



**THE LUBELSKI WĘGIEL
BOGDANKA GROUP**

**STABLE DEVELOPMENT
IN UNEASY ENVIRONMENT**

**INTEGRATED REPORT
2019**

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Artur Wasil
President of the Management
Board of LW Bogdanka SA

[GRI 102-14, GRI 102-15]

Dear Sir/Madam,

I am pleased to present the sixth Integrated Report of the LW Bogdanka Group prepared on the basis of the IIRC Guidelines and the GRI Standards. Once you read the report you will become familiar with our organisation, learn how we carry out the Company strategy and how we see our role in the whole social and economic ecosystem of the Lublin Region.

Bogdanka is undoubtedly the economic pillar of the region. We are one of the largest employers in the Lubelskie Province, operating in this area for nearly 40 years. As the LW Bogdanka Group, we now employ 5,654 people. We are aware how big responsibility rests on the Management Board of the Company to maintain workplaces and to take care of its financial standing as expected by our major shareholder, i.e. the Enea Group of which we make part. Therefore, our strategic objective is a constant development of Bogdanka based on the acquisition of new extraction licences and the investment in state-of-the-art technologies that enhance the safety of our employees as well as the efficiency and effectiveness of coal extraction.

The past year was a time of success on many levels for our Company. We achieved very good financial results thanks to the record-breaking extraction in the history of Bogdanka at a level of 9.45 million tonnes of commercial coal and closing the sales plan at a level of 9.4 million tonnes, which guaranteed the maintenance of our strong market position. The Ministry of Climate granted to the Company a licence for hard coal extraction from the K-6 and K-7 deposits in the Cyców mining area, which undoubtedly increases our resource base and allows more effective long-term production planning. Each day we put a lot of efforts to increase our effectiveness.

The abovementioned successes would not be possible without the employees of Bogdanka. They are the biggest asset of our Company and thanks to them we may call ourselves the most effective hard coal mine in Poland. I want to thank them for their everyday effort and labour. I also want to emphasise that it is our priority to build the value and credibility of Bogdanka not only through our financial results or our measures directly underlying those results, but also through corporate responsibility. Therefore, all our strategic decisions are taken with due regard to aspects connected with a broadly understood impact on the employees, local community and natural environment. Of special significance is the ecological aspect. Understanding our responsibility to that extent, we carry out numerous projects that mitigate our impact but also provide added value to the natural environment in our surrounding.

We present to you the Integrated Report of the LW Bogdanka Group at the time that raises many doubts and concerns connected with the ongoing COVID-19 pandemic and its economic and business effects. At the Report publication date no interruptions in our production were observed in consequence of the COVID-19 pandemic. Nevertheless, we attentively monitor the situation and have taken an array of actions with a view to minimising any threats for our employees' and contractors' safety, thus mitigating the related risk for continuity of our operations. We have implemented appropriate working procedures. The whole situation is controlled by a crisis management center and working teams, alert to an immediate response at any moment. The Group's employees show responsibility and understanding to all taken measures and implemented precautions, which allows us to maintain uninterrupted continuity of mining.

We are dedicated to facing all challenges strongly and effectively. We have at our disposal all tools to do that – we are the most efficient coal mine in Poland, have well-trained and engaged employees, generate sound financial results, do not have debts, and our stability is additionally reinforced by the fact of being a part of the Enea Group.

Yours faithfully
Artur Wasil

¹ International Integrated Reporting Council

² Global Reporting Initiative

1 DEVELOPED AND SAFE REGION



[GRI 102-1]

Lubelski Węgiel Bogdanka SA [LW Bogdanka SA] is one of the largest and most advanced hard coal mines in Poland and one of the leaders of the domestic market for power coal producers.

It is the only mine exploiting hard coal outside the Upper Silesia; it is located in the Lublin Province (Łęczyński Powiat, Puchaczów Commune) on the area of the so called Lublin Coal Basin³.

In 2019 LW Bogdanka SA extracted 9.45 million tonnes of thermal coal, which accounted for 19.0% of total extraction of that raw material in Poland.

Since 2015 LW Bogdanka SA has been a part of **the Enea Group**, making the so called **Extraction Area**. As the main supplier of the raw material to Enea power plants, Bogdanka is a key link in the value chain of the Group, which is the second, in terms of volume, producer of electricity in Poland. As an important link in the process of energy production and supply – from the underground raw material to sockets in customers' homes – Bogdanka is the pillar of the Enea Group Development Strategy and

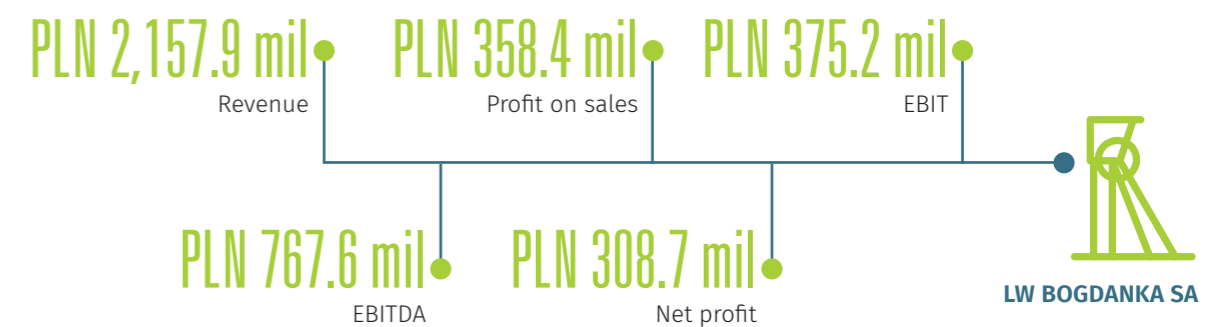
contributes to the energy security of Poland. The shares of the Company have been listed on the Warsaw Stock Exchange since June 2009.

[GRI 102-4, GRI 102-6]

The business activity of LW Bogdanka SA is focused in the territory of Poland. The main source of the Company's revenue is the **production and sale of thermal coal**, which is mostly used to produce electricity, heat and cement.

[GRI 102-7]

Basic financial efficiency ratios for the LW Bogdanka Group in 2019



³ The area in the Eastern Poland, within the territory of the Lublin Upland, in the left basin of the Bug River. It provides the extension from the Lviv-Volyn Coal Basin located in the Ukraine and it runs from the country border to Radzyń Podlaski. It covers the area of 4,000 sq. km, 180 km long and ca. 22 km wide.

1.1. BUSINESS SUPPORT FOR THE REGION

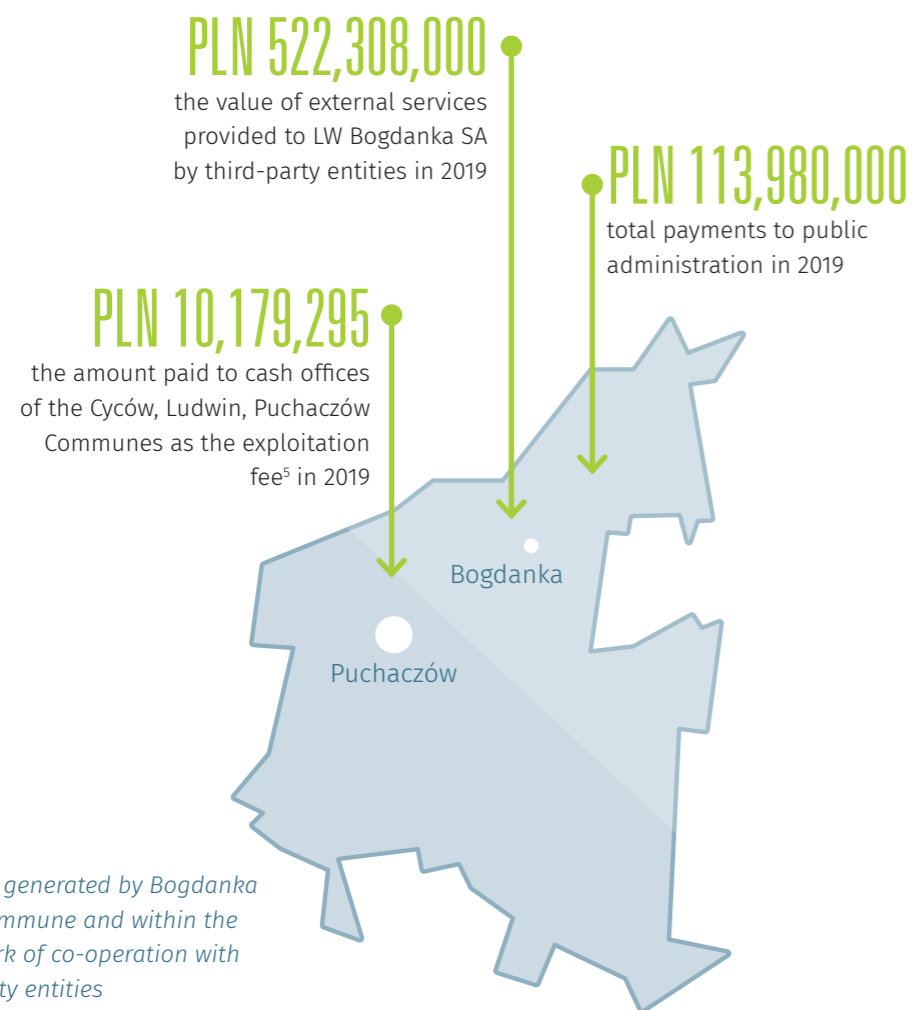
[GRI 203-2, GRI 103-1, aspect: Socio-economic impact and market presence]

Nearly 40 years of the mine's operations (launch of the operations in 1982) causes that LW Bogdanka SA, together with its entire infrastructure necessary for its functioning, has been deeply rooted in the region and has become a part of the business ecosystem.

The employees of the entire LW Bogdanka Group together with their families make up a community

of several thousand people. Thanks to the mine, operations are possible also by small and medium companies which co-operate with the enterprise on an outsourcing basis, providing it with a number of services (transport, security, cleaning). The number of employees from third-party entities is from several hundred to even one thousand. The conduct of business operations by LW Bogdanka SA in the Puchaczów Commune brings measurable benefits also to the local self-government.

Bogdanka constitutes an economic support of the region – as the largest employer in the Łęczyński Powiat and one of the four largest employers in the Lublin Province, it employs at the moment 5,654 people⁴.



Amounts generated by Bogdanka to the commune and within the framework of co-operation with third-party entities

⁴ the total number of employees in the companies of the LW Bogdanka Group calculated in terms of full-time positions

⁵ 60% of the exploitation fee benefits the commune and 40% goes to the National Fund for Environmental Protection and Water Management. Similarly, 60% of the licensing fee is the income of the mining commune, and 40% benefits to the National Fund for Environmental Protection and Water Management.



The Bogdanka Mine is a place of work for subsequent generations of miners and their families. The enterprise has been offering stable and permanent employment in our powiat for years. It makes a key element affecting the business and economic situation, and also the level and quality of life for thousands of people living in our region, starting from employees of the mine up to co-operating firms. The long-term and stable growth of LW Bogdanka SA means at the same time a guarantee of employment and further development possibilities for the community in our powiat. It is a special and huge responsibility resting on the Management Board of LW Bogdanka SA

Krzysztof Niewiadomski
Head of the Łęczyński Powiat

OPERATIONS OF THE ORGANISATION

[GRI 102-2]

The LW Bogdanka group of companies consists of Łęczyńska Energetyka Sp. z o.o. (in which LW Bogdanka holds 88.697% of shares) and three subsidiaries: EkoTrans Bogdanka Sp. z o.o., RG Bogdanka Sp. z o.o.,

MR Bogdanka Sp. z o.o. They have taken over the functions realised originally by the mine and are wholly-owned by LW Bogdanka SA.

GK LUBELSKI WĘGIEL BOGDANKA

LW Bogdanka SA

Provision of services within the following scope:

- hard coal production and sales

Company strategic objectives for upcoming years:

The Company will be increasing its exploitable resource base to extent its expected life in the long run – even for over 50 years

RG Bogdanka Sp. z o.o.

Provision of services within the following scope:

- mining and construction works

Company strategic objectives for upcoming years:

The Company will develop its operations involving auxiliary and preparatory works

MR Bogdanka Sp. z o.o.

Provision of services within the following scope:

- repairs
- steel structures regeneration and manufacture
- mining machine manufacturing and refurbishment

Company strategic objectives for upcoming years:

- manufacture general purpose steel structures
- manufacture and regeneration of mass products used by LW Bogdanka SA

Łęczyńska Energetyka Sp. z o.o.

Provision of services within the following scope:

- production of heat energy
- production of drinking and industrial water
- maintenance and assembly of power production equipment
- refurbishments

Company strategic objectives for upcoming years:

- extension of the Water Treatment Station (WTS) in connection with technological needs of LW Bogdanka SA
- construction of a new boiler unit in the boiler house in Bogdanka
- modernisation of the main heat line Bogdanka - Łęczna

EkoTrans Bogdanka Sp. z o.o.

Provision of services within the following scope:

- comprehensive transport organisation and recovery of spoil arising during coal shale washing and cleaning - land remediation

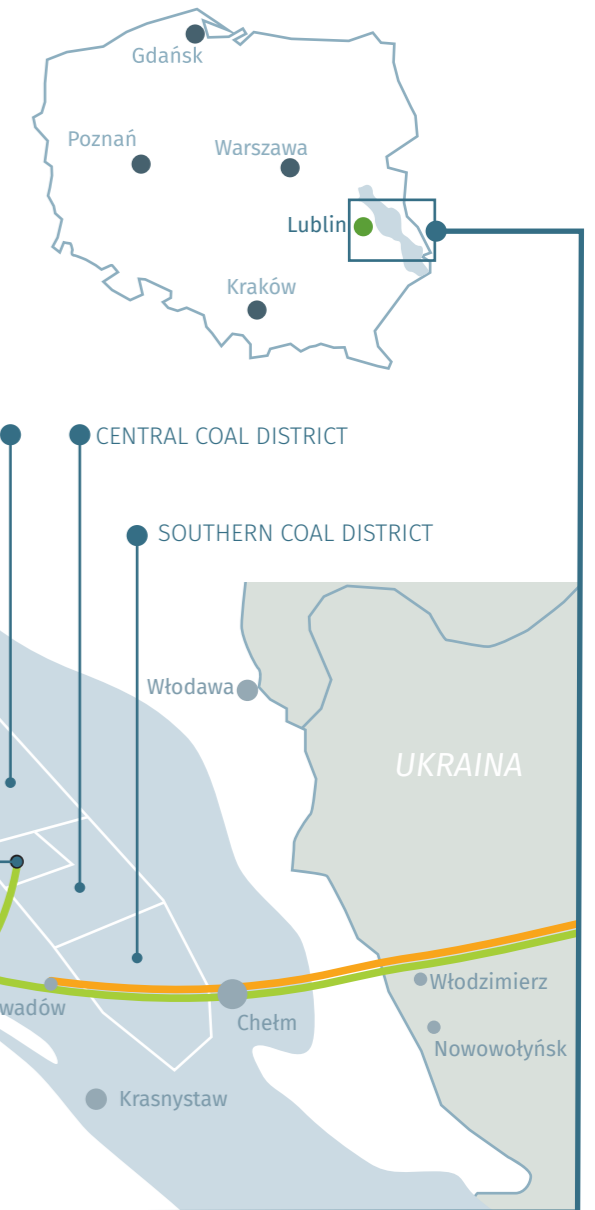
Company strategic objectives for upcoming years:

The Company aims to recover and recycle about 2.7 million tonnes of waste generated by dry and wet coal processing annually.

LICENCES, EXCAVATION AREAS, COAL RESOURCES

Mining activities in the area of hard coal extraction are carried out in LW Bogdanka SA in compliance with Geological and Mining Law. In this process, the mine uses **the most advanced technologies and top quality machines** which **increase safety of the employees**, environmental safety, as well as ensure constant efficiency growth – year to year the mine achieves an underground efficiency rate more than twice as high as the average for the sector.

Continued extraction and assurance of the enterprise operations for the next decades is connected with **a permanent acquisition of new extraction licences**. Whereas current operations require drilling of galleries and extension of underground extraction fronts.



Scale of the Lublin Coal Basin, and location of the mine, extraction fields and mining shafts

Table 1: Licences of LW Bogdanka SA for hard coal extraction

Deposit	Mining area	Location	Licence No.	Granted on	Expiry date
Bogdanka	Puchaczów V (seams: 382, 385/2, 389 and 391) with the area of 73.3 sq. km	Communes of Cyców, Ludwin and Puchaczów	5/2009	6.04.2009	31.12.2031
K-3	Stręczyn (seams: 379/2, 385/2, 391) with the area of 9.38 sq. km	Communes of Cyców and Puchaczów	3/2014	17.06.2014	17.07.2046
Ostrów	Ludwin, the area of 78.67 sq. km	Communes of Ludwin, Łęczna, Ostrów Lubelski, Sosnowica, Uścimów and Puchaczów	6/2017	17.11.2017	31.12.2065
K-6, K-7	Cyców, the total area is 51.78 sq. km	Commune of Cyców	10/2019	20.12.2019	31.12.2046

In the time horizon until 2030, the key areas for the Company include Puchaczów V, Stręczyn (K-3) and Ludwin (Ostrów).

The "Puchaczów V" mining area where the mine is currently carrying out exploitation, is divided into three extraction fields:

- **Bogdanka Field (main area)**
- **Nadrybie Field (peripheral area)**
- **Stefanów Field (peripheral area)**

Shafts of the mine are located in the Bogdanka Field, the Nadrybie Field and the Stefanów Field, while the lifting shafts are located in the Bogdanka Field and the Stefanów Field.

Assuming annual coal production at the level of about 9.0 million tonnes, the resources of the above-mentioned strategic areas alone will ensure about 50 years of exploitation.

Table 2: Hard coal reserves of LW Bogdanka SA updated as at 31 December 2019

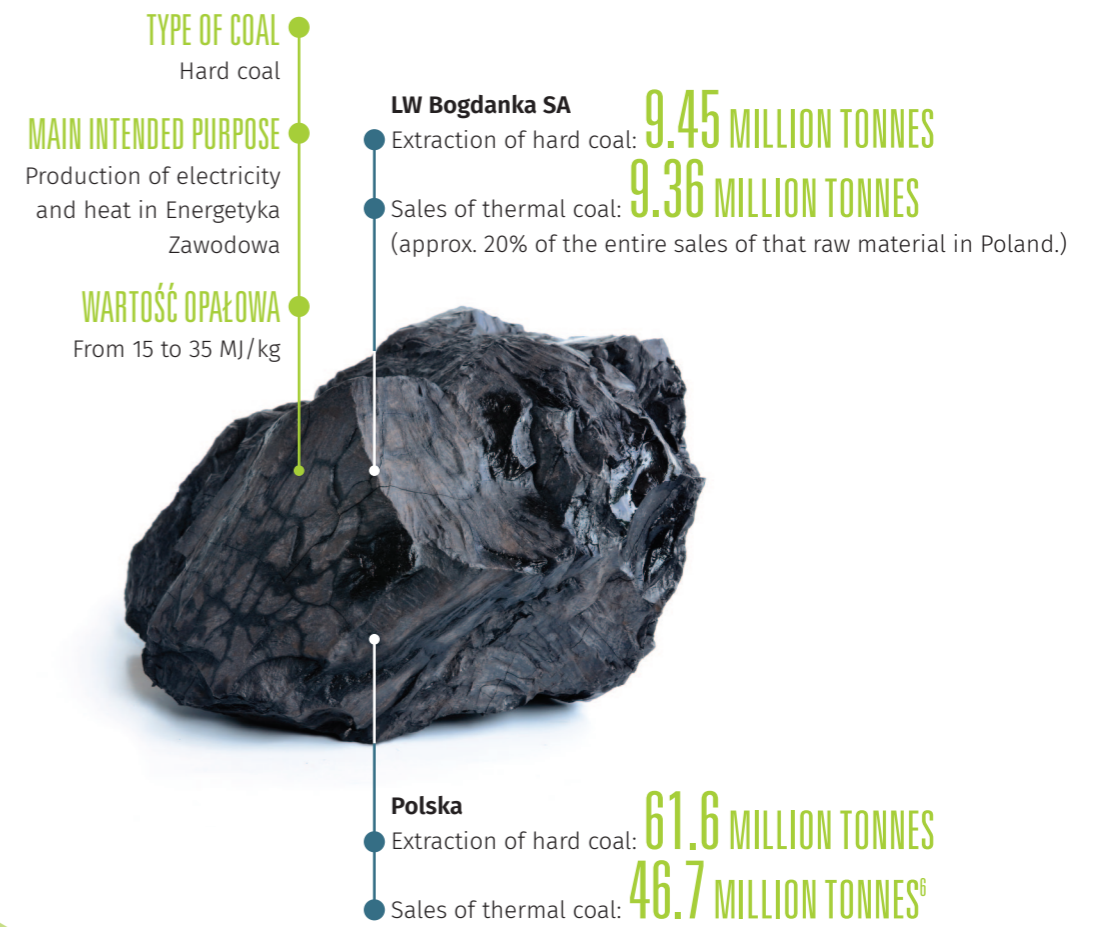
Resources [million tonnes]	Hard coal resources (updated as at 31 December 2019)		
	Total balance*	Industrial	Operating resources
Bogdanka	742.6	247.3	185.7
K-3	146.7	27.5	22.2
Ostrów	1,251.4	250.8	171.7
K-6, K-7	654.4	91.1	65.6

* Balance resources (covered by a licence)

In 2019, upon approval of the Ministry of Environment, the Company reclassified and updated a portion of the resources

PRODUCT

Poland is the biggest hard coal producer in the European Union. It is a key raw material ensuring at the moment the energy security of Poland.



[GRI 102-7]

PRODUCTION OF COAL

- gross extraction of coal in 2019 decreased by 1.0%, i.e. 153,000 tonnes
- production of commercial coal in 2019 was 9,451,000 tonnes, i.e. more by 4.9% (+444,000 tonnes) than in 2018
- yield for 2019 was 64.1% compared to 60.5% for 2018

SALE OF COAL

- in Q4 2019 the sales of coal increased by 6.6% compared to Q4 2018
- in 2019 the sales of commercial coal amounted to 9,359,000 tonnes, i.e. by 4.7% more than in 2018
- transport-related limitations due to the modernisation of Line 7 (the main and shortest transport route for Enea Wytwarzanie Sp. z o.o., Elektrownia Kozienice)



INVENTORIES

- at the end of Q4 2019, the level of coal inventories amounted to 179,000 tonnes, which means an increase by 91,000 tonnes compared to the level as at 31 December 2018
- the level of coal inventories presented at the end of Q4 2019 corresponds approximately to 3 days of commercial coal production (on the basis of average daily production for 12 months)
- relatively low level of inventories of coal is a result of the achieved coal production and coal sales
- the level of inventories allows the mine to operate safely in the event of problems with coal removal

Table 3: Detailed data on commercial coal production, sales by LW Bogdanka SA

['000 tonnes]	Q4 2018	Q4 2019	Change	Change %	2018	2019	Change	Change %
Gross coal extraction	3,581	3,770	189	5.3%	14,894	14,741	-153	-1.0%
Production of commercial coal	2,187	2,324	137	6.3%	9,007	9,451	444	4.9%
Yield (%)	61.0%	61.6%	0.6%	-	60.5%	64.1%	3.6%	-
Sale of commercial coal	2,155	2,298	143	6.6%	8,943	9,359	416	4.7%
New excavations (km)	8.4	7.4	-1.0	-11.9%	37.0	29.1	-7.9	-21.4%

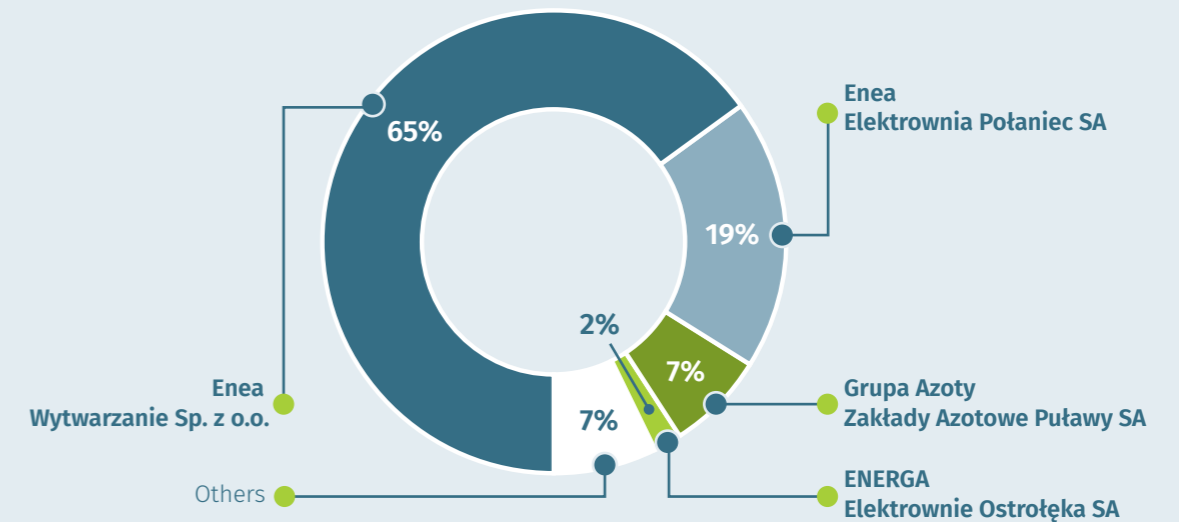
Table 4: Inventories of commercial coal of LW Bogdanka SA

['000 tonnes]	31.12.2018	30.09.2019	31.12.2019	Change [%]	
				31.12.2019 / 31.12.2018	31.12.2019 / 30.09.2019
Inventories of coal	88	153	179	103.4%	17.0%

In 2019 the structure of coal production in LW Bogdanka SA did not change significantly compared to 2018 – the prevailing assortment continued to be **thermal fine coal**. Its share in the production amounted to 99.3%, the rest was pea coal with a share of 0.7%. In 2019 coal (hard coal and lignite) accounted for 75.4% of the total electricity production in Poland,

but its share in the fuel mix went down by 4.2% in comparison with 2018. The other sources included, among other things, wind power plants, gas power plants and water power plants. The customers of LW Bogdanka SA for thermal coal are mainly industrial companies, entities operating in the power industry located in the east and north-east of Poland.

