



UPDATE OF THE DEVELOPMENT STRATEGY OF LW BOGDANKA S.A.

until 2030 (outlook to 2035)

April 2025

Assumptions for the update of the strategy

Situation on the hard coal market



- In 2024, hard coal mining decreased and mines which provided the foundation of Polish industry quite recently are reducing their production and some are closed or gradually shut down
- A further (larger than forecast previously) decline in production is expected in 2025.
- Due to the planned shutdown of coal-fired power plants, demand in 2030 will reach approximately 30 million tonnes
- Coal prices are expected to stabilise in the long term at a level of approximately PLN 400/tonne for steam coal



- LW Bogdanka will need to maintain its competitive advantage in the face of declining coal demand
- The overriding goal for the future of the mine is to keep JKWn below the “reference price”, which will enable the company to compete with subsidised Silesian coal and imported coal.

EU and national regulations shaping the future of the market



- A key element of the EU regulatory environment is the Fit for 55 package, which assumes emission reduction by 55% by 2030, while its directives will have a negative impact on coal demand and prices
- The national regulations are based on the Social Agreement defining the mine closure schedule and the support system as well as on the National Plan for Energy and Climate (NPEC),
- New opportunities for investment support are also emerging at EU and national level, e.g. the Energy Transition Fund.



- LW Bogdanka must compete with subsidised domestic coal
- LW Bogdanka must continuously monitor tightening EU regulations
- LW Bogdanka must search for new markets

Trends shaping the future of the coal market



- Changes in the coal market are shaped primarily by the green transition trend
- Major coal consumers in the market declare CO2 reduction targets, as well as focus their efforts on expanding RES-based assets
- The market of fine coal in Poland will continue to be constrained by the development of nuclear power and RES, the impact of EU regulations aimed at reducing CO2, SO2 NOx and dust emissions, improved energy efficiency and increasing electricity imports to Poland.



- The opportunity for LW Bogdanka is to fill the gap left by the rapidly shrinking supply from Silesian mines
- LW Bogdanka should take steps to reduce its carbon footprint
- LW Bogdanka should continuously focus on the efficiency supported by the latest technologies

The developments on the European coal market and the changes taking place in the energy sector force LW Bogdanka to update its strategy and focus on local initiatives to secure the future of the mine and its employees

OVERARCHING OBJECTIVE

Maintaining a high market position through efficiency in the scope of steam coal production to achieve transformation ambitions

VISION



Bogdanka as a diversified enterprise using the potential of mining to build a sustainable industrial and energy business, based on innovation, diversity of activity and care for the natural environment and the local community

MISSION



Efficient production of steam coal to secure the needs of existing customers, ensure sales growth on the domestic and foreign markets and build the potential to diversify the business

The acceleration of energy transition resulting from the increasing installed capacity of RES and the rapidly shrinking supply of coal on the domestic market exposes the Company to new challenges

in the short and long term

challenges in the short term by 2030

Challenge

Ensuring that the company has a stable position when competing with subsidised and imported coal and in the perspective of a widespread withdrawal from coal.

Reversal

Keeping JKWn below the reference price and attracting new customers in the country and abroad

