














# Table of contents

---

|   |         |
|---|---------|
|  Letter from the President of the Management Board | page 5  |
|  1. KGHM Group and Our World                       | page 8  |
| 1.1 Who we are  | page 9  |
| 1.2 Major assets  | page 9  |
| 1.3 Mining and metallurgical assets   | page 11 |
| 1.4 Other assets  | page 17 |
| 1.5 Our mission, vision and values  | page 18 |
| 1.6 Competitive advantages of the KGHM Polska Miedź S.A.  | page 22 |
| 1.7 Our stakeholders  | page 23 |
| 1.8 Competitive environment in 2018   | page 25 |
| 1.9 2018 macroeconomic environment  | page 27 |
| 1.10 Analysis of the global market for the Group's primary products   | page 33 |
| 1.11 Market perspective   | page 40 |
|  2. How we create value                          | page 42 |
| 2.1 Business model of KGHM Polska Miedź   | page 43 |
|  3. Management principles                        | page 47 |
| 3.1 Group structure   | page 48 |
| 3.2 Organisational structure of KGHM Polska Miedź S.A.  | page 52 |
| 3.3 Ownership structure and share price of the Company KGHM Polska Miedź S.A. on the Stock Exchange                                 | page 53 |
| 3.4 Corporate Governance Statement  | page 58 |
| 3.5 The Management Board  | page 63 |
| 3.6 Supervisory Board   | page 68 |
| 3.7 Changes in the Parent Entity's bodies   | page 72 |
| 3.8 Remuneration of the Parent Entity's bodies and of other key managers of the Group   | page 76 |
| 3.9 Code of the KGHM Polska Miedź S.A. Group  | page 79 |
| 3.10 The code of ethics   | page 79 |
| 3.11 The procedure of disclosing irregularities and protection of whistle-blowers   | page 82 |
| 3.12 The anti-corruption policy   | page 83 |
| 3.13 Procurement Policy   | page 85 |
| 3.14 The procedure of counteracting money laundering and prevention of fraud  | page 85 |



|   |  |                 |
|---|--|-----------------|
| 3.15  | Anti-abuse procedure                                   | page 86         |
| 3.16  | Personal Data Protection Policy                        | page 86         |
|    | <b>4. Our strategy</b>                                 | <b>page 87</b>  |
| 4.1   | KGHM Polska Miedź S.A.'s Strategy for 2017-2021        | page 88         |
| 4.2   | Execution of the main strategic tasks in 2018          | page 90         |
| 4.3   | Corporate Social Responsibility Strategy               | page 97         |
| 4.4   | United Nations' sustainable development goals for 2030 | page 101        |
| 4.5   | Key non-financial indicators                           | page 103        |
| 4.6   | 4E Strategy  | page 104        |
|    | <b>5. Risk Management</b>                              | <b>page 109</b> |
| 5.1   | Comprehensive Risk Management System in the KGHM Group | page 110        |
| 5.2   | Key risk factors in the Group and their mitigation     | page 112        |
| 5.3   | Market, credit and liquidity risk                      | page 117        |
| 5.4   | Market risk management                                 | page 118        |
| 5.5   | Credit risk management                                 | page 120        |
| 5.6   | Financial liquidity risk and management of capital     | page 122        |
| 5.7   | Key risks to the competitive advantage                 | page 123        |
| 5.8   | The system of security and loss prevention             | page 124        |
| 5.9   | Safety-related risks                                   | page 125        |
| 5.10  | Risks related to employees and respecting human rights | page 126        |
| 5.11  | Risks related to the responsible supply chain          | page 127        |
| 5.12  | Risks related to Social Dialogue                       | page 127        |
| 5.13  | Environmental impact risk borne by KGHM Group          | page 128        |
|  | <b>6. Human Resources management</b>                   | <b>page 130</b> |
| 6.1   | HR Policy of KGHM Polska Miedź S.A.                    | page 131        |
| 6.2   | International Mobility Policy                          | page 132        |
| 6.3   | Training Policy  | page 132        |
| 6.4   | Diversity Declaration                                  | page 133        |
| 6.5   | Declaration on human rights protection                 | page 134        |
| 6.6   | HR projects  | page 135        |
| 6.7   | Employment   | page 137        |
| 6.8   | Relations with the trade unions                        | page 139        |
| 6.9   | Occupational health and safety                         | page 140        |
| 6.10  | Work Regulations                                       | page 144        |
| 6.11  | Company collective bargaining agreement (CCBA)         | page 144        |

|   |                 |
|---|-----------------|
|  <b>7. Activities on behalf of society</b>                  | <b>page 145</b> |
| — 7.1 KGHM Group's competition law policy   | page 147        |
| — 7.2 Responsible supply chain policy   | page 147        |
| — 7.3 Social dialogue and cooperating with local communities  | page 148        |
| — 7.4 Foundations, sponsorship and CSR activities   | page 150        |
| <br>  |                 |
|  <b>8. Activities on behalf of the natural environment</b> | <b>page 154</b> |
| — 8.1 Environmental policy  | page 155        |
| — 8.2 Environmental protection  | page 156        |
| — 8.3 Actions to reduce environmental impact  | page 158        |
| — 8.4 Energy policy   | page 159        |
| — 8.5 Energy management system (EMS)  | page 160        |
| <br>  |                 |
|  <b>9. Operations and results in 2018</b>                  | <b>page 161</b> |
| — 9.1 Production process  | page 162        |
| — 9.2 Primary Group products  | page 165        |
| — 9.3 Main production goals   | page 167        |
| — 9.4 Sales   | page 173        |
| — 9.5 Costs   | page 176        |
| — 9.6 Financial results   | page 179        |
| <br>  |                 |
|  <b>10. Outlook</b>                                      | <b>page 199</b> |
| — 10.1 Strategic development directions for the KGHM Group  | page 203        |



---

# Letter from the President of the Management Board

---



# Dear Stakeholders,

---

For KGHM Polska Miedź S.A. the year 2018 was a time of numerous challenges, but also many successes. We achieved excellent results in the mining and production of copper, silver and other minerals. We made a clear improvement in our sales results. We retained our position as one of the world's leaders in the copper sector. Thanks to rational investing we are continuously developing. We are also able to advance our non-industrial activities by introducing projects related to the environment or society which could be of service to local communities.

The production results of KGHM in 2018 were exceptionally positive. The electrolytic copper production plan was exceeded by 1.6 percent. In the case of silver, the plan was exceeded to an even larger extent, 2 percent. Sales of the products of KGHM increased by 1.7 percent. Thanks to this the revenues of our Group reached a higher level, by 0.8 percent, giving us PLN 20.5 billion.

Thanks to these excellent results we retain our position as a global sector leader. KGHM is one of the world's most important producers of copper and non-ferrous metals. Export was and remains the primary source of revenues, with our goods being shipped to dozens of countries on several continents, including Asia, both Americas and Australia. The largest customers for the copper produced by KGHM remain China and Germany, but our products are also sold in countries such as the United Kingdom, Italy, Switzerland, France, South Korea, the USA and Canada.

The many years of fruitful cooperation with our international partners is a source of pride for us. All the more so, that in 2018 in many cases we were able to either establish new relationships or strengthen existing ones. One example of such efforts, and at the same time one of the greatest successes of KGHM in the past year, was the signing of a new contract with China Minmetals for the supply of copper cathodes. Based on this new contract with one of the largest metals companies in China, over the next 5 years we will supply cathodes to China, the value of which could reach up to USD 4 billion, depending on the final size of orders.

Speaking of our activities and successes abroad, it would be hard to omit the review of our international assets we conducted in the third quarter of 2018. Thanks to

this we were able to undertake effective actions in the modernisation of our Sierra Gorda mine in Chile. As a result, the production process was improved to a substantial degree, with an increase in daily throughput. This modernisation and efficiency improvement of Sierra Gorda was made possible by successful investments and was based on existing infrastructure.

We place particular emphasis on investments in our domestic assets in Poland, which not only enhance the efficiency of our company and its production potential, but also enable us to stay compliant with the idea of sustainable development. In terms of investments undertaken in 2018, it is worth mentioning the start of construction on expanding the „Żelazny Most” Tailings Storage Facility. This investment is not only of great significance for the region's natural environment, but also assures us of efficient operations for the next several decades. Also of significance was the broad program of investment in the Legnica Copper Smelter and Refinery, comprising among others the construction of a modern RCR furnace for processing copper scrap.

The actions we took in 2018 arise from the philosophy of our Company. We want to be an efficient company, one continuously striving to be a global leader in the copper sector, but at the same time a socially responsible enterprise, for which the needs of local communities are of particular importance, not to mention caring for the natural environment. These goals have also been enshrined in the new, updated strategy of KGHM Polska Miedź S.A. for the years 2019-2023, which we adopted in December last year. The main pillars of the strategy can be defined as the 4E's – efficiency, elasticity (i.e. flexibility), E-industry and ecology. These four directions comprise our goals, which include increasing our mining efficiency in Poland and abroad, but also the development of our company through innovation and taking positive steps towards improving the environment and supporting society.

We are endeavouring to become self-sufficient in terms of energy consumption. One of the means to accomplish this goal is to increase the use of renewable energy sources. Under our strategy, 50% of KGHM Polska Miedź S.A.'s demand for electricity is to be satisfied from our own sources of energy generation and renewable energy sources by the end of 2030.



## Letter from the President of the Management Board

We are implementing solutions which will help the environment and reduce our impact on the global climate. The company is planning to build installations which will make the gases emitted during production at the Głogów Copper Smelter and Refinery cleaner. Among others this work includes dedusting installations for the Dörschel, convertor and electric furnaces. Also planned are the construction of an innovative installation to eliminate arsenic arising from the production process. This solution will enable arsenic to be transformed into a form resembling a naturally-occurring mineral.

We are investing in and promoting modern, environmentally-friendly technologies, including electric vehicles.

We are a socially responsible company, which cares about its local communities. Wherever we operate we strive to engage in dialogue with local authorities and representatives of the local communities. As part of this social dialogue, KGHM for years has worked with local governments in the Copper Basin, among others by participating in developing their strategies for development and through a variety of social agreements which are aimed at raising living standards for local citizens.

Under its Socially Responsible Business Strategy, KGHM advances CSR-type programs, which assist the people of the communities where we operate in numerous ways. In this regard it is worth mentioning the EKO-Zdrowie program which has been in place for the last 5 years, which comprises sports programs for people of various age groups. These include nordic walking for adults, recreational gymnastics for seniors and swimming lessons for children.

We are especially proud of our employee volunteer program „Miedziane serce” or Copper Hearts, which is carried out at the international scale. Under its auspices KGHM has integrated the social initiatives of those employees who for many years have volunteered their time to help others, sharing their skills, knowledge and professional experience.

The KGHM Polska Miedź Foundation has also been active for years in providing support for numerous initiatives in four areas – Health and safety, Sport and recreation, Culture and traditions and Science and education. In 2018 alone in all of these areas, financial assistance was provided in the amount of several tens of millions PLN.

We wish to further support the Copper Basin and the regions in which we operate. We are hoping that, thanks to the development of our Company, we will be able to do so in the future to an even greater degree.

In conclusion, I invite you to review the Sustainability Report of KGHM for 2018.

With sincerest regards,

**Marcin Chludziński**

President of the Management Board

KGHM Polska Miedź S.A.  
Lubin, 13.03.2019

---

# **KGHM Group and Our World**

---





# 1.1 Who we are

---

GRI 102-1, GRI 102-2, GRI 102-3, GRI 102-4, GRI 102-6, GRI 102-7

KGHM Polska Miedź S.A. is the Parent Entity of a Group which is a world-class producer of copper and silver with nearly 60 years of experience in the copper ore mining and processing sector. In Poland, KGHM Polska Miedź S.A. operates one of the world's largest copper deposits,

guaranteeing continuous production in Poland for the next several decades. KGHM Polska Miedź S.A. also produces silver, gold, molybdenum, lead and rock salt, as well as being one of the leading exporters in the country and one of the largest companies in Poland.

# 1.2 Major assets

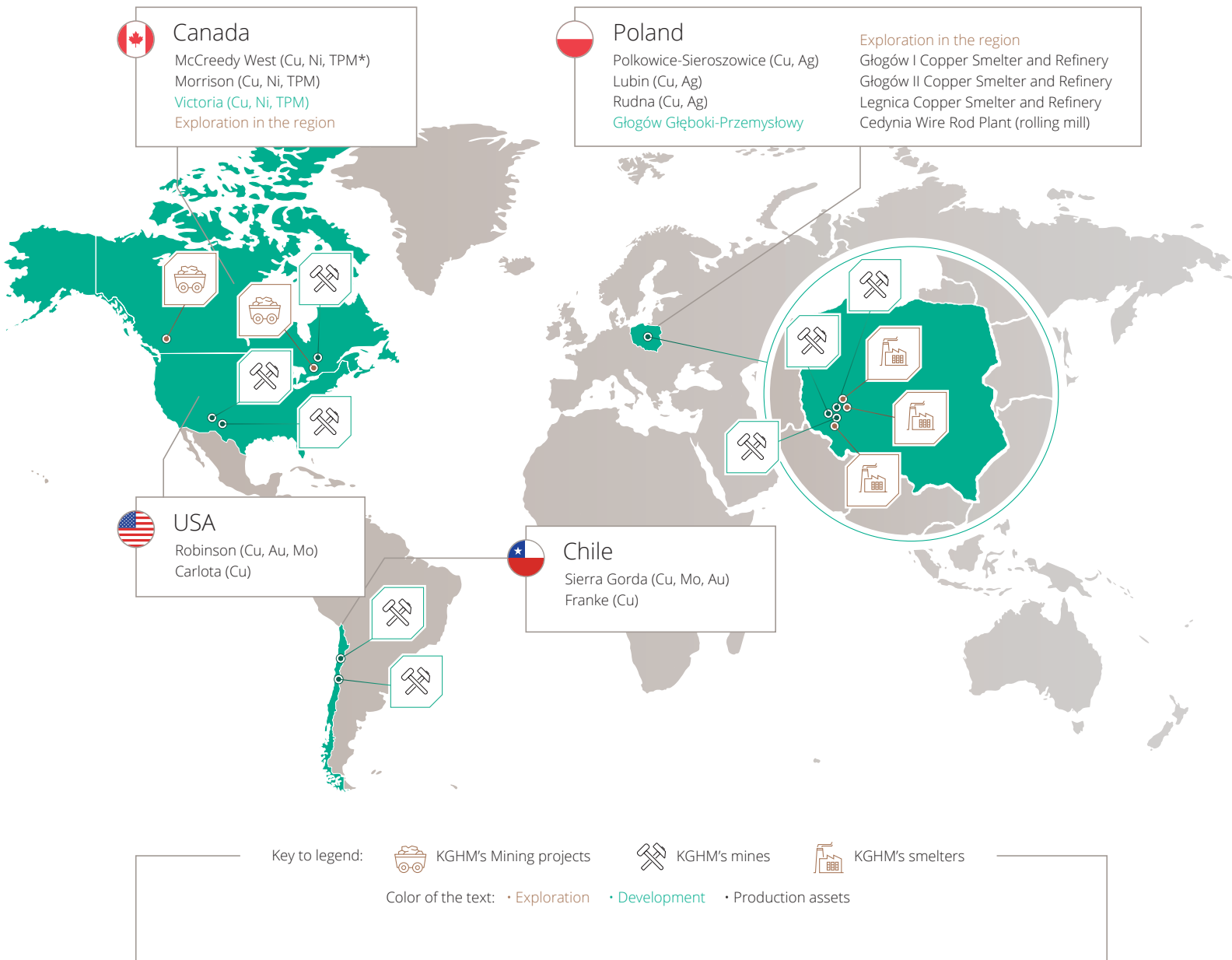
---

The KGHM Polska Miedź S.A. Group holds geographically diversified mining assets located in low-risk countries. The copper, silver, molybdenum, nickel and precious metals mines of the Group are located in Poland, the USA, Chile and Canada. The key international asset – the Sierra Gorda mine, which is a joint venture between KGHM INTERNATIONAL LTD., Sumitomo Metal Mining

and the Sumitomo Corporation – is located in Chile. In addition, the KGHM Polska Miedź S.A. Group has mine projects which are at the preproduction phase (Victoria, Sierra Gorda Oxide, Ajax), as well as exploration projects.

The major assets of the KGHM Polska Miedź S.A. Group are presented in the diagram below.





Img. Location of mining assets of the KGHM Polska Miedź S.A. Group

## Geological assets

The KGHM Polska Miedź S.A. Group strives to develop its portfolio of geological assets based on two main criteria. The first is to have a sufficiently high amount of material in ore. This enables a sufficiently high economic efficiency to be achieved from the geological assets on the materials mined in the short term. The second criteria is to have the operations based on assets having a sufficiently long mine life. This enables a sufficiently high economic efficiency to be achieved in the strategic sense, which is possible thanks to the appropriately long lives of the mining projects. This is also important for KGHM due to its high standards in the area of corporate social responsibility.

For these reasons, as well as due to the question of the sources of mining resources, which is of fundamental importance, KGHM attempts to locate its activities in globally-recognised mining jurisdictions, which at the same time are often the largest such resources in a given part of the world. Based on these criteria the current portfolio of geological assets held by KGHM has been built and is successively developed.

The polymetallic deposits situated in Poland on the Fore-Sudetic monocline and in the North Sudetic trough, for which KGHM either holds exploration and mining concessions or is in the process of acquiring them, are some of the richest and most potentially valuable deposits of copper, silver and other metals in Europe, representing



the basis for the mining operations of KGHM Polska Miedź S.A. for the next 35 years.

These deposits are located in the vicinity of the towns of Lubin and Polkowice, and include areas reaching to Głogów, Bytom Odrzański and Luboszyce. As a result of the mining over the past decades of a Zechstein salt deposit which lies above the layer of polymetallic deposits, KGHM has also developed its skills in the exploration for and mining of salt deposits.

The geological assets of the KGHM Polska Miedź S.A. Group in South America and North America not only form part of the reservoir of copper assets for growth, but likewise for developing the skills of the Group in the mining and processing of metals both now and in the decades to come.

## 1.3 Mining and metallurgical assets

Based on the aforementioned geological assets, mines and metallurgical plants have been established and developed. These are described below in the subsequent tables:

### Poland



#### 1. POLKOWICE-SIEROSZOWICE MINE

The Polkowice-Sieroszowice mine is located in Lower Silesia, to the west of the town of Polkowice. Currently, it conducts mining works in four mining areas: Polkowice, Radwanice Wschodnie, Sieroszowice and in a part of the Głogów Głęboki – Przemysłowy (Deep Głogów) deposit. Within the Sieroszowice deposit, there are also rich deposits of rock salt above the copper-bearing horizon. Mining is conducted using room-and-pillar methods with natural roof settlement, using blasting technology. The Polkowice-Sieroszowice mine's current production capacity is around 12 million tonnes of ore per year.

|                                  |                                 |
|----------------------------------|---------------------------------|
| Location:                        | Lower Silesia, Poland           |
| Ownership:                       | KGHM Polska Miedź S.A. Division |
| Type of mine:                    | underground                     |
| Main ore type:                   | copper ore                      |
| Associated metals:               | silver, lead, rock salt, gold   |
| Type of orebody:                 | stratiform                      |
| End product:                     | copper ore                      |
| Copper in extracted ore in 2018: | 195.7 k tonnes                  |





## 2. RUDNA MINE

The Rudna mine is located in Lower Silesia, to the north of the town of Polkowice. It mines the copper deposit in Rudna mining area as well as in parts of the mining areas of Sieroszowice, Lubin-Małomice and Głogów Głęboki-Przemysłowy (Deep Głogów). The copper orebody in the currently mined deposit ranges from 844 meters to 1250 meters. Mining is conducted using room-and-pillar methods with natural roof settlement with hydraulic backfill, using blasting technology. The current average production capacity is approx. 12 million tonnes of ore per year.

|                                  |                                 |
|----------------------------------|---------------------------------|
| Location:                        | Lower Silesia, Poland           |
| Ownership:                       | KGHM Polska Miedź S.A. Division |
| Type of mine:                    | underground                     |
| Main ore type:                   | copper ore                      |
| Associated metals:               | silver, lead, gold              |
| Type of orebody:                 | stratiform                      |
| End product:                     | copper ore                      |
| Copper in extracted ore in 2018: | 186.2 k tonnes                  |



## 3. LUBIN MINE

The Lubin mine is located in Lower Silesia, Poland, to the north of the town of Lubin. The mines the copper deposit in the mining area Lubin-Małomice at a depth from 368 meters to 1006 meters. Mining is conducted using room-and-pillar methods with natural roof settlement with hydraulic backfill, in the vicinity of the support pillar of the town of Lubin, using blasting technology. The mine's current production capacity is around 8 million tonnes of ore per year.

|                                  |                                 |
|----------------------------------|---------------------------------|
| Location:                        | Lower Silesia, Poland           |
| Ownership:                       | KGHM Polska Miedź S.A. Division |
| Type of mine:                    | underground                     |
| Main ore type:                   | copper ore                      |
| Associated metals:               | silver, lead, gold              |
| Type of orebody:                 | stratiform                      |
| End product:                     | copper ore                      |
| Copper in extracted ore in 2018: | 70.1 k tonnes                   |



## 4. GŁOGÓW COPPER SMELTER AND REFINERY

This complex of metallurgical plants located in Głogów comprises two copper concentrate smelting lines based on the one-stage smelting of concentrate in a flash furnace directly into blister copper. Apart from electrolytic copper, the Głogów Copper Smelter and Refinery produces crude lead (up to 30 thousand tonnes annually), silver (around 1200 tonnes), gold (around 2.6 tonnes) and sulphuric acid (over 507 thousand tonnes).

|   |                                 |
|---|---------------------------------|
| Location:                               | Lower Silesia, Poland           |
| Ownership:                              | KGHM Polska Miedź S.A. Division |
| Type of metallurgical plant:            | smelter/refinery                |
| End product:                            | electrolytic copper             |
| Electrolytic copper production in 2018: | 387.3 k tonnes                  |



## 5. LEGNICA COPPER SMELTER AND REFINERY

The copper smelter and refinery located in Legnica has a current production capacity of 120 thousand tonnes of electrolytic copper. In operation since the 1950s based on shaft furnace technology. Apart from electrolytic copper, the plant also produces round billets, around 30 thousand tonnes annually of refined lead and also 115 thousand tonnes of sulphuric acid, as well as copper sulphate and nickel sulphate.

|   |                                 |
|---|---------------------------------|
| Location:                               | Lower Silesia, Poland           |
| Ownership:                              | KGHM Polska Miedź S.A. Division |
| Type of metallurgical plant:::          | smelter/refinery                |
| End product:                            | electrolytic copper             |
| Electrolytic copper production in 2018: | 114.5 k tonnes                  |



## 6. CEDYNIA WIRE ROD PLANT

Production at the Cedyňa Wire Rod Plant located in the vicinity of Orsk is based on the use of copper cathodes, 75% of which come from the Głogów Copper Smelter and Refinery and 25% from the Legnica Copper Smelter and Refinery. The basic product of the Cedyňa Wire Rod Plant is copper wire rod produced in a Contirod line amounting to around 250 thousand tonnes annually and around 18 thousand tonnes annually of oxygen-free copper wire rod (OFE) produced in a UPCAST line, including oxygen-free, silver-bearing copper wire rod.

|                              |  |
|------------------------------|--|
| Location:                    | Lower Silesia, Poland  |
| Ownership:                   | KGHM Polska Miedź S.A. Division  |
| Type of metallurgical plant: | processing   |
| End product:                 | copper wire rod and Cu-OFE rod   |
| Production in 2018:          | 248.8 thousand tonnes of copper wire rod and 17.6 thousand tonnes of OFE rod |

## The United States



### 1. CARLOTA MINE

The Carlota mine is located in the Western part of the Miami-Globe mining region, in the state of Arizona at an altitude of 1 300 meters (4 200 feet) a.s.l. Surrounding the mine is mountainous, desert terrain. Copper ore extraction by the Carlota mine is by conventional methods typical for open-pit metals mines, i.e. the ore is mined by blasting and then is transported by haulage trucks. In 2018 mining re-commenced in the Eder South area.

|                                    |                              |
|------------------------------------|------------------------------|
| Location:                          | Arizona, USA                 |
| Ownership:                         | 100% KGHM INTERNATIONAL LTD. |
| Type of mine:                      | open pit                     |
| Main ore type:                     | Copper ore                   |
| Type of orebody:                   | porphyry                     |
| End product:                       | Copper cathodes              |
| Payable copper production in 2018: | 3.2 k tonnes                 |



### 2. ROBINSON MINE

The mine is located in White Pine county, Nevada, USA, around 11 km west of Ely (approx. 400 km north of Las Vegas), in the Egan range, at an average altitude of 2130 meters a.s.l., near highway no. 50. The mine is comprised of 3 large pits: Liberty, Tripp-Veteran and Ruth. Currently, Ruth is in operation. The ore is extracted by conventional methods, and is then processed into a copper and gold concentrate, and separately into molybdenum concentrate in a concentrating plant.

|                                    |   |
|------------------------------------|---|
| Location:                          | Nevada, USA   |
| Ownership:                         | 100% KGHM INTERNATIONAL LTD.                        |
| Type of mine:                      | Open pit  |
| Main ore type:                     | Copper ore  |
| Associated metals:                 | gold and molybdenum                                 |
| Type of orebody:                   | porphyry / skarn                                    |
| End product:                       | copper and gold concentrate, molybdenum concentrate |
| Payable copper production in 2018: | 48.0 k tonnes                                       |

## Canada



### 1. SUDBURY BASIN

The Sudbury Basin is located in central Ontario in Canada, approx. 400 km north of Toronto. In this region KGHM INTERNATIONAL LTD. owns a variety of assets extracting copper and nickel ore along with precious metals. Amongst the most important assets are the Morrison/Levack and McCreedy West underground mines, utilising the Craig and Levack shafts and an adit. Extraction is through mining methods which are dependent on the geometry of the deposit – mainly a mechanised method of selective extraction using undercutting of successive levels from bottom to top at various mine levels. All of the ore extracted from the mine is processed in the Clarabelle plant in Sudbury, owned by Vale.

|                                    |  |
|------------------------------------|--|
| Location:                          | Sudbury, Ontario, Kanada                         |
| Ownership:                         | 100% KGHM INTERNATIONAL LTD.                     |
| Type of mine:                      | underground                                      |
| Main ore type:                     | copper ore, nickel, platinum, palladium and gold |
| Type of orebody:                   | footwall/contact Ni                              |
| End product:                       | copper ore and nickel                            |
| Payable copper production in 2018: | 7.4 k tonnes                                     |



### 2. VICTORIA PROJECT

This project is located in the Canadian province of Ontario, around 35 km west of the town of Sudbury. In 2002 rights were acquired to the Victoria mineral deposit and a campaign of exploration in this region commenced. All of the ore extracted from the mine will be processed in the Clarabelle plant in Sudbury, owned by Vale. The current development scenario for the project calls for the sinking of 2 shafts to access the deposit (a production shaft and a ventilation shaft). Exploration work performed thus far confirmed the continuity and characteristics of the mineralisation to the level of approximately 2200 meters below the surface. Based on analytical work performed in 2017, the base scenario assumes the Victoria project will be developed in two stages, comprised of the sinking of a first shaft along with additional exploration, followed by a second shaft for production. In 2018, required permits for the project were reviewed and work commenced on preparing necessary applications, mainly with respect to planned work related to the construction of selected elements of



the project's infrastructure. The project team conducted work related to securing existing infrastructure and project terrain, the administrative and legal development of the project and maintaining relations with First Nations in Ontario, Canada.

|                               |  |
|-------------------------------|--|
| Location:                     | Sudbury Basin, Ontario, Canada         |
| Ownership:                    | 100% KGHM INTERNATIONAL LTD.           |
| Type of mine:                 | underground                            |
| Main ore type:                | copper-nickel ore                      |
| Associated metals::           | gold, platinum and palladium           |
| Mine life:                    | 13 years                               |
| End product:                  | copper, nickel and precious metals ore |
| Forecasted annual production: | 17 k tonnes Ni, 19 k tonnes Cu         |





### 3. AJAX PROJECT

The Ajax project is located in British Columbia, Canada, 400 km north-east of Vancouver near the town of Kamloops. The project assumes the construction of an open-pit copper and gold mine and an ore processing plant, with associated infrastructure. In January 2012, the company Abacus Mining and Exploration Inc. prepared a feasibility study, based on which the preliminary economic parameters of this project were described. Due to the substantial risk of not receiving environmental permit based on the assumed technological parameters of the project, including the siting of basic mine plant infrastructure, the assumptions of the feasibility study from 2012 were reviewed in terms of identifying risk factors and the potential for increasing the project's value.

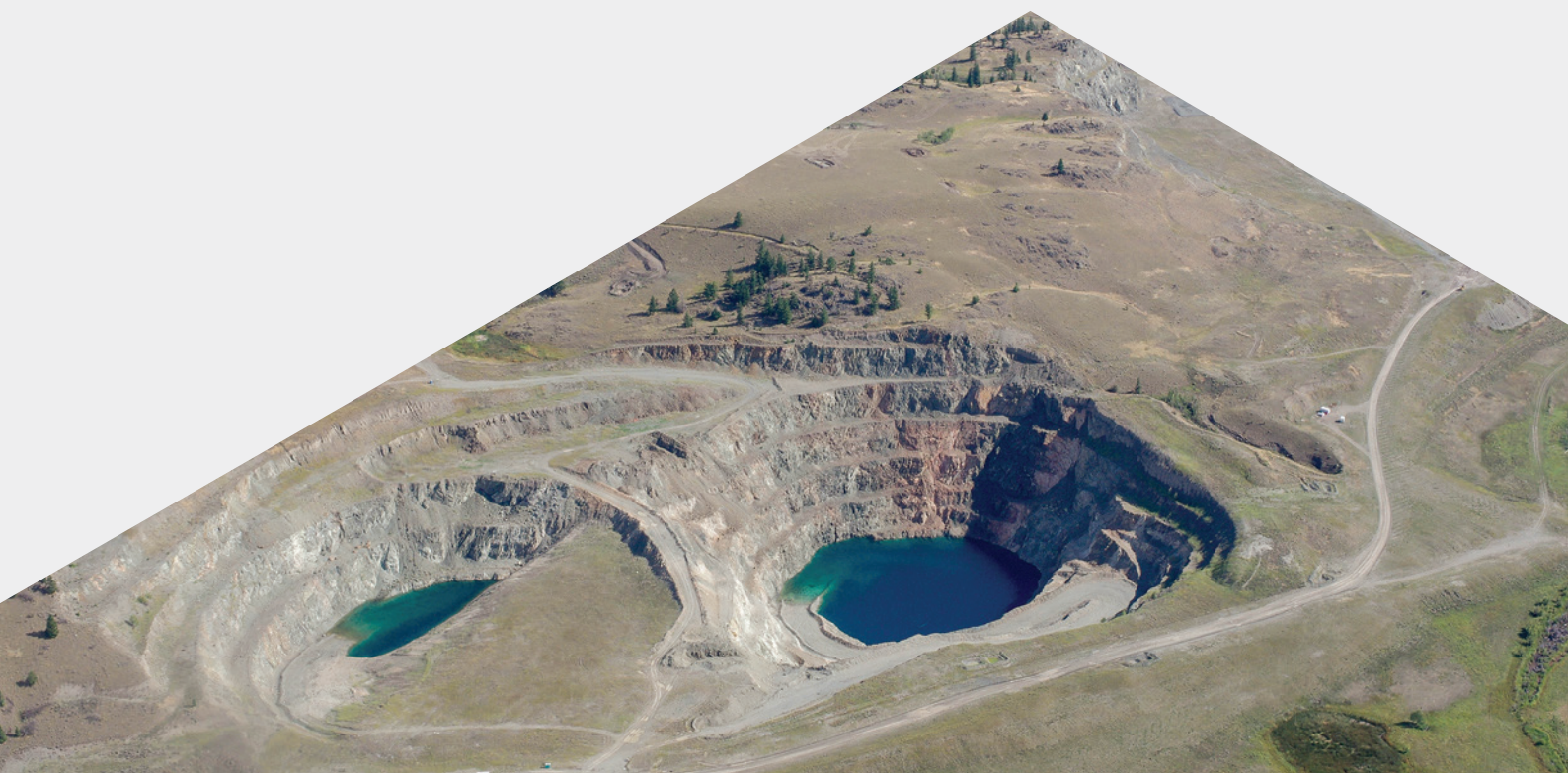
|                               |  |
|-------------------------------|--|
| Location:                     | Kamloops, British Columbia, Canada                                     |
| Ownership:                    | KGHM INTERNATIONAL LTD. 80%;<br>Abacus Mining and Exploration Inc. 20% |
| Type of mine:                 | Open pit   |
| Main ore type:                | Copper ore   |
| Associated metals:            | precious metals (gold and silver)                                      |
| Mine life:                    | 19 years   |
| End product:                  | copper concentrate   |
| Forecasted annual production: | 53 k tonnes Cu,<br>114 k ounces Au                                     |

In January 2016, an Updated Feasibility Study was published, replacing the earlier version dated 6 January 2012. The Updated Feasibility Study reflects changes to the project, under which the mine's infrastructure was moved farther from the nearest buildings in the town of Kamloops, technology improvements were incorporated and the processing facility's throughput capacity was increased from 60 to 65 thousand tonnes of ore per day.

In December 2017, the Ministers of Environment and of Energy, Mines and Petroleum Resources of British Columbia (provincial authorities) decided against the granting of an Environmental Assessment Certificate for the Ajax project. In June 2018, the Government of Canada, through the Governor-in-Council (Cabinet) issued a negative decision regarding the Ajax project as the project is likely to cause significant adverse environmental effects.

The decisions were made through the environmental impact assessment process, and reflect the substantial engagement of provincial and federal governmental agencies, First Nations and a broad spectrum of stakeholders, including thousands of local citizens.

In 2018, work was carried out related to requisite monitoring and securing existing infrastructure.



## Chile



### 1. SIERRA GORDA MINE AND SIERRA GORDA OXIDE PROJECT

The Sierra Gorda mine is located in the Atacama desert, in the Sierra Gorda administrative area in the Antofagasta region, in northern Chile, approx. 60 km south-west of the city of Calama. The mine is situated at an altitude of 1 700 meters a.s.l. and 4 km from the town of Sierra Gorda. The ore mined in the Sierra Gorda mine is processed into copper and molybdenum concentrates. In April 2015 the molybdenum installation commenced production, and from 1 July 2015 the Sierra Gorda mine has commenced commercial production (since then it has prepared statements of profit or loss). In 2018, work was carried out related to optimising the processing of the sulphide ore. The actions taken were aimed at stabilising the volumes and technological parameters of ore processing, as well as stabilising the work of the processing plant and increasing metals recovery.



|                            |  |
|----------------------------|--|
| Location:                  | Region II , Chile  |
| Ownership:                 | 55% KGHM INTERNATIONAL LTD, 45% Sumitomo Group companies:<br>- Sumitomo Metal Mining Co., Ltd. (31.5%)<br>- Sumitomo Corporation (13.5%)   |
| Type of mine:              | Open pit   |
| Main ore type:             | Copper ore   |
| Associated metals:         | molybdenum, gold   |
| Mine life:                 | 25 years for the current deposit based on phase I of the investment, including actions to remove bottlenecks. Moreover, there is a possibility to extend the mine's life using new deposits. |
| End product:               | copper concentrate, molybdenum concentrate   |
| Payable production in 2018 | 96.9 k tonnes of copper in concentrate, 26.7 million pounds of molybdenum in concentrate – on a 100% basis, share of KGHM Polska Miedź S.A. is 55%.  |

At present work is aimed at developing the mine based on phase I of the investment along with actions aimed at optimising the production line, which should lead to increased production capacity. The Sierra Gorda Oxide project involves the leaching of the copper oxide ore of Sierra Gorda on a permanent heap and the production of high-quality copper cathodes SX-EW installation, over a period of 10 years. Average copper production will be approx. 30 thousand tonnes/year. Most of the oxide ore assumed for the project is currently stored, near the site of the planned heap, on the grounds of the Sierra Gorda mine. In 2018, work was carried out aimed at minimising potential project risk and increasing its efficiency, mainly by analysing the option of preliminary crushing of the ore prior to the process of leaching. This analysis included crushing tests. In addition, tests involving the leaching of the crushed ore in columns were carried out. Preliminary verification of the procedure related to altering the project's permits was also carried out.



## 2. FRANKE MINE

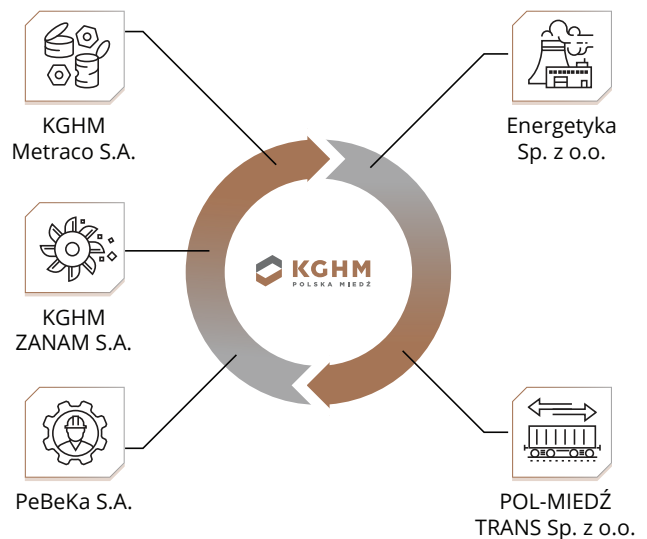
The mine is located in a desert area of northern Chile, in the Altamira region, near the southern boundary of the Antofagasta region, near a public road connecting the mine with the Pan-American highway. Mining is conducted by conventional open-pit methods. Due to the nature of the ore, it is processed using the heap leach, solvent-extraction and electrowinning method. The end product is electrolytic copper in the form of cathodes.

|                                    |  |
|------------------------------------|--|
| Location:                          | Antofagasta Region, Chile                        |
| Ownership:                         | 100% KGHM INTERNATIONAL LTD.                     |
| Type of mine:                      | Open pit   |
| Type of orebody:                   | IOCG (ore type containing iron, copper and gold) |
| End product:                       | Copper cathodes                                  |
| Payable copper production in 2018: | 20.2 k t   |

## 1.4 Other assets

In terms of assuring the operations of the core business of KGHM Polska Miedź S.A., of significance are investments in domestic companies acting on its behalf, such as:

-  PeBeKa S.A. – mining work contractor,
-  KGHM ZANAM S.A. – a supplier and service provider for mining machinery, and also provides production maintenance services in selected areas and participates in investment tasks,
-  KGHM Metraco S.A. – a supplier of copper scrap,
-  „Energetyka” sp. z o.o. – this company secures part of the energy needs of KGHM Polska Miedź S.A.
-  Pol-Miedź Trans - matters of concentrate transport and copper itself.



In terms of the amount of capital committed, an important investment are also the shares of TAURON Polska Energia S.A., a company listed on the Warsaw Stock Exchange.

Investments in closed-end investment funds are a tool used to diversify the investment risk for KGHM Polska Miedź S.A. In advancing the strategy of the Group, they fill a role in the management of selected non-core assets

and are a tool in the advancement of projects aimed at increasing value. A significant portion of these funds' assets are investments in the general field of health.

In addition, amongst the international companies is a group of companies under the DMC Mining Services brand: FNX Mining Company Inc., Raise Boring Mining Services S.A. de C.V., DMC Mining Services Corporation, DMC Mining Services Colombia S.A.S. and DMC

Mining Services (UK) Ltd., which provide services in shaft sinking, mine development work, above-ground and underground mine facilities, mine drilling, tunnel

drilling for general construction purposes and engineering services.

## 1.5 Our mission, vision and values

### Our mission and vision

We believe that copper and the other minerals that we provide to our customers on every continent are, and will remain, critical for the development of all sectors in the foreseeable future. For this reason our mission is „To always have copper“ with the vision „To use our resources efficiently to become a leader in sustainable development“. The principle of conducting our business in compliance with the concept of sustainable development and of being a leader in this regard is based on numerous factors. Among them it is worth pointing out the scale and multi-faceted nature of our business and the long life of the Group. This in turn generates a substantial, conscious sense of responsibility for the rational, balanced utilisation of our resources, as well as for the Group's enormous impact on its environment, mainly in its social and natural aspects.



### Our values

KGHM's values bind all employees, regardless of their position in the organization or nationality, and are a guidepost for all decisions and actions taken.

KGHM is a Company with nearly 60 years of history, operating on the basis of deeply rooted values and principles which employees follow in their daily work. Zero harm, teamwork, results driven, accountability and courage – these values bind all KGHM employees, regardless of whether they work in a mine, processing plant or smelter, in Poland or in other parts of the world. KGHM builds its global position in the world as a reliable producer, trusted business partner and a company pursuing a sustainable development policy. All those values must co-exist, which is reflected in the diagram below.



In KGHM Polska Miedź S.A. we act in accordance with the following principles based on specific values:

**ACCOUNTABILITY**

We are jointly responsible for the actions taken for our shareholders:

- we set a good example for others, acting in a transparent and socially responsible manner, abiding by the standards of the Code of Ethics;
- we take responsibility for our decisions, obligations and constant, stable development;
- we build long-term relations with our business and social partners.

**RESULTS DRIVEN**

We achieve results while focusing on KGHM's long-term success:

- we set ambitious objectives and develop constantly;
- we take initiative and make extra efforts for the benefit of KGHM;
- we perform our work reliably, with due diligence, using the right tools and the best solutions based on our knowledge.



**COURAGE**

We face new challenges in a well thought-out manner:

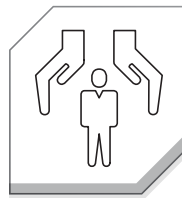
- We are courageous. We stand up to new challenges;
- we are open and honest in mutual contacts and are not afraid to speak up about our opinions; we receive constructive criticism with attention and respect;
- we make courageous decisions and seek new innovative solutions.



**ZERO HARM**

We are all responsible for the safety of our Company and the environment we impact through our operations:

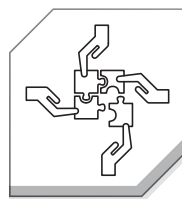
- protecting the lives and health of our employees is our priority;
- we respect the natural environment, in particular the resources we mine in a responsible manner;
- we care about the local communities in which we operate and maintain a dialogue with;
- we put emphasis on the continuity and stability of KGHM's operations.



**COOPERATION**

Teamwork is the basis for our successes:

- we work as a team, sharing our knowledge and experience;
- in discussions, we respect the views of others and are open to new perspectives;
- we use the talents and experience of employees;
- we value diversity and a multi-cultural environment;
- we prefer constructive cooperation of KGHM Group's companies over superfluous competition, founding our success on the synergy effect.



Picture. The Group's Basic Ethical Standards

KGHM Polska Miedź S.A. pursues the values presented above based on ethical standards. The fundamental ethical standards are shown in the diagram below.

Key Ethical Standards translating into principles of conduct in KGHM Polska Miedź S.A.

01



### THE GOOD OF HUMANITY

The individual, as the key and most important capital, deserves particular care and remains at the center of attention of the Company's bodies. KGHM Polska Miedź S.A. has set itself the goal of building an organisational culture whose foundation is based upon the shaping of relations founded on absolute respect for an employee's rights and personal welfare, regardless of the place of employment and professional status.

02



### THE GOOD OF THE COMPANY

We look after the good of the KGHM Group, endeavouring to ensure the stable growth of its companies, uninterrupted production and to counter the risk of losses.

