



2018



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Our present accomplishments would not have been possible without the commitment and passion of the GAZ-SYSTEM's employees and the professional approach of our partners and subcontractors.

**Ladies and Gentlemen,****GRI 102-14, GRI 102-15**

It is my great pleasure to present to you the GAZ-SYSTEM Group's Sustainable Development Report for 2018.

Our last year's activities and projects, reviewed in the Report, make me realise the high level of progress we managed to achieve in the implementation of the strategic goals which we set ourselves a few years ago as part of the Strategy of GAZ-SYSTEM S.A. The effects of our joint effort are clearly visible in all areas of the company's operations, including the secure financial position of the Group, consistent implementation of a demanding and ambitious investment plan, and the development of internal processes related to the safety and management of the transmission network.

The year 2018 was a period abundant in events which defined the paths of growth for the GAZ-SYSTEM in the years to come – a time of ground-breaking decisions.

November 2018 saw the announcement, made jointly with our Danish partner, of an investment decision to build the Baltic Pipe, a strategic infrastructure project which will enable the creation of a new gas supply corridor from Norway. This is not the first attempt at the construction of the Baltic Pipe, but never before has this project reached the current stage of development. Our determination to deliver this complex venture within the adopted schedule is illustrated by the actions described in the Report, such as environmental surveys or the EU funding secured for the project.

As we have repeatedly emphasised, we intend to build a diversified, competitive natural gas market and regard the transit location of Poland as an opportunity for the development of regional market integration. These assumptions underpin our two investment decisions this year concerning the construction of gas interconnections with Lithuania and Slovakia. Both projects are of great

importance for the growth of the regional natural gas market and the improvement of security of supply. In addition, the Lithuanian pipeline will greatly facilitate local gas networks development in the regions of Podlasie and Masuria, which have so far been poorly integrated into Poland's natural gas market. Meanwhile, the infrastructure interconnection in the south, which is part of the growing North-South Gas Corridor, offers new gas supply diversification opportunities for the entire Central European region.

We are combining projects related to the development of the European transmission system with a steady expansion and adaptation of the internal gas infrastructure. Our planned investment expenditure in the coming years is at an average level of PLN 2 billion annually, placing us among the largest investors on the Polish market.

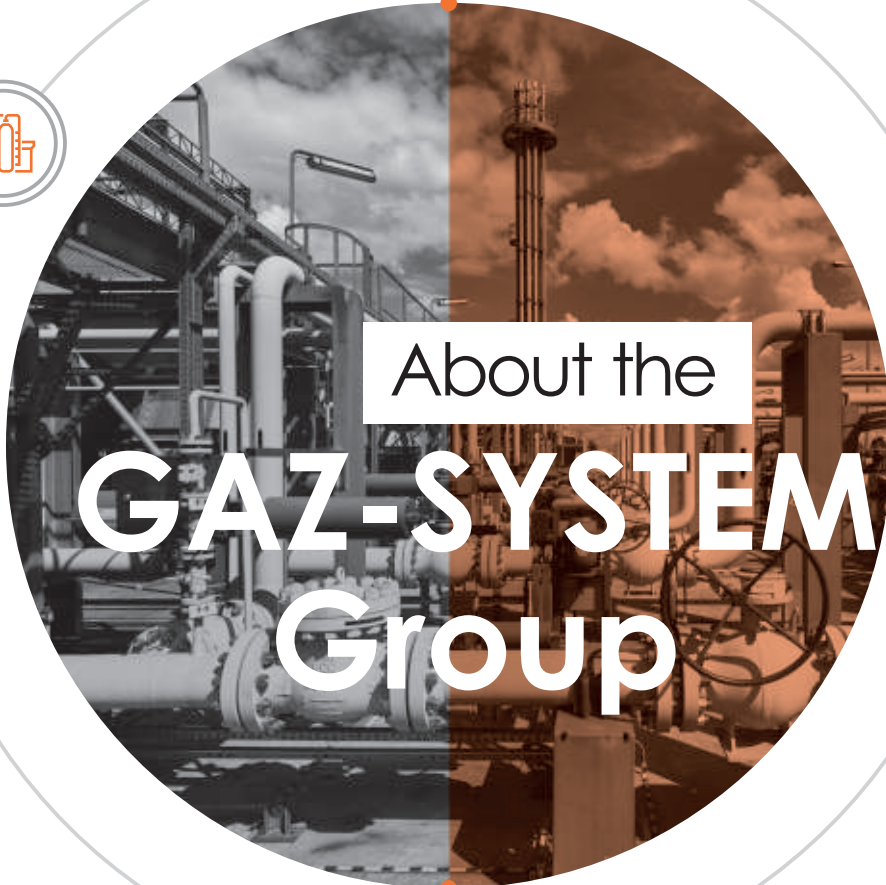
This Report presents both our achievements so far, but also the challenges that await us in the years ahead. The review of our projects, investments, services and forms of stakeholder engagement is accompanied by a description of the company's commitment to the continuous improvement of work safety and risk-free operation of our gas pipelines. This is our ultimate priority.

Our present accomplishments would not have been possible without the commitment and passion of the GAZ-SYSTEM's employees and the professional approach of our partners and subcontractors. I would like to thank our employees, customers and all those who supported us in 2018.

On behalf of the Management Board of GAZ-SYSTEM I hope that you will find this Report an enjoyable read.

**Tomasz Stępień**  
**President of the Management Board**

# 1



## About the **GAZ-SYSTEM** Group

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# GFZ

system



## Introduction

# 1. INTRODUCTION

## 1.1. Overview

**GRI 102-1** Gas Transmission Operator GAZ-SYSTEM S.A. is a company of strategic significance for the Polish economy and energy security of the country. **GRI 102-2** GAZ-SYSTEM is responsible for natural gas transportation and management of gas pipeline networks across the country. **GRI 102-3** The company also plays the role of the independent operator of the section of the Yamal Pipeline crossing the territory of Poland. **GRI 102-4** **GRI 105-5** **GRI 102-6**

The head office of GAZ-SYSTEM S.A. is located in Warsaw at 4 Mszczonowska Street, and the company's branches are seated in: Gdańsk, Poznań, Rembelszczyzna, Tarnów, Świerklany and Wrocław.

GAZ-SYSTEM is wholly owned by the State Treasury and the owner's supervision over the company is exercised by the Government Plenipotentiary for Strategic Energy Infrastructure. The company was founded in April 2004. Since December 2008, GAZ-SYSTEM S.A. has been the owner of Polskie LNG S.A., a company that was established with the purpose of building and operating the LNG terminal in Świnoujście. By virtue of the decision of President of the Energy Regulatory Office (President of ERO) GAZ-SYSTEM S.A. holds a licence for the transmission of gaseous fuels and has been designated as the gas Transmission System Operator in the territory of Poland.

On 6 December 2018, President of ERO issued a decision to extend the GAZ-SYSTEM's licence for the transmission of gaseous fuels and a decision to extend the company's designation as the Transmission System Operator in the territory of Poland. Thereby, the existing decisions which were valid until 2030 have been extended by further 38 years, i.e. until 6 December 2068.



## 1.2. Mission and Vision

GRI 102-16



### Mission

We ensure safe transportation of natural gas in Poland and are actively engaged in the creation of an integrated transmission system in Europe.

In our day-to-day activities, we are committed to environmental stewardship and sustainable development.

### Vision

The vision of the company is to ensure energy security and play an instrumental role as an operator integrating the transmission system in Europe through the following:

- creation of conditions for the development of a competitive natural gas market in Poland, and the companies operating in the sector;
- construction of interconnections with the transmission systems of the neighbouring countries as part of the European gas networks;
- development of modern gas pipeline network in Poland and offering services enabling its optimised utilisation.



## 1.3. Values

The definition of ethical standards and their observance reinforce a coherent organisational culture and corporate brand. Since 2016 the Code of Ethics has been applicable in the day-to-day operations, which defines the principles concerning the organisation, internal relations as well as relations with external stakeholders. In 2018 there were no changes to the Code of Ethics.

The transparent value system and clearly communicated standards of conduct make the employees of GAZ-SYSTEM more credible to each other and external stakeholders. They understand the behaviour standards the company expects of them, as well as those which are unacceptable.

### The key values are:



#### RESPONSIBILITY

Our actions are guided by responsibility towards stakeholders and the environment we operate in.



#### COMMITMENT

We are fully committed to our activity – we appreciate the contribution of each employee to our present and future success.



#### PROFESSIONALISM

We promote professionalism of our employees – we want to achieve our objectives through, above all, the continuous development of the knowledge and skills of our staff.



#### TEAMWORK

We believe that through cooperation we will be able to provide top quality services and therefore promote teamwork in our company. This entails opening up to others and their ideas.



#### RESPECT

We treat our stakeholders with the utmost respect and exhibit the highest standards of integrity.

## 1.4. Corporate Governance

Day-to-day activities of the company are led by the Management Board which sets out the objectives and guidelines for the company's operations, represents the company in external relations and ensures the efficiency and transparency of management. The members of the Management Board are appointed for a joint, three-year term by the Supervisory Board.

### Composition of the Management Board (in 2018)

- Tomasz Stępień – President of the Management Board
- Artur Zawartko – Vice-President of the Management Board

According to the company's Articles of Association, the Supervisory Board consists of 3 to 9 members appointed and dismissed by the General Shareholder Meeting. The Supervisory Board exercises constant supervision over the company's activity across all areas.

### Composition of the Supervisory Board

- Andrzej Maria Herman – Chairman
- Wojciech Arkuszewski – Deputy Chairman
- Paweł Pikus – Secretary
- Krzysztof Ogonowski – Member
- Dariusz Kocuń – Member

## 1.5. Organisational structure GRI 102-3

As of 1 August 2018, new regulations were implemented in the company, which were meant to ensure the maximum possible functional alignment of the organisational reality with the current objectives and to improve management efficiency in each area. The organisational changes affected 10 of then existing 14 divisions and one office. The most significant modifications consisted in the creation of three new units:

- Administration Division
- Cybersecurity Division
- Baltic Pipe Division

and the merger of two organisational units into the Gas Market Development Division. In eight divisions there were internal organisational changes, including the division of responsibilities. Moreover, in two branches of the company Świerklany and Wrocław, project management sections were separated from the Investments Division.

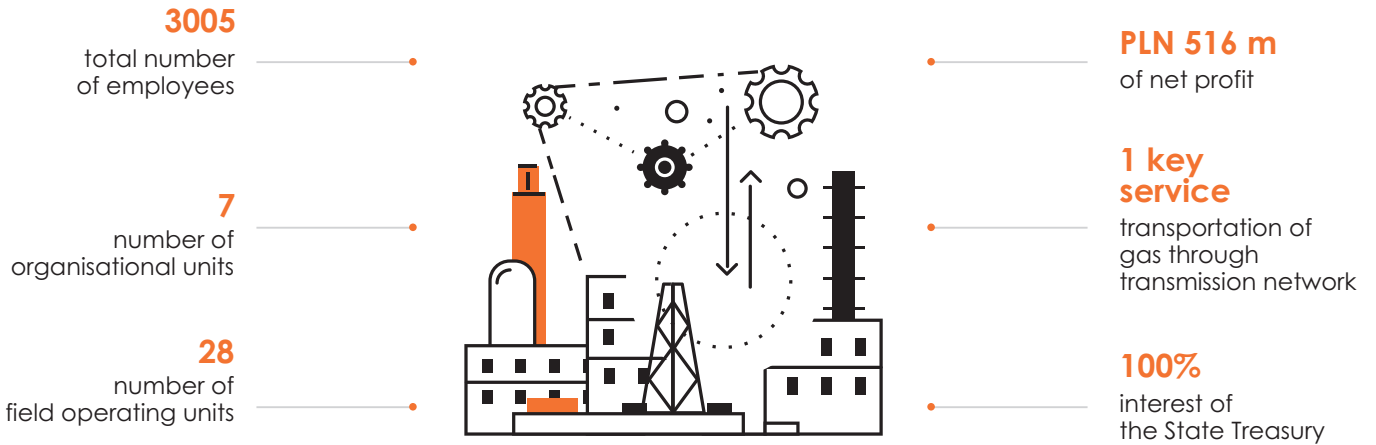


## Management Board of GAZ-SYSTEM

National Gas Dispatch	Legal	Human Resources	Administration
Operation	IT and Management Systems	Finance	Gas Market Development
Procurement	Investments	Safety	Business Continuity
Audit	Cybersecurity	Baltic Pipe	Laboratories
OHS and Fire Protection	Market Intelligence Office	Corporate Communication Office	Independent positions
Branch in Gdańsk	Branch in Świerklany		
Branch in Poznań	Branch in Tarnów		
Branch in Rembelszczyzna	Branch in Wrocław		



**GRI 102-7 1.6. Scale of operations**

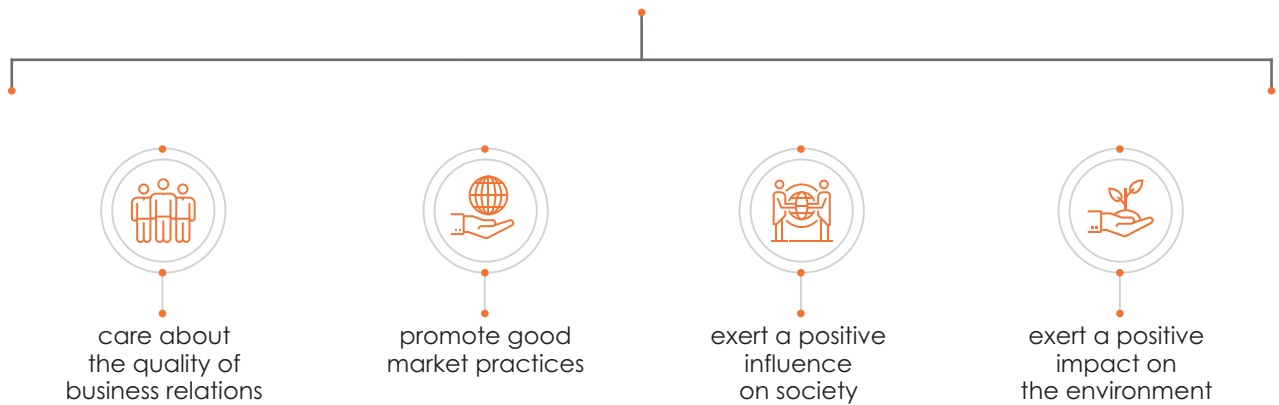


**GRI 102-09 GRI 102-10 1.7. Supply chain**

The GAZ-SYSTEM Group is aware of the fact that it has a significant impact on the procurement market and the business environment through the entire supply chain.

Therefore, it strives to establish the highest standards in its business relations.

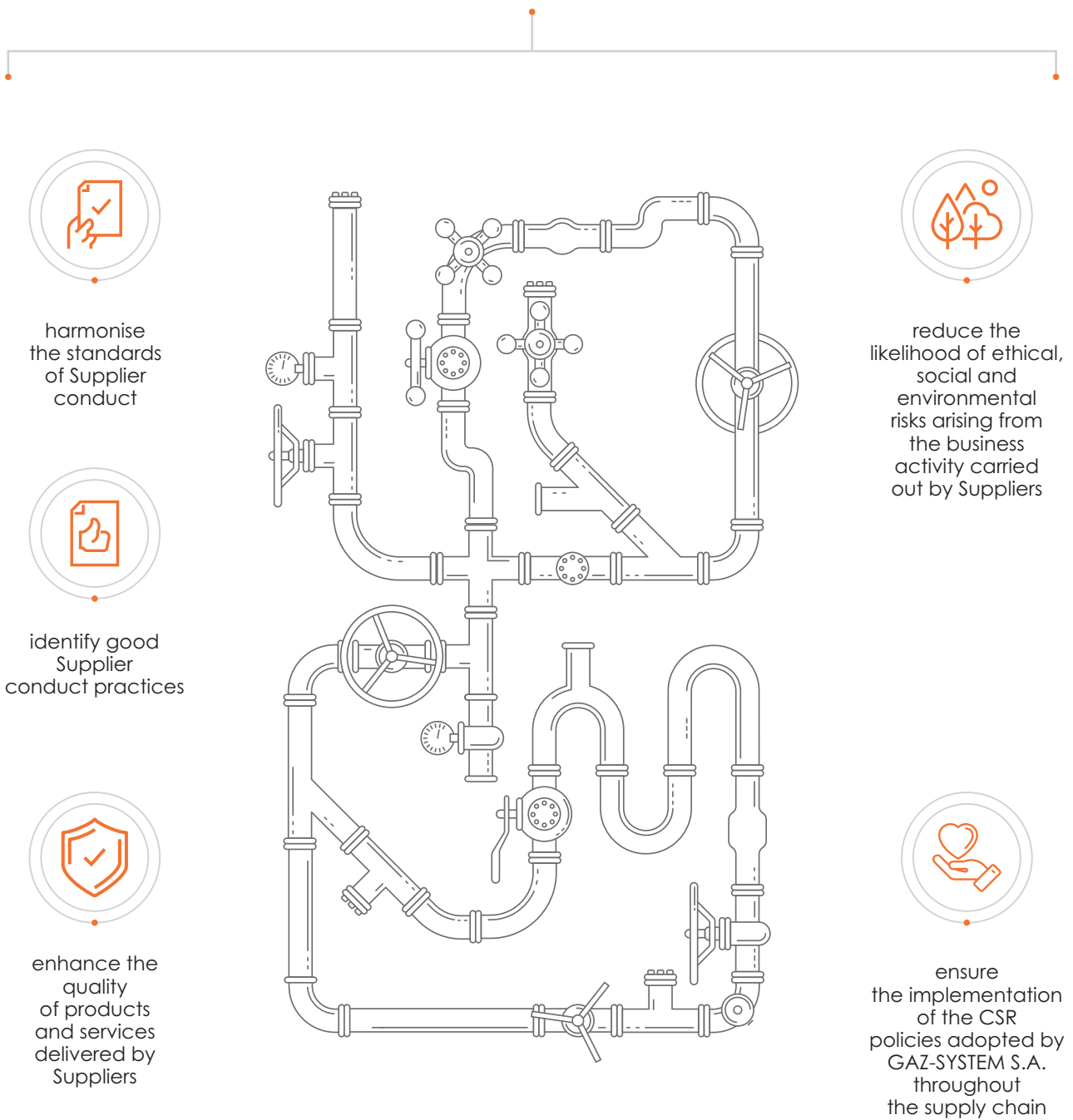
**In its day-to-day business GAZ-SYSTEM strives to:**



In order to build credibility and transparency of operations, as well as strengthen lasting relations with its business partners, the company has prepared the Supplier Code of Conduct.

GAZ-SYSTEM expects all its cooperating Suppliers to familiarise themselves with the Code and implement its provisions.

**The Code is an important tool in the management of the supply chain and aims to:**



### Key areas of the Supplier Code of Conduct



**GRI 102-9**  
**GRI 204-1** Building long-term Supplier relations based on the principles of corporate social responsibility is essential for the development of the company. As the gas industry is a demanding one and all projects involve advanced technologies, great importance is attached to establishing good relations with business partners, e.g. by organising the Supplier Day. Such a meeting was held on 20 March 2018 and was targeted at contractors providing engineering services, construction works, investor supervision services and material supplies. It was attended by over 200 representatives from nearly 100 companies.

In order to streamline the procurement process, efforts to further centralise material supplies were continued in 2018, resulting in the conclusion of over 110 contracts for successive supplies of materials. In addition, new ways of contracting materials under a dynamic purchasing system were tested.



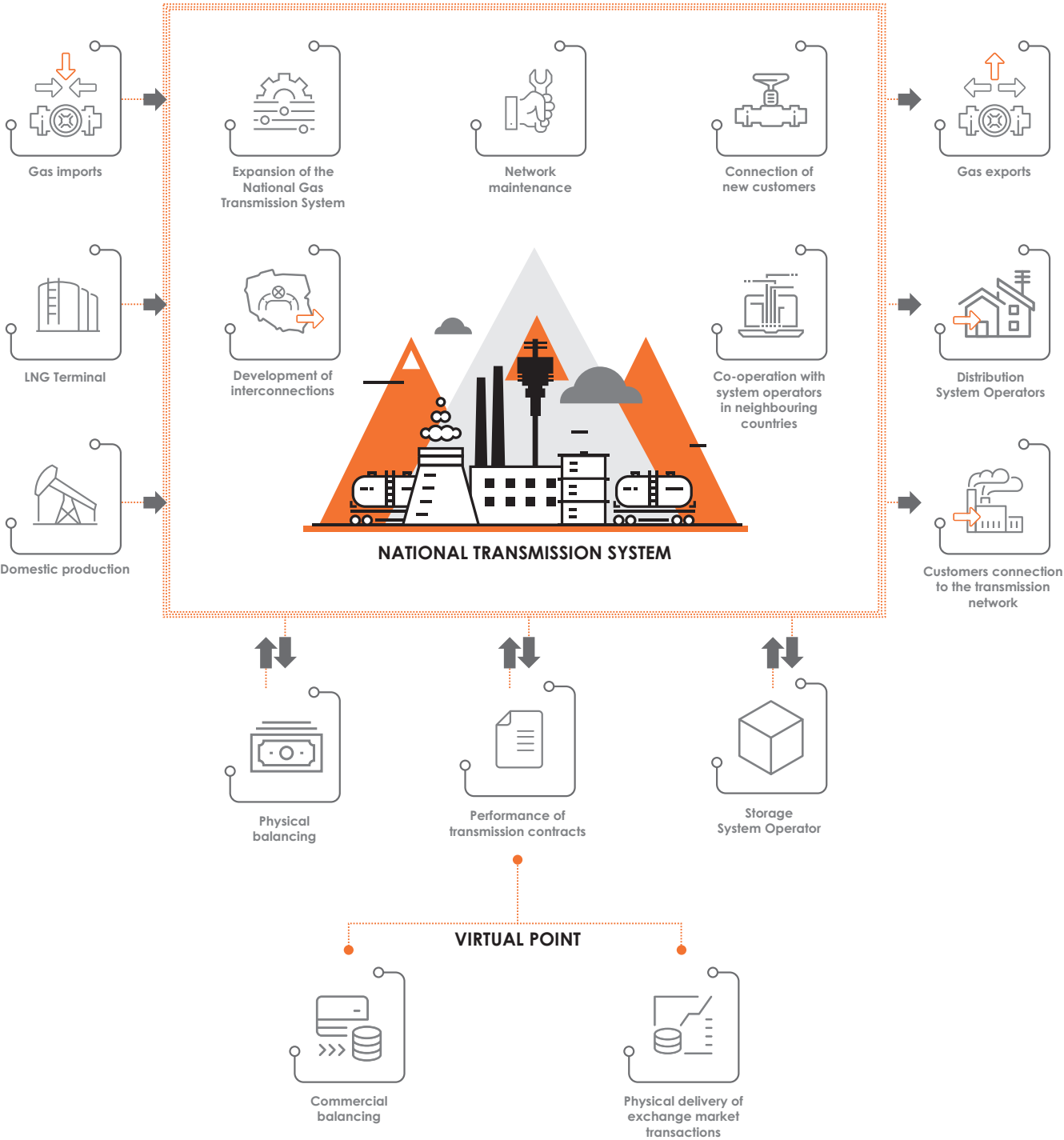
In 2018, 1950 contracts with 992 Suppliers from all around Poland were concluded, for a total value of PLN 3,461,376,252.

Foreign suppliers accounted for 1.5% of all the suppliers in 2018.

**The key Suppliers are:**

- ▶ building contractors
- ▶ suppliers of pipes and fittings

# 1.8. Business model





length of transmission network

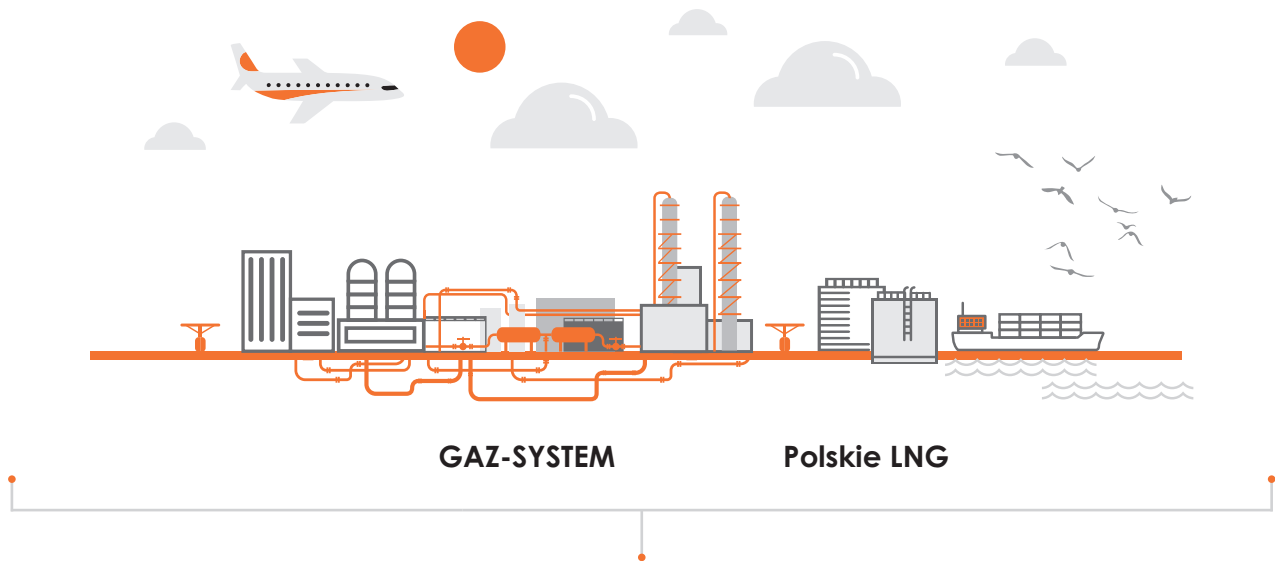
**10,743 km**



## 1.9. Group overview

GAZ-SYSTEM is a significant player on the natural gas market in Poland. As the only company in Poland, it is designated as the operator of the national transmission system (high-methane E and low-methan Lw) and the Transit Gas Pipeline System (the Polish section of the Yamal - Western Europe gas pipeline).

Its tasks include the management of the transmission network and natural gas transport throughout the country, in order to deliver the fuel to distribution networks and to final customers.



The Group comprises **GAZ-SYSTEM S.A.**, which is responsible for the transmission of natural gas through pipelines through the national transmission system and transit gas pipeline, and **Polskie LNG S.A.**, responsible for the off-take of LNG delivered by sea.

## GRI 417-1 1.10. Gas market services

### Gas Transmission System

GAZ-SYSTEM's core service is the transmission of natural gas through the transmission network across the country, with the purpose of supplying the fuel to the distribution network and to end customers connected to the transmission network. The transmission contract concluded between GAZ-SYSTEM and the system user is the basis for the provision of transmission services. The contract defines the allocated capacities, including the type product and indicates the entry and exit points. As part of the performance of transmission contracts, GAZ-SYSTEM provides long-term gas transmission services for annual, quarterly, monthly, as well as short-term - daily and within-day periods. By the end of 2018, GAZ-SYSTEM had 170 active transmission contracts in place, including 24 inter-operator transmission contracts (ITC).

