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

Grupa LOTOS Management’s Discussion and Analysis of the consolidated financial results for the fourth quarter of 2021

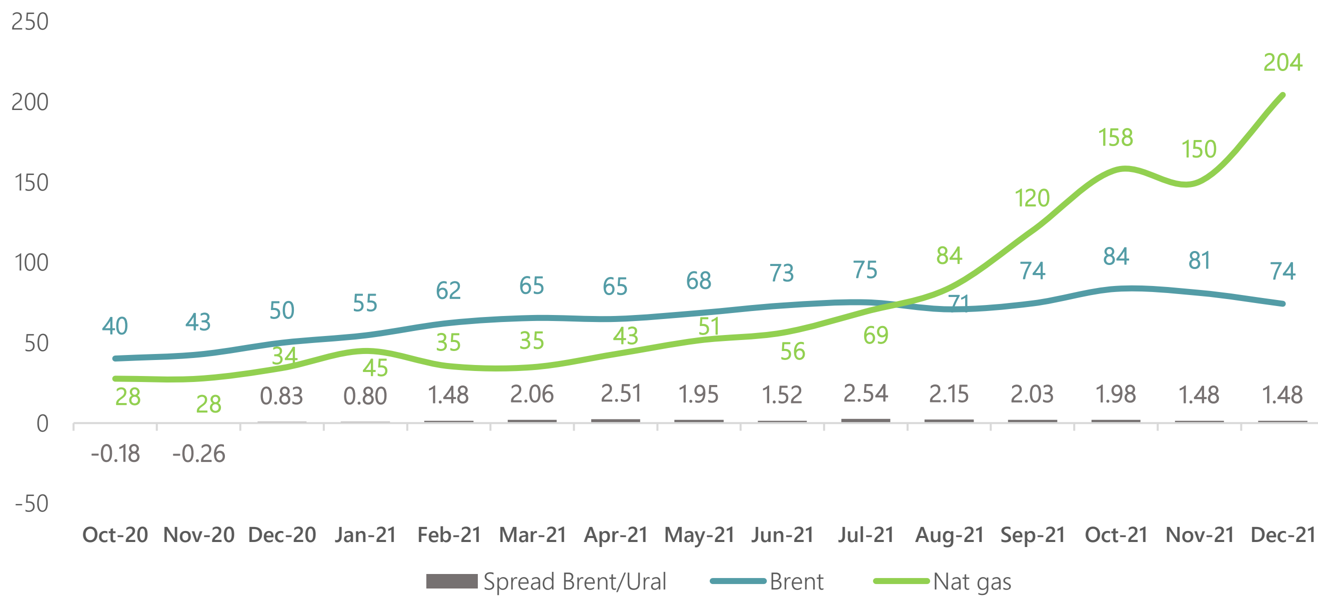
ISIN	Stock Exchange	Thomson Reuters	Bloomberg
PLLOTOS00025	LTS	LTSP.WA	LTS PW

An excel file with the operating and financial data for the four quarter of 2021 and the previous reporting periods is published in the Investor Relations section of our website at → inwestor.lotos.pl as → databook

MARKET ENVIRONMENT

- Very strong uptrend in natural gas prices[1], up USD 140.51/boe year on year (+471.4%) and USD 79.56/boe quarter on quarter [2](+87.7%)
- Year-on-year and quarter-on-quarter growth in Brent crude prices of USD 35.16/bbl (+79.3%) and USD 5.99/bbl (+8.2%),[3] respectively
- Solid improvement of diesel oil crack spreads, up USD 9.75/bbl (+191.6%) year on year and up USD 4.89/bbl quarter on quarter (+49.1%)
- Further major widening of the quarterly average spread between diesel oil and heavy fuel oil crack spreads to USD 25.58/bbl versus USD 9.08/bbl in the corresponding period of 2020 and USD 19.13/bbl in the previous quarter
- Significant year-on-year improvement in the crack spread [4]for motor gasoline, up USD 11.31/bbl (+327.8%), with a slight drop quarter on quarter, by USD 0.18/bbl (-1.2%)
- Brent/Urals differential at ca. USD 1.64/bbl, having increased by USD 1.52/bbl year on year and having decreased by USD 0.6/bbl quarter on quarter

Figure 1. Natural gas prices (USD/boe), Brent prices (USD/bbl), and the Brent/Urals spread (USD/bbl)



Source: In-house analysis based on Refinitiv data.

[1]NBP – National Balancing Point.
[2]boe – barrel of oil equivalent.
[3] bbl – barrel of crude oil.
[4] Product crack spread is calculated as the difference between the price per barrel of a given product (price per tonne computed using the appropriate density factor) and the price of Urals crude (the Brent Dtd crude price adjusted for the Brent/Urals spread).

Table 1. Brent prices, Brent/Urals spread and natural gas prices (USD/bbl)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Dated Brent FOB prices	79.48	73.49	44.32	8.2%	79.3%
Brent/Urals spread	1.64	2.24	0.12	-26.8%	1266.7%
UK NBP natural gas prices[5]	170.32	90.76	29.81	87.7%	471.4%

Source: In-house analysis based on Refinitiv data.

Table 2. Product crack spreads (USD/bbl)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Motor gasoline	14.76	14.94	3.45	-1.2%	327.8%
Naphtha	4.08	3.55	-0.55	14.9%	841.8%
Diesel oil (10 ppm)	14.84	9.95	5.09	49.1%	191.6%
Light fuel oil	14.20	9.00	4.13	57.8%	243.8%
Aviation fuel	12.86	8.28	3.09	55.3%	316.2%
Heavy fuel oil	-10.74	-9.18	-3.99	-17.0%	-169.2%

Source: In-house analysis based on Refinitiv data.

Table 3. USD/PLN exchange rates

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
PLN/USD exchange rate at end of period	4.06	3.99	3.76	1.8%	8.0%
Average PLN/USD exchange rate	4.04	3.87	3.78	4.4%	6.9%

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

Key external factors affecting to the LOTOS Group's performance in the fourth quarter of 2021:

- Feedstock and products

  Refining & Marketing

A range of factors, including a recovery of the economy and growth in demand for energy resources coupled with largely depleted stocks after the harsh winter of 2020 in Asia and Europe, led to low availability of natural gas. Supply pressures in Europe were further exacerbated by reduced natural gas supplies from Russia to Europe.

Recovering demand for energy combined with its limited supply drove up the prices of all fossil fuels, in particular natural gas, which, in view of its relatively low carbon emissions, is considered a transition fuel on the path to achieving an economy based on renewables. In the fourth quarter of 2021, natural gas prices reached historical highs, remaining in a strong uptrend.

A conservative policy by OPEC+ countries to maintain crude production volume cuts despite the emerging economic recovery, contributed to an increase in crude oil prices in the fourth quarter of 2021, resulting in higher costs of refining feedstock on the

[5]To ensure comparability, the UK NBP natural gas prices were converted from USD/MWh to USD/boe using the conversion factor of 1.6282 MWh/boe.

one hand and higher fuel prices on the other. A year-on-year increase in the Ural/Brent differential (USD +1.52/bbl) partially mitigated the impact of high crude oil prices on the Refining and Marketing segment.

A solid year-on-year recovery of crack spreads for diesel oil, a key fuel for the Company's yields structure, coupled with the widening of spreads between diesel oil and heavy fuel oil crack spreads by USD 16.5/bbl year on year, improved the EFRA unit's contribution to the Company's Q4 2021 performance to USD 3.3 per barrel of refined crude.

Improved crack spreads for middle distillates and the recovering air cargo market supported the segment's performance. The profitability of seaborne naphtha exports remained high. After their prices stabilised, base oils continued to provide additional support for the margin.

In the fourth quarter of 2021, a decrease in sales volumes of diesel oil due to winter season offset exceptionally favourable conditions prevailing in the Polish gasoline market compared with import parity, which supported premiums on wholesale of fuels.

At the same time, the fourth quarter saw a clear uptrend in consumption of fuels in Poland after a period of decline caused by restrictions imposed by the government to stem the spread of COVID-19 infections. In the 12 months of 2021, year-on-year gasoline demand growth in Poland reached +9.8%. The demand for diesel oil rose 6.8% year on year. A rebound in the Polish fuel market was driven by economic recovery and the easing of lockdown restrictions in Poland.