93% of revenue from sales of coal in 2019 was earned under contracts with key customers of LW Bogdanka SA, including:

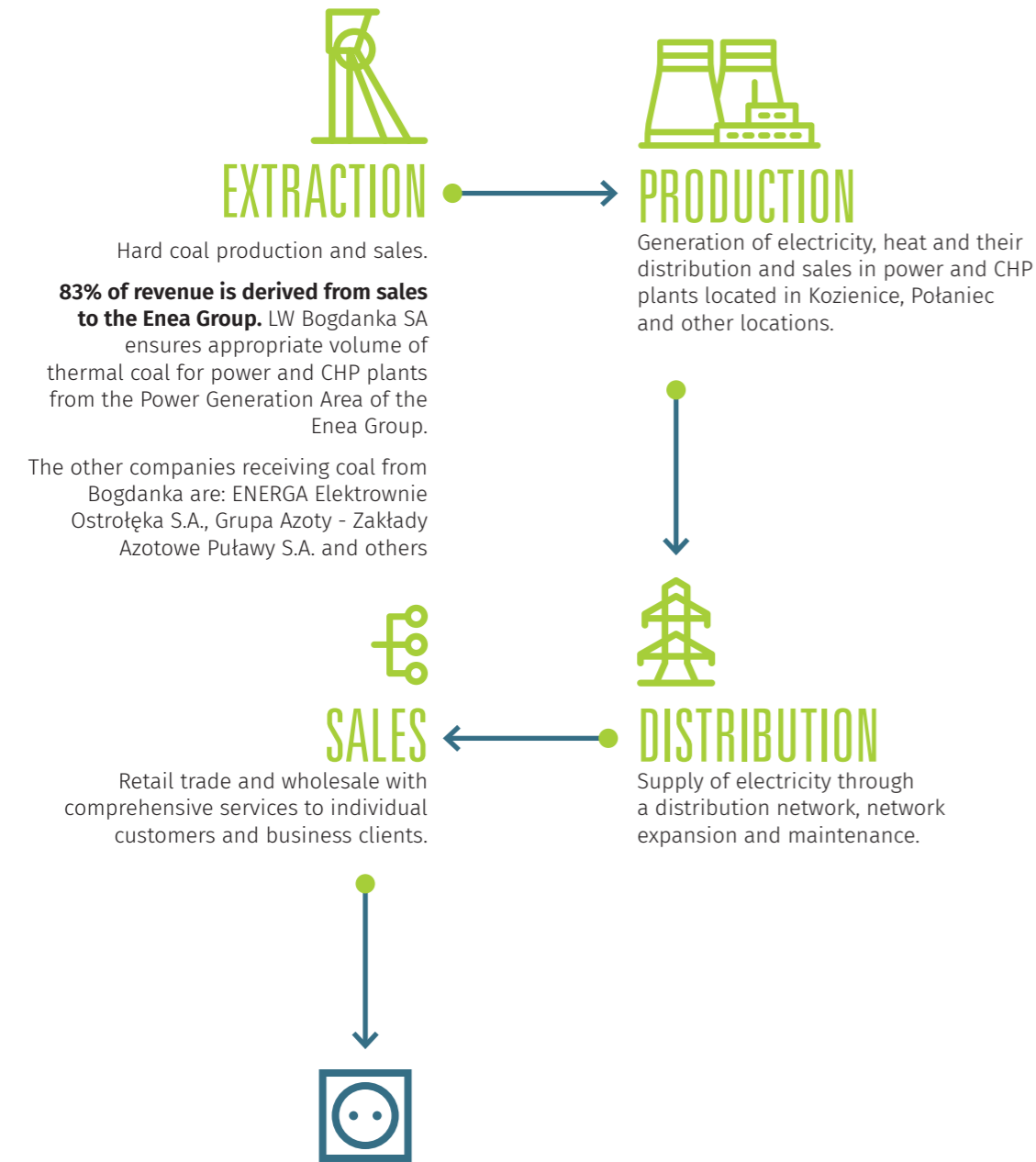


SUPPLY CHAIN

[GRI 102-9]

The core operations of LW Bogdanka SA consisting in the effective extraction and processing of hard coal place the enterprise at the beginning of the supply chain. The mine is mostly a supplier of raw material for other sectors such as energy industry, cement production, chemical sector.

The inclusion of LW Bogdanka in the Enea Group made the Company the first and strategic link in the value chain of the Enea Group: from the extraction of raw material to the sale of a final product such as electricity and heat. It guarantees stability and security of supplies, as well as resilience to volatility of raw material prices.



A business model which is so strongly integrated practically enables the full control of the social and environmental impacts connected with the creation of economic value. Direct control at every stage of its creation, i.e. from the extraction of coal to the supply of electricity and heat to customers, enables the whole Enea Group to build value for the stakeholders.
The core production, which is the extraction and processing of hard coal, is accompanied by other tasks executed by the subsidiaries. Such tasks comprise heat production, water treatment and supply, sewage collection or transport services.

From the perspective of the mine's supply chain, it is of key importance to purchase materials such as electricity, whose fixed and stable supplies guarantee the operation of heavy equipment underground, drainage pumps and air conditioning systems. It is also important to purchase specialised products and services specific to the mining industry which are used for drilling and reconstruction of workings, output dump, supplying support systems for long-wall galleries, mining machines and equipment.

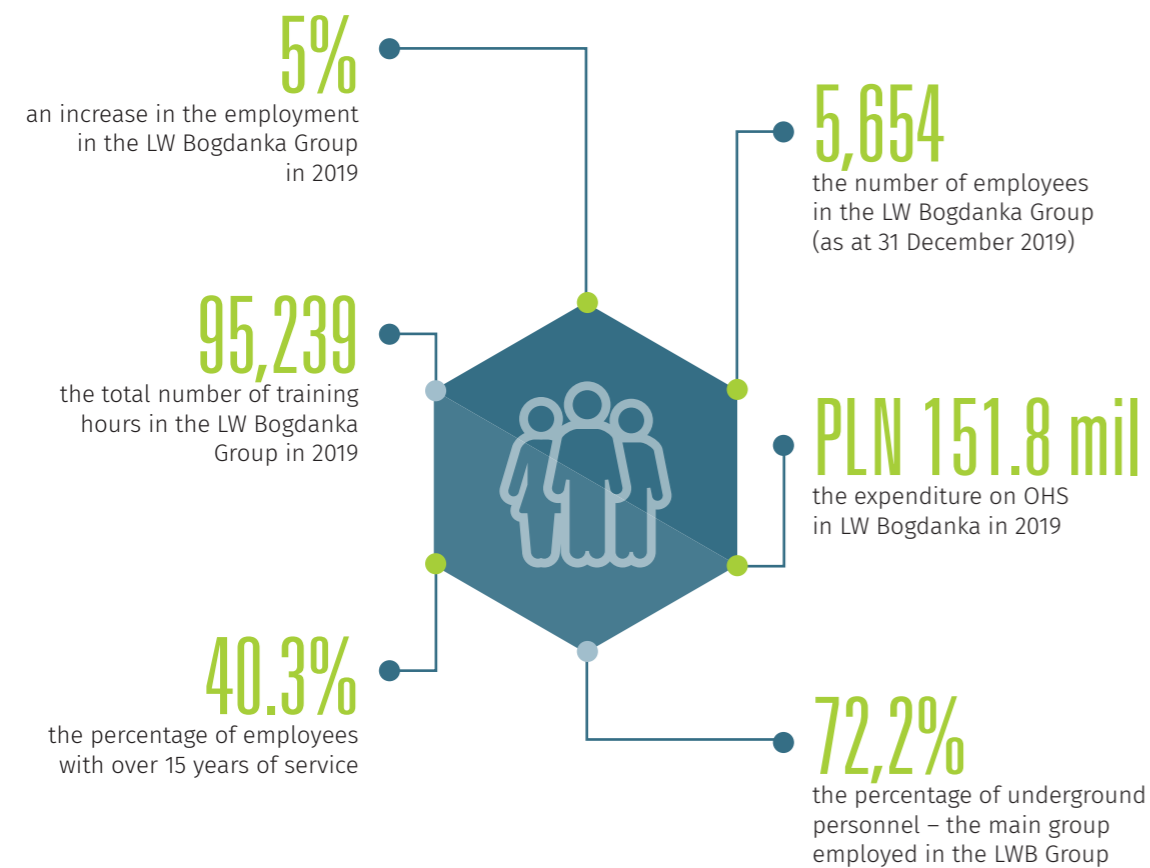


1.2. STABLE EMPLOYER

[GRI 402-1, GRI 103-1, GRI 103-2, GRI 103-3, aspect: Employment and relations with employees]

People are the most important asset of the organization, that is why the Company strives to create space for development to its employees, enables them to improve all the time their qualifications, and takes care of the highest standards of work safety. Being aware how important is the role of the Com-

pany in the region, the Management Board makes key decisions based on a permanent dialogue with the employees. All essential measures or operating changes in the mine are communicated to the personnel with appropriate advance, in accordance with the applicable regulations of the Labour Code.



In the Lublin Region, where unemployment rate is one of the highest in Poland, LW Bogdanka SA stands out both in terms of the number of employees and the amounts of remunerations. The enter-

prise ensures for its employees the feeling of stability, gives a guarantee of continued employment, and remunerations are among the highest ones in the whole Lublin Province.

[GRI 202-1]

Table 5: Amount of remunerations for women and men in relation to the minimum pay

	women	men
LW Bogdanka SA*	3.41	3.85
Łęczyńska Energetyka Sp. z o.o.	2.24	2.23
MR Bogdanka Sp. z o.o.	1.76	2.14
RG Bogdanka Sp. z o.o.	2.06	1.50
Eko Trans Sp. z o.o.	n/a**	2.92

Minimum pay in 2019 in Poland was PLN 2,250 gross

* Remuneration of both women and men is based on the regulations of the Company Collective Bargaining Agreement. Minimum pay is not a determining factor for employee remunerations as the latter are higher than minimum pay. Should it happen that remuneration of an employee is lower than minimum pay, the Company will pay a compensatory allowance.

** the Company does not employ women

[GRI 202-2]

The Company offers positions on various hierarchy levels; from underground employees – who constitute the majority, i.e. 72.7% of all Group employees – up to specialists, engineers and top management, comprised in 100% of the inhabitants of the Lublin Region.

EMPLOYMENT AND RECRUITMENT

[GRI 103-1, GRI 103-2, GRI 103-3, aspect: Development and diversity, prevention of discrimination]

When looking for the best employees, the Group operates pursuant to the "Diversity Policy of LW Bogdanka SA" and places emphasis primarily on the knowledge, qualifications and professional experience, as well as personal qualities of candidates. The recruitment process at LW Bogdanka SA takes place with due regard for the rules of equality regardless of sex, origin, age, beliefs and other factors related to candidates' diversity. Due to the specific nature of the industry, the Company employs mainly men, however, LW Bogdanka SA does not introduce any restrictions on equality in employment, and its current structure results from employees' individual preferences as to the choice of their career. [GRI 406-1] In 2019 there were no confirmed cases of discrimination in the Company. The majority of employees in the LW Bogdanka Group is hired pursuant to an employment contract for an indefinite term.



[GRI 102-8]

Table 6: Data on employees and other individuals providing work to the organisation

The schedules below do not include Eco Trans Sp. z o.o. because its data is not material. Eco Trans employs 1 person under a management contract and 1 person on a full-time position.

	LW Bogdanka SA	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.	RG Bogdanka Sp. z o.o.
I. Employees working under employment contracts (as at 31 December 2019)	4,924	104	86	629
including women	275	10	3	7
including men	4,649	94	83	622
II. Individuals providing work to the Company under other than employment contract concluded with the Company – including management board members /managers hired under management contracts, individuals providing work under a civil law contract with the Company, individuals providing work to the Company hired by an employment agency (as at 31 December 2019)	54	3	3	2
including women	6	0	0	0
including men	48	3	3	2
including management board members hired under management contract, not under employment contract	4	1	1	1
Types of contracts other than employment contract	mandate agreements, management contract – agreement for the provision of management services, appointment to a member of the Supervisory Board pursuant to a resolution	mandate agreement, agreement for the provision of management services	management contract, mandate agreement	management contract, mandate agreement
III. Women and men employed under employment contracts, broken down by age groups (as at 31 December 2019):				
employees under 30 – women	22	1	2	1
employees under 30 – men	820	9	17	332
employees between 30 and 50 – women	120	6	1	6
employees between 30 and 50 – men	3,281	24	40	274
employees above 50 – women	133	3	0	0
employees above 50 – men	548	61	26	16
IV. Women and men employed under employment contracts, broken down by type of employment (as at 31 December 2019):				
employment contract for an indefinite term – women	219	10	2	2
employment contract for an indefinite term – men	3,836	78	50	90
other agreements, including probation, definite term (including internships and substitution) – women	56	0	1	5
other agreements, including probation, definite term (including internships and substitution) – men	813	16	33	532
V. Women and men employed under employment contracts, broken down by work time basis (as at 31 December 2019):				
full time – women	274	10	3	6
full time – men	4,648	92	82	620
part time – women	1	0	0	1
part time – men	1	2	1	2

VI. Employment of women and men broken down by employment structure (as at 31 December 2019):	LW Bogdanka SA		Łęczyńska Energetyka Sp. z o.o.		MR Bogdanka Sp. z o.o.		RG Bogdanka Sp. z o.o.	
	Number of women	Number of men	Number of women	Number of men	Number of women	Number of men	Number of women	Number of men
Top management (working under employment contracts)	0	0	0	0	0	0	0	0
Top management (working under other than employment contracts, e.g. under management contract)	0	4	0	1	0	1	0	1
Directors (working under employment contracts)	2	11	0	2	0	1	0	2
Directors (working under other than employment contracts, e.g. under the management contract)	0	0	0	0	0	0	0	0
Individuals on lower managerial positions working under employment contracts	11	94	1	4	0	3	0	22
With chief foremen and underground dispatchers	11	155	-	-	-	-	-	-
Other administrative employees not on managerial positions working under employment contracts	163	60	6	17	3	3	7	5
Other operational employees not on managerial positions working under employment contracts	99	4,423	3	71	0	76	0	593
With chief foremen and underground dispatchers	99	4,484	-	-	-	-	-	-



[GRI 405-1]

Table 7, 8: Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity

	LW Bogdanka SA			Łęczyńska Energetyka Sp. z o.o.			MR Bogdanka Sp. z o.o.			RG Bogdanka Sp. z o.o.		
	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men
A. SUPERVISORY BODIES OF THE ORGANISATION												
the Management Board												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	3	-	3	-	-	-	-	-	-	-	-	-
over 50 years	1	-	1	1	-	1	1	-	1	1	-	1
TOTAL	4	-	4	1	-	1	1	-	1	1	-	1
Supervisory Board												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	5	2	3	2	1	1	-	-	-	-	-	-
over 50 years	3	1	2	2	1	1	-	-	-	-	-	-
TOTAL	8	3	5	4	2	2	-	-	-	-	-	-
B. EMPLOYEE CATEGORIES												
top management												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	9	1	8	2	-	2	1	-	1	1	-	1
over 50 years	4	1	3	-	-	-	-	-	-	1	-	1
TOTAL	13	2	11	2	-	2	1	-	1	2	-	2
medium-rank management												
below 30 years	-	-	-	-	-	-	-	-	-	8	-	8
from 30 to 50 years	69	8	61	3	-	3	2	-	2	8	-	8
over 50 years	36	3	33	2	1	1	1	-	1	6	-	6
TOTAL	105	11	94	5	1	4	3	-	3	22	-	22
underground chief foremen and underground traffic dispatchers												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	41	-	41	-	-	-	-	-	-	-	-	-
over 50 years	20	-	20	-	-	-	-	-	-	-	-	-
TOTAL	61	-	61	-	-	-	-	-	-	-	-	-
other employees												
below 30 years	842	22	820	10	1	9	19	2	17	325	1	324
from 30 to 50 years	3,282	111	3,171	30	6	24	38	1	37	271	6	265
over 50 years	621	129	492	64	3	61	25	-	25	9	-	9
TOTAL	4,745	262	4,483	104	10	94	82	3	79	605	7	598

	LW Bogdanka SA			Łęczyńska Energetyka Sp. z o.o.			MR Bogdanka Sp. z o.o.			RG Bogdanka Sp. z o.o.		
	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men
A. PERCENTAGE OF EMPLOYEES IN MANAGEMENT BODIES OF THE ORGANISATION												
the Management Board												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	75%	-	75%	-	-	-	-	-	-	-	-	-
over 50 years	25%	-	25%	100%	-	100%	100%	-	100%	100%	-	100%
TOTAL	100%	-	100%	100%	-	100%	100%	-	100%	100%	-	100%
Supervisory Board												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	62.5%	25%	37.5%	50%	25%	25%	-	-	-	-	-	-
over 50 years	37.5%	12.5%	25%	50%	25%	25%	-	-	-	-	-	-
TOTAL	100%	37.5	62.5%	100%	50%	50%	-	-	-	-	-	-
B. PERCENTAGE OF EMPLOYEES IN THE FOLLOWING CATEGORIES												
top management												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	69.2%	7.7%	61.5%	100%	-	100%	100%	-	100%	50%	-	50%
over 50 years	30.8%	7.7%	23.1%	-	-	-	-	-	-	50%	-	50%
TOTAL	100%	15.4%	84.6%	100%	-	100%	100%	-	100%	100%	-	100%
medium-rank management												
below 30 years	-	-	-	-	-	-	-	-	-	36.4%	-	36.4%
from 30 to 50 years	66%	8%	58%	60%	-	60%	67%	-	67%	36.4%	-	36.4%
over 50 years	34%	3%	31%	40%	20%	20%	33%	-	33%	27.2%	-	27.2%
TOTAL	100%	11%	89%	100%	20%	80%	100%	-	100%	100%	-	100%
underground chief foremen and underground traffic dispatchers												
below 30 years	-	-	-	-	-	-	-	-	-	-	-	-
from 30 to 50 years	67%	-	67%	-	-	-	-	-	-	-	-	-
over 50 years	33%	-	33%	-	-	-	-	-	-	-	-	-
TOTAL	100%	-	100%	-	-	-	-	-	-	-	-	-
other employees												
below 30 years	17.7%	0.4%	17.3%	9.6%	1%	8.6%	23.2%	2.4%	20.8%	54%	0%	54%
from 30 to 50 years	69.2%	2.4%	66.8%	28.9%	5.8%	23.1%	46.3%	1.2%	45.1%	45%	1%	44%
over 50 years	13.1%	2.7%	10.4%	61.5%	2.9%	58.6%	30.5%	0%	30.5%	1%	-	1%
TOTAL	100%	5.5%	94.5%	100%	9.7%	90.3%	100%	3.6%	96.4%	605	1%	99%

[GRI 401-1]

Table 9: Total number and percentage of new employees and total number of employees who left the Company in 2019.

	LW Bogdanka SA	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.	RG Bogdanka Sp. z o.o.
Number of new employees working under employment contracts in 2019:	298	13	23	560
women	28	0	0	3
men	270	13	23	428
employees under 30	134	5	14	309
employees between 30 and 50	154	7	8	239
employees above 50	10	1	1	12
Number of employees working under employment contracts, who left the Company in 2019:	135	7	176	251
women	15	1	1	2
men	120	6	175	249
employees under 30	22	0	101	137
employees between 30 and 50	46	3	69	108
employees above 50	67	4	6	6
Rate of employee turnover in 2019 for employees working under employment contracts	2.74	6	204.65	39.90
Rate of employee turnover in 2019 for employees working under employment contracts, broken down by gender:				
Women	5.45	10	33.33	28.57
Men	2.58	6	210.84	40.03
Rate of employee turnover in 2019 for employees working under employment contracts, broken down by age groups:				
employees under 30	2.61	-	531.58	41.14
employees between 30 and 50	1.35	10.00	168.29	38.57
employees above 50	9.84	6.00	23.08	37.50
Main reasons why employees left the Company in 2019	A	B	C	D

A Percentage share of a given way of contract termination:
Article 52: 3.0%
Article 53: 0.7%
expiry - employee death: 6.7%
expiry - arrest: 0.7%
retirement: 56.3%
mutual agreement of the parties: 18.5%
disability pension: 3.0%
lapse of time: 7.4%
termination by the employee: 2.2%
termination by the employer: 1.5%

B 1 woman and 3 men - mutual agreement of the parties,
3 men - retirement
C The main reason of leaving (129 persons on 31 December 2018) was a transfer of a part of the employees to another company of the Enea Group
D the majority of employees were transferred under an agreement to LWB

TRAININGS AND DEVELOPMENT OF PROFESSIONAL SKILLS

The Management Board of LW Bogdanka SA is aware that success of the business is in the hands of the mine's personnel, and hence it treats investments in the development of employees as the valuable capital that will bring benefits in the future. It also tries to create the working environment where employees are appreciated and respected and may realise their potential. The Company offers to all employees, regardless of their position, a wide and diverse access to trainings and courses, and post-graduate studies.

Number of training hours in LWB in 2019: 95,239 (v. 116,642 in 2018)

A 10% decrease in the number of trainings in 2019 v. 2018 was affected by the following factors:

- **the periodic nature of OHS trainings** – in 2018 the number of training hours for persons managing employees was higher by 2,336 than in 2019, such trainings are organised once in every 5 years,
- **the number of initial OHS trainings** – a difference is caused by the number of newly employed persons. (The number of newly employed persons in 2018 was: 194 employed aboveground, including 125 trainees, 414 employed underground, including 69 trainees, i.e. in total 608 persons. Whereas in 2019 – 72 employed aboveground and 173 employed underground, i.e. in total 245 persons),
- **a change in the manner of keeping statistical data on trainings** – the statistical data for 2018 included trainings that were not included in data in 2019 (e.g. 3,018 hours for entities),
- **a bigger demand for external trainings** – in 2018 trainings were organised for groups consisting of more persons than in 2019 e.g. EMAG connecting cables and wires (1,460 h), GIG Maintaining the ceiling in the walls (1,744 h), GDPD (2,065 h).



[GRI 404-1]

Table 10: Number of training hours in one year attributable per one employee according to employment structure

	LW Bogdanka SA	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.	RG Bogdanka Sp. z o.o.
Total number of training hours for employees working under employment contracts in 2019	75,069	1,037	1,797	17,336
Including the number of mandatory trainings (also e-learning)	40,228	584	517	17,336
Including the number of optional trainings, taken by the employees within the framework of training plans, with the employer's consent	34,841	453	1,280	0.0
Average number of mandatory training hours of employees working under employment contracts	8.17	5.62	5.9	27.6
Average number of optional training hours of employees working under employment contracts	7.07	4.36	14.7	0.0
Does the total number of training hours include the number of training hours for members of top management/managers under management contracts?	yes	no	yes	no
Average number of mandatory training hours of employees working under employment contracts, broken down by gender				
Women	1.51	2.4	1	5.7
Men	8.56	5.96	6.1	27.8
Average number of optional training hours of employees working under employment contracts				
Women	8.1	12.3	2.7	0.0
Men	7.01	3.51	15.1	0.0
Average number of mandatory training hours, broken down by employment category				
Top management	0.0	0.0	1.0	0.0
Directors	9.6	0.0	1.0	4.0
Individuals on lower managerial positions working under employment contracts	2.34	0.0	5.0	18.18
Other administrative employees not working on managerial positions	1.55	1.39	4.3	5.33
Other operational employees not working on managerial positions	5.78	4.46	5.6	28.44
Average number of optional training hours, broken down by employment category				
Top management	6.0	0.0	-	0.0
Directors	24.0	64.5	-	0.0
Individuals on lower managerial positions working under employment contracts	15.02	16.6	35	0.0
Other administrative employees not working on managerial positions	4.75	6.65	5.3	0.0
Other operational employees not working on managerial positions	13.73	1.19	14.8	0.0

[GRI 102-41]

Table 11: Employees covered by collective bargaining agreements

	LW Bogdanka SA	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.	RG Bogdanka Sp. z o.o.
Percentage of employees of your Company covered by collective bargaining agreement	100%	0%	0%	0%
Number of trade unions operating in your Company and their names	4	1	2	2

- Trade Union of Miners in Poland, "Solidarność" Independent Self-Governing Trade Union, "Kadra" Trade Union, "Przeróbka" Trade Union of Mechanical Coal Processing Plant Workers in Poland
- "Solidarność" Independent Self-Governing Trade Union at Łęczyńska Energetyka Sp. z o.o. in Bogdanka
- Solidarność Independent Self-Governing Trade Union at MR Bogdanka Sp. z o.o.
- Trade Union of Miners in Poland at LW Bogdanka SA
- Trade Union of Miners in Poland – Intercompany Management Board at Lubelski Węgiel Bogdanka SA
- Intercompany Organisation at Lubelski Węgiel Bogdanka SA

INNOVATIVE DEVELOPMENT PROGRAMMES

[GRI 404-2]

Since 2019, two development programmes have been organised at LW Bogdanka SA: The Foreman Academy and the Mining Leaders Academy. They were developed according to the needs of the enterprise with due regard to strategic development plans of the Company in order to build an innovative organisation based on knowledge and high qualifications of its employees.

The **Mining Leaders Academy** is carried out in the form of post-graduate "Mining Enterprise Value Management" studies. The content related scope of the studies is supervised by lecturers from the AGH University of Science and Technology in Krakow and external trainers. The programme is addressed to senior managers and key employees / middle-level managers and is connected with individual development of career path for such employees. In 2019, 40 employees participated in the programme.

The **Foreman Academy** is a development programme dedicated to shift foremen, with the main purpose to develop their team management skills. The training is to develop communication skills of foremen and help them in building employee engagement and good team relations. In 2019, 216 shift foremen and 23 branch foremen participated in the programme in 17 groups.

Other trainings connected with management skills organised in the Company in 2019: "From colleague to supervisor" leader skills training, Sense-Making workshops, concept workshops – moderating creative meetings, training on coaching skills for leaders.

[GRI 401-2]

Taking care of comfort, health and wellbeing of its employees, LW Bogdanka SA constantly improves and extends its offer of benefits that contribute to creating a friendly workplace. Co-financing is available for initiatives connected with healthy lifestyle, practising sports, leisure, entertainment and culture. Benefits are available to all employees, regardless what is the time basis of their employment.

ilable for initiatives connected with healthy lifestyle, practising sports, leisure, entertainment and culture. Benefits are available to all employees, regardless what is the time basis of their employment.