### Yamal - Western Europe Transit Gas Pipeline System

GAZ-SYSTEM provided gas transmission services via the Yamal-Western Europe section based on the allocated capacity under 64 transmission contracts.

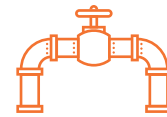
In 2018, gas transmission volume remained at a similar level as in 2017. Imports from the East and intra-Community supplies decreased. However, the supply of liquefied gas imported by sea to the LNG terminal increased significantly.

		2017	2018
<b>Imports [bcm]</b>	<b>Zone</b>	<b>14.8</b>	<b>14.4</b>
<b>Supplies from the East</b>	Drozdowicze	4.4	3.8
	Vysokoye	3.1	3.0
	Tietierovka	0.08	0.08
	PWP	1.9	2.0
<b>Intra-Community supplies</b>	Mallow reverse flow	3.1	2.4
	GCP	0.5	0.4
	Cieszyn	0.1	0.3
<b>LNG Terminal</b>		1.6	2.5
<b>Exports [bcm]</b>		<b>1.2</b>	<b>0.6</b>

In 2018,

**the transmission service was provided to:**

- ▶ 65 physical entry points
- ▶ 922 physical exit points
- ▶ 11 virtual entry points
- ▶ 33 virtual exit points



**Connections to the transmission network in 2018**

Number of applications	<b>86</b>
Number of connection conditions issued	<b>77</b>
Number of connection refusals	<b>2</b>
Number of connection agreements concluded	<b>36</b>
Number of connection agreements pending completion	<b>55</b>
Number of completed connection agreements	<b>10</b>



As a participant of the European gas market, GAZ-SYSTEM fulfils transparency requirements at many levels. The company communicates with other market participants through:

- Information Exchange System
- GSA Platform
- Gas Inside Information Platform (GIIP)

### Information Exchange System

The Information Exchange System enables the exchange of data between GAZ-SYSTEM and market participants through a dedicated IT platform. Its implementation was aimed at improving the quality of services and implementing the best standards focusing on customer needs.

### GSA Platform

The GSA Platform is an advanced IT tool for offering capacity in natural gas transmission systems. System Users can purchase annual, quarterly, monthly, daily and within-day products in an auction.

The company continued its cooperation with the Czech transmission system operator Net4Gas s.r.o. under an agreement dated October 28, 2015, which provides for the allocation of bundled capacity at the Cieszyn interconnection point at the Polish-Czech border through the GSA Platform. In 2018, 8765 auctions of this product were held.

In line with the Transmission Network Code, the GSA Platform gives System Users (shippers) the opportunity to participate in the secondary market, i.e. make and accept offers in the secondary market for capacity trading.

Product type	Number of auctions
Within-day	<b>106,959</b>
Daily	<b>6928</b>
Monthly	<b>211</b>
Quarterly	<b>181</b>
Yearly	<b>210</b>
<b>TOTAL</b>	<b>114,489</b>

Number of auctions by product offered in 2018.  
Source: GAZ-SYSTEM.



**In 2018, the GSA Platform had**

**73 registered users** who submitted **60 offers** for capacity resale, of which **53** were concluded with **resale transactions.**

On 16 October 2018, the GSA Platform was selected by the EU Agency for the Cooperation of Energy Regulators (ACER<sup>1</sup>) as the tool for booking bundled capacity at the Polish-German border.

In 2018, 73 users were registered on the GSA Platform and submitted 60 offers for capacity resale, of which 53 were concluded with a resale transaction.

### REMIT

REMIT Rules define the principles of fulfilling the obligations resulting from the Regulation of the European Parliament and Council on the integrity and transparency of the wholesale energy market. Pursuant to Article 4(1) of this Regulation, GAZ-SYSTEM regularly publishes information on planned and unplanned events affecting the operation of transmission systems. The information is presented on the Gas Inside Information Platform ([www.gasinsideinformationplatform.pl](http://www.gasinsideinformationplatform.pl)).



**Since the REMIT Regulation**

introduced the data reporting obligation (April 2016) the GAZ-SYSTEM's reporting system has already submitted **19,761 reports** to the European Agency for the Cooperation of Energy Regulators (ACER)

**7898 were submitted in 2018.**

<sup>1</sup> In February 2019, following an appeal lodged by the PRISMA platform, the decision was annulled by the ACER Board of Appeal. As of the date of submitting the report for publication, the resolution of this case was still pending (editorial note).

## Towarowa Giełda Energii (TGE)

TGE as the principal Polish commodity exchange enables, inter alia, trading in natural gas. It offers numerous benefits to market participants:

- equal access to market information
- open, transparent and standardised rules for commercial transactions
- reduction of negotiation costs (automation of the process of searching for the best offer)
- high flexibility in concluding transactions
- effective management of commercial risk and risk resulting from volatility of prices and required volume of energy.

Since 2012, GAZ-SYSTEM and TGE have been cooperating to develop the gas market and establish a gas hub in Poland. The two companies work together to support the development and implementation of optimal solutions for market mechanisms, as well as regional cooperation in order to integrate the domestic market with the European one.

GAZ-SYSTEM is an active participant in the Intraday Market and undertakes balancing activities through the purchase and sale of standard short-term products on the TGE's trading platform. In 2018, the natural gas purchase and sale volumes were, respectively, 772,113 MWh and 1,012,006 MWh.

On 30 October 2018, GAZ-SYSTEM concluded an annex to the Agreement with TGE concerning the rules of balancing the national system for low-methane (Lw) gas. Consequently, two new points are in operation in the national system:

- Exit Point to the Gas Exchange Lw - ID 100005 (EIC 21Y00000000000134B)
- Entry Point to Gas Exchange Lw - ID 170005 (EIC 21Y00000000000134B)

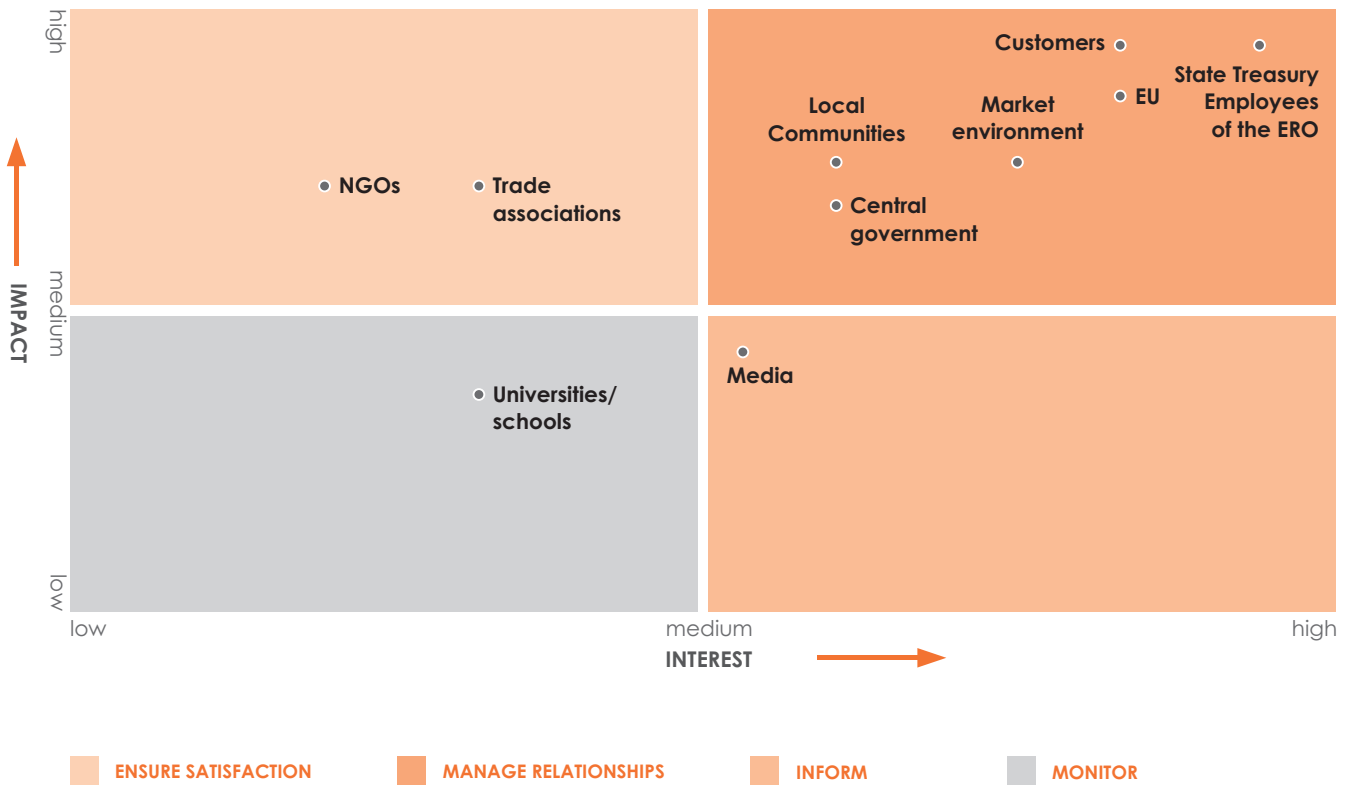
On 19 December 2018, TGE initiated trading on the Intraday Market for low-methane natural gas (Lw).



GRI 102-40  
GRI 102-42

## 1.11. Stakeholder relations

The stakeholder groups were identified on the basis of a workshop with the participation of employees of GAZ-SYSTEM and Polskie LNG, organised in January 2019 in the company's head office. The starting point for the analysis was the business strategy and the implementation of the resulting activities, which are reflected in the nature of relations with the market environment.



Stakeholders' impact on GAZ-SYSTEM's business. Source: GAZ-SYSTEM.

102-43

## 1.12. Stakeholder engagement

The development of sustainable stakeholder relations through efficient dialogue on multiple communication platforms is a priority for GAZ-SYSTEM. The frequency of contacts is driven by the applicable regulations and generally accepted standards, and depends on the needs of both parties.

Communication channels are selected to suit the stakeholders' needs. Key Stakeholders of GAZ-SYSTEM S.A. are: Customers, ERO, State Treasury, Employees, market environment, local communities and the Government.



### Stakeholder groups

### Communication tools and techniques

<p><b>Government, State Treasury, regulatory authority (ERO)</b></p>	<p>Current reporting, official correspondence, presentations, speeches, meetings, industry conferences, website.</p>
<p><b>Employees</b></p>	<p>Intranet, employee magazine, definition of good practices (Code of Ethics), meetings of the Management Board with employees, workshops, trainings, internal communication survey, notice boards, annual report.</p>
<p><b>Local governments</b></p>	<p>Official correspondence, brochures, thematic conferences, direct meetings, workshops, website, annual report.</p>
<p><b>Customers</b></p>	<p>Dedicated website section, Publication of Urgent Market Messages (REMIT), GSA Platform, Information Exchange System (IES), market consultations, workshops, training on IES, Balancing Services Market and Information Exchange, customer satisfaction survey.</p>
<p><b>European Union</b></p>	<p>Current reporting, official correspondence, presentations, speeches, direct meetings, industry conferences, website.</p>
<p><b>Market environment including other operators</b></p>	<p>Official speeches, meetings, industry conferences, website, annual report.</p>
<p><b>Local Communities</b></p>	<p>Public consultations, information meetings, brochures, leaflets, meetings, workshops, information and promotion stands, website, annual report.</p>

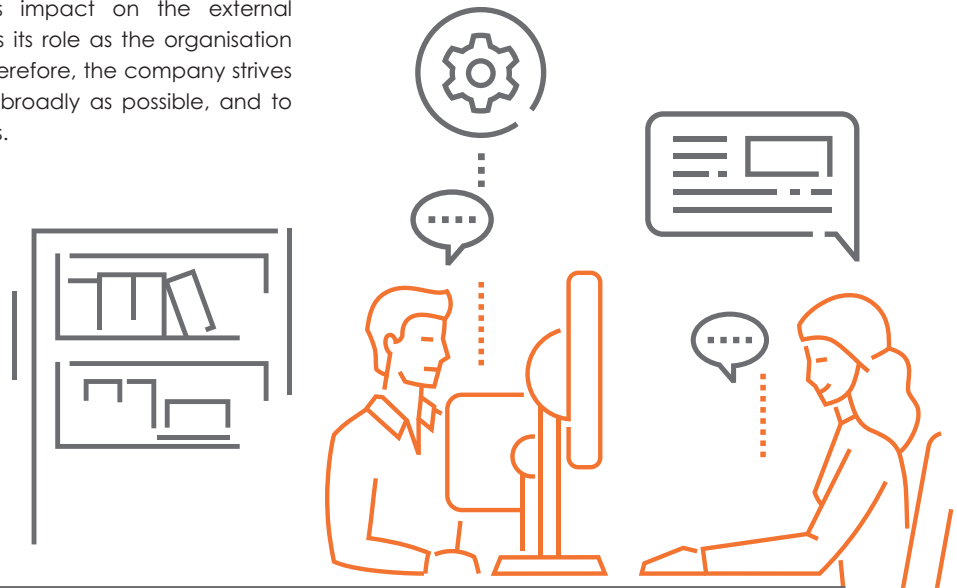
Stakeholder groups	Communication tools and techniques
National industry organizations	Meetings, conferences, debates, publications in trade magazines, website, annual report.
NGOs	Website, public consultations, direct meetings, conferences, workshops.
Universities/schools	Website, job fairs, educational fairs, GAZ-SYSTEM's LinkedIn profile.
International industry organizations	Meetings, conferences, debates, publications in trade magazines, ALSI platform presenting operational data of LNG terminal operation.
Suppliers	Dedicated website section, annual meetings, trainings, definition of good practices (Code of Conduct for Suppliers), workshops, trade fairs.
Media	Cooperation with industry portals, press releases, interviews, press materials on the company's website, conferences, industry meetings, brochures, leaflets, spokesperson's profile on Twitter, Baltic Pipe on Twitter, GAZ-SYSTEM channel and Baltic Pipe on YouTube.

Tools for communication with stakeholders. Source: GAZ-SYSTEM.



GAZ-SYSTEM is aware of its impact on the external environment and understands its role as the organisation that sets market standards. Therefore, the company strives to involve its stakeholders as broadly as possible, and to listen carefully to their concerns.

GRI 102-44



Stakeholder group	Subject
Local communities	Legal, technical and environmental aspects of investments: planned gas pipeline routes, reconstruction of drainage facilities, site reclamation after construction, compensation and valuation of damages, safety and maintenance of gas pipelines.
Customers	Simplifying procedures and formalities, improving the offer of products and services, informing in advance about planned investments in the transmission system, supporting customers in achieving business objectives, creating conditions for the development of a competitive market.
Suppliers	Simplifying procedures and formalities, improving the offer of products and services, informing in advance about planned investments in the transmission system, supporting customers in achieving business objectives, creating conditions for the development of a competitive market.
Media	Current activities of the company, business decisions, involvement in the creation of the European gas market, domestic investments, cooperation with the local communities.

Topics addressed by stakeholders. Source: GAZ-SYSTEM.

## 1.13. External initiatives adopted by the organisation

In 2018, GAZ-SYSTEM joined the 12th edition of the **Responsible Companies Ranking**, taking the 10th place among companies from the energy sector and 21st place in the overall classification. Questionnaires for the survey were prepared by Kozminski University's Centre for Studies of Positive Corporate Impact along with Dziennik Gazeta Prawna.

GAZ-SYSTEM is a partner of the Climate Partnership platform, a project held under the auspices of the Capital City of Warsaw, and organised by its Infrastructure Office. In 2018, GAZ-SYSTEM was recognised among the companies and non-governmental organisations that play a key role in the operation of the capital's energy system. The company also contributed to the events organised as part of the project: 5th edition of the Warsaw Energy Day (June 2018) and the Climate Picnic (September 2018). October 2018 saw a group of employees from the company's Rembelszczyzna Branch attend a tree planting scheme in the Municipal Forests of Warsaw's Białołęka district. The event was attended by representatives of diplomatic missions, employees of the Ministry of Environment and the Infrastructure Office of the Capital City of Warsaw, children from Warsaw schools and other partners of the Climate Partnership platform. Altogether, about 3,000 seedlings were planted to enhance the district's forest ecosystem.

The company has also been listed among nearly 150 **GRI 102-12** companies demonstrating exemplary performance with regard to workplace safety culture. These organisations are associated in the Forum of Leaders of Workplace Safety at the Central Institute of Labour Protection – National Research Institute. The Forum of Leaders of Workplace Safety is a tool for creating healthy and safe workplaces and the dissemination and implementation of scientific and technological advances in the field of safety and occupational health protection. In 2018, GAZ-SYSTEM became a strategic partner of **O!ZNAKI PRACY 2018**, a competition staged by the Central Institute for Labour Protection – National Research Institute, which was held under the general theme of 'Human at Work'.



### Care for the health and safety of personnel

is an inseparable part of the company's activity, which was further confirmed in 2018 by GAZ-SYSTEM being yet again awarded the Gold Card of the Leader of Safe Work as part of the 21st Forum of Leaders of Safe Work held in Wrocław.

The company is also a member of the Working Group for Oil and Gas Industry, known as the **'Alliance for the Improvement of Work Safety, Fire Protection and Environmental Protection in Oil and Gas Industry'**, operating under the auspices the National Labour Inspectorate.

For the seventh time, GAZ-SYSTEM acted a strategic partner of the **'Energy Academy'**, an educational project delivered by the Lesław A. Paga Foundation to train young leaders in the energy sector. In 2018, 32 scholarship holders took part in the project, including students and graduates of engineering, technology, energy, law, management and finance programmes. GAZ-SYSTEM experts, who conduct workshops on the specific character of the gas market in Poland, have been helping novices take their first career steps for years. An important element of the project is its internship programme, as part of which three young professionals were given the opportunity to receive hands-on training at GAZ-SYSTEM in 2018. As part of its sponsoring activities, GAZ-SYSTEM also offers financial support to the Energy Academy.



### Cooperation with Higher Education Institutions

Cooperation between GAZ-SYSTEM and AGH University of Science and Technology in Kraków has been going on for many years. The University is recognised as didactic background for oil&gas sector in Poland, whereas GAZ-SYSTEM is a leader in the industry. The company shares scientific and technical information and best practices with academic staff as well as supports the development of the University. Since 2017, the people who graduated AGH have had an opportunity to do an internship in GAZ-SYSTEM. In 2018, 10 finest graduates of Faculty of Drilling, Oil and Gas selected out of 24 candidates who applied, took advantage of this offer. The trainees had the opportunity to use their knowledge in the daily work in the areas such as: operation of the natural gas transmission network, investments and repairs, health and fire safety and gas dispatching.

## 1.14. Membership in Organisations

GRI 102-13

Among the most important forums in which the company is involved is the European Network of Transmission System Operators for Gas (ENTSOG), an organisation associating gas transmission network operators of the European Union. In 2018, the thematic scope of cooperation with ENTSOG concerned, among others, the position on the new gas package, preparation of a ten-year network development plan and implementation of network codes.

In December 2018, Tomasz Stępień, President of the Management Board at GAZ-SYSTEM, was appointed as Member of the Management Board of ENTSOG for the term of office from 1 January 2019 to 31 December 2021 along with 12 representatives of European transmission system operators.

As part of its involvement in Gas Infrastructure Europe (GIE), an organisation representing European gas infrastructure operators in Brussels, GAZ-SYSTEM contributed to the preparation of the position on the EU decarbonisation strategy until 2050. In December 2018, a representative of GAZ-SYSTEM was appointed to the Management Board of GIE.

**Other industry organisations in which GAZ-SYSTEM is a member include:**

- European Association for the Streamlining of Energy Exchange (EASEE-gas)
- European Association for the Streamlining of Energy Exchange (EASEE-gas)
- European Gas Research Group (GERG)
- Marcogaz Technical Association of the European Natural Gas Industry (Marcogaz)

- International Gas Union (IGU)
- Energy Charter Industry Advisory Panel
- International Group of Liquefied Natural Gas Importers (GIIGNL)
- The Society of International Gas Tanker and Terminal Operators (SIGTTO)
- European Committee for Standardization CEN
- CEDIGAZ
- Izba Gospodarcza Gazownictwa (Chamber of Natural Gas Industry)
- Klub Polskich Laboratoriów Badawczych POLLAB (Club of Polish Research Laboratories POLLAB)



**On 9 October 2018, decade of GAZ-SYSTEM Office was summarised,**

including the company's contribution to building a secure, competitive and sustainable energy market. The celebration meeting was attended by representatives of EU institutions, Permanent Representation of the Republic of Poland to the EU, Polish and foreign representations of the energy sector and European industry organisations with which GAZ-SYSTEM cooperates on a daily basis to promote the development of the internal natural gas market in Europe.



# 2

A large circular image showing an industrial gas processing plant. The image is split vertically: the left side is in black and white, and the right side is in a warm, orange-brown color. The plant features complex piping, valves, and structural steel frameworks under a cloudy sky.

## EUROPEAN gas market

<b>2.1. Building a competitive market</b>	<b>31</b>
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<b>2.3. Investments of GAZ-SYSTEM S.A.</b>	<b>32</b>
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Integration



## 2. COMMITMENT TO THE INTEGRATION OF THE EUROPEAN GAS MARKET

The priorities of GAZ-SYSTEM in the coming years will be to continue investment activities, including the expansion and modernisation of the national transmission system, and construction of interconnections to strengthen integration with other markets. GAZ-SYSTEM intends to take advantage of the development opportunity thanks to Poland's transit location, as well as to create a Polish gas hub and make it a leading gas hub in Europe. In addition, the company continues efforts to develop its own gas storage facility.

### Strategic goals

- Reinforcement of the company's position on the modern energy market
- Creation and promotion of a gas hub in the region of Central and Eastern Europe
- Integration of the national transmission system with the European systems and strengthening its transit function in the region
- Development of internal infrastructure together with elimination of bottlenecks in the National Transmission System

### Key actions

- Construction of interconnections with the Czech Republic, Slovakia, Lithuania, Denmark and Ukraine, along with the transmission infrastructure required for their optimal operation
- Construction of transmission infrastructure to avert obstacles to market development
- Construction of transmission infrastructure in areas where gas supply problems may occur
- Preparation of a concept for the construction of a gas storage facility and offering gas storage services
- Creation of a market for transmission services and new services for existing and new customers
- Promotion of Poland as a regional gas hub in Central and Eastern Europe
- Creation of conditions for the connection of commercial power plants

- Development of a smart gas system as part of a smart energy networks
- Introduction of a comprehensive service comprising regasification, transmission and storage
- Enhancement of the transmission system's energy efficiency
- Implementation of new regasification capacity of the LNG terminal and other services provided for the region
- Expansion of the scope of external services provided by the company's laboratories in the area of innovation

GAZ-SYSTEM is actively involved in the public debate on the future of the European gas market. In 2018, the company (either independently or through industry organisations) engaged in the following processes:

- Definition of the so-called gas package (amendment of the EU natural gas legislation)
- Proposals for amendments to the Gas Directive concerning its application to pipeline connections with third-party countries
- Debate on the long-term development of European energy markets
- Legislative process of amending the Regulation establishing the Connecting Europe Facility (CEF) and the Regulation on the European Regional Development Fund and the Cohesion Fund for the period of the financial perspective 2021-2027

The company also engaged in activities relating to national energy and regulatory policy. Efforts were continued to develop national regulations concerning the energy sector, while emphasising the need for the evolution of the Polish law towards enabling further development of the gas market in Poland, taking advantage of the capabilities of the gas infrastructure, ensuring security of gas supply and developing new services based on natural gas. The company submitted its comments, inter alia, on draft amendments to the energy law, tariff and system legislation, the Act on Electromobility and Alternative Fuels and other executive acts concerning the organisation and functioning of the Polish gas market and the operations of transmission system operators.



### PCI – Project of Common Interest

The PCI status is granted to infrastructure projects aimed at strengthening the European internal market by providing affordable, secure and renewable energy.



Co-financed by the Connecting Europe Facility of the European Union

## 2.1. Building a competitive market

GRI 203-1

The investments completed by GAZ-SYSTEM are of key importance for the development of an integrated and competitive natural gas market in Central and Eastern Europe and the Baltic Sea region, as well as for increasing the security and diversification of natural gas supply. In 2018, the company continued its efforts to deliver projects compliant with the objectives of the EU energy policy which were granted the PCI (Project of Common Interest) status by the decision of the European Commission. These include:

### 1. North - South Gas Interconnections in Central-Eastern Europe and South-Eastern Europe (NSI East Gas):

- gas interconnection Poland – Czech Republic
- western line of the North-South Corridor in Poland
- gas interconnection Poland-Slovakia
- eastern line of the North-South Corridor in Poland

### 2. BEMIP Action Plan (Baltic Energy Market Interconnections Plan)

- Poland - Lithuania interconnection
- Baltic Pipe
- expansion LNG Terminal in Świnoujście

## 2.2. Gas Hub in Poland

The geographical location of Poland in the Central and Eastern European region, investment plan focused on the development of interconnections being currently executed by GAZ-SYSTEM and the capacity expansion of the LNG Terminal in Świnoujście will offer an opportunity for the Polish transmission system to play a key role in the process of the integration and liberalisation of the European gas market. The initiative to broaden the options for trading gas from different sources, not only could contribute to strengthening the economic position of Poland in the region but also have a positive impact on energy security.

### The launch of the gas hub may bring Poland numerous benefits, including:

- reduced wholesale price for gas as a result of the integration of Central and Eastern European markets and the markets of the Baltic States
- facilitated access to transmission and balancing services for market participants
- entry of new players to the Polish market and increased competition among suppliers
- increased volumes of transmission through Polish networks
- increased significance of the Polish market in Europe through the integration with the neighbouring markets, i.e. Germany, the Czech Republic, Slovakia, Ukraine and the Baltic States
- more efficient capacity utilisation of interconnection points and the LNG Terminal in Świnoujście;
- elimination of barriers to gas trade
- enhanced market transparency

## 2.3. Investments of GAZ-SYSTEM

The year 2018 was particularly important for the development of cross-border transmission infrastructure and cooperation with operators from neighbouring countries. GAZ-SYSTEM together with the transmission system operators of Denmark, Slovakia and Lithuania made final investment decisions on the implementation of the following gas interconnection projects: Baltic Pipe, Poland-Slovakia and Poland-Lithuania.







The most important investments carried out by the company are:

I. The Northern Gate, which consists of two key investments for the company:

- Baltic Pipe
- capacity expansion of the LNG Terminal.

