

# Integrated Annual Report 2019

LOTOS  
Group



01.

## **2019 Summary**





2019 SUMMARY /

# Letter from the President of the Management Board

102-14

Ladies and Gentlemen,

While 2019 posed many challenges for our business, it was a good year for the LOTOS Group, during which we demonstrated our ability to deliver demanding projects. Despite a challenging macroeconomic environment, the Group's financial condition remains stable. Its complementary business segments make it resilient to sharp market swings.

The global economic downturn created a tough business environment for us. The declining refining margins on most of our products and subdued market prices of oil and, particularly, of natural gas made for an accumulation of adverse developments we had to tackle. Despite the unfavourable macroeconomic landscape, our LIFO-based EBITDA last year came in at PLN 2.9bn, just 8% less than the year before. This demonstrates our ability to consistently pursue ambitious goals. We also rose to the challenge of a temporary cut of Russian oil supplies to Poland via the Druzhba pipeline. Our comprehensive efforts prevented the chloride contamination crisis from affecting our plant operations and the availability of our products. The Company also paid a record dividend of PLN 555m (PLN 3 per share) for 2018.

The landmark event last year was the completion of the EFRA Project. As most new process plants, also the EFRA units required some technical adjustments in the first months of their operation. But the Company was able to deal with all issues, and today our business is more efficient and greener. We discontinued the production of high-sulfur fuel oil in response to the IMO regulations mandating a sulfur cap on marine fuels, effective from 2020. Our new units produce more diesel oil, which is increasingly in demand on the market. Having reached the strategic milestone, we can now tackle new challenges in order to deliver projects that will keep us on track to generate more value for our Shareholders.

Our high-priority project is the construction of a hydrocracking oil unit, which would enable us to make quality lubricating base oils. We are still seriously considering a CHP plant project, which would improve the energy security of our plant while enhancing our product portfolio. We are also thinking to re-start the project to build a marine terminal on the Martwa Wisła river, which would allow us to handle components and products at our own wharf, diversify product dispatch and feedstock import channels and reduce costs.

In 2019, we launched our 500th retail outlet. One element of our strategy is to strengthen the Group's position in the segment of service stations located on motorways and expressways, with 21 Motorway Service Areas currently operating under the LOTOS brand. We are committed to further expanding and enhancing our retail network. These plans are not only about increasing the number of outlets, but also about improving the service quality and attractiveness of the service stations already in operation. The LOTOS Group is poised to become a leader in alternative fuels. Our Blue Trail programme, which currently covers 12 electric vehicle charging points, was tested throughout 2019, but our strategic target is to build 130 such stations by 2022. We also invest in hydrogen: we want two hydrogen filling stations to be launched and hydrogen purification and distribution units to be built at the refinery by the end of 2021.

In addition, the Group is actively seeking to exploit opportunities related to LNG and CNG. Together with Gaz-System, we are analysing a project to build a small-scale LNG terminal in Gdańsk, which would serve as a facility for reloading and distributing LNG to end consumers and fuel stations, and to build a bunker ship with a power generation function. In the second half of 2019, we selected the contractor who is now working on a feasibility study for the project.

The LOTOS Group as a whole is continuing on a growth path. LOTOS Oil is engaged in continued work to expand its portfolio of lubricating oils to make sure they meet the highest customer requirements and allow vehicles to operate in extreme weather conditions. In 2019, LOTOS Asphalt's share in the domestic market of modified bitumens was close to 45%, and the company aims to further entrench its lead in this market segment. Rail transport of products from the refinery in Gdańsk is a mainstay of the Group's production security. Therefore, we are upgrading our rolling stock, with contracts to purchase 11 new electric locomotives signed by LOTOS Kolej over the past year.

We are a sponsor of sports and culture in Poland. Our widely recognised brand has come to be associated with emotions created by the best athletes and sportsmen. We know that the BEST does not come from nowhere. so we will continue to sup-

port outstanding Polish athletes and artists.

I am confident that these achievements would not have been possible without our dedicated employees. I would also like to thank the Supervisory Board for their constructive cooperation, and our customers, who have placed their trust in us by buying quality LOTOS products. Special thanks should go to our Shareholders and our business and social Partners, who have supported us in pursuing our goals.

I only took over as President of the Grupa LOTOS Management Board in 2020. The Management Board that I have the honour of presiding over is now facing new challenges, not least of them being the coronavirus. As we present this Integrated Annual Report, the global economy is battling the consequences of the ongoing pandemic. The refining industry was hit by collapsing fuel demand, and it was only through our well-thought-out efforts that Grupa LOTOS was able to flexibly adapt to the challenging conditions, by reducing its aviation fuel output and simultaneously increasing the production of other high-margin products, mainly diesel oil, and by allocating some products for sea exports. The implemented precautionary measures enabled us to ensure the continuity of refinery operations and product distribution. Despite the pandemic, the refinery keeps running at almost full pelt, which is a remarkable achievement when we look at how other European refineries are doing.

On top of that, conditional clearance has been given by the European Commission to go ahead with the acquisition of Grupa LOTOS by PKN ORLEN. July 14th 2020 marks a historic date in the process of building a leading and competitive player on the European energy market. A strong multi-utility group would bring multiple benefits to Poland and its economy, enabling our country to finally establish an entity that is no longer pushed to the peripheries of the European market. Our Company would also benefit from the transaction by gaining wider access to markets and developing new business concepts. But the process has a chance of succeeding only if it is carried out in compliance with the applicable laws and is approved by all Shareholders, including the parent State Treasury. As the Management Board of Grupa LOTOS, we will make every effort to ensure the transaction benefits all our stakeholders and the entire economy.

Yours faithfully,



**Paweł Jan Majewski**

President

of the Grupa LOTOS Management Board

2019 SUMMARY /

# Letter from the Chairwoman of the Supervisory Board

Ladies and Gentlemen,

2019 brought a series of investments and positive stimuli for Grupa LOTOS. As shown by its performance, the Company enjoys a stable position and all its processes are running smoothly and efficiently. Adjusted LIFO-based EBITDA came in at PLN 2.9bn on total revenue of PLN 29.5bn. Customers appreciate the quality of LOTOS products, as demonstrated by a record volume of domestic fuel sales, which came to 8 million tonnes. Grupa LOTOS aptly responded to oil prices falling across global markets.

In a landmark event, it began to produce oil from the Utgard field three months ahead of the schedule, delivering cost savings of 25%. Another milestone in 2019 was the completion of the EFRA Project, which will bring to the market an additional million tonnes or so of quality fuels a year. Grupa LOTOS is raising the bar again, further solidifying its position among Europe's most advanced refiners.

Understanding the challenges of energy transition, it consistently builds a leading position in next generation fuels. The Company is poised to blaze the trail in Poland for high-purity hydrogen production, implementing the EU co-funded project called PURE H2. It pursues LNG projects too: we are only months away from the launch of its first pilot LNG docking station, which is being built at a LOTOS service station on the ring road bypassing the Gdańsk-Gdynia-Sopot metropolitan area. With the completion of a feasibility study, another milestone was also reached under the project to build a small-scale LNG terminal in Gdańsk. By investing in our priority region of Pomerania, Grupa LOTOS drives growth of Poland's economy as a whole.

As a strategic company, it contributes to strengthening Poland's energy security, while maintaining commitments towards external stakeholders. LOTOS is a recognised sponsor of sports and culture, supporting talent development and helping children on their way to becoming professional athletes. The LOTOS Foundation plays a vital role in our outreach activities, providing assistance to various entities throughout Poland.

Summarising the key developments of 2019, it would be hard not to mention the ongoing COVID-19 pandemic. However, its stable position last year allowed the LOTOS Group to smoothly adapt to challenging conditions in the first half of 2020 and taught a valuable lesson for dealing with unexpected crises. We joined the effort to help hospitals and uniformed services in Poland. The Crisis Management Unit set up at the Company showed we can work together as a strong and solid team. We are keeping the momentum going. In April 2020, the LOTOS refinery ran at 98% of its nameplate capacity. We are pleased that, despite the changing environment, it was again possible to pay out a dividend, which we hope will be read as a sign of the Company's position getting stronger.

We are facing new challenges and growth opportunities that would come with the acquisition of Grupa LOTOS by PKN Orlen. We must remember that the overriding goal is to safeguard Poland's economic interests and energy security on all levels. I believe the process would be of great benefit to all LOTOS Employees, Shareholders, Contractors, Partners, and Customers. All these developments make me optimistic about the future.

Yours faithfully,



**Beata Kozłowska-Chyła**

Chairwoman  
of the Grupa LOTOS Supervisory Board

2019 SUMMARY /

# Key performance indicators

## 2019 results

Key non-financial performance indicators are monitored on a consolidated basis only (at the Group level).

### Financial and operational performance

**10.7<sub>m</sub>**

**tonnes**

crude throughput

↓ 0.9% year on year

**7.2%**

**increase in store sales in 2019**

vs 2018

**1.2%**

**increase in retail fuel sales in 2019**

vs 2018

**PLN**

**554.6<sub>m</sub>**

in dividend paid for 2018

**PLN**

**99.6**

LOTOS highest share price at Warsaw stock exchange

**PLN**

**2.9<sub>bn</sub>**

LIFO-based EBITDA

↓ 7.7% year on year

**20.7**

**thousand boe**

average daily crude oil and gas production

↑ 5% year on year

**81.3**

**m boe**

LOTOS oil and gas reserves

↓ 9% year on year

**46**

**LICENCES**

for exploration, appraisal and production of hydrocarbons from offshore and onshore deposits

**506**

**LOTOS branded**

service stations

↑ 2.2% year on year

**presence on more than**

**80**

markets worldwide

**12**

**EV charging points**

along Tricity – Warsaw route

## Social performance

### FTSE4Good

LOTOS shares included again in London Stock Exchange's index of ethical investment stocks

# 5 368

**employees**  
of LOTOS Group

# 1 521

**beneficiaries**  
of LOTOS volunteering initiatives

### PLN

# 8m

contributed in total by the LOTOS Foundation to 125 projects

## Environmental performance

**26.8**

**kg CO<sub>2</sub>/CWT**

2.5% lower emission factor acc. to scope 2 vs 2018

**99.5%**

**recovery rate**

of internally generated waste

**PLN**

**37.5<sub>m</sub>**

of costs and capital expenditure incurred by LOTOS Group companies to prevent environmental damage and manage environmental protection

**PLN**

**10.8<sub>m</sub>**

in costs incurred on waste disposal, emission reduction and remediation

**approximately**

**30%**

of water abstracted was reused or recycled



## EFRA Project, or an additional million tonnes of fuels

Completion of the EFRA Project marks a milestone in the strategy pursued by Grupa LOTOS, which has now become more efficient and more environmentally friendly. The Project will produce more than one million tonnes of premium quality fuels annually, including mainly diesel oil and aviation fuel made by converting heavy oil residue.



EFRA, or in other words 'Effective Refining', is the key investment project completed by Grupa LOTOS and LOTOS Asphalt in 2019. It involved the construction of a delayed coking unit (DCU) and a number of auxiliary units. Its total cost was in excess of PLN 2.3bn.

### Higher flexibility and efficiency of production

EFRA has enabled the LOTOS Group to solve the problem of effective management of heavy oil residue, which is now used to produce fuels, coke and bitumens. Previously, heavy oil residue was a feedstock in the production of bitumens and high-sulphur heavy fuel oil. The latter had its application mainly as bunker fuel, but its sales were not profitable. At present, instead of heavy fuel oil LOTOS produces fuels that are in high demand from customers.

The EFRA Project is also the LOTOS Group's response to the new environmental restrictions which came into force in January 2020. The International Maritime Organization (IMO) reduced the maximum sulphur content in marine fuels from 3.5% to 0.5% globally, and thus excluded the use of heavy fuel oil. For this reason, LOTOS has launched sales of low-sulphur marine fuels and is running projects that are intended to enable the use of environmentally-friendly LNG to power seagoing ships.

EFRA will allow the Company to earn at least an additional USD 2 per barrel of processed crude. It has also given flexibility to the production process, which can be modified and optimised to adapt production to variable market prices of raw materials

## Focus on environmental aspects

LOTOS engineers analysed different solutions used at DCUs in European refineries. They selected technologies and applications which – once the EFRA Project is completed, that is after the new facilities are constructed – will allow the refinery to produce more high-margin fuels while ensuring its compliance with the ever stricter environmental protection requirements. The main task was to prepare a precise technical description of the target DCU model and link it with the process of coke production and transport.

LOTOS engineers decided that the water pressure before the opening of the DCU reactor would be reduced more than it is normally done in typical DCUs, in order to achieve a maximum withdrawal of volatile hydrocarbons even before the coke cutting process begins. To this end, the vacuum pump to be installed will have much higher performance parameters than those recommended by the licence provider. This will ultimately help to reduce the amount of escaping steam and volatile hydrocarbons. In the next stage of the process, instead of an open basin for unloading and draining coke, a closed hermetic system will be used. In this way, all the processes related to coke unloading, transfer, storage, loading and transport out of the refinery will be carried out with above-standard safety to the environment.

Environmentally friendly transport of coke from the refinery has also been ensured. Once the truck is loaded with coke, its wheels and chassis will be washed and dried. After the tarpaulin is pulled over, the truck will be ready to leave the refinery, heading for the coal terminal at the Northern Port. The choice of trucks to carry the coke was made by the coke buyer, Oxbow Energy Solutions of the Netherlands, with which LOTOS Asphalt has signed a 10-year contract. Trucks will only be used at daytime to reduce any possible nuisance caused by their operation.

## The heart of EFRA

The delayed coking unit (DCU), being the heart of the EFRA Project, reached the Ready for Start-up status on June 26th 2019, which meant formal completion of the construction phase. The unit was started up on September 28th and placed in service on December 1st. Both licence and performance test runs were successfully completed in December.

The optimum operation of the DCU is crucial to the success of the entire project, prepared since 2011. In late March 2020, the EFRA units passed a 30-day test run required under agreements with the financing banks. The tests demonstrated that the EFRA units and the other refinery units can operate steadily under full load and produce intermediate as well as final products of appropriate quality, generating high margins.

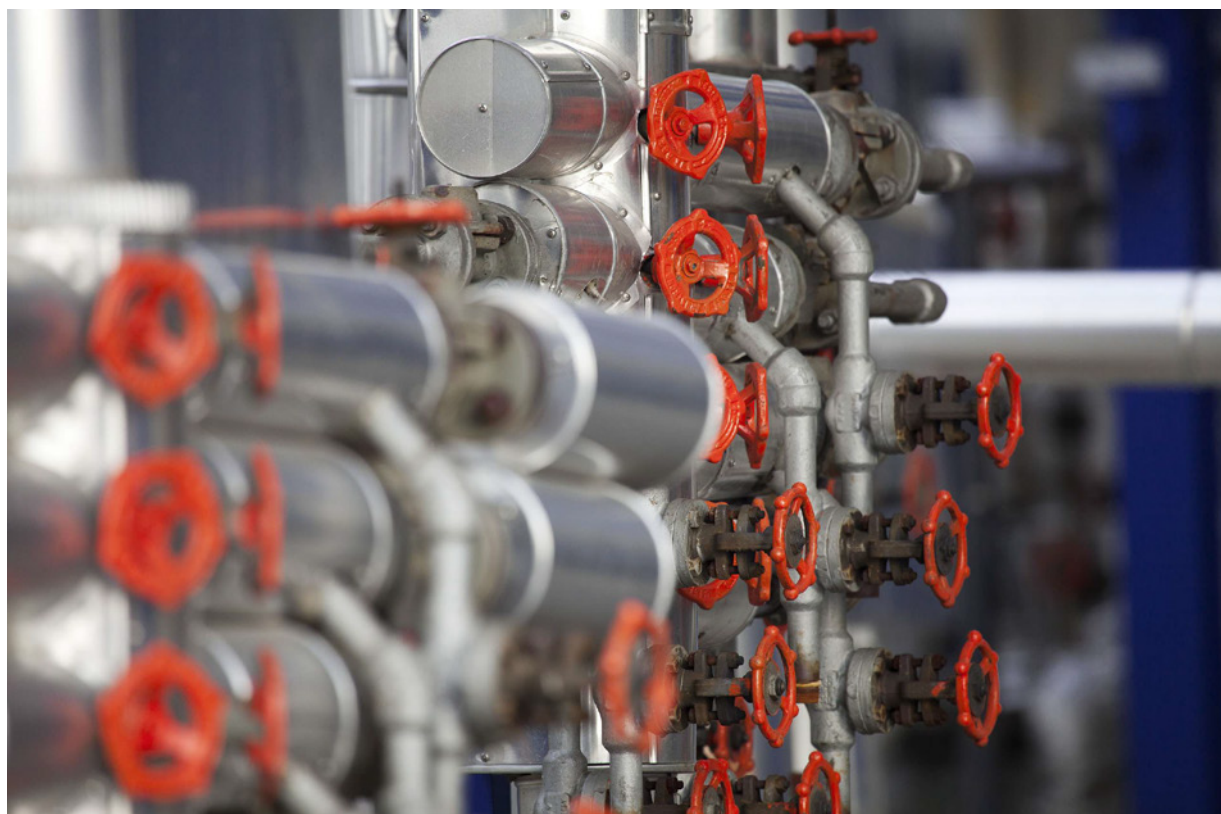
The units' operation was thoroughly examined during the test. Some results surpassed those guaranteed by the contractor and the licence provider. The tests clearly showed that the units built under the EFRA Project were capable of making the required volumes of quality products. For the financing banks, passing the test confirmed that they had invested in a profitable project.

Besides the construction of the delayed coking unit (DCU), the EFRA Project, implemented from 2016 to 2020, included the construction of a coking naphtha hydrotreating unit (CNHT), a hydrogen generation unit, a coke logistics and storage facility, a hydrowax distillation unit, an oxygen generation unit and a number of ancillary facilities. A number of upgrades were also carried out, including of the hydrocracking and hydro desulphurisation units, which significantly increased their output using the DCU's intermediate products, thus ensuring the LOTOS Group's resilience to challenging market conditions.



## Favourable pricing conditions and fewer restrictions

In July 2019, the LOTOS Group and a syndicate of eight financial institutions signed new credit facility agreements to refinance the credit facilities contracted for the 10+ Programme. In addition to optimising the structure and repayment terms of the financial liabilities, the signed documents will also result in the release of security interests in the Company's assets.



The new credit facility agreements were signed with a bank syndicate comprising: 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. and Erste Group Bank AG.

They provide for a credit facility of USD 0.5bn, including a term facility of USD 400m (approximately PLN 1.5bn, as translated at the mid rates quoted by the National Bank of Poland for July 2nd 2019) and a working capital facility of USD 100m (approximately PLN 376m, as translated at the mid rates quoted by the National Bank of Poland for July 2nd 2019), with USD as the base currency and an option of making drawdowns in USD, EUR or PLN.

The repayment date is five years from the disbursement. The main security for the credit facilities is the Company's representation on submission to enforcement made in favour of the lenders. The other terms and conditions of the agreements do not differ from standard terms commonly used in agreements of this type.

Having secured the new credit facilities, Grupa LOTOS will be able to repay the funds borrowed under the agreements of June 2008, when the Management Board of Grupa LOTOS signed the 10+ Programme credit facility agreement for a total

amount of USD 1.75bn. The term of the facility was 12.5 years, i.e. until the beginning of 2021. Importantly, in addition to optimising the structure and term of the financial liabilities related to the 10+ Programme, the refinancing has also resulted in the release of security interests in Grupa LOTOS' assets created under the previous agreement. Those assets included mainly property, plant and equipment of the Gdańsk refinery and Grupa LOTOS' cash flows.

## Grupa LOTOS invests in hydrogen

At the end of November 2020, Grupa LOTOS signed a letter of intent with Toyota Motor Poland. This is another step showing the Company's commitment to the roll-out of hydrogen technologies. With projects such as Pure H2, the Gdańsk-based company is one of the leaders in Poland in the search for environmentally friendly solutions.



The application of hydrogen as fuel is becoming reality not only in the case of space flights. Hydrogen is a potential viable solution for general transport, where it can successfully compete as an alternative fuel even with electric vehicle engines. Grupa LOTOS is an unchallenged leader on the Polish market when it comes to hydrogen production as well as projects intended to develop a hydrogen distribution system.

The main initiative in this area is the Pure H2 project, designed to launch the distribution of hydrogen of very high purity (99.999%), which could be used by municipal transport services. The project envisages the construction of a hydrogen purification unit and a hydrogen sale and distribution station in the immediate vicinity of the LOTOS Group plant, as well as two vehicle refuelling points in Gdańsk and Warsaw. Its completion and launch of the refuelling points are scheduled for the end of 2021.

Poland is well positioned to develop hydrogen-based transport. It is one of the largest producers of this gas, and currently home to three manufacturers of hydrogen-powered buses. Grupa LOTOS does not limit its initiatives to creating a hydrogen production and distribution base. For instance, it has initiated cooperation with the local authorities of Gdynia and Wejherowo in the development of municipal transport services based on hydrogen-powered buses and the supply of hydrogen fuel for those vehicles.

### Joint project of Grupa LOTOS and Toyota

An important element in this process is a letter of intent signed between Grupa LOTOS and Toyota Motor Poland, concerning the parties' cooperation to step up the efforts to develop technologies for the use of hydrogen in road transport. Under the document Toyota is to take patronage of the first hydrogen refuelling stations in Poland. Thanks to the joint activities of the LOTOS Group, a leader of Poland's fuel market, and Toyota Motor Poland, which is among the key players in the development of innovative hydrogen technologies for the automotive sector, hydrogen technology in transport can have a real and practical

— As Grupa LOTOS, we are seeking the best partners that could support our technological growth. Our cooperation with Toyota is mainly focused on two themes, one of them being hydrogen. We are going to build hydrogen refuelling stations, while Toyota is a supplier of hydrogen-powered cars. We want to make sure that what we develop will match the requirements of the market

— says **Marian Krzemiński**, Vice President of the Grupa LOTOS Management Board, Chief Investment and Innovation Officer.

## Responsibility for the future

The application of clean hydrogen goes beyond the transport sector. It is used by the medical, IT and food industries. Demand may be very high, which raises questions about emission-free methods of hydrogen production. Grupa LOTOS has engaged large resources and has made extensive efforts to promote hydrogen as a zero-emission fuel for widespread application in the future. It is addressing the issue on a very wide scale, so its experts are continuously looking for other solutions in addition to the Pure H2 project.