challenges in the long term by 2035

Challenge

Business transformation to maintain profitability and jobs

Reversal

Investment in low-carbon technologies and development of non-coal activities

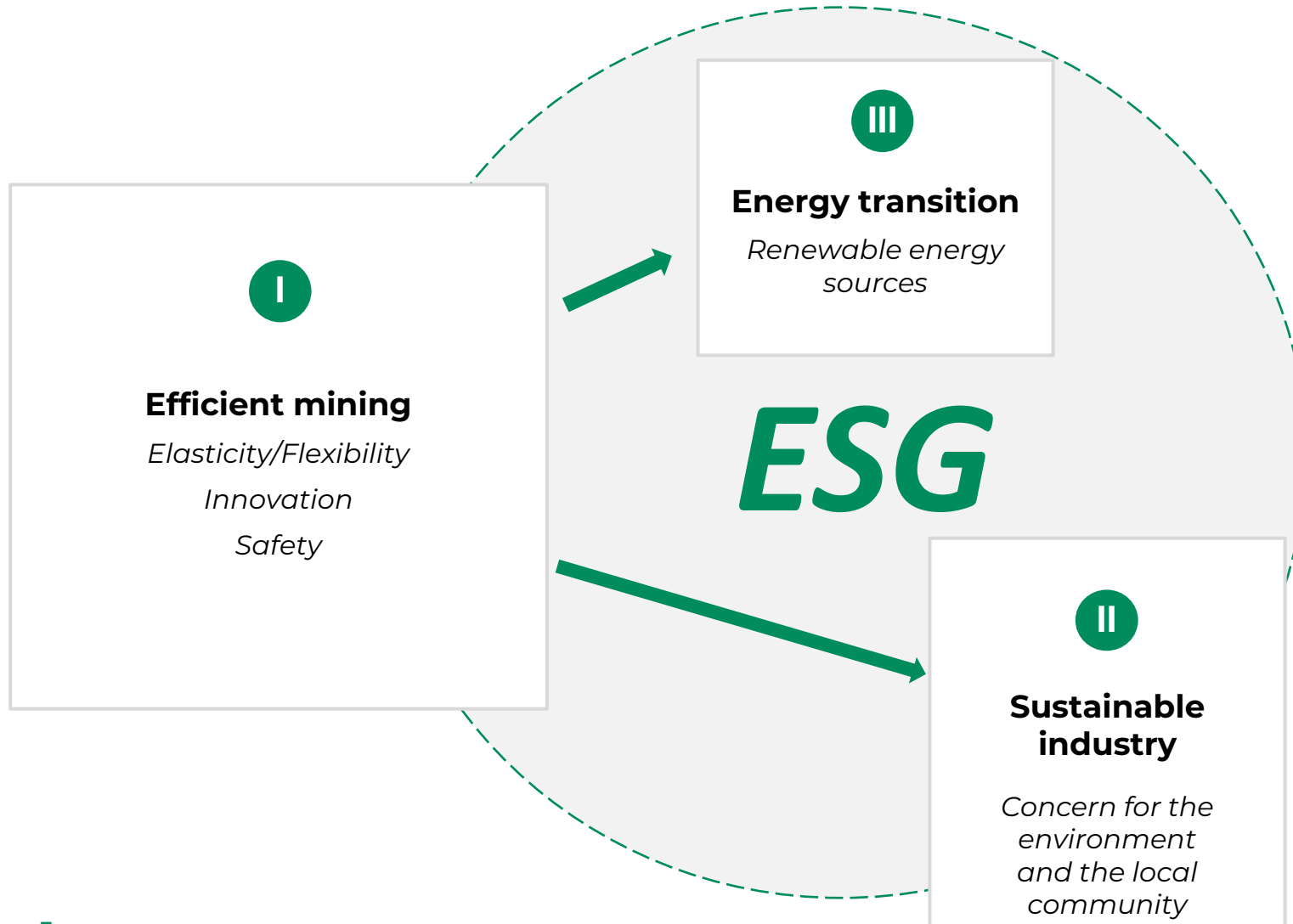
The company is currently operating in unfavourable market conditions; in order to maintain its position as the efficiency leader and provide resources for transformation, it intends to further optimise its operations by:

- Review and update of the the existing Strategy in the context of changes in the market environment and funding opportunities for ambitious development plans
- Seeking new customers to replace contractors declaring a gradual withdrawal from coal
- Building the Company's flexibility through scheduling changes and expansion of the coal storage facility
- Cost optimisation in production planning and scheduling
- Introducing further automation to increase efficiency and employee safety.

LW Bogdanka is searching for opportunities to diversify its revenues, and implements the most promising initiatives:

- Development of industrial and service activities based on the commercialisation of specific activities e.g. rail transport and new industrial projects.
- Implementation of industrial projects, including "dual use" and CE in collaboration with external partners;
- Exploring the possibilities to use mining competence besides coal mining and the possibility of extracting raw materials other than coal from the current infrastructure
- Development of in-house energy projects for zero and low emission generation
- Support for the construction of the economic zone in the immediate vicinity of LWB and the development of projects engaging mining communities

LWB's strategy is based on its core business, i.e. steam coal production and two transformation directions based on sustainability, innovation and responsibility towards the environment and local communities



Strategic objectives:

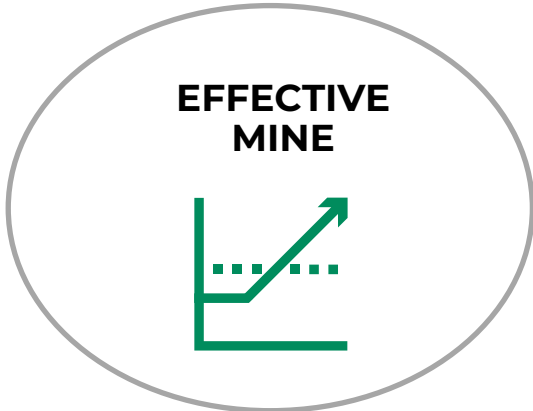
- Continuing the Group's **efficient** and profitable operations based **on the production and sales of hard coal** will provide the resources necessary for the transformation in the desired directions in line with sustainable development goals
- **Diversification of activity** towards the Sustainable Industry and Energy Transition.
- **Optimising mining operations to provide for its maximum consistence with the ESG objectives in a sustainable manner to provide the means and resources to achieve the transition objectives set for the Group**

The basis for the implementation of the Strategy is the efficient production and sale of hard coal, to be continued until we have achieved our transition objectives, providing the opportunity to develop new lines of business



Maintaining the Company's production capacity at an optimum level (in the long term)

- Building the Company's flexibility through scheduling changes and expansion of the coal storage facility
- Cost optimisation in production planning and scheduling
- Maintaining the position of efficiency leader
- Securing the Ludwin deposit concession until 2029



Implementation of improvements developed as part of the strategic initiatives

- Improving cost efficiency within mining operations, among others, in terms of:
 - a) Energy management
 - b) Production technology
 - c) Material management and storage
 - d) Stopover management



Further research and development activities

- Use of state-of-the-art solutions in the area of production processes, administration and the environment
- Implementation of innovations improving safety and ergonomics
- Plant management based on sensors generating real-time data to support decision-making



Active expansion of the market for the planned coal production

- Expanding the domestic customer portfolio for the coal produced by the Company in the face of shrinking demand from its main customer
- Active search for foreign customers in the eastern and southern direction
- Increased use of rolling stock

Securing the profitability of LW Bogdanka's core business will enable financing the Group's gradual transition in directions consistent with climate goals



PRODUCTION AND SALE OF STEAM COAL

Key development directions of the Group



Sustainable industry

Development of new directions of revenue diversification in the face of progressing decarbonisation and the successive decline in demand for the Group's main commercial product.

Key initiatives:

- 2.1. Development of rail transport
- 2.2. Thermal treatment facility for medical waste
- 2.3. Development of mining, infrastructural, construction and tunnelling competence (RG Bogdanka and MR Bogdanka)
- 2.4. Support for the "Łęczna" economic zone project

Development ambitions:

- 2.5. "Dual-use" industrial projects
- 2.6 was completed. New raw materials
- 2.7. CE projects (e.g. recycling of photovoltaic panels)
- 2.8. BSL development



Energy transition

Achieve sustainability goals through energy transition based on the expansion of renewable energy sources, efficient use of waste heat, energy storage and alternative fuel production.

Key initiatives:

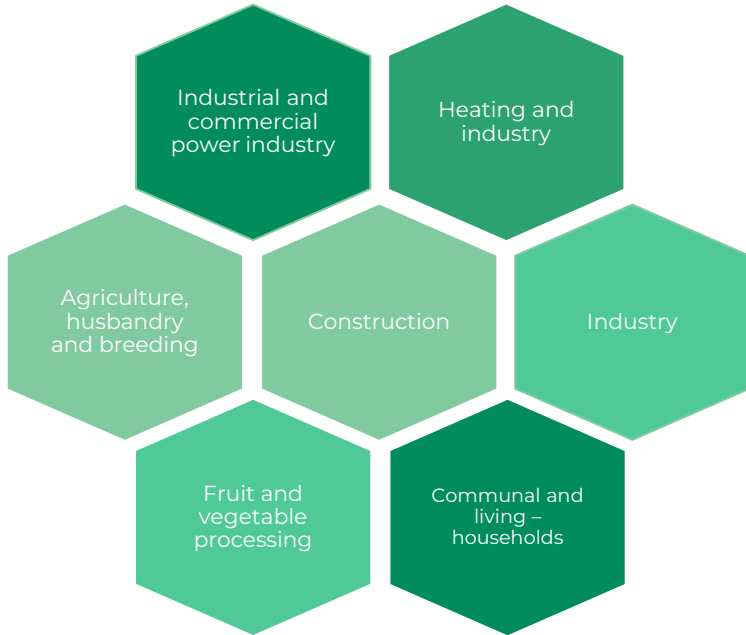
- 3.1. Development of own zero and low emission generation sources
- 3.2. Transition of the heating industry
- 3.3. Installation of a water turbine in the mine shaft