II. Development of the national transmission system, including the construction of interconnections and key projects

**Legend**

 Interconnection Poland-Ukraine	 Interconnection Poland-Slovakia	 Interconnection Poland-Lithuania
 Interconnection Poland-Czech Republic	 LNG Terminal	 Baltic Pipe



## Northern Gate new supply corridor for the Central and Eastern European region

### Northern Gate - underlying assumptions




diversification of supply sources



entry-exit zones in the region with competitive tariffs



flexible and a well-developed infrastructure

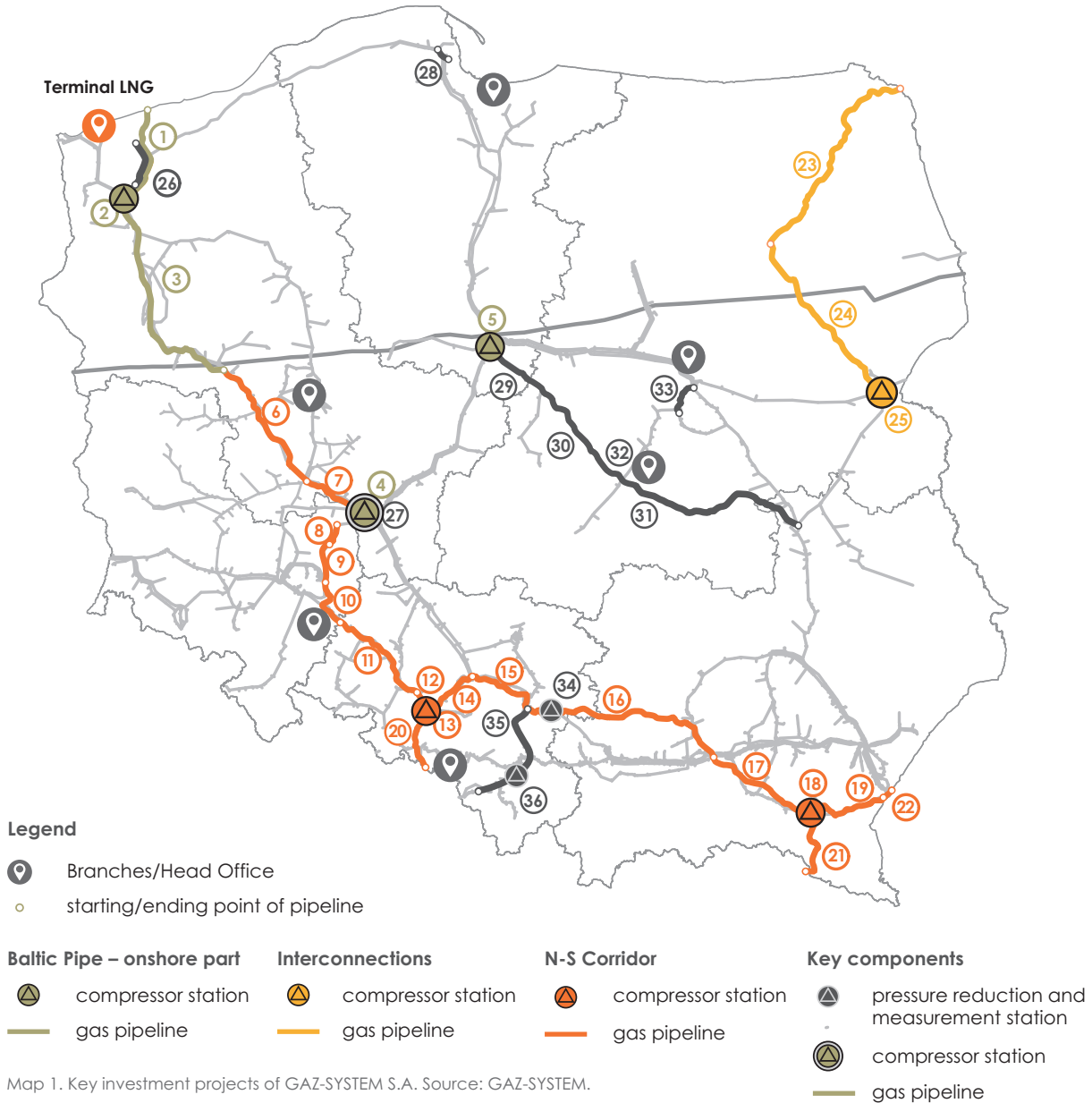


increased gas volumes transported through the transmission system



## II. Expansion of the national transmission system, including:

- investments being part of the North-South Corridor
- Gas Interconnection Poland – Slovakia
- Gas Interconnection Poland – Czech Republic
- Gas Interconnection Poland – Ukraine
- other key projects.



## Key investment projects implemented in 2018

### — Baltic Pipe Project

No.	Key project name
<b>1-5</b>	<b>Investment projects implemented as part of the Baltic Pipe project</b>
1	Gas pipeline connecting the offshore pipeline with the National Transmission System
2	Construction of the Goleniów gas compressor station
3	Goleniów-Lwówek gas pipeline
4	Expansion of the Odolanów gas compressor station
5	Construction of the Gustorzyn gas compressor station

### North-South Gas Corridor

No.	Key project name
6	Lwówek - Odolanów gas pipeline (stage I Lwówek - Krobia) DN=1000, L=113.5 km
7	Lwówek - Odolanów gas pipeline (stage II Krobia - Odolanów) DN = 1000, L = 54.1 km
8	Czecheszów - Wierzchowice gas pipeline DN = 1000, L = 14 km
9	Czechów - Kietczów gas pipeline DN = 1000, L = 33 km
10	Zdzieszowice-Wrocław gas pipeline (section Brzeg - Zębice - Kietczów) DN=1000, L=49 km
11	Zdzieszowice-Wrocław gas pipeline (section Zdzieszowice - Brzeg) DN=1000, L=84 km
12	Zdzieszowice - Kędzierzyn-Koźle gas pipeline DN = 1000, L = 17.4 km
13	Construction of Kędzierzyn-Koźle compressor station capacity = 23 MW
14	Tworóg - Kędzierzyn-Koźle gas pipeline DN = 1000, L = 43.4 km
15	Tworóg - Tworzeń gas pipeline DN = 1000, L = 56 km
16	Pogórska Wola - Tworzeń gas pipeline DN = 1000, L = 168 km
17	Strachocina - Pogórska Wola gas pipeline DN = 1000, L = 97.5 km
18	Construction of Strachocina Compressor Station capacity = 30 MW
19	Hermanowice - Strachocina gas pipeline DN = 700, L = 72 km
20	Poland - Czech Republic gas interconnection DN = 700, L = 52.5 km
21	Poland - Slovakia gas interconnection DN = 1000, L = 59 km
22	Poland - Ukraine gas interconnection (Hermanowice – state border) DN = 100, L = 1.5 km

### Project: Interconnections

No.	Key project name
23	Gas Interconnection Poland - Lithuania (Rudka Skroda - state border) DN = 700, L = 185 km
24	Gas Interconnection Poland-Lithuania (Hołowczyce - Rudka Skroda) DN = 700, L = 153 km
25	Expansion of the Hołowczyce Compressor Station II for gas compression up to the pressure of 8.4 MPa

### Project: Key components

No.	Key project name
26	Szczecin - Gdańsk gas pipeline (stage V: Goleniów - Płoty) DN = 700, L = 41 km
27	Odolanów gas compressor station - stage 0 (relocation of compressors) capacity = 20 MW
28	Szczecin - Gdańsk gas pipeline (stage IV Reszki - Wiczlino, DN700, L=8 km
29	Gustorzyn - Wronów gas pipeline (Gustorzyn - Leśniewice stage I) DN = 1000, L = 60 km
30	Gustorzyn - Wronów gas pipeline (Leśniewice - Rawa Mazowiecka stage II) DN = 1000, L = 100 km
31	Gustorzyn - Wronów gas pipeline (Rawa Mazowiecka - Wronów Stage III) DN = 1000, L = 156 km
32	Rembelszczyzna - Mory gas pipeline DN = 700, L = 29 km
33	Construction of a connection to the Żerań CHP Plant (PGNiG Termika S.A.)
34	Pressure Reduction and Measurement Station Tworzeń in the area of Stawków (stage I)
35	Oświęcim - Tworzeń gas pipeline with the Pressure Reduction and Measurement Station Oświęcim (stage II) DN = 700, L= 50 km
36	Skoczów - Komorowice - Oświęcim gas pipeline (Stage III) DN = 500, L = 53 km

## Baltic Pipe Project

It is a strategic infrastructure project aimed at creating a new corridor for the supply of natural gas from Norway to the Danish and Polish markets, as well as to end users in neighbouring countries. The project is implemented in close cooperation with the Danish gas and energy transmission system operator Energinet. The Baltic Pipe will enable

the transmission of gas from Poland to Denmark and Sweden. The Baltic Pipe offshore gas pipeline will transport 10 bcm of natural gas annually to Poland and 3 bcm of natural gas from Poland to Denmark.



Legend		
		
 new gas pipelines	 existing pipelines	 gas compressor stations
<b>ENERGINET</b>		
 new gas pipelines	 existing pipelines	 gas compressor stations

## The Baltic Pipe project consists of 5 main components:

### 1. Offshore gas pipeline through the North Sea

Construction of an offshore gas pipeline with a planned length of 105-110 km, connecting the Norwegian gas system in the North Sea with the Danish onshore system. The pipeline will be connected to the existing transmission infrastructure - the Europipe II pipeline - in the North Sea, thus providing access to gas from Norwegian fields.

Basic parameters:

- **length:** 105-110 km
- **diameter:** 800 mm
- **pressure:** 8.5-11 MPa

### 2. Expansion of the Danish gas transmission system

Construction of a receiving terminal in Nybro and about 200 km of gas pipelines in Denmark.

Basic parameters:

- **length:** 210-230 km
- **diameter:** 900 and 1000 mm
- **pressure:** 5-8 MPa

### 3. Gas compressor station in Denmark

Construction of a new gas compressor station in the south-eastern part of Zealand. The main function of the compressor station will be the compression of natural gas to enable its transport. The compressor station will ensure two-way gas transmission both from Denmark to Poland and from Poland to Denmark.

Basic parameters:

- **pressure:** 5-12 MPa

### 4. Offshore pipeline through the Baltic Sea

Construction of an offshore gas pipeline, approximately 275-310 km long, connecting Denmark with Poland. The pipeline will run through Danish, Polish and Swedish territorial waters.

Basic parameters:

- **length:** 250-310 km
- **diameter:** 900 mm
- **pressure:** 6.7-12 MPa

### 5. Expansion of the Polish gas transmission system

The import and transmission of natural gas through the Baltic Pipe requires additional investments in Poland. The offshore gas pipeline will land on the Baltic Sea coast in the West Pomeranian Voivodeship at one of the two locations (currently being verified and analysed). Depending on the selected route, the length of the transmission infrastructure will range from approx. 230 to 280 km. In addition, gas compressor stations will be built and modernised.

The scope of work includes the following tasks:

- Construction of a gas pipeline connecting the offshore pipeline with the national transmission system
- Construction of a gas pipeline from Goleniów to Lwówek
- Capacity expansion of the Goleniów gas compressor station in the Zachodniopomorskie Voivodeship (up to 25 MW)
- Capacity expansion of the Odolanów gas compressor station in Wielkopolskie Voivodeship (up to 30 MW)
- Construction of the Gustorzyn gas compressor station in the Kujawsko-Pomorskie Voivodeship (designed capacity: 20 MW).



## Timeline of the Polish part of the project



## The Baltic Pipe – natural environment

Marine surveys include seabed mapping as well as studies of phyto- and zoobenthos, fish, marine mammals, birds and bats. However, the surveys are not limited to just flora and fauna, as they also covers areas such as hydrochemistry and geochemistry, as part of which water quality and seabed sediment properties are being analysed.

The potential impact of the Baltic Pipe on plants, habitats and invertebrates is investigated at the gas pipeline landing points. Studies are also carried out to identify the presence of breeding birds and bats.

## EU support for the Baltic Pipe in 2018

On 16 July 2018, EU Member States approved the European Commission's proposal to provide financial support for the Baltic Pipe project under the Connecting Europe Facility

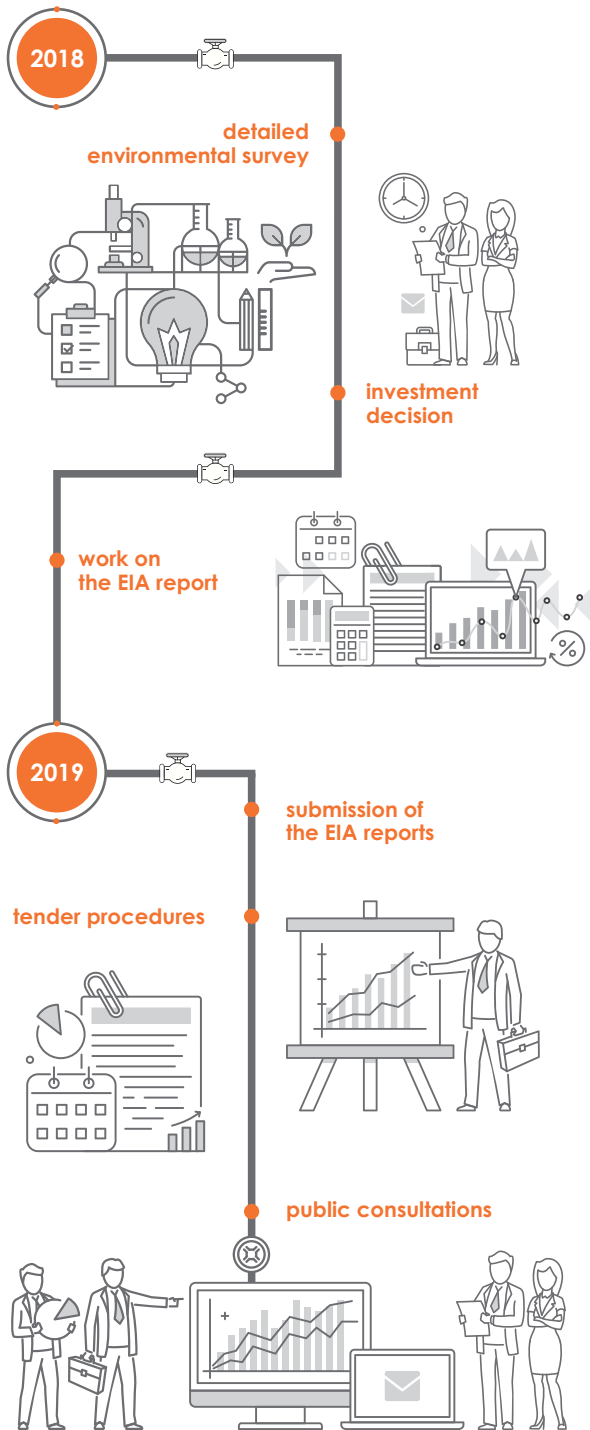
(CEF) for the measure entitled "**Strengthening the national gas transmission systems in Poland and Denmark for the Baltic Pipe project**".



Total maximum co-financing amount granted to date for the Baltic Pipe project

**EUR 51.4 million**

## Baltic Pipe Project progress



### GRI 203-1 LNG Terminal

The President Lech Kaczyński LNG Terminal in Świnoujście enables the offtake of deliveries of liquefied natural gas by sea from any direction in the world. It plays a vital role in the integration of the domestic transmission system with other gas markets, providing real opportunities for diversification of gas supplies.

Polskie LNG is currently implementing the LNG Terminal Expansion Programme, which is part of the global trend in the development of this technology. The use of LNG is fostered by the development of gas transport opportunities, including the expansion of the methane carrier fleet, as well as the strong competitive advantage of LNG in relation to the natural gas transported via pipelines. Of great importance for the growth of interest in LNG is also the location of gas deposits in those regions of the world which are difficult to connect via pipelines to the main consumers of this commodity.

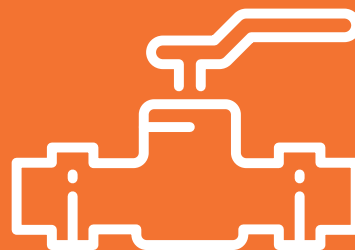
#### The expansion programme includes:

- additional regasification facilities to increase the nominal regasification capacity of the terminal to 7.5 billion Nm<sup>3</sup>/year,
- a third LNG tank to increase the flexibility of the LNG Terminal operation and ensure optimal process storage capacity
- an LNG railway re-loading facility to extend the scope of services by the ability to load ISO containers and rail tankers, and enable reaching out to new potential customers,
- an additional wharf which will enable the loading and unloading of tankers, reloading of LNG and loading of LNG bunkering vessels, and bunkering services.

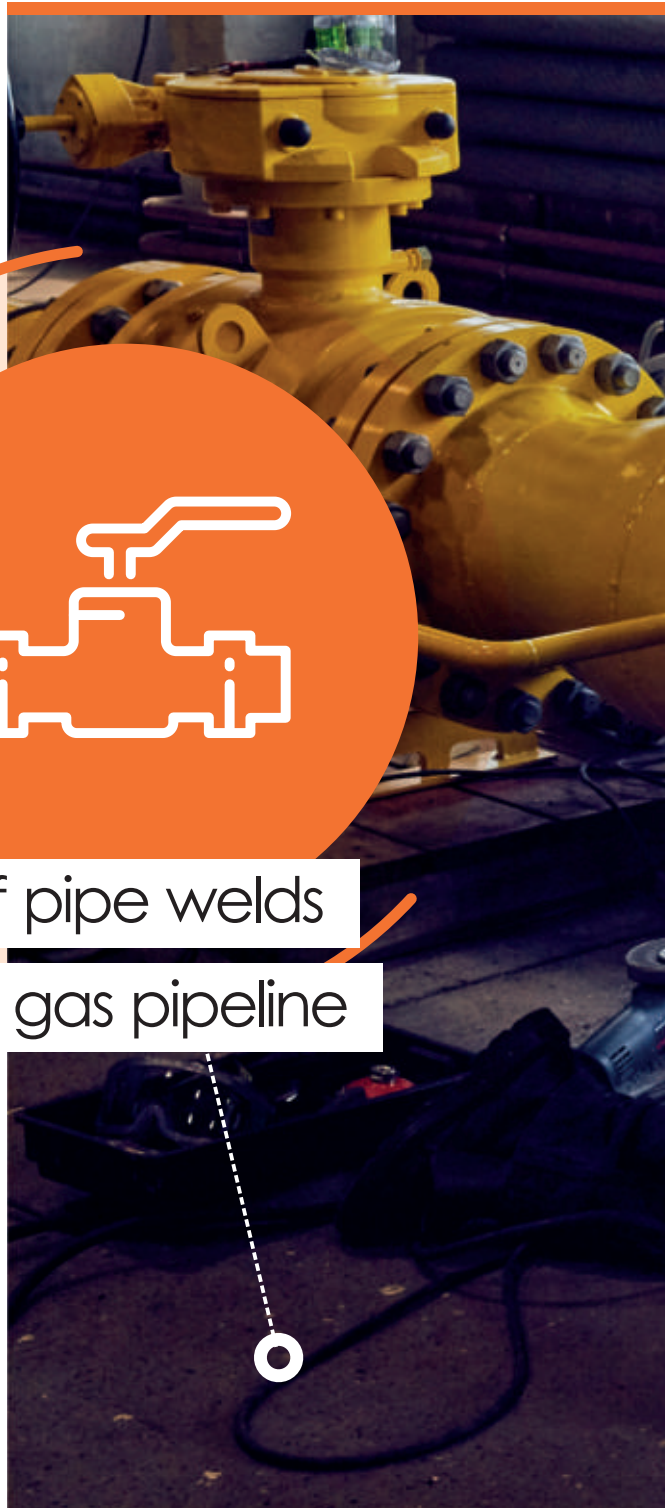
#### The main advantages of LNG use are:

- flexibility of supply – LNG is both an effective means of gas supply diversification for some countries, and a source used to cover peak demand for gas,
- efficiency – during natural gas liquefaction into LNG its volume is reduced about 600 times. This means that from 100 m<sup>3</sup> of LNG, 60 thousand m<sup>3</sup> of natural gas is obtained after regasification,
- economics - the costs of transporting and storing LNG are lower than for natural gas. This is due, among other things, to the possibility of selecting suppliers from different parts of the world (optimisation of purchase and transport costs)
- environment – natural gas is an eco-friendly fuel. During combustion it generates much lower emissions to the atmosphere than coal, oil or other fossil fuels. Liquefied natural gas is additionally treated – its composition is about 95% of methane with a small (about 5%) share of other components. LNG is therefore a very clean fuel with no toxic or corrosive properties
- safety – in case of contact with the air, LNG evaporates and is diluted. There is no possibility of contaminating the environment (sea water, soil) in case of an LNG leakage. Modern technologies of LNG tank construction, special procedures and security systems ensure an exceptionally high level of safety of regasification terminals.

6129



total number of pipe welds  
along the Lwówek-Krobia gas pipeline





## North-South Gas Corridor

It will connect the LNG Terminal in Świnoujście and the Baltic Pipe, through Southern Poland, the Czech Republic, Slovakia and Hungary, with the LNG terminal in Croatia. The Corridor consists of a series of bi-directional cross-border interconnections and domestic gas pipelines, either already existing or at different stages of planning or construction.

### The benefits of the North-South Gas Corridor will be noticed by all gas market participants:

- strengthening of regional gas markets integration
- improvement of security of supply enabling access to new sources of supply (LNG, Norway) for Central and Eastern Europe
- coordination of regional infrastructure projects
- harmonisation / standardisation of market rules
- enabling the implementation of regional prevention and emergency procedures in case of emergency situations

## Poland - Lithuania (GIPL)

**The most notable event in 2018, which was required to make the final investment decision, was the signing of two agreements:**

- The Gas Interconnector Poland-Lithuania (GIPL) will contribute to the elimination of the so-called energy islands, i.e. regions dependent on gas supplies from one direction only, and also to the integration of the Baltic States into the European Union's gas market. It will also ensure access to the global LNG market, e.g. via the Świnoujście Terminal. In 2018, GAZ-SYSTEM received planning permission for the gas pipeline. The Inter-TSO Agreement (ITA) of 11 August 2014, concluded by the following transmission system operators: GAZ-SYSTEM, Amber Grid (Lithuania), Conexus (Latvia) and Elering (Estonia), which is to regulate the TSOs' mutual obligations arising from the implementation of ACER's decision on cross-border cost allocation for the Poland-Lithuania interconnection.

- The Connection Agreement (CA), i.e. an agreement that regulates the legal, business and technical aspects of project implementation, and, moreover, constitutes a joint commitment of the parties to proceed with the project implementation.

### Organisations in charge of implementation:

**GAZ-SYSTEM** – Polish Transmission System Operator

**AB Amber Grid** – Lithuanian Transmission System Operator

**Length of connection on Polish side:** 338 km

**Capacity:** PL-LT 2.4bcm/year; LT-PL 1.9bcm/year

## Poland – Slovakia

The project is part of the priority EU infrastructure concept, i.e. the development of the so-called North-South Corridor. In April 2018, GAZ-SYSTEM and EUSTREAM a.s. concluded a Connection Agreement, under which both operators made positive investment decisions. The interconnection between Poland and Slovakia is due for completion by the end of 2021.

### Organisations in charge of implementation:

**GAZ-SYSTEM** – Polish Transmission System Operator

**EUSTREAM a.s.** – Slovakian Transmission System Operator transmission

**Length of connection on Polish side:** 59 km

**Capacity:** PL-SK 4.3bcm/year; SK-PL 5.7bcm/year.

The interconnections with Lithuania and Slovakia are an essential element of the strategic investment efforts by GAZ-SYSTEM under the Northern Gateway, i.e. the Baltic Pipe and the expansion of the LNG terminal in Świnoujście.

## Poland – Ukraine

In 2018, GAZ-SYSTEM and its Ukrainian counterparty conducted an assessment of the interest in gas transmission from Poland and the need to expand/upgrade the transmission systems of both operators. This concluded the so-called non-binding procedure, aimed at verifying the market's interest in capacity on the Polish-Ukrainian border. Its results are a foundation for further joint analyses and studies on the development of infrastructure between transmission systems of Poland and Ukraine. In late 2018, the Poland-Ukraine interconnection project was included in the recommendations for projects of mutual interest of the Energy Community (an organisation established between the European Union and third-party countries). With a building permit expected in 2019, both operators are currently in the

process of negotiating a business decision that would allow them to proceed to the project execution stage.

**Organisations in charge of implementation:**

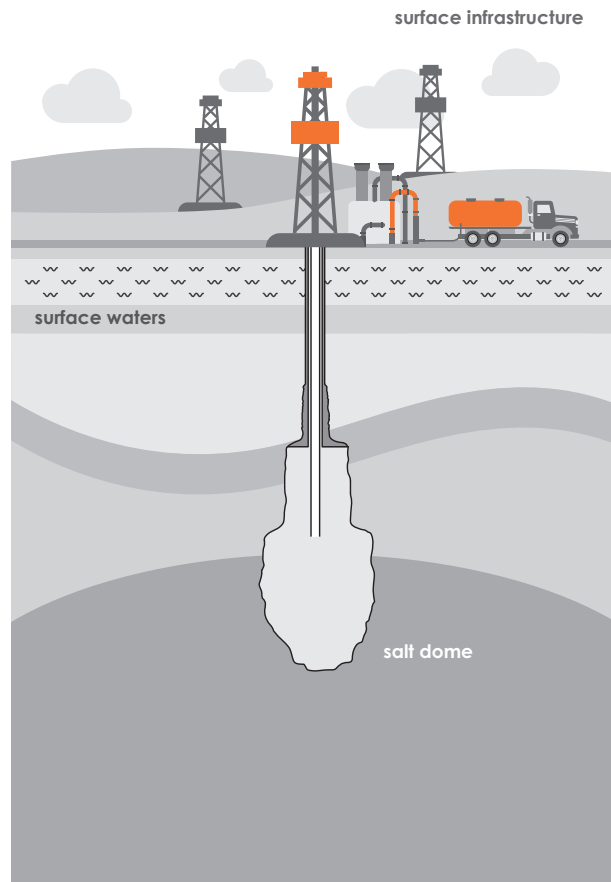
**GAZ-SYSTEM** – Polish Transmission System Operator  
**PJSC UKTRANSNAZ** - Ukrainian transmission system operator  
**Length of connection on Polish side:** 1.5 km  
**Capacity:** PL-UA 5-8 bcm/year; UA-PL 5-7 bcm/year.

**Poland – Czech Republic**

The construction of an interconnection between Poland and the Czech Republic is in line with the priority infrastructure concept of the European Union, i.e. the development of the so-called North-South Corridor. In 2018, GAZ-SYSTEM continued the implementation of the project, and the building permit was obtained. Currently, both operators are in the process of negotiating a business decision that would allow them to proceed to the project execution stage.

**Organisations in charge of implementation:**

**GAZ-SYSTEM** – Polish Transmission System Operator  
**Net4Gas s.r.o.** – Czech Transmission System Operator  
**Length of connection on Polish side:** 53 km  
**Capacity:** PL-CZ 5 bcm/year; CZ-PL 6.5 bcm/year.



**Cavern Underground Gas Storage Facility (CUGS) Damasławek**

Apart from gas pipeline projects, GAZ-SYSTEM is developing other facilities, one of them being the construction of a new cavern underground storage facility for gas, crude oil and liquid fuels.

**The project scope includes construction of:**

- Ground infrastructure used for handling storage facility.
- Underground infrastructure.
- Connection pipeline with national gas transmission system.



**Planned basic parameters:**

Location – Damasławek salt dome (Kujawsko-Pomorskie Voivodeship, on the border of two municipalities: Janowiec Wielkopolski and Żnin.