In the fourth quarter of 2021, bitumens predominated in the Company's heavy products portfolio, with their prices remaining at attractive levels in Poland and neighbouring countries, where they found a particularly ready market. Stable sales figures were supported by the weather conditions in October and November, which were favourable to road construction projects.

Exploration & Production segment

Hydrocarbon prices followed a strong upward trend throughout the fourth quarter, with gas prices reaching record-high levels in third quarter, Including all-time highs at the UK National Balancing Point in September 2021, having increased by 87.7% on the previous quarter and 471.4% year on year.

In the fourth quarter of 2021, the average price of Brent crude was USD 79.48/bbl, having increased 8.2% quarter on quarter and 79.3% year on year.

- Exchange rates

A solid increase in the average USD/PLN exchange rate in the quarter (+6.9% year on year) had a positive effect on crack spreads and commodity prices, and thus on the operating performance of both reportable segments. At the same time, a significant quarter-on-quarter increase in the USD/PLN exchange rate (+1.8%) towards the end of the reporting period contributed to a decrease in the working capital (increase in inventories and receivables).

- COVID-19 pandemic

During the fourth quarter, global markets were increasingly convinced the impact of COVID-19 on demand for raw materials would be minor and short-term. A low fatality rate of the Omicron coronavirus was observed, which led to the easing of restrictions on human movement and stimulated economic recovery. The impact of the COVID-19 pandemic on the global oil sector in the fourth quarter 2021 was significantly reduced. At the same time, the scale and pace of the ongoing economic recovery and the ensuing strong rebound in demand for energy are emerging as the key drivers of the market situation. Demand pressures are upsetting the balance of supply and demand on the global market for conventional energy carriers. With the impact of the pandemic on economies and people's mobility lessening, the prices of all energy resources on international markets went up.

EXPLORATION & PRODUCTION

- Launch of production from Yme field
- Four new licences awarded in the APA 2021 licensing round in Norway
- Hydrocarbon production at 16.3 thousand boe/d (down by some -10% year on year and up +8% quarter on quarter)
- Adjusted LIFO-based EBITDA at ca. PLN 583m

Table 4. Crude oil and natural gas reserves[6] (mboe)

	Dec 31 2021	Sep 30 2021	Dec 31 2020
Norway	23.0	23.9	26.3
Poland	43.9	44.4	46.0
Lithuania	2.3	2.3	2.5
Total	69.2	70.7	74.8

Source: the Company.

Table 5. Daily production (boe/d)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Norway	10,084	8,882	12,260	13.5%	-17.7%
Poland	5,735	5,769	5,366	-0.6%	6.9%
Lithuania	500	519	541	-4%	-7%
Total	16,320	15,170	18,167	7.6%	-10.2%

Source: the Company.

Table 6. Quarterly production (boe)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Norway	927,741	817,134	1,127,936	13.5%	-17.7%
Poland	527,644	530,763	493,654	-0.6%	6.9%
Lithuania	46,021	47,736	49,748	-3.6%	-7.5%
Total	1,501,406	1,395,633	1,671,338	7.6%	-10.2%

Source: the Company.

[6] 2P – proved and probable reserves (SPE-PRMS classification).

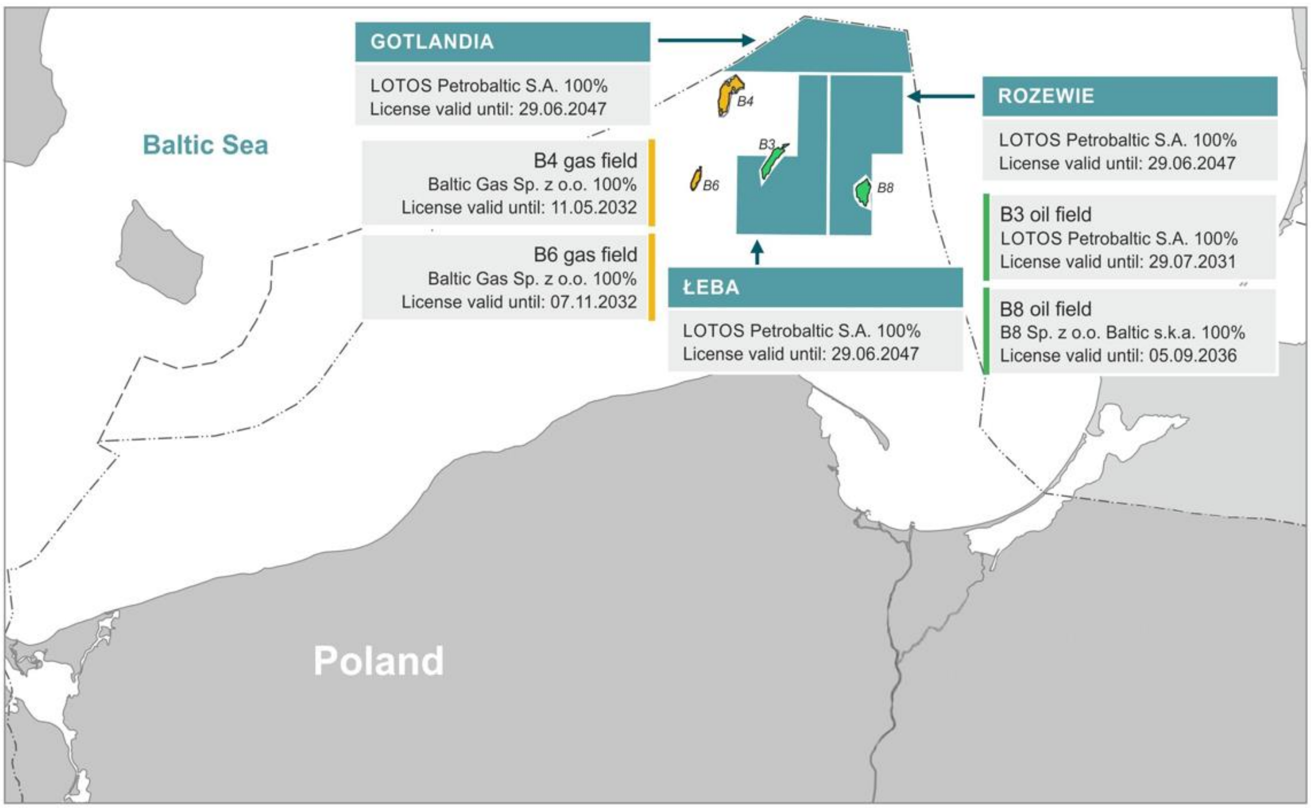
Table 6. Oil and gas sales (boe)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Norway	841,154	920,771	1,205,182	-8.6%	-30.2%
Poland	479,068	488,399	544,258	-1.9%	-12.0%
Lithuania	49,097	47,528	89,915	3.3%	-45.4%
Total	1,369,319	1,456,698	1,839,355	-6.0%	-25.6%

Source: the Company.

Exploration and production activities in Poland

Map 1. Licences held by LOTOS Group companies in Poland as at December 31st 2021



Source: the Company.

In the fourth quarter of 2021, LOTOS Petrobaltic S.A. ("LPB") continued to produce crude oil and associated natural gas from the B3 field in the Baltic Sea at an average rate of 2,298 boe/d (up +23% year on year and down -11% quarter on quarter). 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 in 2020. In addition, the increase in production was attributable to the drilling of the B3-13C well (sidetrack of the B3-13B well), brought online in May 2021, and the workover of the subsea B3-5 well, where the production was resumed in August 2021.

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 the fourth quarter of 2021, in the Gotland, Łeba and Rozewie offshore licence areas (LPB interest: 100%) geological surveys were underway to develop a regional structure and tectonic model, comprising, among other things, the analysis of fault integrity, petrophysical model and paleo-structural analysis;

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 Q4 2021, crude oil and associated natural gas were produced from the B8 field at an average rate of 3,437 boe/d (-2% year on year, +8% quarter on quarter). In October 2021, gas transmission commenced from the B8 field to the Energobaltic CHP plant in Władysławowo. In addition, work was carried out to change the configuration of the seawater injection system in order to increase the amount of water injected. The work was successfully completed in October 2021, making it possible to increase the amount of water injected into the reservoir, which helps to increase the reservoir pressure and thus increase hydrocarbon production. In December 2021, a 30-day test of the platform's all process units including the water injection system was successfully conducted after its reconfiguration. The project is in transition to the billing and closeout phase.