03



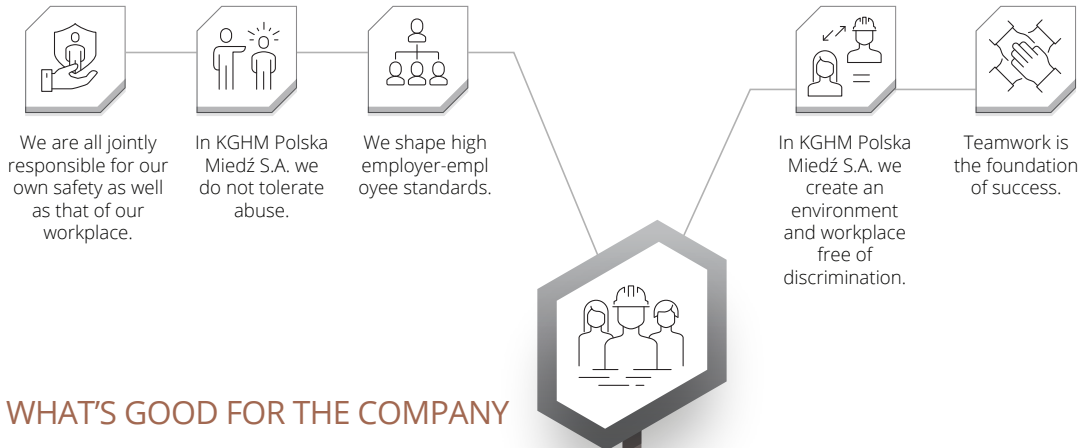
### THE GOOD OF OUR STAKEHOLDERS

Solid relations with stakeholders, based on mutual understanding and trust, are of key importance for KGHM Polska Miedź S.A. as an organisation which has a substantial impact on its economic, social and natural environments.

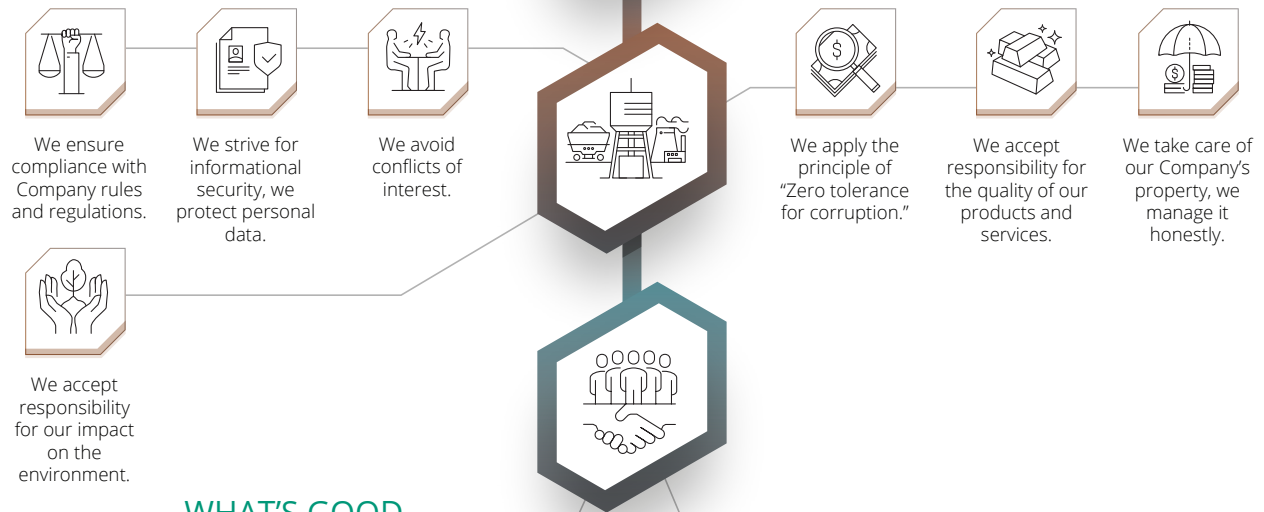
The Group's Basic Ethical Standards, which are followed based on the principles of ethical behaviour, are shown in the following diagram::

Principles of ethical behaviour in KGHM Polska Miedź S.A

WHAT'S GOOD FOR PEOPLE



WHAT'S GOOD FOR THE COMPANY



WHAT'S GOOD FOR OUR STAKEHOLDERS



Picture. Principles of ethical behaviour in KGHM Polska Miedź S.A

The communication and implementation of Ethical Standards in KGHM Polska Miedź S.A. is facilitated by a system of codes, policies and procedures, introduced and maintained by appropriately trained representatives and committees. Their implementation satisfies global corporate governance standards and the increasing expectations of our Stakeholders. Based on the aforementioned, best corporate governance practices,

principles, policies and instructions are followed by the Company which introduce global, consistent standards, adapted to regulations existing in all of the jurisdictions in which KGHM Polska Miedź S.A. operates. Advancement of the mission, vision and principles adhered to by the KGHM Polska Miedź S.A. Group is based on the distribution and appropriate management of capital.



# 1.6 Competitive advantages of the KGHM Polska Miedź S.A.

The scope of the KGHM Polska Miedź S.A. Group's business operations, the unique, on a global scale, comprehensiveness of our mining and processing operations, our pursuit of innovation and maintenance of financial stability along with our extensive in-depth experience allow us to market

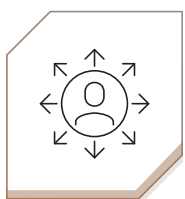
products that satisfy the expectations of even the most demanding buyers of our products and services.

The KGHM Polska Miedź S.A. Group's competitive advantages are depicted on the following diagram.



## Global reach of its operations

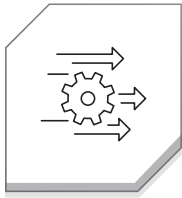
In the 21st century, KGHM Polska Miedź S.A. has become a global miner active on four continents. On one hand, the magnitude of our operations substantially curtails the risk of disturbance in the continuity and quality of production, while on the other hand, it facilitates the continual transfer of knowledge and experience between its various units. Its mobility policy enables it to post the Company's most prominent experts wherever their expert knowledge is needed to derive business benefits. That also leads to the diversification and enlargement of its product portfolio.



## Unique competences and skills

During its more than 60 years of history, KGHM Polska Miedź S.A. has acquired experience, knowledge and skills that have enabled the Company to transform its business from a local miner into an international Group acting as a major player in the global market for non-ferrous metals. The skills developed by our employees are and will be used in the future as one of the fundamental assets for winning a competitive edge in the industry and for building the position of Poland as a

strong industrial center. Also unique is the KGHM Polska Miedź S.A. Group's complete business chain: from the exploration of deposits, accessing them, mining, manufacturing mining machinery and explosives, processing, smelting and refining and sales to recycling, all the while keeping in mind during the execution of these processes the principles of sustainable development and corporate social responsibility.



### An integrated process, from mining to sales

Also unique is the entire core business operated by the KGHM Polska Miedź S.A. Group, from exploration for deposits through their mining and metals processing, together with the production of mining machinery and explosives, sales and recycling, reflecting in these processes sustainable development and corporate social responsibility.



### Innovation

Innovation is one of the competitive advantages of the KGHM Polska Miedź S.A. Group. Work on innovative solutions is conducted at various business levels, drawing on cooperation with independent entities while appreciating the potential and ingenuity of our own employees. They are the most familiar with our specific needs and are able to identify areas and solutions that translate into better performance and greater safety.



### Financial stability

Ensuring financial stability is one of the pillars of growth for the Group. The efforts of KGHM Polska Miedź S.A. to enhance its competitive advantage in this regard is aimed at basing the Group's financing structure on long term instruments, shortening the cash conversion cycle and efficient management of market and credit risk.

The efforts made to enhance competitive advantage would not be possible were it not for the cooperation of our Stakeholders.

## 1.7 Our stakeholders

A good relationship with stakeholders based on mutual understanding and trust is of crucial importance to the KGHM Polska Miedź S.A. Group as an organization exerting a significant impact on its economic, social and natural environment, of which it is fully aware and for which it is prepared to accept full responsibility. Cooperation – one of the Company's values – is the basis for its success in business and the social sphere. The Group builds relationships with stakeholders based on partnership and complete transparency, with an awareness of their importance in its long-term strategy and sustainable approach to business. The basis of this process is

dialogue geared towards learning about mutual expectations and capabilities and implementing agreements.

#### GRI102-43

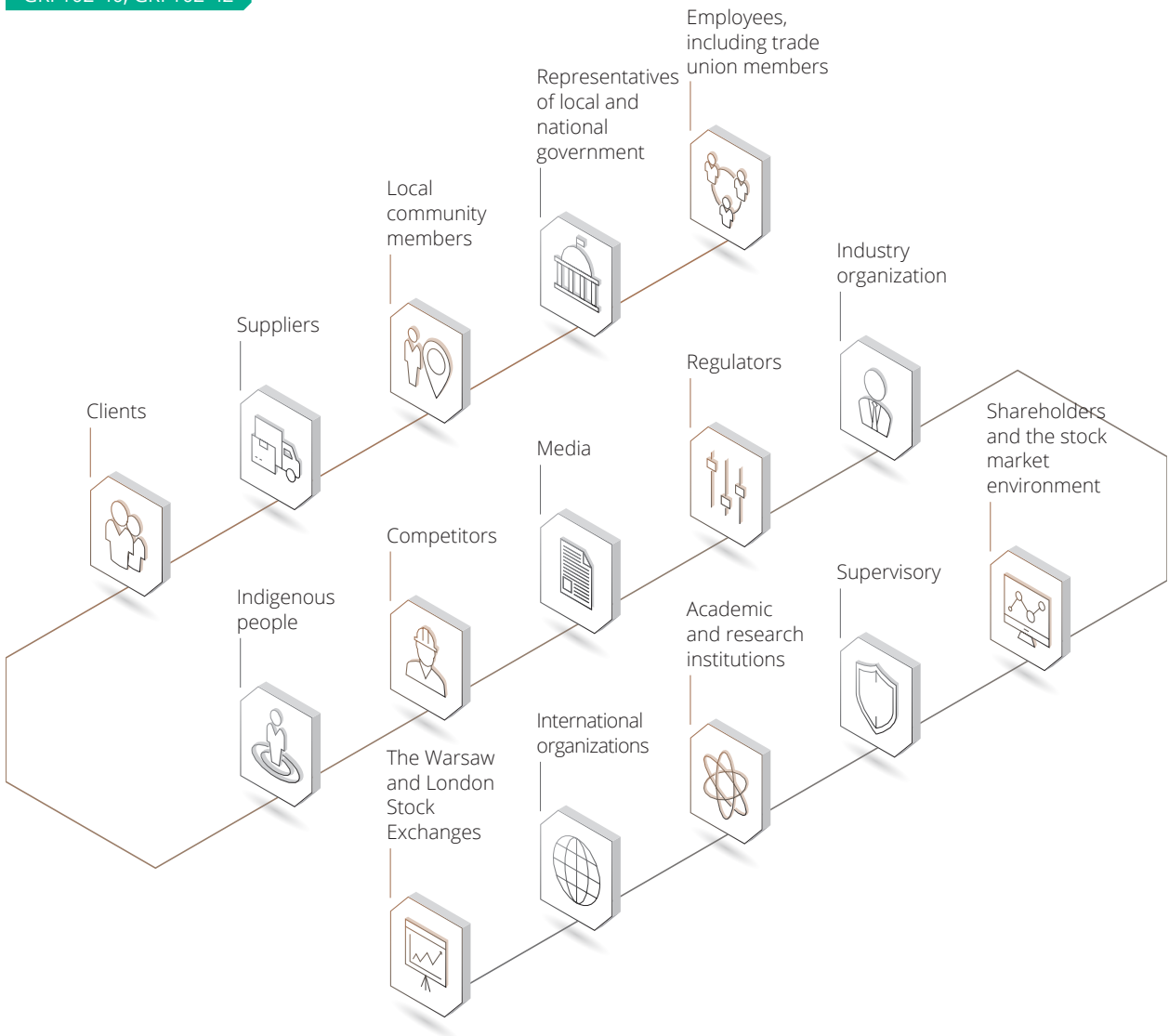
In 2016, the process of identifying and mapping the KGHM Polska Miedź S.A. Group's stakeholders was conducted. Its first stage was to distinguish stakeholder groups. This was accomplished using a survey covering members of senior management of each member of the KGHM Polska Miedź S.A. Group representing various business areas. During the second stage of this process involving a validation workshop, these same respondents assessed the degree of stakeholders'

interest and orientation on the organization and vice versa. Their assessments made it possible to specify four Stakeholder groups. The key stakeholders, forming the KGHM Polska Miedź S.A. Group's most influential and significant stakeholder group, are one of them. During

a strategic review performed in 2018, it was concluded that the stakeholder map and the strength of interest and influence determined during the mapping exercise in 2016 remained unchanged for the years 2019-2023. The map is presented in the diagram below.

Zestawienie kluczowych Interesariuszy Grupy Kapitałowej KGHM Polska Miedź S.A.

GRI 102-40, GRI 102-42



IMG. Key Stakeholders in the KGHM Polska Miedź S.A. Group

Good cooperation with our Stakeholders enables the KGHM Polska Miedź S.A. Group to assess, understand and shape its environment in the best possible way.



# 1.8 Competitive environment in 2018

Based on estimates of CRU International, global mined copper production in 2018 amounted to 20 917 thousand tonnes. During this same time the companies of the KGHM Group produced in total 521 thousand

tonnes of mined copper, representing approx. 2.5% of global production. In terms of the ranking of the world's major mined copper producers, the KGHM Group held eighth place in 2018, as shown below:

## Top 10 - mined copper producers

| No. | Producer         | Production 2018 (kmt) |
|-----|------------------|-----------------------|
| 1.  | Codelco          | 1 771                 |
| 2.  | Freeport-McMoRan | 1 440                 |
| 3.  | Glencore         | 1 344                 |
| 4.  | BHP              | 1 105                 |
| 5.  | Grupo Mexico     | 892                   |
| 6.  | Rio Tinto        | 674                   |
| 7.  | First Quantum    | 567                   |
| 8.  | KGHM             | 521                   |
| 9.  | Antofagasta      | 498                   |
| 10. | Norilsk          | 476                   |

Source: CRU, KGHM Polska Miedź S.A.

Global refined copper production, according to data from CRU, amounted to 23 651 thousand tonnes. Production of refined copper by the companies of the KGHM Group amounted to 522 thousand tonnes, or

approx. 2.2% of global production and puts the Group beyond the top ten largest producers. However, in the ranking of the largest copper-producing countries, Poland held tenth place, as shown below:

## Top 10 - refined copper-production countries

| No. | Country    | Production 2018 (kmt) |
|-----|------------|-----------------------|
| 1.  | China      | 9 405                 |
| 2.  | Chile      | 2 499                 |
| 3.  | Japan      | 1 556                 |
| 4.  | DR Congo   | 1 021                 |
| 5.  | Russia     | 997                   |
| 6.  | USA        | 995                   |
| 7.  | Sth. Korea | 670                   |
| 8.  | Germany    | 592                   |
| 9.  | India      | 550                   |
| 10. | Poland     | 495                   |

Source: CRU, KGHM Polska Miedź S.A.

In 2018, global mined silver production amounted to 856 million troy ounces (estimated data by the World Silver Survey). The KGHM Polska Miedź Group during this time produced 33.9 million troy ounces of silver, representing approx. 4.0% of global production of this

metal. According to the survey conducted annually by the World Silver Survey, in 2018 the KGHM Group held third place globally in terms of metallic silver production, while Poland held seventh place in the ranking of countries producing this precious metal, as shown below:

## Top 10 - silver producers

| No. | Producer                          | Production 2018 (kmt) |
|-----|-----------------------------------|-----------------------|
| 1.  | Fresnillo plc.                    | 1 807                 |
| 2.  | Glencore plc.                     | 1 086                 |
| 3.  | KGHM Polska Miedź SA (Grupa)      | 1 054                 |
| 4.  | Cia. De Minas Buenaventura S.A.A. | 815                   |
| 5.  | Polymetal International plc.      | 787                   |
| 6.  | Pan American Silver Corp.         | 771                   |
| 7.  | Goldcorp Inc.                     | 762                   |
| 8.  | Hochschild Mining plc.            | 613                   |
| 9.  | Hindustan Zinc Ltd.               | 610                   |
| 10. | Southern Copper Corp              | 538                   |

## Top 10 - silver producing countries

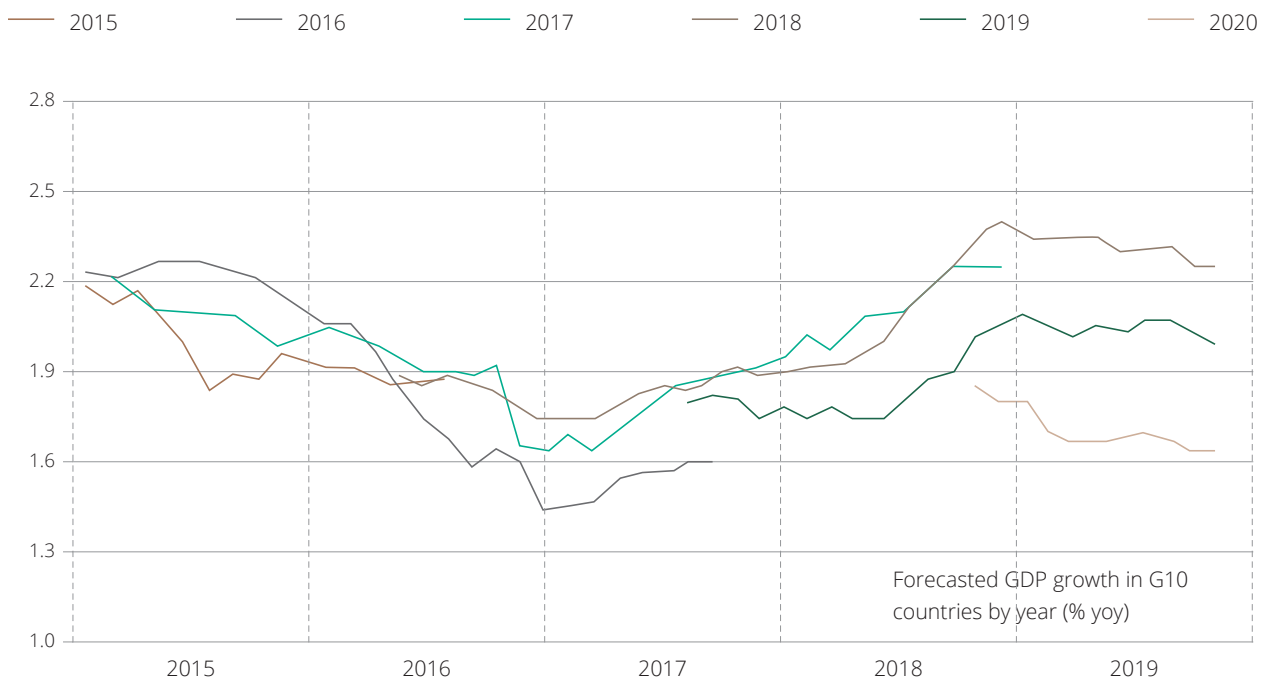
| No. | Producer  | Production 2018 (kmt) |
|-----|-----------|-----------------------|
| 1.  | Mexico    | 6 115                 |
| 2.  | Peru      | 4 507                 |
| 3.  | China     | 3 574                 |
| 4.  | Russia    | 1 350                 |
| 5.  | Chile     | 1 309                 |
| 6.  | Bolivia   | 1 241                 |
| 7.  | Poland    | 1 232                 |
| 8.  | Australia | 1 101                 |
| 9.  | USA       | 871                   |
| 10. | Argentina | 824                   |

Source: GFMS World Silver Survey, Thomson Reuters, KGHM Polska Miedź S.A.

# 1.9 2018 macroeconomic environment

From analyses conducted by the International Monetary Fund it appears that, although in 2018 the global economy was unable to maintain the rate of growth recorded in 2017, it still provided room for optimism.

We can no longer speak about synchronised growth, given the clear acceleration in the United States and the weakening of the Eurozone, as detailed in the following diagram:

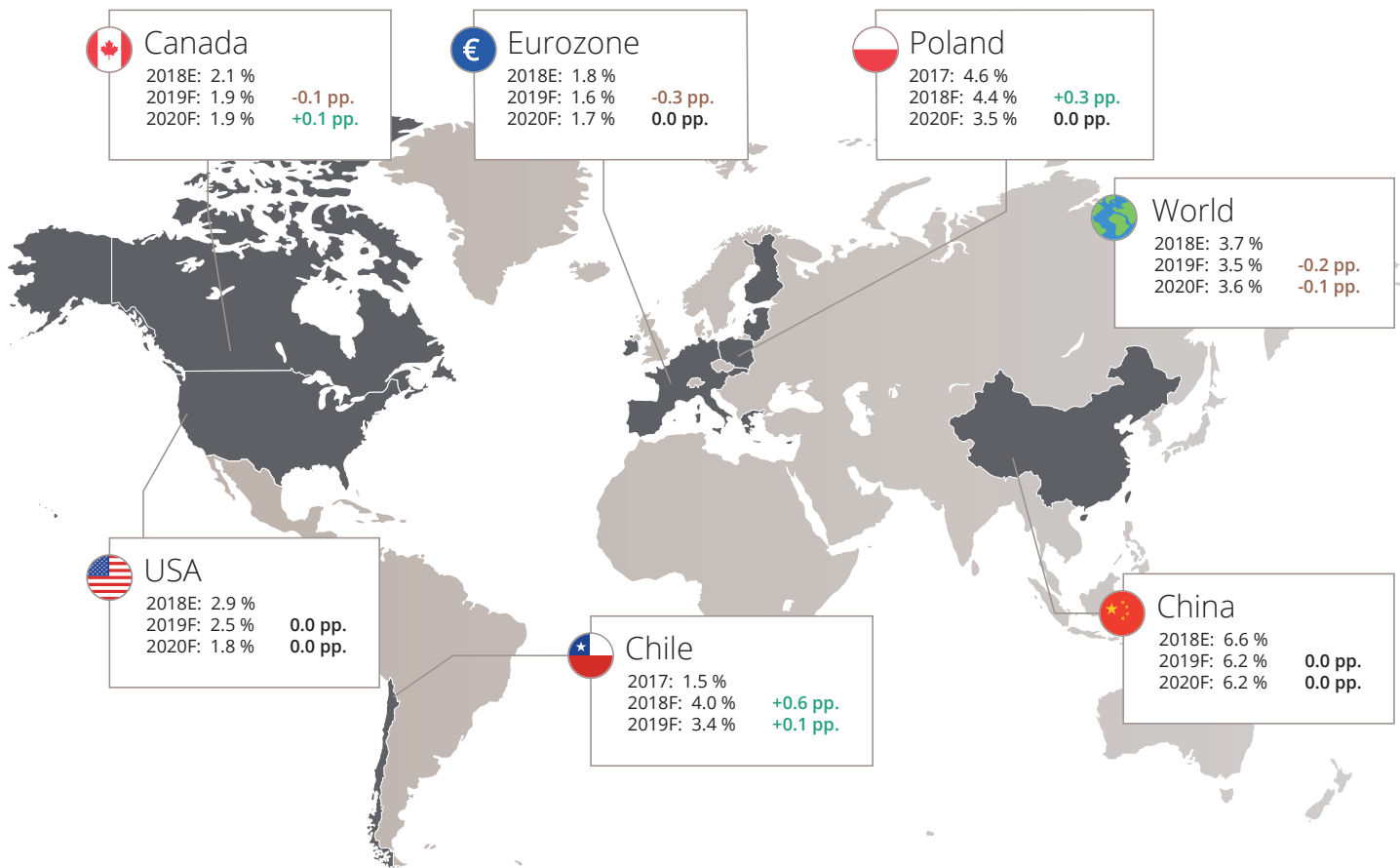


Source: Bloomberg, KGHM Polska Miedź S.A.

This trend is confirmed by the newest global GDP readings, which according to estimates of the IMF amounted to 3.6% in 2018 (3.8% in 2017). As a result the global economy only slowed slightly, which to a large extent was due to weaker results in the second half of the year. This was confirmed by readings from both

emerging economies as well as from developed ones. The weaker readings lead the IMF to a slight revision of its global GDP growth forecast in 2019 to 3.3% (0.2 percentage points lower than in the prior forecast). The forecasted growth in 2020 remains unchanged at 3.6%. This is shown in detail in the following diagram:





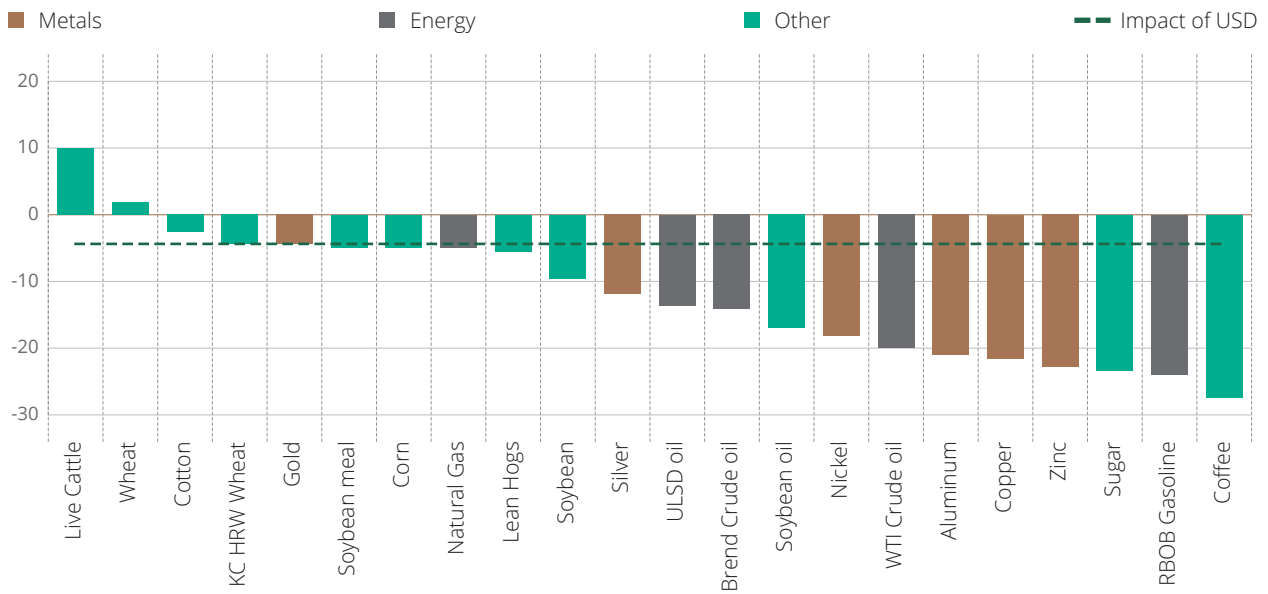
Source: IMF, KGHM Polska Miedź S.A.

The global slowdown observed in the second half of 2018 was caused by several factors. Economic growth in China was lower due to a combination of regulatory tightening related to so-called shadow banking and heightened tensions with the USA. The slowdown in the Eurozone turned out to be more pronounced than expected and involved interruptions in automobile production in Germany, a drop in investments in Italy and lower internal demand. Sentiment in the financial markets was lower, leading in the spring of 2018 to weaker financial results in emerging markets, and later in the year in developed economies as well.

Another several years of price declines in the commodities markets affected investments in many companies and frequently lead to problems with with liquidity. This trend was however interrupted at the end of 2016, and the rise in prices of many metals from that time lasted until mid-2018. Investor and analyst optimism was mainly based on strong fundamentals, the result among others of many years of under-investment, with a consequent impact on supply. On the other hand the relatively strong economic growth in key global economies, in particular the USA and China, had a positive

impact on commodities consumption. Sentiment changed however at mid-year, as a result of the introduction of tariffs under the growing trade conflict between the United States and China. Apart from the shadow this cast on trade with China, the world's largest consumer of copper, it also lead to a substantial appreciation of the USD. The value of the USD compared to a basket of currencies (the so-called dollar index) in 2018 rose by nearly 4.5%, aided likewise by a tighter monetary policy by the Fed, despite the opposition of President Trump and the growing disparity between the USA and the world's main economic regions. These were the main factors which lead to a rapid depreciation in commodities prices from June 2018.

The tense political situation in 2018 and the strengthening of the USD had a negative impact not only on metals prices but also on most other commodities. On a yearly scale the Bloomberg Commodity Index (BCOM) fell by nearly 15% which, apart from its impact on metals prices, was the factor most responsible for the depreciation in the value of energy-related commodities (-18%) and industrial commodities (-21%). This is shown in detail in the following drawing:



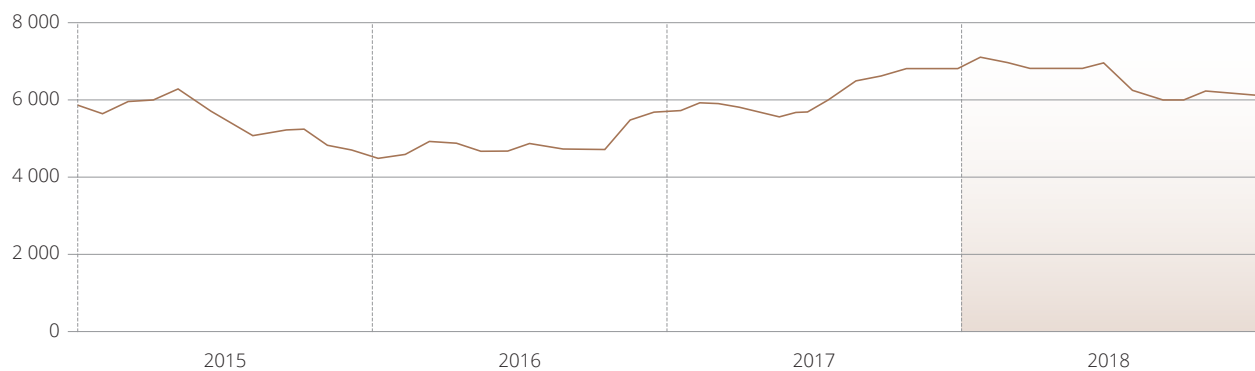
Source: Bloomberg, KGHM Polska Miedź S.A.

## Market conditions in 2018

In 2018 the refined copper market was in deficit, caused mainly by many years of under-investment in new mining projects, which restricted supply, as well as by a steady increase in demand in China. Although the expected scenario of multiple supply-side interruptions, based on the need to renegotiate labour contracts and the associated potential for strikes in numerous mines, failed to materialize, the increase in mine production, considering the low base of 2017, nonetheless remained relatively low (3.7% as compared to 4.7% in the period 2012-2016). Hope on the part of market participants was also supported by the potential for additional demand from the electric car sector, despite the fact that this growth will only become noticeable in the long term. However, this situation drastically reversed at mid-year, when the risk of a trade war between the United States and China began to materialize. As a result, on the day

prior to the introduction by the administration of President Trump of tariffs amounting to USD 34 billion on Chinese exports to the USA, one of the largest Chinese brokers – Gelin Dahua – closed most of the positions they had opened in January 2019 and part of those from November and December 2018. This initiated a rapid collapse in the copper price, which within barely a month fell from around 1 000 USD/t. The price of copper in the second half of the year stabilised around 6 100 USD/t. Consequently, the average price of copper in the second half of 2018 was more than 11% lower than in the first half.

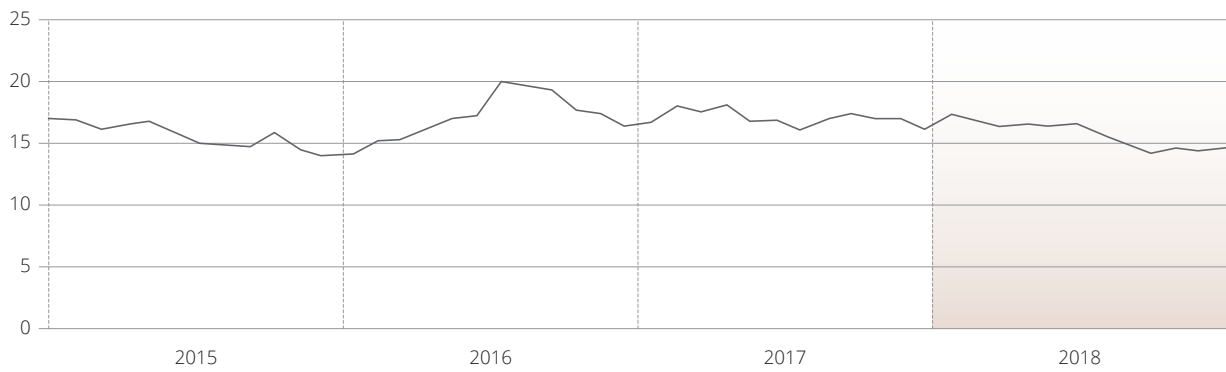
The average annual price of copper on the London Metal Exchange (LME) in 2018 was 6 523 USD/t, 6% above the average price in 2017 (6 166 USD/t).



The strengthening of the USD in the second half of 2018 led to a fall in the silver price below 14 USD/oz t in September 2018, or the lowest level since January 2016. In subsequent months, despite the numerous threats to the stability of the global economy, assets generally considered as safe were not particularly in demand by investors. Only in the final weeks of the year did the downturn on the US stock market and the growing expectations of a slowdown in the policy of

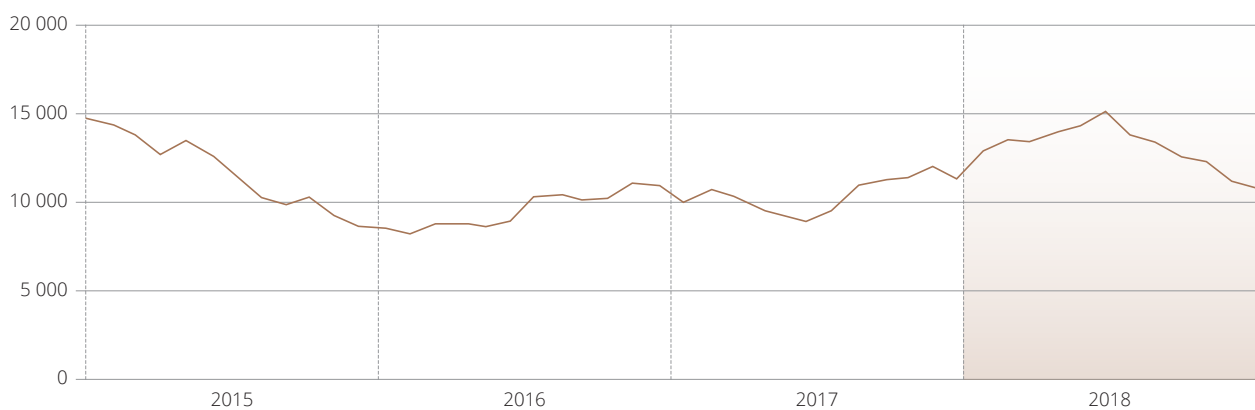
monetary easing by the Fed led to growth on the precious metals market, which continued into the first weeks of 2019. The price of silver ended 2018 at the level of 15.47 USD/oz t.

The average price of silver according to the London Bullion Market Association (LBMA) fell in 2018 by 8% and averaged 15.71 USD/oz t as compared to 17.05 USD/oz t in 2017.



The average annual price of nickel on the LME in 2018 amounted to 13 122 USD/t and was 26% higher than the average price recorded in 2017 (10 411 USD/t), and at the end of the year amounted to 10 595 USD/t. The level of 15 000 USD/t, the highest since 2015, was reached in June, on a wave of fears that American sanctions would seriously impact Russian metal producers, and at the same time severely limiting supply. However, in the second half of 2018, following many of the other

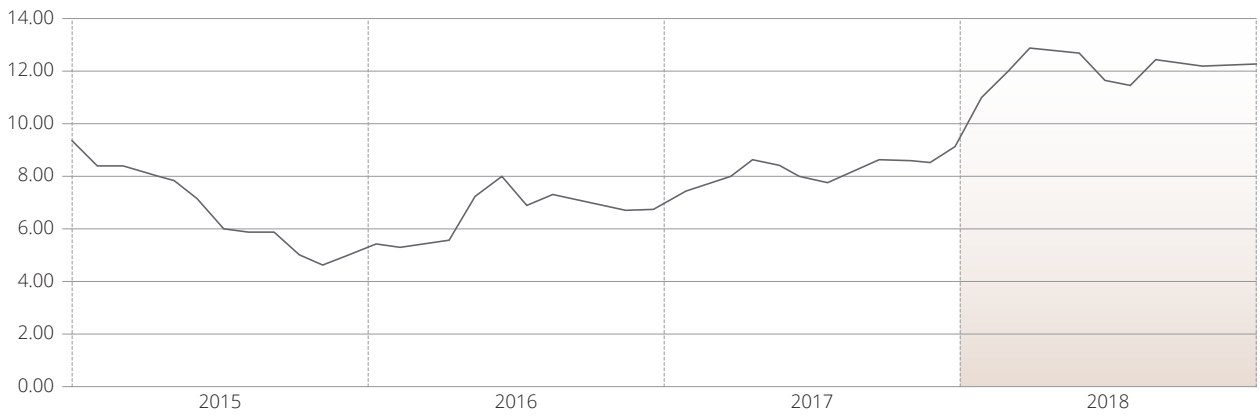
base metals, the price of nickel began to fall, mainly due to fears about the condition of the Chinese economy under the impact of American tariffs. The price of nickel nonetheless remains supported by solid market fundamentals and by potential growth in demand for the metal from the dynamically developing electric vehicles battery sector. On the other hand, a more dynamic increase in prices was slowed by the still-high global inventories of this metal.



In the first half of 2018, following many of the other base metals, the price of molybdenum was also pushed up, with significant increases in this period. After a temporary price collapse in the June-July timeframe, the price again rose above 12 USD/lb and remained at this level until the end of the year. The price of molybdenum was supported by the fundamental market situation and by falling production in the Chuquicamata mine (related to the transformation of this mine from open-pit to underground), which was partially offset by higher production in other mines in Latin America. The steel industry, which

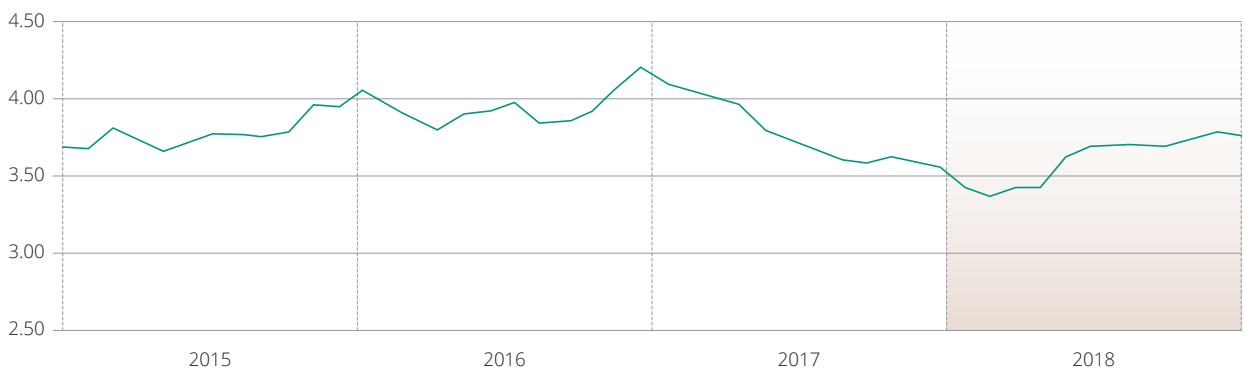
is crucial for molybdenum, despite weaker results in Europe, continues to generate substantial demand for this metal in the United States and China. The average monthly price of molybdenum during the year ranged between 10.85 USD/lb (January 2018) and 12.86 USD/lb (March 2018).

As a result, the average price of this metal in 2018 amounted to 12.14 USD/lb and was more than 48% higher than the average price in 2017 (8.22 USD/lb).



The USD in 2018 strengthened substantially as compared to other world currencies – the value of the USD as compared to the currency basket (the so-called dollar index) increased by more than 4%. This appreciation of the USD was driven by the continued tightening of monetary policy by the Fed and the continued positive readings from the US economy. The USD/PLN exchange

rate, after reaching its lowest level since 2014 (around 3.35 USD/PLN) at the turn of January and February 2018, saw a dynamic increase in the second quarter of the year, and at the end of 2018 reached the level of 3.76 USD/PLN. The average USD/PLN exchange rate (per the NBP) in 2018 amounted to 3.6117 USD/PLN and was lower by 4% than the rate in 2017 (3.7782 USD/PLN).





The following table presents the most important macroeconomic data for the Company's operations:

Macroeconomic factors significant for the operations of the KGHM Polska Miedź S.A. Group – average prices

|  | Unit     | 2018   | 2017   | Change (%) | 4Q'18  | 3Q'18  | 2Q'18  | 1Q'18  |
|--|----------|--------|--------|------------|--------|--------|--------|--------|
| Copper price on the LME                      | USD/t    | 6 523  | 6 166  | +5.8       | 6 172  | 6 105  | 6 872  | 6 961  |
| Copper price on the LME in PLN               | PLN/t    | 23 520 | 23 212 | +1.3       | 23 255 | 22 609 | 24 581 | 23 669 |
| Silver price per the LBMA                    | USD/oz t | 15.71  | 17.05  | (7.9)      | 14.54  | 15.02  | 16.53  | 16.77  |
| Nickel price on the LME                      | USD/t    | 13 122 | 10 411 | +26.0      | 11 516 | 13 266 | 14 476 | 13 276 |
| Molybdenum price per the CRU                 | USD/lb   | 12.14  | 8.22   | +47.7      | 12.21  | 12.07  | 12.41  | 11.85  |
| USD/PLN exchange rate per the NBP            |          | 3.6117 | 3.7782 | (4.4)      | 3.7671 | 3.7018 | 3.5778 | 3.4009 |
| USD/CAD exchange rate per the Bank of Canada |          | 1.2957 | 1.2986 | (0.2)      | 1.3204 | 1.3070 | 1.2911 | 1.2647 |
| USD/CLP exchange rate per the Bank of Chile  |          | 640    | 649    | (1.4)      | 679    | 662    | 621    | 602    |



# 1.10 Analysis of the global market for the Group's primary products

The primary products of the KGHM Polska Miedź S.A. Group, i.e. copper concentrates, cathodes, copper wire rod and silver in the form of bars and grains are traded on the highly-competitive global market as well as in reference to the commodity markets. Individual markets

for the products offered by KGHM have varied rules and customs concerning trading and standard prices. Their incomparability is also due to the characteristics of individual products, which impacts their usage and the diversification of market participants.

