Risk and opportunities

ERM
204 audits
in 2012-2014

Mitigation of all types of risk

2x
Doubled hydrocarbon production

Record-high volume of crude oil processed

Activity of the Price Risk and Trading Committee

One of the fastest growing service station chains in Poland

IN THIS CHAPTER:

Enterprise risk management policy

To ensure secure and effective pursuit of our strategic and operational objectives, we have put in place an Enterprise Risk Management system at the LOTOS Group.

Management segment

In the management segment, we identify political, legal, reputation and social risks as well as the risk of misconduct.

Exploration and production segment

In the Exploration and Production segment, we identify exploration risks, technical and production risks, risks related to exploration and production projects and financial risk.

Operational (refining) segment

In the operational (refining) sector, we identify operational risks related to the refinery and environmental risks, including risks related to carbon emission caps.

Financial segment

In the financial segment, we identify the risk related to prices of raw materials and petroleum products, the risk related to prices of carbon allowances, liquidity risk, currency risk, interest rate risk, credit risk in financial and trade transactions, the risk of limited access to external financing or changes in lending terms and the risk related to debt servicing as well as the risk of adverse changes in tax regulations, interpretations or court rulings.

Marketing segment

In the marketing segment, we identify the risk of crude supply interruptions or reduced crude supply, the risk of changes in margins on product sale and the risk of decline in domestic demand.

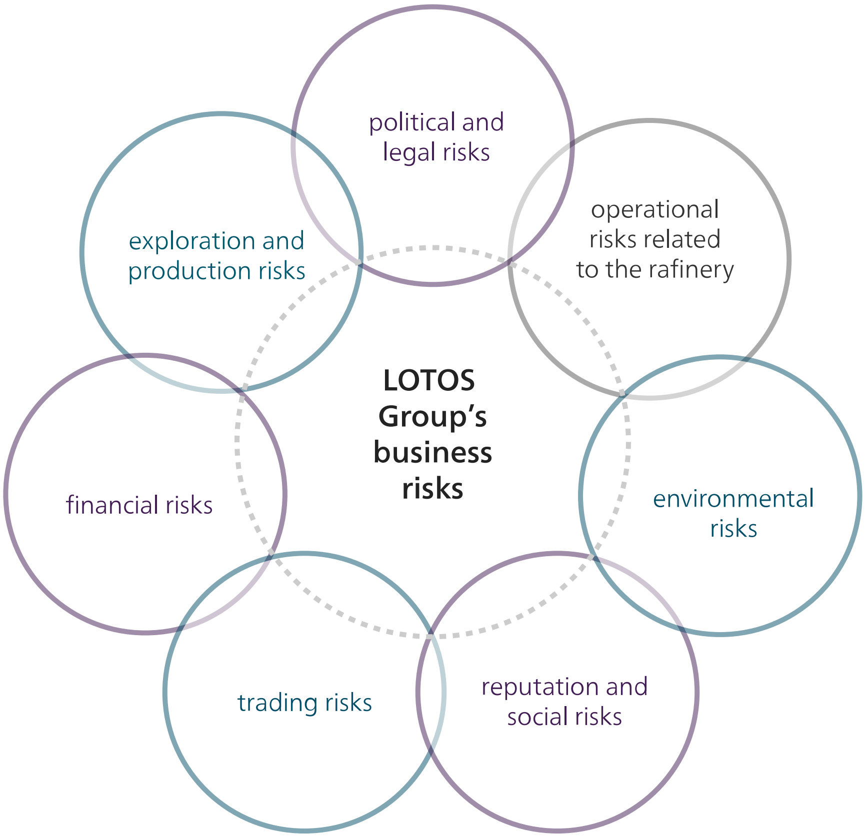
Enterprise risk management policy

Throughout 2014, as part of the ERM (Enterprise Risk Management) system, we implemented a number of risk mitigation measures at the LOTOS Group, reducing the probability that specific risks might materialise. In the case of risks that did materialise, we applied pre-defined action plans, mitigating their adverse consequences. In addition, we identified new risks, associated primarily with projects of crucial importance to the LOTOS Group, such as the EFRA Project, or delayed coking (DCU), and B8 field development. We also managed to improve the risk management tools, including risk identification, assessment and monitoring methodologies.

Our enterprise risk management enables us to undertake activities optimal for the LOTOS Group's business (within the acceptable risk limits). Also, we have tools to identify and leverage the emerging business opportunities.

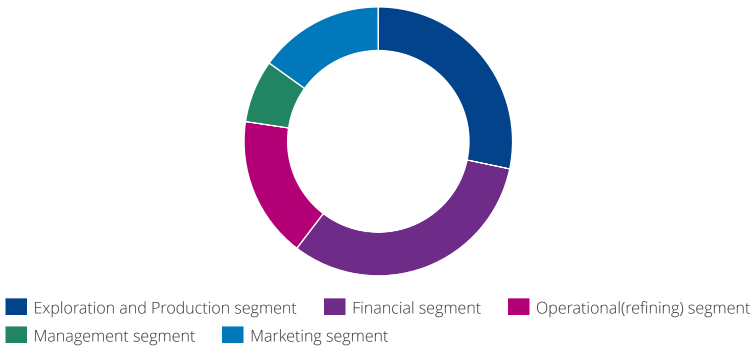
At the LOTOS Group, we identify a range of diverse risks, which may affect all areas of our business.

Key risks for the LOTOS Group



Since many of those risks are interrelated, we analyse their interactions and strive to minimise their impact. In accordance with the adopted criteria, the financial risks as well as risks affecting the exploration and production area are the key risks in terms of their impact on the LOTOS Group's operations.

Key risks at the LOTOS Group by business segments



Source: In-house analysis of Grupa LOTOS.