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

- LOTOS Group interest 100%
- 2P reserves 32.1 million boe as at December 31st 2021 (91% crude oil, 9% natural gas)
- current output 3.4 thousand boe/d (fourth quarter of 2021)

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 the macroeconomic conditions, in particular the global oil prices.

B4/B6 development project

Development of natural gas fields in the Baltic Sea

The project is carried out 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. The technical aspects of the project have been defined, and the project is being prepared for FID. Pre-FDI work continues under the project. In the fourth quarter 2021, the work included: (i) the process to secure relevant administrative, environmental and ownership permits; (ii) dialogue with administrative agencies to approve updates to the administrative decisions issued, (iii) dialogue and arrangements with competent authorities and institutions related to the implementation of other projects that could potentially affect the B4/B6 project. The natural gas market is currently subject to very strong volatility, which discourages business decision making regarding new projects, and the final investment decision concerning the B4/B6 project cannot be expected until the market situation is considered stable.

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

- LOTOS interest: 51%
- 2C reserves: 17.9 million boe as at December 31st 2021
- final investment decision is expected when the situation is considered stable.
- expected average output: 4.2 thousand boe/d (for 5-year period from production launch)

Growth initiatives

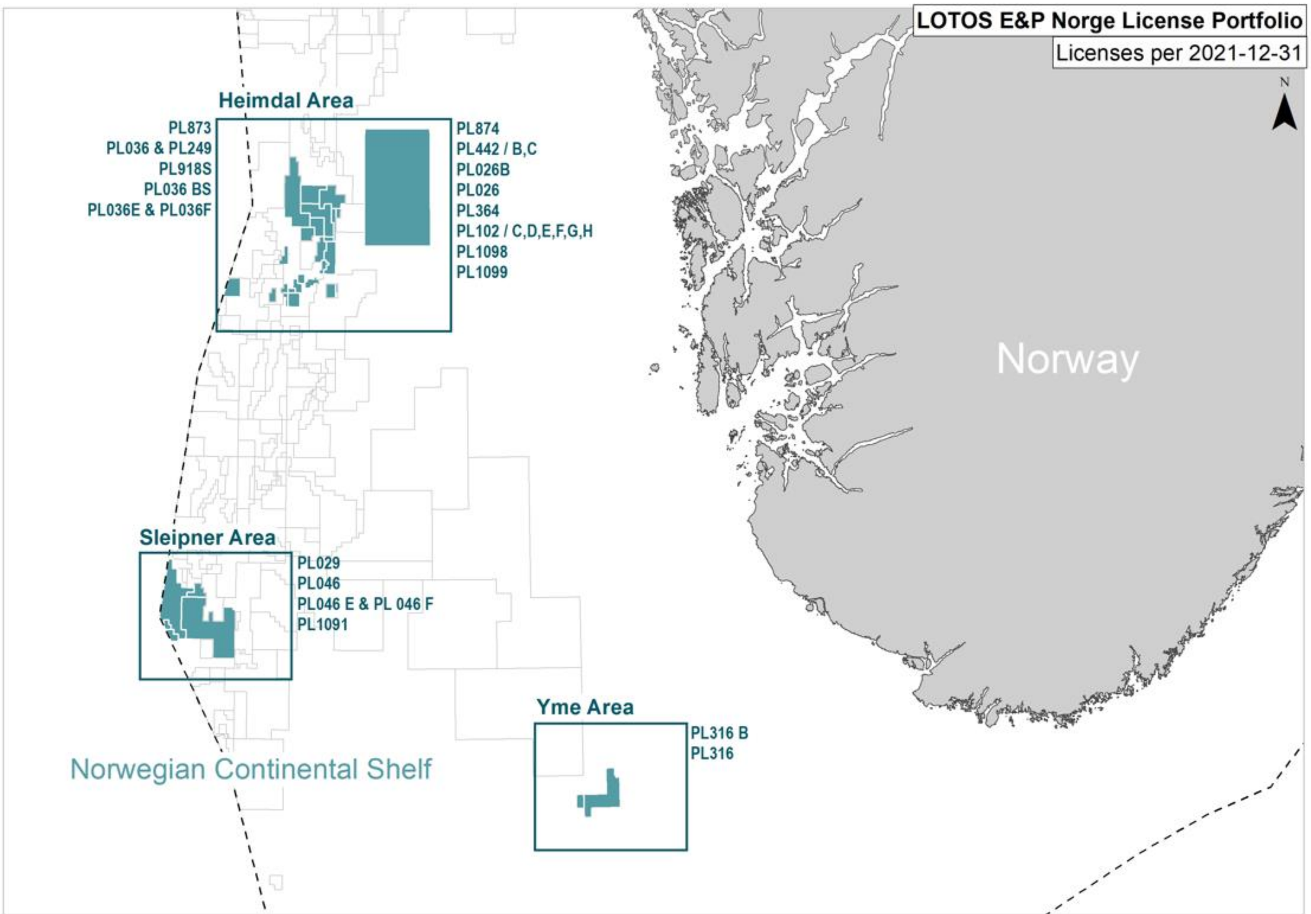
In parallel with its exploration and production operations in Poland, the Company is implementing a number of development initiatives aimed at diversifying its activities and sources of revenue.

One of the key development project is work to enable its entry into the newly emerging offshore wind farm market (OWP). The OWP areas where the Company is expanding or plans to expand its capabilities include: (i) hydrography – geotechnical and geophysical surveying services provided to third parties in the Baltic Sea; (ii) offshore wind farm construction units – steps have been taken to establish the following units: a foundation installation unit, a turbine installation unit, and a cable laying unit; (iii) operation and maintenance of OWP installations.

In addition, in November 2021, the Company, together with Grupa LOTOS S.A. and Grupa AZOTY S.A., published a Green Paper for the Development of CCS in Poland. The paper was drawn up as part of a feasibility analysis for projects involving geosequestration of carbon dioxide (underground storage of CO_2) within water flooded formations of the Baltic Sea. The document widely analysed the legislative environment as well as the technical and infrastructure challenges.

Exploration and production activities in Norway

Map 2. Licences held by LOTOS Exploration & Production Norge AS
As at Dec 31 2021



Source: the Company.

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

At the end of 2021, LOTOS Norge held interests in 30 licences for exploration, appraisal and production of hydrocarbon reserves in the Norwegian Continental Shelf. LOTOS has been taking steps to expand its licence portfolio in Norway. On September 8th 2021, LOTOS Norge submitted applications in the most recent APA (Awards in Predefined Areas) round. On January 18th 2022, following the conclusion of the licensing round, LOTOS Norge received an offer to participate in four of the licences applied for: PL 1135 (30% interest, Operator: PGNiG with a 70% interest), PL 1142 and PL 1143 (17.94% interest, Operator: AkerBP with a 73.01% interest) and PL 1144 (30% interest, Operator: AkerBP with a 40% interest). Three licences are located in the NOAKA project area, where LOTOS will cooperate with AkerBP. One of the areas, applied for jointly with PGNiG, is located in a part of the North Sea where the company has not yet explored for or produced hydrocarbons. Following acceptance of the new licences, LOTOS Norge's portfolio in Norway will increase to 34 licences.

In the fourth quarter of 2021, LOTOS Norge, operating as part of a consortium, produced natural gas and condensate from fields located in the Heimdal and Sleipner areas. In October 2021, first oil was produced from the Yme field. The average output of the Norwegian assets in the fourth quarter of 2021 was 10.1 thousand boe/d for the LOTOS interest (-18% year on year, +14% quarter on quarter).

Besides hydrocarbon production, field development work was carried out on Yme, NOAKA, Trell/Trine and other fields, and exploration work was undertaken to discover new deposits in Norway. The status of key development projects is presented below:

Yme project
Development of an oil field in Norway

In the fourth quarter of 2021, the Yme project was in a final phase of development and offshore commissioning. In October 2021, first oil was confirmed – production from one well began. Currently, the cleaning and testing of three more production wells is underway, and rig commissioning and upgrades continue, including laying out wiring and pipeline insulation. The first commercial loading of 100,000 barrels of oil produced from the Yme field onto a tanker was completed on December 22nd 2021, and the first sale of oil from the Yme field was confirmed on December 25th 2021. The second shipment of oil from the Yme field took place on January 13th 2022.