## Copper

The primary copper products offered by the companies of the KGHM Group are concentrates, cathodes and copper wire rod. They are products of individual stages of copper ore processing. For all of these products, the price benchmark (i.e. the global benchmark of copper prices for physical sales contracts of copper-bearing materials and products) is stock quotations, with the cash settlement of the London Metal Exchange (LME) being most commonly used. Less commonly used are alternative quotations of copper on stock exchanges in New York (COMEX) and Shanghai (Shanghai Futures Exchange). Grade "A" type, with a copper content of at least 99.99% (standard BS:EN 1978:1998 - Cu-CATH-1)

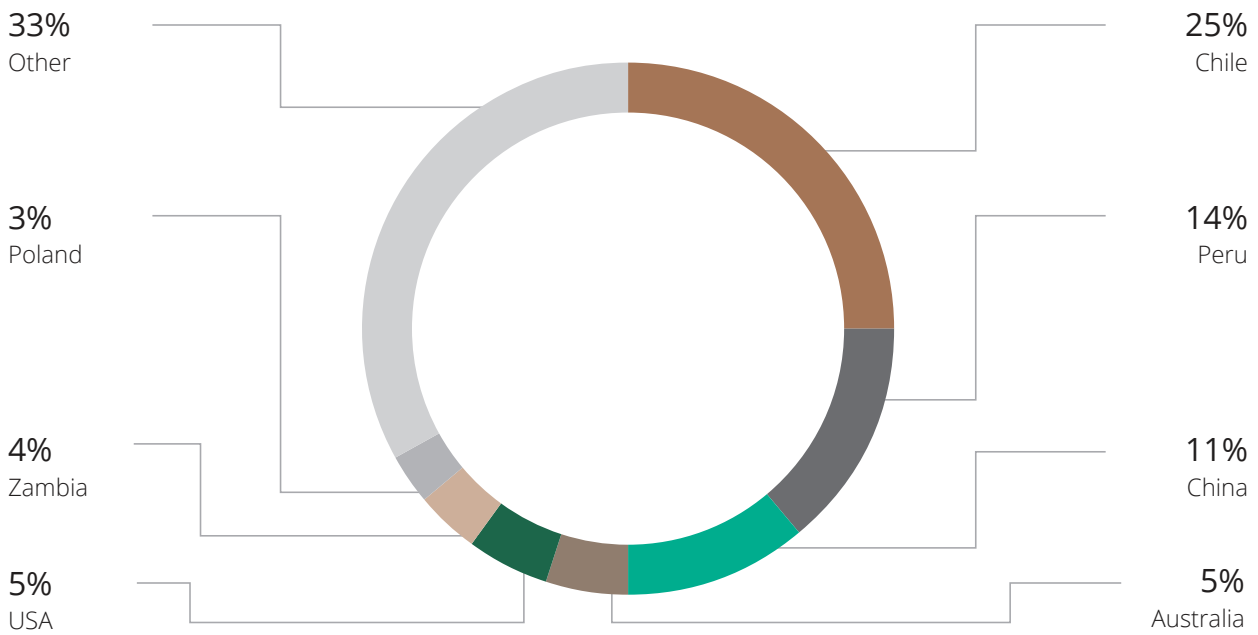
are quoted on the LME. In order to be able to apply stock exchange prices to purchase/sale transactions of the products to which this quality standard is not applicable (i.e. all types of copper-bearing materials like copper concentrates, copper scrap or more processed products like copper wire rod), market participants have developed a premium and discount system, which adjusts stock quotations. It allows setting of a market price for a product which takes into account its processing stage, its physical state and chemical makeup, as well as costs of insurance and transport to an agreed delivery destination and the current availability of the metal in a given location.

## Copper concentrates

Copper concentrate is a product made by processing copper ore, which usually has a relatively low metal content and is not suitable for direct metallurgical processing. Usually, copper content in concentrate varies from percentages in the teens to several tens percent, which enables further processing in copper smelters and refineries. The cost of transporting products with a lower copper content basically eliminates them from trade in the global market (with certain exceptions), therefore it may be assumed that copper concentrate is the first product of processing copper ore that may be generally traded. The main participants of the concentrate

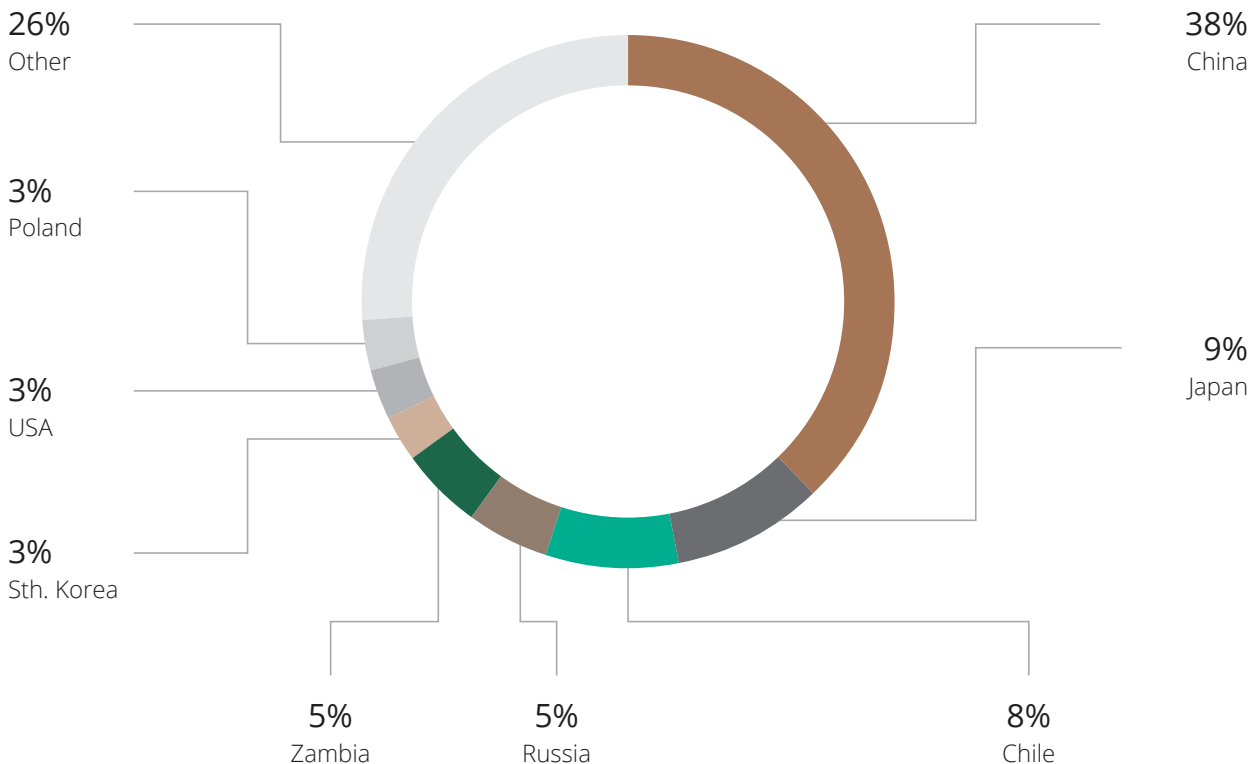
markets are mines supplying the product on the market and smelters and refineries, for which the concentrates are materials for production. As a result of metallurgical processes copper is produced as well as the by-products of processing (mainly precious metals, sulphuric acid, lead etc). Trading companies intermediating in the purchase/sale transactions and offering additional services expected by the parties also play a significant role on this international market. In 2018, the total global production of copper in Cu concentrate is estimated at 16.8 million tonnes (according to CRU).

### Geographical breakdown of copper concentrates production in 2018



Source: CRU, KGHM Polska Miedź S.A.

### Geographical breakdown of copper blister production from copper concentrates in 2018



Source: CRU, KGHM Polska Miedź S.A.

Copper concentrates require processing into refined copper, which leads to incurring processing costs and the incomplete recovery of metals in individual production stages. Therefore, the transaction price should

have a set of discounts as compared to quoted prices for refined copper. The benchmark of these discounts (for TC/RC) is determined during negotiations with the main producers of concentrates (Freeport McMoRan,

Antofagasta) and their customers (mainly Chinese and Japanese smelters and refineries).

Companies of the KGHM Group participate in the copper concentrate markets mainly by selling concentrate from Sierra Gorda in Chile and from Robinson in the USA. Occasionally, KGHM Polska Miedź S.A. also sells copper

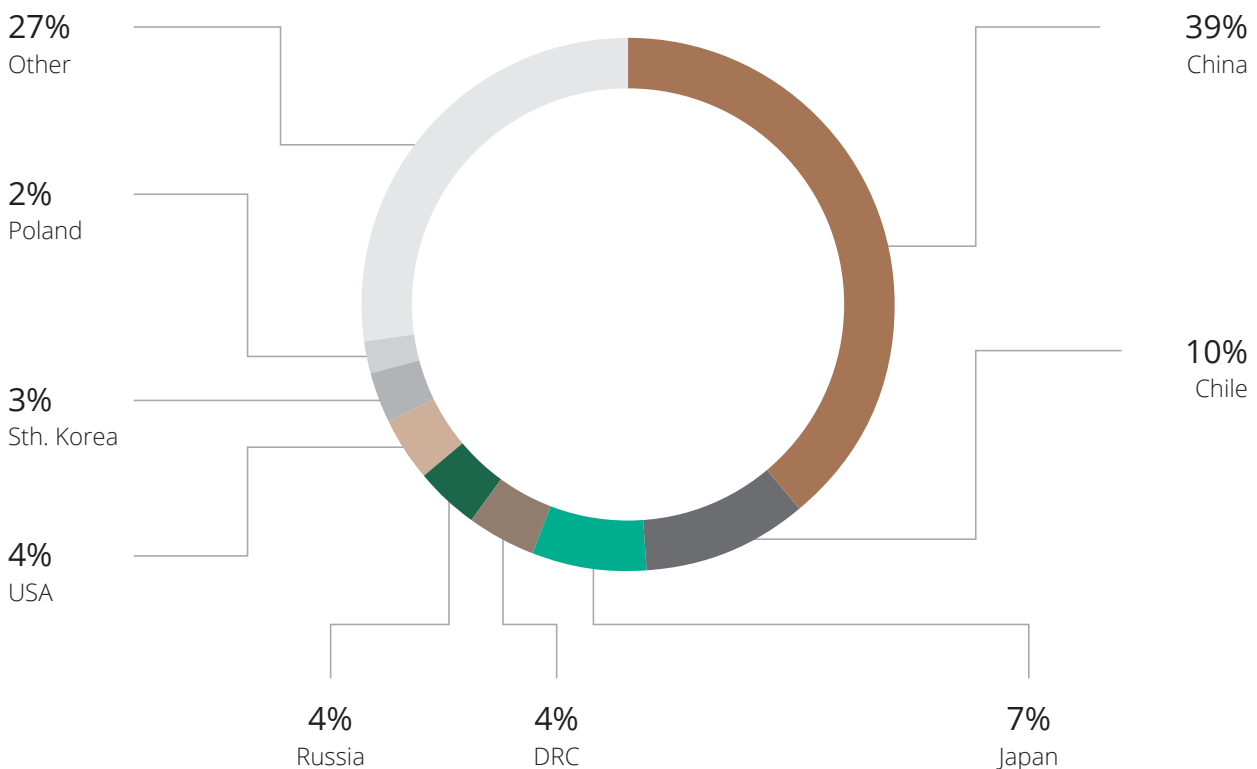
concentrate produced by the Lubin, Rudna and Polkowice-Sieroszowice mines. At the same time the Company purchases copper concentrates from the market with characteristics suitable for more efficient utilisation of the production capabilities of the smelters and refineries in Poland.

## Copper cathodes

Refined copper in the form of copper cathodes is the end product of the smelting and refining processes, to which the copper-bearing materials are subjected (including concentrates, copper blister, anodes and copper scrap). Primary commodities exchanges (including the LME and SHFE) enable cathodes to be registered (Grade A type, with a copper content of at least 99.99% under the BS:EN 1978:1998 - Cu-CATH-1 standard), and therefore their trading on exchanges and through LME-approved warehouses. The copper cathodes produced by KGHM are registered on the LME as well as on SHFE, under the brands: HML, HMG-B and HMG-S. Unregistered cathodes are also traded on the physical market (for example those that do not meet quality parameters or

the minimal yearly production conditions set by exchanges). One example of unregistered cathodes produced by KGHM are those from Carlota and Franke mines. The main participants in the cathodes market are mining and smelting companies producing copper in the form of cathodes and wire rod plants and other companies engaged in copper processing, which use cathodes to produce wire rod, other rods, flat bars, pipes, sheets and belts. Trading companies and financial institutions intermediating in the cathodes trade are also important participants in the market. In 2018, total global production of refined copper is estimated by CRU at 23.8 million tonnes.

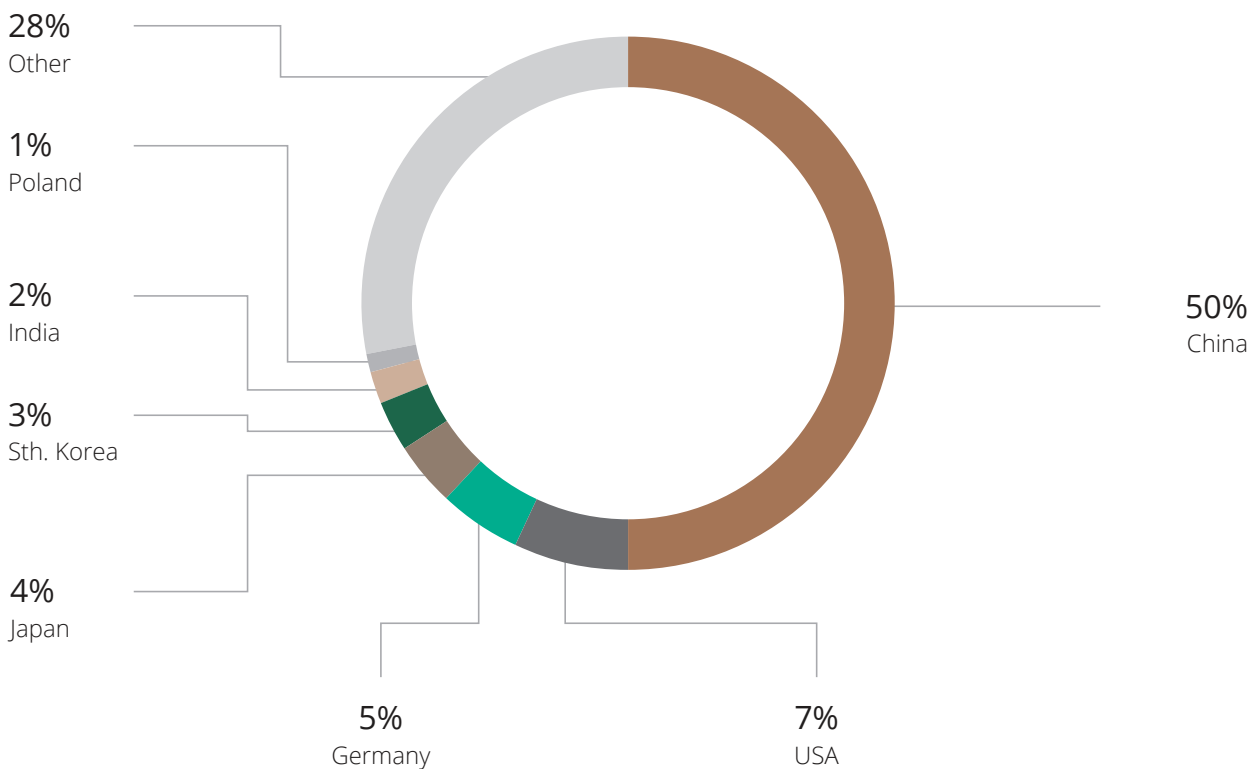
## Geographical breakdown of refined copper production in 2018



Source: CRU, KGHM Polska Miedź S.A.



## Geographical breakdown of refined copper consumption in 2018



Source: CRU, KGHM Polska Miedź S.A.

It is a standard practice on the Grade "A" copper cathodes market to add a producer's premium to the prices set by global exchanges. Its level allows the producer to cover the cost of transport and insurance to the agreed delivery destination, and it also includes the premium for quality (of a given cathodes brand) and supply-demand situation on a given market.

The companies of the KGHM Group participate on the cathodes market mainly by selling cathodes from the Group's Polish assets. The Głogów Copper Smelter and

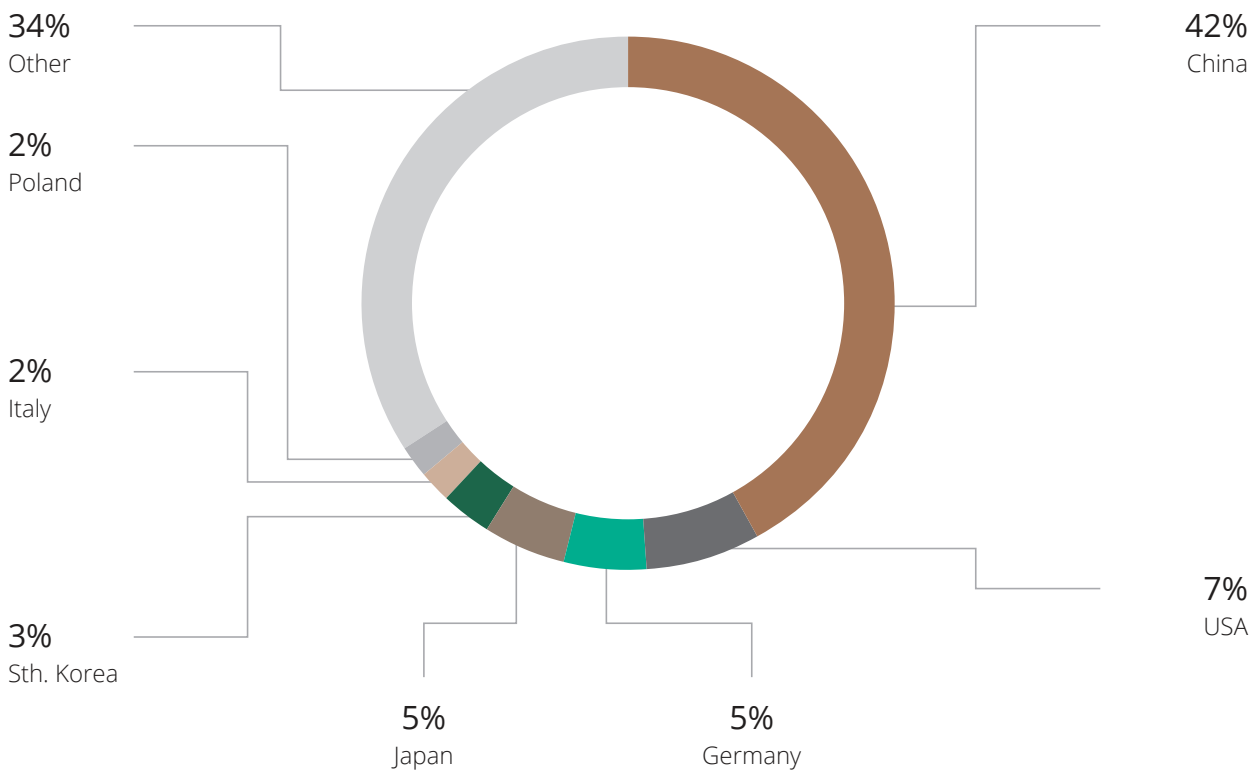
Refinery produces cathodes of the HMG-S and HMG-B brands, while the Legnica Copper Smelter and Refinery produces cathodes of the HML brand. Moreover, the KGHM Group offers cathodes produced through the leaching and electrowinning process (SX/EW) in the Franke mine in Chile and in the Carlota mine in the United States. Production of refined copper in the companies of the KGHM Group amounted to 525.2 thousand tonnes, which represents approx. 2.2% of global production.

## Copper wire rod

Copper wire rod is manufactured in the continuous process of melting, casting and drawing in plants processing refined copper in the form of cathodes (although higher-grade copper scrap may also be used). Wire rod is a half-finished product used in the production of single wires and multiple wires used to produce conducting vines in cables and electric cables (for example: enamelled cable, car cables, power cords etc.). Similarly as for

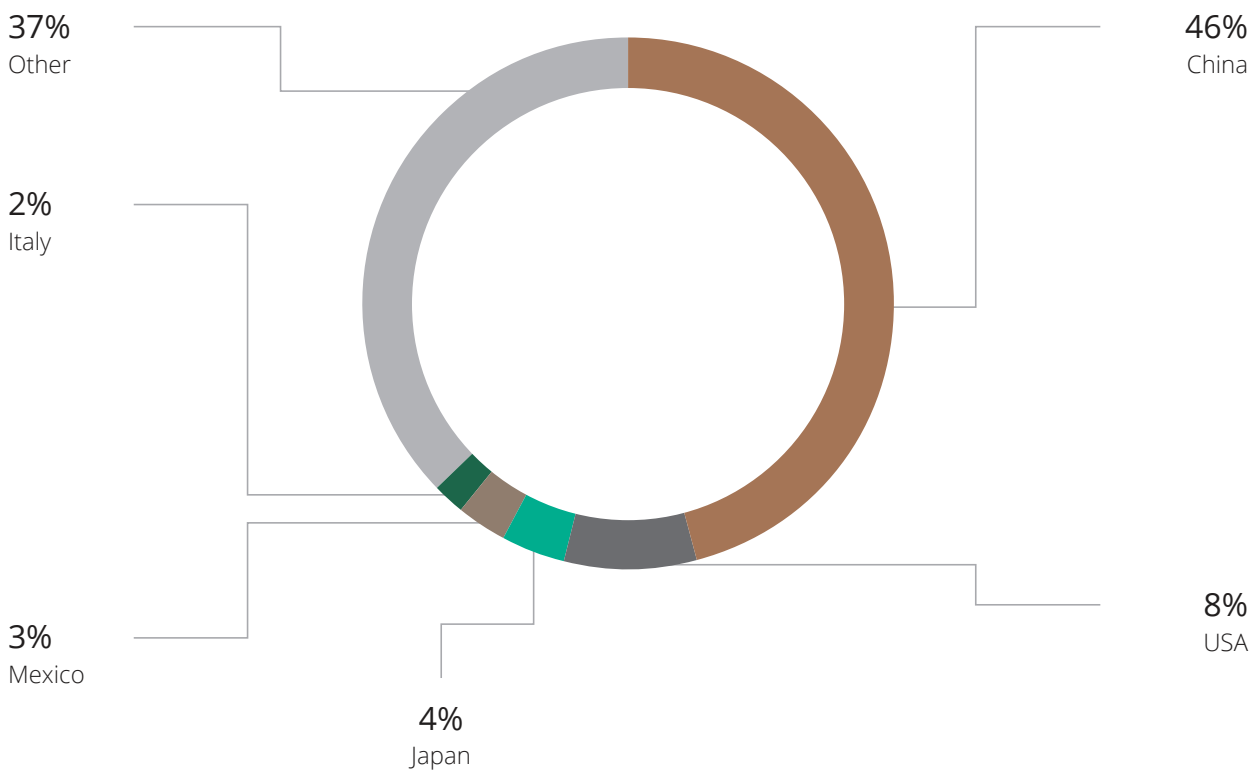
copper cathodes, trading companies are also involved in the physical trading of copper wire rod, apart from companies with wire rod plants and cable-producing companies. The wire rod market, due to the quality characteristics of the product, is more of a local market than the cathodes or copper concentrate markets. In 2018, total global production of copper in the form of wire rod is estimated by CRU at 18.3 million tonnes.

### Geographical breakdown of copper wire rod production in 2018



Source: CRU, KGHM Polska Miedź S.A.

### Geographical breakdown of global wire rod consumption in 2018



Source: CRU, KGHM Polska Miedź S.A.

Wire rod's price structure, apart from the copper quotations on the London Metals Exchange, also includes a producer's fee (added to cathodes) and the refining

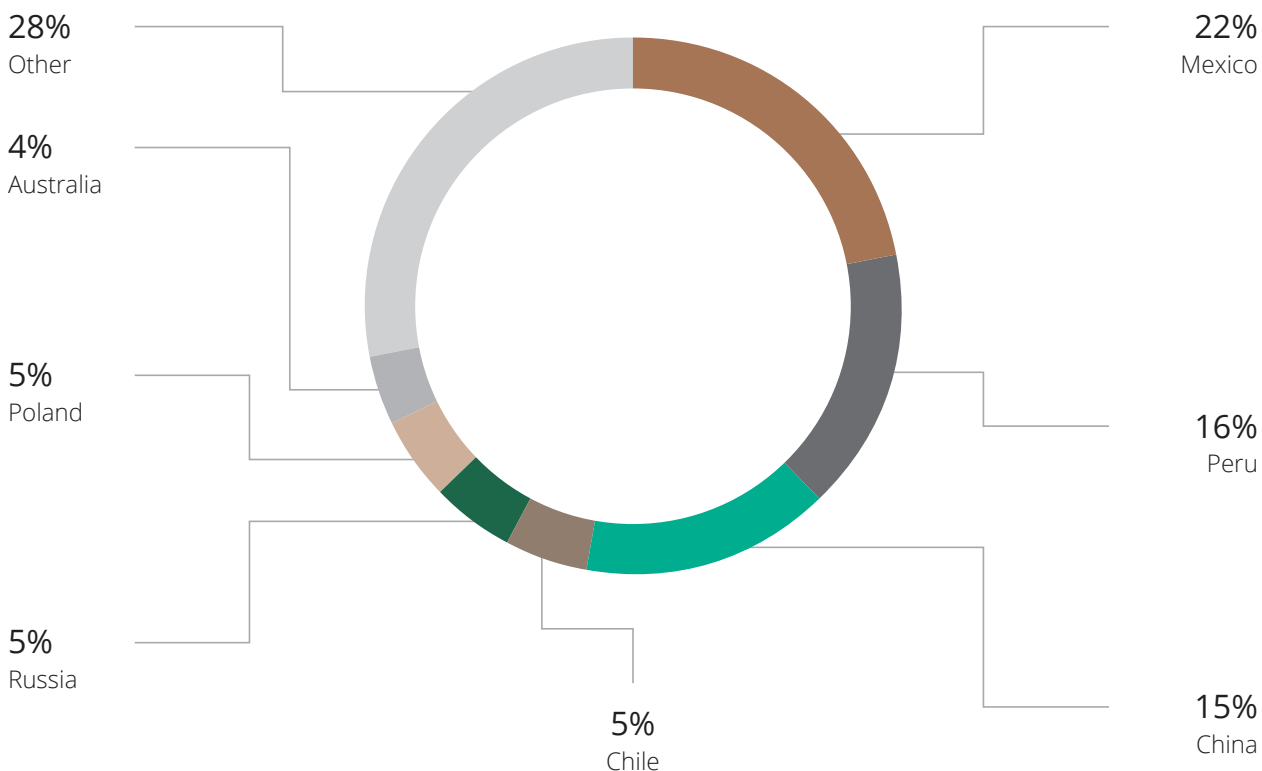
charges due to the costs of processing cathodes into wire rod. KGHM produces wire rod in the Cedynia Wire Rod Plant in Orsk.

## Silver

Approx. 75% of global metallic silver production is a by-product of mining ores of other metals. Silver, due to its unique physical characteristics, is used in the jewellery, electronics and electrical industries, as well as in medicine, optics, the energy industry, the automotive

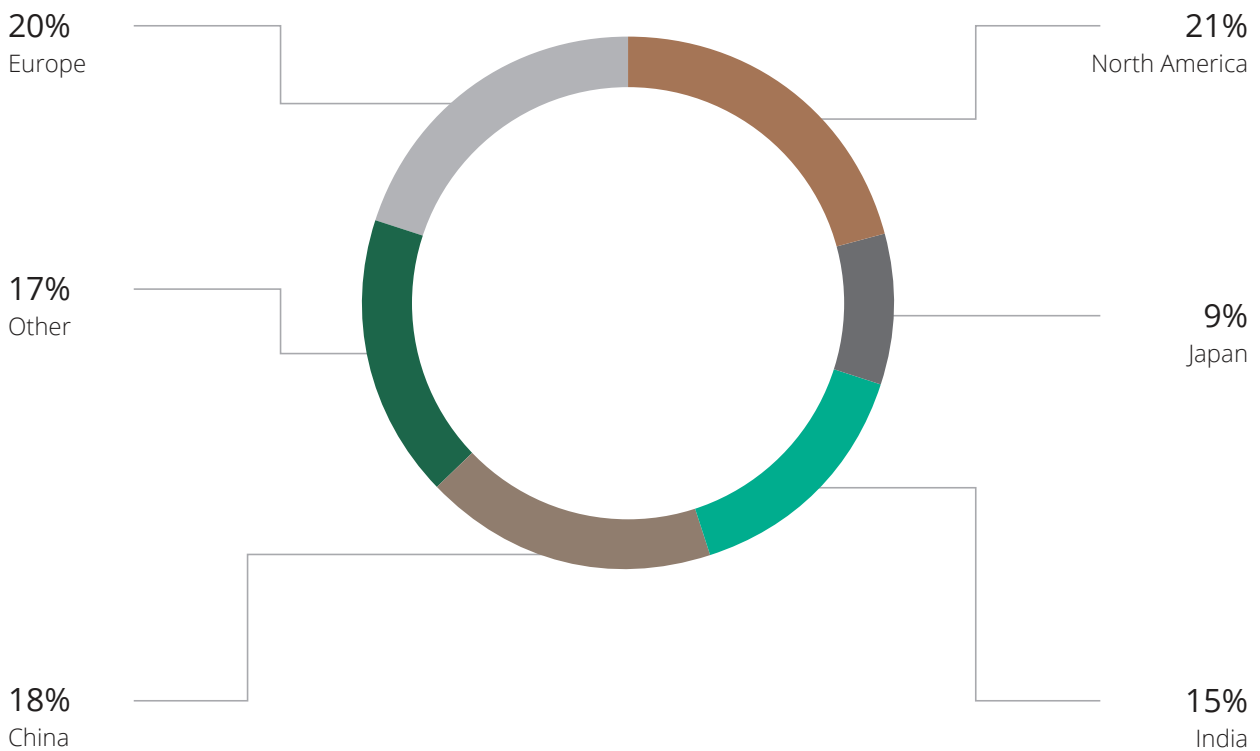
industry and many others. In total, industry utilises approx. 40% of global silver production. It is also a valued investment metal. According to CRU estimates, in 2018 global production of mined silver amounted to 26.7 thousand tonnes.

### Geographical breakdown of global mined silver production in 2018



Source: CRU, KGHM Polska Miedź S.A.

## Geographical breakdown of global silver consumption in 2018



Source: CRU, KGHM Polska Miedź S.A.

Usually, participants in the silver market make use of London Bullion Market Association quotations when setting the price for silver in physical transactions, after adjusting for current market conditions.

KGHM sells silver in the form of bars and grains (produced at the Głogów Copper Smelter and Refinery) and is one of the largest producers of metallic silver. Yearly, the Company produces approx. 1.2 thousand tonnes of this

valuable metal. Silver in the form of bars is registered under the brand KGHM HG and has a registered certificate on the New York Mercantile Exchange (NYMEX) as well as Good Delivery certificates issued by the London Bullion Market Association. Silver is supplied in the form of grains to the photographic, jewellery and metals industries, which produce alloys containing silver. Silver in the form of bars (ingots) is mainly purchased by financial institutions.



## 1.11 Market perspective

---

According to analysts' consensus, economic growth will begin to slow after 2019, along with continuing slowdown in the Eurozone, along with a deterioration of readings from the USA and China which nonetheless have recently surprised frequently to the upside. A potential slowdown, especially in China, which is the world's largest consumer of copper, could detrimentally impact demand for most of the industrial metals in the short term.

In terms of copper supply, an increasingly important question is that of the drop in copper grade in ore (0.45% globally in 2018) and the increasing amounts of impurities. Additional producers are being forced to make substantial investments in order to maintain production levels. Some large open-pit mines, such as Grasberg and Chuquicamata, are being transformed into underground mines, which also plays a part in rising production costs. The market will have to deal with restrictions resulting from the underinvestment in copper mining projects in recent years, during which most of the commodities reached multi-year minimums. There has however been seen recently a reversal of the policy of many companies and an increase in investments.

In 2018 and at the start of 2019 it was difficult to notice a direct correlation between the price of copper and the market deficit, affected by the high level of inventories. If however this deficit continues, there should be a reaction by the copper price.

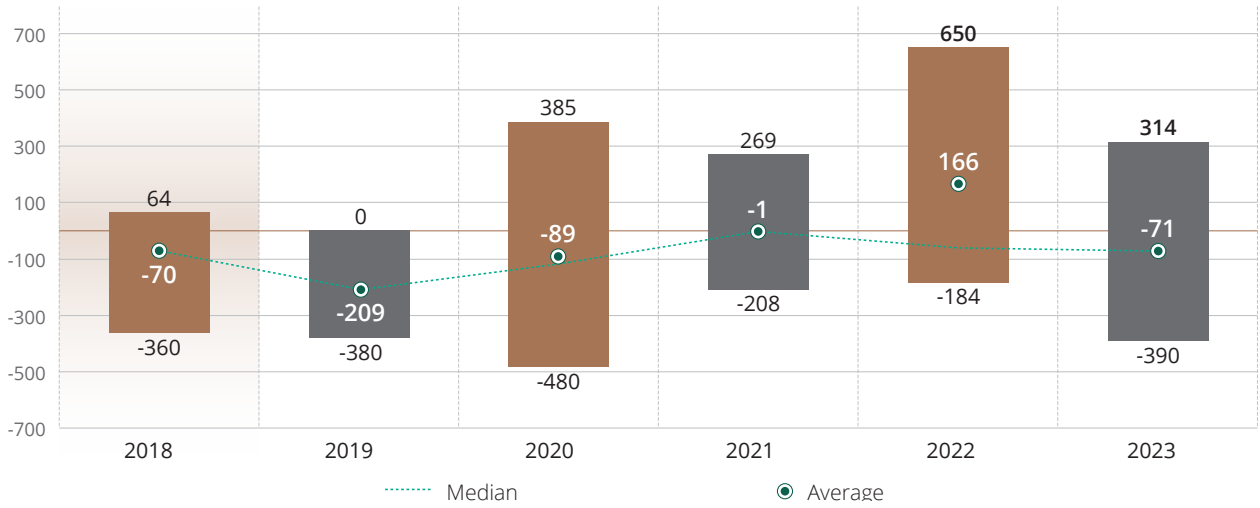
Many countries, including China, have begun to place increasing attention on the question of environmental protection. In many Chinese provinces, industrial production during the winter months is officially restricted in order to fight smog. Further regulations and requirements are being introduced, although not all metallurgical plants meet the requirements introduced back in 2013. China is currently advancing a program called „National Sword“, which was approved

by President Xi Jinping and national customs offices aimed at restricting the inflow of imported wastes. The Chinese plan to replace the decrease in imported scrap caused by the new regulations by a rapid rise in domestic production. This could have a serious impact on international scrap flows and could lead to higher demand for copper concentrate.

These events reflect the trend towards green technology and renewable energy sources. The rapidly growing electric car sector could potentially result in a significant rise in demand for copper (the amount of copper in electric vehicles is up to four times as much as in conventional combustion engines) as well as for many other metals. The batteries produced using NMC and NCA nickel-containing technology, which are used in EV production, have outstanding electro-chemical properties. Demand for nickel from this sector by 2025, as estimated by the leading financial institutions, will exceed 200 thousand tonnes, or approx. 10% of total demand recorded in recent years. The diversification of energy portfolios and increases in the use of renewable energy sources which many countries have been promoting has led to a substantial increase in demand for wind farms, which has had a positive impact on copper consumption. On the other hand the use of photovoltaics potentially supports demand for silver. The Silver Institute expects this trend to continue in the coming years, accompanied by a decrease in the amount of silver used in solar cells.

Among the threats facing this relatively favourable macroeconomic picture are further escalation in the trade conflict between the USA and China and its expansion to other regions of the globe, leading to a drop in international trade. Another risk to continued growth is the potential tightening in monetary policy and a decrease in the US Fed balance along with similar actions by other central banks around the world. This is shown in detail below:

### Forecasted copper market balance (kt)



The assets, capital and corporate governance system presented above, in reference to the macro- and micro-environments, enable the KGHM Polska Miedź S.A. Group to determine the means to build its value, and to further advance this process.



---

# How we create value

---





In KGHM we look at the process of creating value for our stakeholders through three perspectives: short, medium and long term. In the short term the factors of greatest importance for us are primarily operational efficiency, which we achieve under the existing business and measure through an integrated system of operational measures.

In the medium term we create value by advancing our Strategy, concentrating on the adopted financial and non-financial Key Success Factors, acting on the basis of our competitive advantage and modifying – if necessary – our assets and value chain.

In the long term we create value by strengthening the foundations of Sustainable Development, transforming, developing our Capital and appropriately modifying our business model and value chain in such a way as to most effectively respond to the needs of all of our stakeholders, as well as to the existing and anticipated trends, conditions and challenges in our environment.

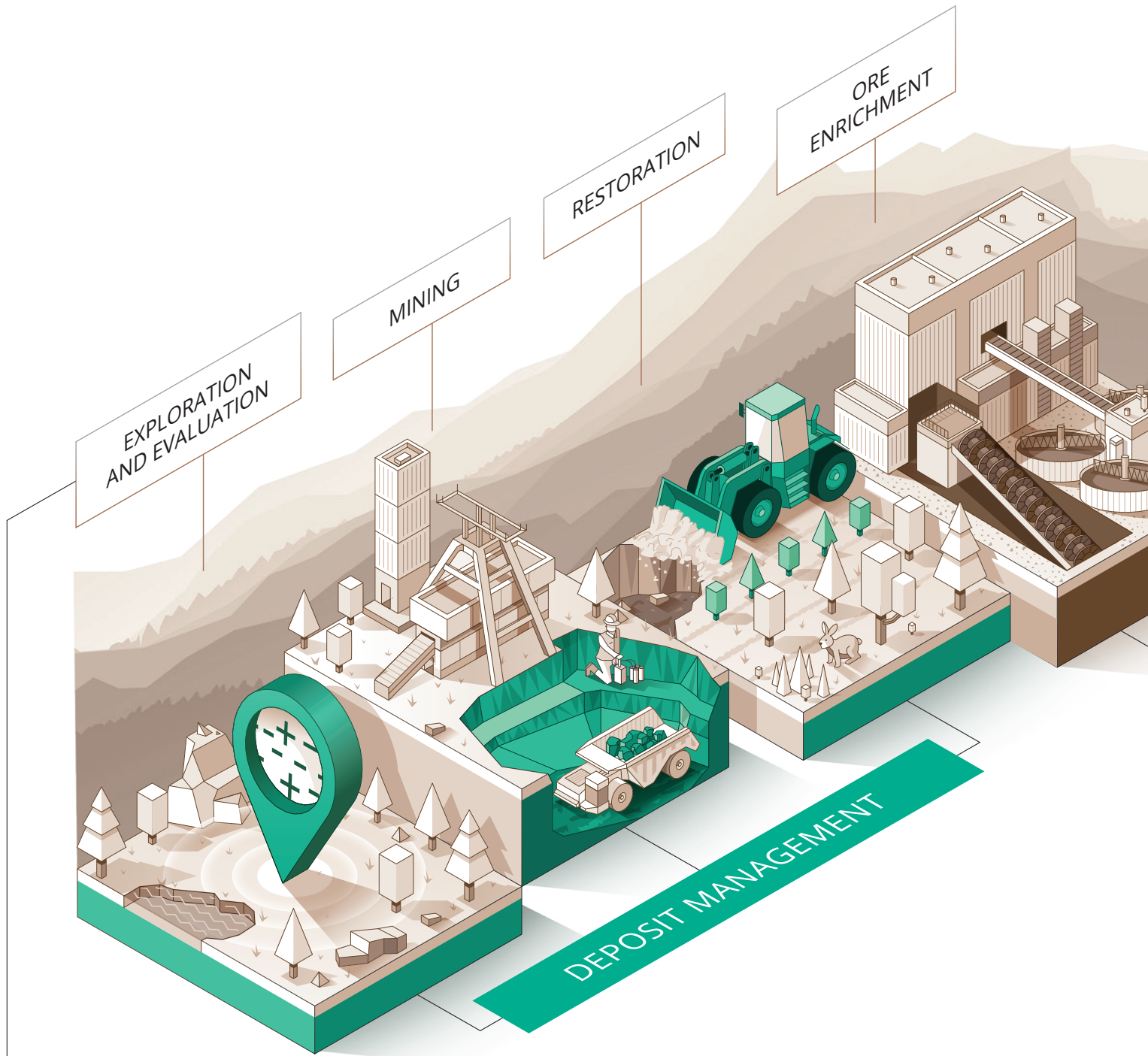
## 2.1 Business model of KGHM Polska Miedź S.A.

---

### GRI102-9 KGHM Business model

The KGHM Polska Miedź S.A. Group is a global, innovative organization involved in technologically advanced exploration, mining and smelting operations with a geographically diversified portfolio of mining projects.

KGHM's business model is divided into 7 segments through which the Group ensures a full value creation chain – from exploration to sales of finished goods.



**KGHM ZANAM S.A.**

Manufacturer of machinery and equipment for the mining sector.



**PeBeKa S.A.**

Investments in mining projects mine drilling, tunnel drilling, as well as infrastructure all over the world.



**„Miedziowe Centrum Zdrowia” S.A.**

It is a business providing a broad range of medical services.



**„Energetyka” Sp. z o.o.**

One of the largest heat companies in the Lower Silesia region.

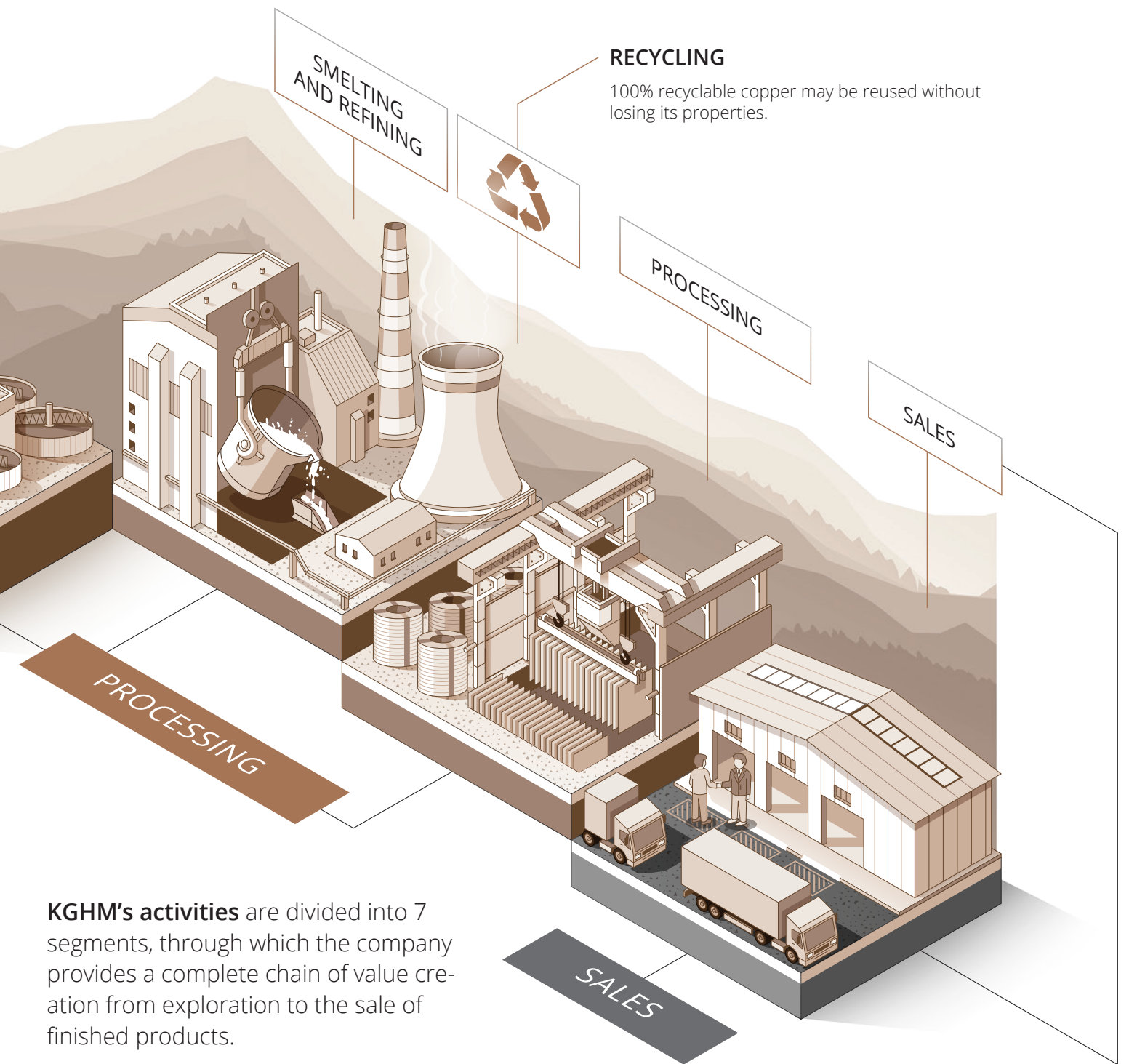


**Uzdrowiska Kłodzkie S.A. – Grupa PGU**

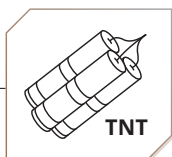
The largest spa complex in Poland

Source: KGHM.