Development ambitions:

- 3.4. Construction of energy storage facilities
- 3.5. Pumped storage power plant in shaft 1.4
- 3.6. Biogas and biomethane projects
- 3.7. R&D projects in the scope of green hydrogen and synthetic fuels

Sales directions

Economic sectors supplied



Coal sales and transport

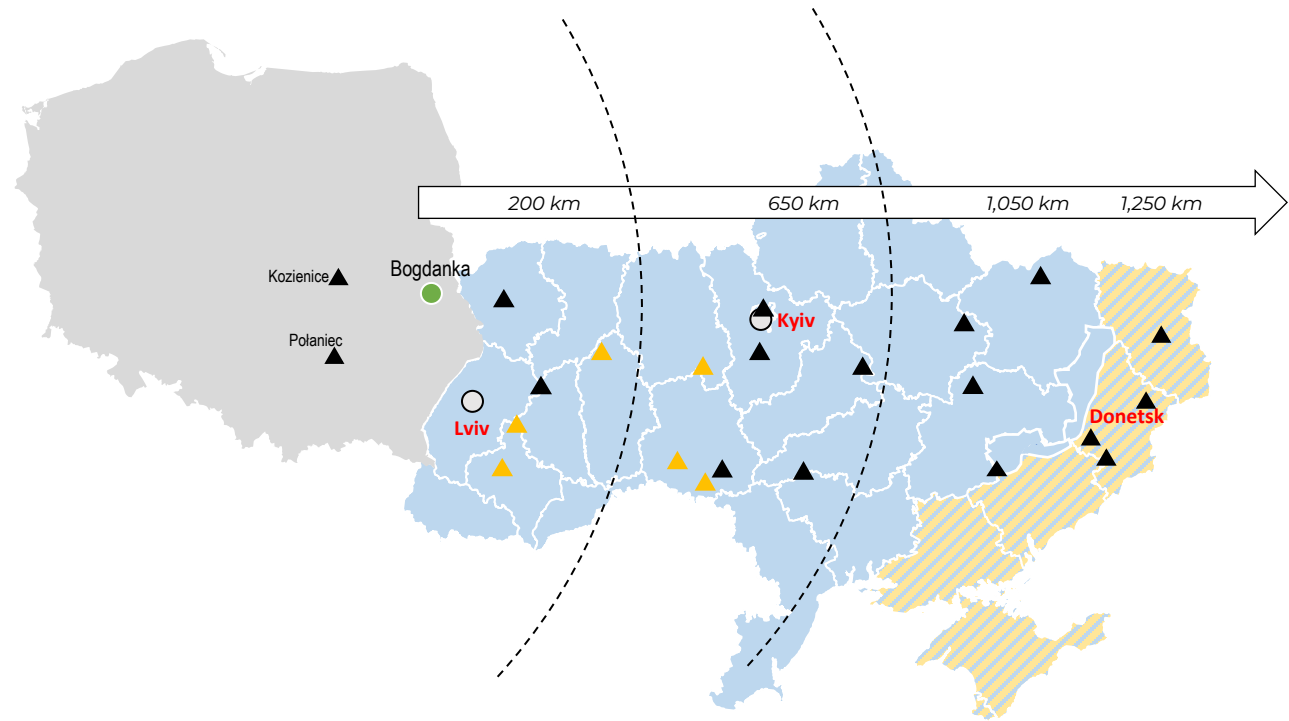


Coal sales agreements with approximately 40 large and medium-sized customers.

Coal sales to approximately 2,000 customers in the smaller business sector and the municipal and living segment .

Potential for own rail transport to customers. More than 9 million tonnes per year on own siding, including 1 million directly to customers under own freight licence.