Table 12: Benefits in LW Bogdanka SA

	RG Bogdanka Sp. z o.o.	MR Bogdanka Sp. z o.o.	Łęczyńska Energetyka Sp. z o.o.	LW Bogdanka SA
Partial subsidy to leisure in the form of workers' holidays	•			
Partial subsidy to holidays for children and teenagers	•			
Partial subsidy to trips	•			
Partial subsidy to entertainment tickets (concerts, performances)	•	•		•
Partial subsidy to garden party for employees	•			•
Partial subsidy to fees for kids nursery / kindergarten	•			
Partial subsidy to entrance tickets to sports facilities	•	•		
One-time allowances	•		•	
Housing loans	•	•		
Subsidy to summer holidays in the countryside	•	•	•	•
Corporate events, such as Barbórka Miners' Day, Company Christmas Eve	•	•	•	•
Multisport cards	•			
Co-financing private medical subscriptions for the employees	•		•	

ACTIVITIES IN EDUCATION OF YOUNG MINING PERSONNEL

Education of future mining personnel for the mine, prevention of generation and competence gap are among the key objectives connected with human capital. The Company accomplishes them through partnerships with higher education institutions, secondary schools, scholarship programmes, and internships and vocational placements that have been organised and developed in the organisation for many years. It also engages the employees of LW Bogdanka SA who, in the capacity of industry experts, give classes in mining schools, sharing their knowledge and experience with the young generation.

Cooperation with higher education institutions
 In 2019, the "Policy of cooperation with schools and higher education institutions" was developed and implemented. Regular dialogue with representatives of the educational sector, providing information about business strategy, Company objectives and its recruitment plans enable to work out a cohesive concept of educating the young people – future employees of the mine. Graduates of those schools and higher education institutions find employment e.g. as miners, in mine supervision, and mine administration.
 LW Bogdanka SA has signed cooperation agreements related to vocational learning with four schools, as well as an agreement for vocational placement for students. Furthermore, it has signed internship agreements with vocational schools in relation to the "Become a Professional - School Today, Success Tomorrow" project, co-financed with the EU (RPO WL) funds.

13
 total number of persons employed within the framework of cooperation with the AGH University of Science and Technology (2) and "Passport for work" programme (11)

157
 number of persons from secondary schools and higher education institutions who completed vocational placement

43
 number of vocational internships

60
 number of scholarships granted



Transformation of the economy and social changes occurring over the recent years have significantly affected development of a new model of cooperation between science and business. Of course each of the sectors continues to have its priorities and it is the most important to develop such a model of partnership where each of the parties understands the objectives and needs of the other party. It guarantees faster, more effective and above all long-term execution of actions. The cooperation between our institution and LW Bogdanka SA is among such model co-operation. Projects successfully completed for more than 30 years show the perfect synergy of action between our organisations. The win-win principle is the motto of each of our joint activities.

Professor Marek Cała, PhD Hab., Eng.
 AGH University of Science and Technology in Krakow



PARTNERSHIP SCHOOLS AND EDUCATION INSTITUTIONS COOPERATING WITH LW BOGDANKA SA

- The AGH University of Science and Technology in Krakow (cooperation started in 2017)
- The Mining School Complex in Łęczna (cooperation started in 2017)
- The School Complex in Ostrów Lubelski (cooperation started in 2017)
- The Power Engineering School Complex in Lublin (cooperation started in 2019)
- The Electronic Technical School Complex in Lublin (cooperation started in 2019)
- The Power Engineering and Transport School Complex in Chełm (cooperation started in 2019)



As a graduate of the AGH University of Science and Technology, my first contact with the Bogdanka mine was during mandatory student work placement. Already at that time I felt that it was the place I would like to work after my graduation. The start of co-operation between the AGH University and LW Bogdanka and the launch of internship programme enabled me to accomplish this objective even before I got my diploma. At the moment I work as an underground specialist in the Department of Production and Operating Records, Design and Development of Mining Plant Liquidation Processes. The work on this position enables me to use and combine in one whole theoretical knowledge and skills acquired in the course of my studies at the AGH University as well as practical knowledge gained during vocational placement and work provided within the framework of the internship programme. It is also an ideal place for further professional development because it requires from me to constantly expand my knowledge in many areas and to perfect my skills – both hard and soft. I believe that such programmes are very needed and give young people from our region a real chance for development, starting a professional career or finding one's place on the job market.

Michał Bąk

underground specialist in the Department of Production and Operating Records

Passport for work in LW Bogdanka SA – the aim of this programme is to support and develop the idea of consistent learning among students of the schools which have joined the partnership with LW Bogdanka SA. The best graduates get a real chance for employment in the Company.

Other supporting and incentivising projects for future mining personnel started and continued in 2019:

- **“Become a Professional - School Today, Success Tomorrow”**, a project financed from the Regional Operational Programme for the Lublin Province (EU funds).
- **Scholarship fund**; a scholarship for 5 years awarded to students in grades two and three from partner schools who achieved the highest average grade from the indicated technical subjects (not lower than 4.75) at the end of the previous semester.
- **Qualifications of the future. Integrated System of Qualifications in the mining industry** – the seminar addressed to people and institutions involved in professional education and related to the mining industry co-organised by LW Bogdanka SA with the Institute of Educational Studies.
- **participation of the Company in Job Fairs** organised by the AGH University of Science and Technology in Krakow



RESEARCH AND DEVELOPMENT ACTIVITY

LW Bogdanka SA has been building partnerships with the world of science and higher education environment for many years. It includes both higher education institutions, like the AGH University of Science and Technology, Silesia University of Technology, Lublin University of Technology, Maria Curie-Skłodowska University (UMCS), Catholic University of Lublin (KUL), University of Life Sciences and Medical University, as well as scientific institutions, i.e. the Polish Academy of Sciences, Central Mining Institute.

Cooperation in research and scientific dimension includes participation in the surface and underground coal gasification project, which has been already completed but was very important from the perspective of energy independence of Polish economy.

LW Bogdanka SA obtained financing from the Research Fund for Coal and Steel for the implementa-

tion of a SUMAD project (Sustainable Use of Mining Waste Dumps). The project covers research with respect to determining the capabilities of using post-mining heaps with an account taken of geotechnical aspects, sustainable development, as well as environmental, social and business factors. One of final effects of the project implementation will be a plan developed for the management of selected post-mining heaps, with a particular emphasis of their use as a location for the installation of renewable energy sources (e.g. heat pumps, photovoltaic farms).

LW Bogdanka SA takes also an active part in scientific conferences, such as e.g. PreCOP_24 conference in Katowice, and engineers and experts from Bogdanka publish expert articles in industry magazines e.g. “Wiadomości Górnicze” (Mining News), “Inżynieria Górnicza” (Mining Engineering).

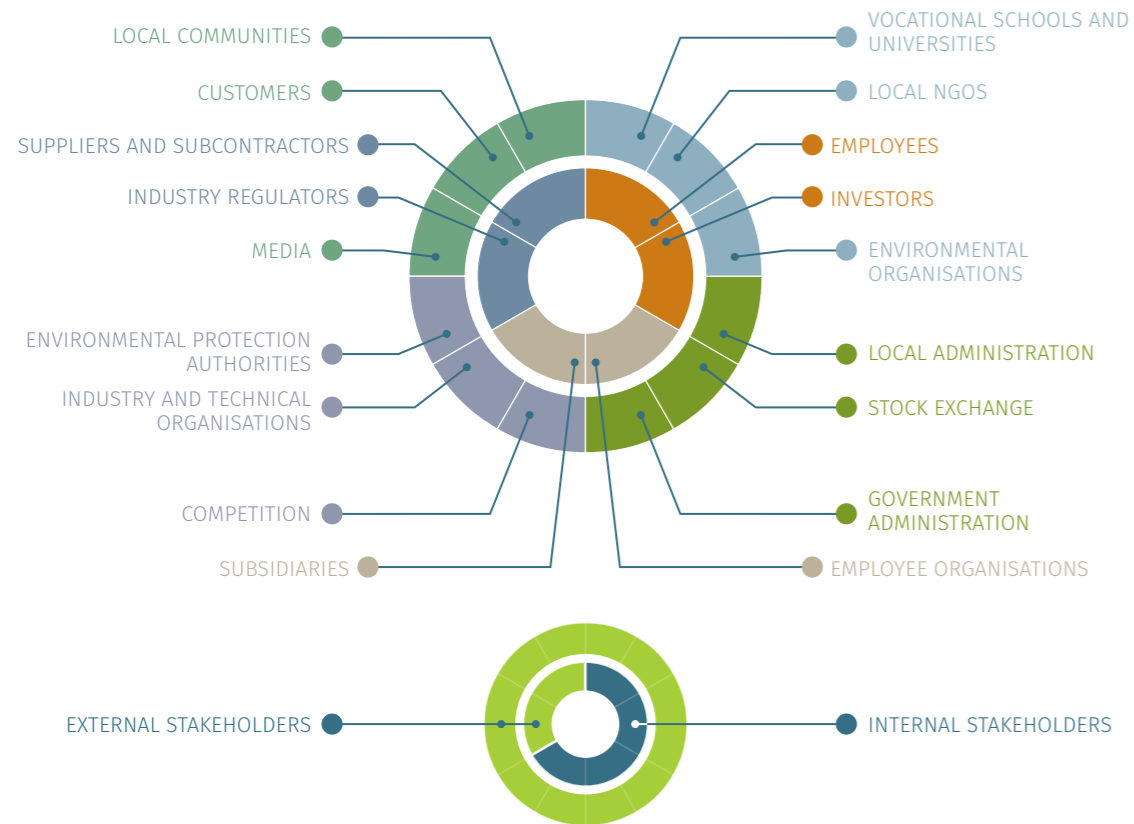


1.3. DIALOGUE AND ENGAGEMENT AS THE FOUNDATION OF RELATIONS WITH STAKEHOLDERS

[GRI 102-42]

As a member of the local community, Bogdanka cooperates with all key stakeholders, solving together challenges important for the region. The Company would like the Lublin Region to become more and more attractive and wants to build a civic society. It is a significant part of the Social Responsibility Strategy of LW Bogdanka SA.

The stakeholder matrix has been updated when creating the Social Responsibility Strategy of Bogdanka SA for 2018-2021. The preparation of the Strategy was preceded by analyses and interviews with managers responsible for relations with particular stakeholders and representatives of selected groups of external stakeholders.



The stakeholder matrix of LW Bogdanka SA was divided into external and internal stakeholders. In addition, each group was specified in accordance with a level of impact and level of interest. In this way, the Company has arrived at the list of stakeholders with the largest significance for it, with whom the maintenance of constant relations is of key importance.

Relations with stakeholders are based on constructive dialogue, learning about mutual expectations and needs, and reliable exchange of information. In this way Bogdanka prevents conflicts, builds trust and perception of the organisation as a responsible, engaged and transparently working partner.



[GRI 102-40, GRI 102-43]

INTERNAL STAKEHOLDERS

EMPLOYEES

- FULL-TIME EMPLOYEES OF LW BOGDANKA SA
- employees of the subsidiaries of the LW Bogdanka Group
- employees of external companies
- trade unions
- prospective employees and former employees
- State Labour Inspection (Państwowa Inspekcja Pracy), Regional Labour Inspectorate (Okręgowy Inspektorat Pracy) in Lublin, Mining Rescue Stations in Jaworzno
- The Solidary Miners Foundation

Forms of conducting dialogue: mailing, cyclical meetings with the Management Board, announcement boards, multimedia boards, Bogdanka company newsletter, Intranet, OHS communications, OHS screens

INVESTORS

- SHAREHOLDERS with particular focus on the strategic investor, i.e. the Enea Group
- banks
- the Warsaw Stock Exchange
- Polish Financial Supervision Authority

Forms of conducting dialogue: regular contacts, meetings with representatives of the Management Board, publishing of periodic reports, participation in industry meetings, conferences



EXTERNAL STAKEHOLDERS

LOCAL COMMUNITIES

- local government administration
- inhabitants
- social leaders
- local NGOs

Forms of conducting dialogue: regular meetings twice a year with representatives of the public administration, educational initiatives

CUSTOMERS

- institutional customers
- individual customers

Forms of conducting dialogue: ongoing communication, meetings

INDUSTRY REGULATORS

- Regional Mining Authority (Okręgowy Urząd Górniczy) in Lublin and Mining Chief Research Institute (Główny Instytut Górnictwa)
- Powiat Building Supervision Inspectorate (Powiatowy Inspektorat Nadzoru Budowlanego) in Łęczna

Forms of conducting dialogue: contacts depending on current needs

SUPPLIERS AND SUBCONTRACTORS

Forms of conducting dialogue: regular contacts on operational level depending on the current needs, audits

LOCAL COMMUNITIES

- Media
- Higher education schools and academic employees
- Technical and sector organisations
- Government (central) administration
- Non-governmental organisations
- Competition

Forms of conducting dialogue: press releases, interviews, investor relations website, sponsored articles, partnerships, letters of intent, meetings, cooperation within the framework of sponsoring, donations, CSR actions

NATURAL ENVIRONMENT

- environmental organisations
- Province Environmental Protection Inspector (Wojewódzki Inspektor Ochrony Środowiska) in Lublin
- Management of the Polesie National Park,
- State Forests (Świdnik Forest District, Parczew Forest District)

Forms of conducting dialogue: contacts depending on current needs, meetings

[GRI 102-44]

KEY TOPICS ADDRESSED BY STAKEHOLDERS	ANSWER OF THE ORGANISATION	ANSWER IN THE INTEGRATED REPORT
Social engagement and relations with the local community	Within the framework of CSR Strategy 2018-2021, the Company takes pro-social and volunteer initiatives, philanthropic actions (the Solidary Miners Foundation) and pro-ecological actions together with local stakeholders.	34-37
ENVIRONMENT:		
1. Biodiversity	1. Construction/reconstruction of gates and culvert gates on drainage ditches of the Łęczyńsko-Włodawskie Lake District in order to protect avifauna.	54-57
2. Mining damage	2. 35,000 trees were planted on the heaps excluded from agricultural production at the turn of 2018 and 2019.	39
3. Mining waste	3. The Company takes actions aimed at cleaner exploitation, among other things giving up the performance of some works in rock-solid layers	50-51
4. Water consumption	4. Water coming from drainage of the excavation in the amount of 2,5 million cubic metres is reclaimed and used again. Over 2.0 million cubic metres goes to the Water Treatment Station and after going through the process is used again (further extraction, water supplied to fire installation, air conditioning)	48-49
5. Emissions of pollution	5. The Company does not exceed admissible emission levels specified in administrative decisions that have been issued.	52-53
STRATEGY AND PROJECTS:		
1. Automation of the extraction process; costs and impact on the level of employment	1. The Company has been carrying out tests of market solutions. The total costs of automation has not been determined. Automation of production processes will not cause a drastic decrease in employment; its objective is to improve safety in the most dangerous sections of the production. Automation will cause an increase of employment in manufacturing and servicing.	69
2. Resources	2. In the Company strategy to 2025, with the perspective up to 2030, the flexible development scenario is followed, with the annual average production of 9.2 million Mg in that period. In the event that market conditions change, the Company may adopt the baseline scenario with the annual average production of 8.5 million Mg or adjust the flexible development scenario to increase the extraction.	6-11
EMPLOYEE ISSUES:		
1. Remuneration	1. Over the last 4 years the level of remunerating the employees was adequate to the conditions of work and pay in the region in a given period, i.e. in 2019 it went up.	15
2. OHS; educational measures, provision of appropriate safety measures and protection tools, more flexible system of work	2. The Company strictly complies with provisions regarding OHS and takes preventive measures (Work safety improvement programme), including threats monitoring performed on an on-going basis. The Company tests materials and fixed assets before their purchase, taking into account opinions from the personnel.	65-73

INTERSECTORAL PARTNERSHIP FOR URBAN AESTHETICS AND SUSTAINABLE DEVELOPMENT

[GRI 102-12]

The AESTHETICS PROGRAMME implemented in 2019 is an example of effective intersectoral cooperation between LW Bogdanka SA, the Municipality Office in Łęczna and the Landscape Foundation. The aim of the initiatives was to organise workshops for the inhabitants of the Łęczna town about knowledge connected with green space. The whole of the measures is not only to effect really the quality and aesthetics of the space in Łęczna but also to build in the inhabitants a feeling of responsibility for the protection of greenery and the standards of its creation.

The key element of the project was to prepare a report of needs and development possibilities of green space for the town. Five consultation meetings were held in the form of lectures, workshops and walks, followed by preparing reports and projects recommendations. The programme was prepared with engagement of the team of specialists from the Landscape Foundation and also from the Institute of Landscape Architecture at the Catholic University of Lublin.



People living in towns and cities have got used to the situation where they are relieved from caring about public space by municipal institutions or local activists. It causes "social" indifference to devastation and low quality of maintaining common space. Local government institutions, even when doing their best, are not able to cope alone with many problems connected with the quality of areas unless they have an aware and educated partner as the counterparty, represented by an inhabitant of the town. The "Aesthetics Programme" has caused that people living in Łęczna have joined in big numbers the implementation of the Programme and showed a will to participate in the processes. It is an important stage of building a civic society. We hope that the implemented "Aesthetics Programme" will contribute to more aesthetic urban space.

Wojciech Januszczyk
President of the Landscape Foundation.

PROGRAM ESTETYKA
dla miasta Łęczna

BIG TREES FOR THE ŁĘCZNA POVIAT



Concurrently with the Aesthetics Programme, Bogdanka together with the Landscape Foundation are implementing an educational programme addressed to the inhabitants of the Poviats titled: "Big Trees for the Łęczna Poviats", involving educational actions that are carried out on the role of green areas in the ecosystem. Within the framework of this initiative a competition for schools has been organised: "Friendly space – let's plant a big tree next to the school" as well as trainings addressed to representatives of local governments, individuals from the construction and landscape architecture industries. Apart from educational classes, the inhabitants together with the employees of LW Bogdanka SA planted two big (about 10–15 m high) trees: at the premises of a housing district in Łęczna and at the premises of the school that has won the competition.

YOUNG RESCUERS

LW Bogdanka willingly gets engaged in measures enhancing the level of knowledge and skills in pre-medical rescue. One of such initiatives is a competition called "Young Rescuers", which has been organised for 8 years in the Primary School in Nadrybie for pupils from 4 to 6 grades and in other schools in the Łęczna Poviats.

The main idea of the competition is to promote the knowledge how to give first pre-medical aid, to perfect practical skills in this regard, and to overcome a fear before rescuing another person. During the competition pupils have to show theoretical and practical knowledge on the rules of giving first aid. Their task is to give aid to the injured in accident simulations. A commission including former mine



rescuers from LW Bogdanka SA evaluates how the task has been performed. The patron of the competition is the Head of the Łęczna Poviats, the Head of the Puchaczów Commune, as well as the President of the Management Board of LW Bogdanka SA.

The effectiveness and sense of conducting the Young Rescuers programme is confirmed by the event which happened on 7 October 2019. While spending their free time, three female pupils from class 7 and 8 in the Primary School in Nadrybie showed courage, high awareness and responsibility. They witnessed an accident involving a woman with a child. They behaved exemplary and took action promptly: they called paramedics, took care of the injured and her child, and waited until the ambulance arrived. This event has made the Company convinced that educational actions it takes are effective and helpful in the pupils' everyday life.

MEMBERSHIP IN ORGANISATIONS, PARTICIPATION IN INDUSTRY INITIATIVES

[GRI 102-13]

Representatives of the Company participate in conferences, trainings and initiatives conducted by the organisations of which LW Bogdanka is a member. Both as lecturers/panel members/trainers, as well as participants. The purpose of the cooperation is to broaden knowledge, to exchange and share experiences with other entities from various industries and countries.

- Polish Mining Chamber of Industry and Commerce
- Polish Association of Listed Companies
- Association of Individual Investors
- "Together for the Lublin Region" Association in Lublin
- Polish-Ukrainian Chamber of Commerce in Warsaw
- Lublin Region Entrepreneurship Board Association in Lublin
- IEA Coal Industry Advisory Board
- EURACOAL
- "Górnictwo O.K." Initiative

1.4. ACTIVE MEMBER OF THE COMMUNITY

The presence of LW Bogdanka SA in the Lublin Region contributes without doubt to economic development of the region, creation of jobs for thousands of inhabitants and provision of money to local government budgets.

The social context is important for the Company to the same extent. Bogdanka as the only organisation so deeply rooted in the region has for years contributed to the activation of local communities

and their development through numerous actions and initiatives. They are implemented within the framework of the **Social Responsibility Strategy**, and their scope is specified in detail by the Company's "**Social engagement policy**" and marketing strategy covering sports as well as social and cultural sponsoring. Implemented projects and programmes relate to many spheres of life:



SCIENCE AND EDUCATION

– especially long-term partnerships with higher education institutions and secondary schools (including industry schools), educational and scholarship projects, internships and work placements, and research projects



ENVIRONMENTAL PROTECTION, ECOLOGY

– increasing the level of ecological awareness, dissemination of knowledge and creation of ecological attitudes of the society in the area of environmental protection and sustainable development



NATIONAL REMEMBRANCE AND IDENTITY, PROTECTION OF NATIONAL HERITAGE

– initiatives building civic awareness and patriotic attitude, including local patriotism, referring to the history, popularizing knowledge about the history of Poland or its elements, customs, tradition, and also participation in reconstruction, renovation and protection of historical monuments, activities supporting development of local communities and societies, and religious worship



SOCIAL MATTERS AND CHARITABLE ACTIVITY

– actions implemented through the Solidary Miners Foundation



CARE ABOUT HEALTH AND PHYSICAL ACTIVITY

– co-financing of the purchase of state-of-the-art equipment for hospitals in the region, donations for organisations involved in health and care about sick persons, among other things, Łęczna Amazons, promotion of blood donation and blood treatment and bone marrow donation in the Lublin Region within the framework of the Intersectoral Agreement for life and health, promotion of sports activities within the framework of the Górnik Łęczna Sports Academy or the MGKS Gwarek Łęczna boxing club



CULTURE AND ARTS

– especially initiatives connected with cultural events, cultural education, support for artists, promotion of participation in culture or increasing access to culture for the society

2018	Expenses of the LW Bogdanka Group for the activities within the framework of the Social Responsibility Strategy	2019
241.6	CSR – expenses [PLN '000]	498.9
398.9	Donations [PLN '000]	637.7
36	Beneficiaries of the donations fund of LW Bogdanka SA	51
705.3	Promotion [PLN '000]	691.5
6,524.5	Sports sponsorship [PLN '000]	6,441.5
386.1	Social/cultural sponsorship [PLN '000]	291.4
7,615.9	Total Promotion and sponsorship [PLN '000]	7,424.4



THE SOLIDARY MINERS FOUNDATION

(public benefit organisation since 2017)

www.fundacja.lw.com.pl

Being one of the largest companies in the region, LW Bogdanka gets involved in solving social challenges and problems, development of civic society, promotion of valuable attitudes, care about national heritage.

The Solidary Miners Foundation established for that purpose has been helping the employees of the mine and their families already for six years. Support is provided to people who have found themselves in difficult life and financial circumstances, people with disabilities. Part of the funds is also allocated to measures preventing social exclusion i.e. financing education and leisure (summer camps) for poor teenagers.

Co-financing provided to education and health care is related mainly to assistance for institutions, associations and other organisations of significant social importance in the region: Educational Care Facility in Kijany, "Hidden Treasure" Society, Society for Equal Chances, Children Friends Association, Psychological and Pedagogical Counselling Centre, Poviast Centre for Family Help, Regional Centre for Sobriety "Maksymilian", SITG (Mining Engineers and Technicians Association).

In 2019, the costs of activities set forth in the by-laws of the Foundation amounted to PLN 428,800 (in 2018 - PLN 370,000), which included:

66%

medical treatment and rehabilitation

10%

purchase of medical equipment

9%

social aid

8%

financing with respect to education and health care

7%

other financing

SOCIALLY ENGAGED BOGDANKA

LW Bogdanka SA encourages and supports its employees in taking activities for the community on a volunteering basis. Within the framework of the Socially Engaged Bogdanka programme they may implement projects important for themselves and for the communities where they live. The projects include both their own ideas for the employees' social actions and campaigns carried out in cooperation with non-governmental organisations. The Management Board of the Company fully supports such schemes and provides financial or tangible means for their implementation.

Projects are aimed at improving the quality of life of the local community, contribute to strengthening social bonds and motivate to activities regardless of age. In this way the employees accomplish their passions and share their skills and abilities, which gives them satisfaction and a feeling of positive influence on the surrounding.



In the second half of 2019 I was looking through the "Bogdanka" magazine and came across an article about a programme for the employees titled "Socially Engaged Bogdanka". I thought it was a perfect occasion to support a local organisation and submitted an application for a donation for the Farmer's Wives' Association in Ludwinów in order to purchase loudspeaker equipment and multimedia projector for the organisation. The association organises many events integrating the local community and promoting the culture of the region. The implementation of that initiative has enriched many events of the Association, and in this way to integrate generations – from the oldest to the youngest inhabitant of our neighbourhood. I am happy that Bogdanka enables and supports actions of such type. As an employee I appreciate it very much and encourage others to take part in the programme.

Dariusz Sobczuk
employee of MD-4 Branch

Effects of actions completed within the framework of the Socially Engaged Bogdanka

50

submitted initiatives

30

completed projects

25

locations,
including 11 new

90

volunteers

THE BOGDANKA ACADEMY

As part of its sponsoring activities, the Company implements a special programme called the "Bogdanka Academy". It is an initiative focused on multi-dimensional development of various stakeholder groups: on enhancing skills and abilities, acquiring qualifications, building identity and proactive attitude. Within the framework of the Academy, cooperation is started in the following areas:

- sports education for children and teenagers,
- supporting talented persons from the Lublin Region,
- supporting initiatives preventing social exclusion of selected social groups (e.g. persons with lesser chances, with disabilities),
- participation in educational projects initiated by educational centres – secondary schools, higher schools, dedicated foundations – addressed to children, teenagers, job seekers and also elderly people (within the framework of the so called third age academy),
- participation in educational competitions, contests, trainings,
- participation in projects connected with improvement of safety (e.g. safe way to school),
- other initiatives with elements of education and responsibility.



THE MOST IMPORTANT PROJECTS WITHIN THE FRAMEWORK OF THE BOGDANKA ACADEMY IN 2019



GÓRNIK ŁĘCZNA S.A., professional club which manages tournaments of men's football team in the 2nd League.

This entity has historical relationships with the mine, the town and the powiat, and the team fans are, in majority, the employees of the LW Bogdanka Group. The club, together with the Górnik Łęczna Foundation, runs the Sports Academy, teaching more than 500 children from Łęczna and the region of Łęczna, and a Sports Championship School (having the status of a secondary school – a secondary school with a football profile), the first school of this kind in the Lublin Province. Most of the young football adepts are the children of LW Bogdanka Group employees.



