual physiotherapeutic advice. The purpose of the video consultations was to prevent postural overloads related to work (e.g. from prolonged sitting), to reduce or eliminate pain, to improve posture, to prepare one's body for return to daily sporting activity, etc. Employees could also join a 'live' training session with a personal training assistant and to participate in a number of webinars, including on safety during remote work, on how a diet affects one's natural immunity, and on relaxation and breathing techniques. During previous editions of the OHS Days, employees were able to undergo diagnostic tests for cancer, respiratory and vascular system diseases, and dermatological diseases.

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In 2020, 37 accidents took place at the LOTOS Group. All were individual accidents; in 33 cases the injured parties required sick leave. All were classified as minor. Most of them were linked to the operation of machinery and equipment or to transport (moving on foot, driving vehicles).

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In 2020, there were no new reports of work-related ill health among the LOTOS Group's employees.

13.5.4 Diversity management

The LOTOS Group values diversity – it is an integral part of both our business activities as well as HR policy and employee promotion. We place particular focus on equal treatment irrespective of gender, age, disability, health, race, nationality, ethnic origin, religion, religious denomination, irreligiousness, political beliefs, trade union membership, gender identity, family status, lifestyle etc. The issue is discussed in greater detail in Section 12.8.

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Composition of the Management Board by age and sex, as at December 31st 2020

Table 66. Percentage breakdown of employees in management bodies

Management Board		Women	Men
under 30 years	0%	0%	0%
from 30 to 50 years.	20%	0%	20%
over 50 years	80%	20%	60%
	100%	20%	80%
Supervisory Board		Women	Men
under 30 years	0%	0%	0%
from 30 to 50 years.	33%	0%	33%
over 50 years	67%	33%	33%
	100%	33%	67%

Source: the Company.

Table 67. Percentage breakdown of employees classified as

senior management		Women	Men
under 30 years	2%	1%	1%
from 30 to 50 years.	74%	18%	56%
over 50 years	24%	1%	23%
	100%	20%	80%
middle management		Women	Men
under 30 years	2%	0%	1%

from 30 to 50 years.	69%	18%	51%
over 50 years	30%	3%	27%
	100%	21%	79%
other employees		Women	Men
under 30 years	17%	4%	13%
from 30 to 50 years.	58%	15%	43%
over 50 years	25%	4%	21%
	100%	23%	77%

Source: the Company.

13.5.5 Human rights in relations with employees

At the LOTOS Group, great importance is attached to ensuring that human rights are respected in relations between employers and employees. Our core corporate values are enshrined in the LOTOS Group Code of Ethics.

Employee rights are better safeguarded following adoption by the LOTOS Group in 2019 of 'The Workplace Bullying, Harassment and Discrimination Prevention Policy', which contains provisions on how to identify unacceptable practices as well as mechanisms to be applied in case of misconduct that threatens values such as human dignity, social norms and mutual respect.

The Workplace Bullying, Harassment and Discrimination Prevention Policy requires that misconduct be reported to the Ethics Officer through one of the available communication channels. The Company also plans to launch a training programme on identifying behaviours that may be indicative of bullying, harassment or discrimination.

13 cases were reported to the Ethics Officer in 2020. None involved harassment or discrimination practices and no incidents of this kind were identified. However, one case of workplace bullying was confirmed at one of the subsidiaries. The case was investigated and concluded with a statement by the Ethics Officer, submitted to the employer at the company concerned. As a result, the employer has taken measures which, in the opinion of the Ethics Officer, will prevent reoccurrence of similar incidents.

To promote and develop this area of activity, Grupa LOTOS S.A. has made efforts with a view to organising, in the second half of 2021, in association with the University of Gdańsk's Department of Labour Law, an academic conference on the place and role of ethics programmes in organisations employing people. Whether the conference will take place depends naturally on the epidemic situation in Poland.

13.5.6 Remuneration and employee benefits

/401-2/

The terms of remuneration offered by the Company take into account:

- the job type as well as the qualifications and competencies required to perform it,
- the level of output, according to which individual remuneration is differentiated,
- satisfactory performance against objectives and targets,
- outstanding professional achievements, generating considerable, unexpected added value for the Company.