In place at the LOTOS Group since 2011, the Enterprise Risk Management system is designed to facilitate safe operation of the organization and achievement of its strategic and operational objectives. Within the ERM system, we have established internal procedures and regulations. The Enterprise Risk Management Policy defines the general scope of responsibility within the system and key risk management principles. The implemented procedure specifies detailed rules for risk identification and assessment, as well as monitoring and reporting methods designed to evaluate the effectiveness of mitigating actions taken.

Risk management process at the LOTOS Group

RELATED CONTENT:

Organizational maturity

Grupa LOTOS is an organization oriented towards professionalism and adoption of the best operating and management practices. We take steps to protect Company value, as evidenced by our well-developed internal control system and corporate governance solutions.

Go to the page » <http://raportroczny.lotos.pl/en/ethics-and-corporate-governance/approach-to-management/organizational-maturity>

Structure

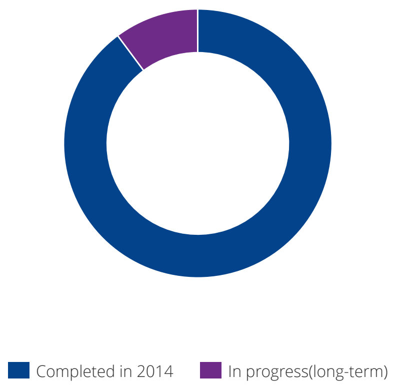
Within the LOTOS Group, the role of Grupa LOTOS is to integrate the key management and support functions. To perform its role, Grupa LOTOS has implemented a segmental management model.

Go to the page » <http://raportroczny.lotos.pl/en/the-organization-and-its-report/the-organization/structure>

Key instruments

Risk management principles at the LOTOS Group
I. Risks are identified in reference to the strategic and operational objectives pursued by the organization and assessed from the annual and long-term perspectives. Risks are evaluated in terms of their potential consequences for the organization's financial standing and reputation, as well as for the environment and people's health.
In 2014, we introduced an additional criterion for operational risks, which are now assessed also in terms of their impact on processes within Grupa LOTOS. We also began identifying operational risks affecting specific processes, with the detailed identification and assessment of process risks to be continued in 2015.
II. A course of action, controls and protection measures are defined for each of the risks. If a risk is deemed material, detailed risk management charts are prepared. The charts specify how a given risk should be mitigated and what actions to take should it materialise. Key risk indicators (KRI) are defined, by means of which the risk can be monitored in accordance with established guidelines. Risks are managed by the respective risk owners.
III. Twice a year, all the defined risks are reviewed and updated.
IV. We have implemented appropriate standards for communicating and reporting the results at each stage of the process.

Actions mitigating key risks



Participants in the Enterprise Risk Management system

Supervisory Board
Monitors the effectiveness of the risk management system.

Board
Makes key ERM decisions and approves Risk Maps.

Segment heads
Comprehensively supervise and monitor risk management activities in the respective segments (with respect to management, operational, exploration and production, financial, and trading risks).

Enterprise Risk Management Committee
Recommends ERM actions and monitors their progress. The Committee is composed of representatives of each segment.

Enterprise Risk Management Coordinator
Coordinates and supports risk management activities within the LOTOS Group.

Risk owners
Manage individual risks, defining a course of action with respect to each risk and monitoring its levels.

Employees
Implement mitigation measures and identify new risks.

Internal Audit Office
Carries out audits to review the implemented controls and evaluate their effectiveness, identifies and assesses threats to the organization's operations, and carries out annual evaluations of the risk management system's effectiveness as part of the organizational maturity assessment.

Business Process Management Office
Reviews risk management strategies adopted with respect to individual risks as part of audits of the Integrated Management System.

Enterprise risk management initiatives at the LOTOS Group are supported by the ERM Portal, an IT tool. The Portal is used to record risks, assess them and prepare risks maps, to monitor current risk indicators and the progress of planned actions, as well as for reporting purposes. Audit results are also recorded in the Portal if the relevant audits involve the review of individual risk management processes and specific incidents.

Evaluation of the system

We evaluate the ERM system's effectiveness every year, as part of our organizational maturity assessment, the conclusions and recommendations of which are used to further improve the system. A final assessment score, expressed as a percentage, reflects:

- the degree to which the system designed for the Company complies with best practices,
- compliance with planned functions.

ERM evaluation as part of the annual organizational maturity assessment

Year	'Planned' score [%]	'Compliance with planned' score [%]	Total score* [%]
2014	97	97	95
2013	96	97	93
2012	96	97	93

* The total is the product of the 'planned' and 'compliance with planned' scores.

Implementation costs of hedging strategies

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Management segment

In 2014, the main sources of political and legal risks included the Ukrainian crisis and the newly proposed EU legislation, especially plans to tighten the EU climate policy until 2030. The Polish regulatory framework, on the other hand, posed a lesser business risk. In 2014, Polish legislation was evolving in the direction conducive to the petroleum industry (e.g. the new act on mandatory oil and fuel stocks, and regulations governing the exploration and production of hydrocarbons). In addition, a deepening of the dialogue between law makers and industry representatives (both businesses and trade organisations) helped mitigate the business risk associated with the Polish regulatory framework. Nevertheless, our involvement in the legislative process, through public consultations of draft laws and government-coordinated working groups, is still very important.

1. Political risks

A major political risk that could affect our trade flows was the escalating tension between Ukraine and Russia and the resulting EU sanctions on Moscow. We closely monitored the geopolitical developments and their consequences. In 2014, the EU sanctions did not affect either the crude oil procurement or trade in petroleum products. The only noticeable effect, resulting from the earlier US sanctions, was that banks tended to be more cautious when intermediating in settlements with Russian entities.