Many expert opinions point to hydrogen as the most optimal fuel of the future. Grupa LOTOS, as a state-owned company, feels responsible for what people will face in a decade or several decades from now. The Company's operations and development directly contribute to the growth of Poland's economy and energy security. This is why LOTOS does not limit its efforts to securing its current fuel production, but is also exploring the market for alternative fuels from a broad perspective. Apart from hydrogen, the Company is also investing in LNG and is expanding its EV charging station network, known as the Blue Trail.



## Exam passed with an A

2019 presented the fuel industry with a number of challenges, which Grupa LOTOS tackled successfully. First of all, it managed to efficiently overcome the chlorine crisis, involving contaminated crude oil supplies from Russia over the Druzhba pipeline. The Company stopped receiving and processing the contaminated feedstock, secured alternative supply sources, and thus was able to sustain safe, effective and continuous operation of the refinery.



Following the contamination of Russian oil with chlorines, PERN, the state-owned operator of transmission and storage infrastructure, had to completely discontinue the transmission of crude oil from the eastern direction between April 24th and June 9th 2019. Grupa LOTOS promptly implemented all procedures it had in place for such a contingency. Appropriate steps were taken immediately after the first information on the problem was received. The key issue was to properly schedule crude oil supplies by sea, which ensured the availability of sufficient crude volumes to maintain the processing and fuel production at maximum levels.

The task was made easier by the Company's location. With the Naftoport terminal in close proximity, Grupa LOTOS has always had flexibility and the ability to source a wide range of crudes from many directions across the world. Another noteworthy fact was the good communication with the Ministry of Energy, PERN and the other refineries. As a result, the situation did not adversely affect LOTOS' customers, who were at all times supplied with high quality products.

The Company also analysed the available technical solutions that could be applied in the future to mitigate adverse effects of

ride content). As a result, recommendations were prepared for investment projects to be implemented in the long term. Further analyses will be made to decide which of them will be carried out. Conclusions were also drawn by others (for instance, PERN started to test transmitted oil for chloride content once every three hours).

Grupa LOTOS has estimated the costs of processing crude oil contaminated with organic chloride in order to make a claim against the Russian suppliers.



02.

# About the LOTOS Group

**The LOTOS Group  
and its environment**

**Strategy**

**Financial  
performance**

**Outlook**

# People as top priority

People have always been at the centre of LOTOS’s business. Our stakeholders play a part in how we generate not only economic, but also social and environmental value.

We always keep these values in mind in our decision making, striving to build good and lasting relations with people with whom we are associated.

We care about safety and respect human dignity both within the organisation and in relations with our business partners and customers. This approach extends to those who represent LOTOS on a daily basis and to those with whom we cooperate in our operations and communication.

The quality of our relationships is not only a goal in itself, but also a source of mutual benefits. Hence our efforts to engage in fruitful dialogue with our social stakeholders and market environment.

## Our 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 and road shows;
- 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.

102-40

## LOTOS stakeholder map



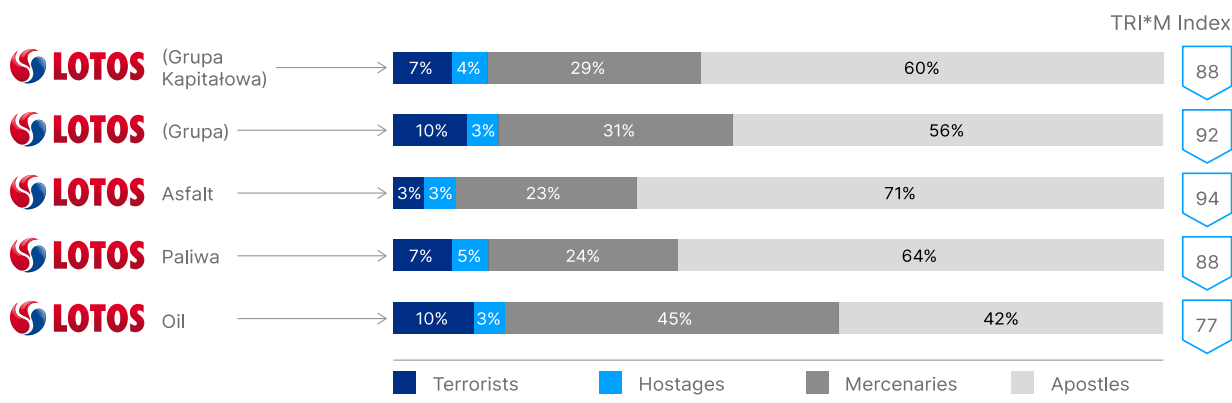


## Customers have a high opinion of LOTOS

Our customers' opinions and expectations are a vital source of information, inspiring us how to further develop our business. The satisfaction index for the LOTOS Group's business customers improved considerably in 2019, to 88 compared with the previous reading of 78. This means a noticeable increase in relation to the survey results obtained in previous years, which had been more or less the same. To compare, the average satisfaction level for all industries in Poland is 69.

Respondents are satisfied with our products: **93%** would recommend them and **91%** would choose them again. Positive changes were recorded in the structure of the LOTOS Group's customers relative to 2018, with a higher share of satisfied and loyal customers and a lower proportion of those disloyal and dissatisfied. At present, more than a half of our customers (60%) are our brand's Apostles, i.e. the most loyal and satisfied group of customers, who are emotionally attached to the brand and disseminate positive opinions about it.

### Customer types, breakdown by company



**Terrorists** are customers who have had some bad experience with the brand and share their dissatisfaction around to retaliate. The likelihood of breaking up with the brand is relatively high among that group.

**Hostages** continue their relationship with the brand despite relatively low satisfaction with the services. However, there is a barrier to switching the supplier. Despite their attachment, they may be burdensome for the brand due to low satisfaction levels and recurring problems.

**Mercenaries** are customers looking for bargains. Their relationship with the brand is determined by a short-lived interest in good pricing. Such customers are often costly to acquire (cost of promotion and advertising) and still highly disloyal.

**Apostles** zaangażowani klienci, którzy są również silnie emocjonalnie związani z marką. Klienci rozpowszechniający pozytywną opinię na temat marki, którzy gotowi są jej również bronić. W tej grupie szanse powodzenia strategii up-sellingu i cross-sellingu są największe.

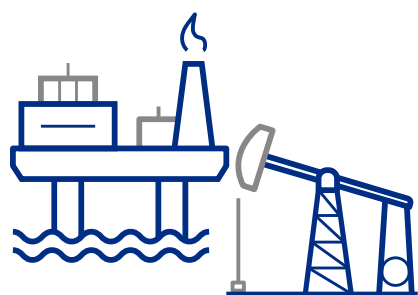
# Value chain

Our operations are based on a segment management model building a full value chain: from upstream production to downstream sale of finished products.

102-1, 102-10

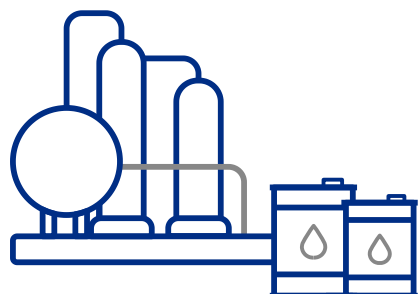
We are committed to sustainable development and follow the policy of energy security. We manage our impact on the environment, people and the economy to make it as beneficial as possible, driving the Company's value growth and benefiting our stakeholders.

The following processes make up the LOTOS Group's operations:



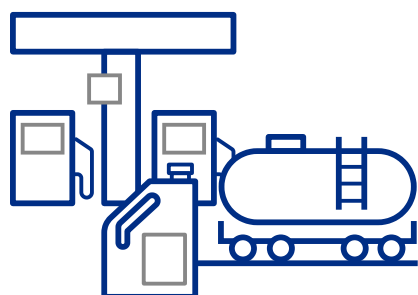
## Oil and gas exploration and production

in three countries: Poland, Lithuania and Norway (the largest player in the region). Most of the production (74%) originates from Norway. The Group's 2P reserves are mainly below the floors of the Baltic and Norwegian Seas (59% and 31%, respectively).



## Crude oil refining

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 10.5m 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. 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 (over 70%). 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 wholesa-

# We are driven by sustainable development

We are aware of our community and environmental impacts. Therefore, as a socially responsible business, we are guided by ethical values.

103-1, 103-2, 103-3

We are strongly 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. IN OUR BUSINESS OPERATIONS, WE pursue the Sustainable Development Goals (SDGs) and the United Nations Global Compact objectives.



## Overview of key sustainable development goals from the perspective of the LOTOS Group



### Goal 3: Good health and well-being



#### Read more in Report:

- Relations with social environment
- Initiatives for local communities
- LOTOS Foundation
- Occupational health and safety



### Goal 4: Quality education



#### Read more in Report:

- Relations with social environment
- Initiatives for local communities
- LOTOS Foundation
- Development and education



### Goal 7: Affordable and clean energy



Read more in Report:

- Modern and efficient oil production and refining processes



### Goal 9: Industry, innovation and infrastructure



Read more in Report:

- Value chain
- Human rights in the value chain
- Ethical supply chain



### Goal 13: Climate action



Read more in Report:

- Strategy towards climate change
- Greenhouse gas emissions
- Energy production and consumption



### Goal 14: Life below water



Read more in Report:

- Water and effluents
- LOTOS Foundation

Our strategic approach to sustainable development rests on the following pillars



social  
responsibility



responsibility  
for the natural  
environment



business  
responsibility

203-2, 204-1

Operations of the LOTOS Group are of strategic importance to the national and Europe-wide energy security. Petroleum products from the refinery in Gdańsk support land, sea and airborne transport, and thus the other branches of Polish economy. We are the second largest fuel company in Poland, contributing to the country's economy directly and indirectly as an employer, taxpayer, sponsor, donor, and partner for a number of suppliers, institutions and organisations. We are a responsible and reliable partner – we pay all amounts due on time and we fulfil our contractual obligations. We provide support and growth opportunities to small and medium-sized enterprises, which know they make a very good investment by doing business with us. By contracting and placing orders with businesses from the Gdańsk Province, the LOTOS Group contributes appreciably to the well-being of local communities and economic growth of the entire region. We indirectly help increase the wealth of local communities, offering solid and permanent jobs to local workforce (in 2019, 24.1% of the Group's procurement budget was spent with local companies from Gdańsk and the surrounding area).

ABOUT THE LOTOS GROUP / LOTOS GROUP AND ITS ENVIRONMENT /

# Modern and efficient oil production and refining processes

To improve our marketing efficiency, we are constantly optimising our refining and logistic processes.

In our principal business activities, we focus on three areas:

- hydrocarbon exploration and production,
- crude oil refining, and
- marketing of petroleum products.

Our operations are divided into two areas:

1. Exploration & production
2. Refining & marketing

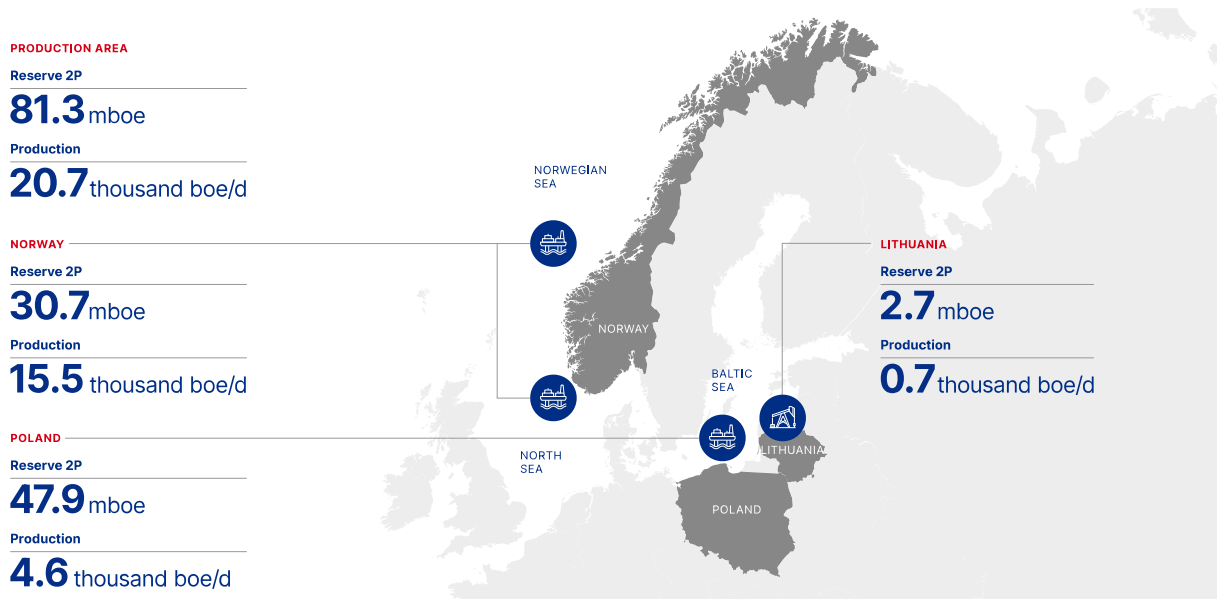
## Exploration & Production area

Acquisition of deposits and production of crude oil and natural gas, with the related auxiliary, transport and maintenance activities.

We are the only company 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.

**We are the only company engaged in hydrocarbon production within Poland's Exclusive Economic Zone of the Baltic Sea.**

Map of Grupa LOTOS 'production area



## Refining & Marketing area

Petroleum processing into refined petroleum products, wholesale and retail sale of petroleum products with the related auxiliary, transport and maintenance activities.

The LOTOS Group's marketing activities in 2019 were carried out by Grupa LOTOS and its subsidiaries: LOTOS Paliwa, LOTOS Oil, LOTOS Asphalt, and LOTOS-Air BP. We are efficient – the new technologies we use in our refining processes enable us to obtain up to 95% of pure fuel from crude oil. Waste generated in the refining process (5% of every oil barrel) is used to produce bitumen, which we sell to our trading partners.

ABOUT THE LOTOS GROUP / LOTOS GROUP AND ITS ENVIRONMENT /

# 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 the LOTOS Group has been rated high (35.5 points on a scale of 1-100: the lower the score, the better). In the justification, Sustainalytics states that "the company is exposed to a high risk of material financial impacts due to ESG factors. The company has not experienced any major controversies in connection with its business."



## 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. The S&P Global ESG Score for the LOTOS Group is 21.



## WIG ESG Index

The WIG ESG Index covers companies included in 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 October 31st 2019, our ESG and Code of Best Practice ratings were 0.7 and 1.00, respectively. [Link to the index portfolio \(in Polish\)](#)



## MSCI Rating

MSCI Ratings (including the ESG Rating) 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. The LOTOS Group's ESG rating from MSCI is Average (BBB) (as at March 2020). [More details](#)



## ISS ESG Corporate Rating

ISS-oekom, the author of the ESG Corporate rating, conducts 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-.



## FTSE4good Index

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.



# Membership of industry associations and CSR

Our companies and representatives are members of numerous Polish and international organisations, some of which bring together specialist fuel, energy and chemical sector entities.

102-12, 102-13

We have also joined business organisations working towards Poland's economic growth and those promoting the principles of corporate social responsibility.

## Grupa LOTOS' membership of organisations and associations in 2019

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Polish Chamber of Chemical Industry (PIPC)

---

Polish Organisation of Oil Industry and Trade (POPIHN)

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Fuels Europe (European Petroleum Refiners Association)

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Windsor Energy Group (WEG)

---

Polish Committee of the World Energy Council (PKŚRE)

---

ISP 3 Smart Specialisation Board of the Pomerania Region

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Hydrogen and clean carbon technologies cluster

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Business & Science Poland (BSP) in Brussels

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Union of Entrepreneurs and Employers (ZPP)

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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)

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Polish Association of Stock Exchange Issuers

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Polish HR Management Association (PSZK)

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Pomeranian Employers

---

Pomorskie in the European Union Association

**including the following organisations promoting the ideals of corporate social responsibility:**

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Responsible Business Forum

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United Nations Global Compact

## Selected organisations and associations of which LOTOS Group companies were members in 2019

---

Polish Liquid Fuels Association (LOTOS Paliwa)

---

ATIEL (LOTOS Oil)

---

European Lubricating Greases Institute (LOTOS Oil)

---

Central East European & Caspian Scout Group (LOTOS Petrobaltic)

---

Polish Association of Oil and Gas Industry Engineers and Technicians (LOTOS Petrobaltic)

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Association of Polish Offshore Industry Forum (LOTOS Petrobaltic)

---

Norwegian Oil&Gas Association (LOTOS Exploration & Production Norge)

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Polish Asphalt Pavement Association (LOTOS Asphalt)

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National Chamber of Road-Building Industry (LOTOS Asphalt)

---

Polish Research Laboratories Club POLLAB (LOTOS Lab)

---

Railway Business Forum (LOTOS Kolej)

---

Association of Independent Rail Carriers (LOTOS Kolej)

---

Polish Chamber of Natural Gas Industry (LOTOS Serwis)

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Association of Polish Firefighters (LOTOS Straż)

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# Awards and distinctions

We are glad to see that our commitment to corporate social responsibility benefits many and is highly appreciated by experts.

This appreciation has earned us numerous awards and distinctions, which are a token of recognition and confirmation of our ability to foster relations with employees, investors and business partners, to improve workplace safety, protect the natural environment, and engage in social outreach initiatives.

## Awards and distinctions for the LOTOS Group in 2019

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**LOTOS service stations received five awards and eight distinctions** in the prestigious competition of the **19th PetroTrend Station Market Forum** – a prominent event addressing topical issues and challenges faced by service station businesses.

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**A Forbes Diamond for RCEkoenergia, a LOTOS Group company** – Forbes Diamonds being a list of the fastest growing companies in Poland, run by Bisnode Polska and the editorial team of the 'Forbes' monthly.

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**LOTOS Asphalt received three distinctions** during the **25th International Fair of Road Construction Industry Autostrada-Polska**, the largest trade event of the Polish road sector and one of the leading events of this type in Europe.

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**LOTOS was named among the leaders of the Responsible Business Ranking**, topping the **'Fuels, Energy and Mineral Production' category**. Since 2018, 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.

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**In 2019, Grupa LOTOS was listed for the seventh time** among the **top socially responsible companies** recognised by the **'Polityka' weekly**. The Company was honoured with a **Silver CSR Leaf**, the award given to businesses which make regular efforts to conform to the stringent ISO 26000 standard of social responsibility.

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**Title of a Patron of Culture for LOTOS Infrastruktura** from the **Jasło Cultural Centre**.

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ABOUT THE LOTOS GROUP / LOTOS GROUP AND ITS ENVIRONMENT /

# Calendar of key events

JANUARY, 2019

**LOTOS extends partnership with  
University Sports Association**

JANUARY, 2019

**Advanced service station 4.0  
within LOTOS chain**

JANUARY, 2019

**LOTOS operates highest number  
of SUBWAY restaurants  
in Poland**

JANUARY, 2019

**LOTOS launches its third  
hydrogen production unit**

## **Another contract for crude oil supplies from US**

JANUARY, 2019

## **LOTOS reports strong refining margin**

## **LOTOS Foundation on board of 'Dar Młodzieży' sail ship, joining sponsors of Independence Cruise**

FEBRUARY, 2019

## **LOTOS supports Baltic Opera**

JANUARY, 2019

## **LOTOS Foundation to support children from ballet school in Gdańsk**

FEBRUARY, 2019

## **LOTOS to support Polish tennis**

FEBRUARY, 2019

## **Five new Newag locomotives to be added to LOTOS Kolej rolling stock**

FEBRUARY, 2019

## **LOTOS Group to continue support for young ski talent**

FEBRUARY, 2019

## **LOTOS to standardise its service station offering and visual identity**

MARCH, 2019

## **LOTOS and Gdańsk University of Technology sign agreement for cooperation on research and development projects in low-carbon transport and energy storage**

## LOTOS stations win numerous awards in prestigious competition – five awards and eight distinctions at 19th PetroTrend Station Market Forum

MARCH, 2019

## LOTOS and PGNiG: first commercial LNG bunkering of ships at Polish sea ports

Between March 13th and March 18th 2019, Grupa LOTOS and PGNiG completed two LNG commercial bunkering operations for seagoing ships. These were the first such operations carried out at the sea ports of Gdańsk and Gdynia. LOTOS and PGNiG are set to continue cooperation in LNG bunkering as this will enhance the competitiveness of Polish ports and promote the use of LNG, as an environmentally friendly fuel, in the Baltic Sea.

MARCH, 2019

## LOTOS supports Olympic Hopes

MARCH, 2019

## LOTOS Paliwa to accept payments in euro at LOTOS service stations

MARCH, 2019

## LOTOS wins contract from GDDKiA to build more Motorway Service Areas on A3 motorway, Zielona Góra Province

MARCH, 2019

## New LOTOS Kolej locomotives set off into Poland

MARCH, 2019

## LOTOS Jazz Festival 21st Bielska Zadymka Jazzowa – Grupa LOTOS as main sponsor

APRIL, 2019

## LOTOS interested in providing up to PLN 0.5bn in financing for Polimery Police project

APRIL, 2019

## World music in Pomerania. Gdańsk LOTOS Siesta Festival 2019 – LOTOS as naming sponsor

APRIL, 2019

## **Forbes Diamond for RCEkoenergia, LOTOS Group company**

Due to the deterioration of REBCO quality parameters, the Ministry of Energy decided to halt its supplies at the Adamowo connection point. Grupa LOTOS S.A.'s existing stocks of crude oil allow it to maintain continuity of production at the Gdańsk refinery. The situation has no impact on the quality of fuels sold at LOTOS service stations.

APRIL, 2019

## **LOTOS wins lease contract and will build service station at Olsztynek Wschód Motorway Service Area on S7 expressway, Olsztyn Province**

MAY, 2019

## **New DCU start-up date**

APRIL, 2019

## **LOTOS Paliwa at Poznań Motor Show**

MAY, 2019

## **LOTOS Asphalt wins three distinctions during 25th International Fair of Road Construction Industry Autostrada-Polska**

APRIL, 2019

## **LOTOS best practices in Responsible Business Forum Report**

MAY, 2019

## **New Football Future with LOTOS centre in Jasło**

APRIL, 2019

## **Transit through Druzhba pipeline stopped**

MAY, 2019

## **New Football Future with LOTOS centre in Czechowice-Dziedzice**

MAY, 2019

## LOTOS Petrobaltic has commenced cooperation in the use of TETRA critical communication system

The TETRA critical communication system, implemented and successfully used at the Energa Group, has also been tested in sea and medical rescue operations in the Pomerania region. This most advanced radio communication system in Europe will now also be used by LOTOS Petrobaltic. Offered by Enspirion, the critical communication service will ensure reliable communication both in emergency situations and in day-to-day operations.