**Technical parameters:**

natural gas storage facility **working volume approx. 1-1.8 bcm**

**Liquid fuel storage facility:**

Propane, butane and propane-butane	<b>approx. 500 thousand m<sup>3</sup></b>
Diesel oil	<b>approx. 1 million m<sup>3</sup></b>
Crude oil	<b>approx. 1.5 million m<sup>3</sup></b>
Base gasolines	<b>500 thousand m<sup>3</sup></b>



If an internal market for natural gas is to be created within the European Union, substantial changes in access to transmission infrastructure, both domestic and cross-border, and diversification of gas supply directions and sources must take place first. The construction of the Poland-Lithuania interconnection has been recognised by the European Commission as one of the key infrastructure projects to enable the implementation of energy solidarity mechanisms and ensuring security of supply. In addition being of critical importance for the EU energy security, this is also an opportunity to eliminate the current isolation of the Baltic States from the European gas market. The interconnection will enable these countries to be integrated into the EU's competitive gas market, which we want to build together. This is confirmed by the fact that the construction of the Poland-Lithuania interconnection has been repeatedly short-listed as an EU Project of Common Interest (PCI) within

the natural gas sector. Preparatory work for the project received the maximum amount of EU financial support permitted for studies from the Connecting Europe Facility (CEF), i.e. 50 per cent. Of the total amount of over EUR 10m, Amber Grid received EUR 2.5m, while EUR 7.6m was granted to GAZ-SYSTEM. In addition, the project's construction works, eligible for EU support under CEF, received a maximum co-financing of EUR 266.4m. Of the total co-financing amount, Amber Grid received almost EUR 58m, while over EUR 208m was granted to GAZ-SYSTEM. It is also of paramount importance that following the 2014 ACER decision on the cross-border allocation of project costs, GIPL construction, including part of the GIPL infrastructure costs in Poland, will be co-financed by Lithuania, Latvia and Estonia, in addition to EU funding said **Tomasz Stępień, President of the Management Board of GAZ-SYSTEM**, upon signing the agreements.

## 2.4. Investment process

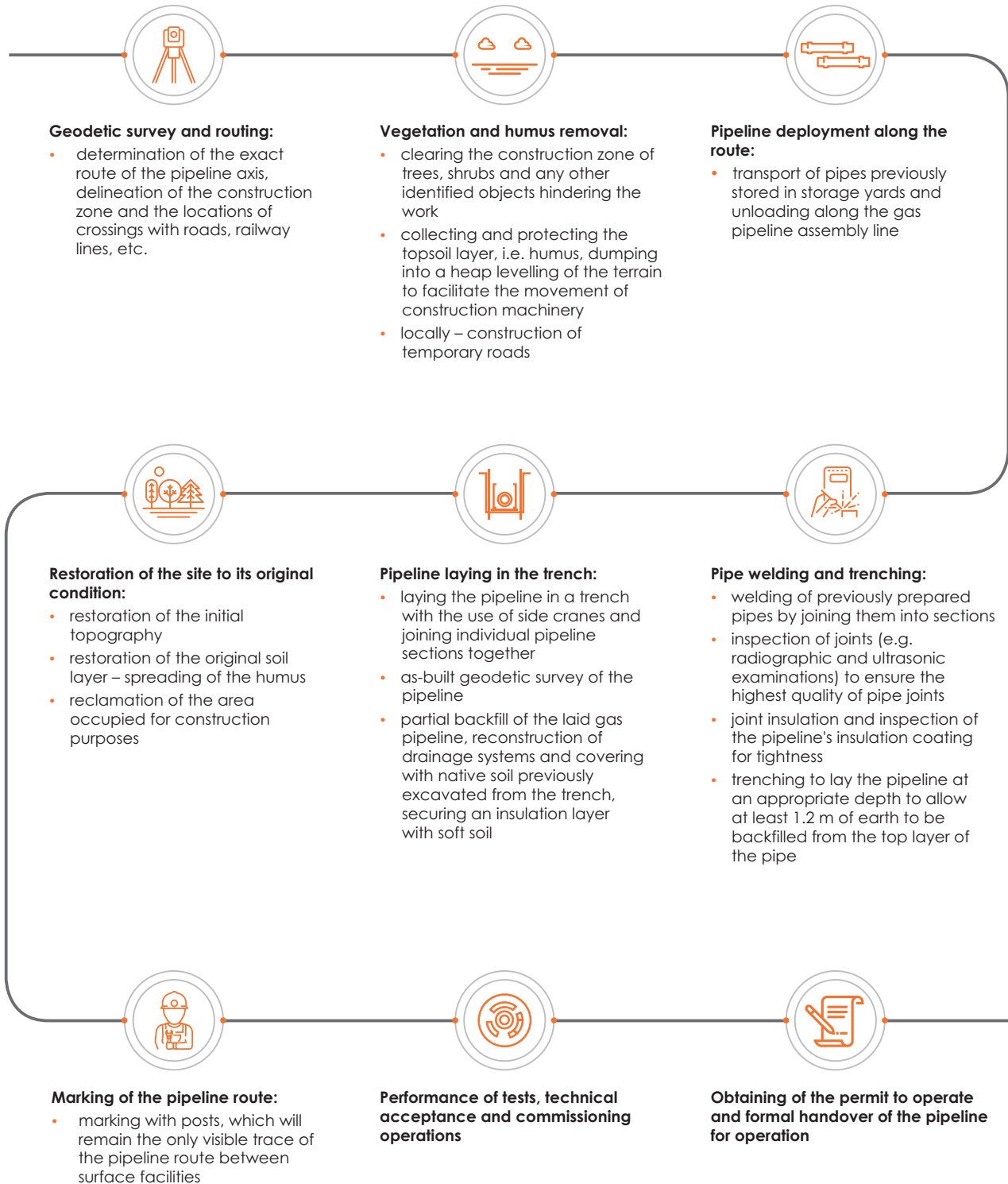
The investment process for the construction of gas pipelines begins with planning. On that basis, a feasibility study is prepared for largest projects. The next step consists in the selection of an engineering consultant that will prepare engineering design in line with all relevant formal and legal, safety, environmental and technical requirements. A host of permits and administrative decisions have to be obtained as part of the engineering stage. After obtaining a building permit, approval of the project documentation (engineering and detailed design) and signing the EPC contract, the construction stage begins.

### Efficiency improvement Investment process design stage

After the first stage of implementation of the 10-year gas pipeline construction plan was completed, an analysis of the issues experienced during the engineering works was undertaken. As a result, a new quality assurance system for project documentation was developed, with particular emphasis on its completeness and level of detail. A new approach to the preparation and acceptance of project documentation, its form and content was developed and implemented (checking and monitoring of documentation contracted from external engineering consultants). In addition, an engineering design unit was set up in the branches of Świerklany and Wrocław in 2018. The 700 mm Racibórz-Oświęcim pipeline engineered by the unit is the first gas pipeline designed by GAZ-SYSTEM in-house engineers.



## Gas-pipeline construction process



## Construction phase

Earthworks are an indispensable stage of every gas pipeline project. In 2018, GAZ-SYSTEM implemented its investment plan using various technologies, including both traditional open trench and trenchless methods.

## Trenchless methods

Thanks to trenchless technologies, GAZ-SYSTEM is able to lay underground gas pipelines without the need for trenching works under rivers, railway tracks, roads, etc. This modern earthworks technology is economic, environmentally friendly and the works are safe for the existing local infrastructure in the vicinity.

In 2018, nearly 170 trenchless crossings were built. The largest and the longest ones – executed using the HDD and Direct Pipe methods – made part of the North-South Corridor development. In addition to around a dozen major crossings, there were 158 pipe jacking crossings carried out with the use of steel pipe, horizontal controlled drilling and microtunnelling techniques.

## The main benefits of trenchless technologies:

- lower social costs: no disruption to traffic, less interference in the environment, less noise during works
- significant financial savings compared to traditional methods (lower costs of supplies, less safeguards and markings, lower equipment and transport costs)
- reduction of greenhouse gas emissions: less air pollution for residents

## Good practice

### 'Safe implementation of strategic investments' workshops

These were sessions targeted at external contractors of GAZ-SYSTEM, aiming to review important aspects of occupational safety, health and fire protection prior to the commencement of work in order to ensure safe conditions for employees and the safety of local communities. The focus was on the high-risk stages of the project. A total of 129 people attended the workshops, including construction managers, site managers, representatives of the contractors' OHS personnel, as well as project managers and other supervisors.

## Information on compensation payments

Under a special act regulating gas infrastructure investments, the owners of properties located along the gas pipeline route are guaranteed compensation payments. The process of compensation is handled under an administrative procedure with supervision from the competent Voivode, at whose request, an independent expert performs a property valuation report as a basis for calculating the amount of compensation. Upon completion of the construction process, the Voivode issues an administrative decision specifying the amount of compensation due.

# 3



Safety of

## SERVICES

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Smooth operation  
of the transmission system

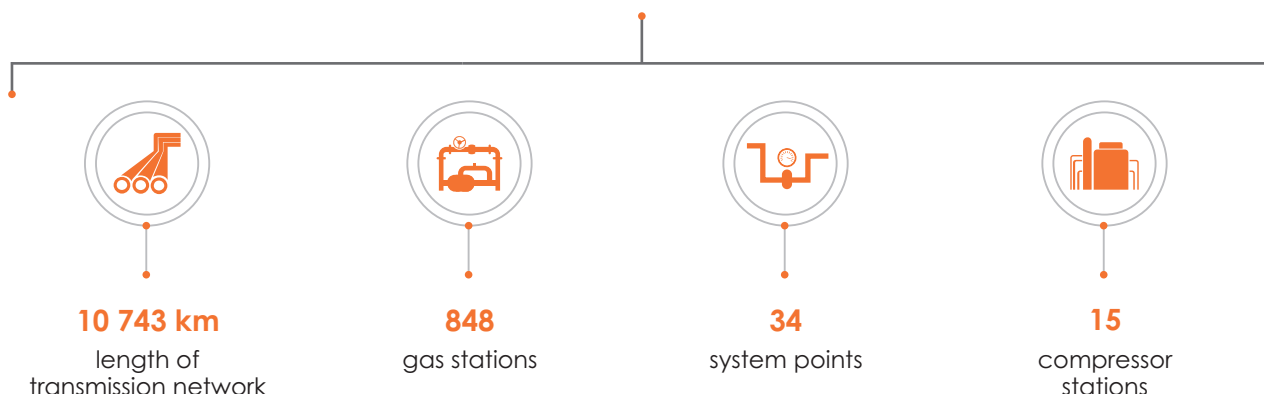


### 3. SAFETY OF SERVICES. SMOOTH OPERATION OF THE TRANSMISSION SYSTEM

One of GAZ-SYSTEM's priorities as a company responsible for the transmission of gas through high-pressure pipelines is to ensure safe transport of this fuel. GAZ-SYSTEM is committed to ensuring the safety of the infrastructure under its control.

The strategic character of the undertaken investments as well as the specific nature of the company's operations require the maintenance of the most stringent standards in this respect.



**Key network figures**

### 3.1. Safety of the national transmission network

**GAZ-SYSTEM's operational crews perform scheduled maintenance activities in the transmission network, including:**

- inspections
- maintenance procedures
- checks
- measurements
- specialist maintenance inspections.

Their frequency is specified in the Transmission Network Operation and Maintenance Manual (SESP), which ensures that proper technical condition and operational safety of the transmission network is continuously maintained.

The SESP procedures and instructions define operating principles for typical network activities from commissioning of infrastructure, through day-to-day operation, to the decommissioning of a transmission network facility.

An annual technical assessment report is prepared for each transmission network facility, based on the operational activities performed and the incidents that occurred in the transmission network during the year. Depending on its results, a given item is recommended for further operation, repair, modernisation or decommissioning.

An annual technical assessment report is prepared for each transmission network facility, based on the operational activities performed and the incidents that occurred in the transmission network during the year. As a result, the facility is recommended for:

- continued operation
- overhaul
- upgrading
- decommissioning.

#### The application of SESP in practice enables:

- early identification of potential disturbances
- continuity of the operation of the transmission
- Implementation of the necessary preventive measures
- safe operation of the transmission network.

#### Gas Emergency Service

The objective of the 24/7 Gas Emergency Unit (GEU) is to respond to any signals concerning network failure incidents within the facilities operated by the company and reported by monitoring systems, the public, local administration, the Police and/or Fire Service. The core responsibilities of the GEU include: failure handling and recovery, elimination of other risks in the transmission system, implementation, as well as the supervision and safety protection of repair, investment and operation tasks within the transmission system. The performance of the GEU is subject to evaluation. For example, in 2018 the Gdańsk unit of the GEU received a high rating in the test of preparedness for carrying out tasks in emergency situations. The test was conducted within the framework of the Business Continuity Management System implemented in GAZ-SYSTEM and in accordance with the requirements of the ISO 22301 standard.

#### 24-hour transmission network monitoring

The safe operation of the transmission network is ensured by an efficient supervision and control system. The operating parameters of the transmission network in terms of gas flow and pressure are subject to continuous 24/7 remote monitoring (24 hours) by the services responsible for system operation, i.e. the Central Gas Dispatch Centre and its Regional Branches.

## Technology for safety

GAZ-SYSTEM applies modern and proven technologies in the construction of gas pipelines, using both high-quality materials and state-of-the-art network safety and monitoring systems. The steel pipes have increased wall thickness and strength and are protected by special insulation and anti-corrosion systems. Implementation of such solutions means greater safety and reliability of network operation.



### CRC Evans welding technology

This modern, fully automated welding technology was used for the first time during the construction of the Strachocina-Pogórska Wola gas pipeline in 2018. Its advantages include a much faster welding process and almost four-fold reduction in the amount of additional welding material in comparison to standard solutions.

## Transmission Network Safety Enhancement Programme

In 2018, GAZ-SYSTEM adopted a programme to improve the safety of its transmission network. Its main objectives include:

- increasing the frequency of aerial inspections of pipeline routes;
- more efficient recording of violations of gas pipeline control zones and other incidents adversely affecting the gas pipeline safety;
- providing operating crews with additional inspection equipment and means of communication;
- improving the Risk and Reliability Assessment System;
- proposals for legal changes to facilitate the safe use of gas pipelines, their repairs and procedures in the event of control zone violations

## Certification and approval system

The individual components of the constructed facilities are subject to detailed testing and inspections upon the acceptance and commissioning of the installation. They carry all necessary certificates and approvals in respect of durability of materials and the suitability for use under pressure. In 2018, the company retained the ISO quality system certificate in welding (PN-EN ISO 3834-2:2007).

### Cathodic protection

Thanks to cathodic protection, the transmission network is safeguarded against adverse effects of the external environment. In addition, the system helps locate defects in the insulation coating, identify the corrosive activity of the environment and undertake efforts to eliminate the causes of potential hazards.

### Pipeline pigging

Pig inspections are carried out in order to clean gas pipelines, check their internal geometry, survey their foundations and identify defects and anomalies that may occur in the pipeline walls. The data thus obtained help assess the technical condition of the gas pipeline, which in turn allows the detection of corrosion-induced, metallurgical and material defects.

### Testing and supervision

Before obtaining a permit to operate, the pipeline is subject to pressure testing for strength and tightness, as well as special tests (the so-called stress tests), carried out with involvement from the Office of Technical Inspection (UDT), as well as commissioning and final acceptance after the initial gas fill and start-up. The State Sanitary Inspectorate and the National Fire Service issue their respective opinions on the compliance of the gas pipeline project. The permit to operate the pipeline is issued by the relevant Voivode, following an inspection by the Voivodeship Construction Supervision Inspectorate.

### TGPS operation and maintenance

GAZ-SYSTEM is also responsible for the operation of the line part of the Yamal-Europe transit gas pipeline located on the territory of Poland. The work, which mostly involves the company's own resources, is based on an agreement with EuRoPol GAZ S.A, and is carried out by the operational crews of the Rembelszczyzna and Poznań Branches.

## Upgrading and maintenance of the transmission network



**In 2018, 417 tasks were carried out under the maintenance plan,**

132 of which were completed.

A total of **PLN 55.6 million** was allocated for this purpose. Additionally, the investment plan in the safety area featured **453 tasks**, of which 102 were completed.

**PLN 119.4** million was allocated for this purpose.

## Cooperation and education

Ensuring the efficiency and reliability of transmission systems is a priority for GAZ-SYSTEM. The company cooperates with all the services in order to comprehensively ensure the safety of people living in the vicinity of the transmission infrastructure. A practical element of this cooperation involves joint emergency drills and workshops, training sessions and conferences on the security of the transmission network. Moreover, as part of the OHS Academy, an educational campaign conducted by GAZ-SYSTEM, 72 meetings were held with representatives of the fire service, which included lectures with the commanding staff, technical visits and fire drills. The purpose was to familiarise the employees of the State Fire Service with the specific fire protection requirements of GAZ-SYSTEM facilities, in particular with respect to the combustibility and volatility of natural gas and the methods of conducting effective and efficient rescue operations in an emergency.





*People and local communities are at the heart of our business, and this is not just a slogan. In addition to the procedures, equipment and monitoring itself, the human operator remains the crucial element of our gas network safety system. We do our utmost to ensure that our employees are well trained, aware of the existing risks and their individual responsibilities. GAZ-SYSTEM has training systems in place, from the units responsible for OHS to the foremen or managers of field units, who send people to perform specific operations on a daily basis. These people must be equipped with the latest equipment, but that is hardly all there is to it. In order to carry out their duties properly, they must also work together with the State Fire Service, the police and the*

*Government Security Centre. These are our partners who provide us with the latest information on how and against what risks to protect our network. We strive to work in close partnership with the emergency response services in order to arrive at the best possible scenarios of joint action. Practical cooperation is indispensable, as it is difficult to replace experience and out-of-office work with computer simulations. I am glad that we were able to show our skills and equipment. They allow us to protect ourselves against failures and carry out our operations in a way that ensures the safety that is the basis of our operations – said **Artur Zawarłko, Vice President of the Management Board of GAZ-SYSTEM**, during a workshop in Kraków.*

**Selected events:**

- **13 September 2018**, Kraków – a workshop for fire brigade and police units with GAZ-SYSTEM specialists. The exercises were attended by representatives of the Government Centre for Security and crisis management teams from the Małopolska region. The event was held under the honorary patronage of the Minister of the Interior and Administration.
- **September 2018**, training on the operation of the gas transmission network targeted at the commanders of rescue and firefighting units of the State Fire Service from Opolskie and Śląskie Voivodships.
- **24 October 2018**, Poznań – Safety of gas transmission pipelines in Poland, a conference on the standards for gas transmission pipeline network management and proven technological solutions used to ensure network safety, held in conjunction with the State Fire Service and the Office of Technical Inspection.
- **25 and 30 October 2018**, Stalowa Wola – a series of training sessions on technology solutions to ensure the safety of network operation and drills for fire service and GAZ-SYSTEM technical crews.

**The safety of the entire transmission system is the foundation of GAZ-SYSTEM's operations.**



**In 2018, 48 technical study visits to GAZ-SYSTEM's facilities**

with Fire Brigade units and 24 **fire drills** were carried out with a total number of **1706 attendees** involved.

## 3.2. GAZ-SYSTEM Branches – responsibility and safety in the field

GAZ-SYSTEM has competent human resources, expertise and experience to ensure the safety of facilities, employees and communities living in the vicinity of the infrastructure serviced by the company. Great emphasis is placed on improving employee qualifications, quality of procedures and aligning internal company regulations to current requirements. A special function in this respect is played by the branches and Field Operating Units. The employees involved are appropriately qualified and authorised to supervise, coordinate and perform construction and installation tasks and works related to repairs and investments on the gas network, including construction of transmission network sections, connection works and emergency repairs. Some of the tasks are performed by the company's in-house personnel – mainly by teams from the Gas Technical Emergency Service and Field Service Units, working in liaison with employees from the branches' technical departments.

### Good practice

Thanks to cooperation between GAZ-SYSTEM's **Tarnów Branch** (technology, structural engineering and construction) and **Rembelszczyzna Branch** (control and measurement instrumentation and automation, electrical systems), designs of typical measurement stations were developed, featuring universal and replicable solutions. The process systems of the stations were adapted to fit gas meters of various types and sizes operating in U1 and U2 modes. These standardised designs have been approved by the Office of Technical Inspection and their application significantly accelerates the engineering phase, which is limited to the adaptation of a typical facility to specific field conditions and obtaining administrative approvals. These time savings are particularly important when it comes to urgent modernisation and timely completion of connection agreements.

24



number of fire drills  
carried out





### Coordination of emergency response to the gas pipeline failure in Murowana Goślina

On the night of 26 January 2018, a gas leakage from a high-pressure gas pipeline occurred at the Poznań-Rogoźno section in Murowana Goślina, followed by a gas combustion incident. On the same day, the section of the affected gas pipeline was separated and secured by GAZ-SYSTEM crews. An immediate decision was made to provide alternative means to restore gas supplies to consumers. For this purpose, LNG facilities were connected to two shut-down stations. The company was in ongoing contact with the services responsible for safety and assistance to the affected individuals, as well as with administrative and local government authorities. The Management Board of GAZ-SYSTEM set up a Crisis Management Team to coordinate actions related to the situation. Representatives of the company immediately arrived at the accident site. GAZ-SYSTEM also immediately activated two emergency phone lines which could be used by the affected parties (in matters concerning the removal of the failure, organisational matters, possible assistance). The victims were provided with psychological assistance at the Social Welfare Centre in Murowana Goślina.

As soon as possible, GAZ-SYSTEM initiated the process of compensating the victims for their losses, covering the majority of the damages incurred. The victims were provided with special support from the company and its insurer. In addition, GAZ-SYSTEM also engaged in charitable and sponsoring activities. The local community was given, among other things, donations to those most affected, the Voluntary Fire Brigade units in Murowana Goślina, and a donation for improving the condition of local roads (a total of PLN 300,100). The works related to restoring normal gas flow via the pipeline lasted from 26 January to 2 February 2018.

GAZ-SYSTEM employees also collected basic necessities (cleaning products, clothing, etc.) for three most affected families.

## 3.3. Research and development for safety and quality of services

The company pursued research and development projects with its own resources and in partnership with companies from the gas sector and external research and development organisations. GAZ-SYSTEM's R&D activity also includes its laboratories, i.e. the Gas Quality Measurement Laboratory (LPJG) in Pogórska Wola (Małopolskie Voivodeship) and the Gas Calibration Laboratory (LWG) in Hołowczyce (Mazowieckie Voivodeship).

### Gas Quality Measurement Laboratory (LPJG) GRI 203-1

LPJG's research areas include analysis of gas composition, including analysis of sulphur compounds, water and hydrocarbons temperature and dew point measurements; tests carried out in the operating environment, including noise, vibrations with local and general effects on human body. LPJG also performs measurement and analytical inspections of process gas chromatographs and conducts training programmes on their operation and maintenance, as well as on equipment for measuring water dew point. In August 2018, the Polish Centre for Accreditation confirmed the extended competence of the Gas Quality Measurement Laboratory in Pogórska Wola to measure noise emissions to the environment from installations, equipment and industrial plants. These tests help determine whether the noise levels emitted by the industrial infrastructure meet the acceptable legal standards, which is important from the perspective of the needs of the neighbouring communities.

### Gas Meter Calibration Laboratory (LWG)

In December 2018, the Gas Meter Calibration Laboratory in Hołowczyce became an accredited Calibration Laboratory (No. AP 183) for calibration of turbine gas meters, following a relevant decision of the Polish Centre for Accreditation. The calibration of gas meters with natural gas under high pressure means an increased accuracy of gas fuel quantity measurement, thus offering enhanced reliability in settlements with consumers at the entry and exit points of the transmission network, as well as an improved transmission system balancing.

Our innovative workstation allows us to carry out various tests of measuring devices, as well as research and development activities in collaboration with external institutions, equipment manufacturers and research centres. The laboratory in Hołowczyce is Poland's only facility that performs calibration of gas meters using high-pressure natural gas.

### CNG technology development

In 2018, a study was undertaken to investigate the options for the development of CNG (Compressed Natural Gas) supply infrastructure using the assets of GAZ-SYSTEM. Among other things, the possibility of loading CNG tank trucks enabling the transport of large volumes of CNG to end consumers was analysed. Several variants of business models for the provision of this service were defined.

### Waste energy management

Expert studies conducted in 2017 demonstrated that it is feasible to build systems for the recovery of waste energy

from flue gases at selected gas compressor stations. Based on these findings, in 2018, preliminary preparations were made to construct a pilot system consisting of a heat exchanger mounted on the exhaust stack of a motor compressor (with the possibility of further expansion to include additional components). The recovered energy will then be used for the central heating of the selected gas compressor station.

## HYREADY project

Initial guidelines for adapting gas networks to accept mixtures of natural gas with hydrogen were developed (with particular emphasis on the impact of fluctuating hydrogen concentration in natural gas). The elements of gas systems

that will need to be adapted or replaced were defined, depending on the concentration of hydrogen in the transmitted blend.

Recommendations on changing the existing procedures applied by the operators in order to reduce the negative impact of hydrogen on the transmission network were also developed. These will be successively supplemented with guidelines for inclusion of further elements of gas infrastructure, i.e. end-user equipment or gas compressor stations. The studies carried out as part of the project were based on existing publications. The HYREADY project, which is delivered in cooperation with an international group of 13 companies, concerns practical aspects of the use of hydrogen in transmission networks.



## GERG - methane emissions

In 2018, as part of the international European Gas Research Group (GERG), transmission system operators from Spain, Belgium, the Netherlands, France, Italy and Poland signed an agreement on the assessment of the level of emissions from their transmission systems. The project aims to find the best methods of detecting and measuring volatile emissions from natural gas transmission systems. It also covers the testing of selected solutions and the preparation of guidelines for the development of a relevant European standard. The development of the standard will allow for realistic and uniform assessment of transmission system emissions by all European operators.



## 3.4. Environmental care

Ensuring environmental sustainability is a key issue in the context of the company's investments, operation and maintenance of its gas infrastructure. The areas of environmental protection management are based on our proprietary system solutions which combine relevant good practices, modern methods, as well as the experience and expertise of our employees. The Environmental Management System for the transmission of natural gas is in place throughout the country.