2. Legal risks

EU's 2030 climate policy

A substantial risk is posed by the solutions of January 22nd 2014 prepared by the European Commission and designed to tighten the climate policy until 2030. The European Union proposes that the greenhouse gas emissions reduction target be doubled to 40%, the share of renewable energy sources (RES) in electricity consumption be raised to 27%, and the annual rate of CO_2 emissions reduction in the emissions trading system (ETS) be increased from 1.7% to 2.2%. Additionally, energy-intensive industry sectors have strong concerns that they may be included in the ETS, in which case they would face bankruptcy.

If operating costs of European enterprises go up as a result of more stringent regulations on CO_2 emissions, Europe will become an importer of fuels and chemicals from countries where such limits do not apply. We are already seeing a decline in EU companies' competitiveness relative to market players operating without CO_2 emissions limits. A case in point is the refining industry, currently in serious crisis (especially in the EU15 countries). Since 2009, the number of refineries in the EU has dropped from 98 to 87, and crude oil throughput is expected to go down by almost 30% by 2020, bringing about further shutdowns.

Although members of the government administration and representatives of the oil industry are engaged in regular consultations on draft EU legislation and present the Polish position on the forum of the EU, in many cases the Polish voice has gone unheard. This stems from an inability to forge alliances with other countries to back certain initiatives. The Polish administration should find ways to support not only local, but also international groups whose business goals converge with Poland's national interests. As the interests of individual EU member states vary considerably, the adopted legislation does not always correspond with the needs and expectations of the Polish refiners.

Poland's Energy Policy until 2050

In 2014, the Ministry of Economy commenced work on Poland's Energy Policy until 2050 and invited industry organisations, including CEEP (co-founded by Grupa LOTOS), to cooperate in the project. One result of this cooperation is that the draft policy includes provisions which, if maintained, will support:

- Protection of the domestic fuel market, including maintenance of the government's control of key elements of crude oil and fuel infrastructure, and ensuring that internal demand is covered with domestic production to the maximum possible extent;
- Taking further coordinated steps to curb the 'grey market' in fuel trading;
- Reducing the burden on entities operating in the crude oil sector, including possible continuation of the current changes in the mandatory stocks system;
- Extending the catalogue of biocomponents and manufacturing technologies for alternative liquid fuels, including technologies relying on co-hydrogenation.

No comprehensive legal framework for the oil sector

Lack of a uniform regulatory framework for the oil sector represents a risk factor. The sector is regulated under multiple legal acts, compliance with which is overseen by different departments, which hampers the industry's smooth functioning. One of important proposals put forward during the work on Poland's Energy Policy until 2050 concerns preparation of Petroleum Law – a single legal act which would include all regulations governing operation of the oil and fuel sector in Poland.

3. Reputation risks

Reputation risks are related to events that may affect the perception of the LOTOS Group and value of the LOTOS brand. Impairment or loss of reputation may be caused by circumstances outside Grupa LOTOS' control (e.g. impaired reputation of the entire industry), or directly by the Company's activities (e.g. in the event of disruptions to product supplies, material deterioration of product quality, intentional misconduct or violations resulting in losses to us or our trading partners), or by failures resulting in injury to people or contamination of the natural environment. We are aware that loss of stakeholders' trust may translate into negative perception of the LOTOS Group and its operations, and thus adversely affect its performance. For this reason, we have assessed each risk identified at the LOTOS Group in terms of its effect on the reputation, and have drawn up a separate map of reputation risks. For each major reputation risk, we implement a mitigation plan.

4. Social risks

Social risks are related to the effect of our operations on the social environment, our employees, and employees of our trading partners. Open and fair communication of the projects being executed and planned is intended to make stakeholders aware of the LOTOS Group's activity and is one of the tools used to mitigate potential risks. For instance, in connection with the launch of work on the EFRA Project, we organised meetings with local communities to present the project objectives and consequences. Furthermore, we are implementing the '2013-2015 Effective and Rising' Programme to increase efficiency and support continued dynamic development of all LOTOS Group companies. The planned changes, in particular those involving restructuring, may cause concerns and be disapproved of by employees and the immediate environment. For this reason, periodic meetings are being held between our employees and members of the Board of Grupa LOTOS/management boards of its subsidiaries to address doubts and concerns relating to the ongoing processes. (To learn more, see Integrated Annual Report 2013 <http://2013.raportroczny.lotos.pl/en/value-growth-strategy/social-capital/stakeholders-engagement>)

5. Risk of misconduct

Misconduct risk is the risk of an intentional act or omission which constitutes a violation of the generally applicable laws or the rules in place in the LOTOS Group, committed to secure an unlawful gain or leading to the Company sustaining a loss (including any forms of corruption). To minimise this risk, we have implemented a systemic approach to preventing misconduct, consisting in comprehensive and organised efforts aimed at identifying and assessing the risk. This includes solutions for preventing and identifying misconduct and minimising its consequences. The Misconduct Prevention System is subject to an annual survey as part of an analysis of the Company's organizational maturity, and its consistently improving assessment proves the effectiveness of the solutions applied. (See more <http://raportroczny.lotos.pl/en/ethics-and-corporate-governance>)

RELATED CONTENT:

Brand

Our strategic goal is to build lasting customer relationships by focusing on understanding customers' needs and ensuring expected product quality and safety. Our ambition is to create a brand that is dynamic and competent, friendly and trustworthy for our customers.

Go to the page » <http://raportroczny.lotos.pl/en/business-strategy-and-model/brand>

Organizational maturity

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Go to the page » <http://raportroczny.lotos.pl/en/ethics-and-corporate-governance/approach-to-management/organizational-maturity>

Employees

Our objective is to ensure the availability of highly qualified staff required for successful implementation of the LOTOS Group's business strategy and enhancement of the corporate culture based on adopted values. It is our priority to raise awareness and commitment among our employees and contractors to improving their work safety.