Potential of coal sales by LWB in the eastern direction

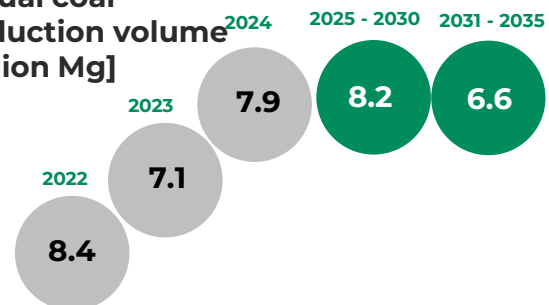


- ▲ Hard coal-fired power plants and combined heat and power plants
- ▲ Industrial power plants and industrial combined heat and power plants

Key measures for the implementation of the Strategy in the 2022-2035 perspective

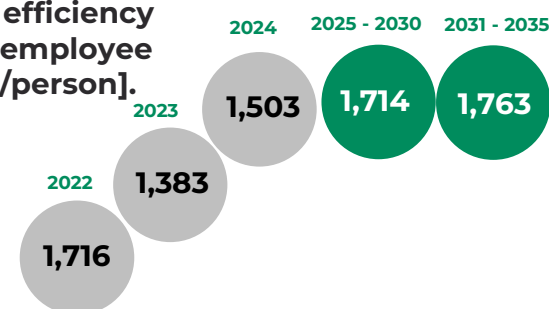
Production

Annual coal production volume [million Mg]



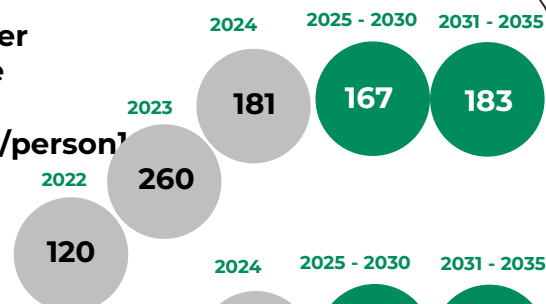
Efficiency of coal production

Net efficiency per employee [Mg/person].

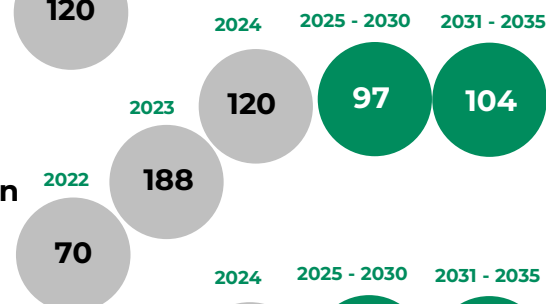


Financial indicators

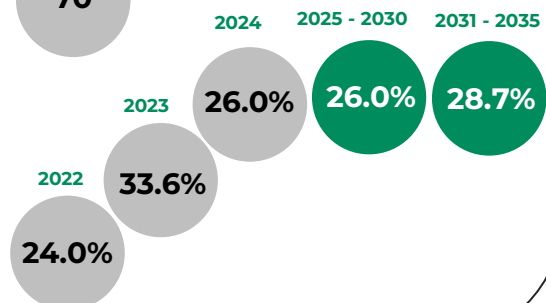
EBITDA per employee [PLN thousand/person]



EBITDA per tonne of net production [PLN/t]