THE GKS GÓRNIK ŁĘCZNA ASSOCIATION is also an entity with historical ties with the Company. It runs the women's football section whose team won the title of Champion of Poland in the 2018/2019 season. In 2019 the club also held a sports training on table tennis, wrestling and mixed martial arts.



Local motor sports projects, popular and well received in the regional scale, i.e. young cinder-track racing team

BOGDANKA MOTOR LUBLIN – directly supporting Speed Car Motor Lublin which takes part in PGE Ekstraliga speedway events – and 16-years-old Szymon Ładniak, one of the most talented rally drivers of the young generation.



MGKS GWAREK ŁĘCZNA which is an amateur boxing sports club, active only for children and teenagers, representing boxers who have a good success rate in boxing tournaments on both national and international level.



in 2019, the Company completed 32 projects in the field of **SOCIAL AND CULTURAL SPONSORSHIP**, cooperating with known and praised cultural institutions from the Lublin area, including: Cultures Meeting Centre, H. Ch. Andersen Theatre, Musical Theatre. Moreover, the Company got involved in the Lublin Festival of Science, a project popularising science among local communities.



KID'S FAN ZONE during league matches of MKS Perła Lublin (women's handball) and MKS Start Lublin (men's volleyball).

C-ZONE EDUCATION

There is a special educational zone on the premises of the mine where lessons and visits are organised, including for children and teenagers, in order to teach about the mining profession and the history of hard coal mining in the Lublin Coal Basin. The employees of the Company act as guides in the C-Zone on a volunteering basis.

1.5. RESPONSIBLE NEIGHBOUR

[GRI 413-2, GRI 103-2, 103-3 aspect: Socio-economic impact and market presence]

The operating activity of LW Bogdanka SA in the wider Lublin region has an impact not only on the economy, the labour market, employment, social and cultural life, but also on the environment. The Company extracts coal on agricultural areas, which are not highly urbanised, nevertheless it has some consequences and costs to the region. These are related to extraction activity and environmental impacts, such as landscape destruction, pollution, noise, and disruptions to water balance.

Mining activity contributes to the creation of visible deformations on the surface. As a result, the following types of damage may occur:

- To private property (such as damage to buildings),
- To public property (such as damage to roads),
- Disruptions to water balance (such as settlement of soil, change of direction in running waters, and changes to water surface elevation). Coal mining with the use of the block caving method results in, among other factors, slow ground subsidence. As a consequence, where the level of ground waters is naturally high, local flooding may occur. The adverse effects of coal extraction are offset by successive performance of hydro-technical drainage works.

In 2019, the LW Bogdanka Group did not record any serious environmental emergencies, neither was any of the Group companies fined for violating environmental regulations.

The Company makes every effort to minimise the negative impact of mining on the surrounding environment and the associated risks by implementing preventive and control measures, engaging in cross-sectoral dialogue, and having an open and transparent disclosure policy in place for the local community:

- Each new mining project is accompanied by a thorough environmental impact assessment, prepared jointly with the Regional Mining Authority and committees of communes' offices.
- Before the development of each Operations Plan, all structures that will be within the scope of the planned mining operation are inventoried, and categories of their resistance to the impact of such exploitation are determined.

- For 8 years now, the "Liaison team for periodic assessment of effects of mining operations on the ground surface within the boundaries of Cyków, Ludwin and Puchaczów communes" has offered a platform for dialogue between representatives of the mine, local administration, and the Regional Mining Authority. At their meetings, the partners discuss current problems and actions to be taken in relation to the impact of extraction on the landscape.
- Every commune with mine operations on its territory has a shock measurement system, which allows tremors noted in the mine area to be monitored and analysed on an ongoing basis. A majority of tremors registered heretofore had a zero, or at most the first degree, intensity level

(on the 4-level GIS scale), which means that the tremors were not harmful for surface structures and only had the potential of being slightly felt by humans. The system, developed in co-operation with the Polish Academy of Sciences and the Central Mining Institute, ensures complete transparency as its readings can be freely viewed by locals.

- Risks related to the settlement of soil are now reflected in local zoning plans. Property owners are

required to use appropriate protection measures (e.g. appropriate structural solutions and reinforced strip foundations). The resultant additional costs are covered by the mine.

- Any damaged structures, in addition to repair works, are given preventive protection against further operational impacts.
- The Company also reimburses property owners for the costs of adjusting newly constructed structures to the requirements of mining land.

In 2019, affected owners or users of land located in these regions received relevant compensation for lost profits on flooded land in the total amount of approx. PLN 485,346.00.

LW Bogdanka SA, carefully and on an on-going basis, analyses all notifications of potential damage submitted by local residents. It has a simple online system in place for filing notifications in this respect. The cost of damage related to the following is reimbursed:

- Repair of bitumen and dirt roads
- Repair of damaged buildings plus protective measures
- Lost crops (flooding of fields)
- Lost profit on farming land affected by mining

In 2019, the Mining Damage Department at LW Bogdanka SA spent a total of PLN 753,347.13 on remedying those impacts caused by the mine, of which:

- PLN 485,346.00 – compensation for damage to land and crops
- PLN 101,069.78 – repair of damaged bituminous surfacing
- PLN 43,537.34 – building protection (reimbursement of costs spent on protection measures in newly built buildings)
- PLN 123,394.01 – cost of survey reports, design documents, etc. associated with damaged removal

A total of 218 agreements to repair mining damage were signed.

⁷ <https://egornik.pl/plan-ruchu-zakladu-gorniczego/>

WHAT WE ACHIEVED

BUSINESS OBJECTIVES

The Company retains a strong market position achieving in 2019 the share in the market of thermal coal sales of 20.8%, and the share in the market of thermal coal sales to commercial power plants of 26.8%.

	2018	2019 implementation
REVENUE	PLN 1,756,671,000	PLN 2,157,861,000
GROSS COAL EXTRACTION	14,894,000 tonnes	14,741,000 tonnes
NET COAL PRODUCTION	9.0 million tonnes	9.5 million tonnes
SALE OF COAL	8.9 million tonnes	9.4 million tonnes
YIELD	60.5%	64.1%
LICENCES	n/a	Q4 2019 – Obtaining of a hard coal mining licence for the Lublin Coal Basin – Areas K-6 and K-7 deposit (Cyców)
NEW WORKINGS	37.0 km	29.1 km

OBJECTIVE OF CSR STRATEGY DEVELOPED AND SAFE REGION

3. Ensure safety and stimulate development of local community

Area of impact	The way we see it	Assumed objective in 2018	2019 implementation	Objective 2020
3.1. Counter-measure the social effects of mining damage				
Effective removal and compensation of the effects of mining damage by way of dialogue	Lost cases in court regarding compensations	0	0	0
3.2. Counter-measure negative social phenomena in the local environment				
Permanent monitoring of problems and social phenomena in the local community, in particular concerning the Company's employees and their families	Developed of annual strategic goals / goals related to social involvement relating to research and monitoring	1	1	1
3.3. Take measures for development of local community				
Support for local social initiatives (donations, sponsoring)	% of the amount of donations and sponsoring expenditure provided for the needs of local community	80%	80%	80%
Actions for the improvement of local community health	Number of completed initiatives / supported institutions	>1	>1	>1
Actions for supporting entrepreneurship and region development	Including the subject of entrepreneurship promotion in strategy documents, documents related to sponsorship involvement, CSR and human resources	YES	YES	YES
Supporting the increase in the value and visibility of the Solidary Miners Foundation in the region, in particular among the employees, their families and subcontractors	Quality measure describing the actions taken	Completed projects	Completed projects	Completed projects
3.4. Support education and development in the mining sector				
Social investments in young personnel for the mining sector	to promote young employees, individuals with relevant mining qualifications in recruitment process	YES	YES	YES

IF THERE WAS NO BOGDANKA IN THE LUBLIN REGION...

The inhabitants of Lublin Province, also known as the Eastern wall, are most at risk of poverty in the entire country. It is a mostly rural area, one of the poorest in Poland and the EU⁸.

THE SITUATION TODAY

7,4%

- Lublin Province ranks 12th among the country's 16 provinces in terms of unemployment rate (at the end of 2019)

5,2%

- Łęczna District, where the Bogdanka mine is located, is one of Lublin Province's districts with the lowest unemployment rates, just below that of the city of Lublin (4.9%)

203,300

- The average number of persons employed in the enterprise sector in the Lublin Province in 2019

28 PER 1000 WORKERS

workers in companies* in the region are employees of LW Bogdanka

* In companies employing more than 9 people

IF THERE WAS NO BOGDANKA

8.3%

Unemployment in the Lublin region could be higher by as much as 8.3%⁹

SECOND LAST

Lublin province, with an unemployment rate of 8.0%, could be the second last province in terms of those out of work in Poland, with unemployment levels being higher only in Warmia-Masuria Province¹⁰

THE SITUATION TODAY

PLN 7,433

Puchaczów Commune is the 46th richest commune in Poland, with an income of PLN 7,433 per inhabitant¹¹. The Commune has a budget of more than PLN 46,000,000¹², of which around 60% are contributions from the mine¹³

PLN 5,300,000.00

The total income projected in the budget of Cyców Commune for the year 2019 was PLN 40,180,077.71, of which PLN 5,300,000.00 were expected to be proceeds from the fee for minerals mining from the hard coal deposits of Lubelski Węgiel Bogdanka SA in Bogdanka¹⁴

IF THERE WAS NO BOGDANKA

PLN 3,270

The income per inhabitant of Puchaczów Commune would be halved and amount to about PLN 3,270 per capita¹⁵, which would make it one of the poorest communes among the 2,478 communes in Poland.

13%

The income in Cyców Commune's budget (and that is when only the proceeds from the mining fee are excluded) would be lower by 13%.

⁸ Source: Main Statistical Office (GUS)

⁹ Number of unemployed in June 2019 in Lublin Province: 68,100 (Main Statistical Office (GUS)), number of employed in Bogdanka: 5,654.

¹⁰ Unemployment data: Main Statistical Office (GUS), December 2019: <https://stat.gov.pl/obszary-tematyczne/rynek-pracy/bezrobocie-rejestrowane/bezrobotni-zarejestrowani-i-stopa-bezrobocia-stan-w-koncu-grudnia-2019-r-2,89.html>

¹¹ <https://europarlament.pap.pl/gus-najbogatsza-gmina-w-polsce-jest-kleszczow-najbiedniejsza-zawadzkie>

¹² Commune's revenue as per Resolution IV/23/18 of Puchaczów Commune Council of 28 December 2018.

¹³ <https://radio.lublin.pl/2017/08/cudowne-zycie-w-gminie-puchaczow/>

¹⁴ RESOLUTION III/32/18 OF THE CYCÓW COMMUNE COUNCIL of 28 December 2018 on adopting a 2019 budget for Cyców Commune.

¹⁵ Commune's revenue as per Resolution IV/23/18 of Puchaczów Commune Council of 28 December 2018; population in 2018: https://lublin.stat.gov.pl/vademecum/vademecum_lubelskie/portrety_gmin/powiat_leczynski/gmina_puchaczow.pdf

2 ECO-EFFICIENT MINE



Implementing state-of-the-art technical solutions and the resulting environmental protection and reduced negative impact of the mine on its surroundings are part of the business strategy of LW Bogdanka SA. We are fully aware of the values of the natural environment surrounding the areas where we operate.

Environmental policy and management in our organisation is based on four key pillars: respect for the natural resources, reduction of the negative impact of mining activities on the surrounding areas, effective waste management, care for the high quality of the raw material, and responsible sale, which includes educating our customers. We are a modern organisation – we promote and implement the concept of Circular Economy. With our Group company's Water Treatment Station we strive to satisfy the mine's entire demand for treated water. We are constantly looking for new possibilities of using products which have previously been treated as mining waste. When planning new investment projects and further development of the mine, we always have environmental issues in mind. We are required to do so by law, but are also aware of the fact that local communities have high demands in this regard too. Therefore, we have a reliable and transparent information policy in this respect and cooperate closely with local self-government authorities in charge of environmental protection. We are also implementing a number of pro-environmental projects aimed at restoring biodiversity in the areas surrounding the mine. The chapter below presents the effects of our actions in this field.

Dariusz Dumkiewicz
Vice-President of the Management Board,
Development

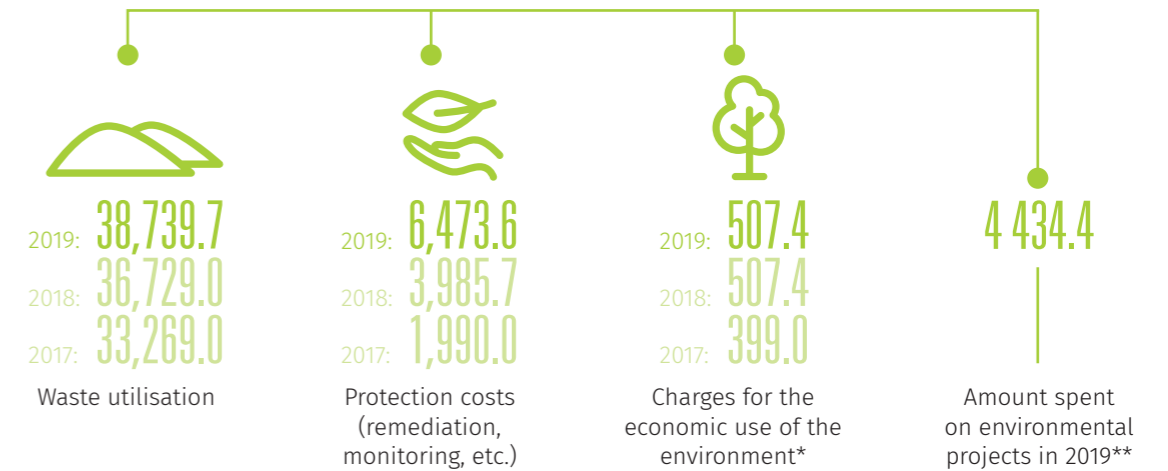
Mining operations come with a significant impact on the natural environment. Assuming annual coal production at the level of about 9.0 million tonnes, Bogdanka's resources from its key mining areas included in the 2030 Strategy will last for about 50 years. Therefore, in order for future generations of the region's inhabitants to take full advantage and enjoy the unique natural areas of the Lublin region, and for the region to continue its economic and social development, the environmental aspect has for years been an integral part of the Company's

strategy, business decisions and daily operational activities carried out in the mine. Owing to many years of monitoring, constant analysis and in-depth knowledge about the ecosystem around the mine (mechanisms of water circulation, pollutant movements, land remediation), LW Bogdanka SA is able to identify changes in the natural environment around it and takes effective measures to prevent and eliminate the negative impact of its activities on nature, especially its most valuable resources.



PILLARS OF ENVIRONMENTAL MANAGEMENT AT LW BOGDANKA

ENVIRONMENTAL PROTECTION AT LW BOGDANKA SA [PLN '000]



* Data from Lubelski Węgiel Bogdanka SA

** This includes projects carried out by Lubelski Węgiel Bogdanka SA and Łęczyńska Energetyka S.A.

2.1. OPERATIONAL ACTIVITY IN THE NATURAL ENVIRONMENT

Hard coal production comes with certain environmental impacts. The magnitude and scale of these impacts depends on the extraction technology employed by the mine and on how environmental issues are handled by the enterprise. LW Bogdanka SA has great respect for natural resources, which is why it is creating an organisation focused on the implementation of innovative technologies which contribute to minimising the negative impact of the mine's operating activities on the environment. The Company has been mining coal in a manner which reduces the amount that is lost irrevocably and leaves some of it in the deposit. Thanks to the use of new technologies, LW Bogdanka SA is Poland's leader in obtaining material from thin seams¹⁶. The Company also joins initiatives aimed to develop efficient industrial methods of coal gasification, which, in the future, may increase the efficiency of use of underground fuel resources even further. One of them is a plan to build a 500 MW power generation unit based on the integrated gasification combined cycle (IGCC) technology¹⁷ in Stara Wieś near Łęczna. A feasibility study is currently being prepared to determine the project's viability. Environmental management has for more than

8 years now been based on the Integrated Health and Safety, Quality and Environment Management System. It complies with the standards: PN-EN ISO 9001:2015, PN-EN ISO 14001:2015, and PN-N-18001:2004 (based on certification carried out in May 2018). The following are the most important processes of environmental management (which are identified and updated on a regular basis) described in the Integrated Management System Manual:

- Identification and assessment of environmental aspects (PZ/S/04/01)
- Monitoring of key characteristics of environmental aspects (PZ/S/04/02)
- Identification of legal and other requirements and assessment of compliance (PZ/S/04/03)
- Development of environmental programmes (PZ/S/04/04)

LW Bogdanka SA pursues a transparent and reliable disclosure policy regarding the mine's environmental impact. All reports on the mine's current environmental impact, as well as forecasts, are publicly available and available on the websites of various authorities and the Regional Directorate for Environmental Protection.

¹⁶ Seam – a banded deposit which stretches across a large area and is defined by two parallel layers, with the top one being referred to as roof strata, while the bottom – as floor strata. "Thin" means that the distance between the roof and the floor is very short.

¹⁷ IGCC (integrated gasification combined cycle) is a technology that uses a high pressure gasifier to turn coal and other carbon based fuels into pressurised gas. A power plant of this type uses this synthesis gas (syngas) as a source of electricity, which is produced in a gasification reactor. After removing impurities, the gas is ready to fuel a combustion turbine.

[GRI 103-1, GRI 103-2, aspect: Water, effluents and waste]

HOW COAL MINING AFFECTS
THE ENVIRONMENT AND ITS RESOURCES



WATER

- Consumption
 - Water pollution
 - Changes to groundwater systems
 - Effluents
- (str. 48)



WASTE

Creation of waste rock dumps / spoil tips – fire risk, landscape alteration

(str. 50)



MINING DAMAGE

Impact of rock mass on buildings, roads, infrastructure, agricultural and forest land

(str. 38)



EMISSION OF DUST AND GASEOUS POLLUTANTS

Effect of landfill erosion

(str. 52)





WATER

[GRI 303-1]

Mining activities involve the use of significant amounts of water. At LW Bogdanka SA, water is used in underground air-conditioning systems (air cooling in underground workings), to supply the fire protection system and for mechanical processing of coal on the surface, i.e. washing and enrichment (treatment) of coal in the Company's Coal Processing Plant before it goes on to be sold and to the industrial end customer.

Coal mining **also affects groundwater systems**. The rock mass in which mining works are carried out must be continuously drained. If the underground water is not pumped out, the mine may be flooded. It is a serious risk to the safety of employees and

technological processes. However, drainage has an impact on the hydrogeological conditions. With relatively high groundwater levels in the vicinity of Bogdanka, any further rise contributes to the expansion of wetlands, which may cause local flooding (and agricultural losses). In 2019, works were carried out to drain agricultural land in areas affected by mining damage, which involved redevelopment of the drainage network and construction of a pumping station with equalising tanks.

Lack of supervision and regular monitoring of mining activities **may pollute surface waters** (rivers, lakes) with coal-getting water and process water.

[GRI 303-3]

Table 12: Water withdrawal in LW Bogdanka Group

	LW Bogdanka SA*	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.
Total water withdrawal [m ³]:	8,403,229	3,218,352	1,397
Water withdrawal by source [m ³]:			
Water from municipal intakes/mains	No data	95,332	Not applicable
Drainage water	8,403,229	Not applicable	Not applicable
Water from other source (what?)	No data	(Mine water) 3,123,020	Not applicable

* Including water consumption at Eko Trans.



HOW BOGDANKA PROTECTS WATER RESOURCES

In order to minimise water consumption by the mine, LW Bogdanka SA has been using the **circular economy model** for many years. Since 2015, the **Water Treatment Station** has been a part of it. Thanks to this environmentally-friendly initiative, which was accompanied by modernisation of the sewage treatment plant in Bogdanka, the mine significantly reduces consumption of the valuable resource – water. Benefits of the Water Treatment Station at LW Bogdanka SA:

- **Potable water is produced** from mine water and treated stormwater, which secures the mine's current and future needs (the water not only meets the applicable legal requirements, but also has better physical and chemical parameters than water from deep intakes).

- **Process water is produced** from mine water and treated sewage and stormwater, which secures current and future demand for various types of water, for example for fire-extinguishing purposes or for the Bogdanka field air-conditioning system.

- **Circulation of water, sewage and stormwater is closed** within the Bogdanka mining field, resulting in a decrease in groundwater withdrawal in Bogdanka and Stefanów by about 260,000 m³/year and a decline in removed treated wastewater by about 300,000 m³/year.

- Sewage treatment plant is now operating in accordance with applicable legal requirements and in a much more efficient manner.

- **Water for the firefighting water cooling system is to be produced** – this project is due to take place in 2021–2022.

Starting from 2017, the Water Treatment Station at LW Bogdanka SA has been expanded every year. In 2019, LW Bogdanka SA treated and used mine water for process and domestic purposes in the amount of 3,123,020 m³, which constitutes 96.92% of all water used for coal mining and production at LW Bogdanka SA.

The strategic goal of the Company is to make the share of water from the Water Treatment Station as high as possible.

Water production at the Water Treatment Station in LW Bogdanka SA is based on state-of-the-art technologies. This process includes pre-treatment of water, sedimentation¹⁸, filtration, and demineralisation. The resulting products include:

- Demineralised water (with general salinity up to 50 mg/l)¹⁹
- Saline water without general suspension

In 2019, construction began and the next stage of the expansion of the Water Treatment Station and the sewage treatment plant was launched to fully close the water and sewage circuits. The last stream of filtrate from the Water Treatment Station was fed into the new treatment system and will no longer be returned to raw or mine waters.

Therefore, the Water Treatment Station, together with the sewage treatment plant, is ready to generate only solid waste, apart from the production of process and potable water, and to feed all process leachates into the technological processes of water treatment or sewage treatment.

[GRI 306-1]

Unused mine water is pre-treated in a tank before being discharged, in a controlled manner, along with any leachates from the mining waste treatment facilities, to the Świnka River through the Żelazny Ditch. In 2019, about 14,738 m³ was discharged a day. The Company monitors the quality and quantity of the discharged waters in accordance with the guidelines contained in the discharge permit. Tests show that the maximum permissible parameters specified in the permit are not exceeded. Furthermore, coal mining does not pose any direct hazard to the nearby environmentally valuable lakes.

Meanwhile, sewage from the Bogdanka field is treated and then added to process waters (there is no discharge of treated sewage into the environment). On the other hand, sewage from the Nadrybie and Stefanów fields is treated and then discharged into the drainage ditch.

[GRI 306-3]

In 2019, no significant spillages were recorded at LW Bogdanka SA.

¹⁸ Sedimentation – the process of removal of particles of solids from a liquid, occurring under the influence of gravity or inertia.

¹⁹ Underground mine waters are mineralised (chlorides, sulphates). Due to a high content of mineral salts, any uncontrolled drainage into local waters (rivers, lakes) could affect their parameters.

2.2. EFFICIENT RESOURCE AND WASTE MANAGEMENT



[GRI 306-2]

The circular economy model in place at LW Bogdanka SA also covers the waste management aspect. **In 2019, approximately 49% of post-mining waste generated by LW Bogdanka SA was recovered and reused.** Total post-mining waste amounted to

6,299,900 tonnes, while recovered waste amounted to 3,061,800 tonnes. Other post-mining waste (3,238,100 tonnes) is stored at the mining waste neutralization facility in Bogdanka.

[GRI MM3]

Gangue (post-mining waste) it is the main waste resulting from mining activity. It is stored at the post-mining waste treatment site in the form of spoil tips or post-mining waste dumps. These areas disturb the shape of the surrounding landscape and require measures to mitigate the negative effects on the environment caused by their existence. The post-mining waste treatment facility at LW Bogdanka SA currently occupies the area of about 84 ha (which is ultimately to reach about 95 ha) and has the relative height of 45 metres (which is ultimately

to be -80 metres of the relative height). The mine is currently working on the extension of the post-mining waste treatment facility, which involves extending the facility to the east.

The remaining waste generated by the mine are **post-extraction materials**: oils, lubricants, worn elements used to secure the workings such as ground supports, stirrups or struts, scrap, waste wood, waste oil, waste light sources, conveyor belt offcuts, adhesive and paint packaging, etc.

Table 13: Total weight of waste generated by the companies in 2019

	LW Bogdanka SA	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.
Hazardous waste [Mg]:	109.70	4.868	0.054
Non-hazardous waste [Mg]:	6,319,621.18	3,886.086	173.23
Types of waste which the Company reuses/processes or recycles, or which, where collected by external companies, is reused by third parties. (Waste codes*)	010412, 150101, 150103, 150104, 160119, 160199, 160214, 160304, 160509, 160605, 170201, 170203, 170401, 170405, 170411, 060201, 130208, 150110, 150202, 160213, 160506, 160601, 170204	100119, 100180, 150101, 170101, 170405	Not applicable
Waste to be reused within the organisation [Mg]:	95,432,00	Not applicable	Not applicable
Waste to be reused outside of the organisation [Mg]:	2,986,100.89	3,730.29	Not applicable

* In accordance with the Ordinance of the Minister of Climate on the waste catalogue.

HOW BOGDANKA MANAGES WASTE

The objective of LW Bogdanka SA is to cause that as little post-mining waste as possible is dumped at the post-mining waste treatment facility (spoil tip). Post-mining waste, which is the main type of waste in coal production, is used at Bogdanka for the following purposes:

- **Reclamation of brownfields**, which involves activities aimed at the restoration of the original lay of the land by filling pits with post-mining waste, then covering them with a layer of soil, and ultimately using for agricultural purposes or forestation.²⁰
- **Reclamation of municipal landfills**. The Company transfers post-mining waste to municipal landfills, where it is used as the final cover on top of municipal waste because of the bacteria found in the rock (methanotrophs), which eliminate the methane resulting from decay processes.
- **Cement production at the Ożarów Cement Plant**. Other post-industrial waste is transferred to authorised operators²¹. This is waste which can be reused, such as waste wood, waste oil, scrap, and conveyor belt off-cuts, or waste which needs to be disposed of, such as used light sources, adhesive and paint containers.

The post-mining waste tip at LW Bogdanka SA has a conceptual development plan in place. The process of its preparation involved representatives of local stakeholders so that the final outcome meets their expectations. The idea was developed through dialogue and envisages the tip to be turned into a sports and recreational facility with a green area located near the Świnka River. Work will begin once the body of the tip reaches its final shape. As slopes of the tip become available, the Company remediates them on a regular basis. Furthermore, in accordance with the stakeholders' expectations, trees are being planted throughout the area surrounding the mine. In 2018 and 2019, 35 thousand trees were planted on converted farmland (remediation in Nadrybie Wieś).