JUNE, 2019

## Seventh edition of LOTOS Junior Cup

JUNE, 2019

## LOTOS Petrobaltic buys drilling platform

JUNE, 2019

## Grupa LOTOS S.A.'s coking unit (DCU with auxiliaries) ready for start-up

The key plant constructed as part of the Grupa LOTOS EFRA Project, namely the Coker Complex consisting of the Delayed Coking Unit (DCU) and auxiliary installations, has reached the Ready For Start-Up (RFSU) status.

JUNE, 2019

## LOTOS Biznes named best fuel card for third time

JUNE, 2019

## Refreshed Lotos.pl website

JUNE, 2019

## LOTOS wins lease contract and will build two Motorway Service Areas on S8 expressway, Warsaw Province

JUNE, 2019

## LOTOS Nord Cup regatta 2019 – Grupa LOTOS as naming sponsor

JUNE, 2019

## LOTOS sponsors Gdańsk Summer Stadium

JUNE, 2019



## LOTOS among leaders of Responsible Business Ranking

JUNE, 2019

### UKS LOTOS Gdańsk wins 1st C2 Provincial League

JUNE, 2019

### Aerobaltic – LOTOS as naming sponsor

JUNE, 2019

### Transit through Druzhba pipeline resumed

JULY, 2019

### Sixth edition of LOTOS Safety Belt Champions (seat belt fastening and child seat installation training at service stations)

JULY, 2019

## LOTOS as naming sponsor of hockey players from Gdańsk

JULY, 2019

### Ladies' Jazz Festival – event sponsored by Grupa LOTOS

JULY, 2019

### LOTOS launches new image-building campaign, a continuation of 'The BEST doesn't come from nowhere' series

LOTOS has launched a new image-building campaign, which is a continuation of "The BEST doesn't come from nowhere" series. From this week on, a 30-second spot being an extension of the outdoor campaign launched in July, will be run on the Internet and television. The campaign is designed to support customer touchpoints – LOTOS service stations and the entire range of fuel and non-fuel products.

JULY, 2019

### Oil discovered in partnership with LOTOS E&P Norgewithin NOAKA area in North Sea

Drilling operations in licence PL442 in the NOAKA area in the North Sea discovered recoverable oil resources estimated at 80–200 mboe (barrels of oil equivalent). Aker BP operates the licence (90.26%) in partnership with LOTOS Exploration & Production Norge (9.74%).

JULY, 2019

## Sopot Theatre Summer with LOTOS – Grupa LOTOS as strategic sponsor

JULY, 2019

## LOTOS, Orlen and Budimex sign agreement concerning new generation bitumens

AUGUST, 2019

## EuroRating confirms Grupa LOTOS' rating with positive outlook

Having performed a periodic credit rating review, the EuroRating agency maintained Grupa LOTOS' rating at BBB- with a positive outlook. According to the agency's classification, which is also commonly used by international rating agencies, the maintained level of credit risk indicates Grupa LOTOS has high creditworthiness and a sufficient capacity to meet its financial commitments in the long term.

AUGUST, 2019

## Offshore Production Hub ready to go to sea

AUGUST, 2019

## Poland's grandest aviation show – LOTOS Gdynia Aerobaltic Airshow

AUGUST, 2019

## LOTOS Foundation to support construction of monument commemorating victims of German killing in Las Szpęgawski forest

SEPTEMBER, 2019

## Offshore Production Hub on its way to B8 field

SEPTEMBER, 2019

## LOTOS starts production from Utgard field

Production from Norway's Utgard field was launched on September 16th 2019. The project had been completed about three months ahead of schedule with about 25% savings compared to the assumed budget. LOTOS Exploration & Production Norge (LOTOS Norge) is a partner in the licence, operated by Equinor. The field is an important part of the LOTOS strategy in exploration & production.

SEPTEMBER, 2019

## New stations within LOTOS chain

SEPTEMBER, 2019

### LOTOS Kolej to get new SIM FACTOR simulator

OCTOBER, 2019

### LOTOS launches B2B 24 service

OCTOBER, 2019

### Energobaltic with new licences valid until 2030

OCTOBER, 2019

### Closer cooperation of PGNiG and LOTOS in Norway

PGNiG Supply & Trading (PST), a member of the Polish Oil and Gas Company Group (PGNiG), becomes the exclusive recipient of natural gas produced in Norway by LOTOS Exploration & Production Norge (LOTOS Norge), a LOTOS Group company engaged in exploration and production activities on the Norwegian Continental Shelf.

OCTOBER, 2019

## Bring your own cup to LOTOS – LOTOS Paliwa joins Polish Zero Waste Association campaign

NOVEMBER, 2019

### Key stage in negotiations for acquisition of Grupa Azoty Polyolefins shares by LOTOS

NOVEMBER, 2019

### Kajetan Kajetanowicz and LOTOS Rally Team become WRC2 vice champion

NOVEMBER, 2019

### Grupa LOTOS as co-organisier and author of idea to invite to Poland 24th edition of European Refining Technology Conference (ERTC)

DECEMBER, 2019

### LOTOS Petrobaltic's Petro Giant platform arrives at B3 field

DECEMBER, 2019

## 500 service stations within LOTOS chain

## First rally ever on premises of LOTOS Group refinery: Co-drive with Kajto

DECEMBER, 2019

## LOTOS Infrastruktura named Patron of Culture by Jasło Cultural Centre

DECEMBER, 2019

## Heart monitors for Pomerania from LOTOS Foundation

DECEMBER, 2019

## LOTOS to invest in Polimery Police Project

DECEMBER, 2019

## LOTOS and Toyota to jointly develop hydrogen-powered transport – letter of intent signed

DECEMBER, 2019

## LOTOS Kolej acquires six advanced Dragon 2 locomotives from Newag

DECEMBER, 2019

## LOTOS Kolej opens innovative Train Driver Training Centre

DECEMBER, 2019

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# About the LOTOS Group

The LOTOS Group  
and its environment

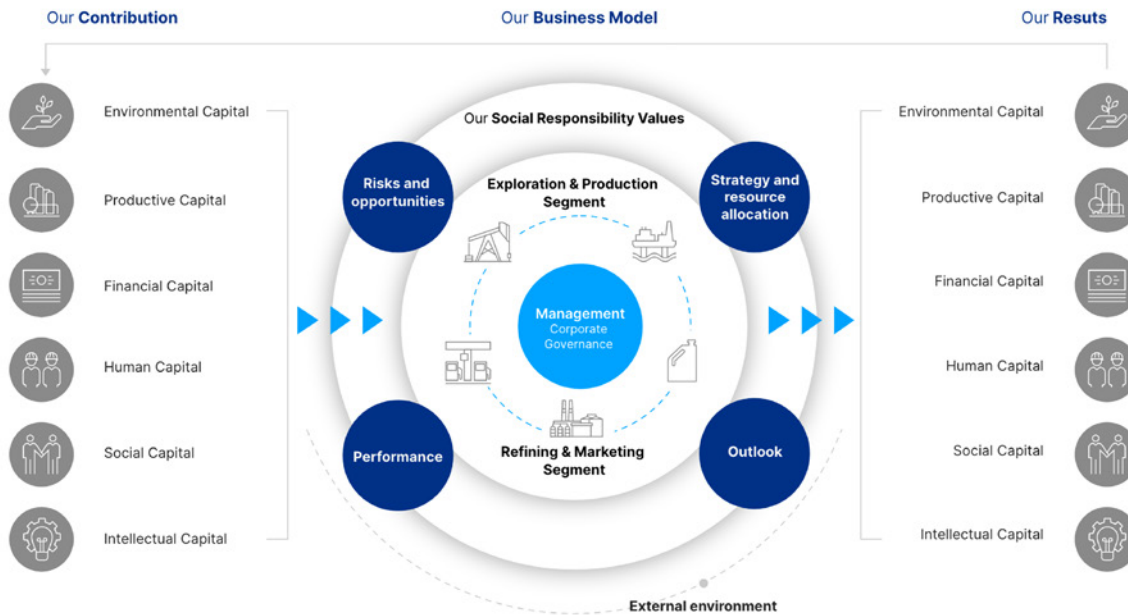
**Strategy**

Financial  
performance

Outlook

# Value Creation Model

Our Value Creation Model has been developed following a thorough analysis of the global oil market and its long-term outlook. With this model, we rest assured that our growth in the coming years will be secure and sustainable.



# Our capitals

In the process of creating common value, we place a strong focus on efficient management of our capitals and on exploiting their potential and the opportunities present in the individual segments of our operations.

Prudent management and expansion of the financial capital allows us to invest in the LOTOS Group's non-financial resources, which generate further profits over time. For years now, we have been consistently investing in improving oil production and refining processes, employee development and building a culture of innovation within the organisation, as well as creating innovative products. We are constantly working on solutions designed to reduce our environmental footprint. We also seek to make a positive social impact through our charitable and sponsorship initiatives.

## OUR CAPITALS



## Environmental capital



### Contribution at the end of 2018

**9 626 075 l**

Total consumption of crude oil

**3 830 MJ/t**

Energy efficiency ratio (WWWE2)

**8 066.9 Mg**

Total weight of hazardous waste

**11 282 376 t**

Total consumption of final products

**1 956 857 t CO<sub>2</sub>e**

Total direct greenhouse gas emissions

**10 624.9 Mg**

Total weight of non-hazardous waste

**28 906 273 MWh**

Total consumption of energy

**0.214 Mg CO<sub>2</sub>e / Mg ropy**

CO<sub>2</sub> emission intensity ratio

### Capital management

As an organisation operating fuel and energy facilities, we are convinced that our business operations, if carried out responsibly, will do no harm to the environment.

Working in an energy-intensive industry, we focus on continuous improvements in energy efficiency. By consistently reducing primary energy consumption at our plants, we succeed in regularly reducing our GHG emissions, while contributing to improved security of the energy network in Poland.

We also pay a lot of attention to waste at our locations, striving to minimise its volumes. Nevertheless, some waste cannot be avoided if production is to be managed efficiently. At most of our locations, including the refinery in Gdańsk, we do not process waste. However, as we hand it over to third parties, we make sure they hold appropriate waste management permits and we give preference to companies which can guarantee that the waste collected from us will ultimately be recovered or recycled.

## Results at the end of 2019

**10 672 434** l

Total consumption of crude oil

**4 044** MJ/t

Energy efficiency ratio (WWWE2)

**11 183 428** t

Total consumption of final products

**2 027 970** t CO<sub>2</sub>e

Total direct greenhouse gas emissions

**33 456 174** MWh

Total consumption of energy

**0.205** Mg CO<sub>2</sub>e / Mg

ropy  
CO<sub>2</sub> emission intensity ratio

**6 363.7** Mg

Total weight of hazardous waste

**10 308.5** Mg

Total weight of non-hazardous waste

### Read more about our environmental capital:

- Our approach to Sustainable Development
- Strategy towards climate change
- Greenhouse gas emissions
- Energy production and consumption
- Raw materials
- Waste
- Water and effluents
- Other air emissions (other than greenhouse gases)
- Biodiversity



### Productive capital



## Contribution at the end of 2018

**10.8** million tonnes

Crude oil throughput of the refinery

**20**

Number of Motorway Service Areas

**86**

Number of markets served

**31.4%**

Share in the domestic fuel market

**495**

Number of service stations

**20.4** thousand boe/d

Production volume

## Capital management

Grupa LOTOS owns one of Europe's newest and most innovative refineries. Nevertheless, we continue to invest in increasingly efficient crude oil processing (the EFRA Project), while expanding and adjusting our product portfolio to the prevailing market situation.

In line with our strategy, we grow and standardise our service station chain to ensure a uniform visual identity (both exter-



nally and internally) and to optimise customer experience. Key efforts to improve the retail chain's service quality include staff training programmes, sales and incentive competitions for service station staff, development of loyalty schemes and enhancement of the business offering, including through cooperation with large forwarding companies.

In parallel, we develop our oil production operations. The growth in production recorded in 2019 was attributable to the bringing onstream of the new Utgard field in Norway in view of the gradual depletion of producing fields. We also continue to analyse options for acquiring new production assets.

## Results at the end of 2019

**10.7** million tonnes

Crude oil throughput of the refinery

**20**

Number of Motorway Service Areas

**86**

Number of markets served

**32.6%**

Share in the domestic fuel market

**506**

Number of service stations

**20.7** thousand boe/d

Production volume

### Read more about our productive capital:

- Value chain
- Modern and efficient oil production and refining processes
- Products and services



## Financial capital



## Contribution at the end of 2018

PLN **30.121**bn

Total revenue

PLN **12.03**bn

Equity

PLN **4.502**bn

Consolidated profit

**250**

Number of measures identified under the Efficiency Improvement Programme

PLN **2.98**bn

Operating profit

PLN **443.2**m

Capital expenditure in the refining and marketing segment

PLN **560.8**m

Capital expenditure in the exploration and production segment

## Capital management

In 2019, the macroeconomic environment for refining operations was more demanding than in 2018 and relative to the strategic projections assumed by the Company. The significant decline in natural gas and crude oil prices had an adverse effect on the exploration and production segment's performance.

The Group's overall performance was boosted by the Efficiency Improvement Programme, designed to support the identification and reporting of efficiency-improvement measures at the Group. The largest efficiency gains were achieved in Refining, Energy, Transport and Logistics.

The Group constantly invests in growth. The Management Board plans to carry out its capex plans for 2020 based on a mix of internally generated and borrowed funds. In 2019, the net debt/LIFO-based EBITDA ratio was 1.0x, well below the target level set in the strategy, allowing the Company to safely pursue its investment plans, including equity investments.

## Results at the end of 2019

**29.493** mld PLN

Total revenue

**12.71** mld PLN

Equity

**3.844** mld PLN

Consolidated profit

**288**

Number of measures identified under the Efficiency Improvement Programme

**1.97** mld PLN

Operating profit

**395.2** mln PLN

Capital expenditure in the refining and marketing segment

**629.5** mln PLN

Capital expenditure in the exploration and production segment

### Read more about our financial capital:

- [Financial results and operational achievements](#)
- [Financial highlights](#)
- [Consolidated statement of comprehensive income](#)
- [Consolidated statement of financial position](#)
- [Consolidated statement of cash flows](#)
- [Consolidated statement of changes in equity](#)



## Human capital



## Contribution at the end of 2018

**5 045**

Total workforce

**14%** (women);

**13%** (men)

Percentage of new hires at the Group

**21** godzin

Average number of training hours per employee

**9.25**

Accident frequency rate

**54.07**

Accident severity rate

**32**

Number of process safety incidents

PLN **170.4m**

Employee benefits expense

## Capital management

Growth in the Group's workforce was driven by a range of factors, including the need to staff the new Petro Giant platform (at LOTOS Petrobaltic), as well as the expanding operations of LOTOS Kolej, LOTOS Asphalt and LOTOS Paliwa.

The Company pursues 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.

Risks to the occupational safety of the LOTOS Group's employees and contractors performing work on its premises are one of the key risk areas for the organisation. Building a culture of safety and effectively preventing occupational accidents is a priority objective for the management and employees of Grupa LOTOS S.A. To this end, an OHS training programme entitled 'Know the golden rules of occupational safety for a LOTOS Group employee' was launched on the e-learning platform. A new project was also launched to visualise occupational safety, involving information and motivation signs, infographics and floor markings.

## Results at the end of 2019

**5 368**

Total workforce

**16%** (women);

**14%** (men)

Percentage of new hires at the Group

**21** godzin

Average number of training hours per employee

**7.93**

Accident frequency rate

**26.23**

Accident severity rate

**27**

Number of process safety incidents

PLN **207.5m**

Employee benefits expense

### Read more about our human capital:

- People as top priority
- HR policy
- Workforce structure
- Occupational health and safety
- Diversity management
- Human rights in relations with employees
- Remuneration and employee benefits
- Development and education



## Social capital



### Contribution at the end of 2018

# 331

Number of hours dedicated to employee volunteering work

# 22

Number of sports sponsorship projects

# 17

Number of cultural sponsorship projects

# 14

Number of social and environmental sponsorship projects

# 130

Number of donations made by the LOTOS Foundation

# PLN 6m

Amount of support provided by the LOTOS Foundation

### Capital management

The LOTOS Group considers corporate social responsibility as an element of its management and improvement processes. In the process of building lasting and positive relations with its stakeholders, Grupa LOTOS strives to effectively integrate its strategy and take steps designed to face social and environmental challenges.

The LOTOS Group supports social initiatives and projects. Our sponsorship activities focus on sports, culture and art, as well as social and environmental initiatives carried out primarily in the counties and provinces where our plants are located, and in places where our marketing activities are run, including service stations. Employees are also keen to engage in the Group's charitable activities, including various initiatives organised by the employer.

### Results at the end of 2019

# 1 297

Number of hours dedicated to employee volunteering work

# 24

Number of sports sponsorship projects

# 32

Number of cultural sponsorship projects

# 11

Number of social and environmental sponsorship projects

# 125

Number of donations made by the LOTOS Foundation

# PLN 8m

Amount of support provided by the LOTOS Foundation

#### Read more about our social capital:

- [We are driven by sustainable development](#)
- [Relations with social environment](#)
- [Initiatives for local communities](#)
- [Sponsorship activities](#)
- [LOTOS Foundation](#)
- [Employee volunteering](#)



## Intellectual capital



### Contribution at the end of 2018

**32.1%**

Percentage of employees aged 50 +

**103**

Number of interns and trainees

### Capital management

At the LOTOS Group we appreciate experience that comes with age, which is why 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.

LOTOS continues to improve its placement offering for students. The 'Start with LOTOS' internship programme set up in 2017 has been certified and won the 'Top Quality Internship' title. Traineeship and internship opportunities offered by LOTOS help students improve their employability and give them a chance to work for an attractive employer. The number of trainees is based on current business needs. In addition to its proprietary programme, LOTOS has long participated as a partner in a number of internship initiatives, such as: 'Work for Your Future' (Wypracuj Przyszłość) organised by the City of Gdańsk, 'Academy of Energy' (Akademia Energii) of the Lesław A. Paga Foundation, 'Go4Poland' of the Warsaw Stock Exchange Foundation, and the 'Summer Internship' (Wakacyjny Staż).

As part of its strategy, the LOTOS Group seeks to become a leader in new generation fuels. To turn these plans into reality, in March 2019 the Group's representatives signed documents to launch joint research and development activity with the Gdańsk University of Technology. The cooperation is to involve the development of prototypes of selected low-carbon transport and energy storage equipment. 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 initiate efforts aimed at increasing the role of hydrogen technologies.

Forging ties between science and business, Grupa LOTOS S.A. commenced work under the 'Structural enhancement of bitumen road surfaces through the use of modified bitumens' research programme in partnership with Budimex, Orlen Asphalt, the Gdańsk University of Technology, the Warsaw University of Technology and the Road and Bridge Research Institute. The subsidiary LOTOS Asphalt undertook an initiative to develop innovative technologies for the production of innovative and environmentally-friendly bitumens.

### Results at the end of 2019

**28.6%**

Percentage of employees aged 50 +

**98**

Number of interns and trainees

#### Read more about our intellectual capital:

→ Diversity management

→ Strategy towards climate change

ABOUT THE LOTOS GROUP / STRATEGY /

# 'Stability and sustainable growth' strategy

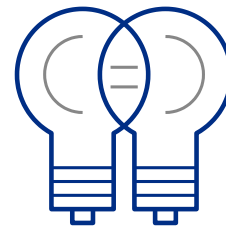
## Five key strategic objectives of the LOTOS Group



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 four primary values underlying the LOTOS Group's corporate social responsibility are:

### 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

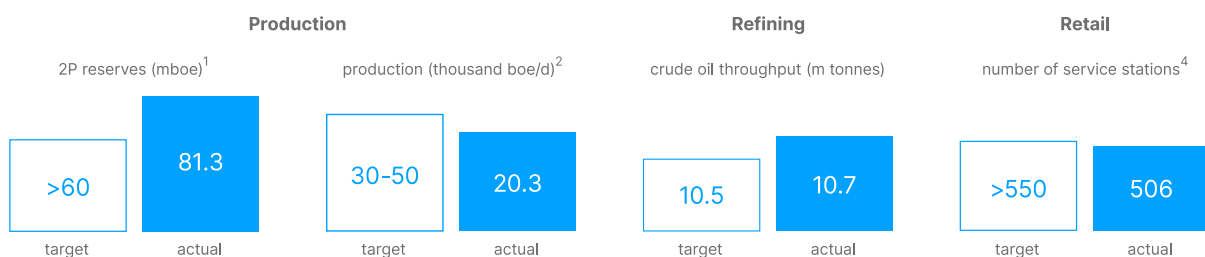
More information about our strategy : <[https://inwestor.lotos.pl/en/2412/lotos\\_group/strategy\\_2017-2022](https://inwestor.lotos.pl/en/2412/lotos_group/strategy_2017-2022)>

ABOUT THE LOTOS GROUP / STRATEGY /

# Strategy implementation in 2019

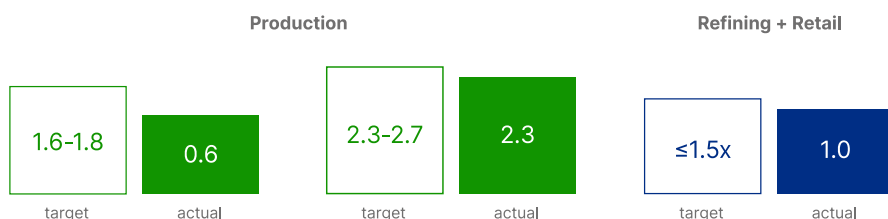
## Selected strategic measures

### 2019–2022 targets vs 2019 actual



### Annual average LIFO-based EBITDA<sup>3</sup> in 2019–2022 vs 2019 actual

### Net debt/EBITDA at the end of 2019



2019–2022 targets
 

 2019 actual

<sup>1</sup> 2P reserves: proved and probable

<sup>2</sup> Annual average production volume in barrels of oil equivalent (oil and gas) per day

<sup>3</sup> Net of one-off items

<sup>4</sup> Target for the number of stations at the end of 2022

source: the Company



02.

# About the LOTOS Group

The LOTOS Group  
and its environment

Strategy

**Financial  
performance**

Outlook

ABOUT THE LOTOS GROUP / FINANCIAL PERFORMANCE /

# Financial results and operational achievements

103-1, 103-2, 103-3, 201-1, 201-3

In 2019, adjusted LIFO-based EBITDA was PLN 2.9bn, down 7.7% year on year. Last year, the Company paid record-high dividend of PLN 3 per share. In 2019, the macroeconomic environment for refining operations was more demanding than in 2018 and relative to the strategic projections assumed by the Company. The significant decline in natural gas and crude oil prices had an adverse effect on the exploration and production segment's performance.