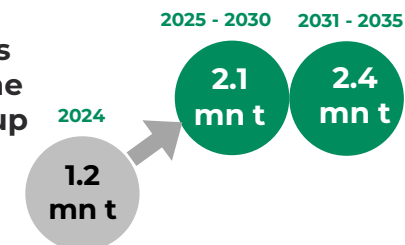


EBITDA margin



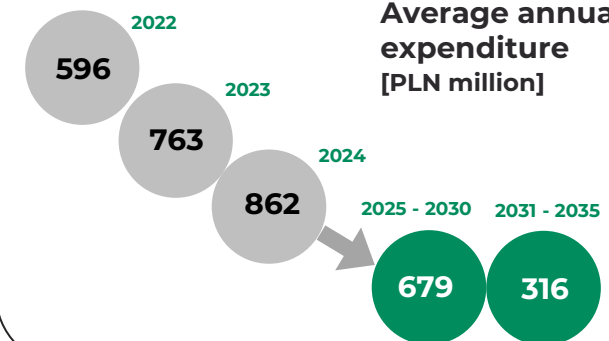
Market

Increase of sales to customers outside the Enea Group



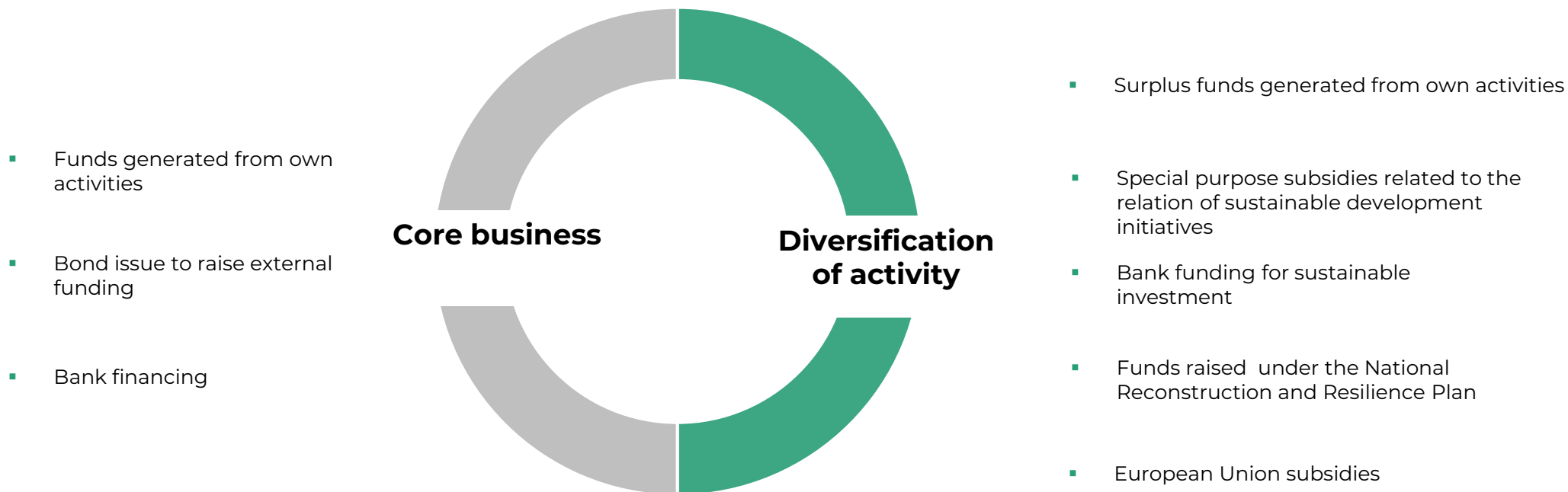
CAPEX

Average annual expenditure [PLN million]



*The indicators presented exclude funds for investment in non-core business initiatives

Strategy funding sources



Depending on the level of implementation of the basic strategic scenario assuming dynamic market expansion and the acquisition of new customers entering to replace the reducing demand from the main customer, **the ratio in terms of individual sources of funding will vary.** **Ensuring the necessary level of financial flows will allow for meeting the transition objectives.** After regular evaluation of financial opportunities, the Group will select the optimum strategic projects from the development directions presented further in the Strategy.

Objectives and initiatives - EFFECTIVE MINING

Purpose: 1 Efficient coal production

Initiative:	Purpose of the initiative:	Implementation period:
1.1 Expansion of the coal storage facility	Expansion of the coal storage yard, including the associated process and ancillary facilities and a middling scale, as well as the installation of a new heaping machine, up to the capacity of approximately 1.0 million tonnes.	2025 - 2029
1.2 Energy management	Reducing energy consumption to 20% <ul style="list-style-type: none">• Optimising energy use: Introducing programmes and technologies to increase energy efficiency.• Reducing energy consumption: Identification and elimination of inefficient processes and equipment.	2025 - 2030
1.3 Production technology	Increasing the OEE (Overall Equipment Effectiveness) indicator to 37%. <ul style="list-style-type: none">• Stage 1 (3 years): Increasing OEE to 31%.• Stage 2 (next 3 years): Increasing OEE to 37%.	2025 - 2030
1.4 Management of materials and storage	Reduction in lead time for delivery of materials to mining divisions of up to 20% Maintaining a stock ratio of $\leq 10\%$ of the company's total expenditure.	2025 - 2030
1.5 Stopover management	Reducing the number of unplanned stopovers of machinery and equipment due to damage or breakdowns to 10% (number of breakdowns vs net production).	2025 - 2030