Go to the page » <http://raportroczny.lotos.pl/en/business-strategy-and-model/employees>

Exploration and production segment

1. Exploration risks

Risks from estimating the resources and reserves of hydrocarbons discovered by exploration wells

Due to uncertainty involved in the evaluation of formation properties affecting the volume of resources, we provide three estimate cases for reserves (1P/2P/3P [1]) and for undiscovered prospective resources (P10/P50/P90 [2]), in accordance with the SPE 2007 international classification framework.

It is possible that the presence of resources inferred from geological and seismic data is not confirmed after a well is drilled and the estimated resources will be smaller than expected. After a discovery is tested through successive wells, there is also a risk that its estimated resources will be reduced due to unfavourable changes in the formation properties. One of the methods of ongoing risk management in the estimation of reserves and resources is to identify and map the distribution of formation properties indicating the presence of hydrocarbon accumulations, i.e. area and thickness, porosity and hydrocarbon saturation. Estimates are also made after a new well is drilled on a prospect or after events occur that may affect the size of reserves.

Risk of drilling a dry well (without hydrocarbon flow)

In assessing the chance of success and discovery of a hydrocarbon accumulation, we use the PoS (probability of success) metric. PoS is calculated based on the assessment of the four factors listed above (area and thickness, porosity and hydrocarbon saturation), which are assigned probability on a scale of 0% – 100%. A multiple based on these factors is a measure of the probability of success. Another method of ongoing risk management is to perform geological analyses for an exploration well. For a production well, reservoir engineering analyses and depleted zone simulations are performed before a decision is made whether and where to drill a production well.

2. Technical and production risks

Risk of failure of production equipment and facilities due to their limited durability or improper operation

Should this risk materialise, it may result in financial losses due to production stoppages. To effectively manage this risk, we take a number of measures, including regular overhauls, repairs and measurements, regular internal inspections of the equipment, and supervision performed by certification and administrative bodies.

Risks from infrastructure operation

Risks of oil spill, sea collision, fire or blowout may cause environmental contamination, serious injury or death of an employee, downsizing or stoppage of production, as well as entail significant costs to remedy the resulting damage or pay fines. This risk is the function of the quality of E&P infrastructure operation, use of adequate technical solutions as well as staff's and subcontractors' awareness and skills, and so we take a number of measures to prevent such accidents from occurring.

3. Risks related to exploration and production projects

Risk of limited control of joint ventures

Since at least two partners are involved in joint venture projects, there is a risk that they will not be executed in accordance with the LOTOS Group's expectations. We mitigate this risk by properly defining the acceptable conditions on which we can become involved in a project, and by vetting the other interest holders, their goals, motivation, financial standing, ownership structure and perception. Another important thing is to properly define the common interests, analyse the legal, tax and business regulations in a due diligence process, and study the provisions of partnership agreements to ensure our interests are secured. The risk is also minimised by devising an appropriate negotiation strategy at the time of entering into a new partnership and while it continues, as well as by ongoing monitoring of contractual provisions, evaluating and approving budgets and schedules, appointing committees, and recommending decisions to be made by the relevant governing bodies.

All of the activities listed above were carried out in 2014 on all licences held in Norway and Poland.

- Projects implemented jointly with partners include the Norwegian projects: Frigg Gamma Delta and Fulla, as well as joint application in the APA 2014 licensing round.
- An example of such a project on the Baltic Sea is the partnership with CalEnergy Resources in the development of the B4 and B6 gas fields.

In 2014, the cooperation in all of these projects ran smoothly, in line with the action plan prepared for each project.

Risk of involving capital in unsatisfactory projects

This risk is associated with the execution of partnership agreements and may result in financial losses. To counteract this risk, we take care to properly define goals and acceptable conditions on which Grupa LOTOS can participate in a project, and to select appropriate partners. For each project, we define the acceptable economic viability framework and implement proper analytic tools to assess the project. We set up multidisciplinary teams to estimate the economic, legal, tax and technical risks.

Risk of increased liabilities in relation to the YME project

Given the significance of the YME project and its impact on the our past performance, it is under special supervision, with a number of measures implemented to mitigate the attendant risks connected with additional unjustified costs. Currently, efforts are being made to sell the interests in the YME field. Two sub-projects have been defined – removal of the MOPU (Mobile Offshore Production Unit) from the field, and submission of a new YME field development plan to Norway's Ministry of Petroleum and Energy to raise the value of the interests we intend to sell. To mitigate the risk related to the removal of the MOPU, an agreement was signed with Single Buoy Moorings Inc., the MOPU's producer, under which it agreed to cover the costs of the unit's removal from the field and paid compensation to the consortium members. Of the amount transferred to the YME project escrow account, USD 81.78m was attributable to LOTOS Norge. As at the date of this Report, the estimated cost of the MOPU removal did not exceed the funds held in the account. The planned completion of the MOPU removal activities is scheduled by the Operator for the end of Q3/the beginning of Q4 2015.

In 2014, we evaluated the quality of work performed by the operator in the YME field, helped to build an agreement between those partners that were not consortium operators in order to strengthen our position, engaged international advisers, and created the YME Task Force at LOTOS Norge to provide ongoing support to the project manager. We also held talks with the Norwegian authorities to clearly confirm our intention to continue operations on the Norwegian Continental Shelf. At the time of preparing this Report, there was no unanimous decision of the YME consortium members as to further steps to be taken in relation to the field. As proposed by the controlling group of interest holders, a plan is to be prepared by the end of 2015 for complete decommissioning of the field infrastructure, which may prevent recovery of the invested capital through the sale of interests in the option of field development. However, LOTOS Norge continues work on persuading the partners in the licence to further analyse the possible options for development of the field. The rationale for and amount of further capital expenditure on development of the YME field are the subject of thorough analyses and assessments of the risk involved.