Development of the Yme field is one of the key strategic projects implemented within the LOTOS Group's exploration and production segment. The field's 2P recoverable reserves are estimated at 12.5 million boe as at December 31st 2021 (LOTOS Norge's interest). The average production from the Yme field over the next five years is expected to reach approximately 5 thousand bbl/day for LOTOS Norge's interest.

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

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

New development project: NOAKA

The NOAKA project involves the development of discoveries north of Heimdal: Frigg Gamma Delta, Langfjellet, Liatårnet, Rind, Fulla and Froy, where AkerBP is the operator, as well as Krafla and Askja, where LOTOS has no interests and Equinor is the operator. The project is currently in pre-development phase. In the third quarter of 2021, an important milestone in the process leading to timely completion of the work was reached as ownership interests in the project were harmonised and a field development concept was selected. Work is currently under way to prepare a plan for development and operation (PDO). The PDO is scheduled to be prepared by the end of 2022, with first oil expected in 2027.

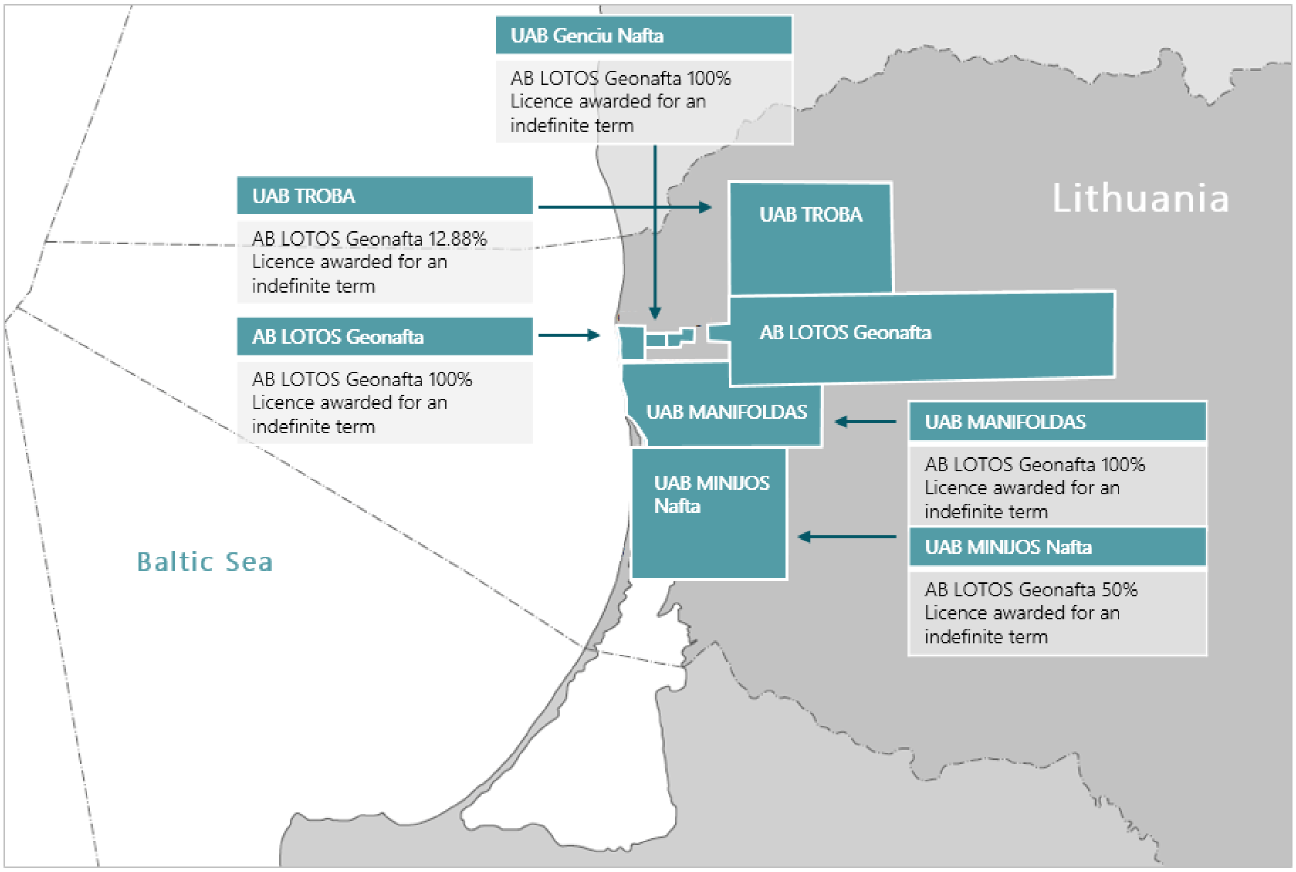
NOAKA is one of the key development projects on the Norwegian Continental Shelf, with total potential of more than 500 million boe of recoverable reserves (for the 100% interest). For the LOTOS Group, the project will be a foundation for long-term development in Norway, in cooperation with key operators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

New development project: Trell/Trine

The project involves the development of the Trell and Trine fields located in the Heimdal area, with AkerBP as the operator. LOTOS' effective interest in the project will be 11.9%. The project is currently in pre-development phase. In December 2021, a major milestone of the project was reached with the selection of a field development concept. The selected concept provides for development with the use of the FPSO (floating production, storage and offloading) infrastructure in the Alvheim area. The field development plan is scheduled to be prepared by the end of 2022, with first oil expected in 2025. The Trell/Trine resources attributable to the LOTOS interest are estimated at approximately 2.6 mboe.

Exploration and production activities in Lithuania

Map 3. Licences held by the AB LOTOS Geonafta Group
As at Dec 31 2021



Source: the Company.

In the fourth quarter of 2021, companies of Lithuania's AB LOTOS Geonafta Group focused on optimising production from their existing onshore oilfields located in the following licence blocks: Girkaliai, Genciai, Kretinga, Nausodis, Klaipėda, and Gargždai. The output from the Lithuanian assets in the fourth quarter of 2021 was 500 boe/d (down -7% year on year and -4% quarter on quarter).

Table 8. Exploration & Production segment's key financial data (PLNm)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Revenue	728.7	436.4	310.4	67.0%	134.8%
EBIT	538.1	194.9	-29.3	176.1%	1936.5%
Depreciation and amortisation	80.9	60.5	86.2	33.7%	-6.1%
EBITDA	619.0	255.4	56.9	142.4%	987.9%
Adjusted EBIT[7]	502.1	194.9	54.3	157.6%	824.7%
Adjusted EBITDA[7]	583,0	255.4	140.5	128.3%	314.9%

Source: the Company.

The growth in the Exploration & Production segment's revenue in the fourth quarter of 2021 (up +134.8% year on year and +67.0% quarter on quarter) was driven mainly by higher natural gas prices (up +471.4% year on year and +87.7% quarter on quarter) and Brent Dtd crude prices (up +79.3% year on year and +8.2% quarter on quarter). An increase in the average USD/PLN exchange rate in the quarter (up +6.9% year on year and +4.4% quarter on quarter) also contributed to higher revenue. The positive effect of higher oil and gas prices on the segment's performance was offset by lower sales volume of hydrocarbons (down -25.6% year on year and -6.0% quarter on quarter). The decline in production volumes is attributable to natural depletion of the producing fields on the Norwegian shelf.

The Exploration & Production segment's adjusted EBITDA for the fourth quarter of 2021 was up +128.3% on the third quarter of 2021 and +314.9% on the fourth quarter of 2020.

[7]EBIT and EBITDA adjusted for one-off items:

- fourth quarter of 2021: PLN +36.0m (PLN +17.2m reversal of impairment losses on Heimdal fields, PLN -0.3m impairment loss on Utgard fields, PLN +6.6m net impairment gain on Lithuanian fields, PLN +1.5m reversal of impairment losses on ships at the Miliana Group, PLN +11.3m reversal of impairment losses on the B3 field, PLN -0.3m net other impairment losses in the B8, Kamień Pomorski and Górowo Iławeckie areas);
- fourth quarter of 2020: PLN -83.6m (PLN -59.3m impairment loss on Yme field assets, PLN -1.4m impairment loss on Utgard fields, PLN -15.8m impairment loss in the Młynary and Górowo Iławeckie areas, PLN -9.9m impairment loss on Lithuanian fields, PLN +30.4m reversal of impairment losses and remeasurement of provisions for Heimdal fields, PLN +4.5m remeasurement of provisions related to the Sleipner asset purchase agreement, and PLN -32.1m provision for unfavourable court rulings).