In 2019, the LOTOS Group posted revenue of PLN 29.5bn. with 97.5% of the figure coming from refining operations. The Group sells its products mainly to domestic customers. Domestic sales accounted for 81.8% of total revenue.

## Key financial results of the LOTOS Group

PLN

**1.97<sub>bn</sub>**

LOTOS Group's operating  
profit for 2019

PLN

**1.15<sub>bn</sub>**

LOTOS Group's net profit for 2019

PLN

**1.47<sub>bn</sub>**

Refining and Marketing  
segment's operating profit

PLN

**0.49<sub>bn</sub>**

Exploration and Production segment's operating profit

PLN

**29.49<sub>bn</sub>**

revenue

In 2019, the LOTOS Group's revenue was PLN 29,493.3m. Sales of diesel oil accounted for the major share of revenue, having totalled PLN 16,246.8m (55.1% of the Group's total revenue). In 2019, they were up 8.2% year on year. Sales of gasolines were also an important contributor to revenue, amounting to PLN 4,346.6m (14.7% of total revenue), which represented a 2.3% decrease year on year. In 2019, heavy products accounted for 9.0% of the LOTOS Group's revenue. Their value was PLN 2,639.7m (down by 15.8% compared with 2018).

In 2019, the share of domestic sales in the LOTOS Group's revenue went up by 3.7% compared with the previous year, to PLN 24,121.8m (81.8% of total revenue).

**LOTOS Group's revenue by products, merchandise and services (PLNm)**

	Exploration & Production		Refining & Marketing		Total	
	2019	2018	2019	2018	2019	2018
Gasolines			4,346.6	4,450.5	4,346.6	4,450.5
Naphtha			936.9	1,157.1	936.9	1,157.1
Diesel oils			16,246.8	15,009.3	16,246.8	15,009.3
Bunker fuel			211.0	201.2	211.0	201.2
Light fuel oil			618.8	640.4	618.8	640.4
Heavy products			2,639.7	3,133.8	2,639.7	3,133.8
Aviation fuel			1,114.2	1,421.7	1,114.2	1,421.7
Luboils			291.4	278.5	291.4	278.5
Base oils			460.1	587.3	460.1	587.3
LPG			513.0	543.8	513.0	543.8
Crude oil commodity				320.8	0.0	320.8
Crude oil product	233.9	285.4			233.9	285.4
Natural gas	434.6	661.8	1.0	0.3	435.6	662.1
Xylene fraction			235.4	250.4	235.4	250.4
Other refinery products, merchandise and materials		0.6	338.0	312.7	338.0	313.3
Other products, merchandise and materials	8.3	6.6	568.2	530.8	576.5	537.4
Services	53.8	48.0	372.8	372.3	426.6	420.3
Effect of cash flow hedge accounting		0.0	-131.2	-91.6	-131.2	-91.6
<b>Total</b>	<b>730.6</b>	<b>1,002.4</b>	<b>28,762.7</b>	<b>29,119.3</b>	<b>29,493.3</b>	<b>30,121.7</b>
Domestic sales	8.0	7.0	24,113.8	23,256.0	24,121.8	23,263.0
Export sales	722.6	995.4	4,648.9	5,863.3	5,371.5	6,858.7

Source: the Company.

## Refining & Marketing

In 2019, the Refining & Marketing segment's revenue came to PLN 28,826.2m, down by 1.2% compared with 2018. The decrease reflected mainly a 1.6% drop in the segment's sales volume. The average selling price was PLN 2,514 per tonne, i.e. was 0.4% higher than in 2018.

Sales of diesel oil accounted for the major share of revenue, having totalled PLN 16,246.8m, up 8.2% year on year. Sales of gasolines were also an important contributor to the segment's revenue, amounting to PLN 4,346.6m, which represented a 2.3% decrease year on year.

The LOTOS Group's 2019 operating profit in the Refining & Marketing segment was PLN 1,474.4m.

In order to eliminate the effect of inventory measurement with the weighted average cost method on operating profit, and the resulting delay in reflecting any changes of crude oil prices in the prices of finished products, a management standard in the refining sector is the use of LIFO-based EBITDA. 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 rose 2.2% year on year. The increase in depreciation and amortisation of the Refining & Marketing segment in 2019 was mainly attributable to the implementation of IFRS 16 'Leases'.

### Financial results of the Refining & Marketing segment (PLNm)

	2019/2018			
	2019	2018	(PLNm)	(%)
Revenue	28,826.2	29,171.9	-345.7	-1.2%
<b>EBIT</b>	<b>1,474.7</b>	<b>1,928.7</b>	<b>-454.0</b>	<b>-23.5%</b>
Depreciation and amortisation	673.1	497.6	175.6	35.3%
<b>EBITDA</b>	<b>2,147.8</b>	<b>2,426.3</b>	<b>-278.5</b>	<b>-11.5%</b>
LIFO effect	141.2	-499.9	641.1	-128.3%
One-off items <sup>1</sup>	-65.2	249.5	-314.7	-126.1%
<b>Adjusted LIFO-based EBITDA</b>	<b>2,223.8</b>	<b>2,175.9</b>	<b>47.9</b>	<b>2.2%</b>

Source: the Company.

<sup>1</sup> The balance of impairment losses/write-downs, provisions and other items in 2019 was PLN 65.2m. In 2018, the balance of impairment losses/write-downs, provisions and other items was PLN -249.5m.

## Exploration & Production segment

In 2019, revenue in the Exploration & Production segment was PLN 1,186.7m, a decline of PLN 277.0m compared with 2018. The main reason was a drop in the prices of natural gas (-44.5%) and of Brent dtd crude (-9.8%) on global markets. The major decline in hydrocarbon prices resulted in a PLN 287.0m decrease in adjusted LIFO-based EBITDA compared with the previous year.

**Financial results of the Exploration & Production segment (PLNm)**

	2019/2018			
	2019	2018	(PLNm)	(%)
Revenue	1,186.7	1,463.7	-277.0	-18.9%
<b>EBIT</b>	<b>487.2</b>	<b>1,046.2</b>	<b>-559.0</b>	<b>-53.4%</b>
Depreciation and amortisation	236.2	225.1	11.1	4.9%
<b>EBITDA</b>	<b>723.4</b>	<b>1,271.3</b>	<b>-547.9</b>	<b>-43.1%</b>
One-off items <sup>2</sup>	-93.9	-354.8	260.9	-73.5%
<b>Adjusted EBITDA</b>	<b>629.5</b>	<b>916.5</b>	<b>-287.0</b>	<b>-31.3%</b>

Source: the Company.

<sup>2</sup> The balance of impairment losses/write-downs and provisions in 2019 was PLN 93.9m. The balance of impairment losses/write-downs and provisions in 2018 was PLN 354.8m.

## Assets

**The main asset items include:**

- Property, plant and equipment worth PLN 13,270.8m (56.0% of the Group's total assets). Their value rose 12.6% compared with the end of 2018. The main components of these assets were property, plant and equipment of the Refining & Marketing segment. They amounted to PLN 9,638.4m, having increased 10.2% during the year, mainly as a result of the application of IFRS 16 and in connection with the EFRA Project. At the same time, property, plant and equipment of the Exploration & Production segment went up 19.3%, to PLN 3,632.4m (due mainly to an increase in non-current assets associated with the YME, Sleipner and Utgard fields in Norway, the B8 fields in the Baltic Sea, and purchase of the Giant drilling platform).
- Inventories were measured at PLN 4,854.3m (20.5% of the Group's assets). Their value was close to that recorded at the end of 2018.
- Trade receivables totalled PLN 2,609.1m, i.e. 11.0% of total assets. Their value was PLN 728.7m higher than a year earlier. The increase was recorded mainly in domestic sales, mostly on account of the lack of factoring arrangements.
- Other current and non-current assets decreased, in total, by PLN 491.2m, affected mainly by a bank guarantee provided by BNP Paribas to Exxon Exploration and Production Norge AS to cover Sleipner decommissioning liabilities and the resulting release of funds from the escrow account.
- Cash and cash equivalents The item amounted to PLN 1,516.6m (6.4% of total assets), which was PLN 424.7m less relative to the end of 2018.

**Equity****PLN****12.72<sub>bn</sub>**

equity at the end of 2019

**PLN****0.68<sub>bn</sub>**

increase in LOTOS Group's equity relative to 2018

# 56%

share of equity in total equity and liabilities in 2019

## Key changes in liabilities:

PLN

## +383.2m

increase in other liabilities and provisions (mainly investment commitments, and liabilities under excise duty, fuel charge and VAT)

PLN

## -348.2m

increase in current tax liabilities

PLN

## +27.1m

increase in trade payables

PLN

## -532.4m

decrease in borrowings, other debt instruments and finance lease liabilities, reflecting mainly partial repayment of the Parent's investment facilities, at the same time, some of the credit facilities were repaid, including facilities granted for the 10+ Programme at Grupa LOTOS S.A., the purchase of service stations at LOTOS Paliwa, the purchase of an oil platform at SPV Baltic Sp. z o.o., and the refinancing and financing of inventories

In 2019, the LOTOS Group's debt equalled PLN 4,416.4m, and was PLN 532.4m higher than at the end of December 2018, mainly as a result of the implementation of IFRS 16 'Leases'. The ratio of debt adjusted for free cash to equity was 22.8% (including lease liabilities representing 10.0% of equity), which is 6.6pp higher compared with December 31st 2018. Net debt totalled PLN 2,899.8m. The ratio of net debt to adjusted LIFO-based EBITDA as at December 31st 2019 was 1.0x, of which 0.4x was attributable to IFRS 16 'Leases'.

## Debt

PLN

## 4.41bn

LOTOS Group's debt at the end of 2019

PLN

## 532.4m

increase in LOTOS Group's debt relative to 2018

PLN

## 2.90bn

net debt as at the end of 2019

As at December 31st 2019, the LOTOS Group's cash balance (including current account overdrafts) amounted to PLN

1,516.6m. In 2019, net cash flows decreased the amount of cash and cash equivalents by PLN 421.7m, where:

- The LOTOS Group generated positive cash flows from operating activities of PLN 2,130.2m, attributable mainly to net profit increased by depreciation and amortisation, income tax, and higher provisions, and reduced by higher trade receivables resulting from the lack of factoring arrangements in 2019.
- Cash flows from investing activities equalled PLN -407.9m 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 included funds released from the Sleipner decommissioning escrow account.
- Negative cash flows from financing activities, of PLN -2,141.2m, 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 Asphalt's investment loan), as well as interest paid, dividend distributed and payments due under lease contracts.

PLN

**1.52<sub>bn</sub>**

LOTOS Group's cash balance, including current account over-drafts at the end of 2019

PLN

**-0.41<sub>bn</sub>**

negative cash flows from investing activities generated in 2019

PLN

**2.13<sub>bn</sub>**

positive cash flows from operating activities generated in 2019

PLN

**-2.14<sub>bn</sub>**

negative cash flows from financing activities

In 2019, the LOTOS Group's capital expenditure exceeded PLN 1,024.7m, most of which was spent on the construction of a delayed coking unit (EFRA Project) and on oil and gas production, mainly from the B8 field in the Baltic Sea and from the Sleipner and YME area fields on the Norwegian Continental Shelf.

#### LOTOS Group's capital expenditure on key projects in 2019 (PLNm)

Refining & Marketing		Exploration & Production	
Project	(PLNm)	Project	(PLNm)
EFRA	134.2	B8 field	140.4
Expansion of service station network	96.0	Sleipner, Norway	46.5
Hydrogen Recovery Unit (HRU)	26.0	Norway - Heimdal	36.8
Other	139.0	YME, Norway	291.1
		Giant platform	55.6
		Other	59.1
<b>Total</b>	<b>395.2</b>	<b>Total</b>	<b>629.5</b>

Source: the Company.

# Financial highlights

102-7

## Financial highlights - consolidated the LOTOS Group

	PLNm		EURm	
	Year ended Dec 31 2019	Year ended Dec 31 2018	Year ended Dec 31 2019	Year ended Dec 31 2018
Revenue	29,493.3	30,121.7	6,856.0	7,059.4
Operating profit	1,969.7	2,981.3	465.2	698.7
Pre-tax profit	1,692.2	2,722.6	400.6	638.1
Net profit	1,152.9	1,587.4	273.9	372.0
Net profit attributable to owners of the Parent	1,152.9	1,587.4	273.9	372.0
Net profit attributable to non-controlling interests	-	-	-	-
Total comprehensive income/(loss)	1,235.2	1,515.9	293.0	355.3
Total comprehensive income/(loss) attributable to owners of the Parent	1,235.2	1,515.9	293.0	355.3
Total comprehensive income/(loss) attributable to non-controlling interests	-	-	-	-
Net cash from operating activities	2,130.2	2,327.5	495.2	545.5
Net cash from investing activities	(407.9)	(1,086.6)	(94.8)	(254.7)
Net cash from financing activities	(2,141.2)	(1,235.0)	(497.7)	(289.4)
Total net cash flow	(418.9)	5.9	(97.3)	1.4
Basic earnings per share (PLN/EUR)	6.24	8.59	1.48	2.01
Diluted earnings per share (PLN/EUR)	6.24	8.59	1.48	2.01



	PLNm		EURm	
	As at Dec 31 2019	As at Dec 31 2018	As at Dec 31 2019	As at Dec 31 2018
Total assets	23,672.1	22,223.9	5,558.8	5,168.3
Equity attributable to owners of the Parent	12,715.3	12,034.7	2,985.9	2,798.8
Non-controlling interests	0.1	0.1	0.0	0.0
Total equity	12,715.4	12,034.8	2,985.9	2,798.8

Items of the statement of financial position have been translated at the mid-exchange rates quoted by the National Bank of Poland for the last day of the reporting period:

As at Dec 31 2019	As at Dec 31 2018
1 EUR = 4.2585 PLN	1 EUR = 4.3000 PLN

Items of the statement of comprehensive income and the statement of cash flows have been translated using the arithmetic mean of the mid-exchange rates quoted by the National Bank of Poland for the last day of each month in the reporting period:

For the year ended Dec 31 2019	For the year ended Dec 31 2018
1 EUR = 4.3018 PLN	1 EUR = 4.2669 PLN

ABOUT THE LOTOS GROUP / FINANCIAL PERFORMANCE /

# Consolidated statement of comprehensive income for 2019

## Consolidated statement of comprehensive income

for 2019

	Note	2019	2018
		(restated data)	
Revenue	8.1	29,493.3	30,121.7
Cost of sales	9.1	(25,649.1)	(25,619.0)
<b>Gross profit</b>		<b>3,844.2</b>	<b>4,502.7</b>
Distribution costs	9.1	(1,425.6)	(1,355.6)
Administrative expenses	9.1	(490.8)	(422.1)
Other income	9.3	134.6	412.5
Other expenses	9.4	(92.7)	(156.2)
<b>Operating profit</b>		<b>1,969.7</b>	<b>2,981.3</b>
Finance income	9.5	70.1	41.1
Finance costs	9.6	(351.8)	(303.1)
Share in net profit/(loss) of equity-accounted joint ventures	14	4.2	3.3
<b>Profit before tax</b>		<b>1,692.2</b>	<b>2,722.6</b>
Corporate income tax	10.1	(539.3)	(1,135.2)
<b>Net profit</b>		<b>1,152.9</b>	<b>1,587.4</b>

<b>Other comprehensive income/(loss)</b>			
<b>Items that may be reclassified to profit or loss:</b>		<b>91.2</b>	<b>(71.6)</b>
Exchange differences on translating foreign operations		6.6	(8.6)
Cash flow hedges	20	104.5	(77.8)
Corporate income tax relating to cash flow hedges	10.1	(19.9)	14.8
<b>Items that will not be reclassified to profit or loss:</b>		<b>(8.9)</b>	<b>0.1</b>
Actuarial gains/(losses) on post-employment benefits		(10.9)	0.4
Corporate income tax relating to actuarial gain/(loss) on post-employment benefits	10.1	2.0	(0.3)
<b>Other comprehensive income/(loss), net</b>		<b>82.3</b>	<b>(71.5)</b>
<b>Total comprehensive income/(loss)</b>		<b>1,235.2</b>	<b>1,515.9</b>
<b>Net profit attributable to:</b>			
<b>Owners of the Parent</b>	<b>11</b>	<b>1,152.9</b>	<b>1,587.4</b>
<b>Total comprehensive income/(loss) attributable to:</b>			
<b>Owners of the Parent</b>		<b>1,235.2</b>	<b>1,515.9</b>
<b>Net profit attributable to owners of the Parent per share (PLN)</b>			
Weighted average number of shares (million)	11	184.9	184.9
- basic	11	6.24	8.59
- diluted	11	6.24	8.59

ABOUT THE LOTOS GROUP / FINANCIAL PERFORMANCE /

# Consolidated statement of financial position for 2019

## Consolidated statement of financial position for 2019

	Note	Dec 31 2019	Dec 31 2018
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment of the refining and marketing segment	13	9,638.4	8,742.4
Intangible assets of the refining and marketing segment	13	160.0	151.9
Property, plant and equipment of the exploration and production segment	13	3,632.4	3,044.0
Intangible assets of the exploration and production segment	13	330.5	338.0
Equity-accounted joint ventures	14	142.2	117.2
Deferred tax assets	10.3	174.5	149.6
Derivative financial instruments	23	0.1	9.1
Other non-current assets	15	158.1	525.8
<b>Total non-current assets</b>		<b>14,236.2</b>	<b>13,078.0</b>
<b>Current assets</b>			
Inventories	16	4,854.3	4,848.9
- including emergency stocks		3,023.8	2,886.9
Trade receivables	15	2,609.1	1,880.4
Current tax assets		96.7	2.4
Derivative financial instruments	23	25.1	15.3
Other current assets	15	334.1	457.6
Cash and cash equivalents	17	1,516.6	1,941.3
<b>Total current assets</b>		<b>9,435.9</b>	<b>9,145.9</b>

<b>Total assets</b>		<b>23,672.1</b>	<b>22,223.9</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Share capital	18	184.9	184.9
Share premium	19	2,228.3	2,228.3
Cash flow hedging reserve	20	(203.6)	(288.2)
Retained earnings		10,415.5	9,826.1
Translation reserve		90.2	83.6
<b>Equity attributable to owners of the Parent</b>		<b>12,715.3</b>	<b>12,034.7</b>
Non-controlling interests		0.1	0.1
<b>Total equity</b>		<b>12,715.4</b>	<b>12,034.8</b>
<b>Non-current liabilities</b>			
Borrowings, other debt instruments and lease liabilities	22	3,142.6	2,345.3
Derivative financial instruments	23	6.6	6.9
Deferred tax liabilities	10.3	475.2	324.9
Employee benefit obligations	24	207.5	170.4
Other liabilities and provisions	25	1,266.0	1,196.8
<b>Total non-current liabilities</b>		<b>5,097.9</b>	<b>4,044.3</b>
<b>Current liabilities</b>			
Borrowings, other debt instruments and lease liabilities	22	1,273.8	1,538.7
Derivative financial instruments	23	15.3	47.4
Trade payables	25	1,940.8	1,913.7
Current tax liabilities		217.1	565.3
Employee benefit obligations	24	174.3	156.2
Other liabilities and provisions	25	2,237.5	1,923.5
<b>Total current liabilities</b>		<b>5,858.8</b>	<b>6,144.8</b>

<b>Total liabilities</b>	<b>10,956.7</b>	<b>10,189.1</b>
<b>Total equity and liabilities</b>	<b>23,672.1</b>	<b>22,223.9</b>

ABOUT THE LOTOS GROUP / FINANCIAL PERFORMANCE /

# Consolidated statement of cash flows

## Consolidated statement of cash flows

for 2019, prepared using the indirect method

	Note	2019	2018
<b>Cash flows from operating activities</b>			
<b>Net profit</b>		<b>1,152.9</b>	<b>1,587.4</b>
<b>Adjustments:</b>		<b>1,780.1</b>	<b>1,106.7</b>
Income tax	10.1	539.3	1,135.2
Share in net profit/(loss) of equity-accounted joint ventures	14	(4.2)	(3.3)
Depreciation and amortisation	9.1	909.3	722.7
Foreign exchange (gains)/losses		156.3	190.5
Interest and dividends		191.8	133.5
(Gains)/losses from investing activities		47.7	8.0
Impairment losses on property, plant and equipment and other intangible assets	9.3	(61.1)	(271.7)
Settlement and measurement of financial instruments	9.5; 9.6	(15.8)	7.2
(Increase)/Decrease in trade receivables		(728.7)	796.6
Decrease/(Increase) in other assets		48.2	(157.3)
(Increase) in inventories		(8.1)	(1,256.7)
Increase/(Decrease) in trade payables		27.1	(288.0)
Increase in other liabilities and provisions		634.0	77.6
Increase in employee benefit obligations		44.3	12.4
<b>Income tax paid</b>		<b>(802.8)</b>	<b>(366.6)</b>
<b>Net cash from operating activities</b>		<b>2,130.2</b>	<b>2,327.5</b>
<b>Cash flows from investing activities</b>			

Dividends received - equity-accounted joint ventures		6.1	3.2
Dividends received from other entities		2.1	1.7
Interest received		5.1	6.2
Sale of property, plant and equipment and other intangible assets		0.6	8.3
Purchase of property, plant and equipment and other intangible assets		(805.0)	(967.2)
Cash contributions - equity-accounted joint ventures	14	(17.3)	(7.6)
Deposits		-	8.0
Security deposits (margins)		(49.7)	27.0
Funds for future costs of decommissioning of oil and gas extraction facilities		394.6	(226.3)
<b>Settlement of derivative financial instruments</b>		<b>55.6</b>	<b>60.1</b>
<b>Net cash from investing activities</b>		<b>(407.9)</b>	<b>(1,086.6)</b>
<b>Cash flows from financing activities</b>			
Proceeds from bank borrowings	22.1	283.4	366.6
Issue of notes	22.3	-	128.2
Grants received		0.5	-
Repayment of bank borrowings	22.1	(1,347.3)	(1,109.5)
Repayment of non-bank borrowings	22.2	(11.9)	(12.8)
Redemption of notes	22.3	-	(214.8)
Interest paid		(242.3)	(224.3)
Dividends paid	12	(554.6)	(184.9)
Payment of lease liabilities		(194.4)	(33.0)
Settlement of derivative financial instruments		(74.6)	49.5
<b>Net cash from financing activities</b>		<b>(2,141.2)</b>	<b>(1,235.0)</b>
<b>Total net cash flow</b>		<b>(418.9)</b>	<b>5.9</b>
Effect of exchange rate fluctuations on cash held		(2.8)	11.8
<b>Change in net cash</b>		<b>(421.7)</b>	<b>17.7</b>
Cash at beginning of the period		1,938.3	1,920.6



Cash at end of the period	17	1,516.6	1,938.3
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ABOUT THE LOTOS GROUP / FINANCIAL PERFORMANCE /

# Consolidated statement of changes in equity

## Consolidated statement of changes in equity

for 2019

	Note	Share capital	Share premium	Cash flow hedging reserve	Retained earnings	Translation reserve	Equity attributable to owners of the Parent	Non-controlling interests	Total equity
Jan 1 2019		184.9	2,228.3	(288.2)	9,826.1	83.6	12,034.7	0.1	12,034.8
Net profit	11	-	-	-	1,152.9	-	1,152.9	-	1,152.9
Other comprehensive income/(loss), net		-	-	84.6	(8.9)	6.6	82.3	-	82.3
Total comprehensive income/(loss)		-	-	84.6	1,144.0	6.6	1,235.2	-	1,235.2
Dividend	12	-	-	-	(554.6)	-	(554.6)	-	(554.6)
Dec 31 2019		184.9	2,228.3	(203.6)	10,415.5	90.2	12,715.3	0.1	12,715.4
January 1st 2018		184.9	2,228.3	(225.2)	8,432.2	92.2	10,712.4	0.1	10,712.5
Effect of changes in accounting policies		-	-	-	(8.7)	-	(8.7)	-	(8.7)
January 1st 2018		184.9	2,228.3	(225.2)	8,423.5	92.2	10,703.7	0.1	10,703.8
Net profit	11	-	-	-	1,587.4	-	1,587.4	-	1,587.4

<b>Other comprehensive income/(loss), net</b>	-	-	(63.0)	0.1	(8.6)	(71.5)	-	(71.5)
<b>Total comprehensive income/(loss)</b>	-	-	(63.0)	1,587.5	(8.6)	1,515.9	-	1,515.9
Dividend	-	-	-	(184.9)	-	(184.9)	-	(184.9)
<b>Dec 31 2018</b>	<b>184.9</b>	<b>2,228.3</b>	<b>(288.2)</b>	<b>9,826.1</b>	<b>83.6</b>	<b>12,034.7</b>	<b>0.1</b>	<b>12,034.8</b>



## **Noty** Sprawozdania



02.