In addition to the base pay, a staff member is entitled to additional remuneration calculated and paid in accordance with the generally applicable labour law, i.e. for overtime and night work.

Employees may receive an individual annual bonus in accordance with the rules laid down in the Collective Bargaining Agreement and a special bonus for outstanding professional achievements. Once a year, a periodic payroll review is undertaken.

At the same time, Grupa LOTOS takes care of the professional development of its employees, offering individual training plans and providing talent with promotion and career paths. Benefits available to employees include:

- medical and dental care plans for employees and members of their immediate families;
- unit-linked group life insurance with the premium paid by the LOTOS Group for all employees;
- personal and professional development under the LOTOS Academy, which offers training, development programmes, a knowledge sharing culture, assistance with the cost of studies and language courses;
- an option to purchase MultiSport and OK System cards;
- price discounts at LOTOS service stations;
- participation in company sports teams (volleyball, sailing, tennis, football, bowling and chess teams and LOTOS Running Team).

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The remuneration system is regularly reviewed, based on payroll reports published by leading consultancy firms and statistical data published by Statistics Poland. In 2019, a new employee pay grade system was established. Covering all positions at the Company from senior management to operational roles, it became the basis for validating and developing a new pay scale. Since December 11th 2019, Grupa LOTOS has been bound by an updated Collective Bargaining Agreement covering 100% of Grupa LOTOS employees.

/402-1/

Contracts of employment provide for specific notice periods applicable to individual employees. Notice periods are also defined in the Work Rules, and depend on the length of service, in compliance with the Labour Code. More favourable terms may be negotiated with the employer.

/201-3/

Grupa LOTOS employees can accumulate additional pension savings from employer-funded contributions through a unit-linked group life insurance. The LOTOS Group has had Employee Capital Plans (PPK) in place since 2019.

13.5.7 Development and education

/404-2/

The training policy provides each employee with opportunities to increase their competencies and hone their strengths. It helps to discover talent within the organisation and support experts. Well-selected training improves the LOTOS Group employees' satisfaction and engagement.

Training programmes take into account each individual's and organisational unit's development plans, as well as the Group's development needs. Our employees' achievements are summarised and discussed using the Periodic Employee Evaluation System (PEES). There are a number of internal training opportunities available to employees, who can also apply for co-financing of external training courses. In 2004, the LOTOS Academy was launched as the Group's training and development programme. Employees can also participate in the 'Leader' or 'Smarter' programmes and e-learning courses.

/404-1/

Table 68. Average number of training hours per employee

Average number of training hours per:	
employee	10.19
women	13.00
men	9.36
management	12.54
junior staff	9.61

Source: the Company.

The LOTOS Group's training and development activities planned for 2020 were carried out in the execution of the organisation's vision, strategic goals and related development initiatives for 2017−2022. An important source of information were the development tasks and objectives set for employees during the periodic evaluation carried out in 2019. Originally, the initiatives were aimed, among other things, at enhancing staff competencies to adapt them to the requirements of strategy implementation, identifying talent within the organisation and boosting their strengths, disseminating expert knowledge, and increasing commitment and job satisfaction.

The decrease in the average number of training hours recorded in 2020 (compared with 2019) was attributable to the COVID-19 pandemic and the resulting restrictions on face-to-face contact – so important in the context of professional development – as well as the natural change in priorities. Both the scale and form of training were limited.

Periodic evaluations are carried out at the LOTOS Group to assess employee competencies as well as the level of achievement against development objectives. The PEES is a valuable source of information on performance against professional and development objectives, competency levels and training needs across the organisation.

The average competency score for the LOTOS Group employees was 4.54 (on a scale 1–5). Which means that expectations associated with a given competency are fully met. The results also show a high performance level against professional and development objectives, with the average scores for all companies at 84% and 81%, respectively.

/404-3/

In 2020, 91% of eligible female employees and 97% of eligible male employees of the LOTOS Group were covered by the Periodic Employee Evaluation System (PEES).