REFINING & MARKETING

- Full utilisation of the LOTOS refinery's capacities
- Flexible management of the mix of energy sources, selection of the crude slate and refinery yields
- Seizing opportunities on the Polish wholesale market
- Solid adjusted LIFO-based EBITDA of the refining & marketing segment at PLN 905m

Table 9. Crude oil throughput ('000 tonnes)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Crude oil throughput	2,612.1	2,698.7	2,507.9	-3.2%	4.2%

Source: the Company.

Grupa LOTOS steadily optimised crude throughput with full capacity utilisation, reaching 2,612.1 thousand tonnes (down -3.2% quarter on quarter and up +4.2% year on year).

The continued surge in natural gas prices in the fourth quarter of 2021 caused a steep decline in the profitability of using gas as a feedstock in refinery processes and thus placed the Refining and Marketing segment's performance under stronger pressure than a year earlier, which created conditions for intensive optimisation of the Company's refinery operations, in terms of both the selection of feedstocks (crude diet) and energy carriers and the refinery's yield structure.

Given the increase in the cost of natural gas fed to the refinery, the Company continued its intensive efforts to optimise the mix of energy sources that it used in oil refining processes. In the fourth quarter of 2021, up to 70% of the reduction in the volume of gas consumption by the Company was directly attributable to the rising prices of the commodity. Natural gas was being replaced with light fractions, i.e. LPG, naphtha, light gasoline, and sweet fuel oil.

The Company also benefited from highly profitable domestic sales of fuels, supported by favourable premiums on wholesale of gasoline in the domestic market compared with import parity.

The diesel oil market in Poland saw a continued rise in demand in the fourth quarter, driven by economic recovery. The Company responded to the hike in demand by increasing sales of this product by 10.7% year on year.

The profitability of seaborne exports of naphtha was maintained in the fourth quarter of 2021, and the Company leveraged the location of its refinery on the Baltic Sea coast to quickly and flexibly respond to increased demand and export opportunities.

In the fourth quarter of 2021, Grupa LOTOS implemented a number of growth projects. One of the largest projects involves replacement of furnaces at the Claus facility. In the fourth quarter of 2021, design work relating to the furnaces and integration of the new furnaces with the existing plant was in progress, and the on-site assembly of apparatus and the integration of control systems continued. Its purpose is to improve the efficiency, reliability and safety of the hydrogen sulfide combustion unit. The project is due for completion in early 2023.

The Company carried out preparatory activities for a project to expand LPG storage and loading capacities, The projects seeks to increase dispatch capacity for the refinery's LPG output to about 1,200 tonnes per day with the use of rail or truck loading facilities.

Another project is the expansion of the rail tank loading facility. In the fourth quarter of 2021, a tender process was held to contract works, and the contract approval process commenced.

At the beginning of 2021, the Company launched the Pure H2 project involving the construction of a hydrogen purification unit and a system for supplying hydrogen to tube trailers (vehicles used to haul compressed hydrogen). The project is scheduled for completion in the fourth quarter of 2023.

The key Hydrocracking Base Oils (HBO) project received approval to proceed to the execution phase in September 2021, and design work with prime contractor Kinetics Technology began in the fourth quarter of 2021.

A project to construct a cargo terminal on the Martwa Wisła river is in the planning phase. In the fourth quarter of 2021, a procedure was carried out to select a potential contractor for the main scope of the design and construction work.

Table 10. Refining output structure ('000 tonnes)[8]

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Gasolines	351.4	409.9	361.1	-14.3%	-2.7%
Naphtha	103.3	103.2	162.3	0.2%	-36.3%
Diesel oils	1,537.9	1,594.9	1,415.8	-3.6%	8.6%
Light fuel oils	91.9	45.2	82.3	103.3%	11.7%
Jet fuel	112.2	85.8	21.7	30.7%	416.8%
Heavy products[9]	201.2	270.2	204.0	-25.5%	-1.4%
Petcoke	97.0	80.4	77.4	20.7%	25.3%
Other[10]	373.9	354.0	383.7	5.6%	-2.6%
Total	2,868.8	2,943.5	2,708.2	-2.5%	5.9%

Source: the Company.

Table 11. Sales structure in the Refining & Marketing segment ('000 tonnes)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Gasolines	357.0	404.7	384.9	-11.8%	-7.2%
Naphtha	103.3	103.2	162.3	0.1%	-36.4%
Diesel oils	1,628.9	1,710.9	1,471.0	-4.8%	10.7%
Light fuel oils	88.2	47.7	82.8	84.9%	6.5%
Jet fuel	101.6	84.6	15.0	20.1%	577.3%
Heavy products[11]	212.8	267.2	229.2	-20.4%	-7.2%
Crude oil (commodity/feedstock)	1.1	0.0	1.2	-	-8.3%
Other[12]	305.3	325.7	340.8	-6.3%	-10.4%
Total	2,798.2	2,944.0	2,687.2	-5.0%	4.1%

Source: the Company.

[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.
[9]Heavy fuel oil and bitumen components
[10]Other products include fuel and industrial gases, sulfur, base oils, xylene fraction, LPG, bunker fuel, extracts, refinates, and slack wax.
[11]Heavy fuel oil and bitumen components
[12]Other products include fuel and industrial gases, sulfur, base oils, xylene fraction, LPG, bunker fuel, extracts, refinates, and slack wax.

Polish fuel market[13]

Consumption of liquid fuels (diesel oil, gasoline and light fuel oil) in Poland rose by 7.3% year on year in the 12 months of 2021. The Polish fuel market was in a growth trend from the beginning of the year, showing a clear improvement after the last year's constraints relating to the COVID-19 pandemic. Consumption of both gasoline and diesel oil products was on a rise from March. Based on the POPiHN data, the 12 months of 2021 saw growth in the consumption of gasolines (up 9.8% year on year), diesel oil (up 6.8% year on year), aviation fuel (up 25.1% year on year) and light fuel oil (up 1% year on year).

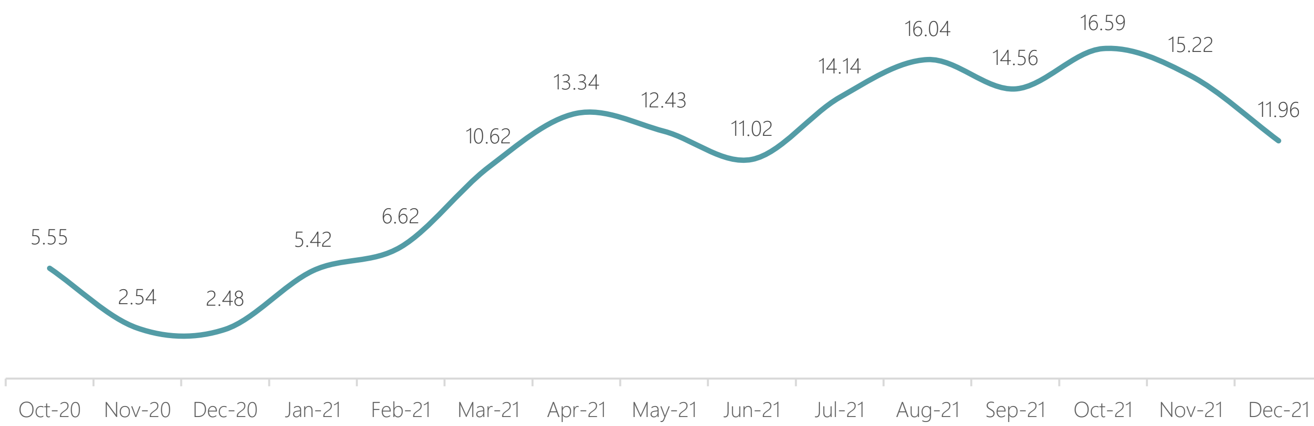
In the 12 months of 2021, an undersupply of gasoline, diesel oil and light fuel oil was recorded in Poland, as consumption exceeded domestic production. A surplus output was only recorded in the case of aviation fuel, exacerbated by the pandemic-related restrictions on air travel.