# About the LOTOS Group

The LOTOS Group  
and its environment

Strategy

Financial  
performance

**Outlook**

ABOUT THE LOTOS GROUP / OUTLOOK /

# LOTOS Group's macroeconomic environment in 2019

The LOTOS Group is an active participant of the fuel market, affecting it through its operations and responding to changes that occur on that market. Therefore, when planning strategic development directions, LOTOS takes into account forecasts and megatrends which affect its business.

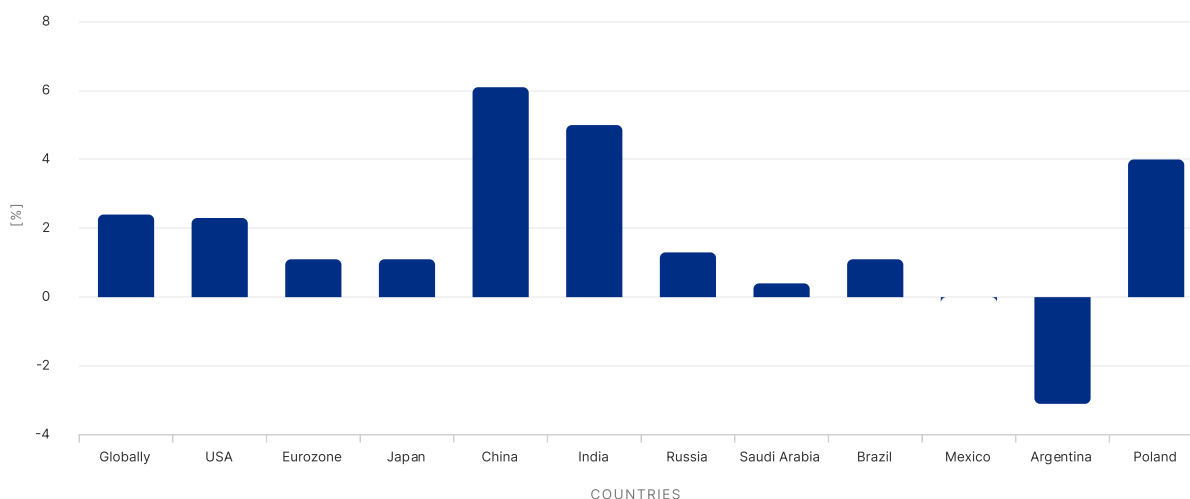
Proprietary indicator 1

The key drivers of oil and gas prices include changes in the world's population as well as global and regional changes in supply and demand forces.

## Oil prices are also affected by:

- macroeconomic situation;
- global and regional economic conditions
- trading activities of market participants;
- weather conditions and natural disasters;
- availability and cost of construction or use of transport and processing infrastructure;
- price and availability of, and government subsidies for, alternative energy sources and new technologies;
- the US dollar exchange rate.

## Growth rate of Gross Domestic Product in 2019 (%)



Source: World Bank, estimate.

## Crude oil refining

In 2019, the primary processing capacities of refineries were estimated at 100 mbd globally. The largest refining units were operated in the US and Canada (20.7% in total) and in China (16.1%). In addition, refineries are becoming increasingly com-



operated in the US and Canada (20% of capacity) and in China (10%). 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 mbd, 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, including the new IMO regulations) is low. Therefore, small low-complexity refineries are still at the risk of closure, given their high unit operating costs.

## Important legal regulations

In Poland, an emissions charge has been included in the price of gasoline and diesel oil since January 1st 2019. It amounted to PLN 0.08 per litre of those fuels, contributing to the newly established Low Emission Transport Fund, the purpose of which is to help develop the alternative fuels market and infrastructure. 15% of the emissions charge proceeds are transferred to the Low Emission Transport Fund, while the remaining 85% – to the National Fund for Environmental Protection and Water Management.

**An Act amending the Act on Biofuel Components and Liquid Biofuels of July 19th 2019 came into force on January 1st 2020. It has introduced, among other things:**

- provisions permitting the use, as from 2020, of combined hydrotreatment products to meet the National Indicative Target (NIT) and inclusion in the NIT of biohydrogen contained in liquid fuels produced using biomethane;
- revision of the obligatory biofuel blending mechanism;
- amendments to define in more detail the procedures and requirements for the quality certification of biofuel components;
- amendments relating to the operation of the Low Emission Transport Fund.

Amendments were also made to the Act on Fuel Quality Monitoring and Control Systems. First of all, specific requirements were introduced with respect to marking of liquid fuel filling stations, and for formulating and communicating information on the possibility of filling vehicles with liquid fuels.

W 2019 roku trwały na rynku przygotowania do wejścia w życie nowych regulacji Międzynarodowej 2019 was a period of preparations for the entry into force of new regulations issued by the International Maritime Organization (IMO), which, as from 2020, have tightened the sulfur limits on bunker fuel. One of the key changes that came into force on January 1st 2020 was a global cap on sulfur content in fuel used by marine vessels from 3.5% to 0.5%. A lower sulfur content, of 0.1%, has to be ensured within emission control areas (ECAs), which include Europe.

**In order to comply with the IMO's requirements, vessel owners may either:**

- switch to low-sulfur fuels (MGO 0.5%/Fuel Oil 0.5%); or
- equip their vessels with sulfur control devices (scrubbers); or
- switch to alternative fuels (e.g. LNG).

102-15

Both refineries and vessel owners took appropriate steps to prepare for the new regime: the former were constructing or upgrading their refining units to reduce the output of heavy fuel oil, while the latter began to adapt vessels to new low-sulfur fuels (VLSFO or MGO) or to equip them with scrubbers to continue the use of HSFO. Given the ability of market players to adapt to new conditions, no major difficulties are expected with fuel availability. However, the IMO requirements will put a range of business operators under pressure (for instance, low-conversion refineries may be forced to reduce their output), while the position of the LOTOS refinery should remain stable given the capex programme it is implementing (the delayed coking unit with auxiliary facilities).

# Changes in the fuel market in 2019

Last year, the United States exerted immense pressure on the global economy. It was also the world's largest oil producer, exporting on average 3m barrels of crude oil a day, with WTI oil cheaper on average by USD 7.31/bbl than Brent crude, produced in the North Sea.

Proprietary indicator 1

The macro environment was significantly impacted by a decision made by OPEC and non-OPEC countries, including Russia and Kazakhstan, on December 6th 2019 to cut oil output by 1.2 mbd.

Crude demand fell again in 2019 on lower international trade volumes (driven chiefly by the US-China trade war and Brexit). Crude oil prices spiked occasionally in response to developments in the Middle East (instability caused by new US sanctions imposed on Iran, attacks on oil installations in Saudi Arabia), the OPEC and non-OPEC countries' policy of cutting production as a consequence of falling demand, and growing production in non-OPEC countries (including US, Brazil, Canada).

The 2019 average price of crude oil was USD 64.2/bbl, down USD 7.1/bbl year on year.

The period of subdued oil prices provided an incentive for significant optimisation in the E&P industry. The costs of drilling and offshore services, direct production costs and new field development costs were reduced. Standardised technical solutions, technological advancement, and improvement of contracting and procurement of products and offshore services helped to reduce average operating expenses by more than 40% relative to 2013.

The profitability of the LOTOS Group's production operations is affected by numerous legal regulations, including the Polish Geological and Mining Law, EU regulations, and international conventions, such as those on environmental protection.

## In the near future, the following will be of key importance:

- planned amendments to tax regulations applicable to hydrocarbon production;
- continued tightening of environmental protection regulations;
- increase in mandatory collateral relating to the risk of environmental damage;
- amendments to the regulations pertaining to emergency stocks of crude oil and certain petroleum products.

Under such conditions, both innovative technologies and innovative cooperation models should be implemented in order for the LOTOS Group to remain profitable and attractive to investors.

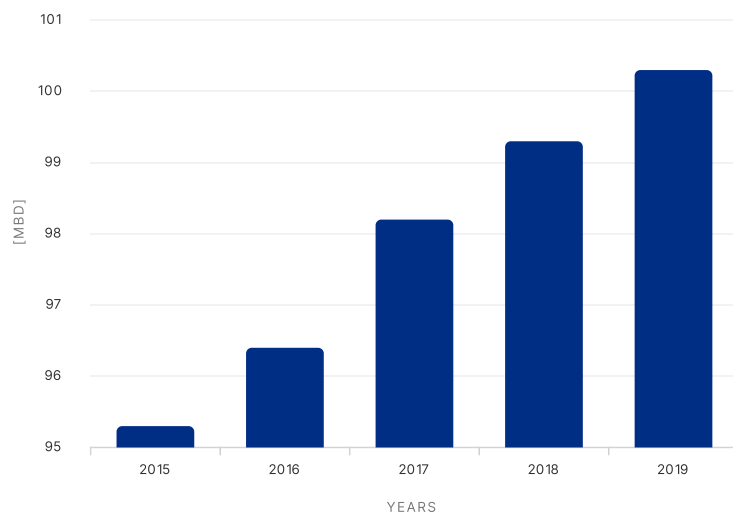
The profitability of refining is directly affected by fluctuations in crude oil and natural gas prices, as well as the amount and structure of demand for and supply of petroleum products. According to JBC Energy, global demand for refining products should continue to grow.

Continued growth of CEE economies can generate further increase in fuel consumption and its ultimate convergence with consumption levels in Western Europe. From fuel producers' perspective, it is the CEE market that offers more potential given its predicted growth in the coming years. In the opinion of the LOTOS Group, demand for petroleum products, in particular diesel oil and aviation fuel, should grow noticeably also in Poland.

## Demand

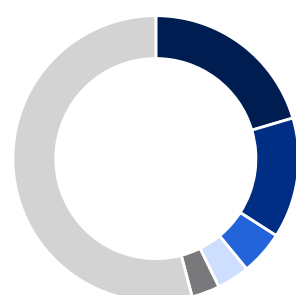
In 2019, global demand for crude oil averaged 100.2 mbd (million barrels per day), compared with 99.3 mbd in 2018 (up 0.9%).

### Crude oil demand in 2015-2019 (mbd)



Source: International Energy Agency (IEA).

### Key crude oil consumers in 2019 (mbd)



USA (20.5)
China (13.7)
India (5.0)
Japan (3.7)
Saudi Arabia (3.2)
Other (54.3)

Currently, the world's largest crude oil consumers are the US, China and India. In the US, a significant portion of crude processed is sourced from domestic reserves.

### Demand for crude oil has been steadily growing, with the key drivers of oil and gas demand including:

- **Global population growth.** At the end of 2019, the world's population was estimated at 7.7bn. Over the past years, it grew at an average rate of 1.6% annually, driven mainly by populations in developing countries (primarily in Asia and Africa).
- **Urbanisation rate.** Access to energy is closely linked to the urbanisation rate. The most urbanised regions of the world are North America (in 2018, 82% of its population lived in urban areas), Latin America and the Caribbean (81%), and Europe (74%). The urbanisation rate in Asia was approaching 50%. At the same time, Africa is mostly rural, with only 43% of its population living in urban areas in 2018, although this ratio is expected to rise.
- **Economic growth rate.** In 2019, the global economic growth rate slowed down significantly. The World Bank estimates that

in 2019 Gross World Product rose 2.4% year on year (compared with 3.0% in 2018). The GDP growth rate in developed countries was 1.6% vs 3.5% in emerging economies.

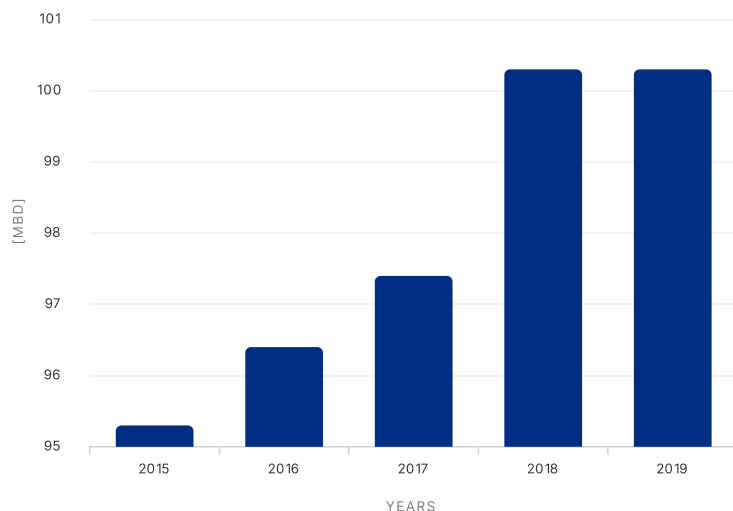
- **Environmental protection initiatives.** In order to reduce atmospheric pollution, emissions trading schemes have been introduced, whereby CO<sub>2</sub> emission allowances can be purchased and sold on market terms. The number of allowances is being gradually reduced, which, coupled with the sizeable demand, drives their prices up. The high price of emission allowances stimulates a shift in the energy mix towards an increased share of renewable energy sources. The crude oil demand is also affected by legal regulations governing exhaust gas emissions from means of transport, which account for approximately 58% of the demand. The EU countries have agreed to adopt standards to reduce carbon dioxide emissions from new cars by 37.5% by 2030 (with an interim target of 15% by 2025). Local measures are also undertaken, e.g. certain European cities have prohibited vehicles with compression-ignition engines. The European Union has issued new regulations on the promotion of renewable energy sources, which requires Member States to add biofuels to gasoline and diesel oils. In December 2018, a Renewable Energy Directive (RED II) was promulgated, providing for a greater role of advanced biofuels.
- **By 2030, at least 14% of the energy consumed in transport is to come from renewable sources, while the share of biofuels with a high risk of indirect impact on land use change (ILUC) should gradually decrease, until zero levels are reached in 2030.**
- **Changes in population preferences.** A growing number of societies, especially in highly developed countries, are aware of the climate warming problems. Therefore, despite high prices, they purchase increasingly more electricity-powered vehicles. Electric vehicles are also used for public transport services. New trends are being observed in people's behaviours, such as more frequent use of public transport, car rental and car sharing.
- **Technological progress.** 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.

## Supply

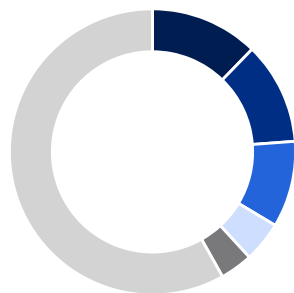
In 2019, crude oil production reached 100.3 mbd (million barrels per day).

In December 2018, the Organisation of Oil Exporting Countries (OPEC) and a group of other crude oil producers (including Russia and Kazakhstan) announced that they would cut down crude oil production by 1.2 mbd relative to October 2018. In December 2019, the OPEC and non-OPEC countries increased the production cuts to 1.7 mbd, and stated that the agreed volumes would remain in force until the end of March 2020. At the same time, Saudi Arabia undertook to reduce its output by 400 tbd (thousand barrels per day), so the actual reduction volume is 2.1 mbd. 2019 also saw the escalation of tensions in the Middle East (sanctions on Iran, attacks on oil infrastructure in Saudi Arabia) and Libya (the civil war).

**Crude oil production in 2015–2019 (mbd)**



Source: IEA.

**Main crude oil producers in 2019 (mbd)**

USA (12.3)
Russia (11.6)
Saudi Arabia (9.8)
Iraq (4.6)
Canada (3.7)
Other (58.34)

Currently, the United States is the world's largest oil producer. Over the past ten or so years, its production increased from 5.5 mbd in 2010 to 12.3 mbd in 2019. This was made possible by the development of shale oil extraction technologies and techniques (such as hydraulic fracturing and horizontal drilling). The high level of crude oil production was also driven by growing US exports, which in 2019 amounted to 3.0 mbd. Other countries of key importance to the international oil market include Russia, Saudi Arabia, Iraq and Canada.

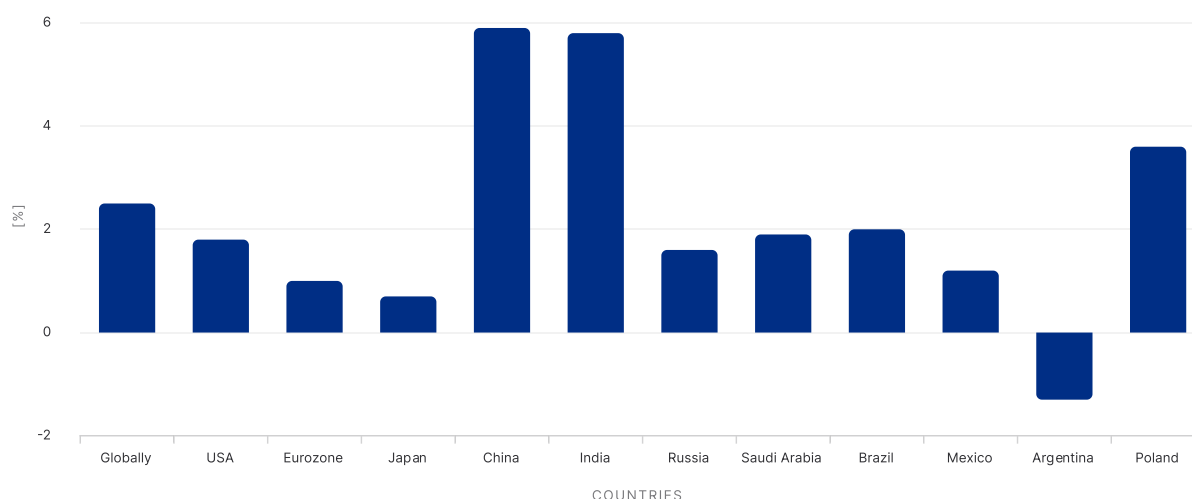
# Future challenges and global forecasts

The World Bank expects Gross World Product to rise 2.5% in 2020. The economies of Eastern Asia and the Pacific will grow significantly, by 4.1%, with China alone registering a growth rate of 5.9%. GDP in Southern Asia is also expected to grow at a strong rate, by 5.5%, with India's economy expanding by 5.8%.

Proprietary indicator 1

According to the World Bank, the economic growth in developed countries will be markedly lower. The US, eurozone and Japanese economies will grow by 1.8%, 1.7% and 0.7%, respectively. Russia's economic growth will slightly accelerate (to 1.6%). Despite an economic recovery, the GDP growth rate in South America is expected to be weak, including in Brazil (up 2.0%) and Mexico (up 1.2%). Argentina, whose GDP will shrink by 1.3%, will continue to be affected by recession<sup>1</sup>. Poland will be among the fastest-growing countries in the EU, with an expected growth rate of 3.6%.

Projected economic growth rate in 2020 (%)



Source: In-house analysis based on World Bank data.

The International Energy Agency (IEA) expects oil demand to reach 101.5m barrels per day in 2020, a 1.2% increase year on year. Asia-Pacific will continue to account for the largest increase in consumption (with India's and China's economic situation playing the key role). Recent reforms introduced by India's government are likely to accelerate the country's economic growth. As at the date of release of this report, there is a global threat from the coronavirus pandemic, which may adversely affect the projected macroeconomic indicators in 2020 and thus the global refining margins.

In other regions, demand for crude oil is expected to stabilise at current levels.

As natural gas is a greener fuel, its prominence in the global energy mix is expected to rise (according to IEA, as of 2030 natural gas will play a more important role in the energy mix than coal).

Crude oil production is expected to continue on an upward trend (unconventional deposits) in the US and several other countries, including: Norway (increased output following the launch of production from the Johan Sverdrup field), Brazil (record-high output; Brazil's government is considering whether to open accession negotiations with OPEC in 2020), Canada (with record-high output again), Argentina (production from unconventional deposits, including Vaca Muerta) and Guyana (first oil exports to international markets in late 2019). Given the persisting oil oversupply, decisions taken by OPEC and non-OPEC countries, which have been working together to balance the market since 2017, will continue to play a vital role. Tensions in the Middle East and North Africa will probably have some bearing on the availability and price of crude oil in 2020.