Objectives and initiatives - SUSTAINABLE INDUSTRY

Purpose: 2 Diversification of activities - industrial development

Initiative:	Purpose of the initiative:	Implementation period:
2.1 Development of rail transport	The aim of development of LW Bogdanka's competence to provide rail transport services is to create a strong and independent entity that can operate effectively on the transport market. The development of this business will also allow the company to diversify its revenue sources and strengthen its position in the competitive transport market. The possibility of creating its own rail carrier as well as building a transport hub on the Ukrainian side that could become a transshipment base for coal from LWB as well as a terminal for transshipment of other goods shipped from Europe to Ukraine.	2025 - 2027
2.2 Thermal treatment facility for medical waste	Creation of a new business area for LW Bogdanka in the scope of disposal of medical waste.	2025 - 2028
2.3 Development of mining, infrastructural, construction and tunnelling competence (RG Bogdanka and MR Bogdanka)	Ensuring the long-term stability and growth of RG Bogdanka and MR Bogdanka by diversifying operations and developing new competence in the areas of mining, infrastructure, construction and tunnelling services.	2025 - 2028
2.4. Support for the "Łączna" economic zone project	Participation in creation of the economic zone in the vicinity of LW Bogdanka to ensure sustainable employment, economic diversification of the region and sustainable socio-economic transformation during operations and after coal mining is phased out.	2025 - 2027

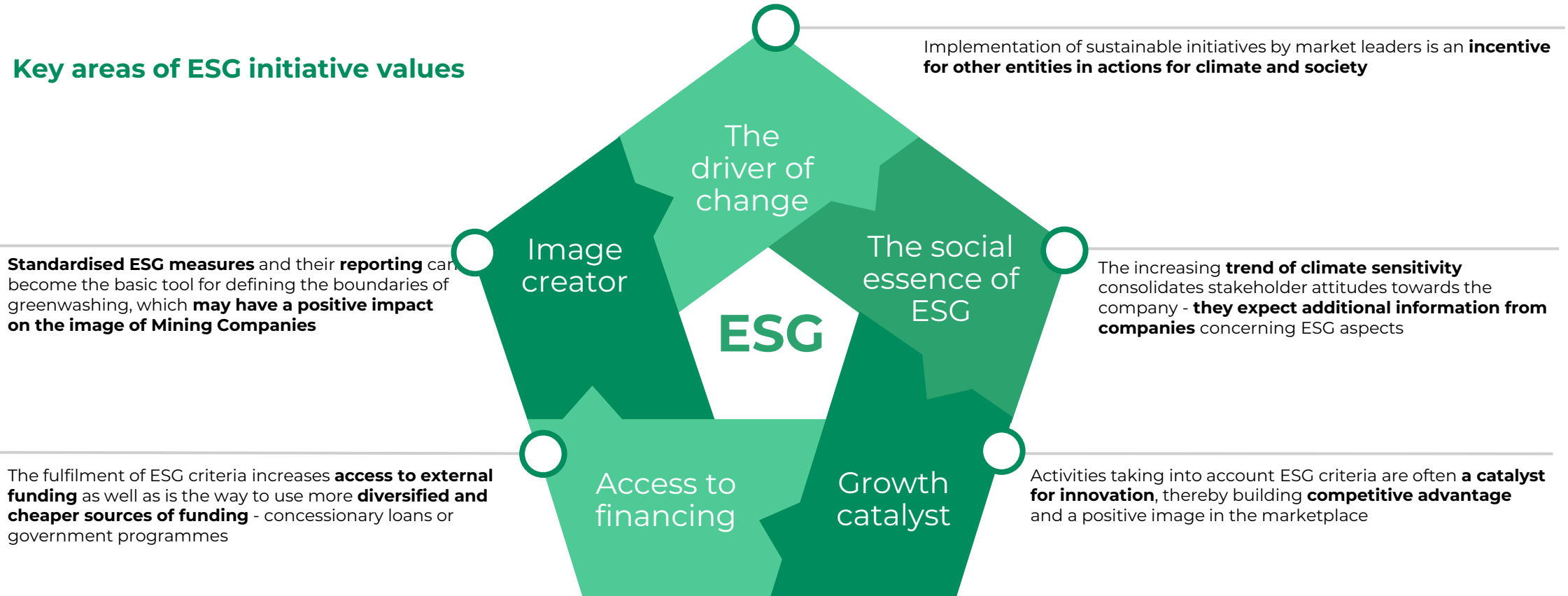
Objectives and initiatives - ENERGY TRANSITION