At Grupa LOTOS S.A., the 2020 periodic evaluation process was modified, compared with the process applied at other LOTOS Group companies. For the first time, it was aligned with the employee bonus scheme, thus replacing the existing Periodic Employee Evaluation System and Quarterly Incentive Bonus. Evaluation of employees in managerial and executive roles will be based on their performance against individual annual targets; while others will be evaluated based on three attitudes – teamwork skills, quality and timeliness of work, and initiative.

The evaluation will be completed by mid-March 2021, but the results will not be comparable with previous years' data or data from other companies. Information on the new periodic evaluation will be reported in the following year.

13.5.8 Employee volunteering

Employee volunteering has a long tradition at the LOTOS Group, with employee-volunteers devoting their time, knowledge and skills to local communities. Under the programme, employees can apply for financial support to help fund their own projects.

In 2020, volunteers engaged in various initiatives. For example, more than 100 of them were involved in the preparation of Christmas presents for children and senior citizens from poor families as part of an annual initiative run by the Municipal Family Support Centre in Gdańsk. Traditionally, collections of warm clothes for the poor and needy, struggling financially, were held as part of the 'Monciak Soup' initiative.

LOTOS Group volunteers also participated in the nationwide 'Schoolbag Full of Smiles' campaign organised by Caritas. Its purpose was to support children from disadvantaged families at the beginning of the new school year. The collected school equipment was donated mainly to children and young people from children's homes, single mother shelters and sociotherapy centres.

In late November and early December 2020, the LOTOS Group engaged for the third time in the 'Noble Gift' campaign, with nearly 60 employees joining in.

Employees were also actively engaged in local community activities related to the coronavirus pandemic. In mid-April, the Company volunteers joined the Caritas crisis team to help in distributing and delivering food to those most in need, isolated from their community. They also engaged in a nationwide campaign supporting senior citizens by joining the Solidarity Senior Citizens Support Corps (→ www. Suppjseniora.pl). On the initiative of LOTOS Lab, some employees also volunteered to sew protective masks.

13.5.9 Ethics and anti-corruption

/102-16/

Values and the Code of Ethics

The Group conducts its business in compliance with ethical principles, respecting standards in all areas of its operations. We have adopted a system of values which is founded on respect for the needs of society and the natural environment.

Four primary values underlying the LOTOS Group's corporate social responsibility

TRANSPARENCY

the Group undertakes to comply with the most exacting environmental standards, remains committed to ethical and fair competition, and counteracts the abuse of human rights

OPENNESS

the Group is open to changes, the world's needs and people's expectations

RESPONSIBILITY

the underlying principle of the Group's attitude towards mankind and its future, the environment, the home country and its international status

INNOVATIVENESS

the Group takes an innovative approach to solving social and environmental issues; by acting in accordance with the principles of sustainable development, the Group achieves business benefits and gains a competitive advantage on the market

Ethical Conduct Programme

The Ethical Conduct Programme enables effective and ethical management of the LOTOS Group's organisational culture. It is the cornerstone of the Group's activities, delivering value for our employees and external stakeholders.

The Ethical Conduct Programme comprises:

- Code of Ethics;
- Ethics Officer;
- channels for reporting breaches of the Code;
- employee education;
- easy communication.

The Code of Ethics defines the system of ethical values and standards of conduct our employees are expected to uphold in the workplace and in relations with key stakeholder groups. Breaches of the Code of Ethics are reported to and handled by the Ethics Officer, who oversees compliance with the LOTOS Group Code of Ethics.

The Ethics Officer is available to each employee and trading partner of the LOTOS Group.

The following methods can be used to communicate with the Ethics Officer:

- a meeting in person at a time convenient to the employee, arranged in advance by phone;
- telephone conversation with or voicemail to the Ethics Officer (phone: +48 58 308 80 70);
- by email: → liniaetyki@grupaLOTOS.pl,
- online report form available at → www.lotos.pl,
- by traditional mail.

Grupa LOTOS operates in compliance with the Code of Best Practice for WSE Listed Companies. Compliance with the Code helps build the Company's ethical culture, which is vital for its relations with the market environment and for building its market position.