4. Financial risk related to the upstream business

Macroeconomic risk

Risks related to macroeconomic factors were crucial for the functioning of the exploration and production segment in 2014. These included in particular a plunge in crude oil prices, resulting in deterioration of the economic parameters and profitability of investments in the upstream business, and affecting the availability and terms of external financing for such projects.

Currently, funding is being raised for a new large project in the segment, i.e. development of the B8 field in the Baltic Sea. On August 25th 2014, agreements were executed for the financing of the project with Polskie Inwestycje Rozwojowe, Bank Gospodarstwa Krajowego, and Bank Pekao S.A. The project is at the stage of fulfilling the conditions precedent to the disbursement of funding. Moreover, in Q4 2014 Grupa LOTOS raised approximately PLN 1bn through the issue of shares to finance its two key projects, including development of the B4/B6 gas fields.

[1] 1P reserves – proved reserves, having a 90% probability of being produced; 2P – proved and probable reserves, having a 50% probability of being produced; 3P – proved, probable and possible reserves, having a 10% probability of being produced.

[2] P90 – volumes with a 90% certainty/probability of being produced, P50 – volumes with a 50% certainty/probability of being produced, P10 – volumes with a 10% certainty/probability of being produced.

RELATED CONTENT:

Exploration and production

In 2014, our annual crude oil and natural gas output reached more than 500 thousand tonnes of oil equivalent. The higher output was in large part attributable to the production assets on the Norwegian Continental Shelf purchased as part of the Heimdal portfolio.

Go to the page » <http://raportroczny.lotos.pl/en/results-and-prospects/segment-performance/exploration-and-production>

Glossary of industry terms

Go to the page » <http://raportroczny.lotos.pl/en/useful-information/glossary-of-industry-terms>

Operational (refining) segment

1. Operational risks related to the refinery

Technical risks related to possible occurrence of serious industrial failures or irreparable damage to infrastructure

Any materialisation of this risk may seriously affect operations and financial performance of Grupa LOTOS by necessitating additional expenditure on repair or replacement of installations or equipment, or by causing interruptions and interferences in the production process. We implement a number of measures to mitigate the risk. We prioritise installations and equipment based on their criticality. The technologies and equipment which we use are in line with the Best Available Techniques (BAT). We have automatic emergency shutdown systems in place to prevent uncontrollable escalation of incidents, and our process units are also fitted with their own safety and fire protection systems. In addition, in order to raise standards for assessment of the technical condition of high-pressure installations and equipment, we implemented – in cooperation with the Office of Technical Inspection – the Risk-Based Inspection methodology in selected areas. Work is also under way on implementing the Risk-Based Work Selection methodology, which supports planning maintenance work on the basis of risk analyses prepared earlier for individual units. Having implemented these methodologies, we will be able to manage the Company's infrastructure in a better and more efficient way.

Work safety risk

Work safety risk relates to potential occurrence of accidents and other threats involving exposure of employees to dangerous and onerous factors. We continuously improve and implement new technical and organizational measures in order to ensure safe working conditions for anyone visiting the premises or working there for the Company. Grupa LOTOS' internal requirements in this respect are communicated to our trading partners via a dedicated website 'Grupa LOTOS' Requirements for Contractors'. Relevant rules of conduct are regularly monitored for compliance, for instance during OHS inspections and supplier audits, and post-inspection requirements are enforced. In addition, we take a number of initiatives to raise the employees' awareness of safety standards and to encourage them to observe these standards at work. (See more <http://raportroczny.lotos.pl/en/results-and-prospects/sustainable-development/safe-workplace>)

Risk related to legislative changes with respect to REACH

A new Annex XIV to the Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) has been in effect since August 21st 2014. Among substances that require authorisation, the Annex lists EDC (1,2-Dichloroethane), a solvent which is used by Grupa LOTOS. This means that in order to be able to use EDC after November 2017, the Company will need an authorisation. If such authorisation is not received, the Company will not be able to perform the process in which this solvent is currently used. In order to minimise the probability of this risk materialising, we have launched a project with a view to preparing the required documentation to apply for an authorisation to use EDC. We are cooperating with the EDC DU consortium, an association of downstream users of the EDC solvent. Apart from that, we also plan to modernise the installations of our Oil Unit to ensure that they comply with all the mandatory technical and legal requirements enabling further use of the EDC.

2. Environmental risks

Risks related to carbon (CO_2) emission caps

Risks related to CO_2 emission limits involve an increase in prices and insufficient allocation of CO_2 emission allowances, which would force the Company to incur additional costs to purchase allowances on the market to cover the deficit. 2014 was another period of intense activity for the EU Emissions Trading Scheme and its participants. In January, the European Commission published a package of documents concerning EU's strategy beyond 2020, setting three new targets on Europe's way to a low-carbon economy:

- reduction of greenhouse gas emissions by at least 40% (compared with 1990 levels),
- increase in the share of renewable energy in total energy consumption to at least 27%,
- improvement of energy efficiency by at least 27% relative to future energy consumption forecasts.

In line with the Commission's proposal, the main instrument to achieve these targets should be a reformed ETS, working to reduce the surplus of CO_2 emission allowances built up in recent years to spur a growth in their prices. However, structural changes must be made to the ETS to put in place a permanent solution for balancing of the supply and demand. The Commission has proposed that a market stability reserve (MSR) of allowances should be built at the beginning of the next trading period in 2021, but the date of MSR's entry into force is still being debated by the European Parliament. The discussions and negotiations related to the proposed reform of the EU ETS commenced in autumn 2014 and will continue in 2015. A temporary solution consisting in postponing the auctioning of a part of CO_2 allowances to stimulate an increase in their prices (back-loading) was agreed in February 2014. The first auction with allowance volumes reduced as part of the back-loading mechanism was held in March last year. The back-loading and the European Commission's legislative work on the proposed reform led to an increase in the prices of allowances in 2014.