### GRI 102-11

#### GAZ-SYSTEM's environmental goals are:

- improved efficiency of environmental management
- continued improvement of the environmental impact of implemented processes (e.g. investments, maintenance, operation, procurement)
- mitigation of negative impact on the environment, especially in: waste management, water and sewage management, emission of pollutants into the air, noise emissions
- protection of plant and animal species
- rational consumption of utilities and resources;
- full compliance with binding legal requirements
- raising environmental awareness among employees

#### The above objectives are pursued by:

- using best available technologies to achieve a high level of protection of the environment as a whole;
- reduction in the quantity of waste produced
- monitoring of water, air and soil pollution and contamination and ensuring compliance with permissible emission standards
- mitigation of noise emissions to an acceptable level with the use of best available technologies
- restoring elements of the environment to a proper condition

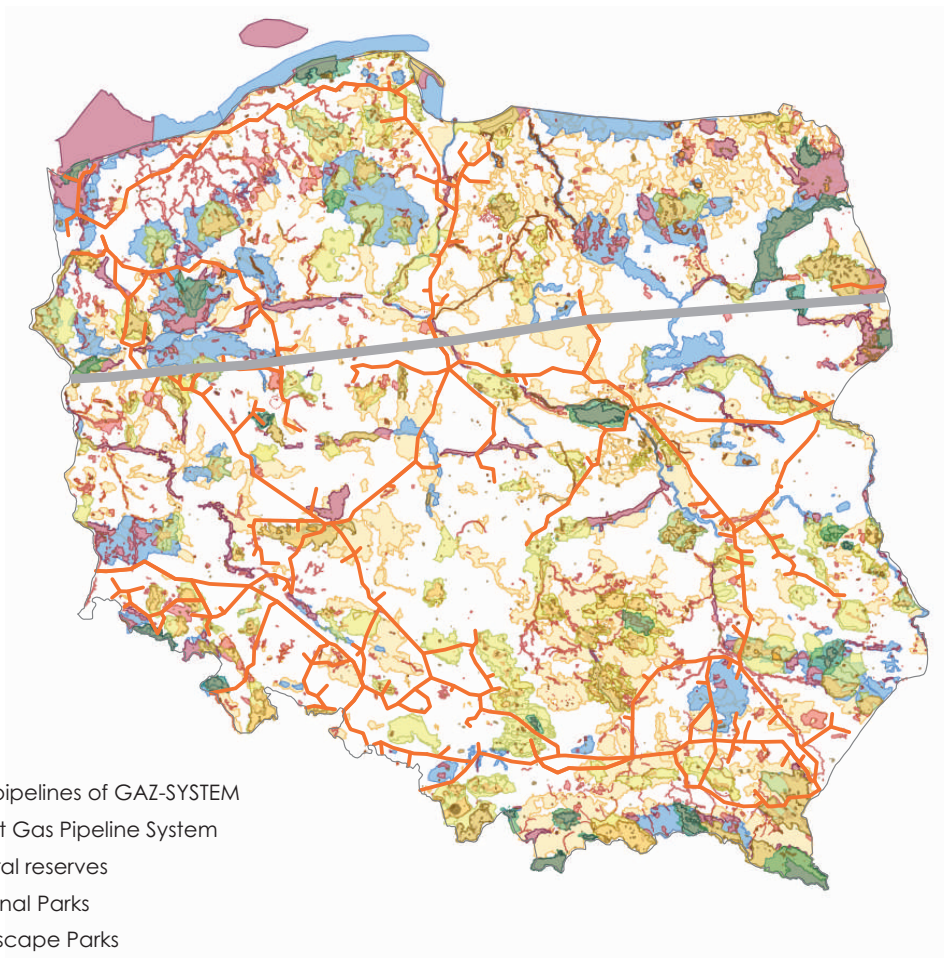
- getting employees involved in pro-environmental initiatives, organizing training and ensuring the efficient flow of information about environmental activities
- continuous compliance with the legislation in force in the area of environmental protection and ongoing identification of and adaptation of the business to new legal requirements

**GRI 304-1** All GAZ-SYSTEM investments are carried out in a sustainable manner so as to minimise the negative impact of the projects on the environment. Environmental decisions must be obtained for the majority of GAZ-SYSTEM's projects prior to the commencement of construction works.

**In 2018, such decisions were obtained for:**

- the southern section of the Poland-Lithuania gas pipeline (Hołowczyce - Rudka Skroda)
- expansion of the Hołowczyce 2 gas compressor station
- Stage 6 of the Szczecin-Gdańsk gas pipeline (Reszki-Wiczlino)

In the course of its investment projects GAZ-SYSTEM generates an impact on protected areas. The length of the gas pipeline network passing through such areas totals 2469 km, which constitutes 22.33% of the entire transmission network. In order to obtain an environmental decision, inventories and natural valuations of the area where the intended project is to be developed are carried out. Additionally, at the construction stage, works are carried out under environmental supervision with the environmental impact of the investment also being monitored. In some cases, monitoring is also carried out at the post-completion stage, depending on the conditions resulting from the decision on environmental conditions for a particular project.



Routing of gas pipelines through areas of environmental value. Source: GAZ-SYSTEM.

# 4



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Risk management





## 4. Safe workplace

Ensuring employee safety is a fundamental duty of an employer, which translates into the quality, comfort and general work environment. GAZ-SYSTEM's occupational health and safety management system operates under non-certified European occupational health and safety management standards. The solutions are adapted to the legal requirements and needs of the company.

### The main tasks of the committee include:

- review of working conditions
- operiodic assessment of health and safety at work
- providing advice on measures taken by the employer to prevent accidents at work and occupational diseases
- putting forward proposals for the improvement of working conditions

### GRI 403-1 4.1. Key objectives of occupational health and safety management:

- continuous prevention of incidents and mitigation of their possible consequences
- raising employee awareness of safe-work principles
- control to ensure compliance with internal work-safety rules
- strict compliance with the applicable OHS legislation
- improving employee qualifications in OHS
- regular participation in OHS knowledge and experience exchange with other companies
- ensuring the application of the latest achievements of science and technology in the area of improvement of working conditions

### GRI 403-2 Hazard identification, risk assessment and accident investigation

In order to minimise the risk of accidents, employees are trained on occupational safety rules, while each job position is subject to a comprehensive occupational risk assessment. This is carried out in conjunction with employee representatives, the Social Labour Inspectorate and an occupational physician. In addition to the complementary workplace risk assessment, an important role of the OHS service is to constantly strive to improve working conditions. The company has procedures in place to minimise risks to the health and life of its employees. Gathering information related to accident hazards allows for appropriate response prior to their occurrence, while their analysis supports the design of effective accident prevention measures.

In 2018, 66 accident-related events were reported in GAZ-SYSTEM, of which 28 were classified as accidents at work and 38 as other incidents (accident-related incidents, potential accident occurrences).

### GRI 403-4 Employee participation, consultation and communication on health and safety at work

The company has an OHS Committee in place, which fulfils an advisory and opinion-giving role for OHS issues. The Committee includes an equal number of employer (including OHS personnel and physician providing health-care for the employees) and employee representatives. The Chairman of the OHS Committee is appointed by the employer, and the Deputy Chairman by the Social Labour Inspector. Thus, all employees are represented in the official joint OHS committees, which meet at least once a quarter.

### Safety culture at GAZ-SYSTEM

Preventive measures targeting both employees and subcontractors are seen as the key elements in safety management. Building awareness of safe work performance and creating proactive attitudes among employees and contractors is a way to further improve the company's safety culture.

### Campaign: 'Let's talk about safety at work'.

As part of the initiative, a series of sessions was held which involved the company's OHS and Fire Departments and employees at all company branches, 11 Field Operation Units and three compressor stations. The purpose these meetings was to discuss important areas of occupational health and safety, to exchange experiences, observations and conclusions that help improve the company's occupational safety culture.

### Campaign: 'First aid is easy'

This initiative included workshops on first aid and prevention of work-related accidents. The workshops were complemented by educational materials published in the company newsletter 'GAZeta'. In addition, 35 employees took part in the 7th edition the GAZ-SYSTEM President Cup First Aid Championship.

### Training: 'Systems and equipment for use in explosion-prone areas'.

With a view to meeting the needs related to the specific nature of work in places where explosive gas conditions may occur, a series of trainings was conducted at all branches of the company in 2018. These were addressed to all employees whose concerned with gas network works.

#### Good practice

The **'Safe LNG'** campaign, which was jointly developed by GAZ-SYSTEM and Polskie LNG companies, included: meetings with residents, local authorities and students, as well as training sessions conducted by the Fire Service.

## 4.2. Safety and continuity of operations

**GAZ-SYSTEM operates two systems certified for compliance with international ISO standards:**

- Information Security Management System (ISMS) compliant with ISO 27001
- Business Continuity Management System (BCMS) compliant with ISO 22301

### Information Security Management System (ISMS)

2018 saw a thorough update and reconstruction of the system, adjusting its formula to the new structure of the company and new challenges.

### Business Continuity Management System (BCMS)

In 2018, work on the BCMS system was geared towards practical verification of its performance. The company conducted numerous tests of response to emergency and crisis scenarios in the area of infrastructure protection, ICT communication and operational cooperation with security services, which demonstrated a high level of emergency response readiness to gas transmission disruptions. On 25 July 2018, the Business Continuity Forum was established, as a team of professionals in charge of defining objectives and making key decisions regarding the functioning of the BCMS, as well as BCMS Coordinators and their deputies, responsible for the implementation of the business continuity system guidelines. In 2018, both systems were subject to an external audit by an accredited certification body (BSI GROUP POLSKA Sp. z o.o.), following which the company retained its official certificates of compliance ISO/IEC 27001:2013 and ISO/IEC 22301:2013.

## 4.3. Risk management

GRI 102-15

GAZ-SYSTEM operates a corporate risk management system based on the ISO 31000 standard. In 2018, an assessment of the maturity of risk management in the company was carried out, based on the Risk Maturity Model (RIMS), including the capability level to meet the objectives, proactivity and uniformity of organisation. The key risks that may affect the company are closely related to its mission and development plans. The pursuit of those goals is supported by risk analysis that accompany the making of vital decisions, and by ongoing process-risk management, including:

- transmission continuity assurance
- operation of the transmission system
- project management
- information security
- safe working conditions.

357

number of participants  
in workshops on plants and equipment  
operated in explosion-prone areas





# 5



## EFFECTIVE management

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Responsible growth and cooperation  
with local communities



## 5. EFFECTIVE MANAGEMENT. RESPONSIBLE GROWTH AND COOPERATION WITH LOCAL COMMUNITIES

**GRI 102-41** GAZ-SYSTEM Group follows a structured human resources policy focused on professional development. The policy is based on the principle that the employees are the greatest source of potential for any company. Their knowledge, skills, quality of work and commitment determine the growth and competitive edge of the companies they work for. The belief that the harmonious implementation of the strategy, organizational culture, structure, processes and projects implemented by the organization directly affects the ability of the company to achieve its goals, helps to build a friendly workplace that is conducive to the atmosphere of cooperation and willingness to share knowledge. The responsible approach of GAZ-SYSTEM to human resources management is reflected in the definition of transparent and non-discriminatory rules with respect to e.g. hiring, employment, promotion and professional development of the employees. All the employees, regardless of their working time and type of contract are covered by the Collective Labour Agreement of 8 March 2007 for the employees of Gas Transmission Operator GAZ-SYSTEM S.A. The document sets forth the employee entitlements under the generally applicable labour regulations and additional benefits offered by the company. Any matters concerning employment and major organisational changes are subject to consultations with social partners.

### 5.1. Job valuation and personal development interview

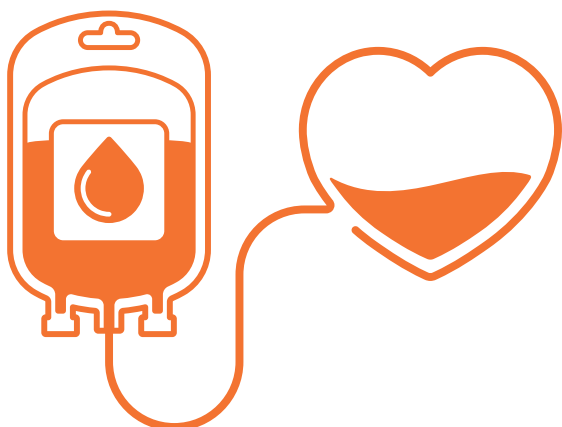
In 2018, GAZ-SYSTEM undertook a process of job valuation to align the remuneration system within the company and to build a transparent list of job positions and compensation schedule. The project improved the company's competitive position on the market and led to the development of an internal compensation standard. Following the evaluation of job positions, new development and promotion prospects opened were opened for employees. The next stage in the development of the company's HR processes was the launch of the so-called personal development interview scheme. The pilot of this project was held in 2017 at the Gdańsk branch, and was rolled out to all organisational units in 2018. The personal development interview is an annual meeting between an employee and his/her superior, at which a plan for strengthening his/her competences and optimal directions of his/her professional development are jointly defined, taking into account the company's needs and available opportunities.



## 5.2. Examples of corporate good practice

GAZ-SYSTEM strives to establish the best practices aimed at supporting the development of its employees and creating good atmosphere in the workplace. This strategy includes, among others, initiatives intended to foster employee motivation and involvement, care for good relations in the workplace, as well as personal identification with corporate values.

### Blood donation campaign



### GAZ-SYSTEM joined the National Energy Industry Blood Donation Effort 'A Drop of Energy for Independence'.

GAZ-SYSTEM was among the 13 companies which, in the year of the 100th Anniversary of Independence, joined the blood donation effort to support local blood banks under the slogan 'A drop of Energy for Independence'. The event was held under the honorary patronage of the Ministry of Energy and the Ministry of Health.

28 and 29 October 2018 saw GAZ-SYSTEM and Polskie LNG employees attend the National Energy Industry Blood Donation Effort, as part of which a total of 16 litres of blood was collected. 7 litres were donated by employees in a special mobile blood donation station in Warsaw, while 9 litres came from Polskie LNG and GAZ-SYSTEM employees at the LNG terminal, where a blood collection point was provided on the premises of the Świnoujście State Fire Service).

### Photographic competition

The 2018 edition of the 'GAZ-SYSTEM for Nature' eco-themed photo competition was held, as part of which 13 photos with the highest number of employees' votes were selected to illustrate the company's official 2019 wall calendar.



**Pipe laying landscape**  
Karolina Talaśka, Poznań Branch



**It's not always plain sailing Gdańsk**  
Arkadiusz Furmankiewicz, Gdańsk Branch

### Exchange of Invention and Improvement Ideas

13 innovators joined the first edition of the company's 'Exchange of Invention and Rationalisation Ideas'. In total, 21 proposals for inventions and improvements were submitted relating to various areas of GAZ-SYSTEM's activity. The largest groups included ideas concerning transmission system operation and work organisation improvement.

### Sport and recreation

#### GAZ-SYSTEM sporting events



January: giant slalom ski championship



May: volleyball tournament



June: motorcycle rally



September: family cycling rally



September: sailing regatta



October: shooting tournament



#### In September 2018,

a 5-strong team representing GAZ-SYSTEM participated in 11th edition of the Tour de Gas, an international cycling race organised by the Slovakian transmission operator Eustream a.s.

## 5.3. Acting together for the benefit of others

### Natural Energy Fund

The Natural Energy Fund is a grant competition which has been organised by GAZ-SYSTEM for nine years now. Each year sees schools, nurseries, foundations and associations, municipalities and entire cities apply for funding to realise their ideas for saving the natural environment. The competition is held in five selected provinces. The social partner of its 9th edition was the "Za górami, za lasami" Foundation.

- Number of competition entries: 112
- Number of beneficiaries: 22
- Total value of grants: PLN 218,787.03

### Donations

GAZ-SYSTEM wywiązuje się z roli odpowiedzialnego uczestnika życia społecznego. Działania dobroczynne są wsparciem i odpowiedzią na konkretne potrzeby lokalnych społeczności oraz organizacji funkcjonujących w najbliższym otoczeniu spółki. W 2018 r. wsparcie kierowane było na następujące cele:

#### ○ Safety

Support was extended to 15 Voluntary Fire Brigade units carrying out emergency rescue activities, including life and property protection, prevention of fires and natural disasters, and ensuring the safety of local communities.

**Education**

The company granted its support to:  
 - young people studying to become gas technicians (in vocational schools under the patronage of GAZ-SYSTEM),  
 - organisations working for science and education – in respect of organisation of workshops on: volunteering, journalism, social sensitivity for 87 children from 4 educational care centres; institutions involved in education and preserving historical remembrance

**Charity initiatives**

Support for people suffering from difficult living conditions and people with disabilities was provided through non-governmental organisations, including food supplies, heating fuel, repairs of gas and central heating systems at those locations where works are carried out, as well as providing support to the blind and visually impaired.

**Sponsorship activities**

Sponsorship activities undertaken by GAZ-SYSTEM are consistent with the plans set out in the Corporate Strategy until 2025, the Company's Corporate Image Policy and the Principles of Sponsorship Activities in the GAZ-SYSTEM Group, which are based on 'Good Practices Regarding Sponsorship Activities by Companies with Treasury Shareholding'. Their objectives include:

Establishing the image of the company as an enterprise responsible for the energy security of the country

Creating the image of a credible and reputable employer

Creating the image of an industry expert

Building the awareness of the need to develop gas infrastructure

Building positive relations with stakeholders

Winning sustainable public acceptance for undertaken investment projects

**In 2018, GAZ-SYSTEM sponsored 153 projects, including:**

- 52 projects classified as community projects: day events, festivals, picnics, town and commune festivals, events bringing together local communities
- 23 sporting projects: ping-pong tournament, running, cycling races, canoeing competitions, football tournaments for children and youth
- 43 cultural and arts projects: music events, dance events, music and film festivals
- 11 projects in the field of science and education: science picnics, events co-organised by universities
- 3 environmental initiatives: eco-song festival, ecological event for children
- 21 business and industry events



Piknik historyczny w gminie Raczków. Źródło: GAZ-SYSTEM.



The number of trees planted  
as a part of volunteering activities:

**18,200**



## Local Initiatives Support Fund

GAZ-SYSTEM is committed to providing support for projects in education and science, sport, safety, culture and the arts, which serve the local communities in those locations where the company's key investments are concentrated.

### Objectives

- building positive relations with local communities
- gaining the approval of local communities for investment projects
- promoting the image of GAZ-SYSTEM as a responsible company engaged in the life of local communities

**In 2018, 27 projects were implemented as part of the Fund, for a total value of**

**over PLN 180 000.**



## Employee Volunteering

### Initiative 'GAZ-SYSTEM. Together for Nature'

346 volunteers – GAZ-SYSTEM employees – planted over 18 thousand trees. As tree seedlings require proper planting and subsequent care, the company undertook this task together with forest inspectorates from all over Poland. GAZ-SYSTEM celebrated the World Earth Day along with the employees of PGNIG TERMIKA and PG Wody Polskie by cleaning the banks of the Żerań Canal from the Żerań Port area to the border with Nieporęt commune. Three 7m<sup>3</sup> containers were filled with waste. All three companies joined their efforts in an investment project to build a gas pipeline to connect the Rembelszczyzna compressor station to the Żerań CHP Plant.



Oak	1900
Elm	1000
Hawthorn	500
Linden	1000
Maple	500
Beech	5300
Hornbeam	1000
Fir	1000
Pine	6000
<b>Total</b>	<b>18 200</b>



### Good practice

#### 'A Useful Gift'

In March 2018, GAZ-SYSTEM delivered branches to the Warsaw Zoo after clearing the construction and assembly strip along the Żerań Canal and in its immediate vicinity. These were provided for the zoo's herbivorous animals to bite on and play with.

[www.youtube.com/watch?v=WgBg70hOgSM](http://www.youtube.com/watch?v=WgBg70hOgSM)

### Initiative: 'GAZ-SYSTEM. Acting together for others'

373 employees took part in a Christmas collection of funds transferred to 6 care and educational institutions. The collected amount (PLN 29,017) was used by children's homes to pay for Christmas gifts and parcels, winter holidays, excursions, visits to playrooms and bowling alleys. The fundraisers received invitations from children to celebrate Christmas Eve in a unique, seasonal atmosphere.

GRI 413-1

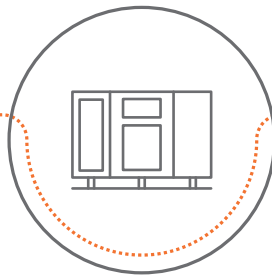
## 5.4. Communication activities concerning ongoing investment projects

Both at the design and construction stage, each investment project involves communication activities. These are aimed at reaching the local communities of those localities where a given project will be carried out.



**130**

with residents meetings with residents (nearly 1500 participants)



**110**

information and publicity stands



**160**

meetings with local authorities



posters, brochures and leaflets



**3500**

school starter kits



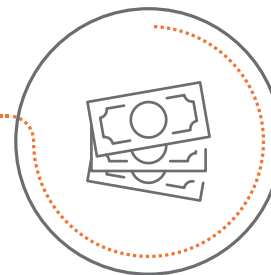
**20**

communication workshops



**66**

educational workshops for young people in 48 schools (nearly 1600 students in total)



**PLN 156 million**

of local taxes transferred to communes in respect of infrastructure built

	Rembelszczyna	Poznań	Wrocław	Gdańsk	Tarnów	Świerklany	Total
<b>Number of consultation meetings with representatives of local communities (meetings with local residents)</b>	5	37	58	26	4	3	<b>133</b>
<b>Number of participants in consultation meetings</b>	165	500	444	159	93	160	<b>1521</b>
<b>Number of complaints about failure to provide complete information</b>	0	0	0	0	0	0	<b>0</b>
<b>Number of meetings with local authorities</b>	53	35	13	11	20	26	<b>158</b>
<b>Workshops for Contractors and Subcontractors – design services and construction works</b>	7	7	1	0	1	4	<b>20</b>

Communication of investments among local communities (organisation's indicators). Source: GAZ-SYSTEM

Engaging in dialogue with local communities is equally important in the case of the Baltic Pipe project. GAZ-SYSTEM, striving for efficient and transparent communication of this investment project, hosted Poland's first public hearing in Szczecin on 7 March 2018. The purpose of the meeting was to provide local communities, local authorities, NGOs and other stakeholders with information on the project and to enable them to submit comments at the earliest possible stage of its implementation. Similar public hearings had been held earlier in Denmark, Germany and Sweden.

In addition, in June and December 2018, public consultations were conducted in municipalities along the routes of the planned pipelines. The meetings were attended by large groups of stakeholders, including representatives of local communities, local governments, fishing organisations and owners of properties where the works are planned.



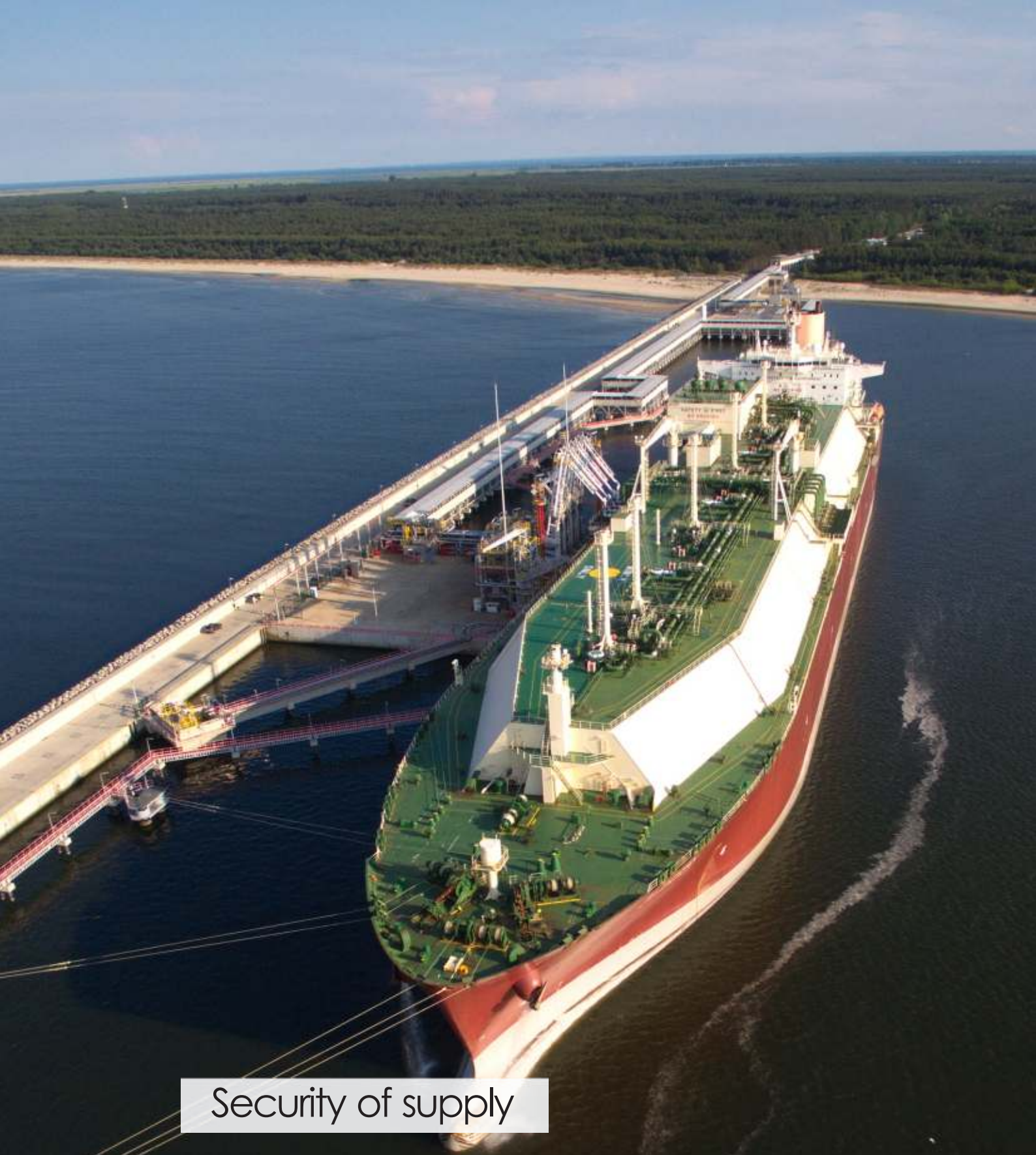
### Dialogue as part of the Baltic Pipe project

- 4 PCI information meetings: Poland, Denmark, Germany and Sweden
- Public consultations in 23 municipalities along the route of the Goleniów-Lwówek gas pipeline and the gas pipeline connecting the offshore gas pipeline with the National Transmission System

# 6



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Security of supply

## GRI 102-1 GRI 102-2 GRI 102-3 GRI 102-4 GRI 102-5 GRI 102-6 6.1. Highlights

Polskie LNG S.A. is the owner and the operator of the President Lech Kaczyński LNG Terminal in Świnoujście. The company was established in 2007 by Polskie Górnictwo Naftowe i Gazownictwo S.A. (PGNiG). On 8 December 2008, 100 percent of shares in Polskie LNG Sp. z o.o. were acquired by GAZ-SYSTEM S.A. On 1 January 2010, Polskie LNG Sp. z o.o. was transformed into a joint-stock company.

By virtue of a licence granted by the President of ERO for natural gas liquefaction and LNG regasification in liquefied natural gas facilities until 31 December 2030, Polskie LNG provides LNG re-gasification services (long-term and short-term), and the additional service is the reloading of LNG into road tankers.

As part of the regasification activity, the LNG Terminal Operator provides the following services to the user: LNG unloading from the tanker, process storage, LNG regasification, and delivery of natural gas to the exit point from the LNG Terminal.

Polskie LNG is headquartered in Świnoujście at 1 Ku Morzu Street. The company also has an office in Warsaw. Polskie LNG does not have any subsidiaries, affiliates or joint ventures.



## 6.2. Values

GRI 102-9  
GRI 102-16



### Mission

The mission of the company is to actively support the security and reliability of LNG imports to the Polish and European gas system, and to cooperate with other parties in the development of competition on the gas market.