Prevention of corruption, misconduct and conflicts of interest

The risk of misconduct is mitigated through effective management. Should the risk materialise, an emergency plan is in place ensuring that immediate action is taken to investigate the situation, mitigate its adverse impacts, return to normal operations, and prevent recurrence.

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In 2020, no instances of corruption were identified at the LOTOS Group.

Reporting misconduct

Stakeholders can report any suspected irregularities and/or misconduct via specified open communication channels. In 2020, the communication channels for reporting reasonably suspected cases of misconduct by the LOTOS Group management and employees, suppliers, contractors or other entities having business links with the LOTOS Group were updated. The following communication channels are available:

- telephone conversation or voicemail (+48 504 181 048);
- email: zawiadomienia@grupalotos.pl;
- filling in → an online form;
- by post, in a letter addressed to: Head of the Internal Control Office (*Szef Biura Kontroli Wewnętrznej*), Grupa LOTOS S.A. ul. Elbląska 135, 80-718 Gdańsk, Poland.

Information received via any of these channels will be referred directly to the Head of the Internal Control Office, and will be investigated or reviewed. LOTOS Group employees may also report suspected misconduct via the intranet platform →www.lotostrada.pl in the 'Misconduct Prevention at the LOTOS Group' section. No misconduct is tolerated at the LOTOS Group. Grupa LOTOS has signed the United Nations Global Compact's Call to Action on Anti-Corruption, a global initiative where businesses join forces to fight corruption in all its forms. The Misconduct Prevention Policy and other internal anti-corruption regulations are known to all employees of the LOTOS Group companies. All new hires receive relevant training, including information on anti-corruption regulations and liability in case of non-compliance. Moreover, employees are repeatedly reminded of anti-corruption rules during their employment.

Staff training

Recognising the barriers and limitations to on-site training due to the COVID-19 pandemic, the Internal Control Office prepared misconduct-related training for the LOTOS Group employees on the e-learning platform. All employees of Grupa LOTOS S.A. were required to familiarise themselves with the mandatory training content and pass a test on misconduct prevention.

The form of induction training was also changed in 2020. Only one on-site training session was delivered by the Internal Audit Office (NA) (with a total of 31 employees trained from: Grupa LOTOS, LOTOS Paliwa and LOTOS Lab), and no further sessions were planned due to restrictions caused by the COVID-19 pandemic. Traditional on-site training was replaced by online training. At Grupa LOTOS S.A., the online induction course was completed by 75 employees (a total of 106 persons). All employees of Grupa LOTOS S.A. and its subsidiaries were also obliged to familiarise themselves with the new Misconduct Prevention Policy of the LOTOS Group. Concurrently, the organisation's anti-corruption policies and procedures in force in 2020 were communicated to all its business partners.

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Table 69 Percentage of employees trained in the organisation's anti-corruption policies and procedures

	Number of employees and members of management bodies to whom anti-corruption policies and procedures have been communicated
Number of members of management bodies	11
Number of new members of management bodies to whom relevant information has been communicated	2
Number of new employees to whom relevant information has been communicated	75

Source: the Company.

In 2020, no case was recorded that could justify dismissal of an employee of the LOTOS Group on the grounds of corruption.

The misconduct prevention and detection measures taken by the organisation are viewed as effective. These measures included:

- implementation of the LOTOS Group's Misconduct Prevention Policy, investigation of any suspected misconduct cases and implementation of misconduct risk mitigation measures;
- defining a Misconduct Risk Management Charter, managing and monitoring the risk of misconduct, risk mitigation and contingency planning;
- incorporating CSR clauses (including an anti-corruption clause) in requests for proposals and contracts;
- establishing a new position of the Misconduct Prevention Coordinator;
- establishing a Trade Partner Vetting Department and Internal Control Office within the LOTOS Group;
- obligation for all the Group companies to vet their trade partners in accordance with the relevant procedure;
- delivering misconduct prevention training at the LOTOS Group.

The Trade Partner Vetting Office reviews trading partners and gives recommendations on entering into a contract or continuing the business relationship based, among other things, on the LOTOS Group's Misconduct Prevention Policy.