²⁰ Owners of remediated land hold appropriate decisions of environmental protection authorities.

²¹ E.g. SUEZ WSCHÓD – conveyor belt off-cuts, adhesive containers, etc., EKO-PRIM – wooden packaging, CMC – scrap, GREEN OFFICE ECOLOGIC – used light sources, FLUKAR – waste oil.

2.3. CLIMATE CHANGE

[GRI 103-1, GRI 103-2, aspect: Energy and emissions]



EMISSION OF DUST AND GASEOUS POLLUTANTS

LW Bogdanka is aware of the risks and opportunities related to climate change. One of the risks is the pursuit of a restrictive EU climate policy, including with respect to the CO₂ emissions. Therefore, the Company is analysing the situation and modifications to the EU climate policy and the associated changes in national legislation. It is also involved in several projects aimed at reducing greenhouse gas emissions, e.g. by maintaining an adequate level of energy efficiency or preventing dusting from spoil tips (remediation, tree planting).

LW Bogdanka SA does not have a **point source of emissions** (chimneys) that would emit dust to the atmosphere. Łęczyńska Energetyka Sp. z o.o. has boiler houses which emit gases into the atmosphere and are located in:

- Bogdanka (power 57 MW, coal co-burned with biomass)

- Zawadów (power 0.25 MW, coal and waste wood)
- Boiler house Pasternik in Łęczna (power 4.0 MW, light fuel oil, a reserve boiler house).

Non-point sources of emissions to the air at LW Bogdanka SA include:

- Internal combustion engines used in machines, i.e. aboveground and underground locomotives, passenger cars
- Welding processes
- Transportation of coal to its destination
- Post-mining waste disposal facility (spoil tip), which may be a source of dust on dry and windy days. To prevent this and limit emissions from the tip, the Company remediates the tip, striving to keep the exposed fragment of the tip moist, and plants trees which act as screens.

[GRI 305-1, GRI 305-2]

Table 14: Greenhouse gas emissions in the LW Bogdanka Group

Direct GHG emissions (scope 1) (in tCO ₂ e)	
Combustion in mobile sources	9,460.26
Combustion in stationary sources*	45,423.30
Indirect GHG emissions (scope 2) (in tCO ₂ e)	
Electricity	250,993.38

* Gases included in the calculations: CO₂, C₂H₆, CO, SO₂, NxOy converted to NO₂

[GRI 305-4]

Emission intensity index, i.e. the ratio of CO₂ emissions to production volume measured by extraction **has improved from 25.77 kg Co₂ in 2018 to 20.80 kg CO₂ in 2019** per tonne of coal extracted.

[GRI 307-1]

In 2019, no fines for violation of environmental use conditions set forth in applicable laws and regulations were imposed on LW Bogdanka SA. Neither did Łęczyńska Energetyka face any environmental fines, including for exceeding set emission limits.



ENERGY

In addition to water, another resource for the mine to operate **safely and properly** (without interruptions) is electrical energy, which plays a vital role in the following processes:

- Operation of mining machinery
- Coal processing
- Ventilation and air conditioning in the mine

The goal of LW Bogdanka SA is to maintain the current energy efficiency level, i.e. energy consumption per tonne of coal extracted. It is a mammoth challenge for the organisation, especially in the context of mining coal from increasingly difficult deposits. However, the fact that Bogdanka uses state-of-the-art technology and top-class equipment translates into increased efficiency and reduced consumption²².

[GRI 302-1]

Table 15: Energy consumption in the LW Bogdanka Group (in GJ)

Electricity*	1,181,145.31
Thermal energy	126,043

* Data from LW Bogdanka, including energy re-invoiced to Łęczyńska Energetyka and MRB.

Due to its position in the Group, LW Bogdanka does not acquire CO₂ emission allowances. Łęczyńska Energetyka is responsible for this in the Group; in 2019, it was granted allowances at 8,261 Mg (the remaining value was covered with allowances pur-

chased via the trading system). Both companies: LW Bogdanka SA and Łęczyńska Energetyka Sp. z o.o. paid environmental fees totalling PLN 586,375.06, of which nearly 69% were fees for sewage disposal and groundwater withdrawal.

²² This report does not present the energy intensity index, which had been disclosed in previous years, as it is not possible to present it in a reliable and comparable manner. The index will be shown in the next report.

2.4. MANAGEMENT OF BIODIVERSITY IMPACTS

[GRI 304-1, GRI 304-2, GRI 103-1, GRI 103-2, aspect: Biodiversity]

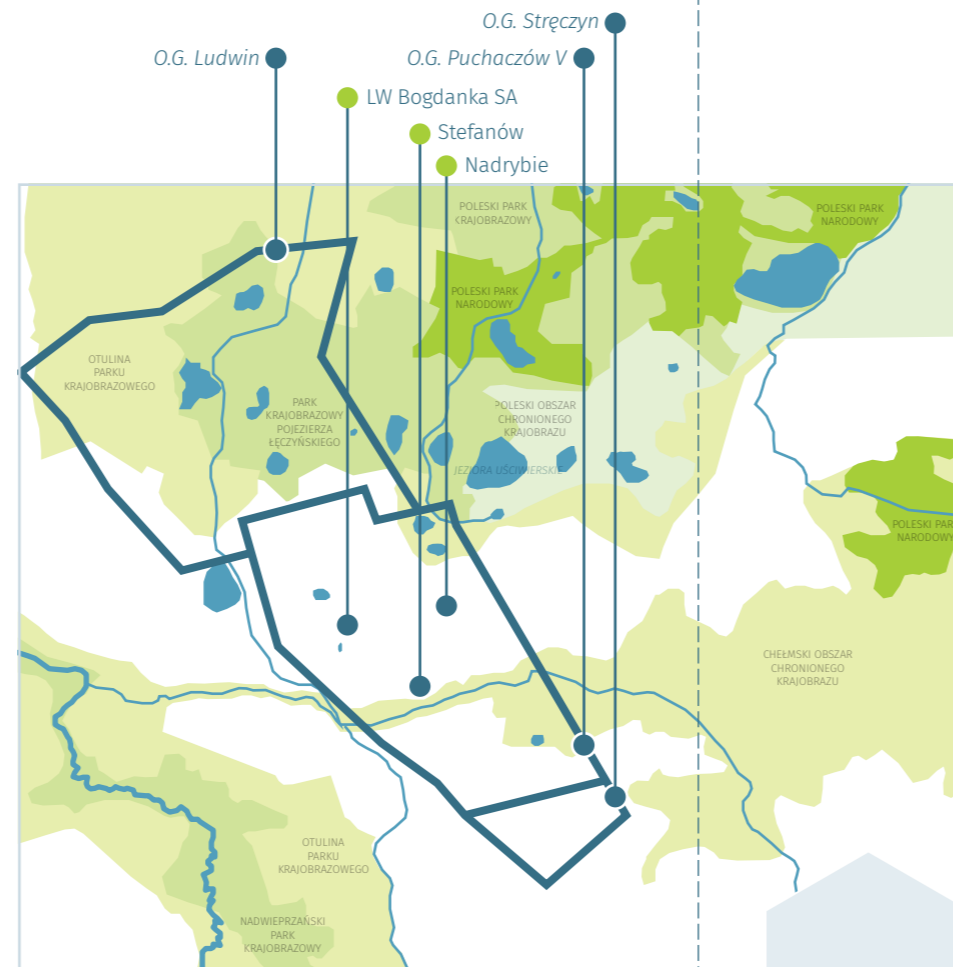
The mine, its entire infrastructure, and the Puchaczów V, Stręczyn, and Ludwin mining areas are surrounded by protected land. Respect for these valuable areas is the responsibility of LW Bogdanka SA and is reflected in the Company's management approach through the Integrated Quality, Environment and Health and Safety Management System.

In close vicinity of mining fields there are:

- Polesie National Park
- Łęczna Lake District Landscape Park, Brzezicno Reserve, together with a segregated Natura 2000 site
- Natura 2000 site – Uściwierskie Lakes
- West Polesie International Biosphere Reserve
- Polesie Protected Landscape Area
- Chełm Protected Landscape Area, which, through the Świnka River Valley, connects to the Wieprz River Valley Landscape Park located to the west of the mining area.

[GRI 304-3]

The Company, together with its stakeholders, including environmental organisations, runs a number of environmental programmes which help reduce the negative effects of its impact and contribute to the reclamation of the natural areas around the mine. These pro-environmental and biodiversity activities are consistent with the CSR strategy of LW Bogdanka SA.



NADRYBIE NATURE TRAIL

The responsible pro-environmental policy which LW Bogdanka SA has been pursuing for many years reclaims post-mining areas so that they continue to be a valuable part of the natural environment. One example is the Nadrybie water basin (area of about 30 ha), which was established in the 1990s as a result of mining works and settlement of soil²³. The area known as the Nadrybie Reservoir has become particularly valuable in terms of nature as numerous species of rare and protected birds have settled there. Currently, the area is part of a Natura 2000 site (Łęczna Lake District Landscape Park), as well as part of an educational project known as Nadrybie Nature Trail, which the Company has been running for 5 years in partnership with the Polish Society for the Protection of Birds. The main goal of the programme is to support biodiversity across areas where the mine operates. The more than two-kilometre route includes resting shelters as well as stops with educational information boards describing the animals found there, including:

- 34 species of butterflies
- 26 species of dragonflies
- 9 species of amphibians
- 4 species of reptiles
- 72 species of birds
- 9 species of mammals

[GRI 304-4]

Many bird species found on Nadrybie Nature Trail are listed in the **Polish Red Book**. In spring, it becomes a feeding area for the white-winged tern, the whiskered tern, the black tern, and the black-headed gull. Other species you can hear include: the great reed warbler, the sedge warbler, the Eurasian black-cap, the lesser whitethroat, or the thrush nightingale, as well as the bittern, the little bittern, and the water rail. For this reason, it is very popular among residents, tourists, children, and young people.

In July 2029, Lubelski Węgiel Bogdanka SA coordinated the implementation of free nature activities at the Nadrybie Reservoir for children and teenagers, in which about 300 participants took part. The Company also plans to implement an employee volunteering programme aimed at extending the Nadrybie Nature Trail.

[GRI MM1]

In August 2019, in line with the expectations of the local community and local government, reclamation works were also completed in areas affected by mining damage in Nadrybie Wieś (12 ha). The works consisted in the construction of a fish pond (1.6 ha), as well as raising the level of ground with the use of mining waste, covering it with soil, planting trees, and developing it for recreational purposes. The new water reservoir is not only an attractive tourist area, but also contributes to improved land use and its protection against local flooding. It is extremely important, especially in the context of national policy related to water retention. The area will be monitored for the next 3 years to ensure effective reclamation and obtaining a permanent plant cover in this area.

To the north of the Bogdanka Field main shafts, there is another water basin with an area of about 100 ha. The Company aims to develop the area in a way that will serve the residents as an attractive recreational and wildlife spotting area. The following options are being considered:

- Leaving the reservoir unchanged, because year after year it is becoming an increasingly richer and valuable habitat for a range of flora and fauna (close proximity to the protected areas of the Polesie National Park)
- Construction of Szczecin water reservoir as a recreational area and/or a retention basin (the project would be implemented in cooperation with the State Water Management Authority Polskie Wody)

²³ Farmers whose property has been flooded received due compensation.

PROTECTION OF PEATLAND ECOSYSTEMS IN THE ŁĘCZNA-WŁODAWA LAKE DISTRICT

Restoring the habitats of the aquatic warbler²⁴ is another initiative supported by the LW Bogdanka Group, in cooperation with the Polish Society for the Protection of Birds (OTOP). The project, which has been extended until the end of 2020, involves strengthening the south-eastern metapopulation of the aquatic warbler by creating appropriate habitats on areas where this species had previously lived or may potentially live.

The above results in improving migration corridors of metapopulation of aquatic warbler in the Lublin province, creating and retaining the system of stepping stone habitats between the areas inhabited by the aquatic warbler and reinforcing main wildlife corridors, i.e. south-central and eastern ones.

As part of the projects the water level in the region of Krowie Bagno (in Polesie, in the vicinity of the former agricultural entity, PGR Krychów) were subject to regulation and stabilisation works. For this purpose, works are underway in order to install water gates on drainage ditches for the disappearing Łaskie lake and the molinion meadows in its direct neighbourhood. Plans include the construction of three water gates for meltwaters to be stopped and accumulated, and water to be stopped in the spring season and at the beginning of summer.

In 2019, ornithological monitoring and habitat maintenance in areas covered by the project took place. In addition, preparations for the design of hydrological solutions were carried out, including an inventory of ditches forming the drainage network in the project area. It was observed that the steps taken to date, which involved the removal of trees and shrubs, have produced good results.

A habitat analysis showed that there are still living patches of peat bogs around the lakes, which attract valuable species of plants, birds and insects (includ-

ing butterflies, which are protected within the Natura 2000 site Krowie Bagno). The Łaskie Lake, along with the surrounding peat bog, has been included in the National Aquatic Warbler Monitoring Network, which will allow to track the presence of this species and the most important features of the habitat, such as water levels and shrubbery. One of the great successes of these activities was the detection of two singing male aquatic warblers in the bog covering the Łaskie Lake and a great snipe lekking site in the vicinity of Lubowierz and Lubowierzek, with about 10 males. Both of these observations show that efforts to restore the original open landscape of wet meadows and peat bogs have had a measurable effect. The project is co-financed by the European Union from the funds from the European Union's Cohesion Fund, as part of the Operational Programme Infrastructure and Environment

²⁴ For further information visit <https://otop.org.pl/naszeprojekty/chronimy/wodniczka/wzmacnienie-poludniowo-wschodniej-metapopulacji-wodniczki-acrocephalus-paludicola-polsce/>



The project activities carried out together with Bogdanka have one overriding goal – protection of the aquatic warbler, a bird which, on the one hand, is one of the rarest migratory species in Europe found in our region, but also a so-called umbrella species of peat bogs. This means that all activities carried out for its protection bring tangible benefits to other plants and animals found in this type of habitat. It is worth noting that Krowie Bagno has extremely high environmental value, which had made it eligible to become a designated Natura 2000 site. Moreover, the project activities are useful for farmers using peat meadows – thanks to the installation of efficiently operating stop gates, they will be able to keep spring waters in the meadows and then drain any excess during the haymaking period. It should be emphasised that Bogdanka was greatly enthusiastic about getting involved in the project, being aware of its importance for the local natural environment and the protection of biodiversity. By protecting peat bogs, we protect the natural heritage of the Lublin region and fauna which is endangered on an international scale, which, in turn, contributes to the voluntary offsetting of the impact of mining activities on water circulation patterns, reduction of CO₂ emissions into the atmosphere and, consequently, reduction of the Company's carbon footprint.

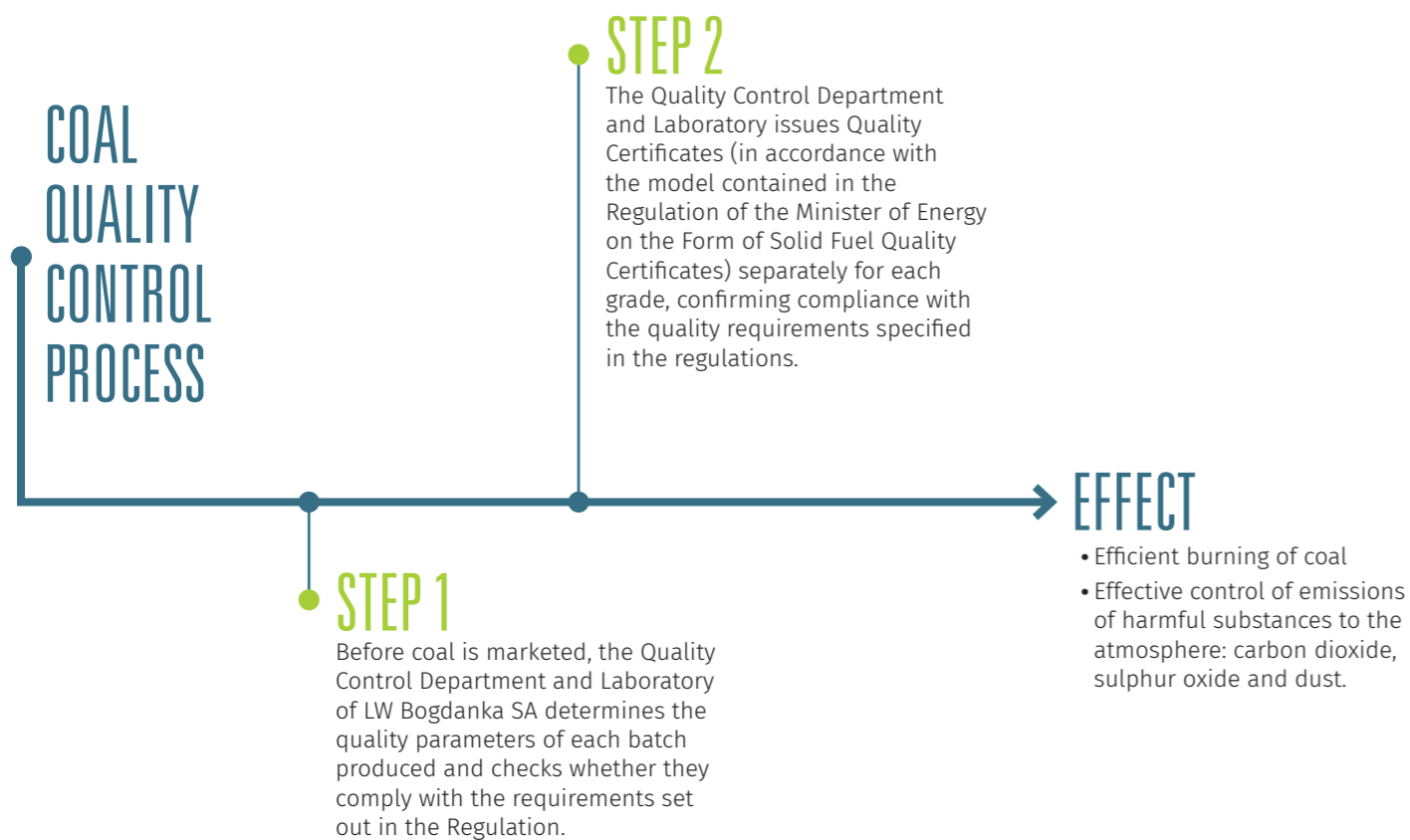
dr Jarosław Krogulec

Chief Specialist for Nature Protection
Polish Society for the Protection of Birds
(OTOP)

2.5. QUALITY OF MATERIAL AND RESPONSIBLE SALES POLICY

Hard coal mining is currently a highly developed and innovative industry. LW Bogdanka SA provides its customers with a product which boasts strictly defined parameters, compliant with the applicable legal regulations on fuel quality²⁵ and suitable

for the combustion systems of both industrial and private customers. For example, the Company sells coal for use in households and combustion systems with nominal thermal power of less than 1 MW.



²⁵ The Act on the System of Monitoring and Controlling the Quality of Solid Fuels sets out the rules for controlling solid fuels placed on the market for the above-mentioned purpose, while the quality requirements for these fuels are specified in the Regulation of the Minister of Energy on Quality Requirements for Solid Fuels.

The Company is aware that the effects of using low-quality coal are felt not only by the natural environment, but also by the energy sector. The Company makes every effort to ensure that the material sold is of the highest quality, therefore it conducts product quality checks and forecasts coal parameters. The responsibility for this process rests with the Department of Mechanical Coal Processing, where coal is sorted into appropriate size fractions and excessive ash is removed. The Quality Control Department and Laboratory analyse the main parameters of the material produced in terms of its:

- Calorific value
- Sulphur content
- Ash content
- Total moisture content
- Grain size, including the finest fractions

Directives adopted by the European Commission, including BAT regulations (which is a standard for determining the emission levels for larger industrial plants in the EU)²⁶, which are to come into force in 2021, define acceptable levels of mercury emissions to the air as a result of coal combustion. Therefore, the Quality Control Department and Laboratory are planning to expand the scope of tested parameters in the coal produced to include mercury content from the beginning of 2021.

Average quality parameters of coal produced in 2019 are as follows:

- Calorific value: 21.3 MJ/kg
- Sulphur content as received: 1.16 %
- Ash content as received: 23.2 %
- Total moisture content as received: 9.1 %

LW Bogdanka SA sales website contains quality cards for each coal grade offered, and in the event of any quantitative and qualitative discrepancies a complaint procedure is launched. The strategic objectives include a provision on taking actions that prevent deviations of the coal offered beyond the tolerances specified in contracts with industrial customers and in the Regulation of the Minister of Energy on Quality Requirements for Solid Fuels in the case of private customers.

LW Bogdanka pursues a responsible sales policy, cooperating with selected customers in the commercial, thermal and industrial energy sectors. Such supervision makes it possible to monitor the direct and indirect impact of the mine on the environment. Bogdanka's customers have systems which are adapted to the physical and chemical parameters of the coal obtained from the Lublin resources, and therefore, the fuel is combusted in systems that offer efficient desulfurisation and de-

dusting of combustion gases. This way the Company contributes to ensuring that the extracted coal harms the environment as little as possible.

LW Bogdanka SA does not sell unsorted and crude coal, and does not offer coal waste from its mechanical coal processing plant to individual customers (the so-called coal dust and coal flotation concentrate).

Because LW Bogdanka SA employs state-of-the-art technologies and methods of underground coal enrichment while maintaining very high conversion efficiency, the negative impact of using this fuel on the natural environment is reduced and its eco-efficiency is increased. The Research & Implementation Department analyses opportunities to implement innovative solutions, and cooperates with both other companies and the academia in this respect.

²⁶ According to the IPPC Directive, the BAT standard is to define emission limit values for larger industrial plants in the EU. Source: <https://ippc.mos.gov.pl/ippc/?id=33>

2.6. CUSTOMER EDUCATION

LW Bogdanka SA demonstrates that coal can be combusted in a clean and effective manner. The organization's CSR strategy includes activities related to educating consumers on the responsible use of coal. Such initiatives have been carried out by the Company since the 1990s. In 2013–2014, a social campaign was also carried out, one of the goals of which was to make customers aware of the environmental importance of using appropriate

coal and combusting it in modern highly-efficient boilers. In 2018, Bogdanka and AGH University of Science and Technology students, as part of the Responsible Industry project, launched the website www.odpowiedzialny.com, where reliable information on the material, as well as furnaces and the combustion process, is published.



WHAT WE ACHIEVED

OBJECTIVE OF CSR STRATEGY ECO-EFFICIENT MINE

[GRI 103-3, aspect: Biodiversity, GRI 103-3, aspect: Water, effluents and waste, GRI 103-3, aspect: Energy and emissions]

2. Ensure eco-efficiency and protect local biodiversity

Area of impact	The way we see it	Assumed objective in 2018	2019 implementation	Objective 2020
2.1 Protect local biodiversity and reclaim transformed areas				
No losses in IUCN list species	Number of populations significantly depleted as a result of mining operations	0	0	0
No failures with environmental consequences	Number of recorded failures with environmental consequences	0	0	0
Day-to-day identifying and documenting material areas of direct and indirect influence of the Company's operations on natural environment	Detailed analysis covering: indication of areas of impact, forms of impact, measurement of scale of impact (dedicated meters and values), description of monitoring actions and limiting the scale of impact.	Drafting report on impact	Updating a report on impact	Updating a report on impact
No violations of environmental laws and regulations	Number of fines imposed for violations with respect to environment protection	0	0	0

2.2 Reduction of consumption of raw materials, materials and energy in all processes in place at the Company

Reasonable management with deposit	Deposit use ratio	>0,85	>0,85	>0,85
Increased energy effectiveness	Level of fulfillment of recommendations following up the energy audit	100%	100%	100%
Increased efficiency of use of water drained from mining pit in the Water Treatment Station	Level (%) of securing water from the WTS in the mine	50%	60%	80%
Increase in the % share of sorted waste and recovered raw materials, and thus introduction waste sorting, independent recycling and control over external entities undertaking these actions on behalf of the Company;	% of sorted and recycled waste / all produced post-industrial waste in the given year	>60% of all produced waste	>60% of all produced waste	>70% of all produced waste
Permanent performance of actions leading to reduction of resources and materials consumption – to an extent higher than required by law – including by way of better use of available resources, planned orders and material distribution, extending product life, etc.	% of achieved goals with respect to reducing resources and materials consumption in relation to core operations of the Company	Setting goals (for one year, for four years)	100% of targets set	100% of targets set
Including, in the business model, actions for eliminating waste and reusing materials (circular economy), mostly in the process of product preparation	Number of completed investments and / or procedures implemented with respect to circular economy	1	1	1

2.3 Support and/or initiate educational projects in education, sustainable development, biodiversity and environmental protection

Implementation of educational projects for internal and external stakeholders in the field of sustainable development, protection of the natural environment and support for biodiversity.	Number of implemented educational initiatives in the field of sustainable development, addressed to various groups of stakeholders	2	2	4
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DEVELOPMENTAL INVESTMENTS FOR THE ENVIRONMENT

- Enlargement of the mining waste neutralisation facility in Bogdanka – there are plans to continue works on the enlargement of the facility as part of Stage I Part II, and to start developing design documentation for Stage II as well as purchase of land for further stages.
- Construction of facilities on the surface of the Nadrybie, Bogdanka and Stefanów Fields – main portion of expenditure is to be incurred for the upgrade of the central air conditioning system in Stefanów.
- Environmental protection – there are plans to build a pumping station at the Żelazny Ditch along with a system for discharging mine water.
- In 2019, Łęczynska Energetyka developed a conceptual plan for the installation of photovoltaic panels on the roof of the W-3 heat exchanger building at Kapitana Żabickiego 5A in Łęczna, which is owned by the Company, the launch of which is planned for the beginning of 2020.

3 SAFE MINE



Caring for the health of the mine's employees, ensuring their safety, and providing them with the opportunity to constantly develop themselves and improve their qualifications are some of the most important tasks confronting the company's Management Board. The year 2019 was a good time for our organisation. Just like in the two previous years, there were no fatal accidents in our mine. More than 70% of our staff work underground. This makes us even prouder of the above statistics. I can say with absolute confidence that we have responsible employees who know how important it is in the mining industry to obey the health and safety rules. We are also glad that the headcount at our Group has increased by 5%. We are aware that Bogdanka is a crucially important point on the map of the Lublin region and contributes to the development of the region and the wellbeing of its inhabitants from the social, environmental and economic perspectives. I am convinced that the methodology we have developed, which has for years been based on dialogue and cooperation with the employees, local community and local self-government, will guarantee further stable development for our company and will also meet the expectations of the above mentioned stakeholders. At the date of publishing the Integrated Report for 2019, it is impossible to ignore another important aspect related to the health of our employees. The Covid-19 epidemic has affected all sectors of the economy, including the mining industry. Given the above, we immediately introduced the relevant procedures and appointed a working group and a crisis team which are ready to act in any situation. We have increased the quantity of available PPE and sanitiser, and have limited our contact with the outside world. We are following the guidelines of sanitary authorities. We are making every effort to maintain the highest level of safety in the mine and the current state of zero infections among our employees. This is our top priority at the moment, which allows us to continue our mining activities in accordance with the company's strategy.