### Vision

The vision of Polskie LNG is to become a significant player in the European natural gas transmission system in order to actively support the country's energy security by ensuring the reliable operation of the LNG Terminal. The company will achieve the above owing to a competent team of people applying state-of-the-art standards and acting in accordance with the principles of sustainable development, as well as through the diversification of services and application of clean, safe and modern technologies.

Polskie LNG has implemented and maintains an Integrated Management System for Quality and Environmental Management, Occupational Health and Safety, Information Security and Corporate Risk Management. Currently, the Integrated Management System comprises of certified quality, environmental and health and safety management systems. In addition, the Information Security Management System (ISO 27001) and the Corporate Risk Management System have also been integrated. (ISO 31000 - the system is not subject to certification).

### Our corporate values:

- **Accountability:** we are committed to pursuing our objectives and tasks, taking in consideration of the interests of the company and its stakeholders
- **Safety:** we adhere to the highest internationally recognised procedures and standards
- **Teamwork:** we build bonds and undertake joint group activities towards shared goals within and among teams.
- **Environment:** we operate with respect for the natural environment while engaging in a broad range of environmental activities
- **Development:** we are committed to developing our capabilities to the benefit of our company and our employees.
- **Effectiveness:** we undertake initiatives and support activities to reach our goals.

### Code of Ethics

Polskie LNG's Code of Ethics is based on the core values of the company. They are the foundation for the development of a model of competence and standards of employee behaviour on the business market, in the natural and social environment, as well as in employer-employee relations.

The Code explicitly states that the company's policy is based on equal opportunities, regardless of race, nationality, gender, sexual orientation, degree of fitness and age. The company has implemented a procedure to counteract mobbing, discrimination and sexual exploitation. A union representative and an anti-mobbing committee were appointed, whose task is to collect data on possible manifestations of mobbing or sexual harassment and to undertake all necessary actions to counteract such behaviours.

## 6.3. Corporate Governance

The Management Board represents the company and conducts its business with respect to all court and out-of-court activities. The President of the Management Board and other members of the Management Board, including the Vice-President of the Management Board are appointed and dismissed by a resolution of the Supervisory Board or the General Shareholder Meeting.

### The composition of the Management Board in the financial year 2018 changed as follows:

From 1 January 2018 to 12 March 2018, the Management Board of the company was composed of:

- Bartłomiej Stoma – Vice-President of the Management Board

From 13 March 2018 to 31 December 2018, the Management Board of the company was composed of:

- Paweł Jakubowski – President of the Management Board
- Bartłomiej Stoma – Vice-President of the Management Board

All changes in the composition of the Management Board were systematically entered in the National Court Register.

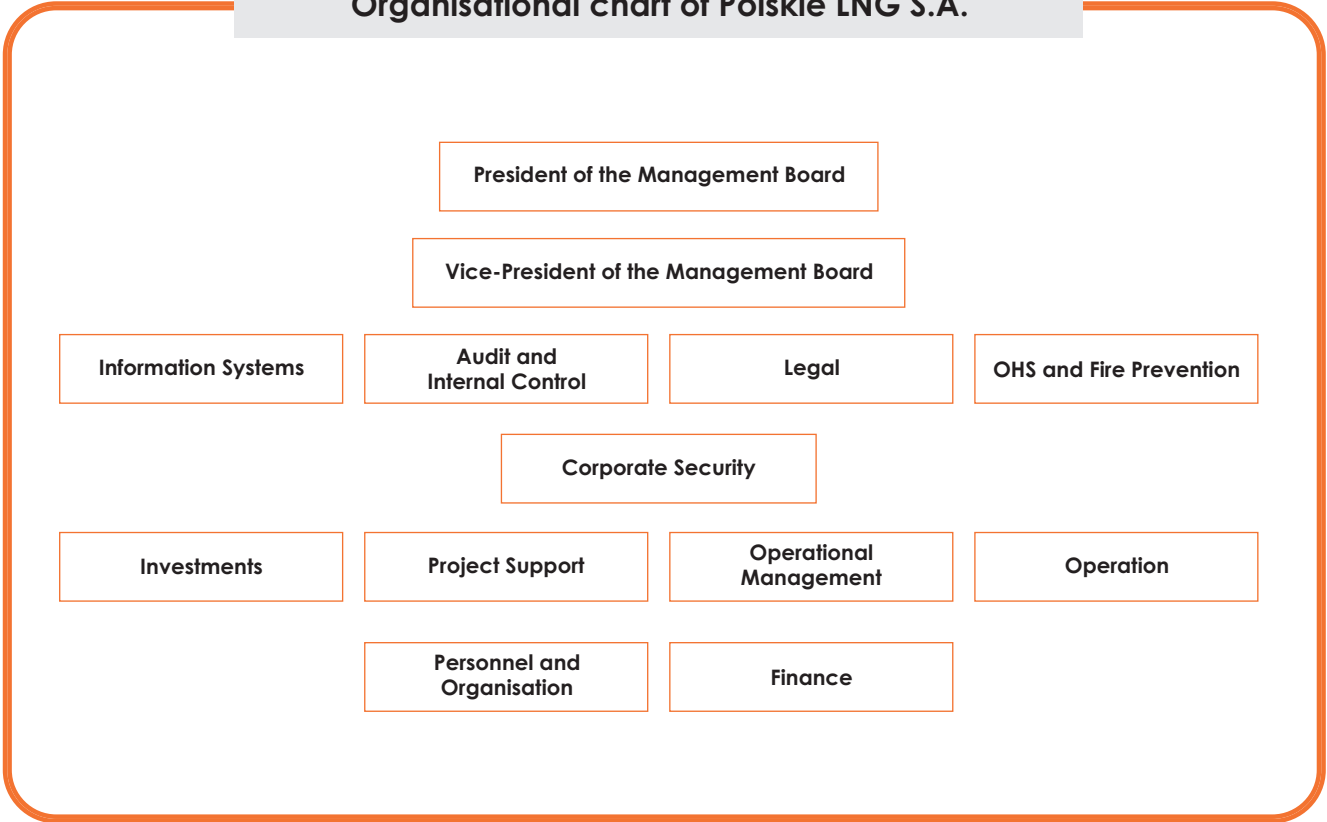
The Supervisory Board exercises constant supervision over the company's activity across all areas. Members of the Supervisory Board are appointed and dismissed by the General Meeting by way of a resolution.

### As at 31 December 2018, the Supervisory Board was composed of the following members:

- Izabella Łyś-Gorzowska – Chair of the Supervisory Board
- Artur Zawartko – Deputy Chair of the Supervisory Board
- Alicja Ostanek – Secretary of the Supervisory Board
- Krzysztof Jackowski – Member of the Supervisory Board
- Mateusz Kieferling – Member of the Supervisory Board

In accordance with the company's Quality Manual, which describes the Integrated Management System, the Management Board of Polskie LNG is responsible for setting the company's business policy and defining (confirming) its strategic goals, as specified in the company's strategy and other documents, and for translating them into functional objectives defined for particular organisational units. The Company's Management Board is responsible for ensuring the availability of resources necessary to achieve the set objectives and to conduct Management Reviews as required by the Procedure: "Management Review Process at Polskie LNG S.A.".

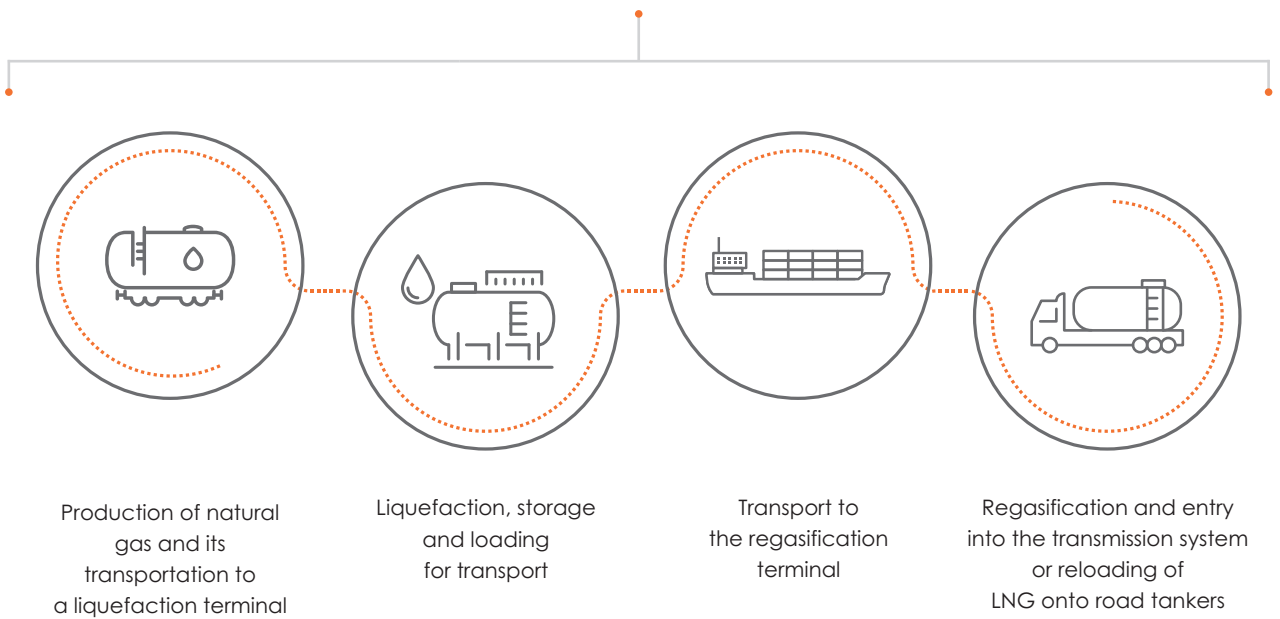
### Organisational chart of Polskie LNG S.A.



## 6.4. Supply chain

GRI 102-9  
GRI 102-10

Global LNG trade involves four stages





**4.4 million m<sup>3</sup>**

volume of gas unloaded  
at the LNG Terminal in 2018





Liquefied natural gas is transported to the terminal in Świnoujście (from Qatar, Norway and the USA) by some of the largest Q-flex methane carriers in the world. Then, the fuel is brought back to gaseous state through the process of heating it up (known as regasification). Then, already in a volatile form, the gas is injected into the National Transmission System and then delivered to individual customers.

Polskie LNG currently has a contract with one customer, i.e. PGNiG S.A. Apart from delivering gas after its regasification by the terminal to the transmission network, the company reloads LNG into tank trucks for PGNiG, PGNiG's customers or carriers acting on behalf of PGNiG or its customers. In fact, the terminal in Świnoujście serves a large group of LNG traders operating on the retail market and LNG carriers with whom it cooperates on an ongoing basis in order to provide LNG reloading services. In 2018, there were no significant changes to the size, structure, ownership or form of ownership. Since January 2018, PGNiG has had the booking for 100 percent of the regasification capacity of the terminal (in earlier years it was about 60 percent) and 100 percent of the LNG loading capacity on road tankers (compared to about 30 percent in previous years).

In 2018, the number of cargoes unloaded at the terminal increased. As in previous years, Qatar was the prevailing origin of deliveries, followed by the USA and Norway (deliveries from the latter country also increased in 2018). The number of road tankers loaded also increased.

### Examples of applications for liquefied natural gas

- Supply of natural gas to final customers
- Shaving short-term gas demand peak experienced during 3 to 4 weeks per year
- Supply of gas to customers not yet connected to the gas transmission (distribution) network
- Supply of gas to small and medium towns and villages, where fuel is supplied from the so-called LNG satellite stations
- Fuel for motor vehicles: buses, locomotives, helicopters and supersonic aircrafts (the need to protect the atmosphere from toxic components contained in the vehicle exhaust fumes)
- Fuel for power plants
- Supply of gas to customers temporarily cut off from the supply of gas from pipelines (maintenance, repairs)
- Cold source – LNG may be used for cooling and air separation purposes as well as in low-temperature installations
- Power supply for electricity and/or heat producing fuel cells



23 – number of LNG cargoes



1794 – number of loaded road tankers



24 – internal record for road tankers loaded during one day

## 6.5. Development of the company

The demand for natural gas in Central and Eastern Europe and the Baltic Sea area is growing. Thanks to the expansion and new functionalities, the LNG Terminal in Świnoujście will be able to accommodate it. The implementation of the expansion project is also a response to a number of European regulations, specifically climate and environmental legislation which forces out transformation towards low-carbon fuels.



The year 2018 was a time of many challenges for Polskie LNG. The company managed to significantly improve its performance in terms of receiving and unloading gas carriers from all over the world, as well as loading tanker trucks. An additional service of loading LNG onto ISO-containers was launched. Thanks to this, we are gaining very valuable experience. Notably, the LNG Terminal Expansion Programme was initiated, as part of which a project team was established and professional engineering staff in relevant specialisations was recruited from the market. The structuring of the Programme including its detailed parameters (Programme Definition), the adoption of the Strategic Investment Directions and the Contracting Strategy, and the development of a new process model for the terminal installation helped ensure a systematic and consistent implementation of the initial assumptions. This enabled us to obtain a complete set of environmental and location decisions at the end of 2018, and planning permission to build SCVs shortly beforehand. Then, in late 2018 and early 2019, we launched two key tender

procedures (for the onshore and offshore part). We also successfully completed the process of notifying state aid to the European Commission in order to obtain subsidies for the implementation of the programme. The expansion of the terminal and the consequent offering of additional terminal functionalities will make Poland a key player driving the development of the LNG market in the entire region of Central and Eastern Europe. I can already confidently say that Świnoujście has become our window on the world – on the global LNG market, of which we are now an integral part. Thanks to the LNG Terminal in Świnoujście, and through access to independent energy sources, we are creating new opportunities for the development of the Polish energy sector, and thus the Polish economy. The widespread use of LNG in various sectors – e.g. in public transport – is part of not only the national but also the European agenda for combating air pollution and improving the quality of life. Liquefied natural gas is a clean and efficient fuel, so it has a future ahead of it, and we want to be an important part of it.

**Paweł Jakubowski, President of Polskie LNG**

## Expansion of President Lech Kaczyński LNG Terminal

● Expansion plan

○ Stan obecny

1. Third tank

2. LNG reloading to rail

3. Second berth

4. Additional SCVs

5. LNG unloading berth

6. Seawater intake

7, 8. LNG storage tanks

9. SCVs

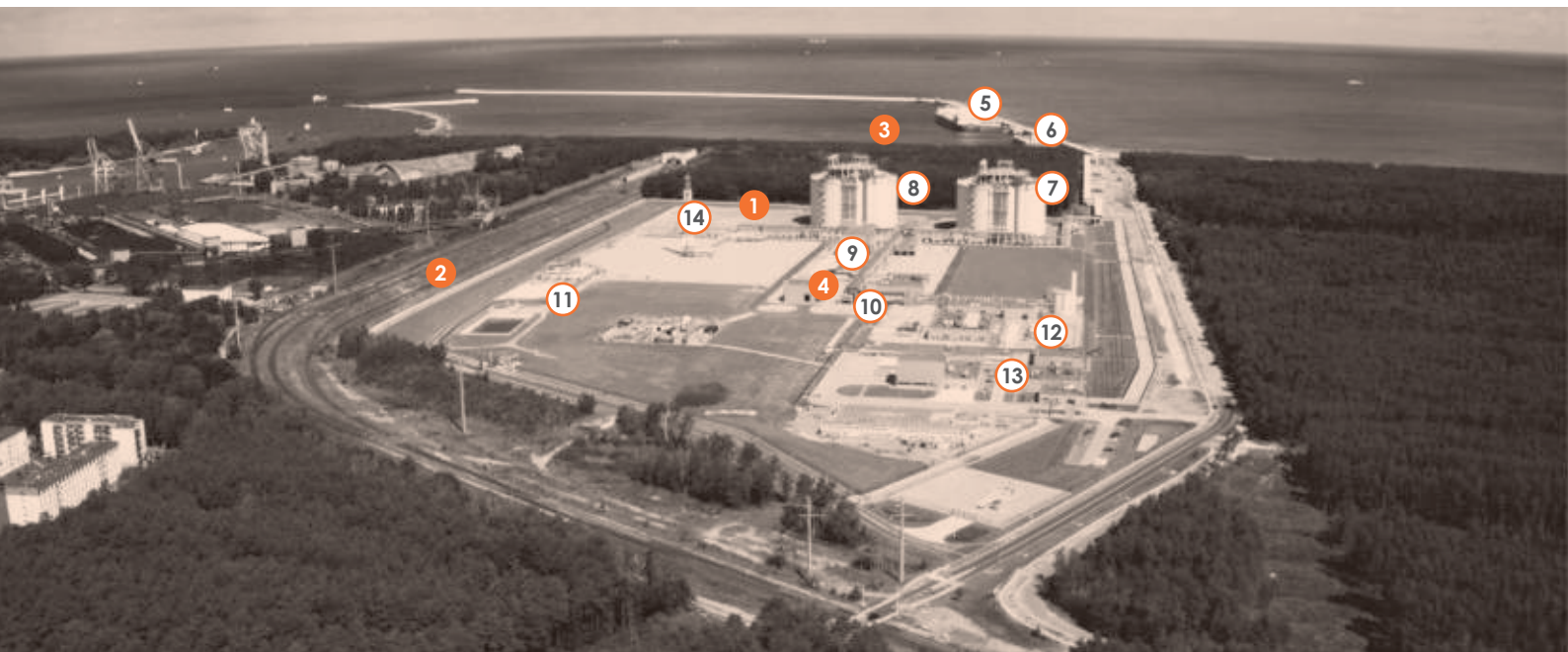
10. Measurement station

11. LNG tanker loading station

12. Water tank

13. Administrative buildings, control room

14. Flare



Source: GAZ-SYSTEM

## 6.6. Stakeholder relations

The LNG Terminal is an important feature not only of the Polish economy, but also of the West Zachodniopomorskie Voivodeship and Świnoujście. As one of the largest Polish investments of recent years, it plays an important role for the local community in a number of ways. The company, acting in a socially responsible manner, focuses on key areas related to the life of the inhabitants of Świnoujście and has been implementing numerous local and regional projects for several years now.

Polskie LNG puts emphasis on:

- education
- sports
- safety
- environment
- culture and art

Polskie LNG's obligations towards local communities result primarily from the sense of responsibility for the balanced

development and coexistence of three key elements related to project: economy, society and natural environment. The company's CSR Policy has been developed, based on close relations with the environment, as well as support for local initiatives. In achieving its business goals, the company consistently takes social interest and local economic and environmental needs into account. One of the key commitments of Polskie LNG undertaken as part of social dialogue was a new model of a cooperation which involves stakeholders in the decision-making process concerning financial support for projects to benefit Świnoujście and its residents. The overriding objective was to ensure that all enquiries concerning the possibility of awarding co-financing for various types of projects submitted to Polskie LNG were assessed in a transparent manner and using uniform criteria. The basic assumption and commitment of Polskie LNG with respect to stakeholder relations is to conduct communication activities in a consistent, reliable and effective manner.

GRI 102-12  
GRI 102-13  
GRI 102-40  
GRI 102-42  
GRI 102-43

**Communication activities are intended to promote the corporate image of Polskie LNG as:**

- the driving force of the LNG market development in Poland and the region
- the company leading an investment project of key importance for Poland and the region under the Terminal Expansion Program
- a thriving, modern and innovative company creating and providing new and innovative services to its customers
- a company ensuring Poland's energy security

In its dialogue with the stakeholders, Polskie LNG, strives to ensure consistent standards, promote open and reliable communication, strengthen the company's image as well as disseminate and increase knowledge about the company.

The most important issues are: ensuring positive relations with local communities and authorities in the locations where the company operates; supporting education and cultural activities; increasing knowledge about the company's undertakings and providing local charity support. Polskie LNG received the United Nations Global Compact award for its efforts to promote sustainable development and the Silver Card of the Safety at Work Leader.

**Polskie LNG is also a member of the major organisations active on the world and domestic natural gas markets:**

- Baltic Ports Organisation (BPO)
- International Group of Liquefied Natural Gas Importers (GIIGNL)
- The Society of International Gas Tanker and Terminal Operators (SIGTTO)
- Polish Chamber of Natural Gas Industry (IGG)
- Gas LNG Europe (GLE) in cooperation with GAZ-SYSTEM

## 6.7. Environmental care

**GRI 102-11** Environmental care is an integral part of Polskie LNG's business strategy. It is a core element of the company's operations, as part of the Environmental Management System (ISO 14001) implemented and maintained by the company. It is an effective tool allowing to identify environmental risks in a systematic manner and to effectively implement the "Environmental Policy" for the purpose of mitigating the negative impact on the external environment. Prior to the commencement of the terminal construction, the company had developed plans including the environmental conditions of the project, which was sited in a Natura 2000 area.

In view of Świnoujście's valuable natural assets and its role as a spa and tourist resort the terminal is located about 750 metres from the coastline (to ensure the preservation of historic forts and bunkers and the unique grey dunes). The facility is located about 1 km away from the edge of the spa resort zone. The terminal is connected to the wharf by an overhead LNG flyover, as it has the least impact on the natural environment and provides residents and tourists with easy access to the beach and historic buildings. The space was used in an economical manner, while preserving forest patches to the north and south of the terminal. Similar criteria were applied prior to the expansion of the Świnoujście LNG Terminal. Close monitoring was conducted using data for post-execution monitoring. The results of the surveys were incorporated into the site selection and environmental conditions for the LNG terminal expansion process.

## 6.8. Biodiversity

The area covered by the monitoring of the environmental impact covers the area within 100 m around the onshore part of the LNG terminal, the stretch of beach and dune habitats adjacent to the offshore part and a reference area comprising a stretch of beaches and dunes located approx. 2 km to the east of the project site.

**In respect of the abiotic environment, the monitoring includes:** **GRI 304-1**  
**GRI 304-4**

- surface water and groundwater, in accordance with the environmental decisions
- water intake and discharged wastewater, in accordance with the integrated permit and water law permits
- air pollutant emissions, noise emissions, electromagnetic fields and waste management, in accordance with the environmental decision and the integrated permit

**In respect of the biotic environment, the monitoring includes:**

- natural habitats and plant species
- fungi and lichens
- invertebrate fauna
- vertebrate animal fauna, including birds
- winter monitoring of bats

The LNG terminal site is limited to a small area (approximately 0.002 ha) in relation to the entire Wolin and Uznam Natura 2000 area which totals 30,791.95 ha.

The results of environmental monitoring carried out in 2017-2018 show that the terminal's operation during normal service has no impact on the biodiversity of the conservation areas. The natural habitats and species identified prior to the commencement of the project are still present in its vicinity. Species occurring in the area within the impact of the LNG terminal which have been considered to be under a threat of extinction include:

**According to the IUCN red list:**

- flora – none
- animals: 146 species, including: 139 LC (least concern) species, 3 LR(LC) species (lower risk: least concern species), 4 LR(NT) species (lower risk: near threatened species).

**According to domestic red lists:**

- Polish Red Data Book of Plants – 1 CR (critically at risk) species,
- Polish Red Data Book of Plants and Fungi – 1 VU (vulnerable) species; 1 CR (critically endangered) species,
- Red List of Macrofungi in Poland: 3 species EN (endangered); 2 species V (vulnerable) Red list of endangered and vulnerable animals in Poland: 25 species, including: 4 CR (critically endangered) species, 3 EN (seriously endangered) species, 4 VU (vulnerable) species, 3 NT (nearly threatened) species, 7 LC (least concern) species, 4 DD (data deficient) species.

**GRI 201-1 6.9. Economic performance**

	2017	2018
net revenue from sales	PLN 355,063,672.13	PLN 371,837,369.57
net revenue from sales	PLN 120,373,371.07	PLN 128,722,573.71

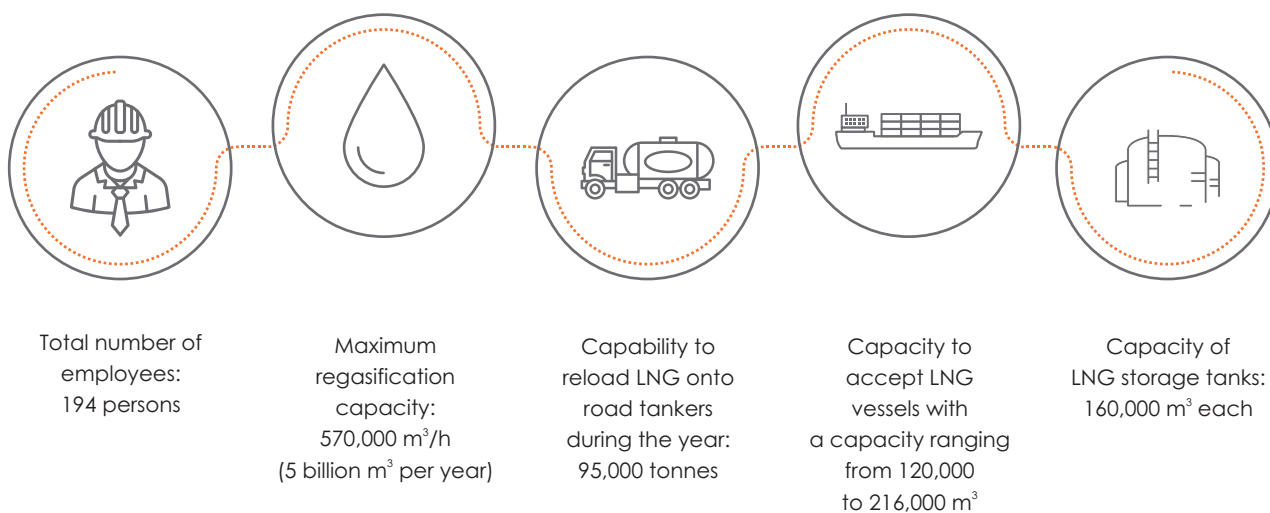


**Capital ratios from a debt and equity perspective (for private sector companies):**

	2017	2018
borrowed capital / liabilities	45.66%	43.48%
equity / liabilities	54.34%	56.52%
net revenue from sales	PLN 355,063,672.13	PLN 371 837 369,57
other operating income	PLN 32,565,390.15	PLN 35,992,979.08
financial income	PLN 2 510 806,89	PLN 2,719,257.55
total revenues	PLN 390,139,869.17	PLN 410,549,606.20
operating expenses	PLN 234,690,301.06	PLN 243,114,795.86
other operating expenses	PLN 3,932,395.45	PLN 4,905,273.51
financial expenses	PLN 23,205,011.53	PLN 9,763,746.33
total expenses	PLN 261,827,708.04	PLN 257,783,815.70
economic value	PLN 128,312,161.13	PLN 152,765,790.50
payroll and employee benefits	PLN 32,352,729.81	PLN 36,246,070.09
taxes and charges	PLN 43,036,501.65	PLN 51,959,129.60

## 6.10. Scale of operations

### GRI 102-7



## 6.11. 2018 Highlights in Polskie LNG

<b>Throughout the year</b>	
<b>March</b>	
<b>April</b>	
<b>May</b>	
<b>June</b>	
<b>August</b>	
<b>September</b>	
<b>November</b>	

<b>Throughout the year</b>	Presentation of the LNG Terminal as part of a roadshow held in the USA, Norway, Australia and France.
<b>March</b>	Appointment of Mr Paweł Jakubowski as President of the Management Board by the General Meeting of Shareholders.
<b>April</b>	Technical dialogue meetings on the project to expand the President Lech Kaczyński LNG Terminal.
<b>May</b>	Adoption of the draft concept of the Świnoujście LNG Terminal Expansion Programme by the Management Board of Polskie LNG.
<b>June</b>	Issuance by the Governor of Zachodniopomorskie Voivodship of a decision of 21 June 2018 on planning permission to Polskie LNG for the construction of an investment project involving the expansion of regasification capacity of the LNG terminal in Świnoujście.
<b>August</b>	<p>Conclusion by Polskie LNG and the University of Western Australia of a collaboration agreement on knowledge exchange and LNG technology development during the Polish-Australian Energy Forum in Sydney.</p> <p>Adoption by the Polskie LNG Management Board of the company's strategic investment directions, the Definition of the Świnoujście LNG Terminal Expansion Programme, including the Budget and Time Schedule of the Programme, as a long-term material and financial plan of the company.</p>
<b>September</b>	Joining the Baltic Ports Organisation (BPO), the largest regional association of the Baltic Sea area, bringing together 45 partners from 9 countries.
<b>November</b>	Joint organisation of a visit to Poland by Rick Perry, Secretary of the US Department of Energy, together with the government.