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All the LOTOS Group companies were assessed for the risk of corruption in 2020.

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As a result of our commitment to ethical conduct and best practices, no legal action was taken against the LOTOS Group concerning its marketing communication, advertising, sales or market presence on the grounds of alleged breaches of free competition rules or monopolistic practices.

Due diligence procedures

Depending on the scope of a given company's operations and its needs, due diligence procedures applied at the LOTOS Group are consistent with applicable standards, as part of the implemented management systems:

- PN-EN ISO 9001:2015 – Quality management systems
- PN-EN ISO 14001:2015 – Environmental management systems
- PN-ISO 45001:2018 – Health and safety at work management systems
- PN-EN ISO 27001:2017 – Information security management systems
- PN-EN ISO 22301:2014 – Business continuity management systems
- PN-EN ISO 50001:2018 – Energy management systems
- PN-ISO 31000:2018 – Risk management;
- Internal Control System
- AQAP 2110 – NATO quality assurance requirements for design, development and production.

13.5.10 Ethical supply chain

The LOTOS Group's operations affect many social and environmental aspects, so it ensures that its supply chain, from upstream exploration of deposits through downstream production to sale of finished products and services, is sustainable.

The Group supports value building along the entire supply chain by:

- striving for efficient use of assets throughout the value chain;
- actively managing opportunities and risks;
- creating technological innovations to enhance competitiveness;
- improving processes to ensure the safety of people and the environment.

No risks of forced labour, child labour or violation of the right to freedom of association and collective bargaining in the supply chain were identified by the risk management system in 2020. These risks are analysed by the LOTOS Group based on available information and submitted reports, in accordance with the risk management policies in place.

/OG13/

In 2020, the LOTOS Group recorded thirteen process safety incidents. Eight of them were identified at an early stage (and classified as Tier 2), which enabled us to address them quickly and prevent them from escalating to Tier 1. Five events were classified as Tier 1. Numerous measures have been undertaken with a view to preventing reoccurrence of the identified process safety incidents:

- post-emergency committees have been set up to analyse the causes of each event and give recommendations to prevent recurrence;
- engineering staff have been trained in investigating the root causes of emergency situations;
- periodic training has been delivered to refining production staff on process safety;
- a transparent change management process has been implemented focusing on the risk analysis and safe change implementation assurance;
- periodic inspections have been held to check the conditions of storing dangerous materials;
- the validity of permits to work and records in the facilities entry logs have been periodically reviewed;
- safety incidents have been communicated to employees via safety alerts containing, among other things, reminders on the applicable safety procedures;
- organisational arrangements have been made for regular monitoring of the location of emergency process shutdowns critical for safety of the facilities;
- regular HAZOP studies have been initiated with respect to critical facilities.

13.6 About the report

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This non-financial statement has been prepared in accordance with the GRI Standards (Core option) and pursuant to the Polish Accounting Act (Art. 49b and Art. 55.2b-55.2e). A change relative to previous years is the application in this report of selected GRI indicators in the 2018 version (instead of the previously applied 2016 version). Due account is also taken of environmental reporting guidelines of the Task Force on Climate-related Financial Disclosures (TCFD). No restatements of previous reports have been made in this report. This report has not been subject to external assurance.

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This report contains information covering the period from January 1st to December 31st 2020. The previous non-financial statement of Grupa LOTOS and the LOTOS Group was issued on March 12th 2020. Grupa LOTOS prepares non-financial reports on an annual basis.

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Letters should be sent to the Company's headquarters:

Grupa LOTOS S.A. Ul. Elbląska 135, 80-718 Gdańsk

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Should you have any queries, you can contact the External Communication Department of Grupa LOTOS S.A. at → media@grupalotos.pl or by telephone: (58) 308 72 29.