Motor gasoline

The LOTOS Group's total sales of gasoline in the fourth quarter of 2021 went down 7.2% year on year, with domestic sales down 9.6%. In the 12 months of 2021, the LOTOS Group's share in the Polish gasoline market was 27.3%. The average crack spread for gasoline on global markets was USD 14.76/bbl (up 426% year o year).

Figure 2. Motor gasoline – average monthly crack spread, USD/bbl

October 2020 – December 2021



Source: In-house analysis based on Refinitiv data.

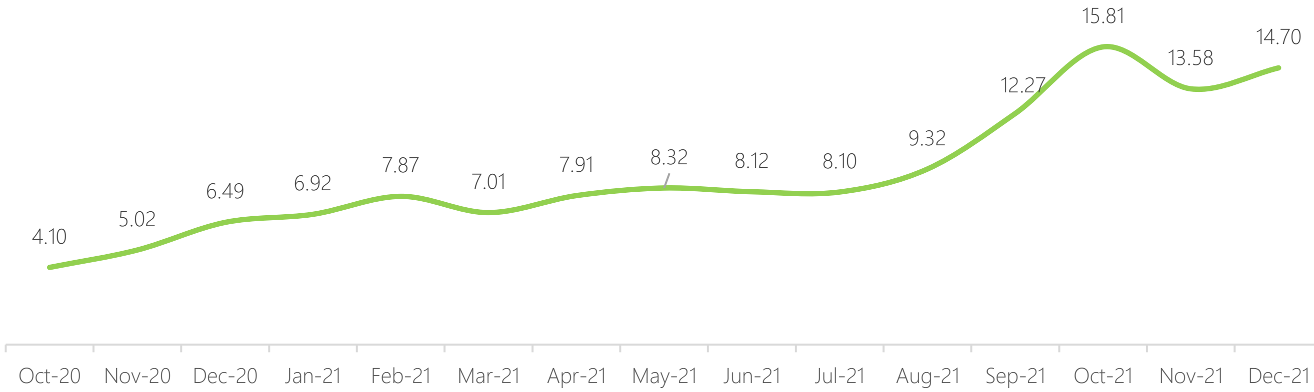
Diesel oil

In the fourth quarter of 2021, the LOTOS Group's sales of diesel oil grew 10.7%. The Company's share in the Polish diesel oil market in the 12 months of 2021 was 33.3%. In the fourth quarter of 2021, the average global crack spread for diesel oil was USD 14.84/bbl, having grown by USD 9.74/bbl year on year.

[13] Source of fuel consumption data in Poland – Polish Organisation of Oil Industry and Trade (POPiHN).

Figure 3. Diesel oil – average monthly crack spread, USD/bbl

October 2020 – December 2021



Source: In-house analysis based on Refinitiv data.

Heavy fuel oil and bitumen

In the fourth quarter of 2021, the Group reported a 5% year-on-year increase in sales of heavy fuel oil and a 7.2% year-on-year decrease in sales of bitumens. In the fourth quarter of 2021, the average crack spread for heavy fuel oil on global markets was negative, at USD -10.74/bbl, having shrunk by USD 6.76/bbl year on year.

Figure 4. Heavy fuel oil – average monthly crack spread, USD/bbl

October 2020 – December 2021

Source: In-house analysis based on Refinitiv data.

Table 12. Refining & Marketing segment's key financial data (PLNm)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Revenue	10,078.6	8,918.6	5,035.2	13.0%	100.2%
EBIT	867.0	992.8	46.5	-12.7%	1764.5%
Depreciation and amortisation	196.0	193.6	196.5	1.2%	-0.3%
EBITDA	1,063.0	1,186.4	243.0	-10.4%	337.4%
LIFO-based EBIT	570.4	675.5	-97.8	-15.6%	683.2%
LIFO-based EBITDA	766.4	869.1	98.7	-11.8%	676.5%
Adjusted LIFO-based EBITDA[14]	905.0	907.3	60.1	-0.3%	1405,8%

Source: the Company.

The 100.2% year-on-year improvement in the Refining & Marketing segment's revenue was driven primarily by an increase in the segment's average net selling price and a 4.1% increase in the segment's sales volumes. In the fourth quarter of 2021, the average net selling price was PLN 3,602/tonne, having increased by PLN 1,728/tonne year on year, mainly on the back of higher prices of petroleum products and higher average PLN/USD exchange rate for the quarter.

The 13.0% quarter-on-quarter increase in segment revenue reported in the fourth quarter of 2021 was mainly attributable to a PLN 573/tonne increase in the average net selling price.

The Refining & Marketing segment's adjusted LIFO-based EBITDA for the third quarter of 2021 came in at PLN 905.0m. The solid year-on-year growth in adjusted LIFO-based EBITDA was mainly attributable to much higher margins on refining products, a higher average USD/PLN exchange rate for the quarter driving refining and sales margins, increased sales volumes, and a more favourable sales mix in the segment.

Table 13. Number of service stations within the LOTOS network

	Dec 31 2021	Sep 30 2021	Dec 31 2021	Q4 2021/Q3 2021	Q4 2021/Q4 2020
CODO	327	322	318	5	9
DOFO	193	194	195	-1	-2
Total	520	516	513	4	7

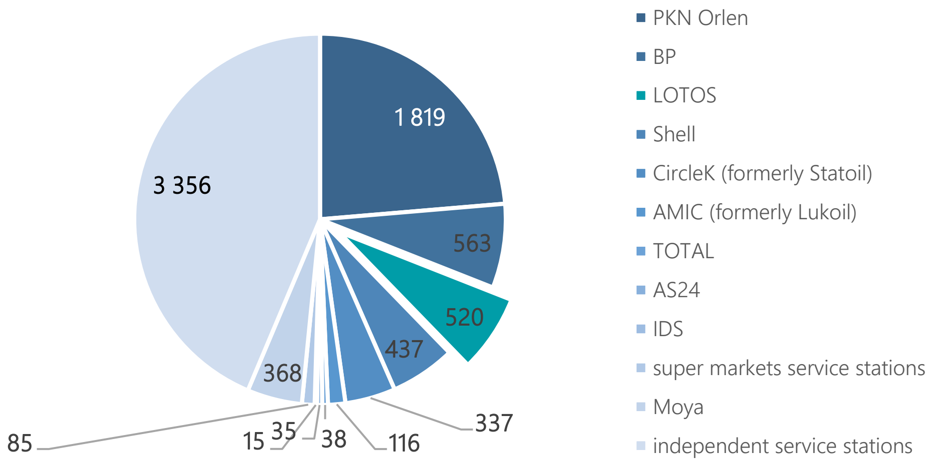
Source: the Company.

At the end of the fourth quarter of 2021, the LOTOS Group operated a chain of 520 service stations, seven more than at the end of December 2020.

[14] Adjusted LIFO-based EBITDA including the LIFO effect on inventory valuation included:

- fourth quarter of 2021: PLN -138.6m (PLN -3.6m impairment loss on service stations, PLN -127.0m impairment loss on assets covered by the remedial measures, and PLN -8.0m foreign exchange losses on operating activities,
- third quarter of 2021: PLN -38.2m total foreign exchange losses on operating activities,
- fourth quarter of 2020: PLN 38.6m (PLN -0.2m impairment loss on service stations and PLN +38.8m foreign exchange gains on operating activities).

Figure 5. Service stations in Poland
– As at December 31st 2021



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

Table 14. Retail's key financial data (PLNm)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Sales volume ('000 tonnes)	324.6	357.5	298.4	-9.2%	8.8%
Revenue	2,144.7	2,174.3	1,450.4	-1.4%	47.9%
EBIT	-16.8	51.5	32.7	-132.6%	-151.4%
Depreciation and amortisation	33.2	31.1	32.7	6.9%	1.5%
EBITDA	16.4	82.5	65.4	-80.1%	-74.9%
Adjusted EBIT	-13.2	51.5	32.9	-125.7%	-140.1%
Adjusted EBITDA[15]	20.0	82.5	65.6	-75.8%	-69.5%

Source: the Company.

In the fourth quarter of 2021, the retail business generated adjusted EBITDA of PLN 20.0m. The year-on-year decline of the metric was attributable to very low retail margins on key products sold via this channel, reflecting the need to adjust selling prices at service stations to market conditions prevailing in Poland during the period.