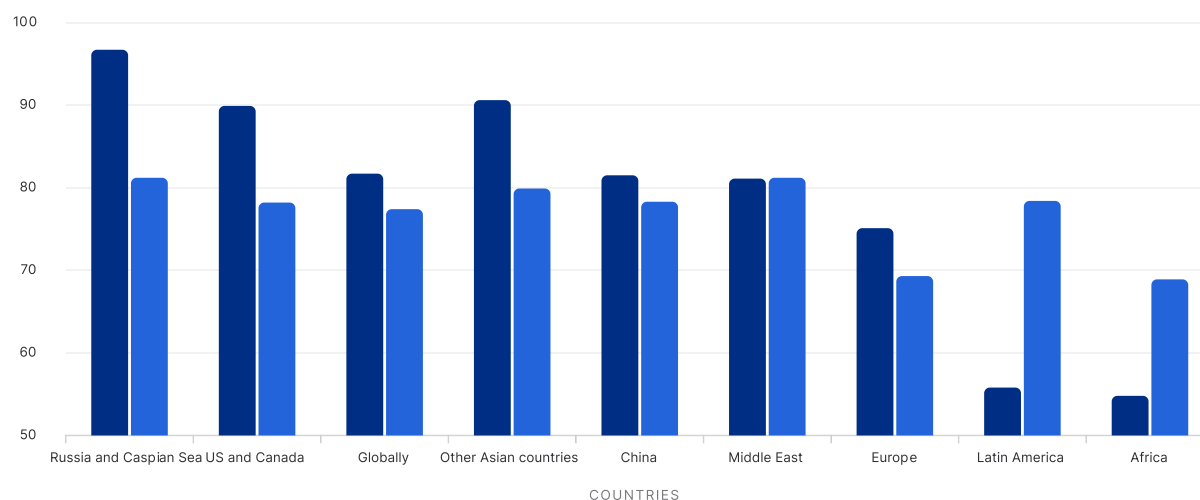
Owing to a high level of global oil stocks (currently 9m barrels above the five-year average) and OPEC's spare capacity, one can expect that the impact on crude oil prices of potential supply disruption caused by geopolitical instabilities or environmental conditions will be limited.

Key challenges to European refineries will include growing competition from oil refiners located in the Middle East, Asia and the Pacific (India, China) and Russia, especially during periods of lower demand for fuels. In the long term, potential expansion of Africa's oil processing capacities may intensify competition between refineries in the regions which have for years imported gasoline from Europe. In 2022–2023, the Dangote Group will construct the largest refinery in Nigeria, with a capacity to process 650 thousand b/d. It is expected that their key market in Europe will be the Mediterranean region, but this will nevertheless have an impact on the fuel supply-demand balance on the continent. Another possible risk is a further decline and low level of crack spreads for light distillates (motor gasolines and naphtha), as well as falling supply of heavy crudes, which may keep the Urals-Brent spread low.

OPEC expects that, given the stagnant economic growth and low fuel demand, coupled with a growing role of other energy sources, by 2040 the utilisation rate of global refining capacities is likely to decline, resulting in plant closures.

<sup>1</sup> Source: Global Economic Prospects. Slow Growth. Policy Challenges, World Bank, January 2020.

#### Refining capacity utilisation in 2018 and in 2040 (%)







03.

# The environment

**Our approach  
to sustainable  
development**

THE ENVIRONMENT / OUR APPROACH TO SUSTAINABLE DEVELOPMENT /

# Our approach to sustainable development

Sustainable development is consistent with the LOTOS Group's strategy and mitigating its environmental impact is the Group's constant objective. Our organisation is committed to prudent environmental management.

103-1, 103-2, 103-3

We reduce the consumption of energy and materials, control and reduce gas emissions and wastewater discharge, minimise waste and protect biodiversity. Being aware that the LOTOS Group's operations affect various components of the ecosystem, the organisation keeps monitoring and analysing its environmental impacts.

With each passing year 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. We sealed some sections of our wastewater treatment plant in Gdańsk to reduce odour nuisance, developed a treated wastewater and steam condensate recirculation unit and a recovery system to convert released gases into fuel (instead of flaring them), none of which was required by any legal regulations. During the refinery upgrade, neighbouring towns and villages were connected to the gas distribution network.

307-1

In 2019, no fines or non-monetary sanctions were imposed on the LOTOS Group for non-compliance with any environmental laws or regulations.

**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

THE ENVIRONMENT / OUR APPROACH TO SUSTAINABLE DEVELOPMENT /

# Strategy towards climate change

Year by year, climate aspects are becoming increasingly pressing, especially for the fuel and energy industry. Therefore, although the LOTOS Group does not have a single climate policy in place, it is considering the implementation of a Group-wide sustainable development strategy that would also address climate aspects.

103-1, 103-2, 103-3, Proprietary indicator 2

As mentioned above, so far in its operations the Group has focused on continuous improvements in energy efficiency. Thanks to these measures, and (primarily) following the introduction of natural gas at the refinery, the emission benchmark, i.e. CO<sub>2</sub> /CWT, of Grupa LOTOS is on a par with 10% of Europe's best refineries.

**TCFD:**  
Governance Disclosure A, Governance Disclosure B

The Grupa LOTOS Management Board is overseeing analytical work related to climate change issues. Both the Management and Supervisory Boards are involved in the operation of the risk management system, which is designed to identify and mitigate all threats relevant to the LOTOS Group's operations, including climate-related risks and opportunities.

## Climate-related risks and opportunities

201-2

**TCFD:**  
Strategy Disclosure A, Strategy Disclosure B, Metrics and Targets Disclosure A

The LOTOS Group analyses the potential impact of climate change megatrends by identifying opportunities and threats to its operations and growth prospects.

Key risks for the Group arising from climate change are the regulatory risks related to meeting the required levels for the National Indicative Target (NIT) and the National Reduction Target (NRT) in 2020 (8.5% for NIT and 6% for NRT).

Ensuring that fuels for internal combustion engines contain a proper amount of biocomponents (achievement of the NIT) is extremely difficult and entails very high costs for the entire industry considering technological capabilities (fuel quality requirements) and market constraints (limited market of suppliers).

Failure to meet the required NIT level could result in huge fines. This is why the Company and other key industry players have entered into legislative dialogue with competent ministries concerning the feasibility of meeting the legal requirements.

Similarly, meeting the National Reduction Target (reduction of life cycle greenhouse gas emissions) under the current regulatory regime is hindered by the necessity to incur high costs and, as in the case of the NIT, by a limited market of emission reduction mechanisms. The LOTOS Group analyses and uses all means of effectively reducing emissions and conducts a dialogue with the regulatory body on how to achieve the required NRT level.

**Apart from the identified and addressed threats, the LOTOS Group also sees opportunities in climate change and macro-economic trends, and is pursuing a growing number of projects consistent with the megatrends.**

## RES at service stations

Grupa LOTOS is also engaged in studies into the implementation of various technologies related to renewable energy sources (RES). The Company is predominantly oriented toward projects that would support the National Indicative Target. It also deploys RES-based solutions at its service stations. In 2019, the service station at Łopuszańska street in Warsaw was reopened

projects based on solar energy at its service station in Łódź, the service station at Lepasałowa Street in Warsaw has responded after upgrade. It is used for piloting various technological novelties, from store concepts, to electric vehicle charging stations and RES. Photovoltaic panels have been installed on the station building and roofing, which may produce an instantaneous power of approximately 17 kW in summer, helping achieve energy savings. 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 ongoing 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 biofuel components/biofuels in Poland, because the feedstock would mainly be gas produced at biogas plants from agricultural or municipal waste. If the project is successful, Grupa LOTOS's annual demand for biomethane could reach up to 200 mcm, which would also provide a considerable boost to biogas plants in Poland, as they would gain a large, reliable customer buying biomethane all year round.

Projects to produce biohydrogen through electrolysis (*blue hydrogen*) using RES (*power to gas*) are also being discussed.

## Electromobility

Active entry into the electromobility market is another project that fits in with the climate change strategy. Under the ongoing Blue Trail project, the first 12 electric vehicle charging points have been launched at LOTOS service stations on the motorways between the Tricity and Warsaw. In accordance with the Group's strategy, further EV charging points are to be launched at 130 LOTOS service stations by 2022.

## Marine fuel

2020 has seen further environmental restrictions coming into force. The International Maritime Organisation (IMO) is introducing a new global limit on sulfur content in marine fuels, changing the current 3.5% to 0.5% m/m. Therefore, LOTOS has 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 margin, i.e., its price is lower than that of crude oil, while also being environmentally unfriendly. The EFRA Project will make it possible to sell approximately 1.1m 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 is to involve the development of prototypes of selected low-carbon transport and energy storage equipment.

## Hydrogen technologies

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 initiate efforts aimed at increasing the role of hydrogen technologies. LOTOS representatives regularly attend working meetings with local transport operators and assist them in preparing for the 'hydrogenation' of municipal transport vehicles. These efforts have been documented by letters of intent signed with the authorities of Gdynia, Wejherowo and Tczew (the latter signed in May 2020).

Grupa LOTOS intends to use its potential and experience in hydrogen generation and to promote hydrogen as a zero-emission fuel of the future. Our Pure H2 project involves the construction and launch of infrastructure for production and sales of ultra-high purity hydrogen (99.999%). The project also focuses on the use of hydrogen in other industries, such as energy, food, IT, etc.

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.

**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.**

# Greenhouse gas emissions

The key source of environmental impacts caused by our operations 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.

103-1, 103-2, 103-3

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 (UE) 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).

305-1, 305-5

TCFD:

Metrics and Targets Disclosure B

## Direct GHG emissions at the LOTOS Group (Scope 1)

Source of emissions	Mg CO <sub>2</sub> e		
	2017	2018	2019
Emissions associated with electricity generation	64,780	27,738	78,314
Emissions associated with heat generation	1,173,839	1,319,241	1,336,365
Emissions from cooling and steam generation systems	0	0	0.0
Emissions from physical and chemical processing	585,486	609,878	613,291
Hydrofluorocarbons (HFC) emissions	0	0	0.3
Emissions related to transport of materials, products and waste	0	0	0.0
<b>Total direct greenhouse gas emissions</b>	<b>1,824,105</b>	<b>1,956,857</b>	<b>2,027,970</b>

TCFD:

Metrics and Targets Disclosure B

## Main processes responsible for direct GHG emissions at the LOTOS Group

Mg CO<sub>2</sub>e

Process	2017	2018	2019
Heat and electricity generation	337,748	355,265	351,531
Refining	1,481,571	1,631,027	1,639,214
Gas flaring at rigs	50,540	45,550	52,098
<b>Total direct greenhouse gas emissions</b>	<b>1,869,859</b>	<b>2,031,843</b>	<b>2,042,844</b>

\* For Grupa LOTOS, Energobaltic, LOTOS Asfalt, RCEkoenergia, LOTOS Petrobaltic.

305-2

TCFD:

Metrics and Targets Disclosure B

#### Indirect GHG emissions at the LOTOS Group (Scope 2)

Source of emissions	2017	2018	2019
Electricity purchased outside the Group [MWh]	672,320	704,780	716,127
Thermal energy purchased outside the Group [GJ]	9,446	6,248	5,225
Emissions from electricity purchased for the organisation's needs [Mg CO <sub>2</sub> e]	541,945	547,681	553,566
Emissions from steam and cooling energy purchased for the organisation's needs [Mg CO <sub>2</sub> e]	1,087	719	601
<b>Total indirect greenhouse gas emissions</b>	<b>543,032</b>	<b>548,401</b>	<b>554,167</b>

TCFD:

Metrics and Targets Disclosure B

#### Indirect GHG emissions at Grupa LOTOS (Scope 2)

Source of emissions	2017	2018	2019
Electricity purchased outside the Company [MWh]	501,513	540,740	549,689
Thermal energy purchased outside the Company [GJ]	0	0	0
Emissions from electricity purchased for the organisation's needs [Mg CO <sub>2</sub> e]	404,261	420,696	424,910
Emissions from steam and cooling energy purchased for the organisation's needs [Mg CO <sub>2</sub> e]	0	0	0
<b>Total indirect greenhouse gas emissions</b>	<b>404,261</b>	<b>420,696</b>	<b>424,910</b>



305-4

TCFD:

Metrics and Targets Disclosure B

**Emission intensity**

Grupa LOTOS		2018	2019
Greenhouse gas emissions (Scopes 1+2) per tonne of crude oil processed	Mg CO <sub>2</sub> e/Mg	0.214	0.205
Greenhouse gas emissions (Scopes 1+2) according to CWT methodology	kg CO <sub>2</sub> e /CWT	26.8	26.8

# Energy production and consumption

We operate in a systemic manner, with optimised energy consumption as our primary objective. To that end, we keep monitoring the energy efficiency of our units and their sub-processes. We analyse specific areas of our business and engage in projects designed to reduce energy consumption.

103-1, 103-2, 103-3

**Thanks to our strategic approach to the management of energy consumption, we are among Europe's most efficient refineries.**

Energy production and consumption data is monitored only at the consolidated level, for the entire LOTOS Group.

302-1, 302-4

## Energy consumption within the organisation

	MWh			
	2017	2018	2019	Yoy change
Non-renewable fuels	24,023,443	26,731,214	30,962,620	+15.8%
Renewable fuels	0	0	0	-
Energy purchased	1,769,883	1,965,492	2,084,941	+6.1%
Energy sold	163,544	209,541	408,613	+95.0%
<b>Total</b>	<b>25,956,870</b>	<b>28,906,273</b>	<b>33,456,174</b>	<b>+15.7%</b>

## Non-renewable sources

	MWh			
	2018	2019	Yoy change	
Coal	341,186	327,272	-4.1%	
Natural gas	10,421,045	12,956,480	+24.3%	
Diesel oil	419,281	424,339	+1.2%	
Fuel gas	11,944,740	12,363,429	+3.5%	
Tail, special, reservoir gas	3,530,341	4,309,791	+22.1%	
Heavy fuel oil	0	44,848	-	

Light fuel oil	49,539	495,385	+900.0%
Marine oil	0	0	-
LPG	25,110	41,075	+63.6%
<b>Total</b>	<b>26,731,242</b>	<b>30,962,619</b>	<b>+15.8%</b>

#### Energy purchased from other entities

	MWh		
	2018	2019	Yoy change
Electricity	1,930,924	2,022,341	+4.7%
Thermal energy (including steam and cooling)	3,457	62,599	+1,710.8%
<b>Total</b>	<b>1,934,381</b>	<b>2,084,941</b>	<b>+7.8%</b>

#### Energy sold to other entities

	MWh		
	2018	2019	Yoy change
Electricity	72,667	53,165	-26.8%
Steam	77,044	228,855	+197.0%
Heat (in water)	59,830	126,593	+111.6%
Cooling	0	0	-
<b>Total</b>	<b>209,540</b>	<b>408,613</b>	<b>+95.0%</b>

302-3

#### Energy intensity ratios

Grupa LOTOS		2018	2019
Primary energy consumption per tonne of crude oil processed	MJ/t	2,751	<b>2,935</b>
Primary energy consumption per tonne of product	MJ/t	3,830	<b>4,044</b>

# Raw materials

Our upstream production and refining operations are in keeping with the most stringent environmental protection requirements. We make high quality products causing the lowest possible environmental nuisance and we take care to minimise their environmental impacts already at the production stage.

103-1, 103-2, 103-3

Our growth plans embrace innovative technologies supporting the sustainable use of natural resources.

Feedstock consumption is monitored only at the consolidated level, for the entire LOTOS Group.

301-1

## Feedstock used in production processes:

	Mg		
	2018	2019	Yoy change
REBCO	7,532,950	8,364,817	+11.0%
Oil from LPB offshore licence areas	201,434	191,405	-4.98%
Oil from PGNiG	275,752	215,469	-21.86%
LITHUANIAN crude	41,531	47,193	+13.63%
Other	1,574,408	1,853,550	+17.73%
<b>Total</b>	<b>9,626,075</b>	<b>10,672,434</b>	<b>+10.9%</b>

## Other feedstock used in refining operations

	Mg		
	2018	2019	Yoy change
Demineralised water	332,046	270,869	-18.4%
FAME (fatty acid methyl ester)	256,559	280,094	+9.2%
Diesel oils	328,371	161,541	-50.8%
ETBE (ethyl tert-butyl ether)	11,536	11,355	-1.6%
Ethanol	62,284	69,973	+12.3%

MTBE (methyl tert-butyl ether)	47,595	49,465	+3.9%
Natural gas	425,928	368,168	-13.6%
Additives	2,801	2,809	+0.3%
Other	3,859	152,476	+3851.0%
<b>Total</b>	<b>1,470,979</b>	<b>1,366,750</b>	<b>-7.1%</b>

#### Raw materials and feedstock used within the refinery

	Mg		
	2018	2019	Yoy change
Fuel gas	349,190	346,055	-0.9%
Tail gas	481,433	381,669	-20.7%
Fuel oil	951	10,794	1,035.0%
Other	105,742	110,137	4.2%
<b>Total</b>	<b>937,316</b>	<b>848,655</b>	<b>-9.5%</b>

#### Consumption of final products

	Mg		
	2018	2019	Yoy change
Gasolines (including reformates)	1,633,487	1,659,677	1.6%
Kerosene	537,766	474,031	-11.9%
Xylene	90,943	89,694	-1.4%
Diesel oil	5,379,741	5,537,200	2.9%
Diesel oil	243,982	225,486	-7.6%
Fuel oil	1,333,262	1,038,047	-22.1%
MGO fuel	78,636	69,087	-12.1%
Jet fuel	568,330	446,913	-21.4%
Bitumen components	773,448	775,676	0.3%
LPG	185,755	198,214	6.7%

Base oils	255,612	252,385	-1.3%
Slack waxes	50,079	46,732	-6.7%
Plasticisers	29,297	29,872	2.0%
Sulfur	89,852	88,351	-1.7%
Other, including: 2,509 tonnes of fuel gas sold to LOTOS Asphalt	32,185	252,064	683.2%
<b>Total</b>	<b>11,282,376</b>	<b>11,183,428</b>	<b>-0.9%</b>

# Waste

We opt for the 'greenest' waste management methods, such as recycling and recovery, while taking firm steps to eliminate less environmentally-friendly methods such as waste incineration with no energy recovery, landfilling and other forms of waste disposal.

103-1, 103-2, 103-3

Accordingly, we strive to ensure that as much waste as possible is transferred to third-party waste management companies for recovery or recycling.

## Hazardous and non-hazardous waste by disposal method

	Mg			
	Hazardous waste		Non-hazardous waste	
	2018	2019	2018	2019
Reuse	0.0	0.00	0.0	40.3
Recycling (including organic recycling, e.g. composting)	921.3	1,078.0	1,274.5	271.9
Recovery (including energy recovery)	5,296.40	4,329.0	8,461.3	9,236.8
Incineration (or use as fuel)	1,255.2	778.5	8.3	18.1
Landfilling	0.0	0.0	109.4	91.8
Discharge to deep wells	0.0	0.0	0.0	0.0
On-site storage	0.0	0.0	0.0	0.0
Other	594.0	178.2	729.8	649.6
<b>Total</b>	<b>8,066.9</b>	<b>6,363.7</b>	<b>10,583.3</b>	<b>10,308.5</b>

# Water and effluents

We use water resources based on water usage and integrated permits. Our operations have 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.

103-1, 103-2, 103-3

No LOTOS Group companies operate in any areas exposed to water shortage risks (according to the WWF Water Risk Filter).

Our refinery has an in-house wastewater treatment plant, 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 Rozwójka channel 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.

The LOTOS Group monitors its water impacts 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. A dedicated in-house chemical emergency team has been established for that purpose. 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 use and effluents discharged is monitored at the consolidated level, i.e. for the entire LOTOS Group.

303-1 2016

## Water withdrawal and use

	m <sup>3</sup>		
	2017	2018	2019
Withdrawal of surface water (own intake points)	5,998,534	5,840,945	5,415,026
Withdrawal of groundwater (own intake points)	362,643	360,579	357,930
Ground and utilised rainwater	0	0	0
Water purchased from mains and local suppliers	378,981	417,441	407,910
Treated wastewater from other organisations	464	54,158	0



Total	6,740,622	6,673,123	6,180,866
Percentage of water reused or recycled (proportion of water reused or recycled to water withdrawn by the organisation)	25.6%	27.1%	N/A

306-1

**Effluents by destination**

	m <sup>3</sup>	
	2018	2019
To groundwater	2,692	0
To surface water (lakes, rivers, etc.)	6,693,281	7,361,691
To public utilities outside the Group	320,655	366,397
<b>Total</b>	<b>7,016,628</b>	<b>7,728,088</b>

**Wastewater treated by the organisation, by treatment method**

	m <sup>3</sup>	
	2018	2019
Treated by the organisation	6,656,908	7,447,200
Treated by wastewater treatment plant	52,746	3,886
<b>Total</b>	<b>6,653,119</b>	<b>7,451,086</b>

OG5

**Volume and disposal of formation or produced water at the LOTOS Group**

	Volume [m <sup>3</sup> ]	Share [%]
Total volume of produced water	128,169.00	100.0%
reused water	310.00	0.1%
recycled water	0.00	0.0%
re-injected water	127,859.00	99.9%

Total volume of hydrocarbons discharged into produced water	0.0%
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OG6

#### Volume of flared and vented hydrocarbon

Location	Volume of gases to be flared ['000 m <sup>3</sup> ]	Volume of gases released into the atmosphere ['000 m <sup>3</sup> ]
Poland	15,126	0
International waters, Polish Exclusive Economic Zone (LOTOS Petrobaltic and BB platforms)	17,527	0
Lithuania		0
<b>Total</b>	<b>32,653</b>	<b>0</b>

## Other air emissions (other than greenhouse gases)

Data on other air emissions is monitored at the consolidated level, i.e. for the entire LOTOS Group.

305-7

### Other air emissions

	Mg		
	2017	2018	2019
NO <sub>x</sub>	936.3	981.1	1,032.4
SO <sub>x</sub>	483.8	605.3	865.2
Persistent organic pollutants (POP)	0.0	0.0	0.0
Volatile organic compounds (VOC)	179.0	195.2	125.4
Hazardous air pollutants (HAP)	0.0	0.0	0.0
Particulate matter (PM)	90.5	79.4	39.2
Other standard air emission categories	342.3	357.1	350.5

# Biodiversity

In the vicinity of the Grupa LOTOS refinery, there is the 'Ptasi Raj' nature reserve, a Natura 2000 site 'Ostoja w Ujściu Wisły' (PLH220044).

103-1, 103-2, 103-3, 304-1

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. Operating in the vicinity of such a valuable nature reserve entails great responsibility, and we are well aware of the importance of strict compliance with the adopted safety procedures and environmental impact mitigation standards.

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 we face in our operations on the Baltic Sea is to deploy the best environmental solutions, with a view to fully preserving the region's biodiversity. LOTOS Petrobaltic is seeking to fully implement the already initiated measures under the Baltic Sea Action Plan, including the 'zero discharge' requirement for offshore platforms.

04.

# Society

**Corporate social  
responsibility values**

**Employees**

# Corporate social responsibility values

Our responsibility towards society and the natural environment manifests itself in carrying out production activities in a manner preventing degradation of natural and social capitals.