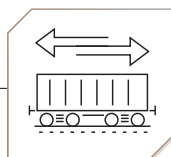


**KGHM's activities** are divided into 7 segments, through which the company provides a complete chain of value creation from exploration to the sale of finished products.



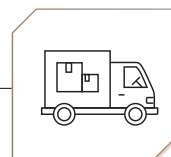
**NITROERG S.A.**

It offers two basic types of products: explosives and initiation systems and a diesel oil additive 2-EHN (NITROCET®).



**POL-MIEDŹ TRANS Sp. z o.o.**

Its activities include mainly relating to railway and passenger transport and rollick stock maintenance.



**Mercus Logistyka Sp. z o.o.**

It sells materials, goods and services traded in with the KGHM Group.



**KGHM INTERNATIONAL LTD.**

This Canadian company mining industry, engaged in the production of copper, nickel, platinum, palladium, gold, cobalt and molybdenum.

## How we create value

Production in KGHM Polska Miedź S.A. is a fully integrated process, in which the end product of one technological phase is the starting material (half-finished product) used in the next phase. Mining in KGHM Polska Miedź S.A. is performed by three mining Divisions: Lubin, Rudna and Polkowice-Sieroszowice. In the subsequent phase the Concentrators Division prepares concentrate for the smelters and refineries, while the Tailings Division is responsible for storing and managing the tailings generated by the copper ore enrichment process. The organisational structure of KGHM includes two metallurgical facilities: the Legnica Copper Smelter and Refinery and the Głogów Copper Smelter and Refinery, as well as the Cedynia copper wire rod plant.

KGHM Polska Miedź S.A., as part of its operations, is dynamically developing elements related to advancing the concept of a closed-circuit economy. Under development in our core business are questions related to recycling and the ever-better use of industrial waste as so-called secondary raw materials.

Building value throughout the entire chain requires an appropriate response by the KGHM Polska Miedź S.A. Group in terms of the organisation and conduct of management processes, focused on management principles and based moreover on strong ethical pillars.





---

# Management principles

---



## 3.1 Group structure

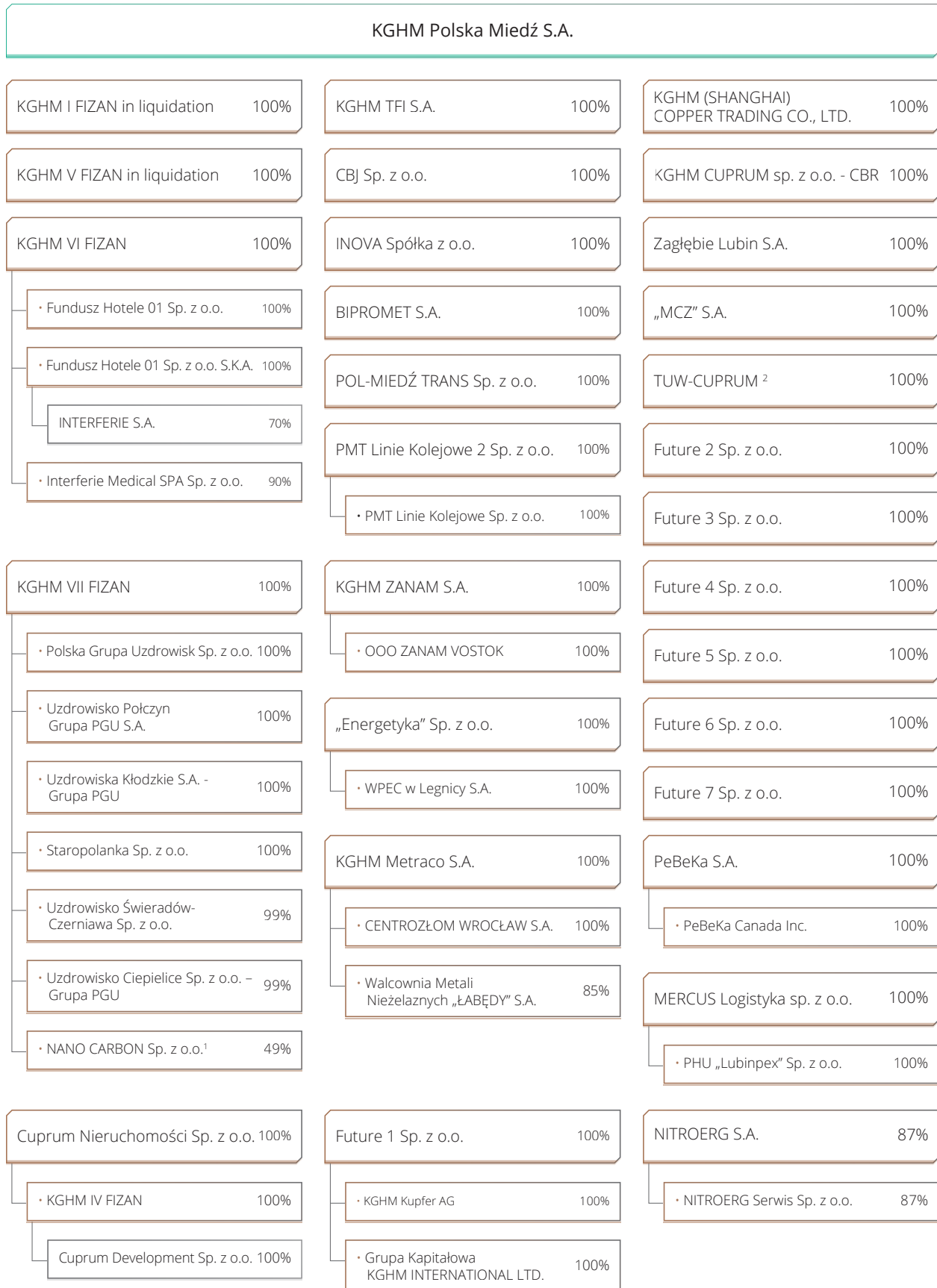
---

**GRI102-5** As at 31 December 2018, the Group was composed of KGHM Polska Miedź S.A. – the Parent Entity – and 75 subsidiaries (including five closed-end, non-public investment funds), located on four continents: Europe, North America, South America and Asia. Some of these subsidiaries form their own groups. The largest of these, in terms both of the number of entities as well as the value of equity, was the KGHM INTERNATIONAL LTD. Group, whose main assets are located in Canada, the USA and Chile. It was comprised of 25 subsidiaries. As at the end of the reporting period the KGHM Polska Miedź S.A. Group owned shares in two joint ventures - Sierra Gorda S.C.M. and NANO CARBON Sp. z o.o.

The Group's main entities, which are engaged in the mining sector, comprise three primary reporting segments which are independently evaluated by management bodies. These are: KGHM Polska Miedź S.A., KGHM INTERNATIONAL LTD. and Sierra Gorda S.C.M. Other companies, excluding Future 1 Sp. z o.o., Future 2 Sp. z o.o., Future 3 Sp. z o.o., Future 4 Sp. z o.o., Future 5 Sp. z o.o., Future 6 Sp. z o.o. and Future 7 Sp. z o.o., are part of the segment called Other segments.



Structure of the KGHM Polska Miedź S.A.

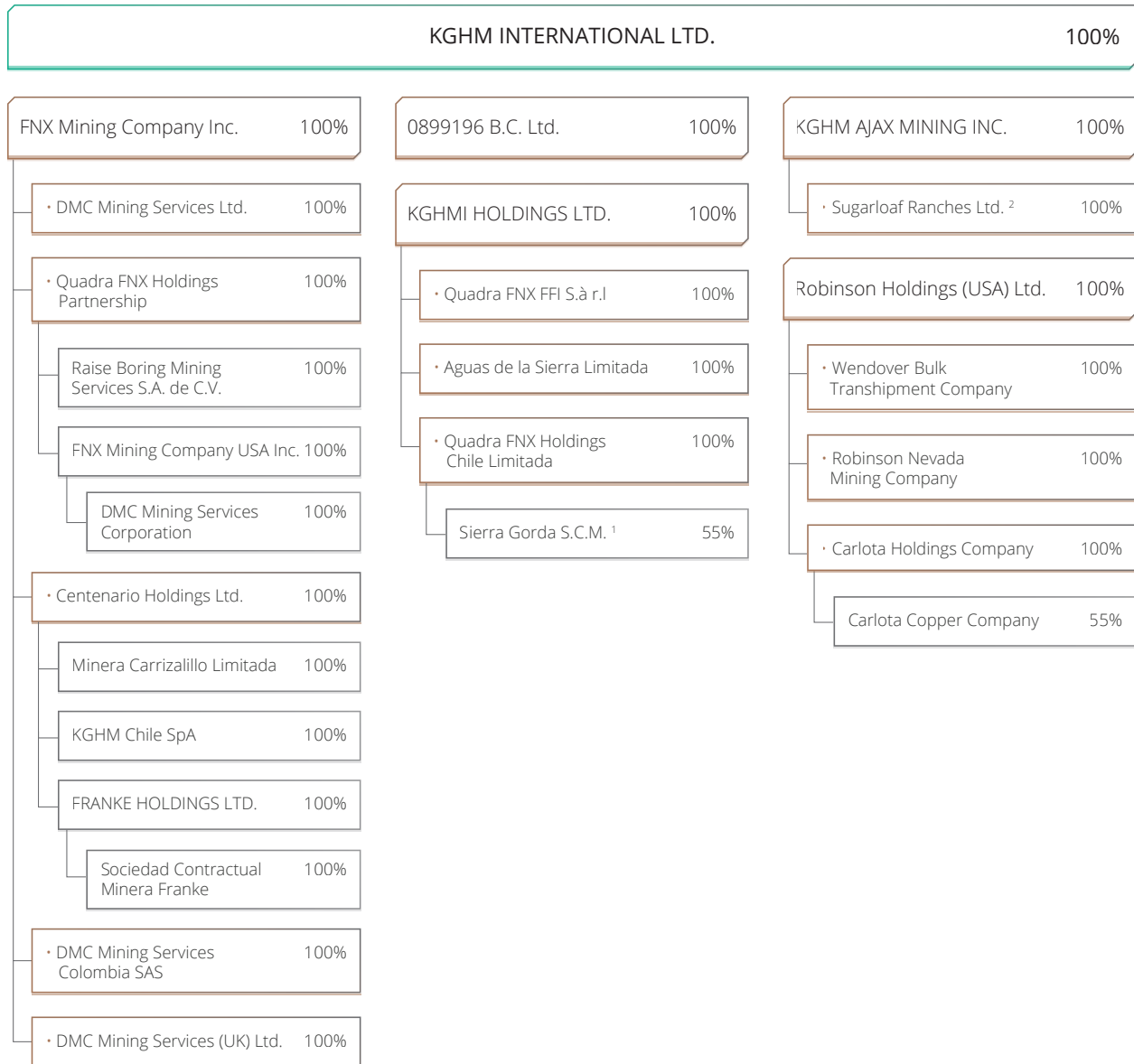


1 - joint venture valued using the equity method

2 - non-consolidated subsidiary



Structure of the KGHM INTERNATIONAL LTD.



1 - joint venture valued using the equity method


2 - actual share of the Group 80%


Main reporting segments of the KGHM Polska Miedź S.A. Group

|  | KGHM<br>Polska Miedź S.A.   | KGHM<br>INTERNATIONAL LTD.   | Sierra Gorda S.C.M.<br>Joint venture of KGHM<br>INTERNATIONAL LTD.<br>and Sumitomo Group<br>companies | Other segments   |
|--|---|--|---|--|
| <b>Activities</b>                          | mined and metallurgical production of metals – Cu, Ag, Au   | mined production of metals - Cu, Mo, Au, Ag  | produkcja górnicza metali - Cu, Mo, Au, Ag  | This item includes other Group companies (each company represents a separate operating segment). |
| <b>Main production assets</b>              | underground mines:<br>- Lubin mine<br>- Polkowice-Sieroszowice mine<br>- Rudna mine<br><br>metallurgical plants:<br>- Legnica Copper Smelter and Refinery<br>- Głogów I Copper Smelter and Refinery and Głogów II Copper Smelter and Refinery<br>- Cedynia Wire Rod Plant | Robinson mine in the USA (open pit)  | Sierra Gorda mine in Chile (open pit)   |  |
| <b>Most important development-projects</b> | Głogów Głęboki-Przemysłowy (Deep Głogów)<br><br>pre-production projects and exploration projects in south-west Poland   | Victoria project in the Sudbury Basin in Canada - construction of an underground copper and nickel mine<br><br>Sierra Gorda Oxide project in Chile |   |  |


In the remaining segments of the KGHM Polska Miedź S.A. Group several sub-groups may be distinguished:

 companies supporting the core business of KGHM Polska Miedź S.A.,

 closed-end investment funds and portfolio companies,

 companies serving an important role in CSR policy,

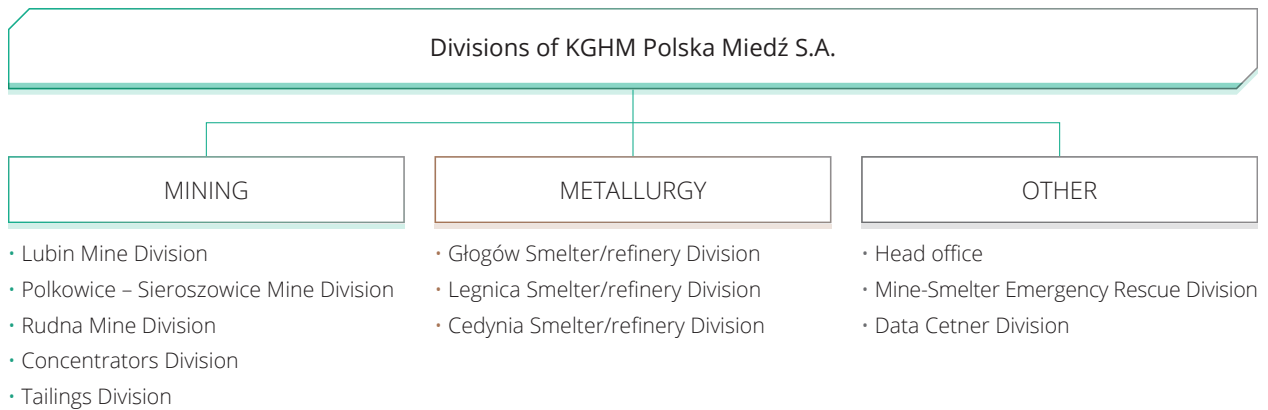
 special purpose companies in the holding structure,

 companies targeted for restructuring or divestment.

## 3.2 Organisational structure of KGHM Polska Miedź S.A.

In 2018, the multi-divisional organisational structure of the Company, acting under the name KGHM Polska Miedź S.A., comprised the Head Office of the Company and 10 Divisions.

Organisational structure of the Company as at 31 December 2018



## 3.3 Ownership structure and share price of the Company KGHM Polska Miedź S.A. on the Stock Exchange

---

KGHM Polska Miedź S.A. debuted on the Warsaw Stock Exchange (WSE) in July 1997. The Company's shares are traded on the primary market of the WSE in the continuous trading system and are a component of the WIG, WIG20 and WIG30 indices, the sector index WIG-GÓRNICTWO and – until 10 July 2018 – the WIGdiv index. Continuously since 19 November 2009, the Company has participated in the RESPECT Index, which confirms its conformance with the highest standards of social responsibility. The RESPECT Index highlights those companies which are managed in a sustainable and responsible manner, and also highlights their investment attractiveness.

Pursuant to an announcement by FTSE Russell, on 24 September 2018 Poland's status was amended from that of an emerging market to a developed market. Consequently, since September 2018, KGHM Polska Miedź S.A. has been a component company of the FTSE4Good Index Series. The FTSE4Good Index Series is part of the group of ethical investment indicators, reflecting

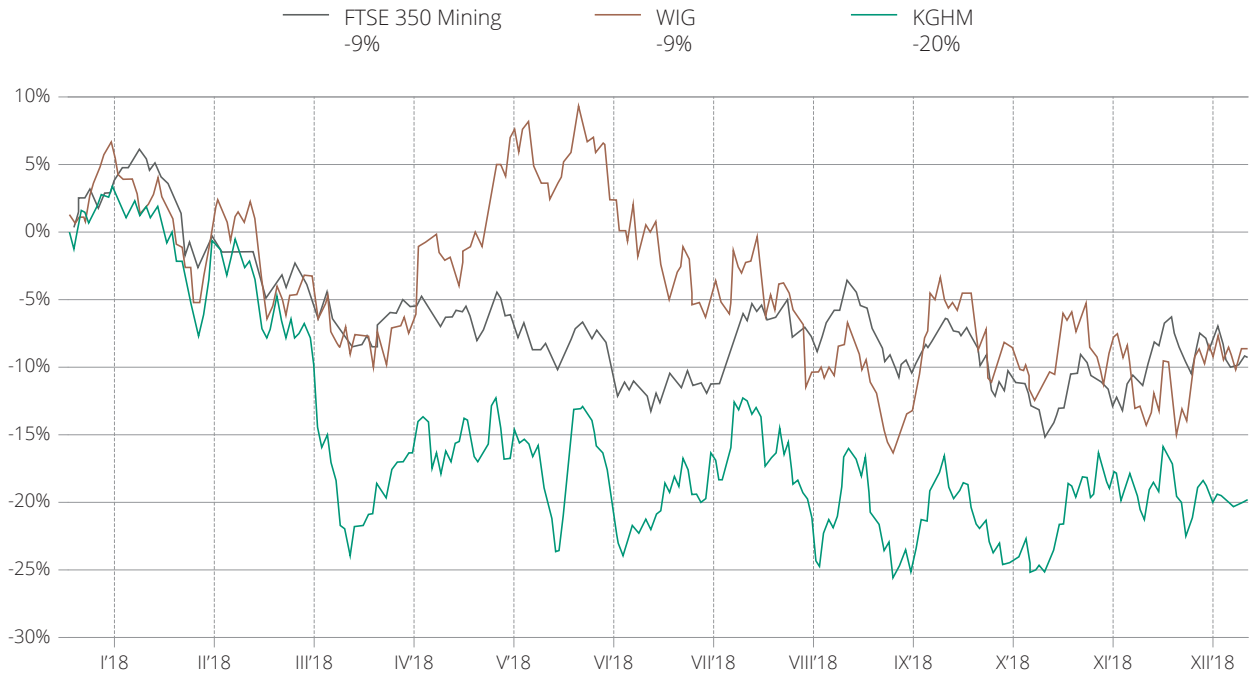
criteria of corporate social responsibility and ESG risk management.

The year 2018 was unsuccessful for the stock market. The main indices of the WSE dropped: WIG by 9%, WIG20 by 7% and WIG30 by 9%. The FTSE 350 Mining index – an index comprised of companies from the mining sector, listed on the London Stock Exchange – also fell, by nearly 9%. The share price of KGHM Polska Miedź S.A. on the WSE fell during 2018 by 20%, from PLN 111.20 recorded on 29 December 2017 to PLN 88.88 at the end of 2018. During the same period the price of copper – the Company's main product – recorded a drop of 17%, alongside an increase in the average USD/PLN exchange rate by 8%.

On 15 January 2018 the Company's shares reached their maximum closing price for the year of PLN 115.00. The minimum closing price of PLN 82.56 was recorded on 11 September 2018.



Share price of KGHM Polska Miedź S.A. versus the WIG index and FTSE 350 mining index



Key share price data of KGHM Polska Miedź S.A. on the Warsaw Stock Exchange in the years 2017-2018 are presented in the following table:

| Symbol: KGH, ISIN: PLKGHM000017                        | Unit        | 2018   | 2017   |
|--|-------------|--------|--------|
| Number of shares issued                                | million     | 200    | 200    |
| Market capitalisation of the Company at year's end     | PLN billion | 17.8   | 22.2   |
| Average trading volume per session                     | 000' shares | 601    | 790    |
| Turnover value   | PLN million | 13 890 | 23 251 |
| Change in share price from the end of the prior year   | %           | -20.1  | +20.2  |
| Highest closing price during the year                  | PLN         | 115.00 | 135.50 |
| Lowest closing price during the year                   | PLN         | 82.56  | 92.17  |
| Closing price from the last day of trading in the year | PLN         | 88.88  | 111.20 |



## Investor relations

The dialogue with stakeholders, among whom shareholders are of particular significance, is for us a key aspect of the Company's operations. For KGHM Polska Miedź S.A., as a global company operating on three continents, it is a priority to ensure equal access to information to all members of the global capital markets. KGHM Polska Miedź S.A.'s actions are aimed at maintaining regular communication and transparent dialogue with investors and analysts as well as at ensuring conformance with our regulatory legal obligations.

The Company fulfils its disclosure obligations by publishing regulatory filings and periodic reports via the official reporting system (ESPI). The Company's representatives communicate with investors by regular participation in investor conferences and meetings with investors and analysts both in Poland and abroad. Another form of communication by the Company with

the market are conference calls and video conferences organised in response to stakeholder needs.

Publication of the Company's financial results is accompanied by a conference open to all stakeholders, which is webcast live in Polish and English, and includes the possibility of sending questions via e-mail as well as listening-in by phone. Playbacks of conferences are available on the Company's website at [www.kghm.com](http://www.kghm.com) in the Investors section. The Investors section is continuously updated with the latest information and documents. This section also includes regulatory filings and periodic reports, information on the shareholder structure, documents related to general meetings and corporate governance, as well as presentations and videos for investors.

Sell-side reports on KGHM Polska Miedź S.A. were published by 11 analysts based in Poland and 9 based abroad.

| Poland  | Abroad   |
|---|--|
| <ul style="list-style-type: none"> <li>• Dom Maklerski Banku Handlowego</li> <li>• Dom Maklerski mBanku</li> <li>• JP Morgan</li> <li>• Haitong</li> <li>• Dom Maklerski BOŚ</li> <li>• Erste Group</li> <li>• Pekao Investment Banking</li> <li>• Trigon Dom Maklerski</li> <li>• Dom Maklerski BZ WBK</li> <li>• IPOPEMA Securities</li> <li>• PKO Dom Maklerski</li> </ul> | <ul style="list-style-type: none"> <li>• Bank of America Merrill Lynch</li> <li>• Global Mining Research</li> <li>• Raiffeisen</li> <li>• BMO</li> <li>• Goldman Sachs</li> <li>• UBS</li> <li>• EVA Dimensions</li> <li>• Morgan Stanley</li> <li>• WOOD &amp; Company</li> </ul> |

## Dividend

In accordance with the Resolution No. 10/2018 of the Ordinary General Meeting of KGHM Polska Miedź S.A. dated 6 July 2018 regarding the allocation of profit from

financial year 2017, all of the profit was transferred to the Company's share capital.

| PLN/share  | Unit        | 2017 | 2018 |
|--|-------------|------|------|
| Dividend paid in the financial year from prior years' profit | PLN million | 200  | -    |
|  | PLN/share   | 1.00 | -    |
| Dividend yield <sup>1</sup>                                  | %           | 0.9  | -    |

<sup>1</sup> dividend per share paid in the given financial year divided by the closing price in the last trading day in the given financial year

## Ownership structure and the Company's outstanding shares

As at 31 December 2018, the share capital of the Company, in accordance with the entry in the National Court Register, amounted to PLN 2 000 million and was divided into 200 million shares, series A, fully paid, having a face value of PLN 10 each. All shares are bearer shares. Each share grants the right to one vote at the General Meeting. The Company has not issued preference shares. In 2018, there was no change in either registered share capital or in the number of outstanding shares issued.

During this time there was a change in the ownership structure of significant blocks of shares of KGHM Polska Miedź S.A. In 2018, the Company was informed of increases in the total number of votes at the General Meeting of KGHM Polska Miedź S.A. above 5% by two pension funds: Aviva Otwarty Fundusz Emerytalny Aviva BZ WBK (in an announcement dated 17 July 2018) and Otwarty Fundusz Emerytalny PZU „Złota Jesień” (in an announcement dated 16 October 2018).

The Company's shareholder structure as at 31 December 2018 was as follows

| Shareholder   | Number of shares/votes | % of share capital/total number of votes |
|---|------------------------|--|
| State Treasury <sup>1</sup>                                   | 63 589 900             | 31.79%                                   |
| Nationale-Nederlanden Otwarty Fundusz Emerytalny <sup>2</sup> | 10 104 354             | 5.05%                                    |
| Otwarty Fundusz Emerytalny PZU „Złota Jesień” <sup>3</sup>    | 10 099 003             | 5.05%                                    |
| Aviva Otwarty Fundusz Emerytalny Aviva BZ WBK <sup>4</sup>    | 10 039 684             | 5.02%                                    |
| Other shareholders  | 106 167 059            | 53.09%                                   |
| <b>Total</b>  | <b>200 000 000</b>     | <b>100.00%</b>                           |

<sup>1</sup>based on a notification received by the Company dated 12 January 2010

<sup>2</sup>based on a notification received by the Company dated 18 August 2016

<sup>3</sup>based on a notification received by the Company dated 16 October 2018

<sup>4</sup>based on a notification received by the Company dated 17 July 2018

On 18 February 2019, the Company was informed of a decrease in the total number of votes at the General Meeting of KGHM Polska Miedź S.A. below 5% by the

pension fund Otwarty Fundusz Emerytalny PZU „Złota Jesień”. The Company's shareholder structure as at the date this report was signed was as follows:

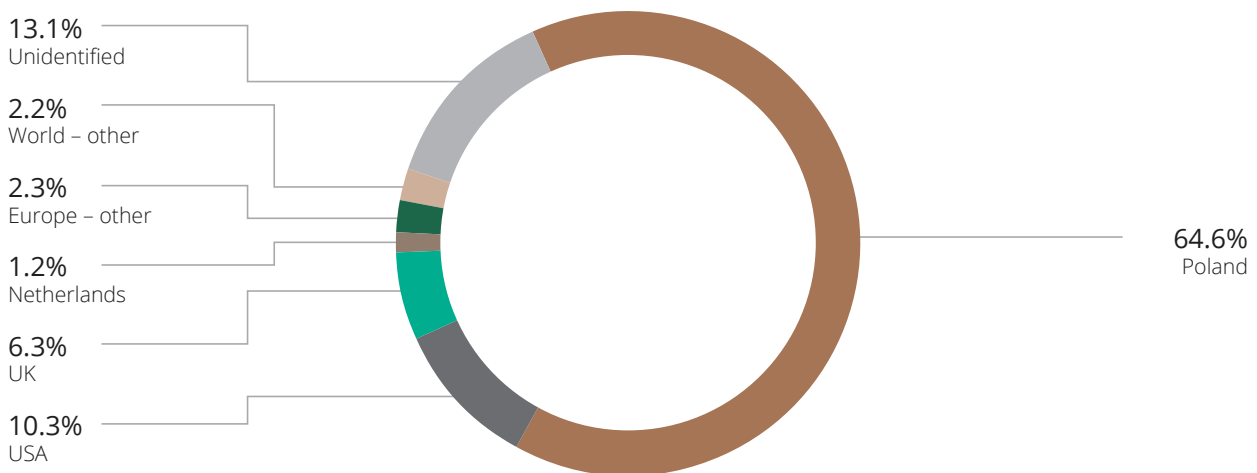
## Shareholder structure as at the date this report was signed

| Shareholder   | Number of shares/votes | % of share capital/total number of votes |
|---|------------------------|--|
| State Treasury                                      | 63 589 900             | 31.79%                                   |
| Nationale-Nederlanden<br>Otwarty Fundusz Emerytalny | 10 104 354             | 5.05%                                    |
| Aviva Otwarty Fundusz Emerytalny Aviva BZ WBK       | 10 039 684             | 5.02%                                    |
| Other shareholders                                  | 116 266 062            | 58.14%                                   |
| <b>Total</b>  | <b>200 000 000</b>     | <b>100.00%</b>                           |

Other shareholders, whose total ownership of the share capital and share in the total number of votes amounts to 58.14%, are mainly institutional investors, both international and domestic.

## Geographic shareholder structure of KGHM Polska Miedź S.A. (%)

Following is the geographic distribution of the shareholder structure of KGHM Polska Miedź S.A. The data is based on research into the Company's shareholder structure performed in October 2018.



Source: CMiZi, October 2018

The Company does not hold any treasury shares. The Management Board of the Company is unaware of any agreements which could result in changes in the proportion of the Company's shares held by present shareholders in the future. Based on information held by KGHM Polska Miedź S.A., as at 31 December 2018 and at the date this report was signed, no Member of the Management Board of the Company held shares of KGHM Polska Miedź S.A. or rights to them.

Amongst the Members of the Company's Supervisory Board, as at 31 December 2018 and at the date this report was signed, only Józef Czyczerski held 10 shares

of KGHM Polska Miedź S.A. with a total nominal value of PLN 100. Based on information held by the Company, the remaining Members of the Company's Supervisory Board did not hold shares of KGHM Polska Miedź S.A. or rights to them.

As far as the Company is aware, Members of the Management Board and Supervisory Board did not hold shares of the related entities of KGHM Polska Miedź S.A. as at 31 December 2018 and at the date this report was signed. The Company did not have an employee share incentive program in 2018.

## 3.4 Corporate Governance Statement

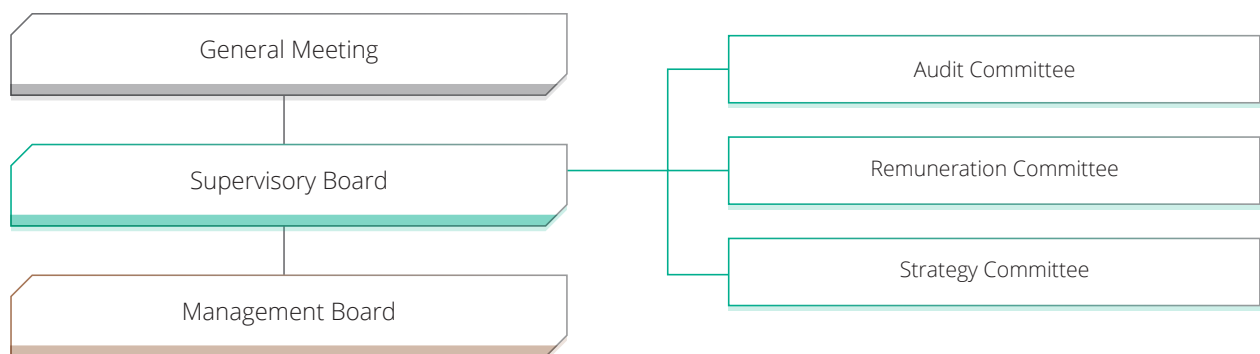
KGHM Polska Miedź S.A., whose shares are listed on the Warsaw Stock Exchange, in 2018 was subject to the corporate governance principles described in the document „Code of Best Practice for WSE Listed Companies 2016” which was adopted by Resolution No. 26/1413/2015 of the Warsaw Stock Exchange Supervisory Board on 13 October 2015. These principles are available at the official website of the Warsaw Stock Exchange devoted to this subject (<https://www.gpw.pl/best-practice>) as well as at the website of KGHM Polska Miedź S.A. under the section devoted to corporate governance <https://kghm.com/en/investors/corporate-governance/governance-compliance>

KGHM Polska Miedź S.A. has endeavoured at every stage of its operations to carry out the recommendations and principles respecting “Best Practice” for listed companies. In 2018, KGHM Polska Miedź S.A. did not comply with recommendation IV.R.2 from „Best Practice...”, according to which, if justified, a company should enable its shareholders to participate in general meetings using electronic means of communication, in particular through the real-time broadcast of general meetings, real-time bilateral communication whereby

shareholders may take the floor during a general meeting from a location other than the general meeting, and also exercise the right to vote during a general meeting either in person or through a proxy.

In the Company’s opinion, introduction of the possibility of participation in General Meetings using electronic means of communication may carry risk factors of a legal and technical nature leading to interference with the efficient conduct of General Meetings, and as a result to the possible questioning of any resolutions adopted. In the Company’s opinion, current principles of participation in the General Meetings of KGHM Polska Miedź S.A. enable all shareholders to exercise the rights attached to owning the shares and protect the interests of all shareholders. The Company is considering introducing the aforementioned recommendation in situations when their technical and legal aspect no longer raises any doubts, and when such introduction will be justified by a real need for this form of communication with shareholders. Since 2016 KGHM Polska Miedź S.A. has been providing real-time streaming webcasts of its General Meetings.

### Corporate governance structure in KGHM Polska Miedź S.A.



## General Meeting

The General Meeting (GM) of KGHM Polska Miedź S.A. is the Company's highest authority. It meets in either Ordinary or Extraordinary form, based on generally prevailing law, the Statutes of the Company and the "Bylaws of the General Meeting of KGHM Polska Miedź S.A. with its registered head office in Lubin". GMs are convened by the Company's Management Board. In situations defined by the Commercial Partnerships and Companies Code, General Meetings may be convened by the Supervisory Board or by shareholders. The Statutes of KGHM Polska Miedź S.A. also authorise the Polish State Treasury to convene a General Meeting. The General Meeting of the Company is convened by an announcement published on the Company website and in the manner set forth in the Act dated 29 July 2005 on public offerings and conditions governing the introduction of financial instruments to organised trading, and on public companies. A

## Shareholders and their rights

Shareholders of the Company exercise their rights in a manner and within the limits prescribed by prevailing law, the Statutes of the Company and the Bylaws of the General Meeting of KGHM Polska Miedź S.A. Shareholders are entitled to exercise their voting rights either personally or through a proxy. The authority to participate in a General Meeting and to exercise voting rights should be granted in writing or in electronic form. All of the shares are bearer shares. Each share represents one vote.

There is no limitation to the transfer of ownership rights to the shares of the Company or with respect to the execution of voting rights on the shares of the Company, other than those generally prescribed by laws in force.

The Company has not issued securities which would grant special control rights in respect of the Company.

A shareholder is entitled in particular to the following:

1. to convene an Extraordinary General Meeting if the said shareholder represents at least half of the

General Meeting may adopt resolutions if at least one-fourth of the share capital is represented. Resolutions are adopted by a simple majority of votes cast, unless the law or the Company's Statutes state otherwise. The principles for conducting a General Meeting are set forth by the Commercial Partnerships and Companies Code and the Company's Statutes. Additional issues related to the functioning of the General Meeting are regulated by the "Bylaws of the General Meeting of KGHM Polska Miedź S.A. with its registered head office in Lubin" adopted by the GM on 17 May 2010, which are available on the Company's website [www.kghm.com](http://www.kghm.com).

The schedule of work on organising the General Meetings of the Company is planned in such a way as to ensure that the obligations towards shareholders are properly met and to enable them to exercise their rights.

- share capital or has been authorised by a court of registration and represents at least one-twentieth of the share capital,
2. to announce draft resolutions during a General Meeting which are in regard to matters introduced to the agenda,
3. in accordance with the Statutes, the Polish State Treasury as a shareholder may convene an Ordinary General Meeting if the Management Board does not do so in the statutory timeframe as well as an Extraordinary General Meeting if it considers its convening as warranted,
4. to request that a matter included in the agenda be removed or not considered,
5. to order the convening of an Extraordinary General Meeting and to include specified matters on the agenda of this General Meeting, if the shareholder or shareholders represent at least one-twentieth of the share capital, and
6. to order the inclusion of specified matters on the agenda of the next General Meeting, if the shareholder or shareholders represent at least one-twentieth of the share capital.

## Supervisory Board

**GRI102-18** The Supervisory Board of KGHM Polska Miedź S.A. is the permanent supervisory authority of KGHM Polska Miedź S.A., in all of the Company's functional areas. According to the Statutes of the Company, the Supervisory Board is composed of 7 to 10 members appointed by the General Meeting, 3 of whom are elected by the Company's employees. The Members of

the Supervisory Board are appointed for a mutual term in the office, which lasts three years. The Supervisory Board selects from among its members a Chairman of the Supervisory Board, his Deputy and, if needed, a Secretary. The Supervisory Board should meet at least once a quarter. For resolutions of the Supervisory Board to be valid all of the members of the Supervisory Board



## Management principles

must be invited to attend and resolutions must be adopted by an absolute majority of votes in the presence of at least one-half of the members.

The Supervisory Board operates on the basis of generally prevailing law, the Statutes of the Company and the Bylaws of the Supervisory Board. The Bylaws and Statutes of the Company are available on the Company's website, [www.kghm.com](http://www.kghm.com).

The composition of the Supervisory Board and its changes in 2018 are presented in the Section 17.3 of this report.

The following members of the Supervisory Board of KGHM Polska Miedź S.A submitted declarations on meeting independence criteria, specified in principle no. II.Z.4. of "Best Practice of GPW Listed Companies 2016": Andrzej Kisielewicz, Jarosław Janas, Janusz Kowalski, Bartosz Piechota, Marek Pietrzak, Agnieszka Winnik – Kalemba.

## Supervisory Board Committees

Within the structure of the Supervisory Board are three committees which serve in an auxiliary role to the Supervisory Board in the preparation of assessments,

opinions and other actions aimed at reaching decisions which must be made by the Supervisory Board.

## Audit Committee

The Audit Committee is responsible for supervision in the areas of financial reporting, the internal control

system, risk management and internal and external audits.

| The composition of the Audit Committee in 2018: |                    |                       |
|---|--------------------|-----------------------|
|   | 1 January – 5 July | 23 July - 31 December |
| • Michał Czarnik                                | •<br>(Chairman)    |                       |
| • Leszek Hajdacki                               | •                  |                       |
| • Dominik Hunek                                 | •                  |                       |
| • Wojciech Myślecki                             | •                  |                       |
| • Marek Pietrzak                                | •                  | •                     |
| • Bogusław Szarek                               | •                  | •                     |
| • Agnieszka Winnik-Kalemba                      | •                  | •<br>(Chairman)       |
| • Jarosław Witkowski                            | •                  |                       |
| • Janusz Kowalski                               | •                  |                       |
| • Leszek Banaszak                               |                    | •                     |
| • Jarosław Janas                                |                    | •                     |
| • Ireneusz Pasis                                |                    | •                     |
| • Bartosz Piechota                              |                    | •                     |

## Remuneration Committee

The Remuneration Committee is responsible for supervising the performance of the duties set forth in the contracts signed with the Management Board, the remuneration system and benefits paid out in KGHM

Polska Miedź S.A. and the Group, training and other benefits provided by the Company, as well as audits performed by the Supervisory Board in this regard.

| The composition of the Remuneration Committee in 2018: |                    |                       |
|--|--------------------|-----------------------|
|  | 1 January – 5 July | 23 July - 31 December |
| • Leszek Hajdacki                                      | •                  |                       |
| • Dominik Hunek  | •                  |                       |
| • Józef Czyczerski                                     | •                  | •                     |
| • Marek Pietrzak                                       | •<br>(Chairman)    | •                     |
| • Bogusław Szarek                                      | •                  | •                     |
| • Andrzej Kisielewicz                                  |                    | •<br>(Chairman)       |
| • Leszek Banaszak                                      |                    | •                     |
| • Jarosław Janas                                       |                    | •                     |
| • Ireneusz Pasis                                       |                    | •                     |

## Strategy Committee

The Strategy Committee supervises the realisation of Company strategy, the Company's annual and multi-year operating plans, supervising the coherence of these documents, and also provides its opinion to the

Supervisory Board on the strategic projects presented by the Management Board of the Company and any changes thereto, as well as on the Company's annual and multi-year operating plans.

| The composition of the Strategy Committee in 2018: |                    |                       |
|--|--------------------|-----------------------|
|  | 1 January – 5 July | 23 July - 31 December |
| • Michał Czarnik                                   | •                  |                       |
| • Józef Czyczerski                                 | •                  | •                     |
| • Leszek Hajdacki                                  | •                  |                       |
| • Wojciech Myślecki                                | •                  |                       |
| • Marek Pietrzak                                   | •                  | •                     |
| • Bogusław Szarek                                  | •                  | •                     |
| • Agnieszka Winnik-Kalemba                         | •                  | •                     |
| • Jarosław Witkowski                               | •<br>(Chairman)    |                       |

| The composition of the Strategy Committee in 2018: |                    |                       |
|--|--------------------|-----------------------|
|  | 1 January – 5 July | 23 July - 31 December |
| • Bartosz Piechota                                 |                    | •<br>(Chairman)       |
| • Leszek Banaszak                                  |                    | •                     |
| • Janusz Kowalski                                  |                    | •                     |
| • Ireneusz Pasis                                   |                    | •                     |

The detailed rights, scope of activities and manner of work of these Committees are described by bylaws approved by the Supervisory Board. After the end of

### Management Board

The duties of the Management Board include all matters pertaining to the functioning of the Company which have not been reserved by the Commercial Partnerships and Companies Code and the Statutes of the Company to the duties of the General Meeting and the Supervisory Board. A detailed description of the Management Board's scope of duties and obligations and the manner in which it functions may be found in the Bylaws of the Management Board.

According to the Statutes of KGHM Polska Miedź S.A., the Company's Management Board may be composed of 1 to 7 persons, appointed for a mutual term of office. The term of office of the Management Board lasts three consecutive years. The number of members of the Management Board is set by the Supervisory Board, which appoints and dismisses the President of the Management Board and the Vice Presidents. The Supervisory Board appoints the members of the Management Board following the conduct of qualification proceedings, the goal of which is to review and evaluate the qualifications of candidates and to select the best candidate for Member of the Management Board, with due regard being given to sec. 5 and sections 7 to 12 concerning the appointment or recall of an employee-elected member of the Management Board. The members of the Management Board, including any such chosen by the employees, may be recalled by the Supervisory Board prior to the expiration of their term, which in no way shall interfere with their rights arising from their employment contract or other legal relationship relating to their functioning as a member of the Management Board. The result of elections of an employee-elected member of the Management Board, or the result of voting for their recalling, shall be binding upon the Supervisory Board, as long as in the said voting for either their appointment or recalling at least

the year the Audit, Remuneration and Strategy Committees submit reports on their activities to the Supervisory Board.

50% of the Company's employees have participated. The election and recall of an employee-elected member of the Management Board requires an absolute majority of the votes cast.

The Management Board operates based on generally prevailing law, the Statutes of the Company and the Bylaws of the Management Board of KGHM Polska Miedź S.A. For resolutions of the Management Board to be valid at least two-thirds of the members of the Management Board must be present. Resolutions of the Management Board are approved by a simple majority of the votes cast. In the case of a tie vote being cast either for or against a given resolution, the President of the Management Board casts the deciding vote.

A detailed list of the matters requiring a resolution of the Management Board is included in the Bylaws of the Management Board of KGHM Polska Miedź S.A. approved by the Supervisory Board.

The authority of the Management Board to pass decisions on the issuance or redemption of shares is statutorily limited. The shares of the Company may be redeemed given shareholder consent through their acquisition by the Company. A resolution of the General Meeting on the redemption of shares may be preceded by an agreement entered into with a shareholder. In accordance with §29 sec. 1 point 6 of the Statutes of the Company, any increase in share capital or issuance of shares requires the approval of the General Meeting. The same holds true for the issuance of bonds (§29 sec. 1 point 10 of the Statutes of the Company). The Management Board of the Company does not have the authority to increase the share capital or issue the shares of the Company under conditions specified in art. 444-446 of the Commercial Partnerships and Companies Code.

## 3.5 The Management Board

### Marcin Chludziński

President of the  
Management Board



Graduate of the Institute of Social Policy and the European Institute of Regional and Local Development at the University of Warsaw. He finished his MBA at the Institute of Economics, Polish Academy of Sciences. He has experience in the management of commercial law companies, restructuring projects and corporate supervision.