The volume of free allowances allocated to Grupa LOTOS under National Allocation Plan III is not sufficient to cover the forecast emissions from the Company's existing and planned installations, which amount to an average of 1,779,653 annually in 2013–2020. In 2014, as part of the National Allocation Plan, Grupa LOTOS received additional free allowances in respect of its new projects, as a result of which its average annual allowance volume until the end of the trading period reached 1,435,242. Given the changes already in effect as well as the planned ones, Grupa LOTOS is exposed to the risk of incurring higher costs to purchase CO_2 allowances required to cover the deficit. Moreover, it is uncertain whether the Company will obtain any free allowances in respect of other new projects it is planning.

With a view to reducing emissions and the need to purchase additional allowances, we implemented a number of investment projects which enabled us to considerably reduce CO_2 emissions from our production units and CHP plant relative to 2013. (See more <http://raportroczny.lotos.pl/en/results-and-prospects/sustainable-development/environmental-impact>)

Risks related to the need to obtain new or amend existing permits

Grupa LOTOS is required to operate under the terms of an integrated permit obtained for installations whose operations – due to their nature or scale – may lead to significant pollution of the environment as a whole or of its individual components.

In 2014, we applied for amendment of the integrated permit regulating the Company's operations, following extension of the infrastructure for unloading rail cars, construction of a hydrogen recovery unit, changes in the types and volumes of emissions from one of the emission sources, and changes in land plot boundaries and numbers caused by new investment projects carried out on the refinery's premises. Legal regulations regarding environmental protection and the use of the environment by companies are subject to relatively frequent changes. The Act of July 21st 2014 amending the Polish Environment Protection Law implemented Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (known as the IED Directive). In 2014, the new regulations imposed a new requirement that an application for an integrated permit or amendment of an existing integrated permit must be accompanied by a baseline report containing information on contamination of the soil and water environment with hazardous substances. In December 2014, Grupa LOTOS, as the first company in the Province of Gdańsk, filed such a report as an attachment to the application for amendment of its integrated permit, and in January 2015 the Marshal Office of the Province of Gdańsk issued a decision amending the existing integrated permit. In order to reduce the risk associated with the process of obtaining any requisite permits or decisions, the required application documentation is prepared well in advance, in consideration of the risk that administrative proceedings may last longer than expected. In addition, monitoring of both Polish and European Community laws and regulations allows the Company to make early adjustments in order to comply with any new regulations.

Risks related to compliance with new regulations on the implementation of Best Available Techniques (BAT)

Grupa LOTOS' installations requiring an integrated permit should meet the BAT requirements, as specified in the BAT Reference Notes (BREFs) or directly in the applicable laws as well as other technical specifications and standards. The BAT Reference Notes serve as recommendations, but the adaptation of installations, as well as relevant technologies, procedures and practices, to the BAT requirements is an important condition for obtaining an integrated permit. In accordance with the Industrial Emissions Directive, compliance with the so called BAT conclusions is the reference for setting integrated permit conditions and for determining the admissible emission levels. On October 9th 2014, a European Commission Implementing Decision establishing BAT conclusions for the refining of crude oil and gas in accordance with the IED was published. The new requirements relating to BAT conclusions are more stringent, necessitating significant capital expenditure to ensure compliance. There is a risk that some of Grupa LOTOS' units or installations may not be ready to comply with the new requirements by the deadlines set out in the BAT regulations, and investment processes will need to be launched to adapt them.

RELATED CONTENT:

Processing operations

The LOTOS Group operates one of the most advanced and youngest refineries in Europe. 2014 was yet another record year in terms of crude oil processed by our refinery.

Go to the page » <http://raportroczny.lotos.pl/en/results-and-prospects/segment-performance/processing-operations>

Glossary of industry terms

Go to the page » <http://raportroczny.lotos.pl/en/useful-information/glossary-of-industry-terms>

Financial segment

Grupa LOTOS' structures include the Financial Risk Management Office responsible for coordinating and supervising steps taken to ensure that decisions made by LOTOS Group companies are optimised in terms of financial risks. Its activities are designed to ensure that the financial risk management policy is up-to-date, consistent and in line with Grupa LOTOS' strategic objectives, and to provide for operational efficiency, effectiveness and security of the financial risk management process. The Company also has in place a Price Risk and Trading Committee, whose main task is to supervise and support price risk management at Grupa LOTOS in relation to prices of crude oil, petroleum products (including biofuels and biocomponents), natural gas and other raw materials, as well as prices of CO_2 emission allowances and electricity. (See more <http://raportroczny.lotos.pl/en/financial-information/consolidated-financial-statements-for-2014/notes-to-the-financial-statements>)

1. Risk related to prices of raw materials and petroleum products

Grupa LOTOS' revenue from sale of petroleum products is largely dependent on the difference between the price of petroleum products and the price of crude oil. The prices may be subject to significant fluctuations in response to developments that are outside the Company's control, including mainly changes in the global and regional supply and demand, the geopolitical situation, and the related market expectations. Movements in the prices of crude oil and other feedstock used in the refinery business (including natural gas) and fluctuations in the prices of Grupa LOTOS' petroleum products may not be correlated in time, which may cause significant volatility of our refining margin.

To better manage the feedstock and petroleum products price risk, in 2014 we implemented a new ETRM (*Energy Trading and Risk Management*) system. In February 2015, a new feedstock and petroleum products price risk policy was approved.