December

Approval of the new LNG regasification tariff by the President of the Energy Regulatory Office.

Conclusion of an agreement with the Szczecin and Świnoujście Seaports Authority regarding joint implementation of the Wharf part of the LNG Terminal Expansion Programme.

Official announcement of the launch of the tender procedure by Polskie LNG, to select the contractor for the three key components of the President Lech Kaczyński LNG Terminal Expansion Programme in Świnoujście.

Collaboration agreement with the Main School of Fire Service including joint research and training projects and access to specialist equipment.



# 7



About

## THE REPORT

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Summary

Group of Gas Transmission Operator GAZ-SYSTEM S.A.  
as the parent company. Report of the independent  
certified auditor on the summary consolidated financial statements

## **Independent auditor's report on the summary consolidated financial statements To the General Meeting and the Supervisory Board of Operator Gazociągów Przesyłowych GAZ-SYSTEM S.A.**

### **Opinion**

The summary consolidated financial statements, which comprise the summary consolidated balance-sheet as at 31 December 2018, the summary consolidated profit and loss account, the summary consolidated statement of cash flows for the year ended on that date and financial ratios, were derived from the audited consolidated financial statements of the Group in which Gas Transmission Operator GAZ-SYSTEM S.A. ("Parent Company") is the Parent Company ("Group") for the year ended 31 December 2018.

In our opinion, the attached summary consolidated financial statements are consistent, in all material respects, with the audited consolidated financial statements in accordance with the criteria set forth in the Polish Accounting Act, the accounting principles (policy) adopted by the Group and the legal regulations and articles of association applicable to the Group, as applicable to the preparation of the audited consolidated financial statements.

### **Summary consolidated financial statements**

The summary consolidated financial statements do not contain all the disclosures required by the Polish Accounting Act (Dz.U.2019.351) and the adopted accounting principles (policy) of the Group, in which Gas Transmission Operator GAZ-SYSTEM S.A. is the parent company. The review of the summary consolidated financial statements and the auditor's report thereon should not replace a full review of the audited consolidated financial statements and the related auditor's report. The summary consolidated financial statements and the audited consolidated financial statements do not reflect the effects of events that occurred after the date of our report on the audited consolidated financial statements.

### **Audited consolidated financial statements and our report**

We expressed an unmodified opinion on the audited consolidated financial statements in our report dated 29 March 2019.

### **Responsibility of the Management Board of the Parent Company for the summarized consolidated financial statements**

The Management Board of the Parent Company is responsible for the preparation of the summary consolidated financial statements in accordance with the provisions of the Polish Accounting Act, the adopted accounting principles (policy) and the legal regulations and articles of association applicable to the Group.

### **Responsibility of the Auditor**

We are responsible for expressing an opinion on whether the summary consolidated financial statements are consistent in all material respects with the audited consolidated financial statements based on our procedures carried out in accordance with International Auditing Standard (IAS) 810 (Revised) "Engagements to Report on Summary Financial Statements".

The auditors responsible for issuing this report of the independent auditor are Barbara Misterska-Dragan acting on behalf of **Misters Audytor Adviser sp. z o.o.**, having its registered office in Warsaw, registered under number 3704, and Wiesław Leśniewski acting on behalf of **Biuro Audytorskie SADREN Sp. z o.o.**, having its registered office in Warsaw, registered under number 100.

Barbera Misterska - Dragan lic. No. 2581 Warsaw, 31 May 2019  
ul. Wiśniowa 40/5, 02-520 Warsaw

Wiesław Leśniewski lic. No. 9264  
Warsaw, 31 May 2019  
ul. Srebrna 16, 00-810 Warsaw

The consolidated financial statements cover two organisations: GAZ-SYSTEM S.A.  
102-45 and Polskie LNG S.A.

## GRI 201-1 7.1. Economic performance

### Balance Sheet (PLN million)

No.	Title	At 31/12/2017	At 31/12/2018
<b>A</b>	<b>Non-current assets</b>	<b>9,719</b>	<b>10,791</b>
1	Intangible assets	195	223
2	Plant and equipment	9,405	10,432
3	Long-term receivables	0	0
4	Long-term investments	1	0
5	Long-term accruals	118	136
<b>B</b>	<b>Current assets</b>	<b>1,732</b>	<b>1,906</b>
1	Inventories	122	168
2	Short-term receivables	245	341
3	Short-term investments	1,355	1,387
4	Short-term accruals	10	10
	<b>Total assets</b>	<b>11,451</b>	<b>12,697</b>
<b>A</b>	<b>Equity</b>	<b>6,825</b>	<b>7,260</b>
1	Share capital	3,772	3,772
2	Other capital	2,754	3,072
3	Accumulated profit (loss)	-130	-38
4	Net profit/loss	493	516
	Write-off of net profit during the financial year	-64	-62
<b>B</b>	<b>Liabilities and provisions for liabilities</b>	<b>4,626</b>	<b>5,437</b>
1	Provisions for liabilities	455	562
2	Long-term liabilities	958	1,049
3	Short-term liabilities	526	719
4	Accruals	2,687	3,107
	<b>Total equity and liabilities</b>	<b>11,451</b>	<b>12,697</b>

Source: GAZ-SYSTEM.

### Income Statement (PLN million)

No.	Title	For 1-12.2017	For 1-12.2018
<b>1</b>	<b>Income from sales and equivalent income</b>	<b>2,293</b>	<b>2,372</b>
<b>2</b>	<b>Costs of operating activities</b>	<b>1,738</b>	<b>1,784</b>
2.1	Depreciation	439	321
2.2	Consumption of materials and energy	364	403
2.3	Contracted services	260	298
2.4	Taxes and charges	204	219
2.5	Wages and salaries	341	393
2.6	Social insurance and other benefits	95	112
2.7	Other allocated costs	35	38
2.8	Value of goods and materials sold	0	0
<b>3</b>	<b>Profit (loss) on sales (1-2)</b>	<b>555</b>	<b>588</b>
4	Other operating income	126	145
5	Other operating expenses	49	95
<b>6</b>	<b>Operating profit (loss) (3+4-5)</b>	<b>632</b>	<b>638</b>
7	Financial income	27	25
8	Financial expenses	40	29
<b>9</b>	<b>Profit (loss) on ordinary activities (6+7-8)</b>	<b>619</b>	<b>634</b>
10	Extraordinary profits (losses)	0	0
<b>11</b>	<b>Profit/loss before taxation (9+10)</b>	<b>619</b>	<b>634</b>
12	Income tax and deferred taxes	126	118
<b>13</b>	<b>Net profit/loss</b>	<b>493</b>	<b>516</b>

Source: GAZ-SYSTEM

**Cash Flow Statement**

No.	Title	1-12.2017	1-12.2018
<b>A</b>	<b>Cash flow from operating activities</b>		
1	Net profit/loss, taking into account profit-sharing payment	429	454
2	Total adjustments	594	513
3	Net cash from operating activities (1+2)	1,023	967
<b>B</b>	<b>Cash flow from investment activities</b>		
1	Receipts	14	10
2	Capital expenditures	888	1 389
3	Net cash flows from investment activities (1-2)	-874	-1,379
<b>C</b>	<b>Cash flow from financing activities</b>		
1	Receipts	296	611
2	Outflows	414	167
3	Net cash flows from financing activities (1-2)	-118	444
<b>D</b>	<b>Total net cash flow (A.3 ± B.3 ± C.3)</b>	<b>31</b>	<b>32</b>
<b>E</b>	<b>Balance-sheet increase/decrease in cash and cash equivalents</b>	<b>31</b>	<b>32</b>
<b>F</b>	<b>Cash and cash equivalents at beginning of period</b>	<b>1,324</b>	<b>1,355</b>
<b>G</b>	<b>Cash and cash equivalents at end of period</b>	<b>1355</b>	<b>1,387</b>

Source: GAZ-SYSTEM.

## Financial indicators:

	2017	2018	Calculation method
<b>Profitability ratios</b>			
• return on assets (ROA)	4%	4%	$\frac{\text{net profit}}{\text{total assets}} \times 100\%$
• return on equity (ROE)	7%	7%	$\frac{\text{net profit}}{\text{Equity}} \times 100\%$
• return on sales (ROS)	21%	22%	$\frac{\text{net profit}}{\text{net revenue from sales}} \times 100\%$
<b>Liquidity/debt ratios</b>			
• debt ratio	40%	43%	$\frac{\text{total liabilities}}{\text{assets}}$
• current ratio	3,3	2,7	$\frac{\text{current assets}}{\text{short-term liabilities}}$
• quick ratio	3,0	2,4	$\frac{\text{current assets} - \text{inventories} - \text{short-term accruals}}{\text{short-term liabilities}}$
• cash ratio	2,6	1,9	$\frac{\text{cash}}{\text{short-term liabilities}}$
• EBIT (PLN million)	632	638	net operating result
• EBITDA (PLN million)	1071	959	net operating result + depreciation

Source: GAZ-SYSTEM.

The economic results presented above in chapter 7.1 represent summarised consolidated financial statements prepared in accordance with the accounting principles (policy) adopted by the Group, the Accounting Act and the provisions of law and the Articles of Association applicable to the Group.

## 102-46 7.2. Defining the content

The process of defining the contents of the report started with the selection of topics which are relevant from the internal perspective of the company as well as questionnaires addressed to the representatives of key stakeholder groups. The work on the 2018 report was also based on the analyses of relevant aspects and stakeholders undertaken in previous years. The key criteria were relevance, completeness and presentation of the content, where appropriate, in the broader context of sustainable development. The data discussed in the report were gathered in a reliable manner, which is guaranteed by the professional data gathering system implemented by the organisation. Both employees and external stakeholders were involved in the preparation of the annual report.

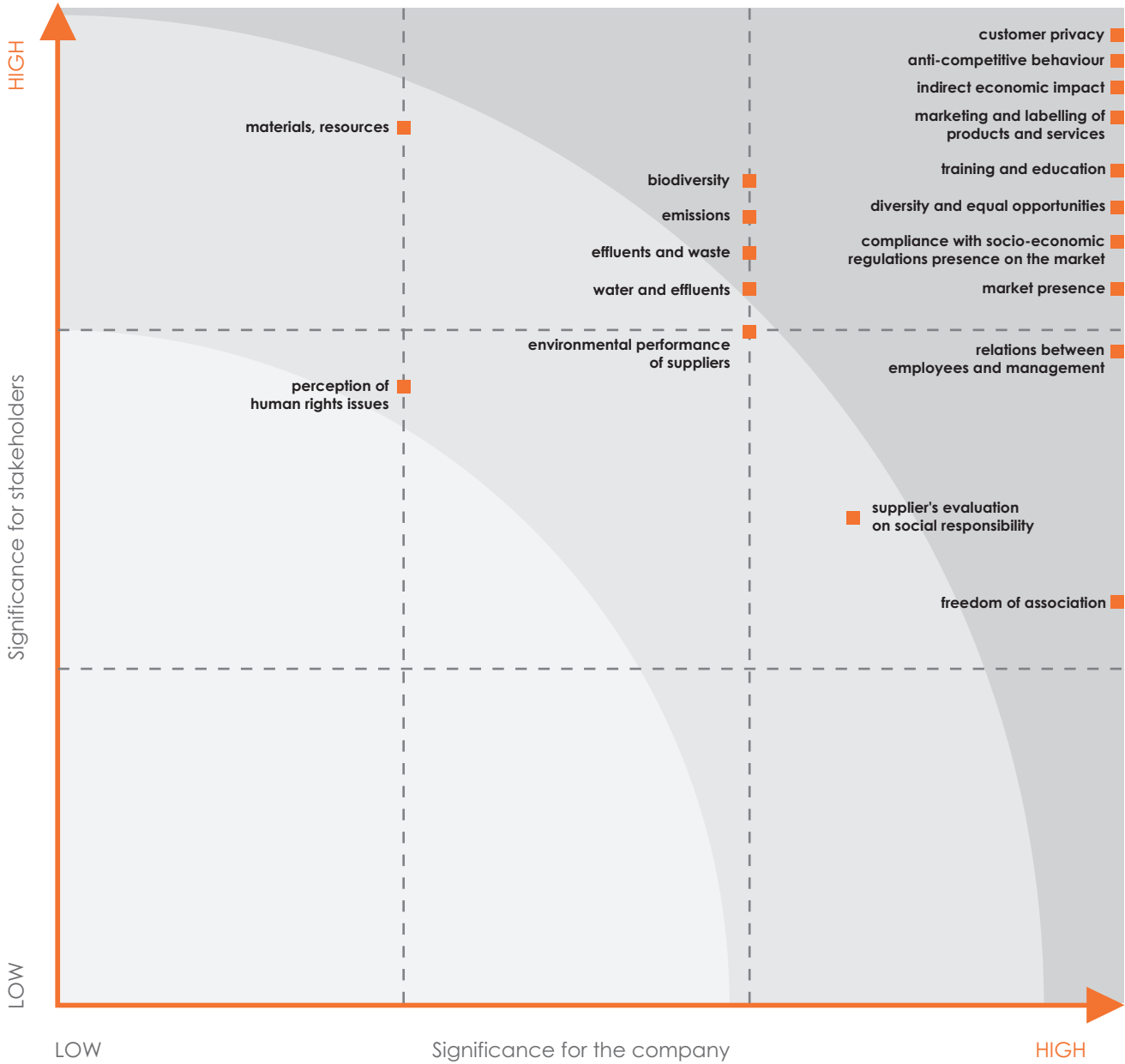
The process of defining important aspects of reporting 102-47 consisted of:

- analysis of image-related research and media information
- internal consultation meetings with employees on key aspects of the company's operations
- results of surveys measuring customer satisfaction
- results of questionnaires addressed to representatives of the most important stakeholders.

### Material aspects identified in the process of defining the report content

The definition of relevant aspects and their boundaries was carried out through the involvement of stakeholders, using the principles of relevance of topics according to the GRI Standard. Priority topics for the organisation have been identified in terms of their impact on the economic, social and environmental environment, as well as issues with a significant impact on stakeholder decisions and perceptions.

Aspects	Title
<b>Social and labour aspects</b>	Relations between employees and management OHS Training and education Employment
<b>Environmental aspects</b>	Energy Water and Effluents Biodiversity Emissions Effluents and waste
<b>Economic aspects</b>	Indirect economic impacts Prevention of corruption Anti-competitive behaviour
<b>Product liability aspects</b>	Marketing and labelling of products and services Customer privacy



Significance matrix. Source: GAZ-SYSTEM.

- Very important aspects
- Moderately important aspects
- Unimportant aspects

## 7.3. Highlights

### January

Conclusion of a contract with PANGAZ Engineering Office for the development of design documentation for the gas pipeline connecting Poland with Lithuania (GIPL) and the infrastructure necessary for its operation.

Announcement of the first competition within the INGA Joint Venture implemented by GAZ-SYSTEM, NCBiR and PGNiG. INGA is an industrial research and development support program in the gas industry.

Commencement of the implementation phase regarding the connection gas pipeline at the Żerań Heat and Power Plant (geodetic marking of the route with the participation of environmental supervision, clearing of trees and shrubs, grubbing of trees, bushes and undergrowth, along with the tidying up of the area).

### February

Selection of the design engineer, Tractebel Engineering S.A., for the development of project documentation for the construction of a 30-kilometre section of the Rembelszczyzna - Mory gas pipeline with a diameter of 700 mm and working pressure of 8.4 MPa.

### March

The commissioning of a new PKN Orlen S.A. heat and power plant in Płock, to which GAZ-SYSTEM provides firm gas transmission service.

Announcement of consultations regarding a draft amendment to the Transmission Network Code (TNC).

Update of the REMIT Regulations. The content was supplemented e.g. by provisions defining the market monitoring mechanisms in GAZ-SYSTEM, through appointing an interdisciplinary Committee for Market Monitoring.

Closing by GAZ-SYSTEM of another edition of the call for applications for the Local Initiatives Support Fund grant contest.

Commencement of the 'Let's talk about work safety' campaign as part of preventive activities of the GAZ-SYSTEM's OHS Academy.

Participation of the President of the Management Board of GAZ-SYSTEM, Tomasz Stępień, representatives of GAZ-SYSTEM and Polskie LNG in the Australasian Oil & Gas Exhibition & Conference in Perth (gas and fuel industry).

Participation of representatives of GAZ-SYSTEM in, and preparation of the company stand at the Warsaw Gas Days exhibition.

Organization of the GAZ-SYSTEM Supplier Day - meeting with contractors for engineering services, construction works, construction supervision and material suppliers, with the participation of the President of the Management Board of GAZ-SYSTEM, Tomasz Stępień, and the President of the Board of Polish LNG, Paweł Jakubowski.

Workshops concerning proposals for changes in the TNC with market participants: clients, representatives of the Ministry of Energy, Energy Regulatory Office, Commodity Exchange (TGE) and Office of Technical Inspection.

#### April

6th Congress of the Polish Gas Industry in Łódź with the participation of the Vice-President of the Management Board of GAZ-SYSTEM, Artur Zawartko, and representatives of GAZ-SYSTEM.

Publication by GAZ-SYSTEM and UKRTRANSYGAS (Ukraine) of invitations to participate in a non-binding market screening procedure.

3rd National Scientific Conference 'Energy security: pillars and development perspective' in Rzeszów with the participation of the President of the Management Board of GAZ-SYSTEM, Tomasz Stępień.

Commissioning of the Polkowice - Żary gas pipeline.

Signing of a letter of intent and a patronage agreement with the Ignacy Mościcki Technical School Complex in Tarnów.

Positive investment decision for the Poland-Slovakia gas interconnection. Signing by GAZ-SYSTEM and the Slovakian Eustream a.s. of the Connection Agreement regarding the implementation of the Poland - Slovakia gas interconnection project.

#### May

Participation of GAZ-SYSTEM representatives in the 21st edition of the GAZTERM Conference in Międzyzdroje.

Signing of a contract for the development of project documentation for the construction of the Gustorzyń - Wronów gas pipeline along the section from Rawa Mazowiecka to Wronów. Contractor: a consortium of ILF Consulting Engineers Polska Sp. z o.o. and PGNiG GAZOPROJEKT S.A.

Commencement of works on the construction of the Tworóg - Tworzeń gas pipeline. Contractor: a consortium of: PORR S.A. and Denys NV. Investor's supervision: ECMG GmbH, designer's supervision: Tractebel Engineering S.A., the design engineer of the project documentation.

10th European Economic Congress in Katowice, patronage of GAZ-SYSTEM over the panel discussion on 'Gas from the USA in Europe' with the participation of President of Management Board of Polskie LNG, Paweł Jakubowski.

Signing by the transmission system operators of the Baltic countries and Poland of an agreement on the cross-border cost allocation for the Gas Interconnection Poland-Lithuania (GIPL) project.

Signing, with the EU Executive Agency for Innovation and Network (INEA), of a tripartite agreement for the co-financing of engineering works for the Baltic Pipe project under the Connecting Europe Facility (CEF) 'Preparatory work for the Baltic Pipe project until obtaining the necessary building permits in Poland and Denmark'.

Baltic Science Festival at the Gdańsk University of Technology. GAZ-SYSTEM's company stand.

Central and Eastern Europe TSO's Metrological Forum in Janów Podlaski and Hołowczyce. Meeting with representatives of gas transmission operators from: Croatia, Lithuania, Latvia, Poland, Romania, Slovakia, Ukraine and Hungary, in partnership with manufacturers of measuring devices. Signing of the Connection Agreement by GAZ-SYSTEM and the operator of gas transmission systems of Lithuania, Amber Grid, regulating the legal, business and technical aspects of the Gas Interconnection Poland-Lithuania (GIPL).

Warsaw Energy Days - GAZ-SYSTEM's company stand.

## June

22. 22nd Science Picnic of the Polish Radio and the Copernicus Science Centre – GAZ-SYSTEM's company stand.

World Sea Days in Szczecin - with the participation of Vice-President of the Management Board of GAZ-SYSTEM, Artur Zawartko. Company stand.

Approval by the President of the Energy Regulatory Office of Tariff No. 12 of gas transmission services. (Effective from 1 January to 31 December 2019).

Technical commissioning of the second stage of the Lwówek - Odolanów gas pipeline.

Settlement of the grant contest of the Local Initiatives Support Fund. A total of PLN 200,000 in grants for 29 initiatives of local communities in Kędzierzyn-Koźle, Świnoujście and the municipality of Sanok.

Launch of the second gas compressor station in the Wielkopolska region (15th in the National Transmission System) at the Odolanów transmission point. Investment value: approx. PLN 23 million. Opening of the annual interconnection capacity auctions.

Commencement of the construction of the Goleniów - Płoty gas pipeline.

Approval by GAZ-SYSTEM of the recommended variant of the offshore gas pipeline route option proposed by the contractor for technical and environmental documentation. I.e. Ramboll company.

The route is about 275 km long and runs through Danish and Polish sea areas and through the Swedish exclusive economic zone (a stretch of about 80 km). The preferred landfall locations were also indicated - Faxe South in Denmark and Niechorze-Pogorzelica in Poland. Approval of the recommendation does not, however, make the decision on the gas pipeline routing conclusive.

## July

Decision of the Regional Director for Environmental Protection in Gdańsk on environmental conditions for project titled "Construction of a high-pressure gas pipeline, 8 km long; DN 700 MOP 8.4 MPa with accompanying infrastructure Szczecin - Gdańsk, Stage VI Reszki - Wiczlino".

Amendment of the company's organizational regulations, effective as of 1 August 2018.

Additional co-financing under the Connecting Europe Facility – CEF for the Baltic Pipe project for pre-investment works. The maximum co-financing amount granted for the entire activity: EUR 18.3 million.

Meeting with representatives of Ukrainian gas companies at the Gas Meter Calibration Laboratory (LWG) in Hotowczyce.

## August

A set of decisions of the President of the Office of Technical Inspection authorizing the use of technical equipment of the DN1000 Lwówek - Odolanów gas pipeline, Stage 2 Krobia - Odolanów, approx. 54 km long.

Meeting of the local government authorities of the municipalities and districts of Warsaw and the surrounding area at the Museum of Gas Industry regarding the expansion of the so-called Warsaw ring (Rembelszczyzna - Mory gas pipeline).

Consultations regarding a new tariff model for gas transmission services.

Completion of drilling survey concerning the future location of the underground gas storage facility. A meeting to thank the local community, representatives of the authorities and institutions involved for co-operation and participation in the completed phase of the project (Świątków, municipality of Janowiec Wlkp.).

Picnic with Climate in Warsaw - GAZ-SYSTEM's company stand.

Signing contracts for the development of project documentation and performing designer's supervision over the construction of the Gustorzyn - Wronów gas pipeline at the sections of Gustorzyn - Leśniewice (OTS-IP company) and Leśniewice - Rawa Mazowiecka (consortium of ILF Consulting Engineers Polska and PGNiG GAZOPROJEKT).

Final acceptance of the DN 1000 Krobia - Odolanów gas pipeline.

Conclusion of a selection process of the first competition under the INGA Joint Venture. Support in the amount of over PLN 3 million from GAZ-SYSTEM for three R&D projects related to the issues of monitoring and diagnostics of transmission infrastructure and noise reduction.

## September

The Ensuring Security of Supply and Green Energy Transition Denmark and Poland in the European Union conference in Copenhagen with the participation of President of the Management Board of GAZ-SYSTEM, Tomasz Stępień.

Signing of patronage contracts with classes on the profiles of IT technician, mechanic technician, mechatronics technician in the E. Kwiatkowski Technical Schools Complex in Grodzisk Wielkopolski, and of gas engineering technician, sanitary engineering technician at Technical School No. 3 in Łódź.

Official commencement of construction of the Slovakian part of the cross-border gas pipeline connecting transmission systems of Poland and Slovakia, with the participation of President of the Management Board of GAZ-SYSTEM, Tomasz Stępień in Velké Kapušany in Slovakia.

The 'Personality of Energy 2018' award for President of the Management Board of GAZ-SYSTEM, Tomasz Stępień, and Saulius Bilys, President of Amber Grid, for making a positive investment decision regarding the construction of the gas interconnection between Poland and Lithuania.

4th Energy Congress in Wrocław with the participation of President of the Management Board of GAZ-SYSTEM, Tomasz Stępień.

Poznań Science Night - GAZ-SYSTEM's company stand.

Participation of President of the Management Board of GAZ-SYSTEM, Tomasz Stępień, and Vice-President of the Management Board of GAZ-SYSTEM, Artur Zawartko, in the 'Polish Energy at the 100th Anniversary of Independence' gala in Warsaw.

The Future of Baltic Energy Security conference in Washington with the participation of President of the Management Board of GAZ-SYSTEM, Tomasz Stępień.

Completion of the Gas Infrastructure Alignment Project; transfer of 13 segments of gas infrastructure, along with the attached rights, and 62 facilities to Polska Spółka Gazownictwa (PSG).

Appointment of the management board of GAZ-SYSTEM for another three-year term (Decision of the Extraordinary General Meeting of Shareholders dated October 1, 2019).

## October

Signing by GAZ-SYSTEM of the cooperation agreement with the operator of the National Power Grid – Polskie Sieci Elektroenergetyczne.

Commencement of construction of the 10 km long high-pressure gas pipeline DN500 on the route between Rembelszczyzna Compressor Station and Żerań Heat and Power Plant. Building Contractors: JTS.A. and TEGAS S.A.

The Energy Future Congress in Warsaw with the participation of representatives of GAZ-SYSTEM.

Celebration of the 10th anniversary of the GAZ-SYSTEM Brussels Office with the participation of President of the Management Board of GAZ-SYSTEM, Tomasz Stępień, and representatives of GAZ-SYSTEM.

2nd edition of the OHS Services Forum in Warsaw with the participation of GAZ-SYSTEM representatives.