President of the Management Board of KGHM Polska Miedź S.A and chairman of the Employers' Organization of Polish Copper. Previously president of the management board of Agencja Rozwoju Przemysłu S.A., where he successfully restructured the following companies:

Przewozy Regionalne, H. Cegielski – Fabryka Pojazdów Szynowych, Świętokrzyskie Kopalnie Surowców Mineralnych. Since January 2016 a Member of the Supervisory Board of PZU S.A. Co-founder and president of the management board of Invent Grupa Doradztwa i Treningu Sp. o.o. in the years 2006 – 2015. President of the economic think tank Fundacja Republikańska in the years 2011 – 2015.

Member of Narodowa Rada Rozwoju (the National Development Council), an advisory body to the President of the Republic of Poland, and of the Jury of the Economic Awards of the President of Poland.

The President of the Management Board is responsible for:

- activities related to overall risk management at the corporate level as well as internal auditing and controlling within the Group,
- the preparation, implementation and execution of the Company's Strategy and Policy of Sustainable Development,
- activities related to comprehensive management of security and preventing losses in the Group,

- corporate supervision standards and compliance with the corporate governance standards adopted by the Company,
- overall corporate oversight over the Group's subsidiaries in Poland and abroad,
- compliance with formal reporting and publishing obligations within the scope required by law,

- ☞ activities related to creating, updating and maintaining the uniformity of the organisation's internal regulations to maintain consistent operating principles,
- ☞ providing organisational and legal services to the Company's bodies,
- ☞ providing legal services to the Company,
- ☞ activities related to communications and corporate image-building within the Group,
- ☞ the shaping of relations with the Company's external business environment,
- ☞ on the Founder's behalf – supervision of the functioning of the KGHM Polish Copper Foundation as well as other organisations
- ☞ serving the public, which support achievement of the Group's business goals,
- ☞ internal control,
- ☞ the activities of the Data Center (COPI) with respect to:
  - supplying and developing information and communication services required for the proper functioning of the Head Office,
  - the rational utilisation by management of ordered and contracted goods and services, and
- ☞ activities related to human resources management.

## Adam Bugajczuk

Vice President of the  
Management Board (Development)



Graduate of the Wrocław University of Economics, Faculty of Economics, Management and Tourism.

Involved with PKO Bank Polski S.A. from January 2011, where he served as a manager and director. Among others, he was responsible for supervision over the implementation of investment projects and optimisation of business processes, as well the preparation of development plans and improvements in areas under his supervision. Co-responsible for execution of cost optimisation under the bank's business strategy. Supported the process of business expansion of PKO Bank Polski

S.A. Responsible for the implementation of procurement policy in the Group's companies.

He was employed from 2002 to 2010 in the company Bank Zachodni WBK S.A., where he cooperated in the implementation of investment projects. He was also responsible for the optimisation and supervision over the realisation of network contracts.

He has an extensive experience in the areas of standardisation and normalisation of business processes.



The Vice President of the Management Board (Development) is responsible for:

- advancement of the Company's R&D policy,
- advancement of the Company's innovation and intellectual property protection policy,
- coordination of the Company's investments and development projects,
- the development, updating and monitoring of execution of the Group's equity investments plan,
- shaping of the Company's products portfolio,
- initiation, development and implementation of management standards in the process of managing projects and programs,
- acquisition and development of the mining resources base in Poland,
- management of real estate,
- overseeing the Company's administrative services,
- the work of the Central Procurement Office.

## Paweł Gruza

Vice President of the Management Board (International assets)



Graduate of the Warsaw University, Faculty of Law and Administration.

An Undersecretary of State in the Ministry of Finance from November 2016 to September 2018. Co-author of the tax reform. As a representative of the minister responsible for financial institutions he was also a member of the Polish Financial Supervision Authority.

An Undersecretary of State in the Ministry of the State Treasury from April to November 2016. He managed a portfolio of companies with State Treasury ownership and state legal entities. He worked on reforming supervision over State Treasury companies. An expert and a

management board member of Fundacja Republikańska (Republican Foundation) from 2007 to 2016. He was a partner and a management board member of MMR Consulting sp. z o.o., as well as a partner in the tax consultant office GWW Tax from 2007 to 2016. He worked in the Artur Andersen and Ernst & Young consultancy companies from 2000 to 2006. He managed interdisciplinary consultant projects for Polish and international companies from the industrial and financial sector.

Author and co-author of numerous publications on taxes and social security.

Vice President of the Management Board (International Assets) is responsible for:

- ☞ the preparation and implementation of strategy for international assets,
- ☞ activities related to acquiring and developing the International resource base,
- ☞ analysis, assessment and preparation of new international exploration projects,
- ☞ preparation of studies and expert opinions concerning international resource base
- ☞ coordination of tasks with respect to the plan of the Company's equity investments in international subsidiaries,
- ☞ substantive oversight over the Group's international production entities, including the creation and execution of their production plans,
- ☞ the shaping of the Company's commercial and logistics policies.

## Katarzyna Kreczmańska-Gigol

Vice President of the  
Management Board (Finance)



Graduate of the Warsaw School of Economics. She completed her doctoral studies at the Collegium of Management and Finance of the Warsaw School of Economics, where she obtained the degree of doctor of economic studies and the degree of doctor habilitatus of economics in the field of finance.

Long-time employee in the banking sector. Researcher at the Warsaw School of Economics since 2007. Associate Professor in the Department of Corporate Finance, Institute of Finance, the Collegium of Management and Finance of the Warsaw School of Economics. Head of the postgraduate studies course „Windykacja należności” (“Debt collection”) and „Bezpieczeństwo finansowe w obrocie gospodarczym” (“Financial security for business”) at the Warsaw School of Economics. In the years 2016-2018 involved with Poczta Polska S.A., in which she performed the duties of executive director of the Finance Section and director of the Treasury Office.

She has experience in finance, planning, budgeting,

credit management and financial reporting. An expert in financial liquidity, sources of financing, factoring and collection of debt.

Author and co-author of numerous publications in finance, among others: „Finanse spółki akcyjnej” (“Finances of a joint-stock company”), „Podstawy finansowania spółki akcyjnej” (“Basics of financing a joint-stock company”), „Aktywne zarządzanie płynnością finansową przedsiębiorstwa” (“Active management of a company's financial liquidity”), „Płynność finansowa. Istota, pomiar, zarządzanie” (“Financial liquidity. Essence, measurement, management”), „Windykacja należności – ujęcie interdyscyplinarne” (“Collection of debt – the interdisciplinary approach”), „Windykacja polubowna i przymusowa. Proces, rynek, wycena wierzytelności” (“Amicable and compulsory collection of debt. The process, market and debt valuation”), „Faktoring w prawie cywilnym, podatkowym i bilansowym” (“Factoring in civil, tax and balance sheet law”) and „Skarbnik korporacyjny” (“Corporate Treasurer”).



Vice President of the Management Board (Finance) is responsible for:

- ☞ the shaping of the Group's financial policy;
- ☞ review of the Main Strategy's projects in terms of their financial feasibility;
- ☞ finances in all of the Group's operations and activities;
- ☞ the creation of Group tax policy; and
- ☞ the Company's accounting services.

## Radosław Stach

Vice President of the  
Management Board (Production)



Graduate of the AGH University of Science and Technology in Kraków, Department of Mining and Geology – underground mining. He finished his MBA at the Wielkopolska Business School of the Poznań University of Economics and Business as well as the KGHM Executive Academy, managed jointly with IMD Business School in Switzerland. He finished the prestigious managers' program "Personal Leadership Academy program" at the ICAN Institute.






Involved with the KGHM Polska Miedź S.A. Group since the beginning of his professional career. He was gradually promoted at the Polkowice-Sieroszowice mine: from intern, to senior miner, shift foreman, section foreman, manager of mining operations unit, chief mining engineer/ deputy manager of mining plant operation. He served in the function of vice president (operation development) in the company KGHM INTERNATIONAL in Canada, and was responsible for the portfolio of international assets in North and South America in the years

2015 - 2016. Subsequently, he was an executive director in the Polkowice-Sieroszowice mine. Since 2017, he has also served as a vice president of the management board of MBA CLUB of the Wielkopolska Business School of the Poznań University of Economics and Business.

An active member of KGHM's rescue team since 2000. He achieved third place in team competition in the International Mines Rescue Competition which took place in the USA (2008). As a captain, he led his team to victory in the competition called "Virtual Comory" in the International Mines Rescue Competition in Australia (2010).

Co-author of the following publications: „Wdrożenie zarządzania procesowego w KGHM Polska Miedź S.A.” (“Implementation of process management in KGHM Polska Miedź S.A.”) and „Konceptje biznesowe branży wydobywczej. Studium KGHM Polska Miedź S.A.” (“Business concepts of the mining industry. Study of KGHM Polska Miedź S.A.”).

The Vice President of the Management Board (Production) is responsible for:

-  the integrated planning and optimisation of the Company's production;
-  occupational health and safety and control of environmental risks;
-  activities with respect to maintaining readiness of the production and non-production assets and achievement of the main goals of the Energy Strategy;
-  activities with respect to manufacturing products and development of the primary mine and metallurgical production,
-  overseeing activities connected with the implementation, maintenance and improvement of management systems in the Company.

## 3.6 Supervisory Board

---

### Andrzej Kisielewicz

Chairman of the Supervisory Board

A graduate of the Faculty of Mathematics and Computer Science of Wrocław University. Obtained a doctorate degree in mathematics at the Polish Academy of Sciences in Warsaw. He obtained his title of doctor habilitatus from Wrocław University, and he obtained the title of professor in mathematics in 2001. Currently, he is a professor at Wrocław University, and has worked there since 1993.

He gained professional experience in international science facilities: the University of Manitoba (Winnipeg, Canada, 1989-1990), Technische Hochschule Darmstadt (Germany, 1990-1992) and Vanderbilt University (Nashville, USA, 2001-2002). In addition, he has had many short-term International internships, among others in France, Italy, Austria and Israel. He obtained two of the most prestigious science scholarships in the

world: the Alexander von Humboldt scholarship and the Fulbright scholarship.

He also has many years of experience in working on supervisory boards. Among others, he has been a member and chairman of the supervisory boards of companies such as „Spedtrans” sp. z o.o., „Teta” S.A. and PKO BP S.A.

He is an author of over seventy scientific publications in mathematics, logic and computer sciences in international publications, as well as an author of three books in Polish („Logika i argumentacja” (“Logic and argument”), „Sztuczna inteligencja i logika” (“Artificial intelligence and logic”), „Wprowadzenie do informatyki” (“Introduction to computer science”).

### Leszek Banaszak

Deputy Chairman of the Supervisory Board

Leszek Banaszak is a graduate of the University of Warsaw, with a Master's Degree in Political Science.

For the past 30 years he has been continuously associated with government administration (including nine years in the diplomatic service). Among others he has worked in the Governmental Press Office, the Ministry of Environmental Protection, Natural Resources and Forestry, the Ministry of International Economic Cooperation, the Ministry of the Economy and the Ministry of Energy. He has been responsible among others for bi-lateral

coordination of Poland in the area of environmental protection, coordination of activities by the Polish administration arising from the cooperation of Poland with international institutions and organisations in the area of environmental protection, among others for cooperation under the Organisation of Baltic Sea States (HELCOM), coordination of activities by Poland under the Pan-European Conference of Ministers of Environmental Protection, coordination of activities with respect to international cooperation in meeting the stipulations of the United Nation's framework convention on climate

## Management principles

change. Also cooperated under the European Economic Commission (EEC UN) in Geneva and the UN Commission on Sustainable Development (CSD UN) in New York. He was the chief negotiator in the area „Environment“ during the negotiations regarding Poland’s membership in the Organisation of Economic Cooperation and Development (OECD) in Paris. He was also responsible for coordination of cooperation between the Republic of Poland and the OECD, the Republic of Poland and the WTO (World Trade Organisation) and oversaw cooperation with the World Bank and the European Bank for Reconstruction and Development. Also connected with the Department of Energy of the Ministry of the Economy, responsible for international cooperation and European integration (was the chief negotiator in the negotiating area „Energy“ during the negotiations regarding Poland’s membership in the European Union), also coordinated legislative work arising from the adaptation of Polish laws to those of the EU. Was also responsible for cooperation with international organisations

### Jarosław Janas

Secretary of the Supervisory Board

An attorney with a doctorate in law from Wrocław. From 2009 to 2010 he researched British public healthcare at the University of Exeter School of Law (UK), resulting in a doctorate „Prywatyzacja brytyjskiego sektora publicznego na przykładzie National Health Service“ („Privatisation of the British public sector, illustrated by the National Health Service“). An entrepreneur continuously from 1999, an academic teacher, member of the management board of Fundacja Sancta Familia (Sancta Familia Foundation) in Wrocław since 2005, Chairman of the Estate Council of Biskupin-Sępólno-Bartoszewice-Dąbie

### Józef Czyczerski

Secondary technical education. Since 1979 employed in the Rudna mine of KGHM Polska Miedź S.A., an underground electromechanic. Chairman of the trade union Krajowa Sekcja Górnictwa Rud Miedzi NSZZ Solidarność.

### Janusz Kowalski

Master’s degree in Law, Master’s degree in Administration.

Currently a member of the Management Board of Polska Wytwórnia Papierów Wartościowych S.A. In 2016 Vice President of the Management Board (Corporate Affairs)/ (Operations) of the company Polskie Górnictwo Naftowe i Gazownictwo S.A., responsible for coordination of corporate supervision of the PGNiG S.A. Group and of the security and communications department. In 2016

and institutions, acting in the area of energy, among others the Organisation of Economic Cooperation and Development (OECD), the International Energy Agency (IEA), the European Economic Commission of the United Nation (UN ECE), the UN Commission on Sustainable Development (CSD UN), the Secretariat of the Energy Card Treaty (ECT), the Council of Baltic Sea States and the World Energy Council (WEC). In the years 2004-2009 and 2012-2016 worked in the diplomatic service in sections of the Polish Embassy in London. Since 2016 associated with the Department of Renewable Energy in the Ministry of Energy.

Has many years of experience working on supervisory boards. Among others he has been chairman of the supervisory board of Krajowa Agencja Poszanowania Energii (The Polish National Energy Conservation Agency), currently he also serves in the function of chairman of the supervisory board of HUTMAR S.A.

in the years 2009-2013, a volunteer in Ilford Park Polish Home (UK) 2009-2010, member of the Wrocławska Rada ds. Budżetu Obywatelskiego (Wrocław Citizen’s Budget Council) in the years 2015-2017, member of the Supervisory Board of Polska Agencja Inwestycji i Handlu S.A. (State Treasury) in the years 2016-2018, and an expert in healthcare reform (2018). In the years 2011 – 2018, he was an author of research papers on British law, privatisation of the public sector, judicial control of public administration and healthcare law. He has nearly twenty years of experience in management.

Employee-elected member of the Supervisory Board of KGHM Polska Miedź S.A. in the years 1999-2011, and then from 2014.

he was a member of the board of directors of PGNiG Upstream International AS, Stavanger, Norway. In the years 2014- 2015 Vice president of Opole city supervising the departments of sport, social policy, security and local affairs as well as supervision over OTBS sp. z o.o. In 2014 he served as Advisor to the Management Board of Proton Relations sp. z o.o., Warsaw; in the years 2009-2013 was a member of the management board of this company. In 2008 he was a chief specialist in the Team



## Management principles

for Energy Security in the National Security Bureau. In the years 2018-2010 he was a Member of the team for Energy Security in the Chancellery of Lech Kaczyński – the late President of the Republic of Poland. In the years 2006-2008 he worked in the team of Vice Minister Piotr Naimski in the Ministry of Economy.

## Ireneusz Pasis

Secondary technical education. Since 1988 a mining machinery operator in Przedsiębiorstwo Budowy Kopalń „PeBeKa” S.A. in Lubin (formerly called Zakład Robót Górniczych w Lubinie). Since 2012 Chairman of the Plant Committee of the trade union NSZZ „Solidarność” in PeBeKa S.A.; and since 2015 Secretary of the

## Bartosz Piechota

Bartosz Piechota is a lawyer, a graduate of the Faculty of Law and Administration of the University of Warsaw and also of Cardiff University Law School (Diploma in Legal Studies). Also completed the School of American Law conducted by the University of Florida Levin College of Law and the University of Warsaw. Has many years of experience in providing legal services to the largest Polish and foreign companies, in particular with respect to resolving disputes and restructurisation as well as with respect to corporate law. In recent years he has acted as a consultant, among others, in the realisation of a variety of key infrastructural investments. Since 2010 he has been a founding partner of a leading law firm in

## Marek Pietrzak

Legal Adviser. A graduate of the Department of Law and Administration of Łazarski University in Warsaw and the Private Higher School of Business and Administration in Warsaw. In 2013, he finished his legal adviser apprenticeship in the District Chamber of Legal Advisers in Warsaw and was licensed to perform the profession. He also finished management and business studies (MBA) at the Warsaw Management University, accredited by the Apsley Business School of London and was granted the title of Executive Master of Business Administration.

He has professional experience in public administration

## Bogusław Szarek

Secondary technical education. Since 1982 employed at the Sieroszowice Mine of KGHM Polska Miedź S.A. in the position: mining machinery and tools mechanic. Since 1992 Chairman of the Plant Committee of the

Currently a Member of the Council of the PWPW Foundation. In addition, he has been a member of the following supervisory boards: Poczta Polska S.A., Gas – Trading S.A., System Gazociągów Tranzytowych EuRoPol Gaz S.A., Energetyka Ciepła Opolszczyzny S.A., Opole; Investgas S.A. (PGNiG S.A. Group), Operator Logistyczny Paliw Płynnych sp. z o.o., Płock.

Employee Council in PeBeKa S.A. Since 2014 has served as Deputy Chairman of the trade union Krajowa Sekcja Górnictwa Rud Miedzi NSZZ „Solidarność”. Previously, in the years 2011 – 2015 was Chairman of the Employee Council in PeBeKa S.A.

Poland involved in resolving disputes and restructurisation. Previously he worked in international and Polish law firms, among others Allen & Overy and Wardyński i Wspólnicy. In the period from 2014 to 2016 he served as Liaison Officer for the International Bar Association in the restructurisation and bankruptcy section responsible for Central and Eastern Europe. He is a member of the International Bar Association and is also the author of publications, as well as a lecturer at international and Polish conferences. Since December 2016 he has been a member of the Supervisory Board of PLL Lot S.A. For many years he has cooperated in the role of expert with Fundacja Republikańska (Republican Foundation).

and practical experience in supervision and management of commercial law companies, including those where the State Treasury is one of the shareholders. In his professional practice he concentrates on providing legal services to corporate entities. His chief specialisations are civil and economic law, in particular corporate law, as well as labour law.

Currently, Marek Pietrzak serves as President of the Management Board of Orlen Asphalt Sp. z o.o. and as Chairman of the Supervisory Board of Polskie Radio Regionalna Rozgłośnia w Warszawie Radio dla Ciebie S.A.

trade union NSZZ „Solidarność” in the Sieroszowice Mine, and following the merger of the Sieroszowice and Polkowice mines, since 1996 Chairman of the Plant Committee of the trade union NSZZ „Solidarność” in the

## Management principles

Polkowice-Sieroszowice mine. Since 2012 an employee-elected Member of the Supervisory Board of KGHM Polska Miedź S.A. Deputy Chairman of the Board of the trade union Sekcja Górnictwa Rud Miedzi NSZZ

### Agnieszka Winnik-Kalemba

Attorney, graduate of the Department of Law of Wrocław University. Also a graduate of the faculty of Public Administration at Georgetown University in Washington D.C.; and of the faculty of Public Administration and Business Law at the University of Kentucky.

She passed her bar exam in 2003 under the District Bar Council in Wrocław and was certified to practice the profession.

Since 2003 owner of a Law Office. In the years 2006 - 2010 served as an advisor and regular associate of the late Member of Parliament Aleksandra Natalii - Świat. In the years 1999 - 2003 gained experience as an apprentice attorney-at-law at Kazimierz Cyrklewicz's Law Office

„Solidarność”. Treasurer of the Board of the Secretariat for Mining and Energy of the trade union NSZZ „Solidarność”. Member of the National Committee of the trade union NSZZ „Solidarność”.

in Wrocław. In addition, was previously Manager of the Legal Services Office of the Lower Silesia Marshal's Office in Wrocław and was Legal Assistant to the Chairman of the Chamber of Regions of the European Council in Strasbourg, Parliament of the Voivodeship of Wrocław. Also gained experience as Legal Assistant in the Law Offices of Bowles, Keating, Matuszewich & Fiordalisi Chicago - Milan - Rome, a Partnership of Professional Corporation, Chicago USA.

Was Deputy Chairwoman and member of the Supervisory Board of PKO BP S.A. Currently she is also the Chairwoman of the Audit Committee of the Supervisory Board of KGHM Polska Miedź S.A.



## 3.7 Changes in the Parent Entity's bodies

### Management Board of the Company

In accordance with the Statutes of KGHM Polska Miedź S.A. the members of the Management Board are appointed and dismissed by the Supervisory Board. As at 1 January 2018, the composition of the 9th-term Management Board of KGHM Polska Miedź S.A. was as follows:

| First name and last name     | Position   |
|------------------------------|--|
| Radosław Domagalski-Łabędzki | President of the Management Board                              |
| Ryszard Jaśkowski            | Vice President of the Management Board (Production),           |
| Michał Jezioro               | Vice President of the Management Board (International Assets), |
| Rafał Pawełczak              | Vice President of the Management Board (Development),          |
| Stefan Świątkowski           | Vice President of the Management Board (Finance).              |

### Changes in the composition and division of duties of the Management Board in 2018:

| Date          | Description of changes:  |
|---------------|--|
| 10 March 2018 | <p>The Supervisory Board:</p> <ul style="list-style-type: none"> <li>dismissed Radosław Domagalski-Łabędzki, President of the Management Board and Michał Jezioro, Vice President of the Management Board (International Assets), from the composition of the Company's Management Board,</li> <li>adopted a resolution on setting the number of Members of the 9th-term Management Board of KGHM Polska Miedź S.A. at three Members of the Management Board,</li> <li>assigned, until the date of appointment of Members of the Management Board selected under qualification proceedings, Rafał Pawełczak - Vice President of the Management Board (Development) with the responsibilities of President of the Management Board and Stefan Świątkowski - Vice President of the Management Board (Finance) with the responsibilities of Vice President of the Management Board (International Assets).</li> </ul> |
| 22 June 2018  | <p>The Supervisory Board adopted resolutions on the appointment (as at the date of conclusion of the Ordinary General Meeting of KGHM Polska Miedź S.A. approving the financial statements for the financial year ending 31 December 2017) to the composition of the 10th term Management Board of Marcin Chludziński, Katarzyna Kreczmańska-Gigol and Radosław Stach.</p>   |
| 6 July 2018   | <p>In accordance with the aforementioned resolutions, as at the date of conclusion of the General Meeting of KGHM Polska Miedź S.A. Marcin Chludziński assumed the position of President of the Management Board, Katarzyna Kreczmańska-Gigol – the position of Vice President of the Management Board (Finance), and Radosław Stach – the position of Vice President of the Management Board (Production).</p>  |

| Date           | Description of changes:   |
|----------------|---|
| 23 July 2018   | The Supervisory Board assigned, until the date of appointment of Members of the Management Board of KGHM Polska Miedź S.A. selected under qualification proceedings: <ul style="list-style-type: none"> <li>• Marcin Chludziński, President of the Management Board, with the responsibilities of the Vice President of the Management Board (International Assets),</li> <li>• Katarzyna Kreczmańska-Gigol, Vice President of the Management Board (Finance) with the responsibilities of the Vice President of the Management Board (Development).</li> </ul> |
| 24 August 2018 | The Supervisory Board appointed Adam Bugajczuk and Paweł Gruza to the composition of the Management Board, and at the same time the Supervisory Board set the number of Members of the 10th term Management Board at five Members of the Management Board.  |

Finally, from 24 August 2018 to 31 December 2018 the composition of the Management Board was as follows:

| First name and last name    | Position  |
|-----------------------------|---|
| Marcin Chludziński          | President of the Management Board                             |
| Adam Bugajczuk              | Vice President of the Management Board (Development)          |
| Paweł Gruza                 | Vice President of the Management Board (International Assets) |
| Katarzyna Kreczmańska-Gigol | Vice President of the Management Board (Finance)              |
| Radosław Stach              | Vice President of the Management Board (Production)           |

On 25 September 2018, there was a change in the Organisational Regulations of KGHM Polska Miedź S.A., as a result of which there were changes in the areas supervised by individual members of the Management Board. The main changes in the areas supervised by the members of the Management Board were as follows:

| Position  | Description of changes:   |
|---|---|
| President of the Management Board                             | <ul style="list-style-type: none"> <li>• assumption of responsibility for the area of oversight of implementation and execution of the Company's Strategy and Policy of Sustainable Development from the areas supervised by the Vice President of the Management Board (Development);</li> <li>• creation of the area of oversight of comprehensive management of security and preventing losses in the Group;</li> <li>• transfer of the area of overseeing the Company's administrative services to the areas supervised by the Vice President of the Management Board (Development).</li> </ul> |
| Vice President of the Management Board (International Assets) | <ul style="list-style-type: none"> <li>• transfer from the areas of the shaping of the Company's commercial and logistics policies supervised by the Vice President of the Management Board (Development).</li> </ul>   |

## Management principles

| Position   | Description of changes:  |
|--|--|
| Vice President of the Management Board (Development) | <ul style="list-style-type: none"> <li>• assumption of responsibility for the area of overseeing the development, updating and monitoring of execution of the Group's equity investments plan from the areas supervised by the President of the Management Board;</li> <li>• assumption of responsibility for oversight of the Central Procurement Office from the areas supervised by the President of the Management Board;</li> <li>• transfer from the areas supervised by the Vice President of the Management Board (Production) of the area of acquisition and development of the mining resources base in Poland.</li> </ul> |
| Vice President of the Management Board (Production)  | <ul style="list-style-type: none"> <li>• assumption of responsibility for the area of oversight of activities connected with the implementation, maintenance and improvement of management systems in the Company from the areas supervised by the President of the Management Board.</li> </ul>   |

## Supervisory Board of the Company

In accordance with the Statutes of the Company the members of the Supervisory Board are appointed and dismissed by the General Meeting. As at 1 January 2018, the composition of the 9th-term Supervisory Board of KGHM Polska Miedź S.A. was as follows:

| First name and last name     | Position        |
|------------------------------|-----------------|
| Dominik Hunek                | Chairman        |
| Michał Czarnik               | Deputy Chairman |
| Janusz Marcin Kowalski       |                 |
| Wojciech Andrzej Myślecki    |                 |
| Marek Pietrzak               |                 |
| Agnieszka Winnik-Kalemba     |                 |
| Jarosław Witkowski           |                 |
| <b>elected by employees:</b> |                 |
| Bogusław Szarek              | Secretary       |
| Józef Czyczerski             |                 |
| Leszek Hajdacki              |                 |

On 3 April 2018, Wojciech Andrzej Myślecki submitted his resignation from serving as a Member of the Supervisory Board. On 6 July 2018, the Ordinary General Meeting of KGHM Polska Miedź S.A. appointed the 10<sup>th</sup>-term Supervisory Board of the Company.



The composition of the Supervisory Board from 6 July 2018 to 31 December 2018 was as follows:

| First name and last name | Position        |
|--------------------------|-----------------|
| Andrzej Kisielewicz      | Chairman        |
| Leszek Banaszak          | Deputy Chairman |
| Jarosław Janas           | Secretary       |
| Janusz Marcin Kowalski   |                 |
| Bartosz Piechota         |                 |
| Marek Pietrzak           |                 |
| Agnieszka Winnik-Kalemba |                 |
| elected by employees:    |                 |
| Józef Czyczerski         |                 |
| Ireneusz Pasis           |                 |
| Bogusław Szarek          |                 |



## 3.8 Remuneration of the Parent Entity's bodies and of other key managers of the Group

As a result of the coming into force of the Act dated 9 June 2016 on the terms of setting the remuneration of individuals managing certain companies, the Supervisory Board – acting under the authority granted by the Extraordinary General Meeting of the Company KGHM Polska Miedź S.A., setting the principles of employment and remuneration of Management Board Members – established templates for the management services contracts for the Company's Management Board. Based on the aforementioned contract templates, management services contracts were signed with individual members of the Management Board for the time in which they served in management functions, based on a mandate lasting one term until its expiry. This means that the termination of a Contract will occur on the final day on which the function is served, with no notice period and without the need to take additional actions.

The total remuneration received on the basis of these contracts is comprised of a fixed part, representing basic monthly remuneration, and a variable part, representing supplementary remuneration for the Company's financial year.



Pursuant to a decision of the EGM, the amount of fixed monthly remuneration for individual members of the Company's Management Board is within a range of seven- to fifteen times the average monthly remuneration in the corporate sector, exclusive of the annual bonus paid in the fourth quarter of 2016, announced by the President of the Central Statistical Office.

Variable remuneration depends on the level of achievement of the management goals set by the Supervisory Board and may not exceed 100% of the fixed remuneration for the time during which the subject of a given contract is performed (with the proviso that it is longer than three months).





Based on the Statutes of KGHM Polska Miedź S.A., the Bylaws of the Supervisory Board, the management services contracts and resolutions of the Ordinary and Extraordinary General Meetings, the Supervisory Board

confirmed the Management Goals (key performance indicators – KPI) for the Management Board of KGHM Polska Miedź S.A. for 2018.

The Management Goals to be achieved, stipulating the conditions under which variable remuneration for the Company's financial year may be received, are as follows:

-  application of the principles of remunerating members of management and supervisory bodies, pursuant to the act dated 9 June 2016 on the terms of setting the remuneration of individuals managing certain companies, in all of the Group's companies;
-  execution of the duties described in art. 17-20, art. 22 and art. 23 of the act dated 16 December 2016 on the principles of state assets management.

The Supervisory Board also set additional management goals: collective KPIs (obligatory for all of the Management Board's Members) and individual KPIs/goals. The collective KPIs comprise:

-  adjusted EBITDA for the KGHM Polska Miedź S.A. Group,
-  EBITDA margin for the KGHM Polska Miedź S.A. Group
-  the pre-precious metals credit unit cost of copper production from own concentrate (excluding the minerals extraction tax), and
-  the volume of electrolytic copper production from own concentrate.

The KPIs/goals assigned to individual members of the Management Board according to their duties arise from the Company adopted Strategy of KGHM for the years 2017-2021 with an outlook to 2040 and are of key importance for the organisation. During the year, as a result of appointing the 10th-term Management Board, the Supervisory Board established new management goals. For all of the members of the Management Board the same set of goals (collective goals) were set.

## Management principles

The management goals tied to the possibility of receiving variable remuneration for the Company's financial year were not changed. The remaining management goals comprise 6 tasks in various aspects of management. Three of these (Group EBITDA, unit copper production cost and the volume of electrolytic copper production) were previously adopted by the Supervisory Board. Execution of these indicators ensured achievement of the main budget targets for 2018. The additional proposed Management Goals help to ensure the achievement of key tasks currently underway in the Company with regard to: Company strategy, review of the international assets, development of key strategic directions for the Company and realisation of a key investment concerning development of the Żelazny Most tailings Storage Facility.




Payment of variable remuneration is made if a Management Board Member's management goals are achieved, the Management Board's Report on

the activities of the Company and the Company's financial statements for the prior year are approved, the Management Board Member's performance of duties is approved by the General Meeting, and the Management Board presents the Supervisory Board with a report on the achievement of the management goals. The Supervisory Board evaluates the execution of the aforementioned goals and sets the amount of the variable remuneration due. Management Board members may join the Employee Pension Program under the principles set forth in the current Collective Agreement, with the proviso that the amount of the monthly basic contribution under the Program depends on the amount of the monthly fixed remuneration for the given period. Total annual remuneration for a given Management Board Member, as described above, may not exceed a multiple of the amount of PLN 100 000 and the number of calendar months during which the Member served in the function.

| First, last name               | Position  | Potentially-due variable remuneration for 2018 based on management services contract (PLN) |
|--------------------------------|---|--|
| • Marcin Chludziński           | Member of the Management Board - President of the Management Board      | 195 467.36   |
| • Katarzyna Kreczmańska-Gigol  | Member of the Management Board - Vice President of the Management Board | 221 302.87   |
| • Radosław Stach               | Member of the Management Board - Vice President of the Management Board | 221 302.87   |
| • Adam Bugajczuk               | Member of the Management Board - Vice President of the Management Board | 161 947.54   |
| • Paweł Gruza                  | Member of the Management Board - Vice President of the Management Board | 141 884.20   |
| • Radosław Domagalski-Łabędzki | Member of the Management Board - President of the Management Board      | 72 318.38  |
| • Stefan Świątkowski           | Member of the Management Board - Vice President of the Management Board | 178 225.57   |
| • Rafał Pawełczak              | Member of the Management Board - Vice President of the Management Board | 178 225.57   |
| • Michał Jezioro               | Member of the Management Board - Vice President of the Management Board | 66 117.15  |
| • Ryszard Jaśkowski            | Member of the Management Board - Vice President of the Management Board | 202 410.35   |
| <b>Total</b>                   |   | <b>1 639 201.86</b>  |

## Management principles

The aforementioned contract also regulates issues involving the application (utilisation) of all of the Company's resources (tools) required to carry out the contractual duties and to maintain the requirements of security in terms of collecting and transmitting data, including in particular:

-  office space together with technical equipment and infrastructure, including a personal computer with wireless Internet access and other necessary equipment, means of communication, including a mobile phone,
-  local housing appropriate to the function served (in respect of which the Company covers the cost of such housing to the net amount of PLN 2 500),
-  participation in conferences, seminars or business meetings related to the Company's operations and, if necessary to carry out





The Contracts also provide that if the Management Board Member serves as a member of a body in a subsidiary of the Company within the Group, the Management Board Member will not receive additional remuneration for this function, apart from the remuneration provided for in the management services contract. In addition, the Management Board Member is obligated to inform the Supervisory Board of the possession of shares in publically-listed companies and to gain the consent of the Supervisory Board for accepting a position or serving in a function in the body of another commercial law company – excluding companies of the Group, the acquisition or possession of shares in another commercial law company, as well as performing work or services on behalf of other entities based on a labour contract, mandate contract or based on any other legal relationship.

The contracts signed with the Members of the Management Board regulate the question of compensation in the case of termination, with or without notice, of the management services contract for reasons other than breach of the contract's basic obligations. The contracts foresee that the Company will pay severance pay of three times the amount of the fixed part of remuneration (if employed in the position for at least 12 months).

## Information on remuneration of Supervisory Board Members

The remuneration of members of supervisory boards was set on 21 June 2017 by the General Meeting based on the Act dated 9 June 2016 on the terms of setting the remuneration of individuals managing certain

these obligations, business trips in Poland and abroad,

-  the incurring by the Company of costs related to services performed outside of the Head Office which must be incurred to properly perform the services, in particular such as travel costs and quartering in a standard appropriate to the function performed,
-  use of a company car for business purposes,
-  civil liability insurance related to serving in the function, and
-  incurring or refinancing costs of individual training for the Management Board Member related to the Contract in question and contractual obligations up to the net amount of PLN 15 000 within a calendar year (if the Supervisory Board expresses consent).

The contracts with the Members of the Management Board – both during the period of employment as well as following the period of employment – deal with the question of forbidding any activities which would represent a conflict of interest. In particular, they establish that for a period of six months from the date when employment in the function ceases, the Management Board Member is not allowed to engage in any activities which would represent a conflict of interest. For adherence to the clause on forbidding competitive activities, KGHM pays the Management Board Member compensation in a total amount calculated as a multiple the monthly fixed remuneration and the 6-month period of the forbidding of competitive activities. The payment of compensation is conditional on the Management Board Member's having served in the function for at least 3 months. If a Member of the Management Board breaches this clause in the contract, he or she will be required to pay a contractual penalty in the entire amount of the compensation received. Payment of the contractual penalty does not deprive the Company of the right to seek compensation in an amount exceeding that amount under general rules.

companies. The amount of monthly remuneration of individual members of the Supervisory Board depends on the function served and is set as 2.2x or twice the average monthly remuneration in the corporate sector


excluding payments from profit in the fourth quarter of the previous year, announced by the President of the Central Statistical Office. Members of the Supervisory Board are not remunerated for any month in which they did not attend any of the formally convened meetings for unjustified reasons, which are assessed and qualified by the Supervisory Board.


The Company also covers or reimburses costs related to participation in the work of the Supervisory Board.

Detailed information on the amount of remuneration, bonuses or benefits for Supervisory Board or Management Board members may be found in note 12.10 of the separate and consolidated financial statements.


## Information on the adopted and applied remuneration system for key managers


Kluczowa kadra menedżerska wynagradzana jest na podstawie umów o pracę.  
W czasie jej trwania pracownikowi przysługują:

 basic monthly remuneration, which amounts – depending on the function served – from 6- to 11-times the average monthly remuneration in the corporate sector, excluding payments from profit, in the fourth quarter of the previous year, announced by the President of the Central Statistical Office.

 an annual bonus, paid in accordance with the principles for bonuses set by the Management Board, based on a system of business measures (KPIs) and individual goals (MBO).

 a company car,

 Principles for setting and granting annual bonuses (STIP - Short-Term Incentive Plan) in KGHM Polska Miedź S.A. functioning since 2013. This system is based on collective, individual and task-related KPIs which were derived from the key performance indicators for the Management Board as well as on goals arising from the Company's strategy. Presently the STIP system comprises a group of 156 managers in the Company.

 additional benefits, such as life insurance, the Employee Pension Program, Health Care Package.

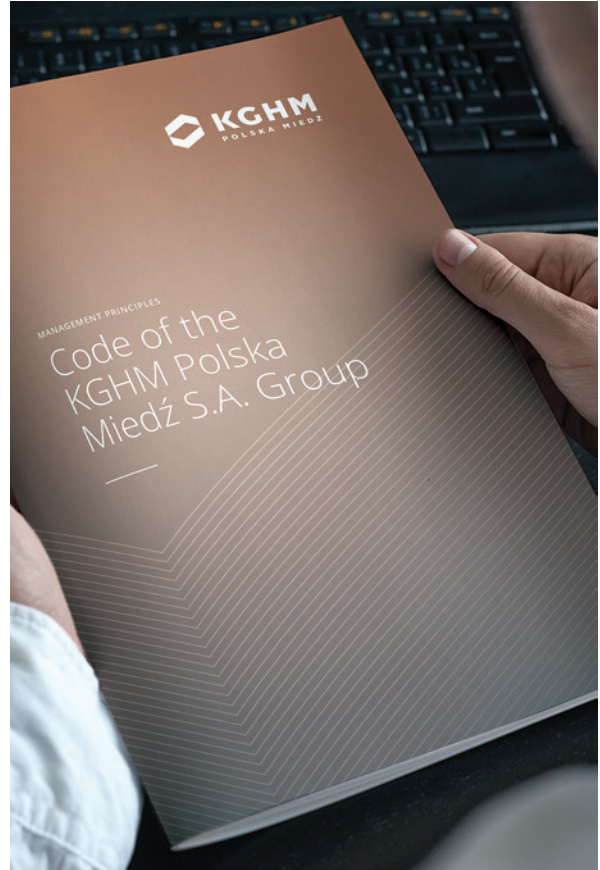


## 3.9 Code of the KGHM Polska Miedź S.A. Group

In order to ensure the optimal model for managing and supervising the business processes of the KGHM Polska Miedź S.A. Group, particularly in the context of its rapid development in recent years, the process of establishing a new corporate governance system relying on systemic legal and corporate solutions was carried out. The project was founded on the KGHM Group's values and the need for having in place a set of formal and legal regulations governing the principles of cooperation within the KGHM Polska Miedź S.A. Group. On this basis, the Code of the KGHM Polska Miedź S.A. Group was adopted.

Following are some of the benefits arising from having the Code in place:

- ✎ Outlining the legal basis for a joint strategy of all members of the KGHM Group, making it possible to rest the strategy of each subsidiary on the Strategy of KGHM Polska Miedź S.A. and forcing the requirement to maintain consistency.
- ✎ Harmonizing the interests of each company with that of the KGHM Group as a whole.
- ✎ Streamlining management in various areas of business.
- ✎ Integrating the KGHM Group's operating rules, e.g. in terms of information transfer, reporting, etc.
- ✎ Ensuring the implementation of unified standards in the companies.
- ✎ Ensuring effective monitoring of key business decisions made by each company.
- ✎ Elevating the level of security of the activities carried out by corporate authorities.



## 3.10 The code of ethics

### GRI102-16 The Code of Ethics of the KGHM Group

The primary document of the Security and Loss Prevention System of the KGHM Group is the KGHM Polska Miedź S.A. Group Code of Ethics, updated in June 2018. Hence the frequent reference to the Code in this statement.

The KGHM Group Code of Ethics is based on the aforementioned values and constitutes a guidepost for all the decisions and actions taken in the Parent Company and the KGHM Group. There are supporting acts regulating the areas of: prevention of corruption,

prevention of conflict of interests, security and transparency of procurement processes, verification of external contractors, prevention of employee rights violations, including discrimination and abuse. The KGHM Group's Code of Ethics is a collection of rules applicable to the employees of the Parent Company, the KGHM Group and cooperating entities. It is one of the pillars of KGHM's organizational culture, which is deeply rooted in the mining and metallurgical traditions. They constitute the genetic code of our community, building its professional identity.

### KGHM Polska Miedź S.A. Code of Conduct

In keeping with current corporate practice, including in the mineral resource industry, our business partners, suppliers, customers and stakeholders expect companies to have clearly declared ethical regulations.

In June 2018, the Management Board of KGHM Polska Miedź S.A. adopted the KGHM Polska Miedź S.A. Code of Conduct. By this token, the Company has declared its orientation towards sustainable development, based on respect for ethical principles, transparency and good industry practice, and commitment to being a socially and environmentally responsible enterprise. The Code of Conduct is based on the KGHM Group Code of Ethics. Both documents regulate behavior standards that the Company is guided by. The Codes are an integral, mutually interconnected whole, based on consistent assumptions and values, followed by the Company.

The Code of Conduct is a powerfully practical document. Its purpose is to be a guide and support for the

The KGHM Group's Code of Ethics aims to ensure that the employees' follow the highest standards based on accepted values. The status of a global leader and international corporation obligates us to keep the highest standards of business ethics. It is also related to the challenges resulting from the richness of the national cultures within which we operate.

employees, showing where to look for answers and who to approach if in doubt about decisions taken in everyday situations. The Code of Conduct provides an easy to understand presentation of the Company's values to all the employees, regardless of their position.



The adoption and functioning of the Code of Conduct and the Code of Ethics was presented to KGHM POLSKA MIEDŹ S.A.'s employees both via the internal portal (intranet: "KGHM to My" at [extranet.kghm.com](http://extranet.kghm.com)), as well as distributed with monthly payment slips. The Codes are distributed in the printed version during training sessions held by the Ethics and Anti-corruption Representatives in all Divisions and Companies of the Group.

The Code of Ethics is published for the general public on [www.kghm.com](http://www.kghm.com), in the Investors/Corporate Governance/Code of Ethics tab, <https://kghm.com/en/investors/corporate-governance/code-ethics>.

### Ethics commission in the KGHM Polska Miedź S.A. Group

Every KGHM Group Entity establishes an Ethics Committee. The primary task of the Committee is to conduct investigations in response to irregularities reports, dealing with breaches of the ethical standards defined in the Code of Ethics, and recommend corrective and disciplinary actions to the plant Manager.



#### A report can be filed by:





-  Every employee who has been harmed by actions described in the list of issues reportable to the Ethics Committee;
-  Every person who has witnessed actions described in the list of issues reportable to the Ethics Committee.

The investigation conducted by the Committee covers issues that require determination of the actual facts of the matter, in other words disputable or having unclear causes. The investigation is not in conflict, nor does it replace, the right to seek claims pursuant to the generally applicable laws. Members of the Committee are obliged to resolve the breaches of ethical principles given in the KGHM Group Code of Ethics in an impartial and efficient manner, giving equal treatment to all parties to the proceedings. The Committee operates pursuant to its Regulations, and observing the generally applicable laws and internal regulations of a given KGHM Group Entity.