2. Risk related to prices of carbon (CO_2) allowances

In 2014, Grupa LOTOS managed the entire phase III of the EU CO_2 Emissions Trading Scheme covering the 2013–2020 trading period. In the previous year, year 2020 was not included in the risk management horizon given the lack of liquidity on the futures market and the instability of the underlying position. (See more <http://raportroczny.lotos.pl/en/financial-information/consolidated-financial-statements-for-2014/notes-to-the-financial-statements/32.-objectives-and-policies-of-financial-risk-management#note-32-2>)

3. Liquidity risk

This is one of the key risks to the security of the Company's operations, involving its ability to discharge all liabilities in a timely manner. It may result from a mismatch between the streams of receivables and payables or inadequate sources of financing. Liquidity is managed for the entire organization based on current liquidity forecasts. The process consists in using an appropriate selection of financial instruments (including cash pooling and diversified sources of financing), optimising the working capital position (including payment terms at LOTOS Group companies and under trading contracts) and applying IT solutions to improve the security and effectiveness of the process.

4. Currency risk

The Polish złoty (PLN) is the reporting and functional currency for Grupa LOTOS and the majority of other LOTOS Group companies, while the trading prices of crude oil and petroleum products are generally denominated in, or tied to, the US dollar (USD). Therefore, we have a structural long position in USD (it benefits from a rise in the USD/PLN exchange rate) as its cash inflows dependent on the USD exchange rate (mainly revenue from sale of petroleum products) are higher than the corresponding cash outflows (e.g. on purchase of crude oil or credit facility repayment). Moreover, the US dollar was chosen by most of the LOTOS Group companies as the currency for contracting and repaying long-term investment facilities. A document entitled 'The Strategy of Currency Risk Management at Grupa LOTOS' was formally adopted by the Company to manage its currency risk. The LOTOS Group also operates a so-called Group Bank that allows LOTOS Group companies to enter into FX transactions with Grupa LOTOS, improving the efficiency of currency risk management.

5. Interest rate risk

Grupa LOTOS is exposed to interest rate risk, with interest rates growth translating into increased costs of servicing debt under floating-rate bank and non-bank borrowings. The risk is related primarily to the expected schedule of payments under the loans taken out to finance inventories and the 10+ Programme and the resulting amount of interest accruing at USD LIBOR.

6. Credit risk in financial transactions

When entering into transactions with financial institutions, we take into account the risk of the counterparty's default. We mitigate the risk by transacting only with creditworthy financial institutions or companies, or by executing transactions on the basis of guarantees issued by a financial institution or company with an appropriate credit rating and meeting the relevant requirements of Grupa LOTOS. Credit limits in financial transactions are determined with reference to the Company's equity and a ratio calculated based on agency credit ratings updated on an ongoing basis. The utilisation of credit limits is regularly monitored.

7. Credit risk in trade transactions

In the course of our trading operations, we sell products and services to businesses on a deferred payment basis, which may give rise to a risk of the customer's default. We adopted an internal procedure whereby creditworthiness of trading partners seeking an open credit limit must be verified. Grupa LOTOS grants such limits based on assessment of partners' creditworthiness, taking into account the available data and information. The final decision on the amount of trade credit limit is made by persons responsible for credit decisions in line with their assigned responsibilities. The utilisation of credit limits is monitored on an ongoing basis.

8. Risk of limited access to external financing or changes in lending terms, and risk related to debt servicing

Some of Grupa LOTOS' investment projects and, to a limited extent, day-to-day activities of some of the Company's subsidiaries are (or are intended to be) financed with debt. Therefore, there is a risk that the LOTOS Group companies may find it difficult to raise new financing or obtain financing in the required amount or on acceptable terms. This may be due to an unstable situation on financial and capital markets in Poland and abroad, more restrictive policies adopted by lenders with respect to new agreements or interpretation and performance of existing agreements, adverse economic developments in Poland or abroad, and non-performance or improper performance of contractual obligations under the financing agreements by LOTOS Group companies.

The ability to secure new debt financing is also limited by the LOTOS Group companies' obligations related to servicing of existing debt. In addition, debt agreements impose a number of non-financial obligations and restrictions on the companies, related in particular to their ability to engage or refrain from engaging in certain activities or operations during the repayment period, as well as the requirement to comply with certain disclosure obligations towards the financing institutions. Any failure by a LOTOS Group company to make timely payments as required under the terms of financing or to meet non-financial obligations may result in acceleration of the debt, along with debt incurred under other financial agreements or instruments. The lenders may also enforce their claims against security, including collateral established over the companies' assets.

We mitigate the risk through integrated reporting on current and planned liquidity of LOTOS Group companies (including expected deficits which may require arrangement of debt or intra-Group financing). The majority of LOTOS Group companies participate in a cash pooling arrangement. In addition, the financial functions at the companies monitor the obligations assumed by a given company under debt financing agreements on an ongoing basis, including obligations relating to debt service, information disclosure, maintenance of certain financial ratios and covenants as well as discharge of other obligations towards financial institutions. We maintain relationships with a diversified group of creditworthy partners, and we secure debt financing (or amend existing debt financing agreements) using the 'Procedure for managing debt and coordinating debt financing at the LOTOS Group', which applies to all LOTOS Group companies. The credit rating and overall standing of the banks providing financing are also monitored, as are any factors driven by developments on the global financial markets that may threaten the LOTOS Group's ability to raise financing domestically and globally.

9. Risk of adverse changes in tax regulations, interpretations or court rulings

This risk may result in higher tax burden (excise duty, real estate tax, CIT), and give rise to tax risk in transactions where such risk was previously non-existent. Frequent amendments to the tax legislation and difficulties in interpreting and applying tax laws hinder Grupa LOTOS' day-to-day work and smooth tax planning at the organization. They are also a source of uncertainty as to the application of tax regulations in the Company's everyday business and give rise to the risk of errors. In addition, tax laws are often interpreted and applied by tax authorities in an inconsistent manner.

For fuel sector companies, excise duty is the most problematic tax, given the substantial amount of the tax liability and the complex nature of excise regulations. Excise tax legislation is detailed, imposes a large number of diverse obligations on the taxpayers, and contains regulations which are mutually contradictory (sometimes even within the same legal act). Property tax laws also give rise to numerous interpretation uncertainties, in particular with respect to the tax base and the determination of items subject to the tax.