Application by GAZ-SYSTEM and ONTRAS (operator of the German transmission system) to the national regulatory authorities of both countries for approval of the incremental capacity project for the border of the Poland market area (E-Gas transmission system) - GASPOOL.

Nationwide Economic Summit in Siedlce with the participation of Vice-President of the Management Board of GAZ-SYSTEM, Artur Zawartko.

Completion of the construction of the Czeszów - Kietczów gas pipeline.

## November

Workshops for gas market participants organized by GAZ-SYSTEM.

The 'Silver Laurel of Innovation' award for GAZ-SYSTEM for project 'Stand for calibration of gas meters under working pressure'.

Signing of the Agreement on strategic dialogue in the area of energy between Poland and the USA. Press conference with the participation of the Secretary of State in the Chancellery of the Prime Minister, Piotr Naimski, and US Secretary of Energy, Rick Perry, as well as representatives of the management boards of GAZ-SYSTEM and Polskie LNG.

Congress 590 in Rzeszów with the participation of Vice-President of the Management Board of GAZ-SYSTEM, Artur Zawartko.

Decision of the General Meeting of Shareholders dated November 30, 2018 on appointing Krzysztof Jackowski for the position of Vice-President of the Management Board of GAZ-SYSTEM (from January 1, 2019).

Final investment decisions regarding the Baltic Pipe gas pipeline taken by GAZ-SYSTEM and Energinet. The undertaking to build a gas pipeline with a total length of approx. 900 km onshore and offshore.

Signing of a tripartite agreement with the EU Executive Agency for Innovation and Network (INEA) for subsidizing pre-construction works related to the Baltic Pipe project under the Connecting Europe Facility (CEF) 'Strengthening the National Gas Transmission Systems in Poland and Denmark for the Baltic Pipe project'.

## December

Signing a contract with MGGP S.A. for the development of project documentation along with obtaining a building permit for the Skoczów - Komorowice - Oświęcim gas pipeline.

Obtaining administrative permits for the connecting gas pipeline Rembelszczyzna Compressor Station – Żerań Heat and Power Plant.

Agreement on co-operation between GAZ-SYSTEM and the Main School of Fire Service in Warsaw. Decision of President of the Energy Regulatory Office on the extension of the GAZ-SYSTEM license for the transport of gaseous fuels, and the decision to extend the period of designation of the company as the operator of the gas transmission system on the territory of Poland.

Location decision of the Governor of Pomorskie Voivodeship for the high-pressure gas pipeline between Szczecin and Gdańsk, stage VI, section Reszki - Wiczlino.

Signing by the Government Representative for Strategic Energy Infrastructure, Piotr Naimski, and the Minister of Energy, Climate and Municipal Services of Denmark, Lars Christian Lilleholt, of an agreement regulating the legal status of certain infrastructure elements of the Baltic Pipe project located in Denmark (including the Everdrup gas compressor station), during the UN climate summit COP24 in Katowice.

## 7.4. Tables and indicators

### GRI 102-8

#### Total number of employees by the type of employment contract, position, region and gender

Total number of employees (without members of the management body)	3005
Percentage of employees covered by collective agreements	100 proc.
Full-time employees	2993
Part-time employees	12
Employees with definite-term contract	285
Employees with indefinite-term contract	2720
Number of women	784
Number of men	2221
Age below 30	245
Age 30-50	1817
Age over 50	943

Source: GAZ-SYSTEM.



women

men

total

Number of persons employed at senior management level	20	43	63
Number of persons employed at middle management level	69	417	486
Number of remaining employees	695	1761	2456

Source: GAZ-SYSTEM.

#### Structure of employment by location



women

men

total

Location	women	men	total
Head Office	494	428	922
Gdańsk Branch	24	146	170
Poznań Branch	42	307	349
Rembelszczyzna Branch	56	313	369
Świerklany Branch	54	240	294
Tarnów Branch	59	570	629
Wrocław Branch	55	217	272

Source: GAZ-SYSTEM.

**GRI 102-8 (cont.)**

**women**

**men**

	women	men
<b>Employment contract, including:</b>		
<b>Indefinite-term contract</b>	44	119
<b>Definite-term contract</b>	4	18
<b>Trial-period contract</b>	4	5
<b>Contract on commission</b>	0	1
<b>Short-term contract</b>	0	1
<b>Managerial contract</b>	0	2

Source: Polskie LNG.

**GRI 202-1**

 Ratio of standard entry level wage by gender compared to local minimum wage on a given market<sup>1</sup> at significant locations of operation

**women**

**men**
**łącznie**

	women	men	łącznie
<b>Average monthly entry level wage (in the main locations<sup>2</sup>) in PLN</b>	PLN 3,440.00	PLN 3,440.00	3440.00
<b>Ratio of entry-level wage to the minimum wage in the given location</b>	164%	164%	164%

Source: GAZ-SYSTEM.

<sup>1</sup> The average monthly minimum wage in Poland in 2018 amounted to PLN 2100 gross – in accordance with the Regulation of the Council of Ministers on the minimum remuneration for work and the minimum hourly rate in 2018. Base salary was used (excluding variable components).

<sup>2</sup> In accordance with the valuation schedule adopted in 2018, the lowest-level employees (trainees) were present in the head office and in the branch office in Tarnów in 2018.

**GRI 205-2**
**Communication and training on anti-corruption policies and procedures**

<b>Number of members of management bodies</b>	2
<b>Number of members of management bodies who were informed about anti-corruption policies and procedures</b>	2
<b>Number of members of management bodies who received training in anti-corruption measures</b>	2
<b>Percentage of members of management bodies informed about anti-corruption policies and procedures</b>	100 proc.
<b>Percentage of members of management bodies who received training in anti-corruption measures</b>	100 proc.

Employees who have received anti-corruption training, broken down by type of employment and age	Number of employees who received training in anti-corruption measures	Percentage of employees who received anti-corruption training
definite term of employment	255	89%
indefinite term of employment	1	0%
full-time	254	8%
part-time	2	17%
below 30 years of age	3	1%
age 30-50	158	9%
age over 50	95	10%

In 2018, the percentage of employees who were informed about the organisation's anti-corruption policy and procedures was 100%.

Number of business partners of the organization <sup>3</sup>	992
Number of business partners of the organization that were informed about the organization's anti-corruption policy and procedures <sup>4</sup>	992
Percentage of business partners of organizations that were informed about the organization's anti-corruption policy and procedures <sup>4</sup>	100 proc.

<sup>3</sup> Number of GAZ-SYSTEM's business partners with whom agreements were signed in 2018.

<sup>4</sup> All business submitting a written offer to GAZ-SYSTEM as part of the procurement procedure certify that they are familiar with the provisions of the "Code of Conduct for Suppliers of Gas Transmission Operator GAZ-SYSTEM S.A.", which contains information on business ethics (including in particular the prevention of corruption and bribery) and declare that they undertake to comply with its provisions.

### GRI 302-1

#### Internal energy consumption

Total consumption of energy from non-renewable sources (purchased and from own sources - generated within the organisation's own activity) and types of fuels used	
Natural gas and coke oven gas	120,928 dam <sup>3</sup>
Liquid fuels (petrol + diesel)	1164.2 Mg
Total energy consumption	122,092.2 GJ

Source: GAZ-SYSTEM on the basis of the GUS G-02b report for 2018.

### Total energy consumption

<b>Electricity</b>	2.35 GJ 65,38 GWh
<b>Thermal energy</b>	333,388.02 GJ
<b>Total consumption</b>	333,390.37 GJ

Source: GAZ-SYSTEM on the basis of the GUS G-02b report for 2018.

<b>Total energy consumption within the organisation</b>	455,482.57 GJ
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Source: GAZ-SYSTEM on the basis of the GUS G-02b report for 2018.

### Polskie LNG

	gas [m <sup>3</sup> ]	electricity [MWh]	water <sup>1</sup> [m <sup>3</sup> ]
<b>Location</b>	-	-	-
<b>Plant</b>	-	-	-
<b>Świnoujście - office at the plant site</b>	-	43,932 <sup>2</sup>	-
<b>Świnoujście - office at Fińska St</b>	-	-	-
<b>Warsaw - office at Al. Jerozolimskie</b>	-	-	-

<sup>1</sup>Water supplied by the Water Supply and Sewerage Company in Świnoujście.

<sup>2</sup>Building maintenance, i.e. lighting, ventilation, air-conditioning, fire-fighting systems, etc.

Source: Polskie LNG.

### 305-1

#### Direct greenhouse gas emissions

Gross volume of direct greenhouse gas emissions	w Mg
<b>CO<sub>2</sub></b>	94,721
<b>CH<sub>4</sub></b>	6216.79
<b>N<sub>2</sub>O</b>	0.04
<b>Total</b>	100,938

Źródło: GAZ-SYSTEM on the basis of Atmoterm data.

**Polskie LNG**

The terminal has an installation for fuel combustion (natural gas) with a nominal power of 177.5 MWt which includes the vaporiser system, two CO<sub>2</sub> boilers and two glycol boilers. In accordance with the requirements of the European Greenhouse Gas Emission Trading Scheme, the monitored gas in the installation is CO<sub>2</sub>. The implemented CO<sub>2</sub> monitoring and reporting system in the terminal installation ensures that the emissions comply with the monitoring plans and applicable laws.

Source: Polskie LNG.

**GRI 305-2****Total indirect greenhouse gas emissions**

According to the report approved by an external CO<sub>2</sub> verifier in 2018, Polskie LNG emitted 66,344 tonnes of CO<sub>2</sub>. Indirect emission of greenhouse gases is mainly related to the supply of electricity to the LNG Terminal. By converting energy consumption in 2018 into the volume of indirect emissions, the calculated emission volume amounted to 32,741 tonnes of CO<sub>2</sub>.

Source: Polskie LNG.

**GRI 305-7****NOx, SOx, and other significant air emissions by type and weight [in kg] Polskie LNG**

<b>Methane (C<sub>4</sub>)</b>	821,962.20
<b>Carbon monoxide (CO)</b>	6512.18
<b>Hydrofluorocarbons (HFCs)</b>	176.99
<b>Non-methane volatile organic compounds (NMVOC)</b>	23,088.13
<b>Nitrogen oxides (NOx/NO<sub>2</sub>)</b>	11,325.04
<b>Sulphur oxides (SOx/SO<sub>2</sub>)</b>	0.22
<b>Polycyclic aromatic hydrocarbons (PAHs)</b>	0.000021
<b>Suspended particulate matter (PM<sub>10</sub>)</b>	334.58

Source: Polskie LNG.

**GRI 306-1****Water discharge by quality and destination (GAZ-SYSTEM)**

The amounts of water collected and the amount of sewage introduced into waters or the ground as part of the company's activity were determined based on data provided to the Państwowe Gospodarstwo Wodne Wody Polskie (PGW WP) as part of quarterly inspections in 2018 regarding compliance by the company with the conditions set in administrative decisions issued under the act dated July 20, 2017 Water Law with regard to:

- water abstraction – 123,431.93 m<sup>3</sup>
- introduction of sewage into waters or into the ground – 114,171.61 m<sup>3</sup>
- discharge into waters - rainwater or snowmelt, included in open or closed rainwater drainage systems used for rainfall discharge or collective sewage systems within the city's administrative limits – 28,742,42 m<sup>3</sup>

Source: GAZ-SYSTEM based on the statement of the company transferred to the Państwowe Gospodarstwo Wodne Wody Polskie (PGW WP).

<b>Total volume of planned discharges of waste water</b>	0 m <sup>3</sup>
<b>Total volume of unplanned discharges of waste water</b>	0 m <sup>3</sup>

Source: GAZ-SYSTEM based on the statement of the company transferred to the Państwowe Gospodarstwo Wodne Wody Polskie (PGW WP).

**Polskie LNG**

Category	odbiornik	ilość
<b>Industrial wastewater from fire pump tests</b>	Place of discharge: Baltic Sea	349,50,0
<b>Industrial wastewater - 8060 - HVAC</b>	Place of discharge: Baltic Sea	763,00
<b>Industrial wastewater from SCV interceptor plants</b>	Place of discharge: Sewerage System of the SSSA <sup>3</sup>	42,741 m <sup>3</sup>

Source: Polskie LNG.  
<sup>3</sup>Szczecin and Świnoujście Seaports Authority

**GRI 307-1**



**Amount of significant fines and total number of non-financial sanctions for non-compliance with environmental laws and regulations**

<b>total amount of significant fines (in PLN)</b>	20,000
<b>total number of non-financial sanctions</b>	2 (1 instruction and 1 post-audit order)
<b>disputes resolved through resolution mechanisms</b>	0



Source: GAZ-SYSTEM on the basis of audit reports.

**GRI 401-1**

Total number and hiring rates of new employees and employee turnover by age group, gender and region

Total company			
Total number of new employees by gender and age			total/ average
	women	men	
below 30	24	53	77
30-50 years	60	135	195
above 50	3	20	23
<b>TOTAL</b>	<b>87</b>	<b>208</b>	<b>295</b>
Hiring rate	11%	9%	10%*
<b>Employees (total)</b>	<b>784</b>	<b>2221</b>	<b>3005</b>

Source: GAZ-SYSTEM.

Total company			
Total number of new employees by gender and age			total/ average*
	women	men	
below 30	14	22	36
30-50 years	2	7	9
above 50	22	68	90
<b>TOTAL</b>	<b>38</b>	<b>97</b>	<b>135</b>
employee turnover ratio	5%	4%	4%
<b>Employees (total)</b>	<b>784</b>	<b>2221</b>	<b>3005</b>

Source: GAZ-SYSTEM.

### GRI 401-2

#### Benefits and health promotion programmes for employees

<b>Private health-care</b>	Access to and provision of health care services to employees, their family members and seniors. The agreement covers the provision of medical services, including comprehensive specialist consultations, tests and diagnostic procedures.
<b>Insurance</b>	Group life insurance contract for employees and their immediate family members. Employees can choose between two sponsored policies and four policies with a voluntary premium.
<b>Employee Retirement Scheme</b>	A form of group, voluntary saving for an additional pension. It is organised by the employer in consultation with the social partner.
<b>Benefit package</b>	It includes partial financing of leisure, sports, recreation, cultural and educational activities or support in case of accidents, etc.; for those who have worked for the employer for more than 10 years, sick leave is paid in 100%, additional holidays are granted in the event of marriage or death of a close relative.

Source: GAZ-SYSTEM.

### Polskie LNG

<b>Company Social Benefits Fund</b>	Under the programme, funds are allocated, inter alia, for co-financing of organized holidays of employees and other eligible persons, financial support to persons in particularly difficult life situations, financial support to eligible persons in the event of accidents.
<b>Non-salary components of remuneration</b>	Employees are entitled to the following benefits: Employee Retirement Scheme, group insurance, private medical care, sports and recreation services and subsidized meals.

Source: Polskie LNG.

### GRI 402-1

#### Minimum notice periods regarding operational changes, including an indication of whether these periods are specified in collective agreements

Employees receive information about changes to or new regulations through an internal document distribution system, collective emails and publications on the intranet. Meetings of the management board with representatives of social partners are regularly held. Since December 2017, an agreement has also been in place defining the principles of cooperation of the Employer with the Employee Council in the process of informing and consulting employees (based on Article 5 of the Act dated 7 April 2006 on informing and consulting employees).

The agreement lays down, among other things, the rules for the Employee Council to obtain information on the following:

- the activity and economic situation of the employer and the expected changes in this respect the state, structure and expected changes in employment and measures aimed at maintaining the level of employment
- activities that may bring about significant changes in work organisation or the basis of employment.

The document also regulates the procedure for employing consultants and experts, as well as organizational issues.

The Corporate Collective Labour Agreement is in force in the company, which specifically defines employees' rights resulting from universally binding labour law provisions. The terms of consultation (negotiation) in the case of issues related to employment are set out in the applicable labour law and in the Act dated May 23, 1991 on trade unions (in the case of employees associated in trade union organizations).

### Polskie LNG

The bodies operating in the Polskie LNG include the Employee Council, Social Labour Inspectors and two trade union organizations with whom consultations are carried out to the extent required by law. The responsibilities and rights of the employees and the management are described in Work Regulations and the Organizational Regulations. All information regarding organization and internal regulations are regularly published and are accessible to all employees via the intranet.

Source: Polskie LNG.

### GRI 403-2

#### Hazard identification, risk assessment and accident investigation



Accidents at work	
number of accidents at work	28
women	6
men	22
number of fatal, group and severe accidents	-
fatal	0
group	1
severe	0
total days of incapacity for work due to accidents at work	645
women	59
men	586
accident frequency rate	9.31
women	7.65
men	9.91
accident severity rate	23.04
women	9.83
men	26.64
number of persons affected by occupational diseases	0
days lost	7753

Source: GAZ-SYSTEM.

**GRI 404-1**

Total hours of training annually per employee

Number of training hours (1 hour = 60 min) broken down by gender and category of employees in 2018

			
	women	men	total
<b>Breakdown by structure</b>			
senior management	919	2377	3296
middle management	1652	7529	9181
other employees	9868	30,144	40,012
<b>TOTAL training hours</b>	<b>12,439</b>	<b>40,050</b>	<b>52,489</b>
<b>Breakdown by organisational division</b>			
Head Office	6868	8261	15,129
Branch in Gdańsk	859	3014	3873
Branch in Poznań	1027	5039	6066
Branch in Rembelszczyzna	796	5213	6009
Branch in Świerklany	1015	3756	4771
Branch in Tarnów	863	11,689	12,552
Branch in Wrocław	1011	3078	4089
<b>TOTAL training hours</b>	<b>12,439</b>	<b>40,050</b>	<b>52,489</b>

Source: GAZ-SYSTEM.

<b>Total hours of training per employee</b>	17
<b>Average number of training hours per woman</b>	16
<b>Average number of training hours per man</b>	18

Source: GAZ-SYSTEM.



Average number of training hours (1 hour = 60 min) broken down by gender and category of employees in 2018

women

men

total

Breakdown by structure			
	women	men	total
senior management	46	55	52
middle management	24	18	19
other employees	14	17	16

Source: GAZ-SYSTEM.

#### GRI 405-1

Diversity of staff and management bodies

Breakdown by structure and age	
<b>Management Board</b>	
below 30	-
30-50 years	1
above 50	1
<b>Supervisory Board</b>	
below 30	-
30-50 years	2
above 50	3

Source: GAZ-SYSTEM.





GRI 405-1 (cont.)



Employee categories	women	men	total
<b>Breakdown by structure and age</b>			
<b>senior management</b>			
below 30	-	-	-
30-50 years	17	29	46
above 50	3	14	17
<b>TOTAL</b>	<b>20</b>	<b>43</b>	<b>63</b>
<b>middle management</b>			
below 30	-	5	5
30-50 years	54	243	297
above 50	15	169	184
<b>TOTAL</b>	<b>69</b>	<b>417</b>	<b>486</b>
<b>other indicator of diversity - not applicable</b>			
<b>other employees</b>			
below 30	77	204	240
30-50 years	471	1226	1483
above 50	147	761	733
<b>TOTAL</b>	<b>695</b>	<b>1761</b>	<b>2456</b>

Source: GAZ-SYSTEM.

## 7.5. GRI content index

### GRI 102-55

Indicator	Title	Reporting level	Comments	Page in the report
102-1	Name of the organisation.	●		8, 82
102-2	Primary brands, products or services	●		8, 82
102-3	Location of organisation's headquarters	●		8, 82
102-4	Number of countries where the organisation operates and names of those countries	●		8, 82
102-5	Nature of ownership and legal form	●		8, 82
102-6	Markets served	●		8, 82
102-7	Scale of operations	●		12, 93
102-8	Overview about employees	●		12, 93, 111, 112
102-9	Value chain	●		12, 14, 83
102-10	Significant changes in the organisation and its supply chain	●		12, 85
102-11	Precautionary principle	●		60, 91
102-12	External initiatives adopted by the organisation	●		26, 90
102-13	Membership in associations	●		27, 90
102-14	Statement of the top management	●		4
102-15	Key impacts the organisation has on its environment, risks and opportunities	●		4, 65, 89
102-16	Organisation's values, principles, standards and norms of behaviour	●		8, 83
102-40	List of the organisation's stakeholder groups	●		22, 90
102-41	Percentage of employees covered by collective agreements	●		70, 110
102-42	Identification and selection of stakeholder groups engaged by the organisation	●		22, 90
102-43	Organization's approach to stakeholder engagement	●		22, 90
102-44	Key topics and concerns that have been raised through stakeholder engagement	●		25
102-45	List of entities covered by the consolidated financial statements	●		99

Indicator	Title	Reporting level	Comments	Page in the report
102-46	Process of defining the content of the report	●		103
102-47	Material aspects identified in the process for defining report content	●		103
102-48	Restatements of information and the underlying reasons	●	There were no restatements.	–
102-49	Significant changes in relation to the previous report	●	The report does not contain any significant changes in relation to the previous report.	–
102-50	Reporting period	●	The report covers the period from 1 January to 31 December 2018.	–
102-51	Date of most recent previous report	●	December 2018	–
102-52	Reporting cycle	●	The company reports on a yearly basis.	
102-53	Contact point for questions regarding the report	●	Questions and comments concerning the report should be directed to the Corporate Communication and Marketing Division of GAZ-SYSTEM. sekretariat.bk@gaz-system.pl phone: +48 22 220 15 46	– –
102-54	Claims of reporting in accordance with the GRI Standards	●	This report has been prepared in accordance with the guidelines provided in the international non-financial reporting standard of the Global Reporting Initiative, in accordance with the GRI Standard using the core option.	–
102-55	GRI content index	●		125
102-56	External assurance	○	Only internal assurance was made.	–

## Detailed indicators

Subject	Indicator	Title	Reporting level	Comments	Page in the report
<b>Economic aspects</b>					
Economic performance	201-1	Direct economic value generated (revenues) and distributed (operating costs, wages, salaries, payments to investors and the government, social investment)	●		99
Market presence	202-1	Ratio of standard entry level wage by gender compared to local minimum wage on a given market at significant locations of operation	●		112
Indirect economic impacts	203-1	Infrastructure investments and services supported	●		31, 39, 58
Procurement practices	204-1	Proportion of spending on local suppliers at significant locations of operation	●	98.5 per cent - percentage of spending on suppliers from Poland.	14
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures (management bodies, employees, business partners)	●		112
Anti-competitive behaviour	206-1	Total number of legal actions for anticompetitive behaviour, anti-trust, and monopoly practices and their outcomes	●	W 2018 r. nie odnotowano takich przypadków.	–
<b>Environmental aspects</b>					
Energy	302-1	Energy consumption (electricity, heat, cooling, steam) within the organisation – from renewable and non-renewable sources	●		113
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	●		61, 91
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations.	●		91
Emissions	305-1	Direct greenhouse gas emissions (from sources owned or controlled by the reporting organisation)	●		114
	305-2	Indirect greenhouse gas emissions	●		115
	305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	●		115
Effluents and waste	306-1	Water discharge	●		115, 116
Environmental Compliance	307-1	Amount of significant fines and total number of non-financial sanctions for non-compliance with environmental laws and regulations	●		116

Subject	Indicator	Title	Reporting level	Comments	Page in the report
<b>Social and labour aspects</b>					
Employment	<b>401-1</b>	Total number and hiring rates of new employees and employee turnover by age group, gender and region	●		117
	<b>401-2</b>	Benefits provided to full-time employees that are not provided to temporary or part-time employees, broken down by significant location of operation	●		118
Labour/ Management Relations	<b>402-1</b>	Minimum notice periods regarding operational changes, including indication whether or not they are laid down in collective agreements	●		118, 119
Occupational Health and Safety	<b>403-1</b>	Occupational health and safety management system	●		64
	<b>403-2</b>	Hazard identification, risk assessment and accident investigation	●		64, 119
	<b>403-4</b>	Worker participation, consultation, and communication on occupational health and safety	●		64
Training and education	<b>404-1</b>	Average hours of training per year per employee, by gender and employee category	●		120
Diversity and equal opportunity	<b>405-1</b>	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	●		121
<b>Human rights aspects</b>					
Non-discrimination	<b>406-1</b>	Incidents of discrimination and corrective actions taken	●	No such cases were reported in 2018.	-
Freedom of association and collective bargaining	<b>407-1</b>	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk, and actions taken to protect these rights.	●	No such cases were reported in 2018.	-

Subject	Indicator	Title	Reporting level	Comments	Page in the report
<b>Aspects related to the impact on the social environment</b>					
Local communities	<b>413-1</b>	Percentage of operations with implemented local community engagement, impact assessments, and/or development programs (community impact assessments, community development, consultation, stakeholder involvement).	●	100 per cent In accordance with the 'GAZ-SYSTEM Reputation Policy', each project at both the design and construction stage is covered by communication activities aimed at reaching the local communities of those municipalities and towns where the project will be carried out, as well as the public and local environmental organisations.	129
<b>Product liability aspects</b>					
Marketing and labelling of products and services	<b>417-1</b>	Type of product and service information required by the organization's procedures for product and service information and labelling, and percentage of significant product and service categories subject to such information requirements (origin, composition, disposal method, etc.).	●		18
Customer privacy	<b>418-1</b>	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	●	No such cases were reported in 2018.	-
Compliance with socio-economic regulations	<b>419-1</b>	Amount of significant fines and total number of non-monetary sanctions for non-compliance with laws and socio-economic regulations	●	No such cases were reported in 2018.	-

## List of acronyms

**ACER** - Agency for the Cooperation of Energy Regulators  
**BCMS** - Business Continuity Management System  
**BEMIP** - Baltic Energy Market Interconnection Plan  
**CA** - Connection Agreement  
**CEF** - Connecting Europe Facility  
**CNG** - Compressed Natural Gas  
**ENTSOG** - European Network of Transmission System Operators for Gas  
**FNE** - Natural Energy Fund  
**FWIL** - Local Initiatives Support Fund  
**GCP** - Point de connexion au réseau  
**GERG** - European Gas Research Group  
**GIE** - Gas Infrastructure Europe  
**GIPL** - Gas Interconnection Poland - Lithuania  
**GRI** - Global Reporting Initiative  
**IGG** - Izba Gospodarcza Gazownictwa (Chamber of Natural Gas Industry)  
**INEA** - Innovation and Networks Executive Agency  
**TNC** - Transmission Network Code  
**ISO** - International Organization for Standardization  
**ITA** - Inter-TSO Agreement  
**KDG** - National Gas Dispatch Centre  
**CUGS** - Cavern Underground Gas Storage  
**LNG** - Liquefied Natural Gas  
**MUP** - Inter-operator Transmission Contract  
**NC BAL** - Network Code on Gas Balancing of Transmission Networks  
**NCBIR** - National Centre for Research and Development  
**NC CAM** - Network Code on Capacity Allocation Mechanisms in gas transmission systems  
**NC TAR** - Network Code for harmonised transmission tariff structures for gas  
**DSO** - Distribution System Operator  
**SSO** - Storage System Operator  
**TSO** - Transmission System Operator  
**OTC** - Over The Counter market  
**PCI** - Project of Common Interest  
**PGNIG S.A.** - Polskie Górnictwo Naftowe i Gazownictwo S.A.  
**TJE** - Field Operation Unit

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**We would like to thank everyone who contributed to the  
creation of this Sustainability Report for 2018.**





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