## Komisje do spraw etyki w grupie kapitałowej kghm polska miedź S.A.

The list of issues reportable to the Committee is as follows:

-  Actions displaying features of abuse, discrimination, harassment or other type of unequal treatment of the Company's employee or a group of employees;
-  Breaches of employee duties arising from the Labor Code as well as internal regulations of a given KGHM Group Entity, regardless of the position held;

-  Breaches of the rules of community life;
-  Improper performance of professional duties.
-  Unethical behavior towards other employees and third persons in the work place and outside of the working hours;
-  Exposing the good name of the Company to harm.

## Verification procedure of compliance with the ethical principles of KGHM Polska Miedź S.A.

As a socially responsible Company, KGHM Polska Miedź S.A. applies due diligence procedures. In doing so, it attaches importance not only to respect for human rights, lawful terms of employment, environmental norms, freedom of establishing trade unions, compliance of operations with generally applicable laws, no child labor and no acquisition of production commodities from conflict sources (so-called "conflict minerals"), but also seeks

cooperation with business partners who share the same values. For this reason, KGHM's customers and suppliers are obligated to declare in writing their compliance with the aforementioned principles, by signing the so-called Customer Card and Supplier Card, which is an important factor in business decisions related to opening or declining to open a business relationship with a given partner.

## Internal audit regulations (for ethics) in KGHM Polska Miedź S.A.

The Internal Audit Department follows international internal audit standards. The standards cover 14 areas, with ethics being one of them. When performing internal audit tasks, the risk is analyzed of potential fraud, conflicts of interest or other activities which are not

compliant with the Code of Ethics and other internal regulations. Any areas with increased risk of unethical behavior are consistently identified and taken into account in the development of the annual audit plan.

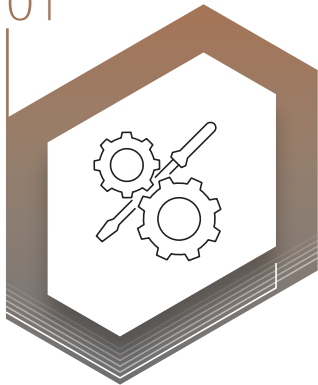
## 3.11 The procedure of disclosing irregularities and protection of whistle-blowers

In order to allow for effective detection of breaches, confidential channels for reporting of irregularities by the so called Whistle Blowers have been created, both within the company, as well as from outside of its organization. Persons who report irregularities, and who do so in good faith and non-anonymously (Whistle Blowers) are

protected under the KGHM Group Procedure of Disclosing Irregularities and Protection of Whistle Blowers. Anonymous reports are also accepted and followed up. The channels allow reporting without disclosing one's personal details.

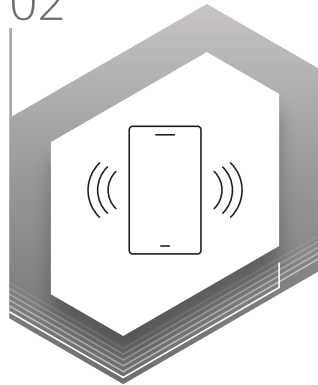
Actions taken in the case of ethical principles breach in the KGHM Group

01



Have you witnessed a breach of the ethical standards applied in our Company?

02



Report this to your superior or use confidential channels.

03



Our employees act responsibly, with full discretion

## 3.12 The anti-corruption policy

---

The anti-corruption policy of the KGHM Polska Miedź S.A. Group defines detailed standards of conduct in corruption-prone situations and identifies the liability for malpractice.

The KGHM Polska Miedź S.A. Group underscores its commitment to fighting corruption in business, by the way of adopting and uncompromising observance of the “zero tolerance for corruption and bribery” rule. Employees are prohibited to offer or accept any material benefits in relation to the performance of professional duties.

The only exception is giving and accepting business gifts, in line with local norms and cultural customs, provided that the giving and accepting of gifts cannot lead to a situation in which such behavior could be considered as an attempt to exert pressure or persuade the recipient to act against their duties. Detailed rules pertaining to giving and accepting of customary business gifts have been defined as an instruction under the Corruption Threat Prevention Procedure. Employees are required to avoid any actions or decisions in a situation of a conflict of interests.

Particular control under the Policy is over business procurement transactions, including the option of a third party audit, in order to ensure that such transactions meet the highest standards of ethical and transparent business operations.

The Group's Entities and their employees may be held accountable for actions of persons or entities acting on their behalf or for them.

The Policy also states that the Group's Entities and their representatives are obliged to observe all statutory provisions, guidelines of administration bodies and other state authorities, as well as domestic and international legal acts designed to fight corruption. The Policy also states that KGHM Polska Miedź S.A. and the Group's Entities and cooperating entities are obliged to follow international legal acts designed to fight corruption, e.g. the U.K. Bribery Act of 2010, the U.S. Foreign Corrupt Practices Act, Canadian Corruption of Foreign Public Officials Act of 1999 and guidelines contained in international agreements, e.g. the OECD Convention or the guidelines of UN Global Compact as regards responsible business and fighting corruption.

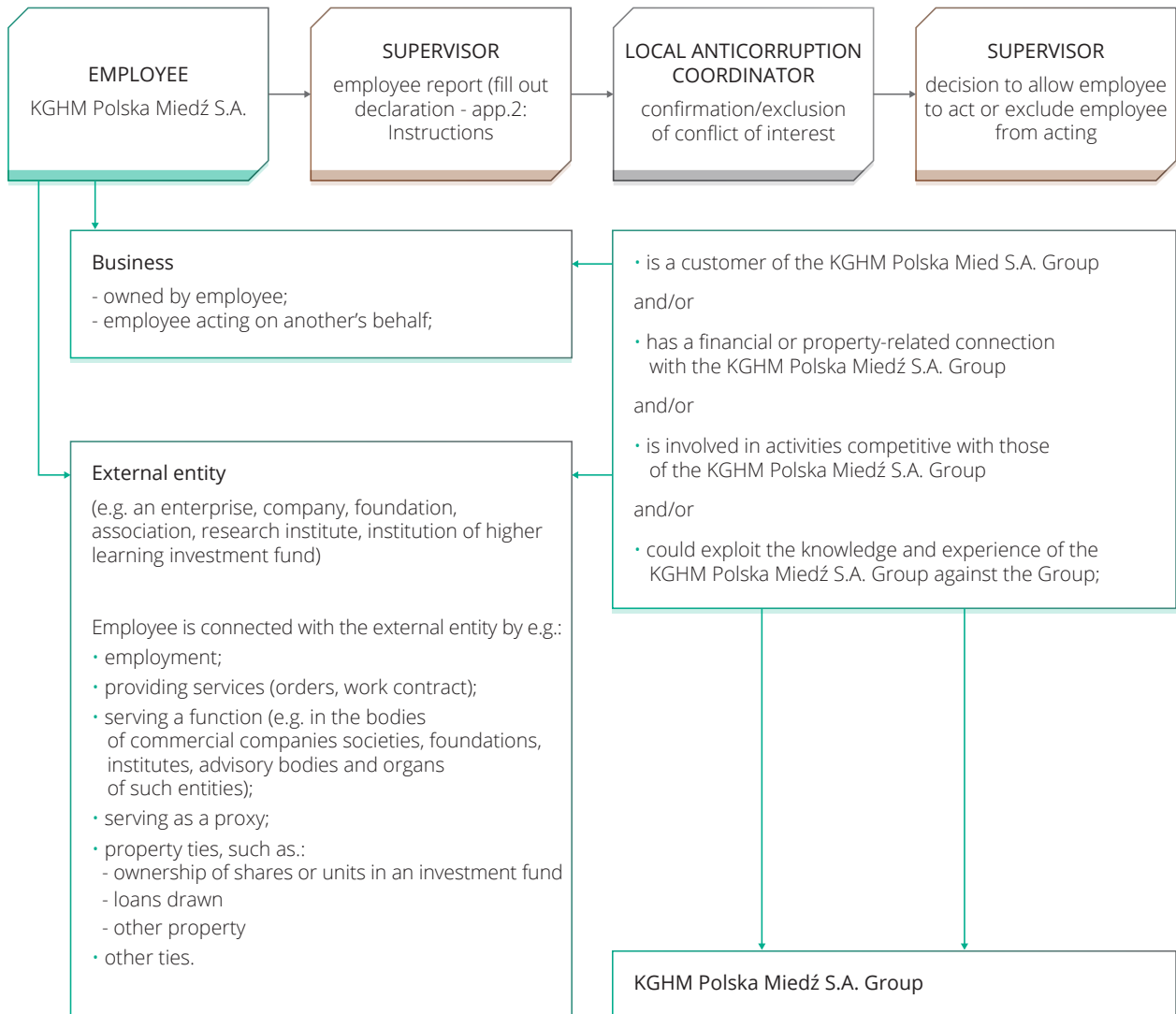
The document stipulates that employees of the Group and external partners are obliged to report any suspicion of breaches to the Policy and the Corruption Threat Prevention Procedure, directly to the Security Department of KGHM Polska Miedź S.A. or via the dedicated channels of malpractice reporting. Every report is confidential and is followed up with due diligence.

The KGHM Group uses a range of tools to effectively implement the Policy's objectives, including first of all procedures, instructions, remedies and control mechanisms, which specify in detail the standards of conduct in corruption-prone situations and situations in which accountability for malpractice may be involved.

The Group's employees and its representatives are obliged to follow and apply both the Anti-Corruption Policy as well as the accompanying documents referred to above, in particular the “Corruption Threat Prevention Procedure”.



The algorithm for reporting conflicts of interests, including a list of situations that may lead to a conflict of interests in the KGHM Group



An annex to the Corruption Threat Prevention Procedure is the Business Gifts Instruction adopted in 2018, which augments and details the principles introduced in other internal rules of KGHM Polska Miedz S.A. (e.g. the Procurement Policy of the KGHM Polska Miedz S.A. Group).

## 3.13 Procurement Policy

---

We are guided by high ethical standards across our procurement process. The Code's main message is to warrant the professionalism and honesty of the persons responsible for the procurement processes. The document also contemplates issues such as preventing conflicts of interest as well as equal treatment of suppliers to ensure compliance with the principles of fair competition.

The procurement procedures in effect in KGHM are precisely defined in the Procurement Policy and business partners are selected in accordance with the principle of equal treatment.

The company audits its suppliers, from the standpoint of compliance with human rights and regulations governing the hiring of minors. External entities are also checked in order to secure the interests of KGHM, in the context of money laundering, breaches of fair competition rules, prevention of conflict of interests, etc.

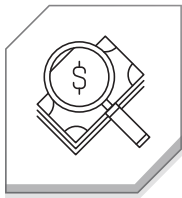
Currently, KGHM is drafting a separate code of conduct for suppliers, which will regulate all the key issues associated with collaboration, including the issues related to corporate social responsibility.

## 3.14 The procedure of counteracting money laundering and prevention of fraud

---

KGHM uses a diverse range of external counterparty verification in the procurement, sales and investment processes, which are regulated by a number of

consistent and uniform internal policies and procedures. This procedure covers verification methods used for the purposes of trading transactions.

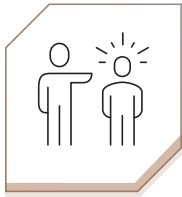


In the context of protecting its image and care for the Company's security, KGHM takes measures to prevent the Company from being used by third parties for unlawful purposes they pursue, such as money laundering, financing of terrorism, VAT extortion.

## 3.15 Anti-abuse procedure

---

The objective of the procedure is to prevent abuse at work, by the way of implementation of a prevention system and definition of a procedure to be followed if abuse does occur. The procedure is designed to build and enhance an organizational culture based on good interpersonal relations between and among employees.



The procedure describes a catalogue of actions designed to prevent abuse, actions to be taken if abuse does occur, and defines obligations of the employer and employees in this respect. The Procedure applies to all employees of the KGHM Group, regardless of the type of contract or position held. Every employee who believes they have experienced abuse or have witnessed behavior displaying features of abuse, has the right to lodge an Abuse Report. An Abuse Report is lodged under the process defined in the Procedure of Disclosing Irregularities and Protection of Whistle-Blowers, using dedicated channels, provided that, however, in this case the personal details of the reporting employee, the employee/employees who may have been subjected to abuse and the employee/employees who have committed actions or behavior displaying the features of abuse, must be disclosed. The case is examined by the Ethics Committee.

## 3.16 Personal Data Protection Policy

---

In 2018, the Management Board of KGHM Polska Miedź S.A. adopted the Personal Data Protection Policy. The Policy lays down the rules of processing and securing personal data in KGHM Polska Miedź S.A., pursuant to Regulation (EU) 2016/679 of the European Parliament

and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation, "GDPR").



The Policy has been adopted to ensure that data processing in KGHM proceeds in compliance with the GDPR and other personal data protection regulations, and to be able to demonstrate this compliance. The Policy is subject to reviews and updates, in keeping with the rules laid down therein. Under the Policy, the object of protection is personal data, processed in IT systems, as well as recorded otherwise on media, including paper form and electronic media. The places where personal data is so processed must be secured in a manner defined by the Policy. The Policy applies to all the personal data processed in KGHM for the purposes of the Company's activities. The duty to protect personal data processed by KGHM and to apply the Policy covers all persons with access to personal data, regardless of their position, place of work and type of employment relationship. Every person about to have access to personal data may process the data exclusively based on an authorization (delegation). All persons having access to personal data are obliged to familiarize themselves with the Policy and other related documents, and to apply the provisions thereof.

The Policy is consistent with other internal regulations regarding security of information and IT systems applicable in KGHM. Updates to the Policy are supervised by the Personal Data Protection Inspector of KGHM Polska Miedź S.A.

---

# Our Strategy

---

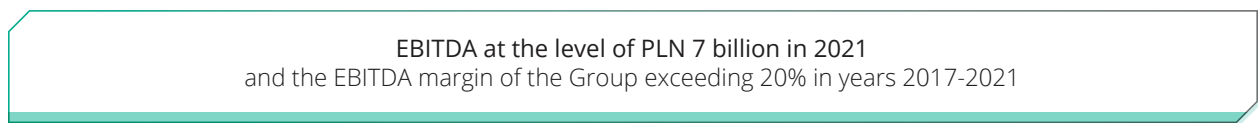


# 4.1 KGHM Polska Miedź S.A.'s Strategy for 2017-2021

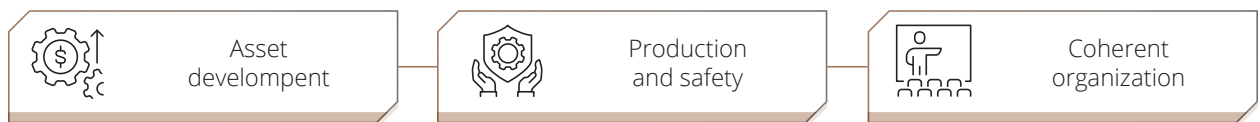
Until 19 December 2018, KGHM Polska Miedź S.A. implemented the Business Strategy adopted in May 2017, as published in the document entitled "KGHM Polska Miedź

S.A.'s Strategy for 2017-2021 with an outlook to 2040". The structural layout of this strategy is presented in the diagram below.

## Main goal



## Executory strategies:



## Support strategies:



The Strategy's primary objective was based on the achievement of its 6 key pillars, i.e. three executory strategies (Development of Domestic and Foreign Assets, Production and Safety, and Coherent Organization) and three

supporting strategies (Corporate Social Responsibility, Innovation and Financial Stability). The objectives of the selected pillars are presented in the diagram below.



## Key pillars forming KGHM Polska Miedź S.A.'s strategy and their main objectives for 2017-2021

### Production and safety

Average annual production volume (copper in ore) in Poland at the level of approx. 470 thousand tonnes of copper at a C1 cost of approx. 3 800 USD/t and annual production abroad of approx. 145 thousand tonnes of payable Cu at an annual C1 cost of less than 4 000 USD/t in the period 2017-2021

### Coherent Organization

Implement system-based solutions designed to increase the value of the KGHM Polska Miedź S.A. Group

### Development of Domestic and Foreign Assets

Efficient management of investments and resource projects

### Corporate Social Responsibility

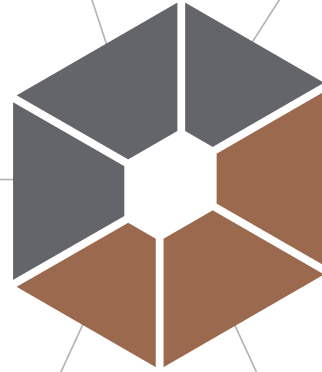
Strengthen the image of the KGHM Polska Miedź S.A. Group

### Financial Stability

Ensure financial stability, support development and efficiency, and ensure resilience to difficult market conditions

### Innovation

Improve productivity in the KGHM Polska Miedź S.A. Group



The Company's strategy was rooted in its mission based on the slogan "To Always Have Copper" and its vision: "Use our resources efficiently to become a leader in sustainable development".



## 4.2 Execution of the main strategic tasks in 2018

Following are the most important projects and initiatives, including the degree of their advancement, in accordance with the Strategy in force in the Company until 19 December 2018.



### Exploration program of KGHM Polska Miedź S.A. in Poland:



|                                       |   |
|---------------------------------------|---|
| <p>Radwanice-Gaworzyce</p>            | <p>Exploration is not currently being conducted within the Radwanice-Gaworzyce deposit. Due to the wide variability in geological and mining conditions, it is planned that in future the areas Radwanice Zachód and Radwanice Północ will be explored from the underground mine works, conducted mainly in areas of copper mineralisation. The date for commencing this work depends on the progress of mining in the areas Sieroszowice and Radwanice Wschodnie. Within this deposit mining is underway in the areas Radwanice Wschodnie and Gaworzyce.</p>   |
| <p>Synklina Grodziecka and Konrad</p> | <p>Given the fact that the costs associated among others with dewatering the projected mine play a critical role in determining the economic feasibility of the project; a hydrogeological research is conducted, planned to be performed in the years 2018-2020. Administrative proceedings which were conducted in respect of the concession-granting body involving the possibility of continuing the geological work under the Synklina Grodziecka concession were concluded on 24 January 2019 with the issuance of a new concession decision. Work in the area subject to the concession will be carried out in parallel with hydrogeological research within the Konrad concession.</p>  |
| <p>Retków-Ścinawa and Głogów</p>      | <p>The Company is continuing to advance stage 2 of exploration and evaluation work within the Retków-Ścinawa concession, under which three exploratory drillholes have been sunk to date. At the end of August 2018 a decision was received altering the Retków-Ścinawa concession which permits the drilling of another drillhole. In the second half of 2018 drilling of hole no. S-727 commenced within the Retków-Ścinawa concession. With respect to the Głogów concession, in 2018 surface-based geophysical research was performed. At the end of 2018 additional information was prepared for the Geological Work Project and a request was submitted to the concession-granting body to extend the life of the concession.</p> |

### Exploration projects in the preparatory phase:

|   |   |
|---|---|
| <p>Bytom Odrzański<br/>oraz Kulów-Luboszyce</p> | <p>As a result of a decision by the Supreme Administrative Court, which dismissed cassation appeals in respect of the concessions Bytom Odrzański and Kulów-Luboszyce, a decision as to the granting of concessions for the areas in question requires a reconsideration by the concession-granting body. In 2018, the concession-granting body did not reconsider this matter.</p> |
|---|---|

|                          |   |
|--------------------------|---|
|                          | <p>Exploration program of KGHM Polska Miedź S.A. in Poland:</p>   |
| <p>Other concessions</p> |   |
| <p>Puck region</p>       | <p>Based on a new reinterpretation of the geological profile of the region as well as on an economic and technical feasibility study conducted on the possibility of mining the studied potassium-magnesium salt deposits reflecting the mine model and processing technology, it was decided to conduct further geological work. In 2018, drilling work was continued. In March 2018, Addition no. 1 to the Geological Works Project was submitted to the Ministry of the Environment (ME), in which the sinking of another drillhole was proposed. The Supreme Administrative Court at a hearing on 27 February 2019 dismissed the cassation appeals of a competing company which had filed a complaint against the concession granted to KGHM.</p> |

|  |   |
|--|---|
|  | <p>Key development projects of the Core Business in Poland:</p>   |
|  |   |
| <p>Pyrometallurgy Modernisation Program at the Głogów Copper Smelter and Refinery</p>                    | <p>Production by the flash furnace of the Głogów I Copper Smelter and Refinery was stabilised in accordance with the current production plan. Settlement procedures and the final handovers of contracts and orders with respect to the Pyrometallurgy Modernisation Program are near completion.</p>   |
| <p>Increasing cathode production at the Legnica Copper Smelter and Refinery to 160 kt/year (RCR+ISA)</p> | <p>Work continues on the construction of a Revolving Casting–Refining furnace (RCR) at the Legnica Copper Smelter and Refinery. Assembly of equipment continues: the RCR furnace, post combustion chamber, full evaporation tower, casting machinery, the installation to provide utilities, electrical installation and the APKiA (“Aparatury Kontrolno-Pomiarowej i Automatyki”, or Control-Measurement and Automation Apparatus). The planned date of technological commissioning is the second quarter of 2019.</p>   |
| <p>Development of the Żelazny Most Tailings Storage Facility</p>   | <p>Based on the permit received in 2016 to develop the Main Facility to a crown height of 195 meters a.s.l. and a permit to further operate the Tailings Storage Facility, the dam is being built up successively as part of the on-going operations of the Division. In March 2018, a building permit was issued for the Southern Quarter. Construction of the Southern Quarter will enable the additional deposition of waste tailings in the amount of around 170 million m<sup>3</sup>.</p> <p>In May 2018, an agreement was signed for the construction of the Southern Quarter. Construction work is underway which is expected to be completed at the end of December 2021. A “Substitute Building Permit” for the Tailings Segregation and Thickening Station was received. Construction work commenced on building the Tailings Segregation and Thickening Station, whose commissioning is planned for 30 June 2020.</p> |





Development of international assets



|   |   |
|---|---|
| <p>Victoria Project<br/>(Sudbury Basin, Canada)<br/>KGHM Polska Miedź S.A. Group 100%</p>   | <p>In 2018 required permits for the project were reviewed and work commenced on preparing applications to obtain them. The project team also conducted work related to securing existing infrastructure and project terrain, questions of an administrative and legal nature and maintaining relations with First nations in Ontario in Canada. Infrastructure under the Victoria project will be built if the Company can secure a financial surplus.</p>              |
| <p>Sierra Gorda Oxide (Chile) KGHM INTERNATIONAL LTD. Group 100%.<br/>Sumitomo Metal Mining and Sumitomo Corporation hold an option to acquire in total a 45% stake in the project.</p> | <p>In 2018, work was performed aimed at minimising potential project risks and enhancing its efficiency, mainly by analysing the option of preparing the ore for the heap leaching process by preliminary crushing. This analysis also included crushing tests. In addition, column leaching tests of the crushed material were carried out. Initial verification of the procedures involved in amending the required permits for the project was also carried out.</p> |
| <p>Ajax Project (British Columbia, Canada)<br/>KGHM Polska Miedź S.A. Group 80%<br/>Abacus Mining and Exploration Corp. 20%</p>   | <p>As a result of the negative decisions received from the Government of Canada and the provincial authorities of British Columbia against the granting of an Environmental Assessment Certificate for the Ajax project, in 2018 only necessary work related to securing existing infrastructure and required monitoring of the terrain was carried out.</p>  |



Production



|  |  |
|--|--|
| <p>Sierra Gorda Mine – Phase 1 (Chile)<br/>KGHM INTERNATIONAL LTD. Group 55%,<br/>Sumitomo Metal Mining and Sumitomo Corporation 45%</p> | <p>Production of copper in concentrate in 2018 amounted to 96.9 thousand tonnes, while production of molybdenum in concentrate amounted to 26.75 million pounds (on a 100% basis).</p> <p>In 2018, work was carried out related to optimising the processing of the sulphide ore. The actions taken were concentrated on stabilising the volume and production parameters of the ore processing process as well as on stabilising the work of the processing plant and increasing metals recovery.</p> <p>At present work is aimed at developing the mine based on phase I of the investment along with actions aimed at optimising the production line, which should lead to increased production capacity.</p> |
|--|--|

|  | <p style="text-align: center;">Production</p>  |
|---|--|
| <p>Improving efficiency in the core business in Poland</p>                        | <p>In 2018, initiatives aimed at automating production in the Mining Divisions of KGHM continued. In addition, projects related to automating production, which were added to the KGHM 4.0 program in the area INDUSTRY, commenced realisation:</p> <ul style="list-style-type: none"> <li>• The placement and identification of machinery and persons in underground mines (pilot version and proof of proper functioning),</li> <li>• Broad-band data transmission in underground mines,</li> <li>• Monitoring of utilities - power, ventilation, water,</li> <li>• Robotisation of production and auxiliary processes,</li> <li>• Monitoring of mining vehicle parameters – continuation of the SYNAPSA project,</li> <li>• Multidimensional data analysis of production processes – Centre of Advanced Data Analysis (Centrum Zaawansowanych Analiz Danych - CZAD).</li> </ul> <p>To achieve savings through the acquisition of free energy efficiency certificates, three ventures were designated which meet the requirements of the new energy efficiency law. At present energy efficiency audits and appropriate documentation are being prepared for them, which will represent appendices to the application on the granting of white certificates.</p> <p>Tasks aimed at reducing energy consumption in KGHM Polska Miedź S.A. are advancing in accordance with the schedule under the Energy Management System implemented in the Company in compliance with PN-EN ISO50001:2012 and with the Energy Savings Program (ESP). During the reported period, as a result of the realisation of tasks identified under the aforementioned actions conducted in the Divisions, energy consumption was reduced by 65.7 GWh.</p> <p>In order to optimise underground machinery management and to improve their operating efficiency ratios, the Company is aiming to stabilise the long-term trend of replacement of mining vehicles at the level of at least 16% annually and to stabilise the availability of primary machinery at the level of at least 74.5%. In 2018, actions were continued aimed at achieving the planned level of machinery replacement, which in the period from 1 January 2016 to 31 December 2018 amounted on an accrued basis to 15.3%, as well as actions aimed at improving availability, which in the period from 1 January 2016 to 31 December 2018 amounted on an accrued basis to 72.9%.</p> <p>The Company has joined the Polish Committee for Standardization, where it is involved in tasks aimed at creating standards, thanks to which it can improve its own Energy Management System based on the newest versions of international standards (e.g. updated standard ISO50001:2018), while at the same time monitoring the actions of the International Organization for Standardization (ISO) which remain of interest to KGHM.</p> |
| <p>Improvement in occupational health and safety</p>                              | <p>In 2018, the Company recorded a decrease in the total number of workplace accidents, calculated on a year-on-year basis from 300 to 297 injured. Most of the registered workplace accidents (approx. 98.7%) were characterised as light injuries, with the main causes being in order: contact (striking) with or by moveable/ immoveable objects, loss of balance by employees, rock falls and injuries related to using workplace tools. At the same time the number of days absent caused by workplace accidents decreased by 7.5% yoy. The ratio LTIRFKGHM (Lost Time Injury Frequency Rate KGHM) in 2018, or the total number of workplace accidents, being the number of accidents per million hours worked for the entire core business of KGHM Polska Miedź S.A., decreased as compared to 2017 and amounted to 10.3 (2017 = 10.4).</p> <p>During the reporting period the Company continued work involving implementation of the multi-year Occupational Health and Safety Program in KGHM Polska Miedź S.A. Further reconstructions of selected workplace accidents in the Divisions of KGHM Polska Miedź S.A., instruction films and an educational film were prepared. Further editions of the so-called safety passport were developed as well as educational materials on industrial hygiene. New technical solutions were tested in the Divisions of KGHM aimed at improving OHS, and new formulas of cooperation with subcontractors were implemented. The Company is continuing to advance the goals of „Zero accidents due to human and technical reasons, zero occupational illnesses among our employees and contractors”.</p>  |





Initiatives aimed at enhancing knowledge and innovation in KGHM Polska Miedź S.A.:



Main R&D initiatives

In the third quarter of 2018, the project „Utrzymanie Kopalni i Sprzętu” (Maintained Mine & Machine) was initiated, subsidised under KIC Raw Materials. Its goal is to build a management processes support system to maintain mine production and mine machinery. KGHM Polska Miedź S.A. is responsible for defining research problems.

During the reporting period a subsidy was received from KIC Raw Materials for the project „Monitoring pracy maszyn do kruszenia minerałów” („Operation monitoring of mineral crushing machinery”). Initiation is expected at the start of 2019.

The AMCO project continues, subsidised under the auspices of KIC Raw Materials, aimed at building an innovative automated microscope system for analysing metals ore. The project concluded in January 2019. The result of the project was the development of an automated, user-friendly and intuitive microscope system enabling the rapid measurement of useful minerals content. The system correctly identifies minerals and moderately identifies barren rock, and may serve as a supplement to the solutions already applied by KGHM Polska Miedź S.A.

Under the Horizon 2020 Program, the Company participates in the subsidised research project INTMET („Integrated innovative metallurgical system to efficiently enrich polymetallic, complex and low-grade ores and concentrates”), under which technology for the processing of, among others, metal ores are being developed.

Advancement of the subsidised project BioMOre („New mining concept for extracting metals from deep ore deposits using biotechnology”) was concluded, in which the Company played the key role of coordinator. As a result of advancement of this project a technology for the bioleaching of a deposit in-situ under actual conditions was effectively verified. Due to the specific nature of the deposits currently being mined by KGHM Polska Miedź S.A., this bioleaching technology is not sufficiently effective.

The Company, together with international consortiums, submitted a subsidy application under the Horizon 2020 Program for the project FineFuture, under which research is planned to improve mineral particulate flotation. The application was positively reviewed by the European Commission structures, which granted financing for the project.

Advanced work is underway to prepare applications for subsidising from the Horizon 2020 Program in the areas: management of Big Data from industrial infrastructure, and technology to recover cobalt from slag from the blister copper conversion process.

Under preparation are proposals for financing by the KIC Raw Materials program in the following areas:

- Development of a new generation of working elements of flotation machinery,
- Flotation of thick grains,
- Improvement of the efficiency of the dewatering process,
- Management of production processes.

An „Implementation Doctorates Program in KGHM” was commenced for 35 Candidates. Under this initiative, the following actions were taken:

- Principles for and the form of managing the Implementation Doctorates Program were developed,
- Organisational, operational and substantive support was ensured for the Program’s Participants during external recruiting and qualification interviews at 5 public institutions of higher learning,
- Funds were ensured to carry out R&D work under the implementation doctorates program,
- A year-long agreement was signed with KGHM CUPRUM sp. z o.o. Centrum Badawczo-Rozwojowe to coordinate the Program, monitor the progress of the doctoral students and cooperate with institutions of higher learning.



Initiatives aimed at enhancing knowledge and innovation in KGHM Polska Miedź S.A.:

|                              |  |
|------------------------------|--|
| <p>CuBR Program</p>          | <p>20 R&amp;D projects having a total value of around PLN 150 million are being advanced under the CuBR Joint Venture, co-financed by the National Centre for Research and Development (NCRD). Together with the National Centre for Research and Development, applications submitted under the fourth CuBR competition were verified. 4 of the proposed projects qualified for negotiation. The negotiations and the signing of agreements are planned for the first half of 2019.</p>  |
| <p>Intellectual property</p> | <p>In 2018, 3 inventions arising from R&amp;D work were submitted to the Patent Office of the Republic of Poland.</p> <p>Conditional approval was received for the granting of a patent for invention no. P.404821 called „Means for indicating the placement of moveable parts of equipment or machinery as well as a unit for indicating the placement of moveable parts of equipment or machinery” arising from R&amp;D work.</p> <p>KGHM Polska Miedź S.A. is a co-proprietor of European patent no. EP2873475 „Method of manufacturing wires of Cu-Ag alloys” delivered and advanced under a CuBR project, whose validation is planned in the following countries: Austria, Belgium, Czechia, Estonia, France, Germany, Hungary, Italy, Latvia, Lithuania, Romania, Slovakia, Slovenia, Spain, the United Kingdom and Poland. An entry was made in the registry of co- proprietors from submission no. P397200 (delivered and advanced under a CuBR project); for patent PL 221274; in the EUIPO (European Union Intellectual Property Office) rights from the registration of 6 community models: Power overhead line conductor.</p> <p>Proceedings are underway in the matter of defending the KGHM's written and graphic trademark in China and registration of the KGHM trademark in Canada.</p> <p>During the reporting period the Company was awarded the title Mistrz Techniki (Engineering Champion) and Dolnośląski Mistrz Techniki (Lower Silesian Engineering Champion) for a „System to manage energy in KGHM Polska Miedź S.A.” and the title Wicemistrz Techniki (Vice Engineering Champion) for its solution: „Dyspozytornia ONE CONTROL ROOM”; the title Złoty Laur Innowacyjności 2018 (Golden Laureate of Innovation 2018) was awarded for the solution One Control Room.</p> |

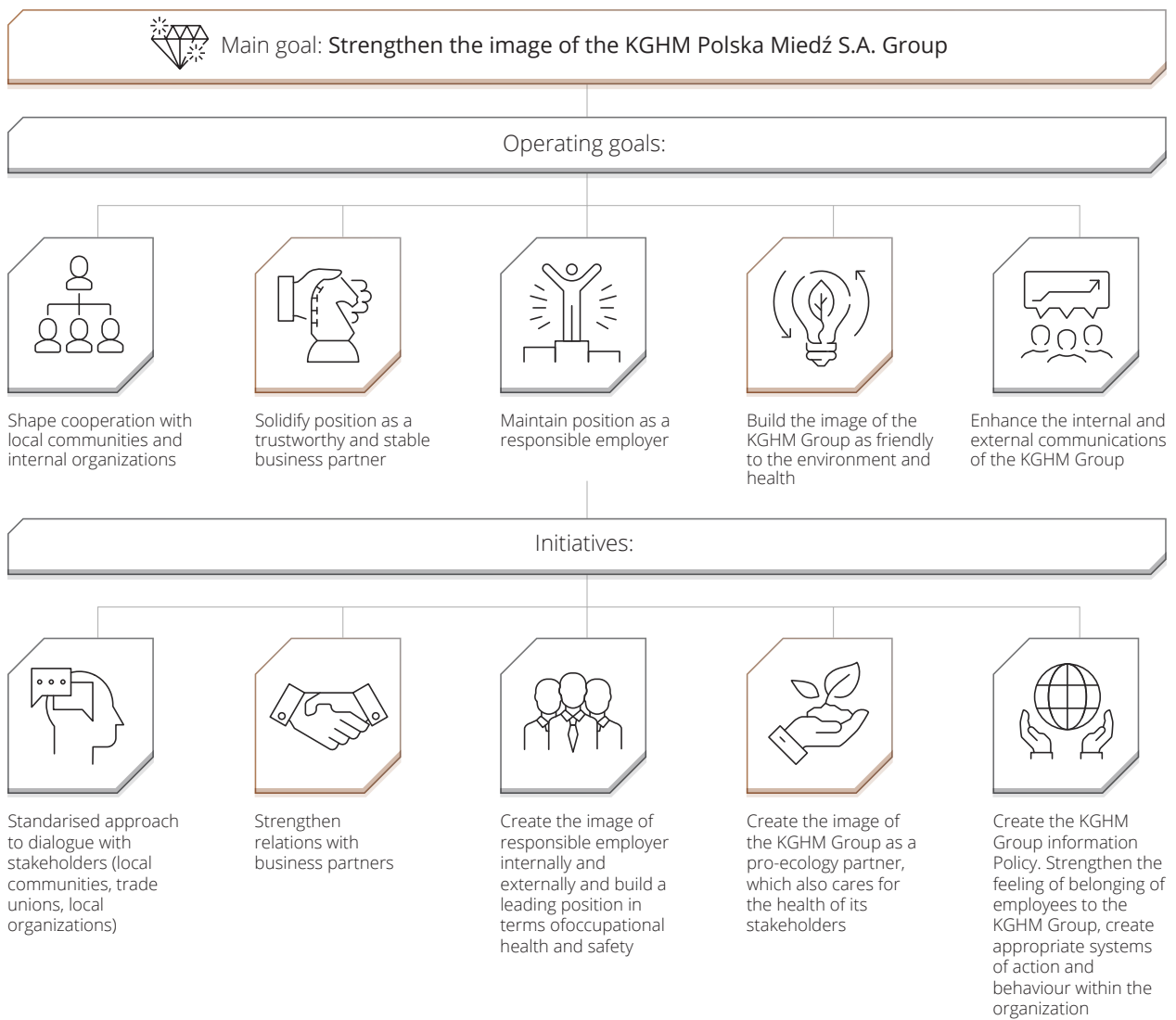


# 4.3 Corporate Social Responsibility Strategy

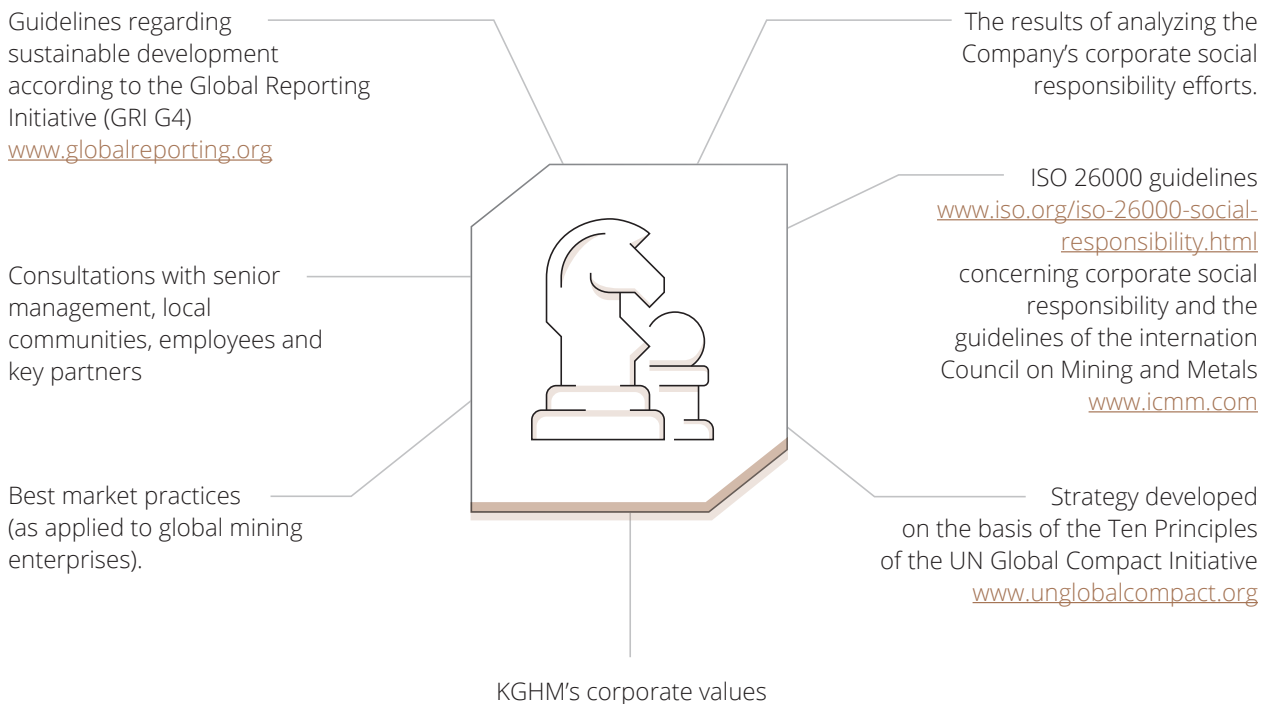
In 2018, the Corporate Social Responsibility Strategy was pursued. Various initiatives were undertaken with a view to achieving the Strategy's main objective, namely

to "Strengthen the image of the KGHM Polska Miedź S.A. Group". The diagram below describes the CSR objectives of the KGHM Group.





## CSR objectives of the KGHM Group




The implementation of the KGHM Group Corporate Social Responsibility Strategy was based on:







The Corporate Social Responsibility Strategy is based on five key strategic objectives:

-  shaping cooperation with local communities and internal organizations,
-  establishing the position of a trusted and stable business partner,
-  maintaining the position of a responsible employer, building an image of the KGHM Polska Miedź S.A. Group as friendly to human health and the environment,
-  increasing the effectiveness of the KGHM Polska Miedź S.A. Group's internal and external communication.

The first objective pertains to shaping cooperation with local communities and internal organizations through:

-  building the principles of long-term cooperation for social engagement,
-  determining the principles for conducting dialogue with local communities and gaining social approval for running the business ("license to operate") on the basis of best business practices,
-  implementing uniform and transparent principles governing charitable activities and sponsorship – building the position of a global leader who cares about the common good,
-  creating social involvement programs to better understand the stakeholders' expectations and in response to their needs,
-  supporting KGHM's key investment processes at all stages of their development.


The next objective is to establish the position of a trusted and stable business partner, through:

-  extensive promotion of KGHM in domestic and international industry initiatives (scope of sustainable development)
-  communication support in maintaining and developing trade cooperation with long-term and stable partners,
-  development of cross-sectoral cooperation,
-  attaining the rank of the “investor of choice” thanks to compliance with the principles of sustainable development, and development of a relation-based system of cooperation with suppliers,
-  respect for human rights and expectations of local communities.

The third objective of the CSR activities is to maintain the rank of a responsible employer. In this area, the Company:

-  promotes voluntary service to increase employee engagement at the Group level,
-  builds the image of an attractive employer,
-  supports communicative implementation of occupational safety policy rules,
-  conducts operations based on the highest standards of dialogue with the employees,
-  undertakes activities designed to attain a leading position in the industry in terms of occupational health and safety, as well as stability of employment, remuneration, and continuing employee education – “life-long learning”,
-  promotes transparency based on ethics and corporate governance rules, in particular respect for human rights,
-  supports and promotes the education of future human resources.

The environmental aspect is of fundamental importance under the fourth objective – building the image of the KGHM Group as friendly to human health and the environment. In this area, the Company:

-  carries out CSR Programs: of Health Promotion and Prevention of Environmental Hazards - ECO-Zdrowie, and initiatives for innovativeness and natural environment – Strefa Innowacji (Innovation Zone), Employee Volunteers Copper Heart
-  strengthens the role and activity of the KGHM Polska Miedź S.A. Group in the area of environmental protection,
-  develops programs and initiatives to minimize environmental impact: reduce emissions of greenhouse gases, increase energy efficiency, improve waste management and post-mining reclamation, reduce use of and protect water resources).



The last, fifth pillar of CSR activities is to increase the effectiveness of internal and external communication in the KGHM Group. The key initiatives in this area include:

- ☞ standardization of communication rules and behaviors, internally and outside of the KGHM Polska Miedź S.A. Group,
- ☞ organization of coordinated PR activities of the KGHM Polska Miedź S.A. Group on the international level,
- ☞ improvement of internal communication in KGHM Polska Miedź S.A.,
- ☞ standardization and consolidation of the reporting tools in the key companies of the KGHM Polska Miedź S.A. Group,
- ☞ development of an international education system in the area of sustainable development.

In Q1 2018, as part of the pursuit of its Strategy for 2017-2021, the Company launched some very dynamic activities focused on implementing the Sustainable Development Concept and Management Model at KGHM Polska Miedź S.A. To this end, the Sustainable Development Council was established.

The Sustainable Development Council's key objective stemmed from our business development vision of operating according to accepted standards and canons

shaping the future functioning of commodity companies across the world as well as the need for internal information integrity and coherence in the Company's operations. As regards the former issue, the Council's main task was to map KGHM Polska Miedź S.A.'s objectives and activities onto the 17 sustainable development goals set by the United Nations (known as the 2030 Agenda for Sustainable Development). They are presented in the following diagram.