Given the above, LOTOS Group companies which operate substantial technical infrastructure equipment located on properties are exposed to the risk of disputes with tax authorities, in particular with respect to the interpretation and application of the definition of a structure under the Local Taxes and Charges Act (Dz.U. of 1991 No. 9 item 31). Where a tax risk arises from possible disparate interpretations of a law, we request the Minister of Finance to present a binding interpretation of such law. As a member of respectable organizations of employers and entrepreneurs, we also voice our opinions on proposed bills and are thus able to respond appropriately to the changing legal environment. In light of the numerous changes in interpretation of the tax laws and the introduction of new regulations, we regularly update our internal procedures to ensure compliance with legal requirements and to identify and mitigate any tax risks, particularly their effect on the LOTOS Group's financial statements.

RELATED CONTENT:

Letter from the Vice-President of the Board

2014 ushered in a series of challenges for the companies in the fuel sector. The decisions made by the LOTOS Group have demonstrated that we are able to take rapid steps to adapt to a demanding environment and ensure the desired profitability for our projects.

Go to the page » <http://raportroczny.lotos.pl/en/results-and-prospects/letter-from-the-vice-president-of-the-board>

Key data 2014

With revenue of ca. PLN 28.5bn in 2014, we rank fourth in the group of 500 largest businesses in Poland.

Go to the page » <http://raportroczny.lotos.pl/en/the-organization-and-its-report/key-data-2014>

Marketing segment

1. Risk of crude supply interruptions or reduced crude supply

As the output from its own production assets does not fully cover its processing feedstock requirements, Grupa LOTOS relies on crude oil purchased from external suppliers. Approximately 92% of oil supplies are sourced from Russia. Crude oil is supplied via the network of pipelines operated by PERN (the Druzhba and Pomorski pipelines) and by sea through the Naftoport oil terminal; in 2014 we also made our first purchase of crude oil shipped by rail. Considering the above, the key risks that may cause uncertainty in crude oil supply include the political situation in oil exporting and transit countries, as well as the availability and the working condition of transport infrastructure.

The possible causes of disruptions to Grupa LOTOS' crude oil supplies include:

- technical failures, including failures of the pipeline system used to supply crude oil, terrorist acts, acts of sabotage, riots, wars, natural disasters, adverse weather conditions and other force majeure events,
- irregular crude oil deliveries leading to a temporary reduction in work-in-process inventory, which in turn is likely to affect the refinery's throughput volumes.

We are consistently pursuing our policy to diversify the directions and sources of our crude oil supplies by focusing on:

- security of supplies – through progressive expansion of its presence on the international oil markets, regular contracting of various crudes transported by sea, creating conditions to increase the share of such crudes in total supplies to the refinery in case of any disruption of supplies from the main import market, and expanding the share of own production in total feedstock volumes,
- improvement of competitive position – by fully capitalising on the coastal location of our refinery in Gdańsk and the possibility of sourcing crude supplies through two independent channels: Russian oil through the Druzhba Pipeline and various types of oil available through Naftoport (an offshore oil terminal),
- use of crude oil transport by rail, with new crude oil rail unloading stations built at the refinery in 2014.

An appropriate selection of crude types and supply directions is a result of continuous efforts to maximise the integrated margin.

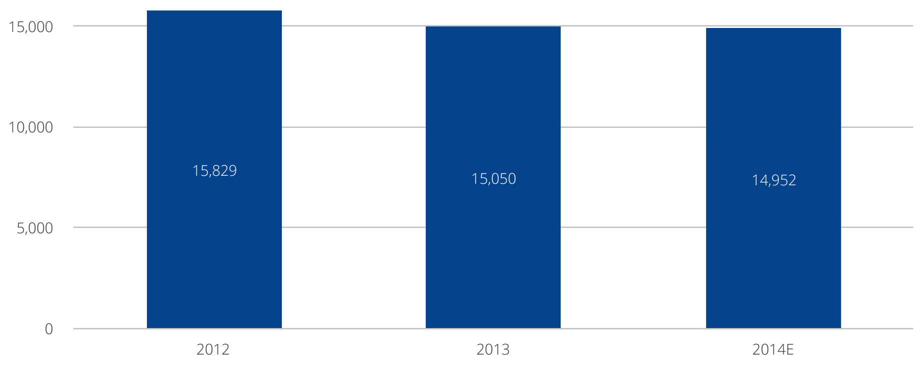
2. Risk of changes in margins on product sale

The principal risk factors include progressing market consolidation leading to intensified price competition on the Polish fuel market, and the rapidly changing global macroeconomic environment. In order to mitigate this risk, we are continuously refining our tools for monitoring variables affecting prices and margins. In retail sales, we are pursuing market diversification, including diversification into segments less prone to competition-induced margin erosion, as well as other initiatives aimed at building lasting relationships with customers.

3. Risk of decline in domestic demand

Certain macroeconomic factors, such as slow economy, declining industrial output and investment, and high unemployment, have been driving down fuel consumption in Poland since 2012 while at the same time an increased activity of the grey market, in which fuel is sold, is observed. Diversification of the available distribution channels, implementation of a pro-active pricing policy for price-competitive products, and optimisation of operating costs are the key elements of the strategy aimed at minimising the impact of this risk on our operations.

Gasoline and diesel oil consumption in Poland (`000 tonnes)



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

RELATED CONTENT:

Marketing operations

The expansion of the LOTOS service station chain and increased efficiency of sales strengthened our presence on the retail market, pushing our share up to 9% at the end of 2014 (against 8.5% in 2013).

Go to the page » <http://raportroczny.lotos.pl/en/results-and-prospects/segment-performance/marketing-operations>

Glossary of industry terms

Go to the page » <http://raportroczny.lotos.pl/en/useful-information/glossary-of-industry-terms>