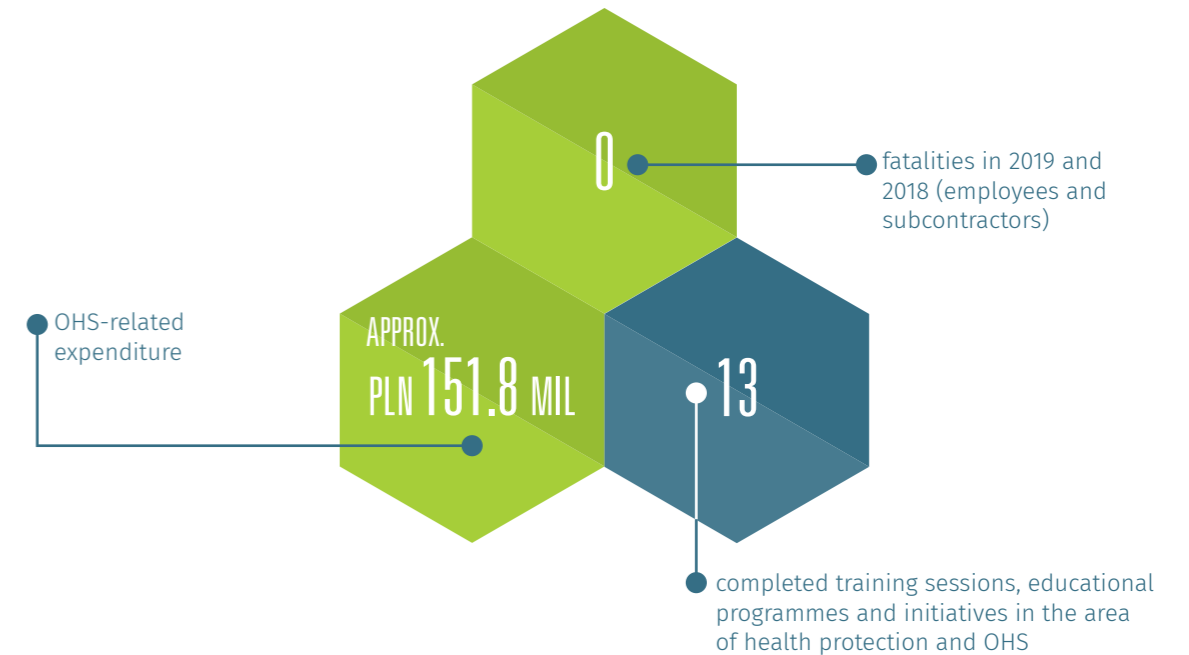
Adam Partyka
Vice-President of the Management Board,
Employee and Social Affairs



[GRI 103-1, GRI 103-2, GRI 103-3, aspect: Health and safety]

In the mining industry, ensuring safety is particularly important due to the high risk to the health and life of employees working underground. Therefore, managing occupational health and safety (OHS) is a top priority for the Company. LW Bogdan-

ka SA treats this issue with special care and attention – the Company's strategic goal is to minimise the number of hazardous events and completely eliminate fatal accidents.



LW Bogdanka SA is considered one of the safest mines in Poland. The contributing factors certainly include favourable geological conditions, i.e. the rare occurrence of rock bursts, gas and rock outbursts, absence of faults in the exploited seams, and a relatively low risk of methane explosion (level I on a scale of four). The high level of safety

in Bogdanka is also achieved owing to other key factors, including conscious, regularly trained and qualified staff, rigorous compliance with health and safety regulations, use of innovative technological solutions, constant monitoring of working conditions and workplaces, and systematic checks of devices.

Key areas contributing to the high level of safety at LW Bogdanka SA



[GRI 403-1]

Any issues related to OHS management are part of the Integrated Health and Safety, Quality and Environment Management System at LW Bogdanka SA, which includes:

- Occupational Health and Safety Management System is compliant with British standard OHSAS 18001:2007
- Integrated Management System concerning the Quality Management System, Environment Management System as well as the Occupational Health and Safety Management System are in compliance with the following standards: ISO 9001:2015, ISO 14001:2015, PN-N-18001:2004

[GRI 403-8]

Table 16: Employees covered by the Safety Management System in the Bogdanka Group

Number of employees covered by the system	4,907
Percentage of employees covered by the system	100%
Number of workers who are not employees but whose work and/or place of work is controlled by an organisation covered by the system	3,018
Percentage of workers who are not employees but whose work and/or place of work is controlled by an organisation covered by the system	100%

At LW Bogdanka, a number of other procedures, regulations and rules have also been implemented to ensure responsible OHS management.

[GRI 403-2, GRI 403-3, GRI 403-4]

The Health and Safety Department, including managers of organisational units and their supervisors, is responsible for the area of OHS and health protection at LW Bogdanka SA. Their responsibilities include:

- Familiarising employees with the applicable OHS documents
- Inspecting employees at work stations for compliance with applicable health and safety regulations
- Consulting and giving opinions on Company documents in this field

LW Bogdanka SA has also an OHS Commission. The Commission is tasked with reviewing working conditions, periodically assessing OHS, giving opinions on the measures taken by the employer to prevent

System certificates are valid until 28 May 2021. Responsibility for the correct application of the above standards between audits is borne by a group of employees of LW Bogdanka SA, who are qualified to conduct internal audits of the Integrated Management System.

accidents at work and occupational diseases, formulating recommendations regarding improvement of the working conditions, and cooperating with the employer in the performance of its OHS obligations. The Commission consists of OHS representatives, a physician, a representative of the Trade Unions, and the Trade Union Appointed Safety Representative. The Commission meets at least once a quarter.

The significant risks identified by LW Bogdanka SA in the field of OHS include:

- Fatal, severe and collective accidents at work
- Failure to ensure appropriate safety conditions at work
- Excessive absenteeism due to illness and accidents
- Failure to meet the requirements specified in the Occupational Safety Management System (PN-EN 18001 and OHSAS 18001)

[GRI 403-7]**WORK-RELATED RISKS****DZIAŁANIA PROFILAKTYCZNE**

● **LW Bogdanka SA** - all work-related hazards are included in occupational risk assessment sheet, which are developed for each work station. Descriptions of threats are additionally included in the Safety Document. **In 2019, there were no accidents related to those risks.**

Preventive actions are included in the occupational risk assessment sheets for each work station. Technical risks and their impact on employees are reduced by:

- replacement of the machine park with a more modern set of equipment, ensuring greater safety for their operators and employees working in their vicinity
- implementation of innovative technical solutions, use of small mechanical equipment with increased safety standards
- internal and external training both in operating small mechanisation and machines, facilities and installations requiring appropriate qualifications.

● **Łęczyńska Energetyka** - work at height, in confined spaces, with power equipment, in trenches, with hazardous chemicals. **In 2019, there were no accidents related to those risks.**

Purchase of fencing for securing excavations, securing the entrance to the chimney, introducing a sticker system for marking the dates of periodic inspections of power tools and welding machines (the employee can now be sure that the device has undergone the required inspections).

● **MR Bogdanka Sp. z o.o.** - work at height, work in the shot blasting shop and the paint shop. **In 2019, there were no accidents related to those risks.**

Compliance with OHS instructions, equipping employees with personal and collective protective equipment, supervision by superiors. Installation of a dust extraction system in the production areas where welding processes take place.

Purchase of a dust collector and a circular saw for the carpentry shop, a hydraulic gantry press, an internal combustion forklift with a mechanical lifting drive. Development of a Fire Safety Manual along with additional documents related to fire protection.

● **RG Bogdanka Sp. z o.o.** - methane hazards; coal dust explosion; gas; fire; water; detachment of rocks from the ceiling or sides; contact with high-temperature bodies, pressure systems; contact with moving machine parts; contact with transported items; being driven over or pressed down with a means of transport; impact, contact with a stationary object; impact, injury from work tools; trips, slips, falls of people on the same level; work at height; falling, overturning, rolling of objects; chippings of rocks or materials; breaking or relaxing of stressed elements; excessive physical exertion; electric shock, electrical burns; explosives blasts; harmful microclimate; biological factors; chemical agents; vehicle and pedestrian traffic, road accidents, aggression by people – assault; failures of utilities in buildings and facilities. **In 2019, there were no accidents related to those risks.**

Posting the circumstances and causes of accidents on a publicly available information board.

Discussing the circumstances and causes of accidents with the crew.

Application of a disciplinary sanction for failure to fulfil basic employee duties.

Verification of employee's knowledge of correct and safe performance of their duties and familiarity with the applicable manuals.

Conducting on-the-job training to refresh information on how to perform one's work and related OHS.

In 2019, an average of 65 staff were working daily at work stations where mechanical risks associated with operating particularly dangerous machinery, such as locomotives, hydraulic roof support or rams/presses, were present.

In June 2019, endogenous fire²⁷ occurred in the area of the closed wall 3/II/385. Therefore G-1 division (wall 4/II/385) is currently included in fire divisions of increased frequency of collecting air samples to laboratory analysis.

[GRI 403-9]

Table 16: Work-related injuries

	LW Bogdanka SA	Łęczyńska Energetyka Sp. z o.o.	MR Bogdanka Sp. z o.o.	RG Bogdanka Sp. z o.o.
Number of all reported accidents – staff	93	1	2	12
of which fatal accidents	0	0	0	0
of which severe accidents	0	1	2	0
of which minor accidents	93	0	0	12
Number of all reported accidents – subcontractors	115	0	0	0
of which fatal accidents	0	0	0	0
of which severe accidents	0	0	0	0
of which minor accidents	115	0	0	0
Description of the most common accidents – employees:	People tripping, slipping and falling while walking Objects or materials falling, rolling or sliding Hitting other objects	Accidents while descending a ladder (sliding)	Finger trauma Lower limb trauma	Trips and slips on wet or uneven floor Crushing of limbs during manual handling and contact with the transported object Muscular and joint injuries due to excessive physical effort
Description of the most common accidents – subcontractors:	People tripping, slipping and falling while walking Objects or materials falling, rolling or sliding	Not applicable	Not applicable	Not applicable
Accident frequency rate for Company employees	12.16	5.896	13.12	14.05
Accident severity rate for Company employees	1.17	1.07	0.71	0.72
Accident frequency rate for subcontractors	21.34	Not applicable	Not applicable	0
Accident severity rate for subcontractors	1.76	Not applicable	Not applicable	0
If there are groups of employees which are not covered by the above data, please list them and explain why	The above data cover all employees	The above data do not include administrative and office staff	Administrative/office employees	No data

²⁷ It occurs in mines as a result of spontaneous ignition of coal caused by inability to remove heat from the oxidation process. Often there is no open fire, instead the phenomenon manifests itself by the release of gases (concentration of carbon monoxide above 0.0026% where this is not caused by technological processes).

HOW BOGDANKA INCREASES SAFETY LEVELS:



MACHINERY

LW Bogdanka SA continues to improve the machinery park by adding increasingly safer and more modern equipment available in the mining industry market. It also uses **small mechanical equipment** with **improved safety standards**. One of the investments in 2019 was the purchase of the washer pump ZPH HDP 202 for washing longer sections of pipelines with a high pressure jet. The Company has also begun testing the machine TS-350PS-1, which reduces ambient temperature, significantly improving the miners' comfort at work.

- **Automatic dispensers** of personal protective equipment.
- **Modern personal protective equipment**, for example earmuffs integrated with the helmet or anti-dust masks available to all workers going underground (P1 and P2 protection class). Their widespread use helps prevent pneumoconiosis.
- **Underground wireless communication system** – LW Bogdanka SA uses a BeckerCom LF UHF wireless communication system, which is perfect for mine workings, where propagation of radio waves is hindered. This system provides radio coverage in highly branched workings, rooms and shafts, ensuring a high degree of efficiency and work safety for people throughout the mine, including on the surface. Thanks to its modular structure and simplicity of installation, the system can be easily expanded, and the total length of the antenna line can exceed 100 km. Combining several base stations enables the integration of services into a single system within one or more mines. Wireless connectivity enables fast communication, eliminates downtime, allows tasks to be coordinated and staff to be safely removed from a particular area, for example from longwall crossings, when necessary. It means greater efficiency, time savings, and above all greater safety for underground works. The system consists of, among other things, radiotelephones placed on the mining helmet in the form of headphones, transmitters located in workings, and a central base for communication management in the network. Additionally, the system is equipped with a special application which enables observation of the direction of movement of miners and rescuers in the working, voice communication, and locating them.



USE OF NEW TECHNOLOGIES

As mentioned above, developing technology is key for improving the level of safety. The innovative solutions used in Bogdanka include:

- **Automation and mechanisation of the most dangerous processes** in the mine, for example use of machines in the process of disassembling longwall headings and removing supports, and securing the roof of a coal deposit in wall recesses.
- **Sprinkler systems**, which eliminate the risk of coal dust explosion and also limit air dust concentrations in the workings, which, in turn, translates into lower incidence of pneumoconiosis²⁸.

²⁸ Chronic disease of the respiratory system caused by long-term inhalation of dust. Occupational disease of miners.



TRAINING AND EDUCATIONAL PROGRAMMES

[GRI 403-5, GRI 403-6]

Training, educational programmes and initiatives in OHS are one of the most important preventive measures contributing to the high level of safety at Bogdanka.

The health and safety training system at LW Bogdanka SA includes initial and periodic training.

- **General introductory training** provided to all newly hired employees, as well as students, interns and vocational school students partaking in practical vocational training – before being allowed to work in the mine.
- **Introductory on-the-job training.** It enables participants to learn about the factors of the working environment occurring in their job and the related occupational risk, methods of protection against the threats which may be caused by these factors, and methods of safe performance of their work. On-the-job training is carried out before being allowed to perform work in a specific position.

- **Periodic training** consists in supplementing and consolidating the knowledge and skills acquired during the initial training and the work performed. It covers areas of health and safety, natural hazards, work-related hazards and methods of protection against these hazards, as well as procedures in the event of an accident or emergency and learning about new technical and organisational solutions. Periodic training takes place in the following groups:

- Surface workers employed in positions which require particularly dangerous work (once a year)
- Other surface workers (once every 3 years)
- Underground workers (once a year)
- Those responsible for managing the mine's surface and underground workers (once every 5 years)
- Engineering staff, including designers, machine and other technical equipment constructors, technologists and production organisers (once every 5 years)
- OHS employees (once every 5 years)
- Administrative and office staff (once every 6 years)

EDUCATIONAL PROGRAMMES AND INITIATIVES

• “Safer Workplace! – Employee initiatives box”

is a programme launched in 2018 and continued in 2019, with the main assumption being to give employees an opportunity to submit their own suggestions and ideas for improvements in the field of occupational health and safety. The submitted ideas concern various areas of the mine's operation and the entire Company, e.g. underground work, transport, surface work, administration. These suggestions are then reviewed by Vice-President of the Management Board for Employee and Social Affairs. Any initiatives which are positively assessed and approved by the Management Board are subsequently implemented.

- **Safety Week 2019** is a well-established initiative on LW Bogdanka's calendar, focusing on subjects of safety at work and beyond. In 2019, Safety Week featured the following:

- Presentation of PPE
 - Consultations with equipment manufacturers
 - Demonstrations and simulations of incidents
- Furthermore, health supporting activities were added to the programme in the form of stands where basic prophylactic examinations could be done free of charge. Approximately 200 people participated in the initiative.

• **Inter-Sector Cooperation for Life and Health**

LW Bogdanka SA, the Solidary Miners Foundation, and the Regional Blood Centre in Lublin have been working together under a trilateral agreement for 5 years now. The agreement is dedicated to the promotion of voluntary blood donation, blood transfusion and registration with the bone marrow donor bank. In 2019, in addition to blood and bone marrow donations, the Company was involved in organising the 70th anniversary of voluntary blood donation in the Lublin region and was awarded a special medal.

• **Other initiatives in 2019**

- Reconstructions of accidents at work and demonstrations of correct performance of duties were displayed on screens located in places where the crew gathered before descent.
- The occupational risk assessment programme was updated.
- A Health and Safety Knowledge Competition for employees and an Inter-School Health and Safety Competition for schools with a mining profile were conducted. The aim of the Competition is to promote knowledge of fundamental work safety laws and OHS in mining.



EMERGENCY MEDICAL SERVICES

The mine has a team of trained prehospital care providers, consisting of about 745 paramedics. Bogdanka has also a physician available 24/7, who is there to provide immediate help in case of an accident. In the event of an accident, employees can also use one of the five **AEDs** located throughout the mine, 1 defibrillator in the doctor's office, and **heart rate meters**, which are used for self-examination. In addition, once a year, based on a roster, the crew are given obligatory training in first aid.



ACCIDENT ANALYSIS

The OHS Department constantly monitors and analyses accident statistics, adjusting preventive actions to the accident rate.



OTHER PREVENTIVE MEASURES

LW Bogdanka SA has implemented the obligation to test the safety of materials and tangible assets in their manufacturing conditions before their purchase and use in the mine. Employees are involved in the testing and assessment, and their opinion matters when deciding whether to purchase a particular item or not.



[GRI 403-10]

Table 17: Occupational disease index*

Number of deaths as a result of occupational disease	0
Number of confirmed instances of occupational diseases	0
Main types of occupational diseases	Pneumoconiosis
For all workers who are not employees but whose work and/or place of work is controlled by the organisation	
Number of deaths as a result of occupational disease	No data
Number of confirmed instances of occupational diseases	As above
Main types of occupational diseases	As above
Work-related hazards that pose a health risk	
How these threats had been identified	in the occupational risk assessment sheet and on the basis of the measurements of factors harmful to health
Which of these threats contributed to or were the cause of occupational diseases that occurred in the reporting period	Not applicable
Actions taken to eliminate or reduce these risks, using a hierarchy of controls	Actions taken to eliminate or reduce the risks are included, among other things, in the Safety Document and in the Mine Operations Plan
Are there, and if yes, why, any employees / groups of employees which have been excluded from this indicator?	Administrative and office workers (jobs with no harmful factors present)

* ta only for LW Bogdanka SA

In 2019 Bogdanka won an award in the "Lublin-based Safety Leader" in the **Work Ergonomic and Safety** category. Its actions taken with a view to ensuring the highest level of safety not only in the mine but in the whole region were highly appreciated.

WHAT WE ACHIEVED

BUSINESS OBJECTIVES AND OBJECTIVE OF CSR STRATEGY

SAFE MINE

Ensure the highest work safety level

Area of impact	The way we see it	Assumed objective in 2018	2019 implementation	Objective 2020
1.1 Further improvement of occupational health and safety standards				
Elimination of severe and fatal accidents	Number of severe and fatal during a year	0	0	0
Decrease in the recurrence rate of accidents among LWB employees	Decrease of the accident frequency rate compared to the level in 2017 (Definition: number of accidents per 1,000 employees)	-10%	-15%	-20%
Decrease in the frequency rate of accidents among LWB employees	Decrease of the accident frequency rate compared to the level in 2017 (Definition: number of accidents per 1,000 employees)	-10%	-15%	-20%
Taking actions with a view to decreasing the number of accidents among subcontractors' employees	To maintain the number of accidents among subcontractors' employees at a level similar to the number of accidents recorded among own employees (proportionally to employment), i.e. not higher than by xx%	12%	11%	10%
Maintaining low level of occupational diseases	Number of incidents of occupational diseases confirmed during a year	<3	<3	<3
Elimination of non-compliance with the prevailing occupational health and safety procedures	Number of employees penalised by management or supervisory authorities during a year	<100	<100	<100
Intensification of inspections of compliance of documentation with OHS requirements	Number of irregularities in the documents compared to all documents covered with inspections	<20%	<10%	<5%

4 EFFECTIVE AND INNOVATIVE BUSINESS



The economic results of the LW Bogdanka Group for 2019 were, depending on the parameter under analysis, record-breaking or close to record-breaking, and we believe that the previous year was very good. We can talk about success in terms of finances and operations – the record-breaking production and coal sales, which in combination with the increase of contract prices of coal and the growth in coal yield by as much as 3.6 p.p. (i.e. 64.1% in 2019 as compared to 60.5% in 2018), mostly contributed to generating great financial results. Such a good result would not be possible without the effort and commitment of all our employees as well as consistent cost discipline and expense optimisation. We can now celebrate the success and with absolute confidence call ourselves the most effective hard coal mine in Poland.

The company's market position is invariably strong and stable. In 2019 we obtained a 20.8% share in the market of thermal coal sales and a 26.8% share in the market of thermal coal sales to commercial power plants.

Just like in the previous year, we are presenting the financial result of LW Bogdanka SA aligned with the results achieved from the social, environmental and managerial perspectives. We have tried to picture the scale of our commitment, including financial commitment, in a clear and transparent way, which makes it easier to understand the importance of Bogdanka's role in the Lublin region.

Artur Wasilewski
Vice-President of the Management Board
Economic and Financial Affairs

The hard coal sold by LW Bogdanka SA is mostly used to **produce electricity** and heat.

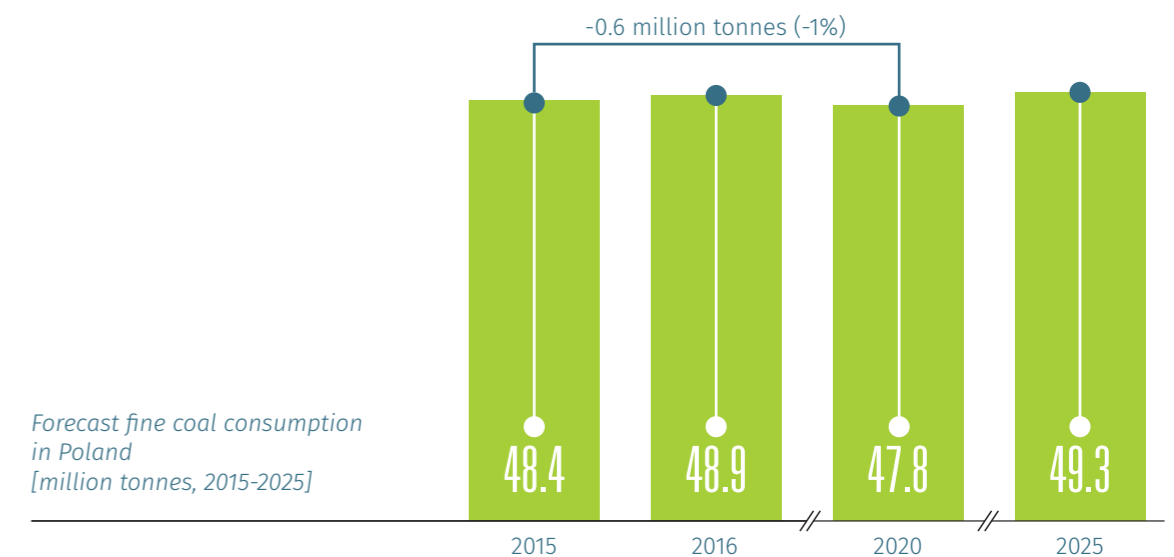
LW Bogdanka SA is not expecting a significant change in coal's share in the generation of electricity until 2025. In 2030, according to Poland's 2040 Energy Policy, this share will amount to around 50 to 60%, while, simultaneously, the following indicators are to be achieved:

- 21 to 23% share of renewable resources in gross energy consumption in 2030
- Implementation of nuclear energy in 2033
- Improvement of energy efficiency by 23% until 2030, compared to 2007
- 30% reduction of CO₂ emissions until 2030, compared to 1990²⁹

4.1. EFFECTIVE BUSINESS MODEL

In 2019, 99.3% of the coal produced by LW Bogdanka SA were coal fines. The Company is expecting that demand for fine coal will be stable over the next decade.

On the other hand, the significant increase in the average efficiency of conventional sources leads to a decline in demand for fine coal.

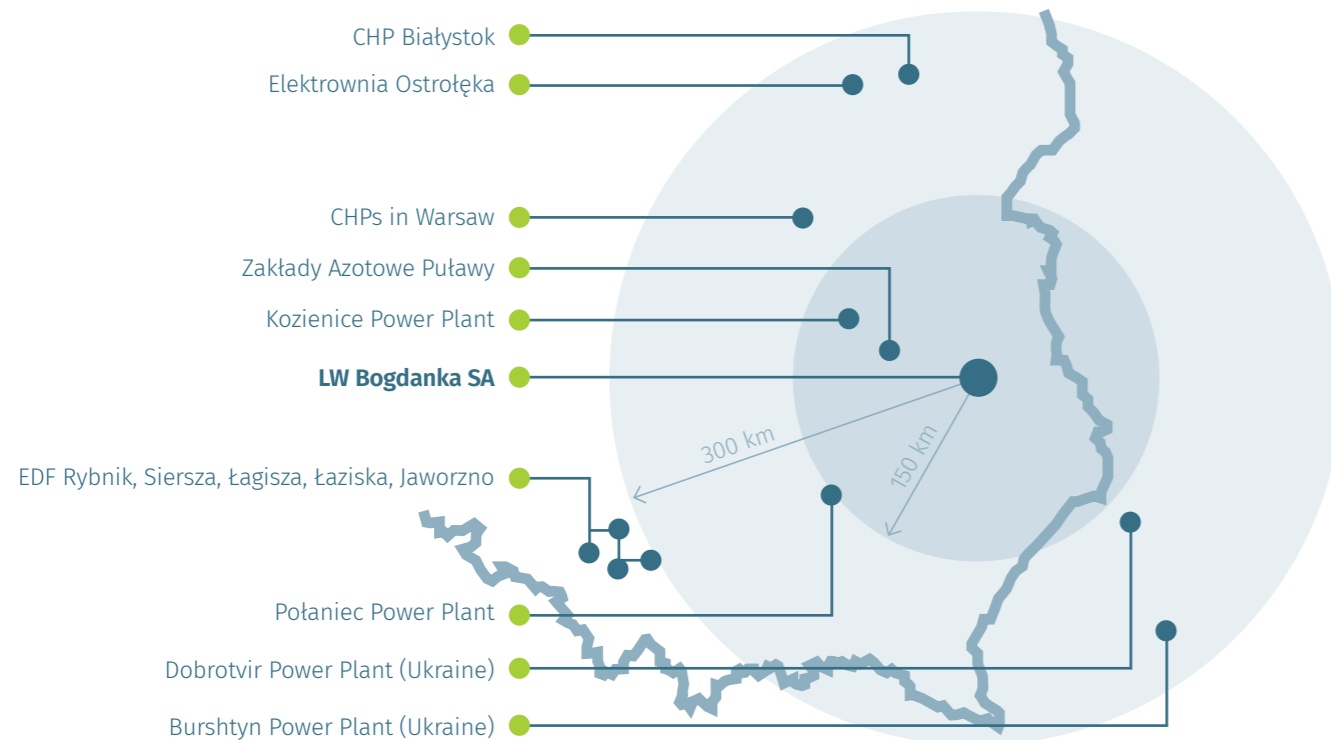


²⁹ Poland's 2040 Energy Policy, draft by the Ministry of Energy, 2019

GEOGRAPHIC ADVANTAGE

LW Bogdanka SA is favourably situated versus large buyers of fine coals operating in eastern Poland.