[15] Adjusted LIFO-based EBITDA including impairment losses on service stations in the fourth quarter of 2021 (PLN -3.6m) and fourth quarter of 2020 (PLN -0.2m)

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Table 15. Key financial results of the LOTOS Group (PLNm)

	Q4 2021	Q3 2021	Q4 2020	Q4 2021/Q3 2021	Q4 2021/Q4 2020
Revenue	10,644.8	9,200.5	5,203.6	15.7%	104.6%
EBIT	1,394.8	1,177.3	17.4	18.5%	7916.1%
Depreciation and amortisation	276.9	254.1	282.7	9.0%	-2.1%
EBITDA	1,671.7	1,431.4	300.1	16.8%	457.0%
LIFO effect[16]	-296.6	-317.3	-144.3	-	-
LIFO-based EBIT	1,098.2	860.0	-126.9	27.7%	965.4%
Adjusted LIFO-based EBIT	1 200.8	898.2	-81.9	33.7%	1566,2%
Adjusted LIFO-based EBITDA[17]	1,477.7	1,152.3	200.8	28.2%	635.9%

Source: the Company.

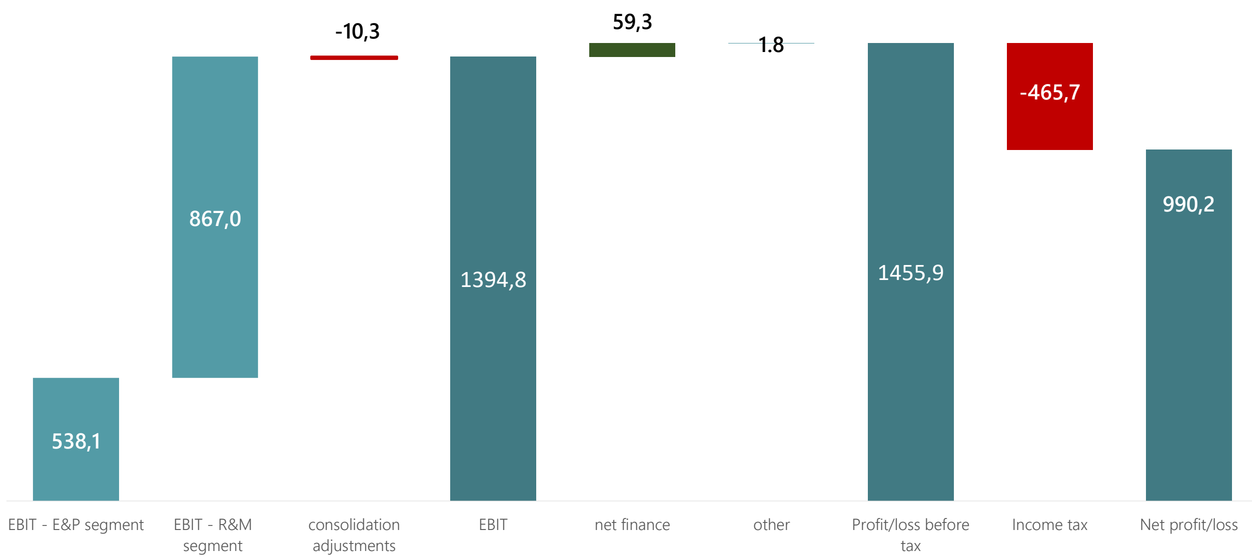
In line with its inventory measurement policies, the LOTOS Group uses the weighted average cost method to measure changes in inventories. This method defers the impact of changes in crude oil prices on the prices of finished goods. Thus, an increase in crude oil prices has a positive effect on financial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

Operating results computed using this inventory measurement method are presented in the EBITDA and EBIT lines of the table. The table also presents estimated inventory decreases measured using the LIFO method, as well as the LIFO effect, LIFO-based EBIT, adjusted LIFO-based EBIT, and adjusted LIFO-based EBITDA.

In the fourth quarter of 2021, the LOTOS Group posted an operating profit (EBIT) of PLN 1.394,8m, being the combined result of the Refining & Marketing segment's EBIT of PLN 867.0m, the Exploration & Production segment's EBIT of PLN 538.1m, and PLN -10.3m in consolidation adjustments. LIFO-based EBITDA, net of exchange differences on operating activities and other non-recurring items (adjusted LIFO-based EBITDA), was PLN 1,477.7m.

[16] LIFO effect = LIFO-based EBIT (estimated with the LIFO, or Last In First Out, method) - EBIT.
[17] LIFO-based EBITDA, including one-off items described in the segment discussion.

Figure 6. Structure of the LOTOS Group's consolidated results in Q4 2021 (PLNm)



Source: the Company.

In the fourth quarter of 2021, the LOTOS Group reported net finance income of PLN 59.3m, with the main contributors being net foreign exchange losses of PLN -24.5m, a PLN 123.3m gain on measurement and settlement of hedging transactions, and a PLN -35.5m negative balance of interest on debt, interest income and commissions.

The effect of measurement and settlement of market risk hedging transactions at the LOTOS Group in the fourth quarter of 2021 included mainly a PLN 148.2m net gain on settlement and measurement of transactions hedging CO_2 emission allowances, a PLN 4.2m net gain on measurement of transactions hedging commodity price risk, and a PLN -29.1m net loss on settlement and measurement of transactions hedging currency risk.

Market risk management

Presented below is the market risk management process, including the measures undertaken in the fourth quarter of 2021.

In its core business activities, the LOTOS Group is exposed to market risk manifest in:

- risk related to commodity and petroleum product prices,
- risk related to prices of carbon dioxide emission allowances,
- currency risk,
- interest rate risk.

As part of the risk related to commodity and petroleum product prices, certain key risk factors have been identified at the LOTOS Group, including volatility of the refining margin, volatility of prices of stocks held in excess of the mandatory emergency stock volumes, volatility of differentials used in trade contracts (e.g. Urals vs Brent), and the use of non-standard pricing formulas in trade contracts.

In the fourth quarter of 2021, commodity swaps were entered into as part of the adopted policy of managing the commodity and petroleum product price risk. The contracts were concluded in order to preserve the original price risk profile in connection with the fact that bitumen components are offered for sale at fixed prices.

The risk related to prices of CO_2 emission allowances is managed on an ongoing basis, since the first quarter of 2021 in line with the new Policy on Managing Risk Related to Carbon Dioxide Emission Allowance Prices. The Policy introduced fundamental changes to the structure of existing limits and defined a classification for transaction portfolios, which include a hedging portfolio as well as a trading portfolio. Transactions classified into the latter portfolio may have no direct link to the company's exposure and are executed within a predefined risk appetite to leverage movements in allowance prices and reduce the cost of participation in the EU ETS.

Following the spin-off of an organised part of the enterprise from the Parent in the fourth quarter of 2021 and the transfer of refining assets to the subsidiary LOTOS Asfalt Sp. z o.o., by operation of law the obligation to redeem CO_2 emission allowances rested with LOTOS Asfalt Sp. z o.o. Based on the model for transferring costs of the subsidiary's participation in the EU ETS provided for in the processing contract, the Parent continues to manage the risk of CO_2 emission allowance prices at the Group in line with the Policy in place.

In the fourth quarter of 2021, Grupa LOTOS entered into EUA futures contracts for both portfolios to hedge its exposure to the risk of changes in the prices of CO_2 emission allowances (the hedging portfolio) and to capture market opportunities (the trading portfolio).

In its business activities, the LOTOS Group is exposed to exchange rate movements in connection with its commodity and petroleum product trading activities, investing cash flows, financing cash flows (including deposits and credit facilities), and measurement of derivative instruments. The parent actively manages its currency exposure based on an adopted policy and within defined limits, using Cash-Flow-at-Risk (CFaR) as the principal risk measure. In the fourth quarter of 2021, as part of the currency risk management process, in order to optimise the value of expected cash flows, the Group entered into spot, FX forward and FX swap contracts taking into account prevailing market conditions.

The Group is exposed to the risk of changes in cash flows caused by interest rate movements as interest income and interest expense related to certain assets and liabilities accrue based on floating interest rates, including in particular under inventory financing and refinancing credit facilities where the amount of interest is computed by reference to the floating LIBOR USD rate. To hedge its interest rate risk exposure, the LOTOS Group may enter into interest rate swap contracts.