As the LOTOS Group, we feel responsible for our products towards the state, the market, our partners, customers and employees.

We conduct our business in compliance with ethical principles, respecting standards in all areas of our operations. We have adopted a system of values which is founded on respect for the needs of society and the natural environment.

The four primary values underlying the LOTOS Group's corporate social responsibility are:



## Transparency

We undertake to comply with the most exacting environmental standards, remain committed to ethical and fair competition, and counteract the abuse of human rights.



## Openness

We are open to changes, the world's needs and people's expectations.



## Innovativeness

We take an innovative approach to solving social and environmental issues; by acting in accordance with the principles of sustainable development, we achieve business benefits and gain competitive advantage on the market.



## Responsibility

The underlying principle of our attitude towards mankind and its future, the environment, the home country and its international status.

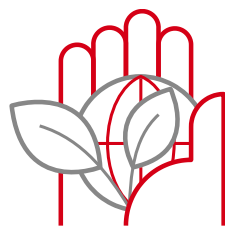
# Relations with social environment

We consider corporate social responsibility as an element of our management and improvement processes. We build lasting and positive relations with our stakeholders, striving to effectively integrate our strategy and measures taken to face social and environmental challenges.

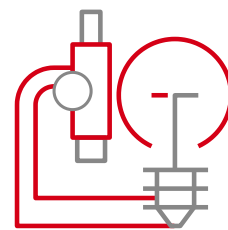
A uniform CSR policy is in place across the LOTOS Group, focusing on goals within the following three areas:



**improving the quality of life**  
(health, road safety, education)



**caring for the environment**  
(ecology and environmental protection)



**advancing innovation**

We support social initiatives and projects. Our sponsorship activities focus on sports, culture and art, as well as social and environmental initiatives carried out primarily in the counties and provinces where our plants are located, and in places where our marketing activities are run, including service stations.

## Projects implemented by LOTOS Group companies in 2019:

- 24 sports sponsorship projects;
- 32 cultural sponsorship projects;
- 11 social and environmental sponsorship projects.

102-42, 102-43

Guided by the sense of responsibility for its external impacts, Grupa LOTOS sets store by building strong relationships with society, its neighbours and local communities.

The Company engages in dialogue with its key stakeholders as an important tool for building stakeholder trust. By actively communicating with our social environment, we seek to mitigate threats associated with our day-to-day operations, while actively responding to the needs of our 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. Equal opportunities and counteracting social exclusion, particularly among children and youth, have long been in the centre of our attention. We feel responsible for children and young people living near our plants, with the **LOTOS Foundation** playing the most prominent role in this respect.

# Initiatives for local communities

Relations with local communities living in our impact areas are an important aspect of the LOTOS Group's social responsibility. We feel responsible for these communities.

## Major community outreach programmes delivered in 2019

103-1, 103-2, 103-3, 413-1

### 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.

Read more : <[https://odpowiedzialny.lotos.pl/261/spoleczenstwo/programy\\_spoleczne/lotos\\_szukamy\\_nastepcow\\_mistrza](https://odpowiedzialny.lotos.pl/261/spoleczenstwo/programy_spoleczne/lotos_szukamy_nastepcow_mistrza)>

### 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 16 football clubs. Grupa LOTOS sponsors the purchase of sports equipment, football camps and sports scholarships for the most promising players and for children from disadvantaged backgrounds.

Read more : <[https://odpowiedzialny.lotos.pl/2607/spoleczenstwo/programy\\_spoleczne/pilkarska\\_przyszlosc\\_z\\_lotosem](https://odpowiedzialny.lotos.pl/2607/spoleczenstwo/programy_spoleczne/pilkarska_przyszlosc_z_lotosem)>

### LOTOS Safety Belt Champions

The 'LOTOS Safety Belt Champions' programme teaches car passengers about safety principles, correct fastening of safety belts, and installation of safety seats for children. As part of the programme, pupils in primary schools of Jasło and Czechowice-Dziedzice were also given lessons on safety rules.

Read more : <[https://odpowiedzialny.lotos.pl/1486/spoleczenstwo/programy\\_spoleczne/lotos\\_-\\_mistrzowie\\_w\\_pasach](https://odpowiedzialny.lotos.pl/1486/spoleczenstwo/programy_spoleczne/lotos_-_mistrzowie_w_pasach)>

### 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 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.

Read more : <[https://odpowiedzialny.lotos.pl/1936/spoleczenstwo/programy\\_spoleczne/zdolni\\_z\\_lotosem](https://odpowiedzialny.lotos.pl/1936/spoleczenstwo/programy_spoleczne/zdolni_z_lotosem)>

### E(x)plory

Since 2013, Grupa LOTOS has been a patron of the E(x)plory Programme, the largest initiative in Poland to support talented youth in the implementation of innovative research projects and promote their achievements internationally. The project brings together young people, prominent scholars, start-ups and experienced businesses, non-governmental organisations, media, Polish schools and the best universities, large cities and small towns. It seeks primarily to promote science among children and youth.

Read more : <[https://odpowiedzialny.lotos.pl/2116/spoleczenstwo/programy\\_spoleczne/program\\_explory](https://odpowiedzialny.lotos.pl/2116/spoleczenstwo/programy_spoleczne/program_explory)>



## Headed for the Baltic

Grupa LOTOS has operated the 'Headed for the Baltic' programme since 2009 together with partners: the Gdańsk University Development Foundation and the Hel Marine Station of the University's Institute of Oceanography. 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.

Read more : <[https://odpowiedzialny.lotos.pl/256/spoleczenstwo/programy\\_spoleczne/kierunek\\_baltyk](https://odpowiedzialny.lotos.pl/256/spoleczenstwo/programy_spoleczne/kierunek_baltyk)>

## Other relations with social environment

In 2019, LOTOS Group employees prepared Christmas gifts for more than 90 children as part of an initiative of the Municipal Centre for Family Support in Gdańsk (*Miejski Ośrodek Pomocy Rodzinie w Gdańsku*). Two fairs (for Easter and Christmas) were also held on the Company's premises, selling hand-made items created by participants of the Occupational Therapy Workshops organised by Caritas of the Gdańsk Archdiocese, a catholic charity. The proceeds were used to organise leisure events for the participants. Collections of warm clothes and winter footwear for the poor and needy, struggling financially and often homeless, were also held as part of the 'Mocniak Soup' initiative.

LOTOS Kolej hosted an annual Railway Technology Day event as part of the Children's Day celebrations, an initiative running since 2010 for company employees and local residents. Financially disadvantaged children are among those invited to participate in the event, which yearly attracts an audience of over 1,000, enjoying free attractions prepared by LOTOS Kolej. They can ride on modern locomotives and railway trolleys, while learning about safety in a railway area.

In 2019, a modern locomotive was loaned to haul holiday passenger trains with young railway fans on routes to Kołobrzeg and other destinations. Children with their caretakers could enjoy a free ride and participate in lectures on ecology and environmental protection. The project was organised in partnership with the Railway Enthusiasts Association to promote eco-friendly modes of transport.

In 2019, LOTOS Asphalt was a partner of the Baltic Science Festival organised by the Gdańsk University of Technology. Children and young people were eager to participate in competitions organised by LOTOS Asphalt employees, learning about the environmental aspects of bitumen technologies.

The regional initiatives of LOTOS Paliwa employees included Pre-schooler's Day (held at LOTOS service stations), the Noble Gift, and support campaign for the children's home in Chotomów. Such projects are often employee initiatives that receive wide support from LOTOS Group companies.

# Sponsorship activities

In 2019, we carried out 24 sports sponsorship projects in the following areas:

## Sports sponsorship

Proprietary indicator 3

- 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 in all age categories (Polish Tennis Association), and the status of main partner of Hubert Hurkacz, one of the most promising young tennis players in Poland;
- motor rallying – collaboration with the LOTOS Rally Team including Kajetan Kajetanowicz and Maciej Szczepaniak, who were runners-up in the WRC-2 World Rally Championship;
- sponsorship of the Pomeranian Hockey Club and involvement in speedway projects, including Polish Pairs Speedway Championship and TAURON Speedway Euro Championship;
- naming sponsor of Poland's largest aviation event LOTOS Gdynia Aerobaltic Airshow;
- regional projects: LOTOS Gdańsk Summer Stadium, St Dominic Run, LOTOS Nord Cup and Bieszczady Mountain Racing;
- 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'). We also extended our partnership with the Academic Sports Union as the Strategic Sponsor of the Academic National Team. In early 2019, the Company also joined the Olympic Rising Stars programme, supporting eight talented athletes in various Olympic disciplines.

More information on the athletes sponsored by Grupa LOTOS (in Polish) : <<http://www.emocjedopelna.pl>>

## Culture sponsorship

Key culture sponsorship initiatives undertaken by the LOTOS Group in 2019 included:

- cooperation on the following projects: LOTOS Siesta Festival, Atelier Theatre, Two Theatres Festival, Ladies Jazz Festival, and Shakespeare Festival;
- strategic partner of the Baltic Opera in Gdańsk;
- main sponsor of the films 'Legions' and 'Kult – the Movie';
- events in the south of Poland: Bielska Zadymka Jazzowa LOTOS Jazz Festival, Jasło Days, Czechowice-Dziedzice Days, Autumn Theatre Days, International Festival of Carpathian Folklore, Summer with Jasło County Culture, and the Major Henryk Dobrzański 'Hubal' commemorative show jumping competition;
- Other local events sponsored by the Group included Łeba International Kite Festival and Malbork Siege;
- in 2019, the Company was also involved in the Westerplatte Concert, Patriotic Concert, Bards of Freedom Concert and Heroes Gala.

More information on our culture sponsorship activities (in Polish) :  
<[https://odpowiedzialny.lotos.pl/37/spoleczenstwo/kultura\\_i\\_sztuka](https://odpowiedzialny.lotos.pl/37/spoleczenstwo/kultura_i_sztuka)>

Our Sponsorship policy (in Polish) : <[https://odpowiedzialny.lotos.pl/264/spoleczenstwo/polityka\\_sponsoringowa](https://odpowiedzialny.lotos.pl/264/spoleczenstwo/polityka_sponsoringowa)>

# LOTOS

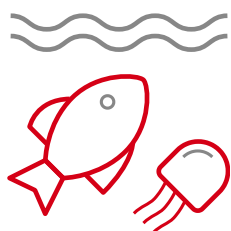
## Foundation

Since 2015, the LOTOS Foundation has been in charge of the LOTOS Group's charity policy. The Foundation's mission encompasses a wide range of social activities that make a positive contribution to social and natural environment.

The LOTOS Foundation pursues social responsibility causes related e.g. to:

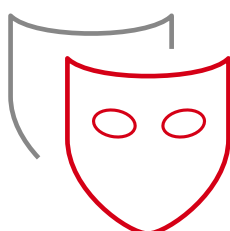
### Fundacja LOTOS w 2019 r.

Proprietary indicator 4



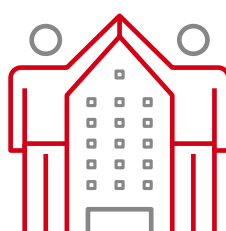
#### environmental protection

(especially preservation of biodiversity in the Baltic Sea)

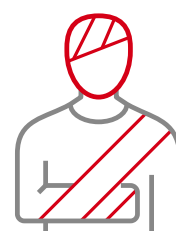


#### support for culture and arts

including care for the oil and gas industry's historical heritage



#### various activities undertaken for the benefit of local communities

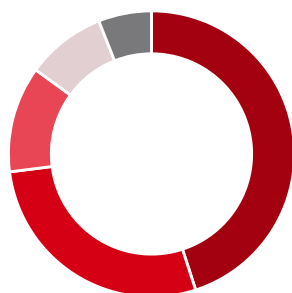


#### care for health and safety

including awareness projects and active assistance provided to victims of accidents and disasters

In 2019, the LOTOS Foundation received almost 900 requests for donations. Following reviews, 125 projects received funding totalling PLN 8m (around 33% more than in the previous year).

The principal criterion taken into account in the selection of projects was their potential to ensure equal opportunities. The largest share went to sports projects aimed at supporting the physical development of children and youth, such as sports trips, as well as support for sports clubs.



- Sports (45%)
- Culture, art and national heritage (28%)
- Social initiatives (12%)
- Health protection and promotion (9%)
- Science and education (6%)

The second largest pool of funds was donated to initiatives promoting culture, arts and national heritage. The remainder was spent on social initiatives, health protection and promotion, science and education.

Financial support for medical treatment of our current and retired employees and their relatives was particularly important to us.

# 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.

04.

# Society

Corporate social  
responsibility values

**Employees**

# HR policy

Employees are the pillar of the LOTOS Group. It believes that highly qualified, motivated and committed employees are essential for the entire organisation, improving its efficiency and giving it a competitive advantage on the market. To attract the best candidates and retain existing staff, a HR policy has been formulated to govern various aspects of the recruitment and employee management processes.

103-1, 103-2, 103-3

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 experienced colleagues. 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, and 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 us 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.



# Workforce structure

102-8

## Workforce structure by various criteria

	2018		2019		Yoy change	
	Number	Percentage	Number	Percentage	Percentage	Percentage point
<b>Grupa LOTOS</b>						
<b>By gender</b>						
Women	485	32.1%	527	32.2%	8.7%	0.1%
Men	1,028	67.9%	1,112	67.8%	8.2%	-0.1%
<b>By age</b>						
Under 30 years	143	9.5%	198	12.1%	38.5%	2.6%
Between 30 and 50 years	977	64.6%	1,079	65.8%	10.4%	1.2%
Over 50 years	393	26.0%	362	22.1%	-7.9%	-3.9%
<b>By job type</b>						
Blue-collar jobs	495	32.7%	522	31.8%	5.5%	-0.9%
White-collar jobs	1,018	67.3%	1,117	68.2%	9.7%	0.9%
<b>Total</b>	<b>1,513</b>		<b>1,639</b>		<b>8.3%</b>	
<b>LOTOS Group</b>						
<b>By gender</b>						
Women	1,154	22.9%	1,230	22.9%	6.6%	0.0%
Men	3,891	77.1%	4,138	77.1%	6.4%	0.0%
<b>By age</b>						
Under 30 years	426	8.5%	616	11.5%	44.6%	3.0%

Between 30 and 50 years	2,999	59.4%	3,218	59.9%	7.3%	0.5%
Over 50 years	1,620	32.1%	1,534	28.6%	-5.31%	-3.5%
<b>By job type</b>						
Blue-collar jobs	2,380	47.2%	2,539	47.2%	6.7%	0.0%
White-collar jobs	2,665	52.8%	2,892	52.8%	8.5%	0.0%
<b>Total</b>	<b>5,045</b>		<b>5,431</b>		<b>6.4%</b>	

401-1

#### New hires and departures

	2018	2019	Yoy change
<b>New hires</b>			
Grupa LOTOS	188	246	30.9%
LOTOS Group	686	756	10.2%
<b>Departures</b>			
Grupa LOTOS	115	124	7.8%
LOTOS Group	513	466	-9.2%

# Occupational health and safety

Staff safety is a key priority for the LOTOS Group. For this reason, safety at work and health protection take precedence in our business. Its key principle states that 'no job is too important or urgent that it cannot be done safely.'

103-1, 103-2, 103-3, 403-1 2018, 403-3 2018

The LOTOS Group strives to maintain high safety standards, minimise risks, and raise employee awareness of safe working culture.

The Group has an OHS function in place, acting as the employer's advisory and controlling body in accordance with applicable laws. 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.

403-2 2018

To ensure optimum OHS and working conditions for its employees, the LOTOS Group takes wide-ranging measures, including assessment of the workplace risks. By consistently implementing effective controls, we eliminate threats and increase occupational safety.

To that end, we take measures aimed at:

- ensuring proper organisation of the working environment and ergonomic conditions at workstations,
- conducting regular environmental studies,
- applying best possible safeguards comprising technical, organisational and human measures, from collective safeguards at workstations to personal protective equipment tailored to an employee's individual needs,
- applying best available techniques as process and technical safeguards (BAT),
- fine-tuning the hazard identification and risk estimation systems for the human-machinery-environment triad,
- engaging in regular advisory, supervisory and control activities,
- providing hands-on training and thematic workshops to improve employee qualifications,
- raising employee awareness of and commitment to enhancing the work safety culture,
- engaging in various initiatives that go beyond the applicable legal requirements, also with regard to the oversight of contractors.

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 unsafe conditions, and a dedicated email address.

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 injury. The relevant information is communicated to employees i.a. during induction and periodic 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.

In 2019, an OHS training entitled 'Know the golden rules of occupational safety for a LOTOS Group employee' was launched on the e-learning platform.

#### Golden rules of occupational safety for a LOTOS Group employee



## Key training courses and initiatives

403-5 2018, 403-8 2018

All LOTOS Group employees regularly take part in training and educational campaigns which highlight potential risks at the workplace.

#### Key training courses and initiatives include:

1. stress management training;
2. initiatives aimed at promoting or ensuring:
  - healthy eating habits;
  - quitting smoking;
  - safety when handling heavy objects,
  - physical exercise and activity,
  - office ergonomics,
  - organisation of work at the workstation;
  - safe use of chemicals;
  - noise protection.

403-6 2018, 403-7 2018

In order to better familiarise the employees with occupational safety issues, each year 'OHS Days' are organised at the LOTOS Group refinery in Gdańsk. During the event, which has been held ten times, employees receive free medical examinations and consultations, attend healthcare workshops and participate in OHS competitions. The LOTOS Group is also regularly involved in a cycling campaign, encouraging its employees to increase their physical activity. In 2019, in addition to covering kilometres in running and cycling events organised for Gdańsk, the Group got engaged in a cycling campaign where we competed with other companies.

Over the last year, we were also involved in various additional initiatives to improve occupational safety and raise safety awareness among our employees. In 2019, we recapped the third edition of the 'I work safely – Grupa LOTOS' project, which brought a record-high number of ideas to improve work safety at the refinery. The project is addressed to employees of the LOTOS Group and contractor companies performing work for the refinery.

In 2019, a new project was launched to visualise occupational safety, covering information and motivation signs, infographics and floor markings. The first stage involved the marking of stairs, location of manual fire-fighting equipment and defibrillators.

## Other activities

### Other activities included:

- OHS reviews conducted by the management;
- tests of new protective clothing made of materials providing greater comfort than those currently in use (in terms of flexibility, summer thermal properties and style). The test results will be used to analyse whether it is reasonable to replace the currently used clothing with new, more comfortable counterparts, with enhanced protective features;
- e-learning OHS training for contractors, in five languages;
- 'Minute for Safety' – an initiative consisting in starting various meetings/training/briefings with a discussion of an OHS-related issue.

403-9 2018

In 2019, 32 accidents took place at the LOTOS Group (of which 12 at Grupa LOTOS). All were classified as minor. Most of the accidents were related to transport (moving on foot, driving vehicles) or to the operation, repair and maintenance of machinery and equipment.

403-10 2018

In 2019, there were no new reports of work-related ill health among Grupa LOTOS S.A.'s employees. Last year, a procedure initiated in 2017 by an employee's work-related ill health report was continued.

# 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.

103-1, 103-2, 103-3

The LOTOS Group's diversity policy allows us to maximise employees' potential, making the best use of their experience and skills.

At the LOTOS Group we appreciate experience that comes with age, which is why 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.

**Our initiatives are also addressed to people with disabilities, including the following projects run 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.

**No suspected discrimination reports were received by the Ethics Officer in 2019.**

405-1

## Composition of the Management Board by age and gender

	Number of persons	Percentage
Under 30 years	0	0%
30–50 years	1	25%
Over 50 years	3	75%
<b>Total</b>	<b>4</b>	<b>100%</b>
Women	1	25%
Men	3	75%

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<b>Total</b>	<b>4</b>	<b>100%</b>
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Source: the Company.

# 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. In early 2019, the Grupa LOTOS Management Board resolved to strengthen protections for employee rights by adopting 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.



# Remuneration and employee benefits

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.

401-2, 404-2

## The terms of remuneration offered by the Company include:

- employees are paid according to the job type as well as the qualifications and competencies required to perform it;
- differentiating individual remuneration according to the level of output,
- achievement of the assumed objectives and targets,
- rewarding employees for 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.

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 and medical plans for members of their immediate families;
- unit-linked group life insurance with the premium paid by Grupa LOTOS for all employees (PLN 250);
- 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).

102-41

We regularly review our remuneration system based on payroll reports published by leading consultancy firms and the statistical data published by Statistics Poland. The job valuation exercise completed in 2019 allowed the Company to establish a new employee pay grade system. Covering all positions at the Company from senior management to operational roles, its findings were used to validate and develop a new pay scale. Since December 11th 2019, Grupa LOTOS has been bound by an updated Collective Bargaining Agreement covering **97%** of Grupa LOTOS **employees**.

Grupa LOTOS employees can accumulate additional pension savings from employer-funded contributions through a unit-linked group life insurance. The Company also provides an attractive package of social benefits, medical care and financial assistance to cover a part of holiday expenses for employees and their children. In 2019, Grupa LOTOS had also selected a financial institution with which agreements were concluded on the management and operation of Employee Capital Plans (PPK).

The ratio of the annual total remuneration of the LOTOS Group's highest-paid individual to the median annual total remuneration of all employees in 2019 was 7.6, down 5.5% year on year.

# Development and education

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.

103-1, 103-2, 103-3

Well-selected training improves the LOTOS Group employees' satisfaction and engagement.

We run satisfaction surveys to best align training subjects with the needs of our employees. 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). In 2004, we launched LOTOS Academy, our training and development programme.



404-1

## Average number of training hours per employee

	2018		2019		Yoy change	
	Number of training hours	Training hours per employee	Number of training hours	Training hours per employee	Number of training hours	Training hours per employee
<b>Grupa LOTOS</b>						
<b>By gender</b>						
Women	12,881	26.6	11,967	22.7	-7.1%	-14.66%
Men	24,663	24	27,589	24.8	+11.86%	+3.33%

<b>Total</b>	<b>37,514</b>	<b>24.8</b>	<b>39,556</b>	<b>24.1</b>	<b>+5.44%</b>	<b>-2.82%</b>
By job type						
Management	9,349	31.8	10,742	33.1	+14.9%	+4.09%
Other employees	28,165	23.1	28,814	21.9	+2.3%	-5.19%
<b>Total</b>	<b>37,514</b>	<b>24.8</b>	<b>39,556</b>	<b>24.1</b>	<b>5.44%</b>	<b>-2.82%</b>
<b>LOTOS Group</b>						
<b>By gender</b>						
Women	25,085	21.7	25,817	21	+2.9%	-3.4%
Men	79,911	20.5	88,576	21.4	+10.8%	+4.2%
<b>Total</b>	<b>104,996</b>	<b>20.8</b>	<b>114,393</b>	<b>21.3</b>	<b>+8.9%</b>	<b>+2.4%</b>
<b>By job type*</b>						
Management	22,055	22.6	24,808	23.8	+12.5%	+5.3%
Other employees	82,910	20.6	89,105	20.8	+7.5%	+1.1%
<b>Total</b>	<b>104,965</b>	<b>21</b>	<b>113,913</b>	<b>21.4</b>	<b>+8.5%</b>	<b>+2.0%</b>

\* AB LOTOS Geonafta data is not included.