Plants using fine thermal coal within a 150-km and 300-km radius



MARKET ENVIRONMENT IN 2019

INVENTORIES OF COAL IN POLAND

- The level of thermal coal inventories at the end of 2019 totalled 4.6 million tonnes (at the end of 2018 – 2.0 million tonnes).



ELECTRICITY CONSUMPTION ON THE DOMESTIC MARKET

- In 2019, 169,391 GWh was consumed, which represents a decrease of 1,541 GWh (-0.9%) versus 2018.



ELECTRICITY GENERATION IN POLAND

Electricity generation - total

- In 2019, the production of electricity totalled about 158,767 GWh, which represents a decrease of 6.447 GWh (-3.9%) versus 2018.

Power generation from coal

- Coal was the main fuel used to produce electricity. In 2019 it was used to produce 119,692 GWh, which was a decrease by 11,755 GWh (-8.9%) compared to 2018.
- In 2019 coal accounted for 75.4% of total electricity production in Poland, but its share in the fuel mix went down by 4.2% in comparison with 2018.

Power generation from hard coal

- Hard coal was used to produce 78,190 GWh of electricity (almost 5.1% less than in 2018).

Power generation from lignite

- Lignite was used to produce 41,502 GWh of electricity (15.4% less compared to 2018).

Power generation by wind farms

- Wind farms produced 13,903 GWh of electricity, which represents an increase of almost 19.1% in comparison with 2018. Wind made up about 8.8% of electricity production.

Power generation by gas-fired power plants

- Gas-fired power plants produced 12099 GWh of electricity, which was an increase of 26.2% compared to 2018. Energy generation in gas-fired power plants has achieved the highest growth dynamics y/y.



BALANCE OF TRADE

- In 2019, the balance of trade in electric power was 10,624 GWh, while in 2018, the figure was 5,718 GWh (+85.8%).



COAL PRICES ON THE INTERNATIONAL MARKET

- Average price of CIF ARA coal³⁰ in 2019 was USD 60.8/tonne, down by 33.7% y/y.
- In 2019, the average price in major ports around the world was USD 57.00/tonne, i.e. down by 34.2% y/y (USD 86.6/tonne).

As at the end of December 2019, coal inventory in ARA ports was about 6.1 to 6.5 million tonnes.

³⁰ The CIF ARA futures price index determines the average daily price level of thermal coal in the 6,000 kcal/kg class (approx. 25 MJ/kg) <http://polski-wegiel.pl/indeksy-cen-wegla/>

MISSION AND VISION, VALUES, STRATEGY

LW Bogdanka SA strives to achieve sustainable growth to strengthen its competitive advantage and gain the trust of all stakeholder groups. The dominant values cherished by Bogdanka are **honesty, professionalism and responsibility**. These values guide us on the path to successful implementation

of the Company's vision and mission. They ensure harmonious development of the Company as an enterprise which pursues its economic objectives in line with the expectations of the society, environmental requirements, and high standards of occupational safety.

VISION

Bogdanka is a strong link in the value chain of the Enea Group and the efficiency leader in the mining sector with the highest work safety standards.

MISSION

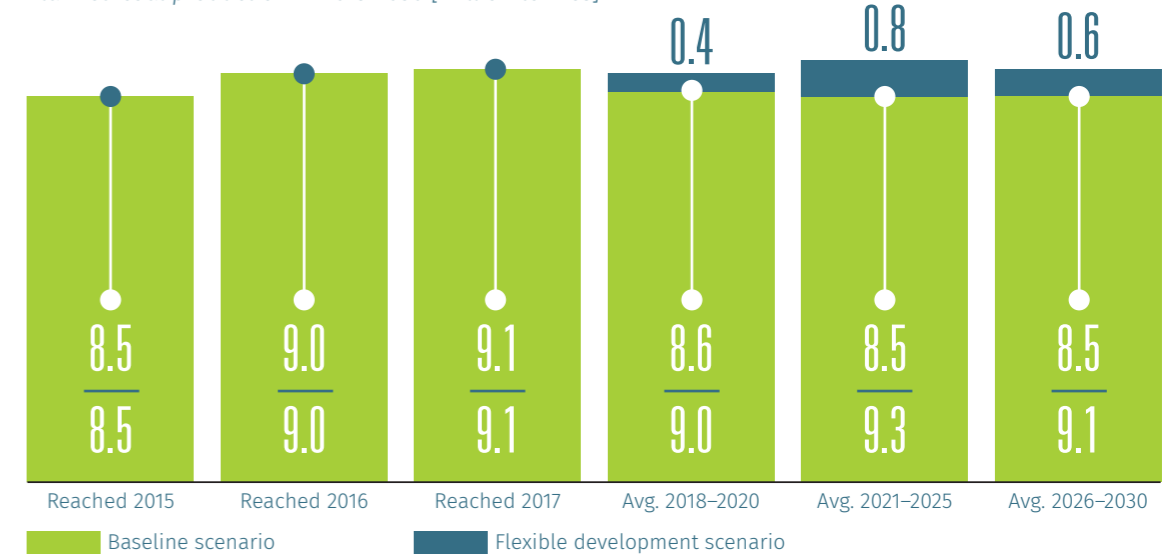
By contributing to energy security of Poland, Bogdanka proves that it is a reliable supplier of coal for commercial power plants, able to maintain its competitive advantage and to continuously increase the value of the Company, while improving its work safety and environment protection standards and implementing innovative solutions.

The 2025 Strategy of LW Bogdanka SA – Mining Division of the Enea Group (with Perspective Until 2030) announced on 9 February 2017 reflects the 2016 and 2019 strategy of the Enea Group, the primary goal of which is to build an innovative raw material and power group capable of successfully facing up to market challenges.

The strategy of LW Bogdanka SA defines two development scenarios:

- **Baseline scenario**, which assumes average production at a level of about 8.5 million tonnes over the years 2017–2025 and capital expenditure amounting to PLN 3.7 billion (in nominal terms) in 2016–2025.
- **Flexible development scenario**, which assumes average annual projected production at a level of about 9.2 million tonnes over the years 2017–2025 and capital expenditure amounting to PLN 4.0 billion (in nominal terms) in 2016–2025

Planned coal production in 2015-2030 [million tonnes]



The key pillars of the Company's strategy until 2025 include:

- Active utilisation of synergies in the Koziernice-Bogdanka-Połaniec mining and power generation area, as the next step of integration within the Enea Group.
- Doubling the recoverable reserves in the Ostrów deposit and extending the mine's life to about 50 years; until 2030, the key project for LW Bogdanka SA will be the development of infrastructure in the Ludwin Mining Area (Ostrów deposit), for which purpose, according to preliminary estimates, the Company will spend about PLN 1.2–1.3 billion (in real terms) after the year 2025.
- Innovations, which are an important element of Bogdanka's DNA, including the Smart Mine programme and initiatives to ensure a more effective management of waste rock or utilisation of our high-performance face mining system.
- Preparation, jointly with the Enea Group, of an engineering design for an integrated gasification combined cycle (IGCC) system, which is to provide fuel for power generation.

4.2. INNOVATIVE SOLUTIONS AND TECHNOLOGY

In the course of working on the strategy for the Enea Group, of which LW Bogdanka is part, 60 strategic initiatives have been conceived, of which 10 by engineers from Bogdanka. The top priority projects include:



SAFETY

FURTHER WORK SAFETY IMPROVEMENT PROGRAMME

(Find out more in the section *Safe mine* on page 64)

For years, work safety has been a top priority for LW Bogdanka SA. Also the current strategic framework considers the safety and health of employees to be an issue of overriding importance. The Company increases its work safety levels by building safety awareness among its employees and reinforcing its OHS measures.



PRODUCTION OPTIMISATION

UNIQUE TECHNICAL AND ORGANISATIONAL SOLUTIONS

LW Bogdanka SA is implementing a project that stands out in the industry – it involves the mining of a longwall which boasts a record length of 7 km. This requires the use of dedicated technical solutions with unprecedented characteristics, including an IOT platform for predictive maintenance of machines and a crew transport system using belt conveyors.

The Company conducts activities aimed at adapting machines and devices in a way that allows for the mining of walls up to 400 metres long. As a result of employee initiatives, the effectiveness of work related to the mining and removal of longwalls is constantly increasing. These projects have been completed:

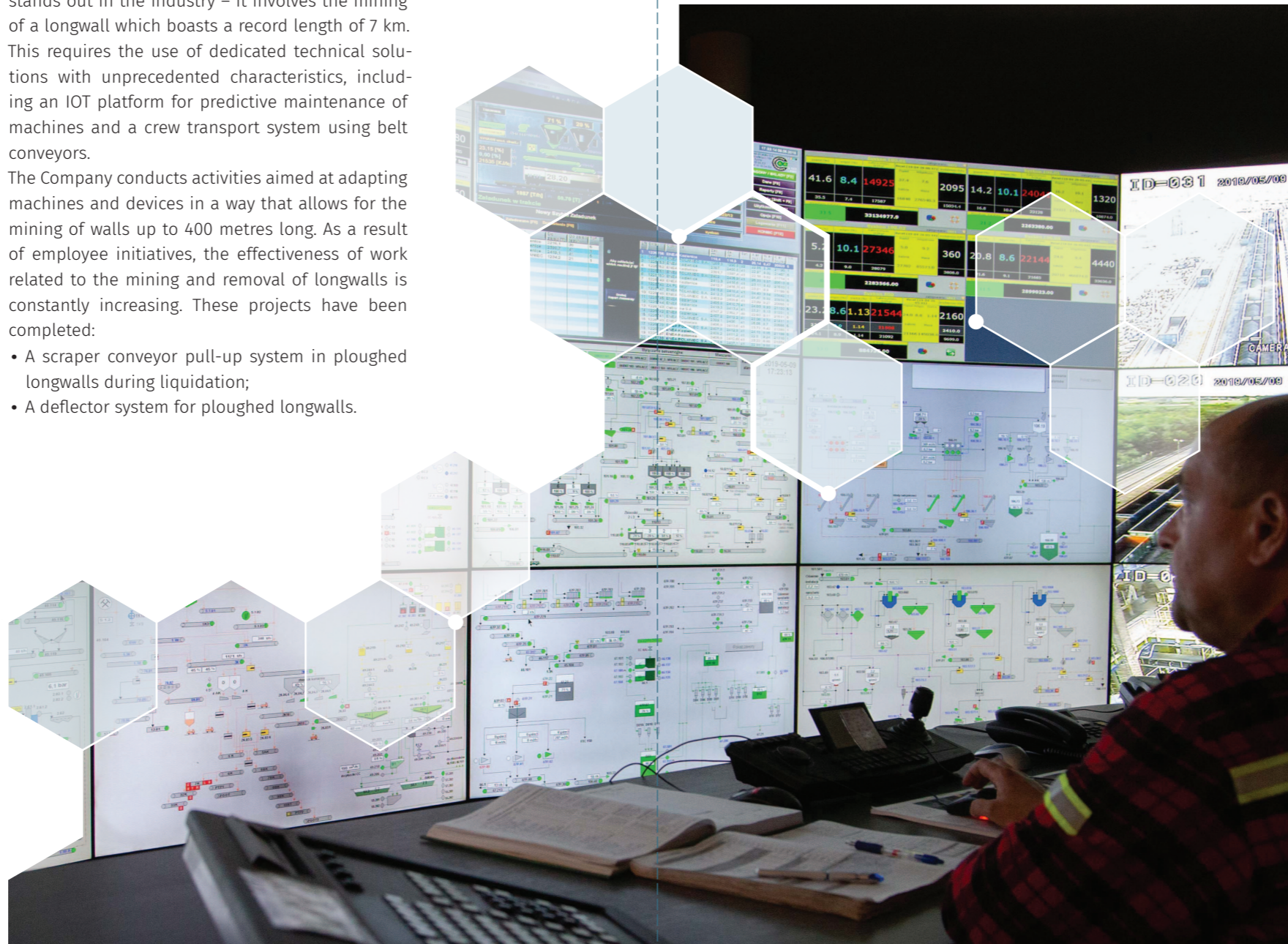
- A scraper conveyor pull-up system in ploughed longwalls during liquidation;
- A deflector system for ploughed longwalls.



INNOVATIONS

SMART MINE

Even today LW Bogdanka SA has solutions that are unique in Poland's underground mining sector. They support decision making in the process of preparing deposits for extraction and employ the most recent technological developments applied in the global mining sector. Those activities will cover the further development of the deposit management system and the continued computerisation and automation of the production chain in the Company.



ENVIRONMENTAL PROTECTION

EFFECTIVE WASTE ROCK MANAGEMENT

(Find out more in the section *Eco-efficient mine* on page 44)

The waste rock management project is to improve even further the control of quality of the coal output by optimising its production - from planning to deposit cutting and exploitation to liquidation of excavations. The scenarios being considered include placing the waste rock underground and using it for road construction.

The programme's aim is to improve the quality of raw coal by reducing the content of waste rock in the output, to minimise pollutions and to reduce the costs of mining waste, including to increase the waste stockpiles.



EFFICIENCY

ADVANCED HIGH-PERFORMANCE FACE COMPLEX

The high-performance face complex project is an element of initiatives which have been pursued for years LW Bogdanka related to innovative solutions enhancing the operating efficiency. The project is to shorten the time in which heading excavations must be maintained and to achieve the above-average progress of work to drill roadway excavations.



REVENUE DIVERSIFICATION

LW BOGDANKA AS PROVIDER OF AN OPERATOR'S SERVICES

LW Bogdanka wants to use its top-class technology and management standards and leading know-how to develop a new line of business - services of an operator of mining plants provided for entrusted assets. Such services would be offered throughout the Central and Eastern Europe.

FEASIBILITY STUDY OF CONSTRUCTION OF AN INTEGRATED GASIFICATION COMBINED CYCLE (IGCC) SYSTEM

The Company will prepare, jointly with the Enea Group, a feasibility study of construction in LW Bogdanka of an integrated gasification combined cycle (IGCC) system for production of fuel for power generation. If it is decided to implement the project, a new market for hard coal will emerge, leading to a higher energy independence of Poland's economy.

VALUE CREATION MODEL

**FINANCIAL**

- **PLN 399,963,000** – investment expenditure
- **PLN 1,799,441,000** – cost of production at LW Bogdanka SA
- **PLN 2,148,346,000** – costs of LW Bogdanka SA by type

**HUMAN**

- **PLN 151,800,000** – expenditure on OHS and health protection
- Sprinkler systems which eliminate the coal dust explosion hazard and limit air dust concentrations in the workings
- **PLN 1,736,013.09** – training expenses
- **95,239** – number of training hours

**SOCIAL/RELATIONS**

- **PLN 637,700** – donations made
- **PLN 498,900** – spending on CSR strategy activities
- **PLN 43,500** – preventive measures in buildings (reimbursement of the cost of protection measures in newly constructed buildings):
- **218** – number of mining damage compensation agreements
- **PLN 485,300** – compensation for damage to agricultural land and crops
- **PLN 101 000** – repair of damaged bitumen road pavements

**INTELLECTUAL**

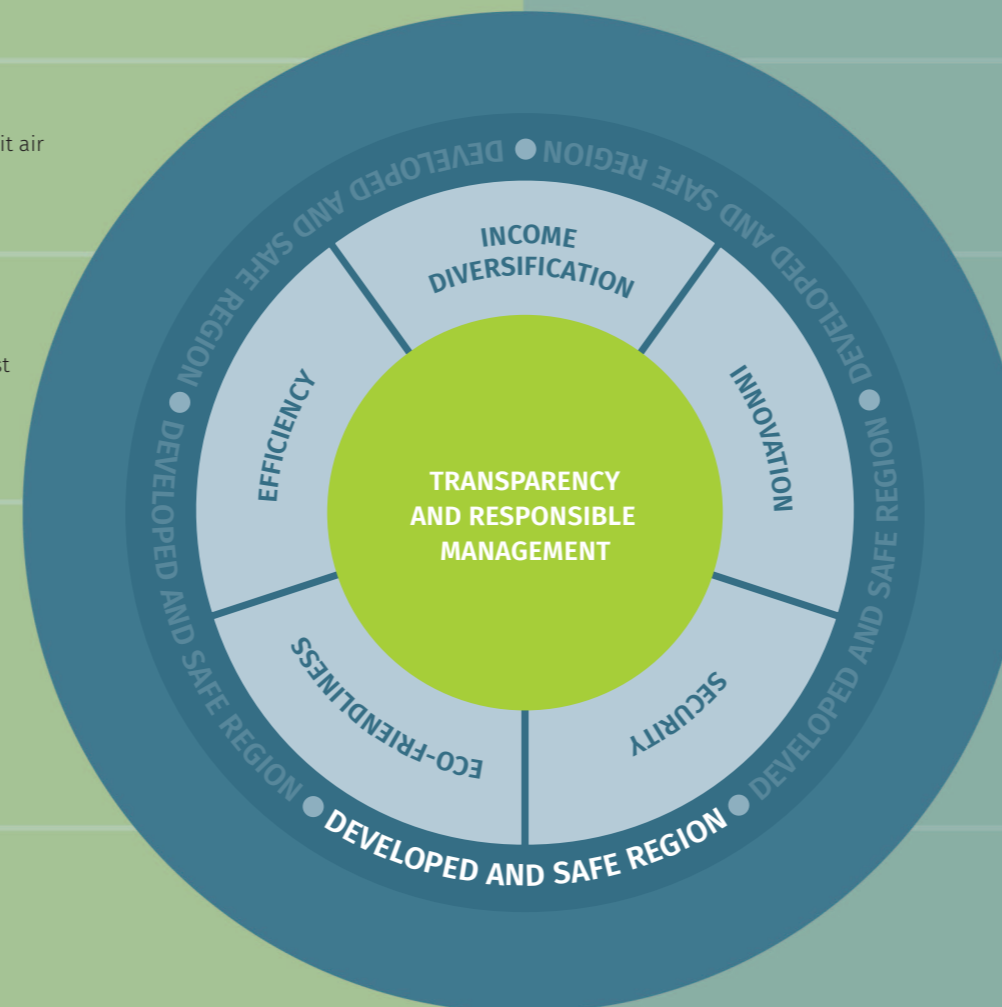
- **PLN 1,263,000** – expenditure on research and development activities

**MANUFACTURED (OPERATING)**

- Underground and surface facilities
- Plant and equipment
- Modern IT infrastructure
- Own side-track and rolling stock
- LW Bogdanka SA Integrated Management System

**NATURAL**

- **PLN 2,393,644** – total amount allocated to environmental projects
- **12.34 ha** – reclaimed land

**FINANCIAL**

- **PLN 767,592,000** – EBITDA
- **PLN 308,746,000** – net profit
- **PLN 4,252,464,000** – balance-sheet total (as at 31 December 2019)
- **PLN 3,228,502,000** – equity
- **PLN 3,509,780,000** – non-current assets

HUMAN

- **Zero fatal accidents** (employees and subcontractors)
- No deaths as a result of an occupational disease, no identified cases of occupational diseases (pneumoconiosis)
- **256 alumni** of the Mining Leaders Academy and the Foreman Academy

SOCIAL/RELATIONS

- **51** – Beneficiaries of the donations fund of LW Bogdanka SA:
- Projects implemented as part of the CSR strategy, i.e. the Socially Involved Bogdanka Programme:
 - **50** submitted initiatives
 - **30** completed projects
 - **25** locations, including 11 new
 - **90** volunteers

INTELLECTUAL

- Smart Mine
- Geomechanical Model run by LW Bogdanka SA engineers
- Tests of primary stresses in the rock mass (carried out in cooperation with GIG)
- Measurements of actual operating pressures using the overcoring method
- Research and academic cooperation: Feasibility study of construction of an integrated gasification combined cycle (IGCC) system
- EU co-financed project to design and implement a rock mass monitoring system based on photonic technology
- FaceBolter technology implementation project
- Research projects concerning the management of post-mining waste

PRODUKCYJNY (OPERACYJNY)

- **9.5 million tonnes** – coal produced
- **15.8%** – share in the hard coal market in Poland

NATURAL

- **3,432,000 m³** – Recovered mine water used for domestic purposes
- **3,062,000 tonnes** – Mining waste used for domestic purposes

INPUTS

OUTPUTS

A comprehensive, transparent and responsible approach to management at LW Bogdanka SA lies at the core of our organisation and requires a holistic view of its performance. The model of value creation in the Company is based on an analysis of six capitals: financial, manufactured (operational), human, intellectual, social, and natural, and on their correlation with the strategic goals of the company. The goals and capitals interwine, and their inseparable part is a constant dialogue with the stakeholders: shareholders, customers, employees of the Company, and the local community.

FINANCIAL CAPITAL

Financial capital is the pool of funds that the Company has in order to be able to produce and provide services, including liabilities, equity, subsidies (grants), and investments.³¹

MANUFACTURED (OPERATING) CAPITAL

Manufactured capital is the facilities an organisation uses to produce goods or provide services. These include buildings, equipment, infrastructure (e.g. roads, ports, bridges, sewage treatment works, and water treatment plants).

INTELLECTUAL CAPITAL

Intellectual capital consists of intangible assets, i.e. intellectual property, patents, copyrights, software, rights and licenses, procedures and protocols.

HUMAN CAPITAL

It consists of the competences, skills and experience of employees, the manner of organisation management, including the approach to risk management, ethical values, and the organisational strategy in place.

SOCIAL CAPITAL

Social capital encompasses shared norms, values and behaviours, as well as key relationships with stakeholders based on trust. It is also the desire to engage in the development of external stakeholders and striving to build lasting relationships with them.

NATURAL CAPITAL

Natural capital is all renewable and non-renewable environmental resources and processes that affect the present or future well-being of an organisation. It consists of, among other things, air, water, biodiversity, and ecosystem.

³¹ <https://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf>

CSR STRATEGY

Mining activity and its specific nature mean that most business decisions are translated into social and environmental issues with significant implications. Responsible management means that they cannot be ignored in the decision-making process. Therefore, the Integrated Management System in place at LW Bogdanka, whose key components are the Environment Management System, the Health and Safety Management System, and the Quality Management System, also includes a CSR Strategy. The company is continuously looking for solutions and opportunities that will enable us to implement

initiatives in the area of sustainable development which will, when integrated with the existing processes, strengthen our position as the industry's leader among socially responsible companies.

The 2030 CSR strategy assumes implementation of social and environmental goals in all important processes taking place in the Company:

- Production activity
- OHS management
- Human resources management
- Advertising and sponsorship
- Financial and investment policy

OBJECTIVES OF SOCIAL RESPONSIBILITY STRATEGY FOR 2018-2021



LW Bogdanka SA actively supports the implementation of selected Sustainable Development Goals, which had been declared in the **2030 Agenda**, and declares compliance of its key strategic documents with their underlying assumptions.



GOAL 1: ELIMINATE POVERTY

- As one of the largest employers in the region, LW Bogdanka SA contributes to the elimination of poverty by creating stable jobs for over 5,000 people.
- The Company offers a salary that is much higher than the average amount of earnings in the Lublin region, as well as a number of additional financial benefits, such as the fourteenth salary, jubilee awards, bonus for using one's annual leave in a consecutive manner, or allowances for children.
- Through the activities of the Solidary Miners Foundation, LW Bogdanka SA improves the living conditions and health of its employees and their families.



GOAL 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

- Due to the specific nature of work in a mine, the issue of health protection is particularly important for the Company. Bogdanka ensures the presence of properly trained paramedics and a physician, and regularly trains employees in first aid. Tele-cardiographs for self-recording of heart rate measurement are available throughout the mine.
- The use of modern technologies which contribute to the reduction of dust concentrations in the mine through, including, for example, a sprinkler system and the highest quality personal protective equipment, helps Bogdanka eliminate the incidence of occupational diseases among employees (pneumococcosis).
- The Company provides financial support to the District Hospital in Łęczna, which has now one of the best burn treatment centres in Poland.
- Regular blood donation campaigns and bone marrow donor registrations are held, as well as prevention programmes for the local community and employees.



GOAL 4: ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

- Thanks to the donations funds, sponsorship initiatives and close cooperation with secondary and vocational schools as well as technical universities, LW Bogdanka SA provides gifted young people from disadvantaged backgrounds with access to education and development.
- Bogdanka's internship programmes, scholarships and apprenticeships enable people starting their professional careers to acquire expert knowledge and appropriate skills, including technical and professional skills.
- The Company offers its employees development opportunities through a training system (including the Foreman Academy and the Mining Leaders Academy) to improve their competences and skills.
- In addition, the Company cooperates with the University of the Third Age to promote lifelong learning.



GOAL 8: PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

- The Company, one of the largest enterprises in the Lublin region, offers stable employment and jobs for thousands of inhabitants, thus contributing to the economic development of the region and improving the living conditions – not only of its employees and their families, but also of the local community.
- LW Bogdanka SA uses a number of suppliers, which contributes to increasing entrepreneurship in the region.
- A balanced approach to achieving the Company's business goals as well as the use of modern technological solutions in the mine minimise the negative impact on the environment.



GOAL 12: ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

- The Company has undertaken actions aimed at more efficient use of energy and water. To achieve this, we have, for example, built the Water Treatment Plant. One of the Company's strategic goals is to ensure that as much of the water used in the mine as possible comes from the Water Treatment Plant.
- Sustainable production is also about implementing circular economy solutions. Not only do they lead to an increase in operating profit by reducing the consumption of raw materials and other materials, but also reduce the scale of negative impact on the environment and pollution, which has a direct influence on the quality of life.
- Other important activities include constant monitoring of the impact of the Company's operations on the environment.