# 4.4 United Nations' sustainable development goals for 2030 (2030 Agenda for Sustainable Development)



**01**

NO  
POVERTY



**07**

CLEAN  
AND AVAILABLE  
ENERGY



**13**

ACTIVITIES  
FOR THE  
CLIMATE



**02**

NO  
HUNGER



**08**

ECONOMIC  
GROWTH AND  
DECENT WORK



**14**

LIFE  
UNDER  
WATER



**03**

GOOD HEALTH AND  
QUALITY OF LIFE



**09**

INNOVATION,  
INDUSTRY,  
INFRASTRUCTURE



**15**

LIFE ON THE LAND



**04**

GOOD QUALITY  
OF EDUCATION



**10**

LESS  
INEQUALITY



**16**

PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



**05**

GENDER  
EQUALITY



**11**

SUSTAINABLE CITIES  
AND TOWNS AND  
COMMUNITIES



**17**

GOAL-ORIENTED  
PARTNERSHIPS



**06**

CLEAN WATER AND  
GOOD SANITARY  
CONDITIONS



**12**

RESPONSIBLE CON-  
SUMPTION AND  
MANUFACTURING



**SUSTAINABLE  
DEVELOPMENT  
GOALS**

Our Strategy

Based on its in-depth analysis of the 2030 Agenda for Sustainable Development, the Sustainable Development Council takes action to increase the positive impact of KGHM Polska Miedź S.A. on the achievement of goals 07

through 09 and weakening the negative impact in the case of goals 06, 13 and 15. These issues are presented in the following diagram.

Key Elements of Sustainable Development in Mining:



The activities described above resulted in the development of KGHM Polska Miedź S.A. sustainable value chain, as presented in the diagram below.

KGHM Polska Miedź S.A.'s sustainable value chain



## 4.5 Key non-financial indicators

Key non-financial indicators of KGHM Polska Miedź S.A. identified and reported in accordance with the Sustainable Development concept for 2016-2018

|  | 2016         | 2017         | 2018             |
|--|--------------|--------------|------------------|
| Society  |              |              |                  |
| Maintaining membership in the RESPECT Index  | YES          | YES          | YES <sup>1</sup> |
| 0% investment activity without a social dialogue policy  | n/a          | YES          | YES <sup>2</sup> |
| Conclusion and maintaining of long-term contracts; achievement of the proper sales structure ensuring long-term relations with customers   | n/a          | YES          | YES <sup>3</sup> |
| Sponsorship and charitable activities in building corporate social responsibility [sponsorship expenses for the purposes of the Company's promotion and regional support. i.e. sports/culture/science] | 26.6 mln PLN | 25.8 mln PLN | 29.6 mln PLN     |
| Resource efficiency  |              |              |                  |
| Maintaining the term of resource self-sufficiency until 2055 or later  | n/a          | n/a          | n/a              |
| Winnings extraction (the above) per mine employee [tonne]  | 2 712        | 2 641        | 2 558            |
| Production of electrolytic Cu per Company / smelter employee [tonne]   | 29 / 152     | 29 / 148     | 27 / 139         |
| Maintaining Cu yields [%]  | 98.18        | 98.23        | 97.82            |
| Zero harm  |              |              |                  |
| LTIRF <sub>KGHM</sub> (Lost Time Injury Frequency Rate KGHM)   | 12.65        | 10.4         | 10.3             |

From 2009 to 2018 (and beyond) without any interruption, KGHM Polska Miedź S.A. has been one of the companies listed on the Warsaw Stock Exchange forming the Respect Index, which testifies to the application of the highest standards of social responsibility, ethical principles, best practices and internal regulations.

The Company observes the "license to operate" regulating such activities. Ultimately, they will be formally spelled out in the Social Dialogue Policy to be developed.

In this context, investment activities mean projects to which KGHM has no legal title, such as a construction permit, etc.

In order to foster good long-term relations with customers and achieve the status of preferred supplier in 2018, nearly 80% of copper sales and over 85% of silver sales took place in the framework of long-term contracts (i.e. longer than 6 months).

## 4.6 4E Strategy

Given the macroeconomic changes in the commodities sector, as well as the strong impact of global megatrends, in the fourth quarter of 2018 the Management Board of KGHM Polska Miedź S.A. decided that it was necessary to conduct a review of the Strategy of KGHM Polska Miedź S.A. Justification for the decision to undertake a strategic review was based among others on the following external factors:

- ✎ Lower than expected global economic growth,
- ✎ The trade conflict between the USA and China, as a factor destabilising global economic growth,
- ✎ Strengthening of the USD, representing one of the main factors responsible for the weakening of prices of commodities which are traditionally denominated in this currency,
- ✎ Slower economic growth in the Eurozone compared to the USA, while its potential for growth may be threatened by Brexit,
- ✎ An insufficient number of new significant copper projects globally and delays in existing mining projects, which could potentially exacerbate the copper deficit and lead to a lower pace of supply growth in future years,
- ✎ Greater importance placed on new technology in mining, due to the need to improve workplace safety and reduce costs. Increased significance of the Internet of Things (IOT), Big Data, diffused data bases (block-chain),
- ✎ New perspectives for metals such as: copper (electromobility market), nickel (battery sector),
- ✎ Restrictions in scrap sales in China.

Based on the above, new strategic directions were set for KGHM Polska Miedź S.A., under the 4E formula:

The Strategy identifies four key development directions for the Company:

### Elasticity

mainly encompassing the concepts related to the 4.0 industry, digitalisation and electromobility,

### Efficiency

a response to the increasing competitiveness in the production and mining industries and the 4.0 industry,

### Ecology

based on electromobility, development of pro-ecological legislation, closed-circuit industry and environmental-friendly production,

### E-Industry

based on automation, digitalisation, a knowledge-based society and concepts of the 4.0 industry.





The aforementioned directions were reflected in individual strategic areas with individual main targets. Each of the main targets was broken down into operational goals, aimed at the realisation of the main target. Each of the six strategic areas was correlated to the four

aforementioned development directions, which resulted in the creation of the initiatives matrix. Each of the strategic areas was measured by the following KPIs (Key Performance Indicators):

| Strategic area         | Main goal   | Key Performance Indicator (KPI)   |
|------------------------|---|---|
| Production             | Maintain cost-effective Polish and international production   | Mining production in Poland at the level of 450 thousand tonnes of copper in ore, with an average yearly C1 cost not higher than 3800 USD/t in the years 2019-2023.<br>Average annual daily ore processing in Sierra Gorda at the level of at least 130 thousand tonnes – from 2020.<br>Average yearly metallurgical production in Poland at the level of 540 thousand tonnes in the years 2019-2023.   |
| Development            | Increase the efficiency and flexibility of the KGHM Group's Polish and international assets           | Ensure the possibility of basing 35% of metallurgical production on purchased copper-bearing materials, including scrap, to 2030.<br>Increase the share of highly processed copper products (OFE-Cu rod, OFE-Cu granulate and end-application products) in the KGHM Group's total sales to the level of 10% at the end of 2030.<br>Satisfy 50% of KGHM Polska Miedź S.A.'s demand for electricity from its own sources of energy generation and renewable energy sources by the end of 2030.  |
| Innovation             | Increase the KGHM Group's efficiency through innovation   | Ensure that 100% of innovation projects are realised pursuant to the rules of a coherent model of innovation management and research and development work (R&D) in the KGHM Group, in the years 2019-2023.<br>Increase expenditures on innovation and R&D work to the level of 1% of KGHM Polska Miedź S.A.'s revenues by 2023.<br>Allocation of at least 75% of funds for R&D and innovation in the years 2019-2023 to meet the challenges faced by KGHM Polska Miedź S.A. in the Core Business.   |
| Financial Stability    | Ensure long-term financial stability and the development of mechanisms supporting further development | Basing the KGHM Group's financing on long-term instruments. Shorter cash conversion cycle. Efficient management of market and credit risk by the KGHM Group.  |
| Efficient Organisation | Implement systemic solutions aimed at increasing the KGHM Group's value                               | Ensure the financial stability of the Polish-based KGHM Group companies, on the basis of their own activities, from 2022.<br>Increase the efficiency of support functions by 20% as a result of centralisation and digitalisation of key back-office processes by 2023.<br>Achievement of key strategic targets, at the level of at least 80% of the yearly goals assigned to them, in each of the years the strategy is in force.<br>Flexible reaction to volatile macroeconomic, geological and mining conditions. A halt in the Morrison mine's production in Sudbury is being considered. |

| Strategic area             | Main goal   | Key Performance Indicator (KPI)  |
|----------------------------|---|--|
| People and the Environment | Growth based on the idea of sustainable development and safety as well as enhancing the KGHM Group's image of social responsibility | Annual improvement of the Lost-time injury frequency rate (LTIFR – for Polish assets) and the Total Recordable Incident Rate (TRIR – for international assets) by at least 20%.<br>Maintain a participation budget at the level of 20% of the amount of deductions for donations from the minerals extraction tax by 2020.<br>Achievement of a 70% level of commitment and satisfaction of the KGHM Group's employees by 2023. |

The Strategy adopted in December 2018 does not change the Company's current approach to business operations. KGHM Polska Miedź S.A. upholds its responsible approach and its long-term thinking about the company's future.

The 4E Strategy accents, in a stronger manner than heretofore, tasks related to efficiency. The Strategy has several aspects: energy effectiveness (aimed at maximising energy independence), financial effectiveness (by utilising long-term instruments), effectiveness through innovation (among others by committing a minimum of 1% of annual revenues to R&D) and also effectiveness related to the core production line, e.g. by optimising metallurgy. The 4E Strategy is heavily concentrated on

technologies of the future, focusing on areas such as the Internet of Things, automation and digitalisation. The KGHM 4.0 Program has received strategic and priority status given the Company's passage into the digital age. The 4E Strategy also places greater weight on the question of human resources management. The Company has recognised the necessity of taking into account in its plans elements related to skills of the future and potential generational issues. Employee safety and development meanwhile remain priority issues.

The Company's strategic intentions are also accentuated by a stronger impact from global megatrends, putting greater emphasis on new technologies, innovation and efficiency/effectiveness.



## Investment targets under the 4E Strategy

The main development goal for the domestic (i.e. Poland-based) companies is to ensure continuity and workplace safety within the core production line of KGHM Polska Miedź S.A. The investment activities of

KGHM Polska Miedź S.A. include the advancement of projects ensuring production, broken down into the areas of development, maintenance and replacement:



### Replacement projects

are aimed among others at purchasing underground mining equipment, replacing mine infrastructure, components and maintenance at the metallurgical and processing plants. Such projects are aimed at maintaining production equipment in a non-deteriorated condition.



### Maintenance projects

are aimed among others at developing infrastructure to match mine advancement and building the Southern Quarter and the Tailings Segregation and Thickening Station. They are aimed at ensuring mine production at the level set forth in the Production Plan.



### Development projects


are aimed among others at gaining access to new areas of the deposits, exploration projects, optimising metallurgical technology and modernising the processing plants. They are aimed at increasing the production volume of the core business, implementing technical-technological actions aimed at optimising the utilisation of existing infrastructure, maintaining production costs and adapting the Company's activities to changes in standards, laws and regulations.


In terms of continuing the adopted investment plans for tangible investments, the Company's investment plans


primarily include projects related to the Company's core business, i.e. the production of copper.


### Key investment activities:

 The Deposit Access Program

 Construction of the RCR furnace for processing copper scrap at the Legnica Copper Smelter and Refinery.

 The Change in the L-VI shaft's function to a material – transport shaft (Lubin mine infrastructure)

 The Metallurgy Development Program at the Głogów Copper Smelter and Refinery

 The program to adapt the technological installations of KGHM to the requirements of BAT Conclusions for the non-ferrous metals industry and to restrict emissions of arsenic (BATAs).

 KGHM 4.0.

 Development of the Żelazny Most Tailings Storage Facility.

 Exploration projects

In terms of the Group's assets abroad, the Group intends to focus on maximising the value of its assets portfolio. In terms of its international development projects, the

Company intends to advance them in accordance with the Strategy if sufficient, excess funds can be secured.

KGHM Polska Miedź S.A., as a result of its activities, bears responsibilities towards numerous social groups. The Company operates based on the principles of sustainable development, reflecting in its daily activities obligations in areas such as society, the environment, the economy, safety/security and effective utilisation of

the Company's natural resources. Because of this, the new Strategy of KGHM Polska Miedź S.A. for the years 2019-2023 published in December 2018 foresees the advancement of the following five areas involving the Sustainable Development of KGHM Polska Miedź S.A.:

## Sustainable Development in KGHM Polska Miedź S.A.



Advancement of the aforementioned goals will be supported in KGHM Polska Miedź S.A. by the actions of the previously mentioned Sustainable Development Council in KGHM Polska Miedź S.A. Realisation of these goals is also assured by KGHM's membership in the European Technology Platform on Sustainable Mineral Resources – ETP on SMR in Brussels, in which KGHM's representative also serves as President. The European Technology Platform on Sustainable Mineral Resources

serves as a think-tank for the resolution of problems involving the raw materials sector. The primary goal of the Platform is to transform the sector from one which is conservative and less disposed to change into an industry which is innovative and focused on change, as well as on cooperation with academia. The Platform acts in an advisory capacity with respect to commodities policy, which is of such tremendous importance for KGHM Polska Miedź S.A.



---

# Risk Management

---





# 5.1 Comprehensive Risk Management System in the KGHM Group

---



The KGHM Polska Miedź S.A. Group defines risk as uncertainty, being an integral part of the activities conducted and having the potential to result in both opportunities and threats to achievement of the business goals. The current and future, actual and potential impact of risk on the KGHM Polska Miedź S.A. Group's activities is assessed. Based on this assessment, management practices are reviewed and adjusted in terms of responses to individual risk factors.

Under the Corporate Risk Management Policy and Procedure and the Rules of the Corporate Risk and Compliance Committee updated in 2018, the process of corporate risk management in the Group is consistently performed. In the companies of the Group, documents regulating the management of corporate risk are consistent with those of the Parent Entity. KGHM Polska Miedź S.A. oversees the process of managing corporate risk in the Group. Each year, the process of managing corporate risk is subjected to an efficiency audit (compliant with the guidelines of Best Practice for WSE Listed Companies 2016).

Risk factors in various areas of the Group's operations are continuously identified, assessed and analysed in terms of their possible limitation. Key risk factors in the Group undergo in-depth analysis in order to develop a Risk Response Plan and Corrective Actions. Other risk factors undergo constant monitoring by the Department of Corporate Risk Management and Compliance, and in terms of financial risk by the division of the Executive Director for Treasury Operations - Corporate Treasurer.

This comprehensive approach to analysing risk factors also comprises the identification of risk factors related to achieving the strategic goals. In 2018, risks were reviewed related to achievement of the strategic goals contained in the Main Strategy and in the Executory and Support Strategies.

Following is the organisational structure of risk management in the Parent Entity as updated in 2018. The breakdown of rights and responsibilities applies best practice principles for Corporate Governance and the generally recognised model of three lines of defense.

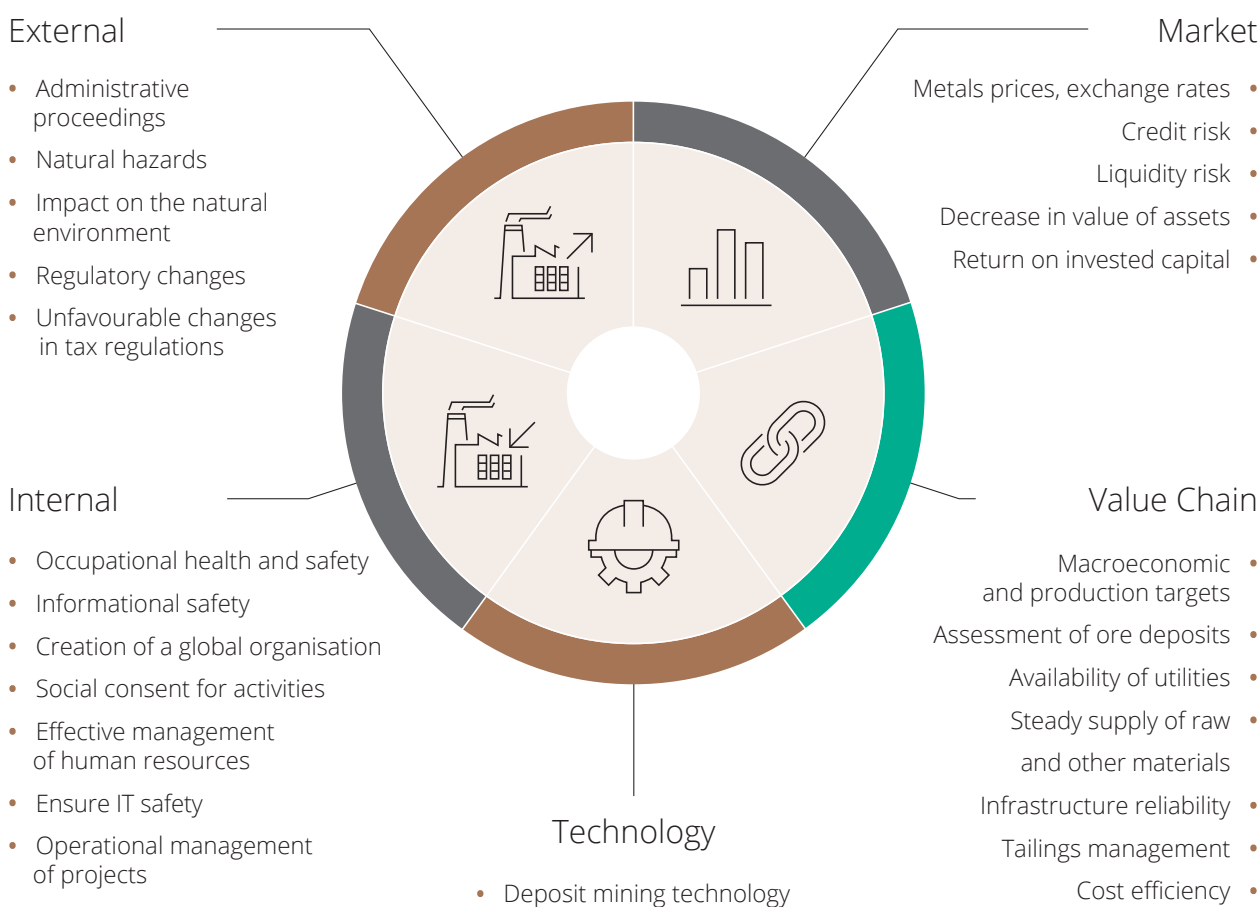
| ORGANISATIONAL STRUCTURE OF RISK MANAGEMENT IN KGHM POLSKA MIEDŹ S.A  |  |   |  |  |  |
|---|--|---|--|--|--|
|  Supervisory Board (Audit Committee)   |  |   |  |  |  |
| Performs annual assessment of the effectiveness of the risk management process and monitors the level of key risk factors and ways to address them.   |  |   |  |  |  |
|  Management Board  |  |   |  |  |  |
| Has ultimate responsibility for the risk management system and supervision of its individual elements.  |  |   |  |  |  |
| 1st line of defense   | 2nd line of defense  |   |  |  | 3rd line of defense  |
| <b>Management</b><br><br>Managers are responsible for identifying, assessing and analysing risk factors and for the implementation, within their daily duties, of responses to risk. The task of the management staff is ongoing supervision of the application of appropriate responses to risk within the tasks realised, to ensure the expected level of risk is not exceeded. | <b>Risk Committees</b><br><br>They support effective risk management and ongoing supervision of key risks. |   |  |  | <b>Audit</b><br><br>The Internal Audit Plan is based on assessing risk and subordinated business goals, assessed is the current level of individual risk factors and the degree of efficiency with which they are managed. |
|   | Corporate Risk and Compliance Committee  | Market Risk Committee   | Credit Risk Committee  | Financial Liquidity Committee  |  |
|   | Manages corporate risk and continuously monitors key risk factors  | Manages risk of changes in metals prices (e.g.: copper and silver) as well as exchange and interest rates | Manages risk of failure of debtors to meet their obligations | Manages risk of loss of liquidity, understood as the ability to pay financial liabilities on time and to obtain financing for operations |  |
|   | Corporate Risk Management Policy   | Market Risk Management Policy   | Credit Risk Management Policy                                | Liquidity Management Policy  | Internal Audit Rules   |
|   | Department of Corporate Risk Management and Compliance   | Executive Director for Treasury Operations - Corporate Treasurer  |  |  | Executive Director for Audit and Control   |
|   | Reports to the Management Board  | Reports to the Vice President of the Management Board (Finance)   |  |  | Reports to the President of the Management Board   |

# 5.2 Key risk factors in the Group and their mitigation

For the purposes of risk identification, the KGHM Group uses a tool called a Risks Model. Its structure is based on risk sources and is divided into the following 5 categories: technological, value chain, market, external and

internal. At the level of the identified and defined sub-categories, there are several dozens of subcategories corresponding to individual areas of operations or management.

## Risk factors in the KGHM Group



A tool used in identifying risk in the KGHM Polska Miedź S.A. Group is the Risk Model. Its structure is based on a given risk's source and is divided into the following 5 categories: Technological, Values chain, Market, External and Internal. Several dozen sub-categories have been identified and defined covering particular areas of the operations or management.

Following are the key risks in the KGHM Polska Miedź S.A. Group, including identification of specific risks for the Parent Entity and the KGHM INTERNATIONAL LTD. Group.

The list below uses the following abbreviations: for the KGHM Polska Miedź S.A. Group – the KGHM Group, for the KGHM INTERNATIONAL LTD. Group – the KGHM INTERNATIONAL Group.

| Risk factor                             | Risk - description  | Mitigation  |
|---|---|---|
| <b>Technology</b>                       |   |   |
| Technology                              | (Parent Entity) Technological risk related to the mining of deep underground copper ore deposits, under conditions associated with natural hazards.   | R&D work and test runs of alternate mining methods to currently-used copper ore mining technology.  |
|   | (Parent Entity) Risk of failure to adhere to the efficient working time parameter and of failure to fully utilise the capacity of metallurgical installations to process own concentrate (Głogów Copper Smelter and Refinery).        | Construction of a concentrate roasting installation at the Głogów smelter and refinery, maintain the appropriate separation of concentrate to optimise the pyrometallurgical process and advance R&D.   |
| <b>Value chain</b>                      |   |   |
| Planning                                | (KGHM Group) Risk related to using inappropriate economic parameters related to production, investments, macroeconomics and finance, for forecasts of company results.  | Forecasts related to specific areas of the operations are prepared by appropriate specialised units.  |
|   | (KGHM INTERNATIONAL Group) Risk related to the accuracy of estimating decommissioning costs of certain mines.   |   |
| Resources and reserves                  | (KGHM Group) Risk related to insufficient knowledge of the parameters and characteristics of a deposit, both for exploration projects (estimated input data for orebody evaluation models), as well as for ongoing mining operations. | Additional expenditures on exploratory work to enhance the precision of estimating resources and the level of knowledge of geological-mining conditions, optimisation of the drilling network, geological research, knowledge gained through access drifts, consultations with external experts.  |
| Waste management                        | (Parent Entity) Risk of the inability to store mine tailings.   | Operation, construction and development of the tailings storage facility pursuant to the operating instructions. Cooperation with a Team of International Experts (TIE) and the General Designer, introduction of Observation Methods during development recommended by the TIE, based on the evaluation of geotechnical parameters obtained from the results of monitoring performed, which allow conclusions to be made regarding the behaviour of the constructed/operated facility. |
| Availability of materials and utilities | (KGHM Group) Risk related to the lack of availability of utilities (electricity, gas, water).   | Ensure back-up systems for key utilities and on-going evaluation of the security of power systems. Conduct a variety of investments aimed at strengthening energy security.<br><br>Agreement with the company Polskie Górnictwo Naftowe i Gazownictwo S.A. for the sale of natural gas, increasing the security of natural gas supply.  |

| Risk factor                        | Risk - description  | Mitigation   |
|------------------------------------|---|--|
| Production and infrastructure      | (KGHM Group) Risk related to infrastructure emergencies resulting in a shut-down of production lines, both as a result of natural hazards as well as internal factors related to the applied technology (as well as the pyrometallurgical process).                     | Preventative management of key elements of infrastructure which impact the smooth flow of operations. On-going analysis of geotechnical risk and reviews of planned recoveries.<br><br>Appointment of special-purpose and expert teams on preventing emergencies in metallurgical infrastructure.        |
|                                    | (KGHM INTERNATIONAL Group) Geotechnical risk in open-pit mines (wall stability) and in underground mines.   |  |
| Efficiency and costs               | (KGHM Group) Risk related to the cost effectiveness of the production process, mining projects and the processing of copper-bearing materials, including the risk of significant increases in the prices of materials, services and utilities and of restoration costs. | Monitoring trends on the copper-bearing materials market and maintaining costs at the planned levels. Creating multi-year plans and budgets to achieve profitability under the given market conditions.  |
| <b>Market</b>                      |   |  |
| Market Risk                        | (KGHM Group) Risk related to volatility in commodity prices (copper, silver and other metals), exchange rates and interest rates.   | This risk is actively managed (in the Parent Entity, in accordance with the Market Risk Management Policy currently in force). A basic technique for managing market risk in the company are hedging strategies utilising derivative instruments. Natural hedging is also applied.                       |
| Credit Risk                        | (KGHM Group) Risk related to the failure by commercial customers or financial institutions to regulate receivables.   | This risk is actively managed (in the Parent Entity, in accordance with the Credit Risk Management Policy currently in force). Exposure to credit risk is limited by evaluating and monitoring the financial condition of customers, setting credit limits and applying creditor security and factoring. |
| Liquidity Risk                     | (KGHM Group) Risk related to the loss of liquidity, understood as the ability to pay liabilities on time and to obtain financing for operations.  | This risk is actively managed (in the Parent Entity, in accordance with the updated Financial Liquidity Management Policy in the KGHM Group).  |
| Equity investments and divestments | (KGHM Group) The risk of not receiving the expected return or expected effects on an equity investment. Risk of loss of company value, the failure to achieve assumed synergies, the loss of alternative profits, a fall in the price of shares of listed companies.    | Detailed analysis of the effectiveness and justification of equity investment plans; pre-investment analysis of projects and on-going monitoring of the value of assets owned.   |



| Risk factor                            | Risk - description  | Mitigation   |
|--|---|--|
| <b>External</b>                        |   |  |
| Administrative proceedings             | (KGHM Group) The risk of restricting or suspending operations as a result of administrative and/or legal proceedings: administrative decisions not received, withdrawn or which undergo unfavourable changes.                                       | The process of obtaining administrative decisions is conducted with an appropriate level of prudence and care. Deadlines are met. Being proactive (initiating procedures at an early stage and executing decisions with a margin of safety in terms of time). Legal counsel is employed when the company is engaged in administrative proceedings. Appeals procedures are followed. The opinions of external experts are sought. |
| Natural hazards                        | (KGHM Group) The risk of employees' loss of life or health. Disruptions or restrictions in production as a result of seismic events and associated roof collapses, or destressings of the rock mass and the occurrence of uncontrolled rock bursts. | A wide variety of technological and organisational solutions and other active and passive methods are applied to prevent roof collapses enabling restriction of the effects of dynamic events (roof collapses or rock mass destressings) in the mines. Preparation of reserve fields in the ore-body which could handle reduced production.  |
|  | (Parent Entity) Risk related to gas hazards (mainly hydrogen sulphide).   | The risk of gas hazards occurring is being assessed and principles are being developed for working under the risk of such hazards. Individual employee safety measures are applied as well as equipment and means for reducing concentrations of hydrogen sulphides and neutralising oppressive odours.  |
|  | (Parent Entity) Risk related to underground climate risk, which increases in tandem with increasing mine depth.   | The construction of additional ventilation shafts, the use of centralised, workplace and individual air cooling systems as well as reduced working time.   |
|  | (Parent Entity) Risk related to the occurrence of underground water-related threats.  | The introduction of a variety of technological solutions (e.g. water level signalling devices and alarms, draining of the rock mass) and organisational solutions (training, work conducted in accordance with documentation), aimed at minimising the negative impact of the occurrence of such a risk.   |
| Natural environment and climate change | (KGHM Group) The extraction and processing of copper ore at all stages of production has an unavoidable impact on various parts of the natural environment. Risk related to pricing and the placing of limits on CO <sub>2</sub> emissions.         | Compliance with rigorous environmental standards imposed by law is possible thanks to the systematic modernisation of environmental protection installations, both those built in the past as well as new investments in this regard. (In the Parent Entity a CO <sub>2</sub> Emissions Management System has been implemented as well as environmental management standard ISO 14001).  |
|  | (Parent Entity) Risk related to evaluating air quality in Lower Silesia (exceeding the average annual target level of arsenic in suspended dusts PM10).   | Carrying out the list of actions arising from Air Protection Programs. Conduct of R&D work and of the Program to adapt the technological installations of KGHM BAT Conclusions for the non-ferrous metals industry together with limitation of arsenic emissions.  |

| Risk factor                       | Risk - description  | Mitigation  |
|-----------------------------------|---|---|
| Law and regulations               | (KGHM Group) The risk of changes in the regulatory environment in areas such as geological-mining law, environmental protection, energy, corporate law, insurance and security.   | Monitoring of legal changes in individual jurisdictions and active participation in legislative processes. Taking pre-emptive actions to adapt to organisational, infrastructural and technological changes. An energy management system was implemented in the Parent Entity and a certificate of compliance with ISO 50001 standard was received.   |
| Taxation                          | (Parent Entity) The risk of there being no change in the royalty formula (the minerals extraction tax) and the risk of taxation arising from other regulations.   |   |
|                                   | (KGHM INTERNATIONAL Group) Taxation risks arising from operating in numerous jurisdictions.   |   |
| <b>Internal</b>                   |   |   |
| Occupational health and safety    | (KGHM Group) The risk of serious accidents or industrial illnesses caused by improper workplace organisation, the failure to follow procedures or the use of improper safety devices. The risk of temporary production stoppages caused by serious accidents. | In the Parent Entity, occupational health and safety standards are in force (18001/OHSAS); regular training in occupational health and safety standards, programs to identify potentially accident-causing events.  |
| Stakeholders                      | (KGHM Group) The risk of negative ad campaigns and the risk of lack of acceptance by the public, local governments or other stakeholders for the conduct of development and exploration work.   | Execution of the CSR Strategy, close cooperation with government bodies; meetings and negotiations with stakeholders, informational campaigns, conferences, publications.   |
| Human resources                   | (KGHM Group) The risk of not being able to acquire and keep human resources, for example in order to support development projects.  | Programs aimed for example at raising the effectiveness of the processes of recruitment, finding successors and maintaining key positions. Employee mobility program.   |
| Security, IT and data protection  | (KGHM Group) Risk that the confidentiality, integrity or availability of informational assets which have been collected, stored or processed on physical and/or IT resources may be compromised.  | Strict adherence to and application of the principles, among others, of the Information Security Policy and Facility Protection Plans. Adaptation of the KGHM Group to the requirements of the general decree on the protection of personal data (GDPR). Systematic assessment of the risk of compromise of the confidentiality, integrity or availability of informational assets.   |
| Ethics and organisational culture | (KGHM Group) Risk of failure to adhere to established principles and standards with respect to counteracting corruption within the procurement process and the risk of incurring losses due to actions harmful to KGHM.                                       | Strict adherence to and application of the principles arising from the Code of Ethics of the KGHM Polska Miedź S.A. Group, the Anti-corruption Policy and the Procedures for Counteracting Threats of Corruption in the KGHM Polska Miedź S.A. Group. In the companies of the KGHM Group, Corporate Representatives for Ethics and Anti-corruption were appointed and a Procedure for Disclosing Improprieties and Protecting Whistleblowers was implemented in the KGHM Group. |

| Risk factor        | Risk - description   | Mitigation  |
|--------------------|--|---|
| Project management | (KGHM Group) The risk of exceeding project/program budgets and schedules, exceeding defined scopes and failing to meet defined quality parameters as a result of the improper management of portfolios and projects. | Project Management in accordance with Methodology as well as on-going monitoring and updating of schedules. On-going evaluation of the economic effectiveness of existing and anticipated development projects. |
|                    | (KGHM INTERNATIONAL Group) Risk related to the operational management and development of key mining projects, including issues related to costs incurred, permitting and infrastructural requirements.               |   |

## 5.3 Market, credit and liquidity risk

The goal of market, credit and liquidity risk management in the KGHM Polska Miedź S.A. Group is to restrict the undesired impact of financial factors on cash flow and results in the short and medium terms and to enhance the Group's value over the long term.

The management of these risks includes both the processes of risk identification and measurement as well as its restriction to acceptable levels. The process of risk management is supported by an appropriate policy, organisational structure and procedures. In the Parent Entity these issues are covered in the following documents:



Market Risk Management Policy and the Rules of the Market Risk Committee



Credit Risk Management Policy and the Rules of the Credit Risk Committee



Financial Liquidity Management Policy and the Rules of the Financial Liquidity Committee

The „Market Risk Management Policy in the KGHM Polska Miedź S.A. Group“ covers selected mining companies in the Group (KGHM Polska Miedź S.A., KGHM INTERNATIONAL LTD., FNX Mining Company Inc., Robinson

Nevada Mining Company, KGHM AJAX MINING Inc. and Sociedad Contractual Minera Franke), with representatives of the Parent Entity and KGHM INTERNATIONAL LTD. serving as members of the Market Risk Committee.

Financial liquidity management is carried out in accordance with the „Financial Liquidity Management Policy in the KGHM Group” which in a comprehensive manner regulates financial liquidity management in the Group carried out by individual Group companies, while its organisation and coordination as well as the supervision thereof is performed in the Parent Entity.

Credit risk management in the Parent Entity is carried out in accordance with the Management Board-approved

Credit Risk Management Policy. The Parent Entity serves as an advisor to the Group’s companies with respect to managing credit risk. The „Credit Risk Management Policy in the KGHM Polska Miedź S.A. Group” applies to selected Group companies, the goal of which is to introduce a comprehensive, joint approach and the most important elements of the credit risk management process.

## 5.4 Market risk management

---

Market risk is understood as the possible negative impact on the Group’s results arising from changes in the market prices of commodities, exchange rates and interest rates, as well as from changes in the value of debt securities and share prices of listed companies.

In terms of market risk management (in particular the risk of changes in metals prices and exchange rates) of greatest significance and impact on the results of the Group are the scale and nature of the activities of the Parent Entity and the mining companies of KGHM INTERNATIONAL LTD.

### Commodity risk, currency risk

In 2018, the Group was mainly exposed to the risk of the changes in the prices of metals it sells: copper and silver. Of major significance for the Parent Entity was the risk of changes in currency rates, in particular the USD/PLN exchange rate. The Group’s companies are additionally exposed to the risk of volatility in the prices of lead, gold, molybdenum, platinum and palladium. Market risk related to changes in metals prices arises from the formula for setting prices in physical metals sales contracts, which are usually based on the average monthly market prices for the relevant future month.

In accordance with the Market Risk Management Policy, in 2018 the Parent Entity continuously identified and measured market risk related to changes in metals prices, exchange rates and interest rates (analysis of the impact of market risk factors on the Parent Entity’s activities – profit or loss, statement of financial position, statement of cash flows), and also analysed the metals

The Parent Entity actively manages market risk, undertaking actions and decisions in this regard within the context of the global exposure throughout the KGHM Polska Miedź S.A. Group.

The Management Board is responsible for market risk management in the Parent Entity and for adherence to policy in this regard. The main body involved in performing market risk management is the Market Risk Committee, which makes recommendations to the Management Board in this area.

and currencies markets. These analyses, along with assessment of the internal situation of the Parent Entity and Group, represented the basis for taking decisions on the application of hedging strategies on the metals, currency and interest rates markets.

With respect to managing risk in 2018, the Parent Entity implemented copper price hedging transactions with a total notional amount of 126 thousand tonnes and a hedging horizon falling from July 2018 to December 2020 (including: 114 thousand tonnes hedging revenues from copper sales in the years 2019-2020). The Parent Entity did not implement derivatives transactions on the silver market. As a result, the Parent Entity held open derivatives positions on the copper market for 168 thousand tonnes of copper in the years 2019-2020.

Moreover, in 2018 the Parent Entity commenced the management of a net trading position in order to react to

changes in contractual agreements with customers and to the appearance of non-standard pricing conditions in metals sales and in purchases of copper-bearing materials. In the fourth quarter of 2018 so-called QP adjustment swap transactions were entered into on the copper and gold markets with maturity falling in June 2019.

In 2018, the Parent Entity implemented transactions hedging against a change in the USD/PLN exchange rate for the total notional amount of USD 1 710 million with maturity from April 2018 to December 2020 (including transactions hedging USD 1 080 million in revenues for the period from January 2019 to December 2020). As at 31 December 2018 the Parent Entity held an open hedging position in derivatives for USD 1 260 million of planned revenues from sales of metals.

### Interest rate risk

Interest rate risk is the possibility of the negative impact of changes in interest rates on the Group's position and results. In 2018, the Group was exposed to such risk due to loans granted, free cash invested on deposits and borrowings.

As at 31 December 2018, the following positions were exposed to interest rate risk by impacting the amount of interest costs and income:

☞ cash and cash equivalents: PLN 1 315 million, including the deposits of special purpose funds: the Mine Closure Fund and the Tailings Storage Facility Restoration Fund,

☞ liabilities due to bank and other loans drawn: PLN 5 112 million.

As at 31 December 2018, the following positions were exposed to interest rate risk due to changes in the fair value of instruments with fixed interest rates:

### Price risk related to the change in share prices of listed companies

Price risk related to the shares of listed companies held by the Group is understood as the change in their fair value due to changes in their quoted share prices.

As for managing currency risk which may arise from bank and other loans, the Parent Entity applies natural hedging by borrowing in currencies in which it has revenues. The balance of liabilities of the Parent Entity due to bank loans and a loan as at 31 December 2018 was comprised of USD-denominated liabilities, which following their translation into PLN amounted to PLN 7 655 million.

As at 31 December 2018, KGHM INTERNATIONAL LTD. did not hold open derivative positions on the metals and currency markets.

Some of the Group's Polish companies managed the currency risk related to their core businesses by opening derivative transactions on the EUR/PLN and USD/PLN markets.

☞ receivables due to loans granted by the Group: PLN 15 million,

☞ liabilities due to bank and other loans drawn with fixed interest rates: PLN 2 810 million.




Financial liabilities denominated in USD and EUR, based on LIBOR or EURIBOR, expose the Group to the risk of higher interest rates which would result in higher interest costs. As a result, taking into consideration the global exposure of the Group to interest rate risk, in 2018 the Parent Entity drew a loan based on a fixed interest rate and exercised its right to draw loans from the European Investment Bank based on a fixed interest rate. Moreover, the Parent Entity remains hedged against an interest rate increase (LIBOR USD) through the aid of a call option (CAP) with an interest rate of 2.50% in the years 2019-2020.

As at 31 December 2018, the carrying amount of shares of companies which were listed on the Warsaw Stock Exchange and on the TSX Venture Exchange amounted to PLN 427 million.



## Result on derivatives and hedging transactions

The total impact of derivatives and hedging instruments (transactions on the copper, silver, currency and interest rate markets as well as embedded derivatives and a loan in USD designated as a hedge against a change in the exchange rate) on the Group's profit or loss for 2018 amounted to PLN 47 million, of which:

-  PLN 125 million was recognised in sales revenue,
-  PLN 89 million decreased the result on other operating activities,
-  PLN 11 million increased the result on financing activities.

Moreover, in 2018 other comprehensive income increased by PLN 349 million (impact of hedging instruments).

As at 31 December 2018, the fair value of open positions in derivatives of the Group (on the metals, currency, interest rate and embedded derivatives markets) amounted to PLN 416 million.

The Parent Entity decided to implement standard IFRS 9 (including hedge accounting principles) as at 1 January 2018 without adjusting comparable data, which means that the data related to 2017 which are presented in the financial statements for 2018 are not comparable.

## 5.5 Credit risk management

---

Credit risk is defined as the risk that counterparties will not be able to meet their contractual liabilities. The Management Board is responsible for credit risk

management in the Parent Entity and for compliance with policy in this regard. The main body involved in actions in this area is the Credit Risk Committee.

In 2018, the KGHM Polska Miedź S.A. Group was exposed to this risk, mainly in four areas:

### Credit risk related to trade receivables

The Group's companies have been cooperating for many years with a large number of customers, which affects the geographical diversification of trade receivables.

The Parent Entity limits its exposure to credit risk related to trade receivables by evaluating and monitoring the financial standing of its customers, setting credit limits, using debtor security and factoring. An inseparable element of the credit risk management process realised by the Parent Entity is the on-going monitoring of receivables and the internal reporting system. Buyer's credit is only provided to proven, long-term customers, while sales of products to new customers are mostly based on prepayments or commercial financing instruments which transfer all of the credit risk to financial institutions. In 2018, the Parent Entity secured its receivables by promissory notes, registered pledges,

bank guarantees, corporate guarantees, mortgages and documentary collection. Moreover, the majority of customers who hold buyer's credit on contracts have ownership rights confirmed by a date certain.

To reduce the risk of insolvency by its customers, the Parent Entity has a receivables insurance contract, which covers receivables from entities with buyer's credit which have not provided strong collateral or have provided collateral which does not cover the total amount of the receivables. Taking into account the collateral held and the credit limits received from the insurance company, as at 31 December 2018 the Parent Entity had secured 75% of its trade receivables (as at 31 December 2017: 95%).

## Risk Management

The concentration of credit risk in the Group is related to the terms of payment granted to key clients. Consequently, as at 31 December 2018 the balance of receivables from 7 of the Group's largest clients, in terms of trade receivables at the end of the reporting period, represented 28% of the trade receivables balance (as at

31 December 2017: 63%). Despite the concentration of this type of risk, it is considered that due to the availability of historical data and the many years of experience cooperating with clients, as well as above all due to the security used, the level of credit risk is low.

### Credit risk related to cash and cash equivalents and bank deposits

The Group allocates periodically free cash in accordance with the requirements to maintain financial liquidity and limit risk and in order to protect capital and maximise interest income.

Credit risk related to deposit transactions is continuously monitored by the on-going review of the credit ratings of those financial institutions with which the Group cooperates, and by limitation of the level of concentration in individual institutions.

### Credit risk related to derivatives transactions

All of the entities with which the Group enters into derivative transactions (with the exception of embedded derivatives) operate in the financial sector. These are mainly financial institutions, with a medium-high rating. According to fair value as at 31 December 2018, the maximum share of a single entity with respect to credit risk arising from open derivative transactions entered into by the Group and from unsettled derivatives

amounted to 22%. Due to diversification of risk in terms both of the nature of individual entities and of their geographical location, as well as taking into consideration the fair value of assets and liabilities arising from derivative transactions, the Group is not materially exposed to credit risk as a result of derivative transactions entered into.

### Credit risk related to loans granted

As at 31 December 2018, the balance of loans granted by the Group amounted to PLN 5 222 million. The most important of these are long-term loans in the total amount of PLN 5 199 million, or USD 1 383 million, granted by the KGHM INTERNATIONAL LTD. Group for the financing of a mining joint venture in Chile.

Credit risk related to the loans granted to the joint venture Sierra Gorda S.C.M. is dependent on the risk related to mine project advancement.




## 5.6 Financial liquidity risk and management of capital

The management of capital in the Group aims at securing funds for development and at securing relevant liquidity.


### Financial liquidity management

Management of the Group's liquidity is conducted in accordance with the Financial Liquidity Management Policy in the KGHM Group. This document describes the process of financial liquidity management in the Group, which is realised by the Group's companies, while its organisation and coordination as well as the supervision thereof is performed in the Parent Entity.

The basic principles resulting from this document are:

-  the need to ensure stable and effective financing for the Group's operations,
-  constant monitoring of the Group's level of debt, and
-  effective management of working capital.