The PEES is a valuable source of information on performance against professional and development goals, competency levels and training needs across the organisation.

#### Indicators used to measure the effectiveness of development initiatives at Grupa LOTOS:

- average rating of key competencies: 5.1
- average rating of managerial competencies: 5.0
- average rating of functional competencies: 5.1
- performance against development goals: 93.3%
- performance against professional goals: 98.2%

#### Rating scale:

- 1–3: significantly fails to meet expectations
- 4: partially meets expectations

- 5: fully meets expectations
- 6: exceeds expectations
- 7: significantly exceeds expectations

The average ratings of Grupa LOTOS employees' competencies are satisfactory, ranging between 5 and 5.9, which means that expectations associated with a given competency are fully met. The high performance against development goals, of over 90%, and the types of goals set, point to diversity of development opportunities offered to employees. The development options chosen go beyond the training context, facilitating transfer of competencies to the workplace. Also, the Company's employees have strong competency sets.

404-3

In 2019, 97.8% of all eligible employees of Grupa LOTOS were covered by the Periodic Employee Evaluation System (PEES).

## Employee volunteering

At the LOTOS Group, there are numerous socially engaged employees. It is for them that the Employee Volunteering Programme has been established, under which employees may apply for co-funding for their projects.

In 2019, 10 projects received minigrants from the LOTOS Foundation and assistance from our employees reached **1231** people.

The projects carried out as part of the programme were very diverse. Our employees were engaged in assistance provided to participants of occupational therapy workshops, people living alone and in poverty, individuals with physical and intellectual disabilities, children and local communities.

In 2019, a total of **527 employees** of the LOTOS Group took part in the Group's employee volunteering programme, working for a total of **1,297 hours to provide assistance to 1,521 beneficiaries**.



05.

# Governance

**Corporate  
governance**

**Ethics**

**Risk and safety**

# Corporate Governance

The LOTOS Group's Corporate Governance is a set of ethical standards and best practices followed by the Group in its operations. These standards help ensure a balance between the interests of all parties involved in the operation of the Group companies. They build the Group's value and strengthen its credibility in the eyes of shareholders, thus enhancing the Group's competitiveness on the market.

Grupa LOTOS S.A. reports all breaches of corporate governance principles, both incidental and long-term ones. Such information is published similarly to current reports, in two languages, on the Company's Investor Relations website.

## The objectives of corporate governance at the LOTOS Group are as follows:

- ensuring transparency of the LOTOS Group's operations as a listed company;
- increasing trust in relations with stakeholders;
- increasing openness and accessibility for investors;
- consistent shareholder value creation.

102-45

The LOTOS Group comprises a number of production, trading and service companies, as well as a foundation. Grupa LOTOS S.A. is both the parent of the Group and an integrator of the key management and support functions.





# Governance structure

## General Meeting

102-18

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

The Supervisory Board exercises ongoing supervision of the Company's business, across all areas of its operations. It has the power to delegate its members to perform specific functions and to establish standing or ad hoc committees as collective bodies operating within the Supervisory Board responsible for providing advice and forming opinions. 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 its committees. Grupa LOTOS has three standing committees: 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 2019:

- Beata Kozłowska-Chyła – Chairwoman
- Piotr Ciach – Deputy Chairman
- Katarzyna Lewandowska – Secretary
- Agnieszka Szklarczyk-Mierzwa – Member
- Dariusz Figura – Member
- Adam Lewandowski – Member
- Grzegorz Rybicki – Member

**Composition of the Supervisory Board by age and gender**

	Number of persons	Percentage
Under 30 years	0	0%
30–50 years	5	71%
Over 50 years	2	29%
Women	3	43%
Women	4	57%
<b>Total</b>	<b>7</b>	<b>100%</b>

Source: the Company.

## Management Board

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.

**Pursuant to Supervisory Board Resolution No. 136/X/2018 of September 10th 2018, the composition of the Management Board of the 10th joint term of office is as follows:**

- President of the Management Board
- Vice President of the Management Board, Chief Financial Officer
- Vice President of the Management Board, Chief Refining and Marketing Officer
- Vice President of the Management Board, Chief Investment and Innovation Officer
- Vice President of the Management Board, Corporate Affairs

**Composition of the Grupa LOTOS Management Board as at December 31st 2019:**

- Jarosław Wittstock – acting President, Vice President of the Management Board, Corporate Affairs
- Jarosław Kawula – Vice President of the Management Board, Chief Refining and Marketing Officer
- Marian Krzemiński – Vice President of the Management Board, Chief Investment and Innovation Officer
- Zofia Paryła – Vice President of the Management Board, Chief Financial Officer

**As at March 12th 2020, the Management Board of Grupa LOTOS S.A. consisted of:**

- Paweł Jan Majewski – President of the Management Board
- Jarosław Kawula – Vice President of the Management Board, Chief Refining and Marketing Officer
- Marian Krzemiński – Vice President of the Management Board, Chief Investment and Innovation Officer
- Zofia Paryła – Vice President of the Management Board, Chief Financial Officer
- Jarosław Wittstock – Vice President of the Management Board, Corporate Affairs

**Management Board members' remits**

President of the Management Board	Vice President of the Management Board, Chief Investment and Innovation Officer	Vice President of the Management Board, Chief Investment and Innovation Officer	Vice President of the Management Board, Chief Financial Officer	Vice President of the Management Board, Corporate Affairs
Strategy	Upstream support	Refining	Finance and accounting	Organisation building
Support for corporate bodies	EFRA Project	Technology	Financial management	Process management
Critical infrastructure	Innovation	Assets	Management control	SCM
Human resources	Investments	Refining efficiency	Reporting	IT
Physical security and protection		Domestic sales and purchases of products	Taxes	Compliance
Information security		Biofuel component purchases	Financial risks	Administration
Enterprise risk		Trading	Procurement	
Corporate supervision		Occupational health and safety		
Investor relations		Process and product safety		
Legal support		Environmental protection		
Internal audit		Technology development		
Internal control		Feedstock purchases		
Communication		Logistics		
Sponsorship and CSR				
Marketing				

Source: the Company.

**Composition of the Management Board by age and gender**

	Number of persons	Percentage
Under 30 years	0	0%
30–50 years	1	25%
Over 50 years	3	75%
<b>Total</b>	<b>4</b>	<b>100%</b>
Women	1	25%
Men	3	75%
<b>Total</b>	<b>4</b>	<b>100%</b>

Source: the Company.

05.

# Governance

Corporate  
governance

**Ethics**

Risk and safety

# Ethics and anti-corruption

## Values and the Code of Ethics

102-16

The LOTOS Group's responsibility towards society and the natural environment manifests itself in carrying out production activities in a manner preventing degradation of natural and social capitals. The LOTOS Group feels responsible for its products towards the state, the market, our partners, customers and employees.

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.

The four primary values underlying the LOTOS Group's corporate social responsibility are:

### 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



### RESPONSIBILITY

the underlying principle of the Group's attitude towards mankind and its future, the environment, the home country and its international status

### OPENNESS

the Group is open to changes, the world's needs and people's expectations

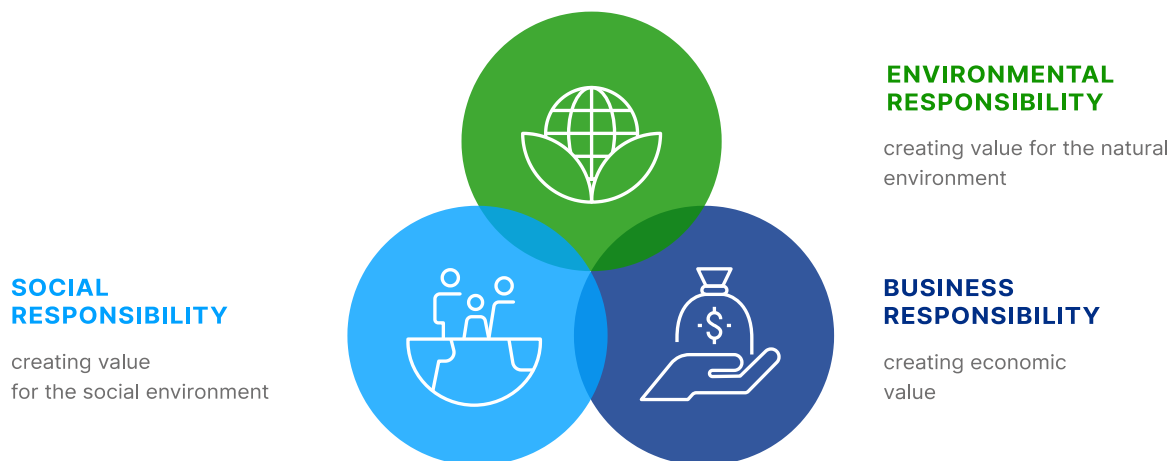
### INNOVATIVENESS

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

To the LOTOS Group, sustainable development is an integral part of its business. The Group is aware of its community and environmental impacts. Therefore, as a socially responsible corporate citizen, it is guided by ethical values in conducting its business.

The organisation is strongly 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.

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**The pillars of the LOTOS Group's strategic approach to sustainable development:**


The LOTOS Group CSR Strategy : <[https://odpowiedzialny.lotos.pl/en/922/our\\_responsibility/at\\_the\\_lotos\\_group/strategy](https://odpowiedzialny.lotos.pl/en/922/our_responsibility/at_the_lotos_group/strategy)>

In 2019, the LOTOS Group addressed the challenges defined by 17 Sustainable Development Goals (SDGs) until 2030, Vision of Sustainable Development for Business in Poland until 2050, and the ten 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 own 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.

## Ethical Conduct Programme

The Ethical Conduct Programme, which is the cornerstone of our activities, enables effective and ethical management of the LOTOS Group's organisational culture. It builds 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.

102-17

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](mailto:liniaetyki@grupaLOTOS.pl),
- online report form available at [www.LOTOS.pl](http://www.LOTOS.pl),
- by traditional mail.

Grupa LOTOS S.A. operates in compliance with the Code of Best Practice for WSE Listed Companies. Compliance with the Code helps us build the Company's ethical culture, which is vital for our relations with the market environment and for building our market position.

More information on the LOTOS Group's Code of Ethics :

<[https://odpowiedzialny.lotos.pl/en/1171/our\\_responsibility/in\\_business/code\\_of\\_ethics](https://odpowiedzialny.lotos.pl/en/1171/our_responsibility/in_business/code_of_ethics)>

## Prevention of corruption, misconduct and conflicts of interest

103-1, 103-2, 103-3

The LOTOS Group operates a Misconduct Prevention Policy, aimed at enhancing the security of its business processes.

The risk of misconduct is mitigated through effective management. Should the risk materialise, an emergency plan is in place that ensures immediate mobilisation of resources to explain the situation, mitigate its adverse impacts, return to normal operations, and prevent recurrence.

Stakeholders can report any suspected irregularities and/or misconduct via specified open communication channels, including the Grupa LOTOS Internal Audit Office.



205-2

In the organisation, no misconduct is tolerated. The organisation 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.

In 2019, the LOTOS Group made progress in the implementation of the Misconduct Prevention Programme and monitored solutions developed under the programme. A number of educational initiatives, including training and publications, were undertaken to enhance the organisation's resilience to misconduct and to raise the awareness and engagement of both management personnel and other employees.

**The misconduct prevention and detection measures taken by the organisation are viewed as effective. These measures included:**

- implementing the Misconduct Risk Management Programme based on the Misconduct Prevention Policy, which seeks to educate employees on risk identification, provide information on liability for corrupt behaviour and corruption offences, investigate cases of suspected misconduct and implement misconduct risk mitigation mechanisms;
- defining a Misconduct Risk Management Charter, managing and monitoring the risk of misconduct, and risk mitigation and contingency planning;
- incorporating CSR clauses (including an anti-corruption clause) in requests for proposals and contracts;
- setting up a Misconduct Risk Management Team within the Internal Audit Office;
- establishing a Trade Partner Vetting Department and an Internal Control Office within the LOTOS Group;
- requiring all LOTOS Group companies to screen their trading partners in accordance with a relevant procedure;
- delivering training on misconduct prevention at the LOTOS Group.

Misconduct prevention measures include the obligation for all Group companies to vet their trade partners in accordance with the procedure and to ensure compliance with the Misconduct Prevention Policy.

Misconduct Prevention Policy :

[https://odpowiedzialny.lotos.pl/en/1704/our\\_responsibility/in\\_business/misconduct\\_prevention\\_policy](https://odpowiedzialny.lotos.pl/en/1704/our_responsibility/in_business/misconduct_prevention_policy)

205-1

All the LOTOS Group companies were assessed for the risk of corruption in 2019.

## Due diligence procedures

**At the LOTOS Group, (depending on the scope of a given company's operations and needs) the following due diligence procedures are applied that are consistent with applicable standards, under certified management systems:**

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Quality management, according to the PN-EN ISO 9001:2015 standard 'Quality management systems – Requirements'

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Environmental management, according to the PN-EN ISO 14001:2015 standard 'Environmental management systems – Requirements and guidelines for use'

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Health and safety management system, according to the PN-N-18001:2004 standard 'Health and safety at work management systems – Requirements'

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**Other management systems or their components implemented at the LOTOS Group but not certified:**


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Energy Management System (ISO 50001)

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Information Security Management System (ISO 27001)

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Internal Control System

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AQAP – NATO quality assurance requirements (AQAP 2110)

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Risk Management System (ISO 31000).

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# 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.

102-9, 103-1, 103-2, 103-3

**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 2019. These risks are analysed by the LOTOS Group based on available information and submitted reports, in accordance with the risk management policies in place.



05.

# Governance

Corporate  
governance

Ethics

**Risk and safety**

# Risk management

The LOTOS Group is socially responsible and follows the principles of sustainable development. As part of its corporate risk management, it identifies risks in its business and undertakes measures to eliminate those related to the personnel, social matters, respect for human rights and the environment, and works to counteract corruption.

102-11

The LOTOS Group has implemented an Enterprise Risk Management (ERM) system to boost the effective implementation of its business strategies and processes. The above measures have been implemented as part of the Enterprise Risk Management Policy.

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

<b>1ST line of defence</b> Business	<ul style="list-style-type: none"> <li>→ operational risk management</li> <li>→ development of operational procedures</li> <li>→ risk identification and assessment at the decision-making stage and periodic risk reviews in processes and projects</li> </ul>
<b>2ND line of defence</b> Risk, Finance, Compliance	<ul style="list-style-type: none"> <li>→ defining risk management rules</li> <li>→ alignment of risk management with strategy</li> <li>→ defining and profiling risk exposure</li> </ul>
<b>3RD line of defence</b> Internal audit	<ul style="list-style-type: none"> <li>→ independent assessment of the effectiveness and adequacy of risk management process</li> </ul>

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 or exploit risks or their consequences. This key functionality of the system is currently being strengthened at the LOTOS Group.

## Risk management process

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

- **risk identification** – risks are identified in the context of (annual) strategic and operational objectives pursued;
- **risk analysis and assessment** – the assessment is carried out in two time horizons: annual and long-term. The assessment criteria include both financial and reputational consequences, aggregated as the impact on non-financial parameters, such as the image, environment, and people;
- **establishing a risk treatment plan** – for each material risk, an operational management procedure as well as controls and protection measures are defined. For TOP RISKS, detailed risk management charts are prepared, which cover relevant risk mitigation and exploitation measures, as well as response plans to be followed in case of materialisation of such risks;
- **implementation of risk mitigation and opportunities tapping measures** – performing tasks defined in risk treatment plans and monitoring their progress on an ongoing basis;
- **monitoring of risk indicators** – for TOP RISKS, 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 risks are reviewed and re-assessed;
- **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 are assessed and its future development directions are defined on an annual basis.

# Process safety

The LOTOS Group has for many years applied best practices to ensure the integrity of its process infrastructure. They include zero-testing of materials and equipment, predictive and preventive maintenance, an inspection and surveillance testing programme, non-destructive testing (NDT) – testing of apparatus and pipeline wall thickness, RBI (Risk-Based Inspection) programme, regular plant overhauls, execution of annual preventive equipment inspection plans, corrosion monitoring, functional testing of security systems and process interlocks, equipment criticality management with respect to response times, as well as management of spare part stocks and scopes of preventive testing.

In 2019, a process safety team was established to supervise the integrity of the LOTOS Group's assets.

Every incident reported at any Group company is subject to an analysis of its causes and circumstances, often resulting in follow-up reviews or implementation of new procedures to prevent recurrence.

- LOTOS Paliwa introduced new regulations on the supervision of construction and engineering works carried out at CODO service stations.
- LOTOS Oil has procedures in place for emergency response and for investigating accidents at work, instances of work-related ill health and unsafe situations. In order to ensure process safety, schedules are created to control key equipment and prevent unplanned releases of any substances, including non-toxic and non-flammable materials. The rollout of the 5S system at refining units is another factor enhancing process safety, as it helps create and maintain well-organised, clean, highly efficient and quality workstations.

OG13

## In 2019, we recorded 27 process safety incidents.

- 19 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.
- Eight events were classified as Tier 1.



06.

## About the Report

# About the Report

Grupa LOTOS prepares non-financial reports on an annual basis.

102-5, 102-48, 102-49, 102-54, 102-56

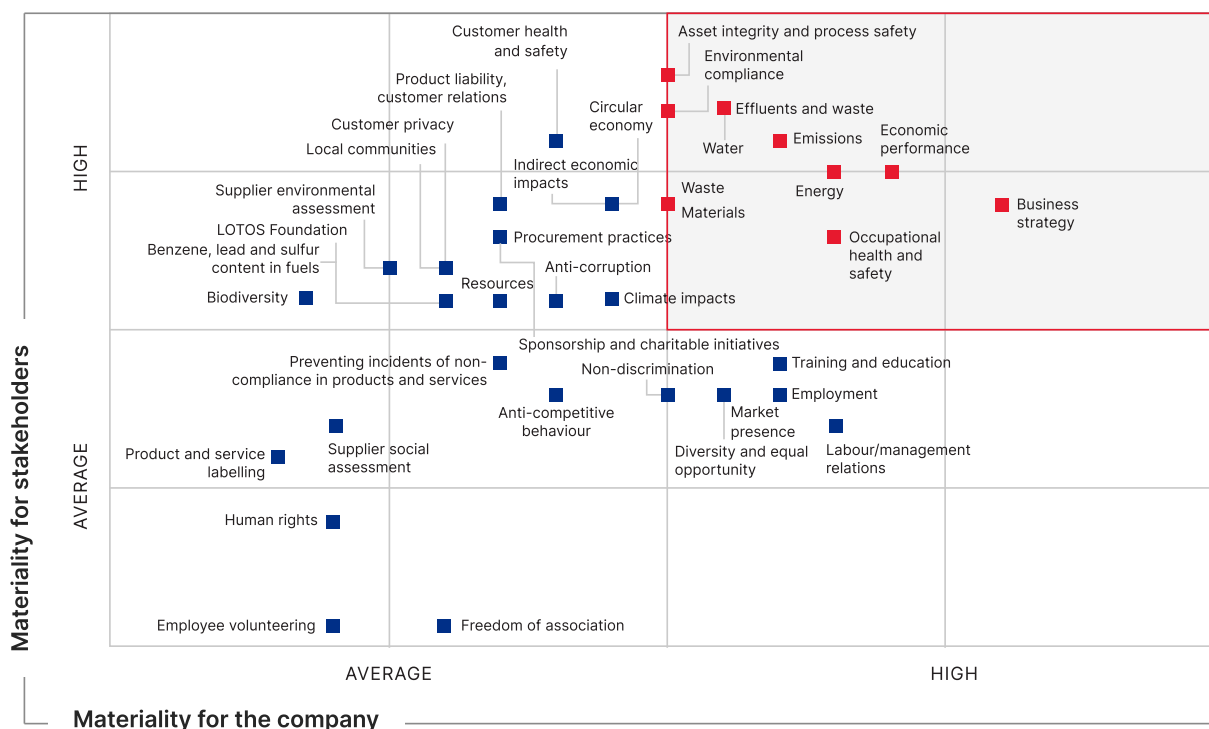
The parent Grupa LOTOS S.A. is a joint-stock company 53.19% owned by the State Treasury as the majority shareholder. The LOTOS Group's 2019 Integrated Report has been prepared in accordance with the GRI Standards (Core option) and pursuant to the Polish Accounting Act (Art. 49b and Art. 55.2b-55.2e). A change relative to previous years consists in the application in this report 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.

102-46

For the purposes of this report, a survey was carried out among more than 100 LOTOS Group stakeholders, the Group employees via the intranet, and the followers of Grupa LOTOS on Facebook. The survey was conducted by an independent consultancy firm Go Responsible between April 23rd and April 28th 2020. Participating in the online survey were representatives of the LOTOS Group Management, employees of the LOTOS Group across all companies and organisational units covered by reporting, and dozens of key external stakeholders of the LOTOS Group. In the survey, our stakeholders evaluated the materiality of the proposed topics from their own perspective and submitted their own proposals of issues which they believed should be addressed in the integrated report. Based on the findings, a process was carried out to identify and validate the material topics of this year's report.

102-44, 102-47

## Materiality map



Topics selected as relevant by external stakeholders and by the company are reported.

**In preparing individual sections of this report, the Company relied on the four principles set forth in the standard:**

- the materiality of information presented;
- involving the LOTOS Group's stakeholders in the drafting process;
- demonstrating a broader sustainability context; and
- completeness of the content.

For more information on the economic, social and environmental aspects of the LOTOS Group's operations please visit the Grupa LOTOS website at [www.lotos.pl](http://www.lotos.pl) and [www.odpowiedzialny.lotos.pl](http://www.odpowiedzialny.lotos.pl)

Letters should be sent to the Company's headquarters:

102-3

**Grupa LOTOS S.A.**  
**ul. Elbląska 135**  
**80-718 Gdańsk**

102-53

If you have any queries, please contact the External Communication Department of Grupa LOTOS S.A. at [media@grupalotos.pl](mailto:media@grupalotos.pl)

or by telephone at (+48 58) 308 72 29.



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