GOAL 17: STRENGTHEN THE MEANS OF IMPLEMENTATION AND REINVIGORATE GLOBAL PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT

- By building common value and engaging in the implementation of sustainable development goals, LW Bogdanka SA engages in and promotes even wider involvement in cross-sector partnerships, both with international institutions and organisations, government administration bodies and national entities, as well as local governments and non-governmental organisations from the Lublin Province.

4.3. STABILITY AND EFFICIENCY

For LW Bogdanka SA 2019 was a period of record performance:



9.5 million tonnes OF COMMERCIAL COAL EXTRACTED
9.4 million tonnes SOLD

Higher extraction combined with an increase in our contract prices as well as a better yield (64.1% in 2019 compared to 60.5% a year before) translated into very good financial results.



REVENUE: PLN 2.2 billion (+22.8%)
EBITDA: PLN 767.6 million (+63.6%)
NET PROFIT: PLN 308.7 million (+473.9%)

LW Bogdanka SA retains a strong market position:

- Share in the market of thermal coal sales: 20.8%
- Share in the market of thermal coal sales to commercial power plants: 26.8%

DIVIDEND POLICY OF LW BOGDANKA SA

In the medium and long run, the Company wants to remain a dividend-paying company, and the Management Board of LW Bogdanka SA intends to ask the General Shareholders Meeting for approval of dividends up to 50% of the net profits shown in the Company's separate financial statements, prepared in accordance with the International Financial Reporting Standards as endorsed by the EU.

In the light of rapid changes in both Polish and global coal markets, it is a priority for the Management Board to ensure financial and liquidity security for the Company. Therefore, the dividends recom-

mended each time by the Management Board will depend on:

- current market situation
- generated operating cash flows
- planned capital expenditures and investments
- projected debt of the Company.

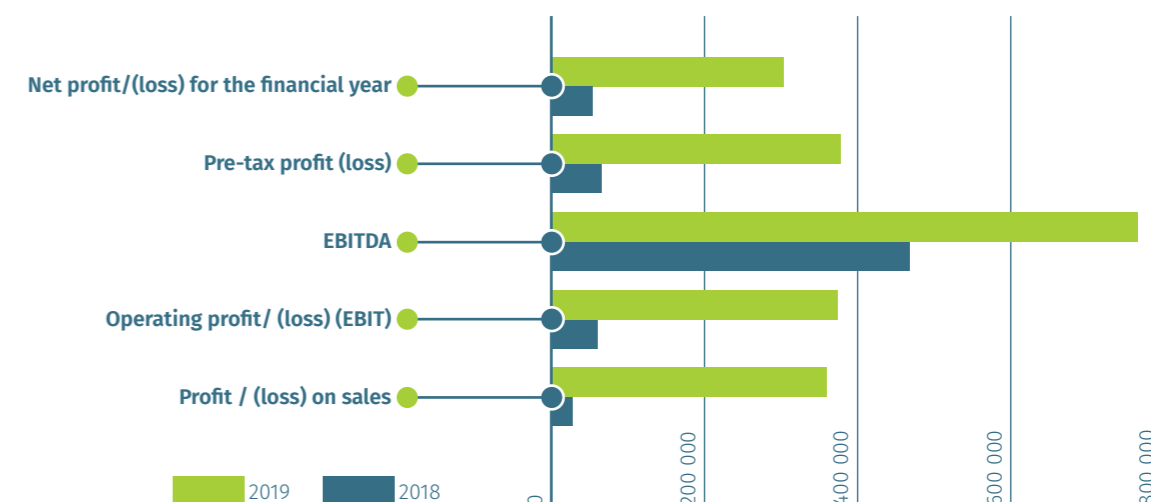
The above dividend payment policy will be reviewed periodically, and future dividend payments will be made in accordance with the decisions of the General Shareholders Meeting.

Table 18: Dividend paid out of profit for 2017-2019

	Dividend payment year		
	2017	2018	2019
Net profit (separate) for the previous year [PLN million]	175.9	673.3	51.6
Total dividend [PLN million]	34	-	25.5
Dividend per share [PLN]	1	-	0.75
Earnings/loss per share [PLN]	5.2	19.8	1.5
Dividend payment rate	19.3%	-	49.4%
Dividend rate	1.5%	-	2.1%

Table 19: Financial highlights of the LW Bogdanka Group

[PLN '000]	2018	2019	Change
Revenue	1,756,671	2,157,861	22.8%
Costs of products, goods and materials sold, selling costs and administrative expenses	1,728,459	1,799,446	4.1%
Profit/(loss) on sales	28,212	358,415	1,170.4%
Gross sales margin	1.6%	16.6%	15,p.p
Other income	34,621	5,267	-84.8%
Other costs	1,118	1,212	8.4%
Net operating profit/(loss)	61,715	362,470	487.3%
Other profits/(losses) - net	312	12,752	3,987.2%
Net operating profit/(loss) (EBIT)	62,027	375,222	504.9%
EBIT margin	3.5%	17.4%	13.9,p.p
EBITDA	469,191	767,592	63.6%
EBITDA margin	26.7%	35.6%	8.9,p.p
Finance income	14,542	14,733	1.3%
Finance costs	11,649	11,379	-2.3%
Profit/(loss) before taxation	64,920	378,576	483.1%
Pre-tax profit margin	3.7%	17.5%	13.8,p.p
Income tax	11,124	69,830	527.7%
Net profit/(loss)	53,796	308,746	473.9%
Net sales margin	3.1%	14.3%	11.2 p.p



5

TRANSPARENTLY AND RESPONSIBLY MANAGED COMPANY



LW Bogdanka SA belongs to the Enea Group and makes up its Mining Division, which is a vital link of the Development Strategy of the Enea Group

until 2030. Bogdanka ensures appropriate volume of thermal coal for power and CHP plants from the Power Generation Area of the Enea Group.

5.1. RESPONSIBLE MANAGEMENT

In order to maintain a strong and stable position in the industry, LW Bogdanka SA continues to improve the way the organisation operates, starting with a responsible approach to management, which is based on building trust and lasting relationships with employees and creating safe and stable jobs by responding to the needs and requirements of customers and the local community, especially in the context of environmental protection and development of the Lublin region.

FORM OF OWNERSHIP

[GRI 102-5]

LW Bogdanka SA is a private company, whose dominant and strategic shareholder has since 2015 been the Enea Group, with a majority stake of 66%. Other shareholders of the Company are mainly financial investors, i.e. pension and investment funds.

The Company's shareholding structure as at 25 March 2020



* Enea S.A. holds 64.6% of votes, and jointly with its subsidiary, Enea Wytwarzanie, it holds 66.0% of votes

[GRI 102-18]

The Management Board of LW Bogdanka SA runs the Company's affairs, manages its assets and represents the Company outside with respect to third parties and before or out of court. Individual mem-

bers of the Management Board manage areas of the Company's operations entrusted to them, and their work is coordinated by the President of the Management Board.

COMPOSITION OF THE MANAGEMENT BOARD OF LW BOGDANKA SA AS AT REPORT PUBLICATION DATE



He has held this position since 21 March 2018. He overlooks the Management Board, supervises the overall activities of the LW Bogdanka Group, and is also responsible for areas related to innovation, investor relations, audit, and internal control.

Artur Wasil
President of the Management Board



He has been with LW Bogdanka SA since 2000, while in his current position – since October 2018. He manages the areas of finance, controlling, purchases, payroll and insurance, and also supervises the subsidiaries.

Artur Wasilewski
Vice-President of the Management Board,
Economic and Financial Affairs



He has been with LW Bogdanka SA since 1985. From 1 April 2016, he has been in charge of all employee matters, i.e. HR, OHS, cooperation with trade unions, relations with the local community, including CSR, ethics, and defence capability.

Adam Partyka
Vice-President of the Management Board,
Employee and Social Affairs



He has held the position since 15 October 2018. He manages areas related to strategy and development, sales, rail transport, and investments. He also supervises the licencing process.

Dariusz Dumkiewicz
Vice-President of the Management Board,
Development

On 18 January 2019 Mr Marcin Kapkowski filed a resignation from his function as Vice-President of the Management Board for Procurement and Investments, effective from 31 January 2019.

Detailed profiles of the President and Members of the Management Board can be found on the corporate website:
<https://www.lw.com.pl/pl,2,s15,zarząd.html>

COMPOSITION OF THE SUPERVISORY BOARD OF LW BOGDANKA SA AS AT REPORT PUBLICATION DATE

Izabela Antczak – Bogajczyk

Member of the Supervisory Board

Dariusz Batyra

Member of the Supervisory Board

Anna Chudek

Member of the Supervisory Board

Szymon Jankowski

Member of the Supervisory Board

Bartosz Rożnawski

Member of the Supervisory Board

Michał Stopyra

Member of the Supervisory Board

COMPOSITION OF THE SUPERVISORY BOARD OF LW BOGDANKA SA UNTIL 29 JULY 2020

Mirostaw Kowalik

Chairman of the Supervisory Board

Ewa Nowaczyk

Member of the Supervisory Board

Izabela Antczak-Bogajczyk

Member of the Supervisory Board
(since 25 July 2019)*

Mariusz Romańczuk

Member of the Supervisory Board

Kamil Patyka

Member of the Supervisory Board

Michał Stopyra

Member of the Audit Committee (independent)

Anna Spoz

Chairperson of the Audit Committee (independent)

Szymon Jankowski

Secretary of the Supervisory Board for Best Market Practices

* Replacing Mr Przemysław Krasadomski dismissed by an Extraordinary General Shareholders Meeting of LW Bogdanka SA.

Detailed profiles of members of the Supervisory Board are available on the corporate website at:
https://www.lw.com.pl/pl,2,s16,rada_nadzorcza.html

The operating procedure of the Supervisory Board, including the procedure for convening Supervisory Board meetings, shall be defined in detail in the Rules of Procedure of the Supervisory Board adopted by the Supervisory Board. The activity of the Board shall be based on the principles of good practice of companies listed at the Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie S.A.). The Board may appoint standing and temporary committees from among its members. The Audit Committee is the standing committee at the Supervisory Board.

MANAGEMENT SYSTEM AND RISK MANAGEMENT

The Integrated Management System policy was developed together with representatives of employees and top management of LW Bogdanka SA. Any employee, customer or other interested party can read it.

The LW Bogdanka SA Integrated Management System includes the Quality Management System, the Environment Management System, and the Occupational Health and Safety Management System, and is based on the following standards: ISO 9001:2015, ISO 14001:2015, PN-N-18001:2004. The latest recertification audit in May 2018 confirmed that the management system in place at LW Bogdanka SA operates efficiently, allows it to achieve the set objectives, and ensures completion of the pursued policy and the ability to comply with legal, regulatory and contractual requirements.

Full text of the Integrated Management System Policy can be found at:

https://www.lw.com.pl/pl,2,s423,polityka_zsz.html

RISK MANAGEMENT

[GRI 102-11]

LW Bogdanka SA has adopted the Integrated Enterprise Risk Management System of the Enea Group³², the key objective of which is to ensure effective and efficient control as well as identification and elimination of potential risks, to secure the mine's operations, and to ensure effectiveness of decisions related to the maximisation of profit while maintaining an acceptable level of risk.

Principal rules, procedures and documents serving as a basis for the risk management system:

- Corporate Risk Management Policy at the Enea Group
- Corporate Risk Management Methodology at the ENEA Group - ERM procedures
- the LW Bogdanka Group Risk Register
- the LW Bogdanka Group Risk Map
- list of key and material risks of the LW Bogdanka Group
- programs of key risk mitigating measures at the Parent.

The risk management system involves the participation of the Supervisory Board, the Management Board, the Audit Committee, managers of organisational units (risk owners), and the Risk Management Department.

The risk management system is constantly assessed and updated based on current experiences and results with a view of even better adjusting it to the Company's specific nature and needs as well as the ever-changing environment. Business risks considered material and affecting financial profit/loss, including social and environmental risks, are disclosed every year in publicly available Directors' Reports on Operations that indicate the risk levels. The Reports contain exhaustive information about business consequences of potential regulations on reduction of greenhouse gas emissions which have an indirect impact on coal mining.

³² As part of the integration process within the Enea Group, LW Bogdanka SA, in line with the relevant Group regulations included in the applicable "Secondary Documents", has implemented since January 2018 the ERM system.



IDENTIFIED RISKS AT LW BOGDANKA SA

Main risks to the Company by category

BUSINESS ENVIRONMENT AND MARKET

- Risk associated with the social and economic situation in Poland and the world
- Risk associated with the economic policy of the State in relation to the hard coal mining sector
- Risk associated with the levels of prices for raw materials for power production in Poland and the world
- Risk associated with the specific nature of mining sector operations and the possibility of unforeseen events
- Risk of restrictive EU climate policy also with respect to the CO₂ emissions
- Epidemic risks
- Risk of periodic reduction in volumes required by key customers

OPERATIONS

- Risk associated with the launch of extraction of new deposits at LW Bogdanka SA
- Technical and technological risk
- Risk associated with high costs of technologies applied by LW Bogdanka SA
- Risk of IT systems malfunctioning
- Risk of difficulties in supplies to LW Bogdanka SA' customers performed through rail transport
- Customer insolvency risk
- Risk associated with the strong position of the trade unions
- Key supplier risk
- Risk of price fixing by the suppliers

LEGAL AND FINANCIAL

- Insurance risk

ENVIRONMENTAL PROTECTION

- Risk associated with reclamation and mining damage
- Risk associated with tightening of standards and regulations of law with respect to environmental protection and the obligation to obtain permits for the economic use of the environment
- Risk associated with management of waste generated after extension of the mining area
- Investment risks associated with protected areas

LEGAL

- Risk of change to tax laws
- Risk of real property tax on mining excavations of LW Bogdanka SA
- Risk of a change in the law and its interpretation and application
- Risk of violating the stock exchange disclosure requirements

More information about risk management at LW Bogdanka SA can be found in the Consolidated Annual Report of the LW Bogdanka Group for 2019, which is available on the corporate website at: http://ri.lw.com.pl/szczegoly-raportu-PER?irr_id=2252

5.2. ETHICS AND ANTI-CORRUPTION MEASURES

[GRI 102-16, GRI 103-1, GRI 103-2, GRI 103-3, aspect: Anti-corruption]

ETHICS AS COMPONENT OF THE ORGANISATIONAL CULTURE

LW Bogdanka SA has well-developed organisational culture, an effective ethical programme, and clear rules aimed at counteracting corruption which apply to all employees, regardless of their position, as well as to the Company's suppliers.

The Code of Ethics was implemented at LW Bogdanka SA in 2011. From 2018, it has been in place in all companies of the LW Bogdanka Group. From 2015, the following have also been in place at LW Bogdanka SA:

- Supplier Code of Conduct of LW Bogdanka SA
- Guidelines for Filing and Handling Complaints Related to Non-compliance with the Rules of the Company's Code of Ethics

The Code of Ethics sets out ethical values and principles which should be followed in the organisation, and illustrates, in a clear and readable manner, any potential undesirable situations. The Code addresses matters related to non-competition, conflict of interest, as well as anti-bribery and anti-corruption measures.

Every new employee gets to know the Code of Ethics of LW Bogdanka SA during induction training, receives a copy of the Code, and fills in a Conflict of Interest Report, which is then provided to the Director of the Management Office. Building and maintaining a solid ethical culture in the organisation is also helped by regular communication to employees on this topic, using internal communication tools, such as plasma screens, the corporate magazine Bogdanka, and the Intranet.

The person responsible for monitoring and managing Code of Ethics compliance, including anti-corruption measures, is the **Ethics Representative (Mr Bronisław Jaworski)**, who reports directly to the Company's Management Board, i.e. Vice-President of the Management Board for Employee and Social Affairs. Each month the Ethics Representative

provides a report on problems which had occurred and how they have been resolved. He is supported by the Audit and Internal Control Department. The Ethics Representative is appointed by the Management Board from among the crew.

[GRI-102-17]

Employees of LW Bogdanka SA are provided with the possibility of reporting any potential issues or unethical behaviours via the following tools:

- Direct contact with the Ethics Representative
- By telephone
- By email at etyka_lwb@lw.com.pl
- Use anonymous correspondence boxes located in the three mining areas: Bogdanka, Nadrybie, Stefanów

[GRI 205-3]

In 2019, no instances of abuse were reported in the LW Bogdanka Group.

[GRI 205-1]

In 2019, the Audit and Internal Control Department analysed issues related to fraud and corruption within the following processes:

- Billing for tasks performed by external companies
- Investment in the construction of the Water Treatment Plant at Łęczyńska Energetyka Sp. z o.o.
- Removing damage caused by mining operations
- Reviewing the performance of concluded contracts
- Implementing certain projects at LWB
- The audits and inspections revealed no corruption incidents in the reporting period.

Table 21: Number of issues reported to the Ethics Representative and what they concerned

Total number of requests for assistance	10
Number of requests in each category	10 - Issues concerning conflict of interest only
Percentage of requests resolved in the reporting period	100%
Total number of reports	39
Number of reports in each category	19 - Communication between superior and subordinate 4 - Relations between employees in a team 7 - Equal treatment 3 - Organisation of work 4 - Use of bad language 2 - Other
Percentage of reports resolved in the reporting period:	
Resolved	100%
Dismissed as groundless	0

[GRI 205-2]

100%

- members of the governing bodies of the LW Bogdanka Group
 - suppliers of the LW Bogdanka Group
- have been advised on the organisation's anti-corruption policies and procedures in the reporting period

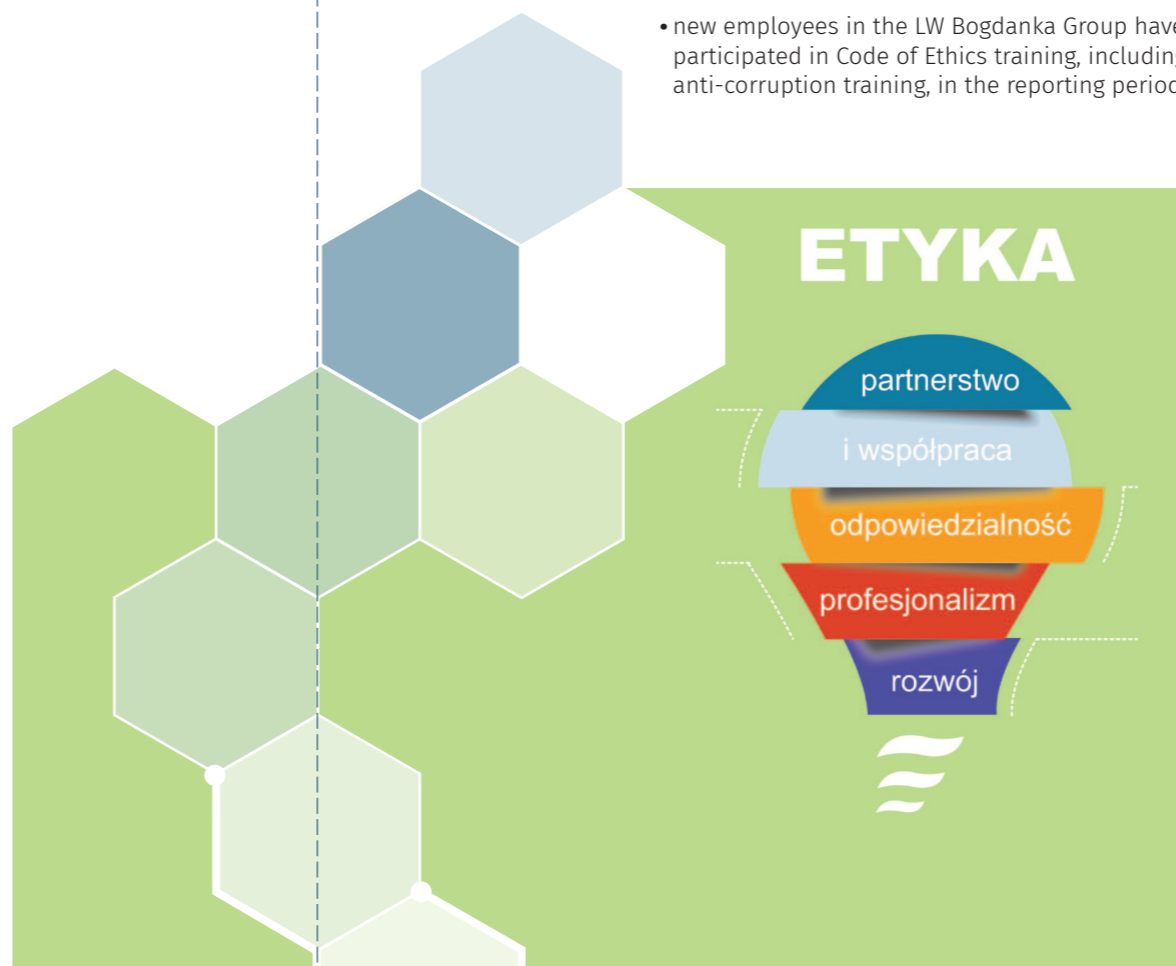
100%

- new employees in the LW Bogdanka Group have participated in Code of Ethics training, including anti-corruption training, in the reporting period



The Code of Ethics we have in place is not only a collection of rules which tell us what to do. Due to the ongoing dialogue with employees and continuous education in the field of ethical conduct, I can confidently say that the principles set out in the Code are applied and have a real impact on the quality of communication, sensitivity, reliability, responsibility, honesty and work culture in the entire LW Bogdanka Group. Everyone in the organisation – starting with the Company's Management Board, through office workers at all levels, to those working underground – identify themselves and act in accordance with these ethical principles and values. We react to any unethical behavior or incidents, such as abuse, corruption or conflicts of interest. Our organisational culture and work environment, which is based on ethical values such as honesty, openness, mutual respect, and dignity, help Bogdanka's employees to be engaged, identify with the Company, act in accordance with its mission and values, and want to stay with the mine in the future.

Bronisław Jaworski, PhD, Eng.
Ethics Representative



6

ABOUT THE REPORT



Creating and publishing a Report containing non-financial and financial information has been a permanent feature of LW Bogdanka SA's operations for almost a decade. This tool provides an opportunity for regular, transparent and reliable communication primarily with the Company's external stakeholders, i.e. its shareholders, institutions and authorities, local community, local government, and the media.

[GRI 102-54]

This publication is the **seventh Report** prepared by the LW Bogdanka Group based on **Global Reporting Initiative (GRI) Standards – Core**, including the mining industry supplement, and also the **sixth integrated Report** prepared in accordance with IIRC guidelines: the International **Integrated Reporting Framework**.

[GRI 102-45]

The Report covers the entire LW Bogdanka Group, i.e. the parent company, LW Bogdanka SA, and its subsidiaries:

- Łęczyńską Energetykę Sp. z o.o.
- RG Bogdanka Sp. z o.o.
- EkoTrans Sp. z o.o.
- MR Bogdanka Sp. z o.o.

[GRI 102-50]

The report covers calendar year 2019, i.e. the period from 1 January to 31 December 2019, and presents, in accordance with the reporting rules, material events which took place after the balance-sheet date³³, but before the preparation of the final contents of this Report, i.e. before 30 June 2020.

[GRI 102-49, GRI 102-51]

The 2019 Report presents key data on business activities. We have thoroughly analysed the role of Bogdanka in the Lublin region. Equally much attention was paid to employee, environmental and social issues. They have been presented in such a way as to facilitate their comparability with previous years and verification. Compared to the 2018 Integrated Report, which was published on 25 July 2019, this publication does not contain any significant changes to the scope, coverage or measurement methods used.

[GRI 102-56]

The non-financial part of the Report was not subject to any additional external verification. The financial statements referred to in this Report have been audited.³⁴

REPORT DRAFTING PROCESS

[GRI 102-46, GRI 102-47]

The contents of previous Integrated Reports of LW Bogdanka SA and this year's Report were defined based on the results of 2013 and 2018 workshops, which were held as part of our work on the 2018–2021 CSR strategy. Based on the areas of social responsibility described in the PN-ISO 26000 standard, the first workshop specified those areas which are material from the perspective of our business activities. New areas relevant to the stakeholders were defined in March 2018 during our dialogue sessions, prepared and conducted in accordance with the AA 1000SES standard, referring to the United Nations 17 Sustainable Development Goals the (SDGs).

The 2019 Report is based on the 2018 stakeholder engagement process. Its results have been verified and updated by the project team so that the document addresses the most important issues for the LW Bogdanka Group and its stakeholders in 2019.

The key topics discussed in the Report include:

- Economic issues
 - Impact of the LW Bogdanka Group on the socio-economic development of the region
- Environmental issues
 - Impact on biodiversity
 - Water, effluents and waste
 - Energy and emissions
- Social issues
 - Workforce
 - Employee health and safety
 - Anti-corruption

For environmental reasons, the 2019 Integrated Report has been published in electronic version only.

[GRI 102-53]

Contact person for all matters concerning the LW Bogdanka Group's 2019 Integrated Report:

Agata Koszarna

Head of Social Responsibility and Sustainable Development Department

Lubelski Węgiel Bogdanka SA

tel.: 81 462 56 58, akoszarna@lw.com.pl

³³ After the balance-sheet date, to the best of the Group's knowledge, no material event occurred, which could affect its financial result as at 31 December 2019, and were not disclosed in the consolidated financial statements.

³⁴ by PricewaterhouseCoopers Sp. z o.o.

[GRI 102-55]

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103-3	Evaluation of the management approach	62
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	54
304-2	Significant impacts of activities, products, and services on biodiversity	54
304-3	Habitats protected or restored	54
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	55
MM1	Land (owned or leased and managed for production or mining purposes) destroyed or reclaimed	55
MM2	Number and percentage of sites identified as requiring biodiversity management plans according to the defined criteria, and number (percentage) of those sites where such plans exist	No such plants
307-1	Non-compliance with environmental laws and regulations	53
Employment and relations with employees		
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MM4	Number of strikes and site lockouts in excess of one week, by country	0
Health and safety		
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403-1	Occupational health and safety management system	66
403-2	Hazard identification, risk assessment, and incident investigation	66
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403-5	Worker training on occupational health and safety	70
403-6	Promotion of worker health	70
403-7	Prevention and mitigation of occupational health and safety impacts	67
403-8	Workers covered by an occupational health and safety management system	66
403-9	Work-related injuries	68
403-10	Work-related ill health	72
Development and diversity, prevention of discrimination		
103-1	Explanation of the material topic and its boundary	15
103-2	The management approach and its components	15
103-3	Evaluation of the management approach	15
404-1	Average hours of training per year per employee, by employment structure	22
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405-1	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	18
406-1	Total number of incidents of discrimination	15



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