13.6.1 Materiality of non-financial information

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The indicators were selected based on the materiality assessment, taking into account both external and internal stakeholders' opinions. This report addresses topics of particular importance to the Company's social environment. The Company's stakeholders completed an online survey. The purpose of the survey was to highlight the topics of particular importance to individual stakeholder groups. Those indicated by stakeholders as the most important ones were addressed in this report. The survey was completed by nearly 200 representatives of employees, business partners, analysts, media, and research centres. For more information on the business operations, financial performance as well as social and environmental activities of the LOTOS Group, visit the LOTOS Group's websites: → www.lotos.pl and → www.odpowiedzialny.lotos.pl

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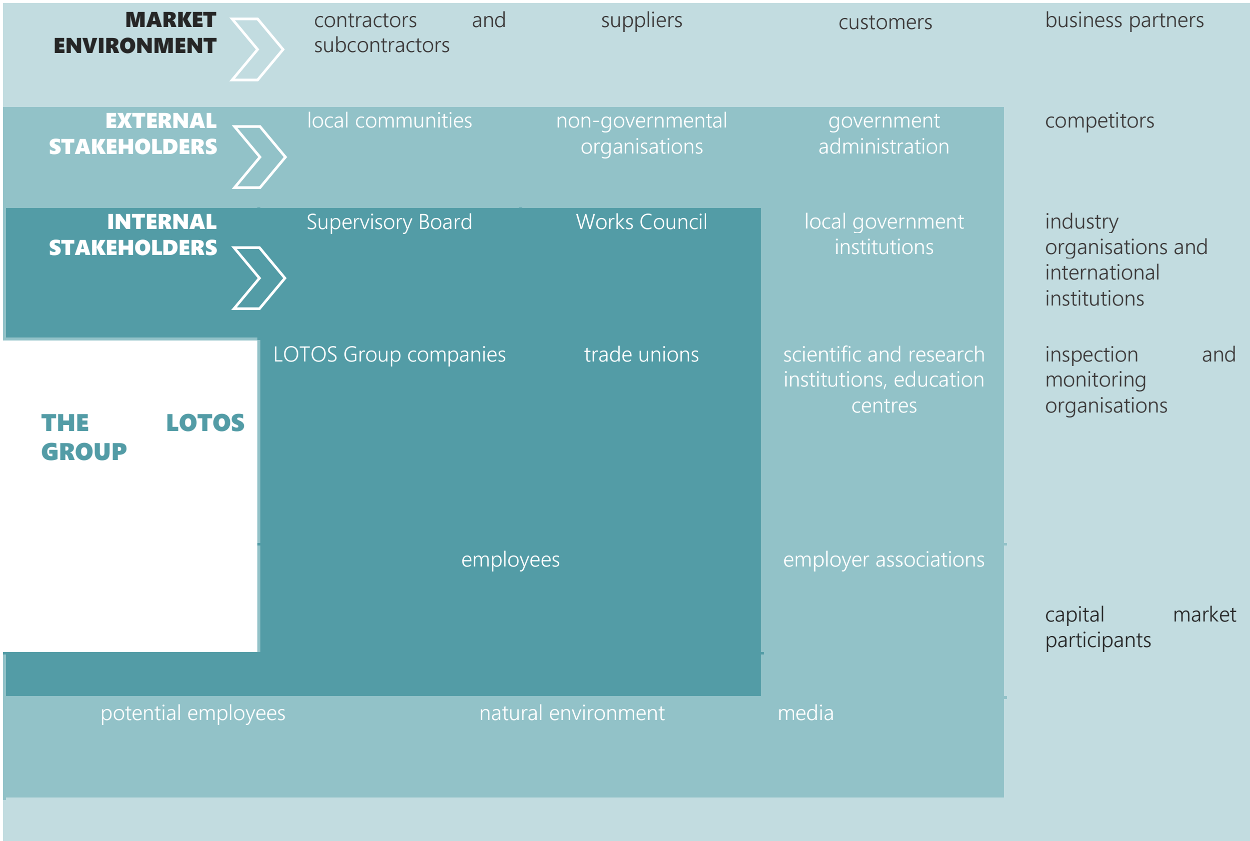
LOTOS stakeholder map



Source: the Company.