Purpose: 3 Diversification of activities - development of RES energy sector

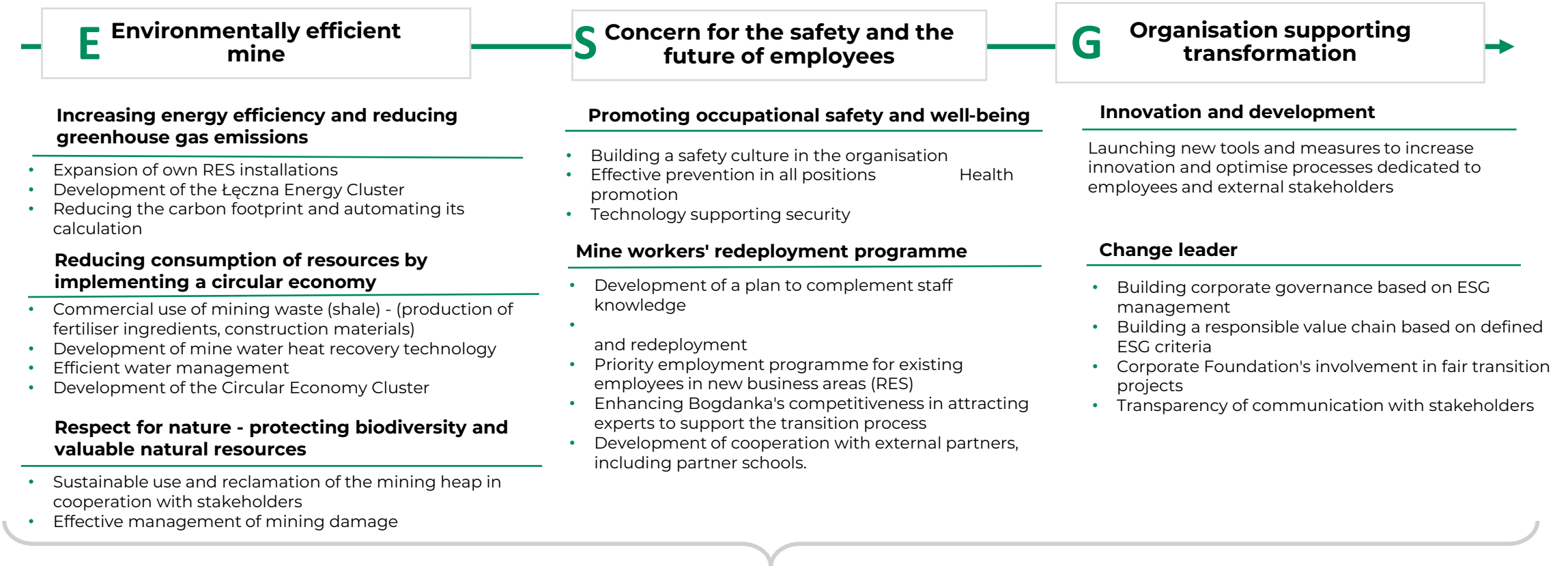
Initiative:	Purpose of the initiative:	Implementation period:
3.1 Development of own zero and low emission generation sources	Diversification of LW Bogdanka's revenues through the sale of electricity generated from RES installations.	2025 - 2030
3.2. Heat transformation (1/2) - recovery of heat from mine water	Construction of a heat recovery facility for mine water - heat production in the RES installation.	2025 - 2028
3.2. District heating transformation (2/2) - development of co-generation engines in Łęczna	Diversification of revenues of "Łęczyńska Energetyka" Spółka z o.o. in Bogdanka. Reducing losses in heat transfer to the City of Łęczna. Reducing gas emissions from heat production.	2025 - 2028
3.3 Installation of the water turbine in the mine shaft	Achieving maximum energy recovery from cooling and fire water discharged into mine workings using the Pelton turbine.	2025 -2027

ESG initiatives play a key and growing role in building corporate value

Key areas of ESG initiative values



Bogdanka wants to be a leader in sustainable transformation that uses the profit generated for transition initiatives, in compliance with ESG



Leader of responsible transition

- Transforming mine operations in a sustainable manner, while minimising negative impact on the environment, local communities and employees.
- Supporting the development of the region based on local identity and sustainable development.