As part of the ongoing IBOR interest rate benchmark reform, some of the published interest rates (e.g. WIBOR, EURIBOR) have been reformed, a new date has been set for discontinuation of the main LIBOR USD tenors (June 30th 2023), and some interest rates were discontinued as of the end of 2021 (e.g. LIBOR CHF, LIBOR GBP). The Parent closely monitored the progress of the reform to the extent relevant to the Company and took all decisions and actions necessary to implement the changes introduced by the reform.

Table 16. EBIT, profit before tax and net profit/(loss) of the LOTOS Group (PLNm)

	Q4 2021	Q3 2021	Q4 2020
EBIT	1,394.8	1,177.3	17.4
Profit/(loss) before tax	1,455.9	1,109.2	64.4
Net profit/(loss)	990.2	810.0	-7.5

Source: the Company.

In the fourth quarter of 2021, the LOTOS Group posted a consolidated net profit of PLN 990.2m.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Table 17. Consolidated statement of financial position – assets (PLNm)

	Dec 31 2021	Dec 31 2020	Nominal change	Change in %
Total	25,964.8	21,856.4	4,108.4	18.8%
Non-current assets	14,525.6	13,960.1	565.5	4.1%
Property, plant and equipment of the Refining & Marketing segment	9,343.5	9,466.9	-123.4	-1.3%
Intangible assets of the Refining & Marketing segment	192.9	161.0	31.9	19.8%
Property, plant and equipment of the Exploration & Production segment	3,540.5	2,923.1	617.4	21.1%
Intangible assets of the Exploration & Production segment	417.3	313.8	103.5	33.0%
Equity-accounted joint ventures	28.0	26.1	1.9	7.3%
Deferred tax assets	189.7	384.2	-194.5	-50.6%
Derivative financial instruments	135.2	1.2	134.0	11166.7%
Shares	297.4	309.8	-12.4	-4.0%
Loans	210.3	195.9	14.4	7.4%
Other non-current assets	170,8	178.1	-7,3	-4,1%
Current assets	11,439.2	7,896.3	3,542.9	44.9%
Inventories	5,611.7	3,495.7	2,116.0	60.5%
Trade receivables	2,648.5	1,693.9	954.6	56.4%
Current tax assets	27.1	180.9	-153.8	-85.0%
Derivative financial instruments	81.5	65.9	15.6	23.7%
Other current assets	498,3	314.3	184.0	58.5%
Cash and cash equivalents	2,572,1	2,145.6	426,5	19.9%

Source: the Company.

As at December 31st 2021, the LOTOS Group carried total assets of PLN 25,964.8m (up PLN +4,108.4m vs December 31st 2020).

Key changes in assets:

- PLN 2,116.0m increase in inventories, due mainly to higher prices of crude oil and petroleum products;
- PLN 954.6m increase in trade receivables attributable to higher selling prices in December 2021 compared with December 2020;
- PLN 617.4m increase in the E&P segment's property, plant and equipment, driven mainly by a reversal of impairment losses on non-current assets and production startup in the YME field in Norway;
- PLN 176.7m increase in other assets, led mainly by settlements of joint operations in Norwegian fields;
- PLN 194.5m decrease in deferred tax assets, chiefly related to impairment losses reversed in the Exploration & Production segment;
- PLN 426.5m increase in cash and cash equivalents.

Table 18. Consolidated statement of financial position – sources of funding (PLNm)

	Dec 31 2021	Dec 31 2020	Nominal change	Change in %
Total	25,964.8	21,856.4	4,108.4	18.8%
Equity	14,793.9	11,573.8	3,220.1	27.8%
Share capital	184.9	184.9	0.0	0.0%
Share premium	2,228.3	2,228.3	0.0	0.0%
Cash flow hedging reserve	-53.3	-24.4	-28.9	-118.4%
Revaluation reserve	-10.0	0.0	-10.0	-
Retained earnings	12,295.2	9,078.0	3,217.2	35.4%
Translation reserve	148.7	106.9	41.8	39.1%
Non-controlling interests	0.1	0.1	0.0	0.0%
Non-current liabilities	4,433.5	4,513.9	-80.4	-1.8%
Borrowings, other debt instruments and finance lease liabilities	2,191.1	2,717.7	-526.6	-19.4%
Derivative financial instruments	1.1	1.0	0.1	10.0%
Deferred tax liabilities	556.7	144.5	412.2	285.3%
Employee benefit obligations	236.9	230.2	6.7	2.9%
Other liabilities and provisions	1,447.7	1,420.5	27.2	1.9%
Current liabilities	6,737,4	5,768.7	968,7	16.8%
Borrowings, other debt instruments and finance lease liabilities	1,048.1	1,355.8	-307.7	-22.7%
Derivative financial instruments	31.0	18.5	12.5	67.6%
Trade payables	2,360.1	1,636.0	724.1	44.3%
Current tax liabilities	534.7	134.2	400.5	298.4%
Employee benefit obligations	200.7	196.1	4.6	2.3%
Other liabilities and provisions	2,562,8	2,428.1	134,7	5.5%

Source: the Company.

The increase in the LOTOS Group's equity in the 12 months of 2021 to PLN 14,793.9m (PLN +3,220.1m) was driven primarily by higher retained earnings (up PLN 3,217.2m), revaluation reserve (up PLN -10.0m), higher foreign exchange gains (up PLN 41.8m), and foreign exchange losses on measurement of cash flow hedges adjusted for tax effect of PLN -28.9m, taken to reserve capital.

The share of equity in total equity and liabilities grew by 4.0pp year on year, to 57.0%.

Key changes in liabilities (PLN +888.3m):

- PLN 834.3m decrease in borrowings, other debt instruments and finance lease liabilities, resulting from partial repayment at the end of 2021;
- PLN 724.1m increase in trade payables as a result of significant year-on-year increase in prices of crude oil procured outside the LOTOS Group towards the end of 2021;
- PLN 161.9mincrease in other liabilities and provisions related to the deposit established for settlements with ICE Futures and liabilities of LOTOS Exploration and Production Norge AS under settlements between the operator and the consortium members in Norway;
- PLN 412.2m increase in deferred tax liabilities;
- PLN 400.5m increase in income tax liabilities (mainly at LOTOS Exploration and Production Norge AS).

As at December 31st 2021, the LOTOS Group's debt totalled PLN 3,239.2m, down PLN 834.3m on the end of December 2020, mainly as a result of partial repayment of investment credit facilities. Net debt totalled PLN 667.1 m, compared with PLN 1,927.9m at the end of 2020. The ratio of net debt to adjusted LIFO-based EBITDA as at December 31st 2021 was 0.16x, having decreased by 1.26 relative to December 31st 2020.

CONSOLIDATED STATEMENT OF CASH FLOWS

Table 19. Cash flows (PLNm)

	Q4 2021	Q3 2021	Q4 2020
Cash flows from operating activities	1,596.5	495.6	1,138.7
Cash flows from investing activities	-244.8	-201.5	-653.0
Cash flows from financing activities	-483.1	-291.4	-171.1
Effect of exchange rate fluctuations on cash held	-6.4	3.2	-8.2
Change in net cash	862.2	5.9	306.4
Cash at beginning of period	1,709.9	1,704.0	1,617.0
Cash at end of period	2,572.1	1,709.9	1,923.4

Source: the Company.

As at December 31st 2021, the LOTOS Group's cash balance (including current account overdrafts) was PLN 2,572.1m. Cash and cash equivalents increased by PLN 862.2m as a result of net cash flows in the fourth quarter of 2021.

The positive net cash flows from operating activities in the fourth quarter of 2021, of PLN 1,596.5m, were driven mainly by the net profit earned in the period, adjusted for depreciation and amortisation, income tax, a decrease in trade receivables (caused by lower sales volumes) and a decrease in other assets, reduced by an increase in inventories and in provisions and other liabilities.

Negative net cash flows from investing activities of PLN -244.8m were mainly attributable to acquisition of property, plant and equipment and other intangible assets.

Negative net cash flows from financing activities in the fourth quarter of 2021, of PLN -483.1m, chiefly comprised repayments of borrowings, payments of interest and of liabilities under finance leases.