13.6.2 Compliance of the report

Table 70. Compliance with the Accounting Act

Requirement under the Accounting Act	Section
Business model (Art. 49b.2.1)	13.2.1.
Key non-financial performance indicators (Art. 49b.2.2)	13.1.
Non-financial policies and their effect (Art. 49b.2.3):	
- environmental	13.3.
- employee	13.5
- social	13.4.
- human rights	13.4.7.
- anti-corruption	13.5.9.
Due diligence procedures (Art. 49b.2.4)	13.5.9
Material non-financial risks and risk management (Art. 49b.2.5)	13.3.3.

Source: the Company.

Table 71. Compliance with TCFD recommendations

TCFD recommendation	Section
CORPORATE GOVERNANCE	
Overview of the management board's supervision over climate-related risks and opportunities.	13.3.2 Approach to climate change
The role of the management staff in the process of assessment and management of climate-related risks and opportunities.	13.3.2 Approach to climate change
STRATEGY	
Overview of climate-related risks and opportunities identified by the organisation in the short, medium and long term perspective.	13.3.2 Approach to climate change 13.3.3 Climate-related risks and opportunities
Overview of the impacts of climate-related risks and opportunities on the organisation's business operations, strategy and financial standing.	13.3.2 Approach to climate change 13.3.3 Climate-related risks and opportunities
Overview of the resilience of the organisation's business model and strategy under different climate-related scenarios (including the Two Degrees Scenario).	This topic is not reported
RISK MANAGEMENT	
Overview of the processes for identifying and assessing climate-related risks.	13.3.3 Climate-related risks and opportunities

TCFD recommendation	Section
Overview of the processes for managing climate-related risks.	13.3.3 Climate-related risks and opportunities
Overview of the integration of identification, assessment and management of climate-related risks into the organisation's overall risk management.	13.3.3 Climate-related risks and opportunities
INDICATORS AND TARGETS	
Indicators applied by the organisation to assess climate-related risks and opportunities, in line with the organisation's strategy and risk management process.	13.3.2 Approach to climate change 13.3.3 Climate-related risks and opportunities
Scope 1, 2 and 3 (if applicable) greenhouse gas (GHG) emissions and overview of the related risks	13.3.3 Climate-related risks and opportunities 13.3.5 Emissions to air
Targets set by the organisation concerning climate-related risks and opportunities management and the organisation's performance against those targets.	13.3.2 Approach to climate change

Source: the Company.

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List of GRI indicators

Indicator category	Indicator	Description	Section
GRI 102: General disclosures			
1. Organisational Profile	102-1	Name of the organisation	13.2. 13.2.1.
	102-2	Activities, brands, products, and services	13.2.1. 13.2.2.
	102-3	Location of headquarters	12.2. 13.6.
	102-4	Locations of operations	13.2.1. 13.2.2.
	102-5	Ownership and legal form	13.2.
	102-6	Markets served	13.2.1. 13.2.2.
	102-7	Scale of the organisation	13.2.1. 13.2.2.
	102-8	Information on employees and other workers	13.5.2.
	102-9	Supply chain	13.2.3.
	102-10	Significant changes to the organisation and its supply chain	13.2.3.

Indicator category	Indicator	Description	Section
	102-12	External initiatives	13.4.8.
	102-13	Membership of associations	13.4.8.
2. Strategy	102-14	Statement from senior decision-maker	13.2.5.
	102-15	Key impacts, risks and opportunities	13.2.4. 13.2.5.
3. Ethics and integrity	102-16	Values, principles, standards, and norms of behaviour	13.5.9.
4. Management	102-18	Governance structure	13.2.6.
	102-19	Delegating authority	13.2.6.
	102-20	Executive-level responsibility for ESG topics	13.2.6.
	102-22	Composition of the highest governance body and its committees	13.2.6.
	102-23	Chair of the highest governance body	13.2.6.
	102-24	Nominating and selecting the highest governance body	13.2.6.
	102-26	Role of highest governance body in setting purpose, values, and strategy	13.2.5.
	102-28	Evaluating the highest governance body's performance	13.2.6.
5. Stakeholder engagement	102-40	List of stakeholder groups	13.6.1.
	102-41	Collective bargaining agreements	13.5.6.
	102-43	Approach to stakeholder engagement	13.4. 13.4.3.
6. Reporting practice	102-45	Entities included in the consolidated financial statements	13.2.6.
	102-46	Defining report content and topic boundaries	13.6.1.
	102-48	Restatements of information	13.6.
	102-49	Changes in reporting	13.6.
	102-50	Reporting period	13.6.
	102-51	Date of most recent report	13.6.
	102-52	Reporting cycle	13.6.
	102-53	Contact point for questions regarding the report	13.6.
	102-54	Claims of reporting in accordance with the GRI Standards	13.6.
	102-55	GRI content index	13.6.2.
	102-56	External assurance	13.6.
GRI 103: Management approach			
General requirements for reporting the	103-1	Explanation of the material topic and its boundary	13.6.
	103-2	The management approach and its components	13.3.1.

Indicator category	Indicator	Description	Section
management approach	103-3	Evaluation of the management approach	13.3.1.
GRI 201: Economic performance	201-1	Direct economic value generated and distributed	13.1.
	201-2	Financial implications and other risks due to climate change	13.3.2.
	201-3	Defined benefit plan obligations and other retirement plans	13.5.6.
	203-2	Significant indirect economic impacts	13.2
GRI 205: Anti-corruption	205-1	Operations assessed for risks related to corruption	13.5.9.
	205-2	Communication and training about anti-corruption policies and procedures	13.5.9.
	205-3	Confirmed incidents of corruption and actions taken	13.5.9.
GRI 301: Raw materials	301-1	Materials used by weight or volume	13.3.7.
	302-1	Energy consumption within the organisation	13.3.6.
	302-3	Energy intensity	13.3.6.
	302-4	Reduction of energy consumption	13.3.6.
GRI 303: Water and effluents			
	303-1	Interactions with water as a shared resource	13.3.9
	303-3	Water withdrawal	13.3.9
	303-4	Water discharge	13.3.9.
GRI 304: Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	13.3.10.
GRI 305: Emissions to air	305-1	Direct (Scope 1) GHG emissions	13.3.5.
	305-2	Energy indirect (Scope 2) GHG emissions	13.3.5.
	305-4	GHG emissions intensity	13.3.5.
	305-5	Reduction of GHG emissions	13.3.5.
	305-6	Emissions of ozone-depleting substances (ODS)	13.3.5.
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	13.3.5.
	OG6	Volume of flared and vented hydrocarbon	13.3.5.
Waste	OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	13.3.8
GRI 307: Environmental compliance	307-1	Non-compliance with environmental laws and regulations	13.3.1.

Indicator category	Indicator	Description	Section
GRI 401: Employment	401-1	New employee hires and employee turnover	13.5.2.
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	13.5.6.
GRI 402: Labour/management relations	402-1	Minimum notice periods regarding operational changes	13.5.6.
GRI 403: Occupational health and safety			
	403-2	Hazard identification, risk assessment, and incident investigation	13.5.3.
	403-3	Occupational health services	13.5.1. 13.5.3.
	403-4	Worker participation, consultation, and communication on occupational health and safety	13.5.3.
1. Management approach	403-5	Worker training on occupational health and safety	13.5.3.
	403-6	Promotion of worker health	13.5.3.
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	13.5.3.
	403-8	Workers covered by an occupational health and safety management system	13.5.3.
2.Specific disclosures	403-9	Work-related injuries	13.5.3.
	403-10	Work-related ill health	13.5.3.
	404-1	Average hours of training per employee	13.5.7.
GRI 404: Training and education	404-2	Programs for upgrading employee skills and transition assistance programs	13.5.7.
	404-3	Percentage of employees receiving regular performance and career development reviews	13.5.7.
GRI 405: Diversity and equal opportunity	405-1	Diversity of governance bodies and employees	13.2.6. 13.5.4.
GRI 413: Local communities	413-1	Operations with local community engagement, impact assessments, and development programmes	13.4.3.
GRI 416 Customer health and safety	416-1	Assessment of the health and safety impacts of product and service categories	13.2.2
Asset integrity and process safety	OG13	Number of process safety events, by business activity	13.5.10