Borrowing by the Group is based on three pillars:

-  an unsecured, revolving syndicated credit facility, obtained by the Parent Entity and which is for the amount of USD 2 500 million with a maturity of 9 July 2021,

### Management of capital

In order to maintain the ability to operate, taking into consideration the execution of planned investments, the Group manages capital so as to be able to generate returns for shareholders and provide benefits for other stakeholders.

-  two investment loans granted to the Parent Entity by the European Investment Bank in the amount of PLN 2 000 million and PLN 900 million with a financing period of 12 years from the dates the instalments are drawn, and
-  bilateral bank loans in the amount of up to PLN 3 700 million, to support the management of current liquidity in companies and the financing of working capital as well as to finance the continued advancement of investments.

Detailed information regarding available sources of financing and their utilisation in 2018 may be found in Section 6.6 of this report.

The aforementioned sources of financing fully cover the Group's liquidity needs. During 2018, the Group made use of borrowing which was available from all of the above categories, while liabilities of the Group due to bank and other loans drawn as at 31 December 2018 amounted to PLN 7 922 million.

The Group aims to maintain the equity ratio, in the long-term, at a level of not less than 0.5, and the ratio of Net Debt/EBITDA at a level of up to 2.0.

## 5.7 Key risks to the competitive advantage

Key risks to the competitive advantage of of the KGHM Polska Miedź S.A. Group in 2018:

| Competitive advantage                   | Key related risk   |
|---|--|
| Unique competencies and skills          | Risk related to human resources, comprising the acquisition and retention of appropriate human resources to build competitive advantage.   |
| Global reach of operations              | Risk related to laws and regulations, as well as taxes related to the complexity, volatility and number of jurisdictions in which the KGHM Group operates. Risk related to the lack of support of Stakeholders for the global development and operational work being performed.  |
| Integrated process from mining to sales | Risk related to technology (in the sector, IT systems), the recognition and assessment of mining resources and reserves. Risk related among others to operational efficiency in the management of wastes, ensuring required power, water etc. and infrastructure, i.e. the potential for breakdowns which could impact production (including risks related to natural hazards as well as internal factors).<br><br>Risk related to organisational health and safety. |
| Innovation                              | Risk related to the selection of appropriately innovative technology, risk related to laws and regulations (including patent procedures) and financial risk. Risk related to ensuring appropriate cost efficiency and appropriate human resources to advance tasks related to innovation.  |
| Financial stability                     | Risk related to volatility in the prices of goods, exchange rates and interest rates (market risk). Borrowing risk and risk related to achieving the expected rate of return or the expected effect of equity investments.   |

Further information on the management and mitigation of risk in the Group may be found under the specific indicated categories of the Risk Management chapter, including in the section Risk in the Parent Entity and in the KGHM INTERNATIONAL LTD. Group)

## 5.8 The system of security and loss prevention

In 2018, KGHM Polska Miedź S.A. started the implementation of a global Security and Loss Prevention System in the KGHM Polska Miedź S.A. Group.

The system is designed to protect the employer's interest by preventing acts that expose the company to material loss and reputational harm, as well as by the optimization of expenses and investments, which generates savings for the KGHM Polska Miedź S.A. Group. The key elements of the system include:

-  defined procedures and control mechanisms,
-  standardization of procedures and processes in the aforementioned area across the KGHM Group,
-  effective prevention of malpractice that can lead to losses for the KGHM Group,
-  effective detection of committed malpractices, inspection and control activities and implementation of corrective mechanisms,
-  counteracting corruption,
-  growing the ethical awareness of employees.

Established in January 2018 in the KGHM Polska Miedź S.A. Head Office, the Security and Prevention of Loss Division is responsible for the implementation, functioning and oversight of the system. Currently, the Division is made up of two Departments:

1. the Security Department, comprising, among others, the Unit of Ethics and Anti-corruption Procedures and the Unit of Security and Loss Prevention,
2. the Department of Supply Chain Security.

In 2018, KGHM's Divisions and Subsidiaries appointed Representatives for Ethics and Anti-corruption, whose

work is monitored, supervised and coordinated by the Ethics and Anti-corruption Representative of the KGHM Group (as per the applicable procedure, the function is discharged by the Director of the KGHM Security Department).

Since 2017, regular anti-corruption training has been organized for the employees of all KGHM entities. In 2018, specialized training was carried out, addressed to the management and the representatives. All the materials and instructions are readily available to all Employees on the internal corporate portal.

The actions undertaken by the KGHM Polska Miedź S.A. Group with respect to managing risk also include determining risks and how to deal with them under the Group's CSR-related activities.



## 5.9 Safty-related risks

The KGHM Group has defined the following significant safety risks and mitigation factors:

| Risk factor         | Risk description   | Mitigation  |
|---------------------|--|---|
| Natural hazards     | (KGHM Group) Risk of loss of employees' life or health, disturbances or limitations in production as a result of seismic shocks and accompanying bursts or rock mass decompressions and occurrence of uncontrolled falls.  | Introduction of a series of technological and organizational solutions as well as other methods of active and passive burst prevention to mitigate the effects of dynamic phenomena (bursts or rock mass decompressions) in operating branches. Preparation of reserve fields to take over production on a limited basis. |
|                     | (Parent Company) Risk related to gas hazards (methane and hydrogen sulfide).   | The existence of gas hazard is identified and rules have been developed for conducting work in conditions of this risk. Individual protection of employees is used as well as equipment and measures to reduce hydrogen sulfide concentration and neutralize nuisance smells.   |
|                     | (Parent Company) Risk related to climate hazard increasing with the depth of operation.  | Building successive ventilation shafts, use of central, work place and personal ventilation, and shorter work time.   |
| Occupational safety | (KGHM Group) Risk of serious accidents at work or occupational diseases due to incorrect organization of work, non-compliance with procedures or use of inappropriate means of protection. Risk of temporary stoppage of a production line caused by a heavy accident. | (In the Parent Company OHS management standards 18001/OHSAS have been implemented); there are systematic training courses on OHS, programs of identification of potential accidents.  |
| Technology          | (Parent Company) Technology risk related to exploitation of copper ore deposits at great depths, in conditions of associated natural hazards.  | Performance of research and scientific works, and trials of operations alternative to the currently used technologies of excavating copper ore deposits, as well as ventilation, air conditioning and transport, prevention of rockbursts. Comprehensive on-line monitoring of people and mining machines.                |
|                     | (Parent Company) Risk associated with gas hazards (methane and hydrogen sulfide).  | Performance of controls of occurrence of gas hazards and development of rules of conducting works in the case of occurrence of such risk. Individual employee safety measures and equipment, and measures of hydrogen sulfide concentration reduction and odor neutralization.  |
|                     | (Parent Company) Risk associated with climatic threat, increasing with the depth of exploitation.  | Building successive ventilation shafts, use of central, work place and personal ventilation, and shorter work time. Increased automation and mechanization, based on the Industry 4.0 principles.   |

Risk validation is conducted quarterly on a five-degree scale using an expert assessment method and it influences the Management Board's decisions.

## 5.10 Risks related to employees and respecting human rights

The global nature of the KGHM Group is also associated with risks involving its human resources. The Company wants to acquire and retain the best workers, who are invaluable, among others, in advancing its development projects.

Major risks and their mitigation have been defined for the KGHM Group with regard to employees and respect for human rights:

| Risk factor   | Risk description   | Mitigation  |
|---------------|--|---|
| Human capital | (KGHM Group) Risk of recruitment and retention of human resources required among others to implement development projects. | Performing programs to increase the efficiency of recruitment, succession and retention processes for key positions. Employee mobility program. Education support programs. |

Risk validation is conducted quarterly on a five-degree scale using an expert assessment method and it influences the Management Board's decisions.

## 5.11 Risks related to the responsible supply chain

The Group identified the following significant risks and their mitigations in the responsible supply chain area:

| Risk factor                | Risk description  | Mitigation  |
|----------------------------|---|---|
| Logistics and supply chain | (KGHM Group) Risk of limited access to transportation infrastructure, impacting the regularity of supplies of commodities and materials necessary for production and acceptance of finished products. | Management of liquidity of supplies and the minimum levels of inventories of commodities and materials necessary for production.<br><br>Development of own logistical base. |

Risk validation is conducted quarterly on a five-degree scale using an expert assessment method and it influences the Management Board's decisions.

## 5.12 Risks related to Social Dialogue

The Group has defined the significant risks and their mitigation in the area of social dialogue:

| Risk factor  | Risk description  | Mitigation  |
|--------------|---|---|
| Stakeholders | (KGHM Group) Risk of a negative image campaign conducted in the media, and risk of the development and exploration works not being accepted by the local communities, local authorities and other stakeholders. | Implementation of the CSR Strategy, close cooperation with public administration authorities, meetings and negotiations with stakeholders, information campaigns, conferences, publications.<br><br>Close cooperation and relations with the local communities. |

Risk validation is conducted quarterly on a five-degree scale using an expert assessment method and it influences the Management Board's decisions.

## 5.13 Environmental impact risk borne by KGHM Group

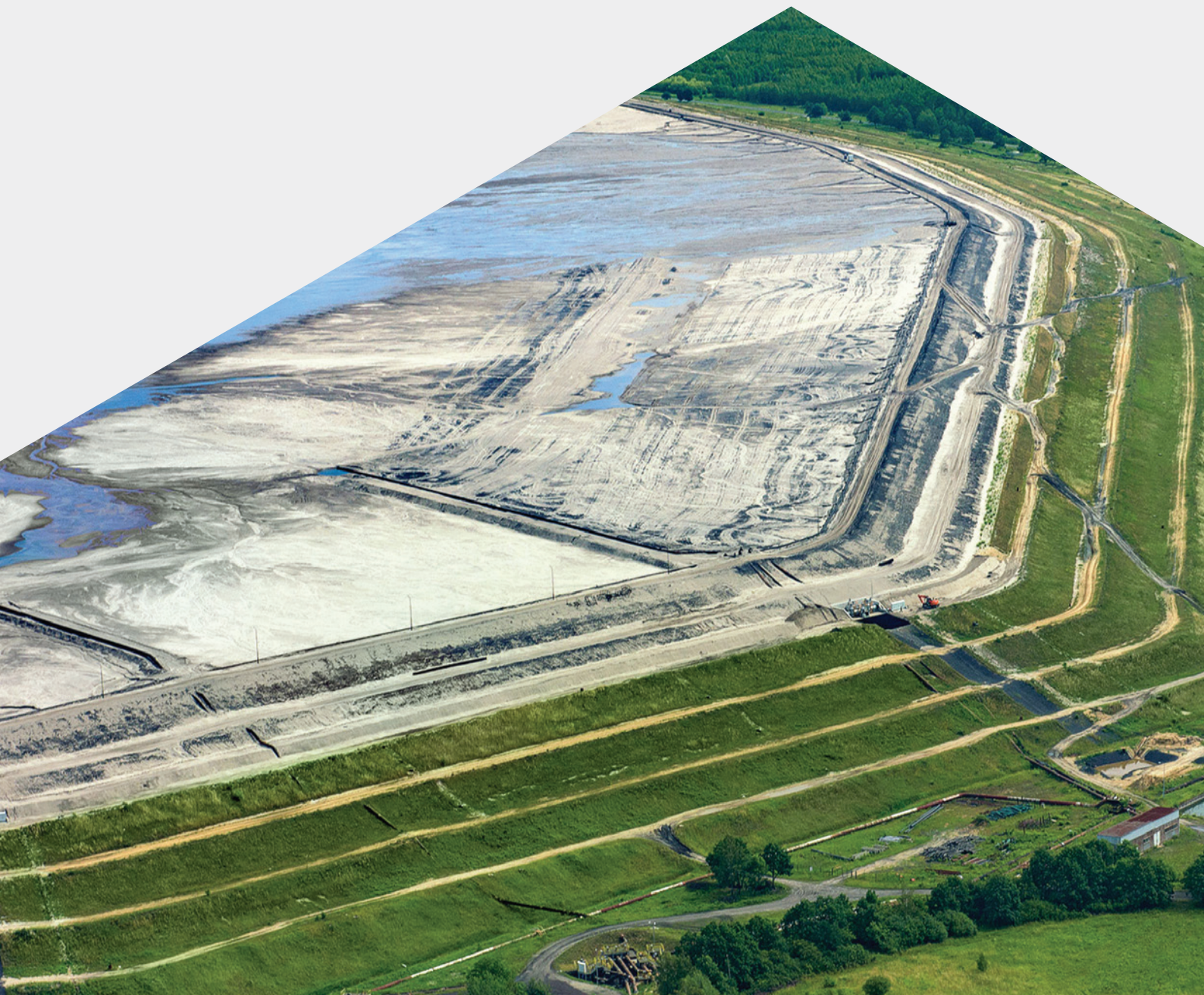
The Group has identified material risks and their mitigating factors in the area of natural environment.

| Risk factor                             | Risk description  | Mitigation  |
|---|---|---|
| Natural environment and climate changes | (KGHM Group) The extraction of copper and its subsequent processing at all production levels is inextricably associated with affecting particular components of the natural environment. The risk associated with prices and the granted limit for CO <sub>2</sub> emissions. | Compliance with strict environmental standards following from laws is possible due to the systematic modernization of installations for protecting the environment, both those constructed in the past and the new investments in this area. (In the Parent Company, a CO <sub>2</sub> Emissions Management System and the ISO 14001 environmental management standards have been implemented).   |
|   | (Parent Company) Risk associated with assessment of air quality in the Voivodship of Lower Silesia (exceeding the annual average target level for arsenic in PM10 particulate matter).  | Performance of the duties resulting from Air Protection Programs.   |
| Waste management                        | (Parent Company) Risk of impossibility of storing flotation tailings  | Operation, construction and expansion of the storage facility in accordance with the operating manual. Cooperation with a Team of International Experts (TIE) and the General Designer, introduction of the Observation Method in the period of expansion recommended by ZEM based on the evaluation of geotechnical parameters obtained through evaluation of monitoring results that offer the ability to request to keep the facility being built/operated.<br><br>Introduce the LCA model and circular economy. |
| Availability of materials and utilities | (KGHM Group) Risk associated with the unavailability of the necessary utilities (electricity, natural gas, water).  | Ensure that emergency supply systems are in place for key utilities and conduct ongoing evaluation of security of grid power supply. Conduct several investment projects to strengthen energy security  |
| Production and infrastructure           | (KGHM INTERNATIONAL Group).   | Geotechnical risk in open pit mines (stability of slopes) and in underground mines. Risk of failure to achieve the assumed leach extraction performance parameters.   |



| Risk factor                | Risk description  | Mitigation  |
|----------------------------|---|---|
| Law and regulations, taxes | (KGHM Group) Risk of changes in legal regulations in the area of e.g.: geological and mining law, environmental and energy regulations. | Monitor legal developments at the level of individual jurisdictions and take an active part in legislative processes. Take preemptive measures to adapt to changes in respect to organization, infrastructure and technology. Implement the energy management system in KGHM Polska Miedź S.A. based on the ISO 50001 standard. |

The risk is validated on a quarterly basis on a five-degree scale using an expert method and influences the Management Board's decisions.

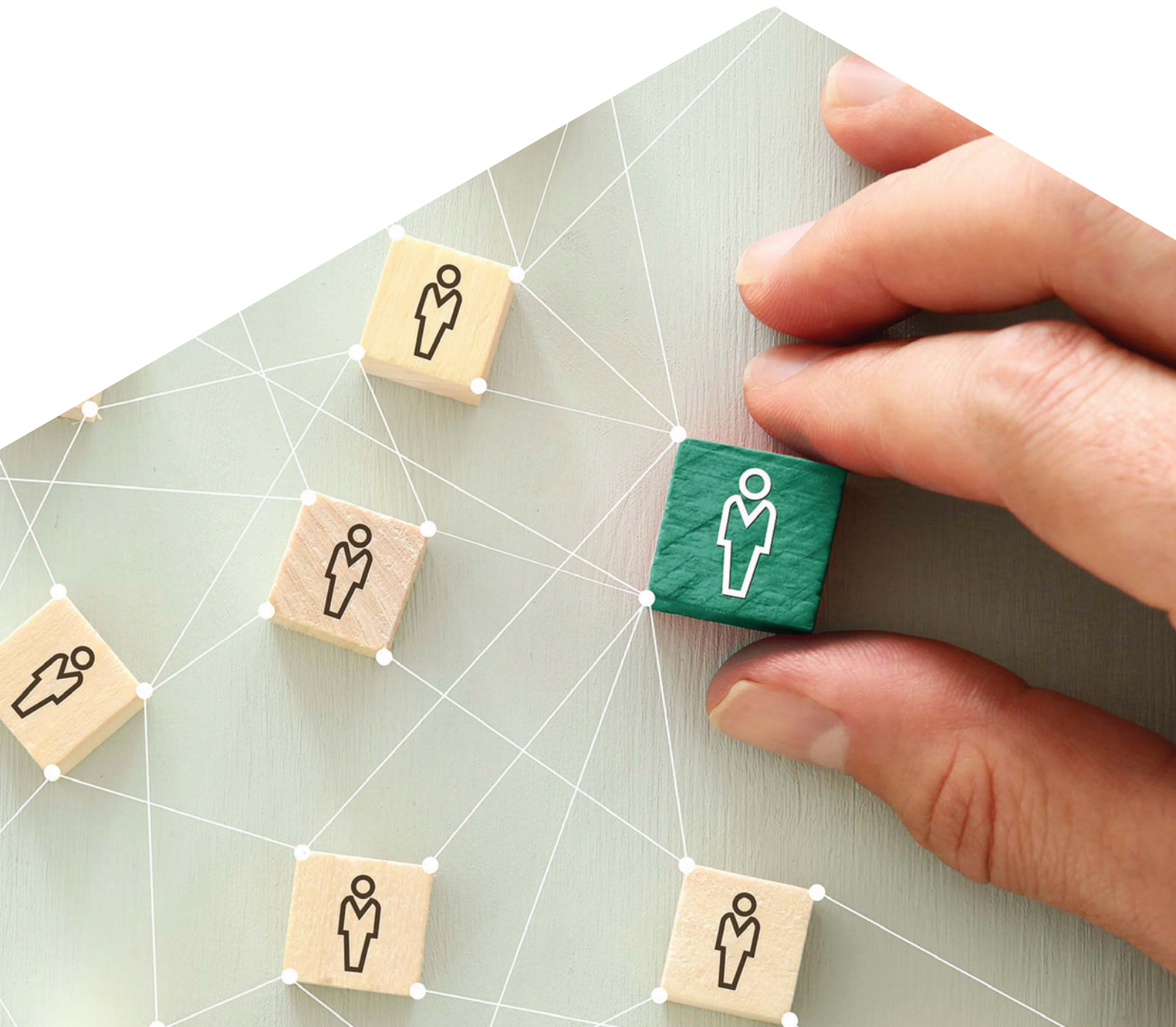




---

# Human Resources management

---






## 6.1 HR Policy of KGHM Polska Miedź S.A.

**GRI 103-1, GRI 103-2, GRI 103-3** An **HR Policy** has been defined for the Parent Company, which underscores that the Employees of KGHM are its most valuable capital – it is they who create the unique corporate culture and build the Company's market position. In order to secure the achievement of its strategic objectives, the Company has for many years consistently invested in the labor market and actively influenced the process of young people's education. The Company acts with due diligence towards its employees, since it is they who play a key role in the development of all areas of the business model, build the global standing of the enterprise and makes us an integrated organization open to the future. KGHM recruits the best experts and specialists. As a result of these actions the Company employs people with the greatest potential, who really correspond to the Company's needs. The work of each of those persons is equally important to the success of the entire organization.

The uniqueness of the pursued HR policy is attested by the fact that KGHM's employees are people who not only are talented and highly qualified, but also act in conformity with KGHM's values, are open to changes, seek innovative solutions, and are willing to share their knowledge and experience. Most importantly, however, KGHM's employees, regardless of their job titles, see their personal development as a challenge which contributes to the benefits achieved by the entire organization.

The development of KGHM has also driven changes in human capital management inside the Company. Recently, the implementation of the HR policy has been modified. A consistent set of key processes and tools have been implemented to support the long-term development of competencies, new solutions have been prepared for employee performance and assessment management, internal communication has been improved, and focus has been made on modern project, program and portfolio management systems. In view of this swift development, it has become a priority to identify the best employees efficiently, and then systemically prepare them to assume key roles and functions in all business operations.

In 2018, the employees were provided with:

-  the possibility to pursue educational programs to develop professional, managerial and specialist competencies,
-  implementation of the performance management process for managers and development of an employee assessment system,
-  improved IT tools to support recruitment of the best people.

KGHM as a global Company gives a unique opportunity to persons who want to gain access to state-of-the-art technologies and equipment. They can do so by participating in the work of specialist project teams. Working in such a team is also a perfect opportunity to share knowledge and experience within the Company.

## 6.2 International Mobility Policy

---

As a result of the acquisition of international assets, since 2015 KGHM has conducted an employee mobility program. In view of the international operations of the Group, a policy of international mobility has been adopted as the basis for action in conformity with the due diligence procedure. The delegation of employees to companies in Chile, Canada and the US represents an investment of major significance for the Group. They not only satisfy the local requirement for personnel, but also

develop the employee's professional potential. In 2018, four employees were delegated to new international postings, in the areas of IT, geology and production process support. On the other hand, in 2018 ten employees continued in their international postings started earlier. Based on previous challenges and experiences related to employee mobility, an interdisciplinary team has been developing an update of the policy, focusing on achieving greater efficiency of the process.

## 6.3 Training Policy

---

**GRI 404-1** The KGHM Group does not have in place a common Training Policy. In view of the international scope of activities, cultural differences and specific characteristics of the industries in which the Group operates, each Company conducts a series of activities related to employee training. Nevertheless, a Training Policy has been formulated for the Parent Company.

The purpose of development activities in KGHM in 2018 was to retain and improve human capital and manage the Company's intellectual capital, taking into account the Company's mission and Strategy as well as long-term development plans through:

- ✎ Securing fulfillment of the requirements defined in regulations by the employees' participation in periodic training courses on occupational health and safety, courses and examinations entitling to take up jobs in underground mines which require specialist actions as well as other jobs in the company.
- ✎ Improving employees' competencies by organization of training courses and other development activities, with particular focus on linguistic, managerial and interpersonal skills, as well as training on business process orientation in management.
- ✎ Improving the qualifications of the Company's employees and changing their education structure by continuing to co-fund graduate and post-graduate studies.

The Company's employees may improve their qualifications in the context of expected organizational and technological changes by participating in training courses, conferences, studies and post-graduate studies. The employer ensures a high level of training among others by aligning the contents of the training courses with the business goals.

When planning our activities, we focus on ensuring that they fit in the best possible way with the implementation of the Company's strategic priorities.

Systemic competence development activities are performed by a centralized unit specialized in this area. Development needs are established regularly and constitute the basis for building a training plan and calculation of the resources needed for its performance. These actions are performed on the basis of the procedures existing in the Company and registered for purposes of internal and external accounting. Both the competence development activity and utilization of the allocated budget are regularly monitored and the results are reported. In 2018 the number of employees participating in a single training event was 27,756, of which 19,330 in blue-collar jobs and 8,426 in white-collar jobs. In 2018, 776 employees took part in industry symposia and conferences in Poland and abroad in order to become acquainted with new technological and organizational solutions, as well as exchange experiences with regard to performance, improvement of production

efficiency, human capital management and innovativeness. The Company's employees participated in cyclically organized conferences such as: "Winter School of Rock Mass Mechanics" and "School of Underground Mining" or the "Economic Forum" in Krynica Zdrój.

In 2018, 88 persons benefited from co-funding of their studies. The co-funding comprised graduate, post-graduate and MBA studies. The Company also continued cooperation with the largest Polish universities in opening faculties aligned with the specific needs of KGHM. 379 of the Company's employees benefited from language courses in 2018. The purpose of the courses was to prepare the personnel of KGHM Polska Miedź S.A. to use general and business English and Spanish. Enhancing language skills is an important element of implementation of the cooperation and exchange plan for the Polish and international companies within the KGHM Group.

## 6.4 Diversity Declaration

The KGHM Group does not have in place a shared Diversity Policy in written form. In view of the international scope of activities, cultural differences and specific natures of the Group's industries, each company has been performing a number of organized actions in the area of respect for diversity. In view of the above, the independent Diversity Declaration has been defined at KGHM Polska Miedź S.A.

The Company complies with the prohibitions of discrimination and take actions in order to ensure respect of diversity in the workplace. The Company establishes an organizational culture which is based on mutual respect, equal treatment, access to development opportunities and optimal use of employee talent regardless of, among others, ethnic origin, age, gender, nationality, citizenship, religion, political beliefs or trade union membership. It aims at ensuring reasonable diversity both in the selection of personnel (including in the recruitment process), with special focus on knowledge, technical competence and social skills. The Parent Company guarantees the implementation of the diversity principle across the KGHM Polska Miedź S.A. Group, and promotes and popularizes these values among its stakeholders and business partners. Further information on our approach to diversity in the supervisory bodies is presented

in Appendix 1, Statement on Corporate Governance to the Management Board report on the Activities of KGHM Polska Miedź S.A. and the KGHM Polska Miedź S.A. Group in 2018.

<https://kghm.com/en/investors/corporate-governance/governance-compliance>





## 6.5 Declaration on human rights protection

The KGHM Polska Miedź S.A. Group does not have in place a shared Human Rights Protection Policy. In view of the international scope of activities, cultural differences and specific natures of the Group's industries, each company has been taking a number of actions to protect human rights. Given that, the independent Declaration of Human Rights Protection has been defined at KGHM Polska Miedź S.A.

KGHM Polska Miedź S.A. declares that it will recognize, respect and promote human rights wherever it conducts its business. The Company does not tolerate any violations of human rights. It undertakes to conduct its business in compliance with the Universal Declaration of Human Rights of the United Nations and with other norms and standards, including legislation and implementing regulations of the target countries of its business activity.

KGHM Polska Miedź S.A. is a global organization, aware of the importance of respect for human rights in the

modern world. The Company accepts responsibility for protection and respect for fundamental human rights and implements such standards across the KGHM Polska Miedź S.A. Group. It also assumes that respect for human rights by other entities is a vital element of mutual relationships.

In compliance with the adopted principles, each employee and collaborator of the KGHM Polska Miedź S.A. Group is responsible for ensuring that in his/her closest environment human rights are respected, and any infringements are reported according to the agreed procedure.

This Declaration is the basis of our approach to human rights. It supplements and consolidates the human rights issues contemplated in other policies and guidelines of the Company, such as the Code of Ethics, the Diversity Declaration, HR and the Responsible Supply Chain Policy.

### The Declaration is implemented in the following manner:



Each employee provided with access to a computer receives the adopted declaration electronically, via the Company Document Circulation System



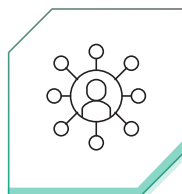
Employees with no access to a computer for work purposes are informed of the declaration implementation via extranet (accessible to all employees) and by their direct superior



Infringements are reported as follows:



Employee has the right and obligation to report an infringement of the Declaration of Human Rights Protection to his/her direct superior



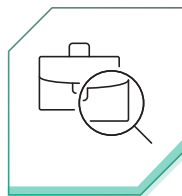
Employees may report infringement to the trade unions operating in the Company (in KGHM Polska Miedź S.A. there are 15 trade unions, which have established 48 company trade organizations; the trade union membership percentage ratio in the Company is 88.6%). KGHM Polska Miedź S.A. acts in compliance with the Collective Bargaining Agreement



Infringements may be reported to the Occupational Safety and Health Committee



The Employee Council and whistleblowers are present,



The National Labor Inspection (PIP)

## 6.6 HR projects

GRI 404-2

### HR Projects in KGHM Polska Miedź S.A.



#### Competent in the sector

In 2018, KGHM Polska Miedź S.A. commenced cooperation with schools in the powiats (counties) of Legnica, Lubin, Głogów and Bolesławiec under the project „Competent in the mining-metallurgical sector. KGHM – a key partner in professional education”. The project is being advanced under the patronage of the Ministry of National Education and comprises 57 sector classes involved in educating among others future staff of KGHM.

The actions undertaken by the project are: shaping educational programs, expanding the scope and form of vocational education in actual workplace environments, acquiring certification by students, professional consulting and motivating students and raising the qualifications of teachers.

As a result of introducing this program, vocational training is being adapted to the needs of the workplace, and in particular to those of KGHM Polska Miedź S.A.



## Dual education

On 5 July 2018, KGHM Polska Miedź S.A., Katowicka Specjalna Strefa Ekonomiczna S.A. (the Katowice Special Economic Zone) and the County (Powiat) of Głogów signed a letter of intent declaring cooperation in the organisation and operation of a pilot Model Program for vocational education in the profession Metallurgical Technician, developed under the project "PO WER KSZTAŁCENIE DUALNE – DOBRY START W ZAWODACH BRANŻY GÓRNICZO – HUTNICZEJ". The objective of the project is to develop a model program for vocational education in the profession Metallurgical Technician. This is being achieved in cooperation with the school Zespół Szkół im. Jana Wyżykowskiego in Głogów and with the Głogów Center for Professional Education (Głogowskie Centrum Edukacji Zawodowej) in Głogów. Completion of the project is planned in December 2019.



## La Serena

KGHM Polska Miedź S.A. is strengthening its global position by expanding its business and social contacts. In every location where the Company operates it endeavours to be a responsible investor committed to sustainable growth and the local community.

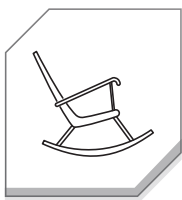
On 11 December in Chile, the Polish investor signed a declaration of educational and technical cooperation with the University of La Serena. KGHM Polska Miedź S.A. intends to introduce a scholarship program for students from this University. At the same time this will be a means of honouring the memory of the famous Pole, Ignacy Domeyko. This Polish geologist, mineralogist, mining engineer and explorer of South America, including in particular Chile, played an enormous role in reforming the educational system in Chile and in advancing the science of mining.



## eKariera (e-Career)

Work is underway on expanding the functionality of the eRekrutacja (eRecruitment) system by three modules: Applications for Probationary period employment (Staże), Applications for Internships (Praktyki), Providing materials for the preparation of graduate theses in KGHM Polska Miedź S.A..

As a result of the team's work, a business concept was developed aimed at creating the eKariera IT system for cooperation between the coordinators of KGHM Polska Miedź S.A. and interested external parties: pupils, students and educational institutions. Work on implementing these solutions will last until August 2019.



## Employee Pension Program

To meet market trends and give wider opportunities to employees, in 2018, the Employee Pension Program functioning in KGHM since 2003 has been modified. After detailed financial and market analyzes, two new investment funds have been added and the recommended deposit model has been changed.

## HR Projects in KGHM Group

In 2018, an Employee Pension Program was introduced in the Group's companies in Poland, which is one of the elements in advancing the social policy under the strategy of KGHM Polska Miedź S.A. and, apart from other typical tools of HR policy, is an important element in motivating and integrating employees with the company.

The Employee Pension Program was instituted in the Parent Entity in 2003. It is one of the oldest and largest such programs in Poland, in which the investment funds (to which the contributions are transferred) are managed by TFI PZU S.A.

In 2018, each of the companies advanced its own HR projects. These involved areas such as: raising skills, improving productivity and management efficiency. To address problems associated with acquiring employees, cooperation was instituted with vocational schools and schools of higher learning.

In addition, in 2018 actions were undertaken with respect to global projects introduced in prior years, comprising all of the Group's domestic companies, including recruitment principles utilising the e-Rekrutacje system.

## 6.7 Employment

### GRI 102-8 KGHM Polska Miedź S.A.

Employment in KGHM Polska Miedź S.A. at the end of 2018 amounted to 18 503 people, and was 0.8% higher than at the end of the prior year. Average annual employment in KGHM Polska Miedź S.A. amounted to

18 331 people and was higher than the level of employment in 2017 by 133 people. The change in employment was due to natural movements in staff.

#### Average employment in KGHM Polska Miedź S.A.

|                               | 2017          | 2018          | Change (%)  |
|-------------------------------|---------------|---------------|-------------|
| Mines                         | 12 413        | 12 433        | +0.2        |
| Metallurgical plants          | 3 529         | 3 600         | +2.0        |
| Other divisions               | 2 256         | 2 298         | +1.9        |
| <b>KGHM Polska Miedź S.A.</b> | <b>18 198</b> | <b>18 331</b> | <b>+0.7</b> |

### Group

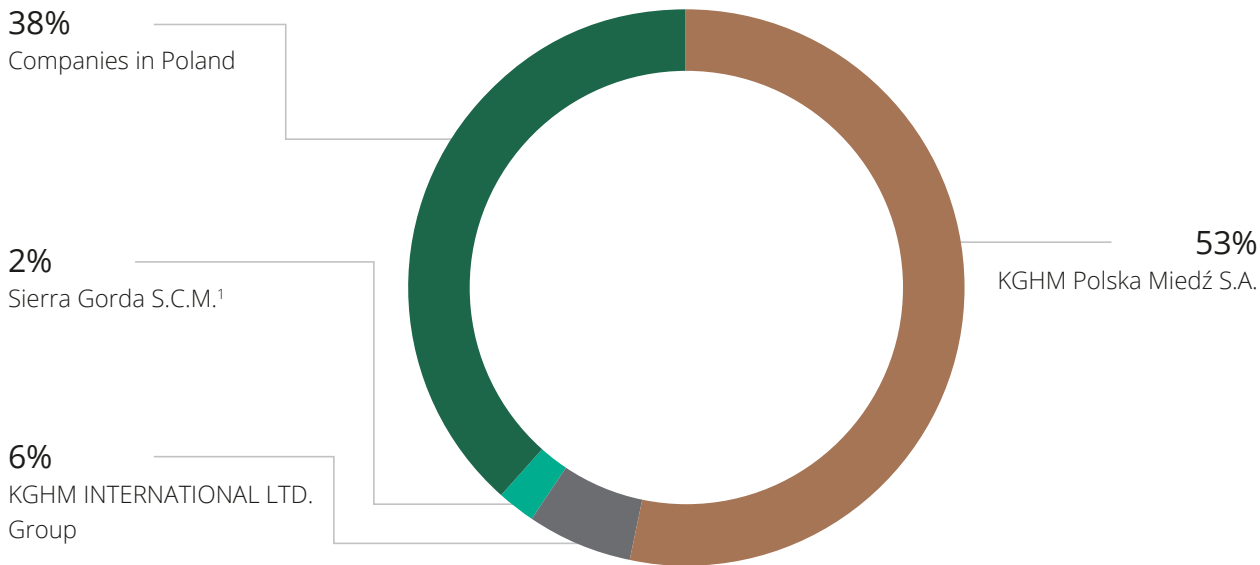
In 2018, the companies of the Group employed 34 386 people, or an increase by 1.3% as compared to the prior year. The employment structure is shown in the following table and chart:

#### Average employment in the Group

|                                  | 2017          | 2018          | Change (%)  |
|----------------------------------|---------------|---------------|-------------|
| KGHM Polska Miedź S.A.           | 18 198        | 18 331        | +0.7        |
| KGHM INTERNATIONAL LTD.          | 1 695         | 2 037         | +20.2       |
| Sierra Gorda S.C.M. <sup>1</sup> | 748           | 790           | +5.6        |
| Group companies in Poland        | 13 294        | 13 228        | (0.5)       |
| <b>Total</b>                     | <b>33 935</b> | <b>34 386</b> | <b>+1.3</b> |

<sup>1</sup> Sierra Gorda S.C.M. – employment proportional to share in the company (55%)

## Employment structure in the Capital Group in 2018



<sup>1</sup> Sierra Gorda S.C.M. – employment proportional to share in the company (55%)

### Companies in Poland

In 2018, average employment in the companies of the KGHM Polska Miedź S.A. Group in Poland decreased as compared to 2017 by 66 positions (or by 0.5%). This change was mainly in respect of blue-collar positions

and was due to difficulties in securing properly-qualified workers, as well as to adapting employment to current needs.

### Companies abroad

The increase in employment in companies within the KGHM INTERNATIONAL LTD. Group in 2018 was due to the involvement of companies acting under the DMC brand in new projects in the United Kingdom (Yorkshire county) and Canada (the Sudbury Basin), development of the activities of the Franke mine in Chile and expansion of the scope of services offered by KGHM Chile SpA to the Sierra Gorda project.

plant and mine, as well as in technical services. This was related to improving the efficiency and productivity of the processing plant and mine, as well as with advancement of the Debottlenecking Program, the goal of which is to optimise utilisation of the existing infrastructure of Sierra Gorda and at the same time to increase the processing capacity and productivity of the processing plant.

The increase in employment in Sierra Gorda in 2018 was mainly due to the need to increase employment in the maintenance and conservation areas of the processing

## 6.8 Relations with the trade unions

In KGHM Polska Miedź S.A. there are 15 trade unions acting on a company-wide basis and 44 acting on a divisional basis. 88% of the Company's employees belong to a trade union. Dialogue with the unions is carried out both at the Company level as well as by the Divisions of KGHM Polska Miedź S.A. In addition, the Collective

Labour Agreement for the Employees of KGHM Polska Miedź S.A. provides for consultations to be held by the employer with the trade unions twice a year. Dialogue with the trade unions is carried out with respect for the parties' individual rights and based on mutual cooperation.

| In 2018, the following major events with respect to relations with the trade unions took place in KGHM Polska Miedź S.A.: |  |
|---|--|
| 5 February 2018   | Additional Protocol No. 22 to the CLA was signed. With effect from 1 January 2018, it introduces an increase in basic wages by 6.1%.   |
| 28 June 2018  | An additional agreement to the Collective Labour Agreement (CLA) for the Employees of KGHM Polska Miedź S.A. was signed regarding the date of payment of the annual bonus for 2017.  |
| 22 January 2019   | Additional Protocol No. 23 to the CLA for the Employees of KGHM Polska Miedź S.A. was signed. It introduces the following, with force from 1 January 2019: <ul style="list-style-type: none"> <li>• an increase in basic wage rates by 5.6%;</li> <li>• an increase in the basis for calculating shift bonuses, from category 8 to category 10;</li> <li>• a reflection in the employment periods granting entitlement to bonuses and benefits of breaks in working time, in the case of a court-ordered return to work;</li> <li>• a reflection in the employment periods granting entitlement to pension rights and jubilee bonuses of un-paid holiday time, granted to the employee for the purpose of working at another employer for a period set forth in the agreement reached between the employers in this regard.</li> </ul> |

In 2018, the domestic companies of the Group engaged in negotiations with the trade unions regarding questions of remuneration, employment conditions and social matters. In most cases they concluded with the signing of additional protocols to the Collective Labour Agreements and other agreements.

In entities engaged in therapeutic and spa activities, agreements were concluded involving assuring higher basic wages for employees, pursuant to the „act dated 8 June 2017 on setting the lowest basic wage of employees practicing medicine employed in healthcare entities”.

In 2018, collective disputes were initiated in two of the Group's companies, which were short in duration and, after less than a month, were concluded with the signing of agreements.

INOVA Spółka z o.o. – in February 2018 one (of the two trade unions active in this company) initiated a collective dispute, in which the main demands were centered around wages. Following negotiations, in March 2018 an agreement was reached which ended the dispute.

PeBeKa S.A. – from 10 January 2018 to 15 February 2018 the company was in a collective dispute with one of the trade unions active in this company. During the procedural process the parties commenced negotiations, which concluded with the signing of a protocol of dispute. In the meantime the company commenced talks involving wage issues with all of the trade unions active in the company. As a result of these talks, the parties agreed a common position which also comprised the demands at the center of the dispute. In February 2018, based on the Agreement reached, the subject of



the dispute was ended, while in December 2018 the trade union issued new demands. During the subsequent negotiations the parties presented their positions. Discussions in this regard will be continued in 2019.

In May 2018, as the result of the signing of an agreement with the trade union, the collective dispute in the company PMT Linie Kolejowe 2 Sp. z o.o., which began in 2017 and involved wage demands, was ended.

## 6.9 Occupational health and safety

**GRI 403-2** The life and health of employees and workplace safety in general is the chief priority in the hierarchy of values of the KGHM Polska Miedź S.A. Group. The Company applies high OHS standards, both towards its own employees as well as towards those providing services on the grounds of KGHM Polska Miedź S.A. Each of the Company's Divisions has implemented a safety management system which is compliant with standards in force. All work stations have identified threats. The Company has assessed occupational risks and updates them continually. Working environments are continually monitored and periodic reviews and potential threat assessments are conducted, as well as reviews of equipment and required technical checks and approvals. Employees undergo systematic training and continually enhance their qualifications.

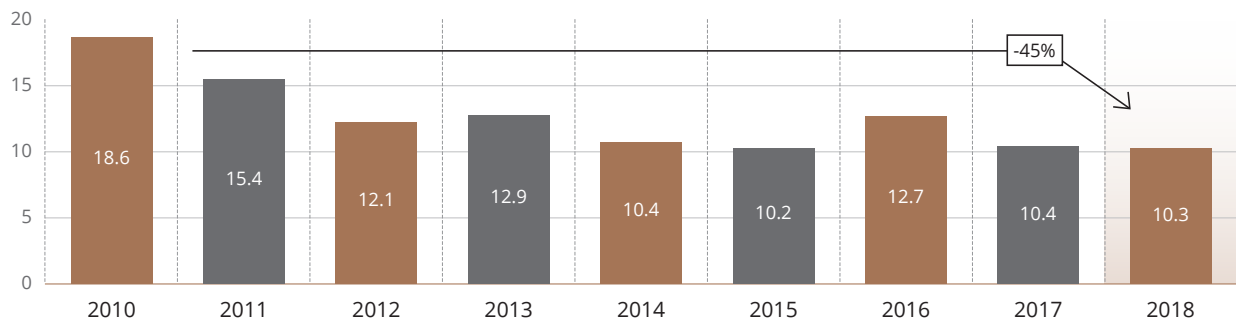
In 2018, the Company recorded a decrease in the total number of workplace accidents (as defined by the act on social insurance due to workplace accidents and occupational illnesses), with a year-on-year decrease from 300 to 297 injured. Most of the registered workplace accidents (98.7%) involved light injuries, with the main causes being in order: contact (striking) with or by moveable/ immovable objects, loss of balance by employees, rock falls and injuries related to using workplace tools.

Natural hazards associated with the underground mining of copper ore deposits, in particular hazards related to mining tremors and their potential effects in the form of roof and wall collapses are considered as particularly important from the safety point of view, as their occurrence can lead to serious or even fatal injuries as well as damage to underground machinery, equipment and infrastructure, along with production

downtimes. KGHM Polska Miedź S.A. carries out a variety of preventive actions in its mines involving the intentional provoking of roof collapses and rock falls, comprising systematic seismological observations, on-going assessment of the rock mass and the marking off of areas of particular threat of roof collapse. The size, shape and number of chambers and inter-chamber pillars is selected, as well as the most advantageous direction of mine work advance and the optimum order of ore selection to minimise local concentrations of stress in the rock mass. So-called active methods of preventing uncontrolled roof collapses and rock falls are also applied, based on provoking dynamic events through mass blasting of mining faces and through blasting to release stress in the orebody or its roof. The Company is continually improving in terms of the safe mining of the copper ore deposit. In 2018, the Company registered a total of 18 workplace accidents in its mines qualified as light injuries, caused by the threat inherent in the rock mass. These incidents represented 7.6% of all workplace accidents in the mines during this period. KGHM Polska Miedź S.A. is continuously improving its safety record in the mining of the copper ore deposit.

The ratio LTIFRKGHM (Lost Time Injury Frequency Rate KGHM) in 2018, or the total number of workplace accidents (as defined by the act on social insurance due to workplace accidents and occupational illnesses) in the Company, being the number of accidents per million hours worked for the entire core business of KGHM Polska Miedź S.A., decreased by 1.1 % as compared to 2017, and amounted to 10.3 (2017 = 10.4) and at the same time was lower by 45% than the amount recorded in 2010.

### LTIFR<sub>KGHM</sub> in the Parent Entity

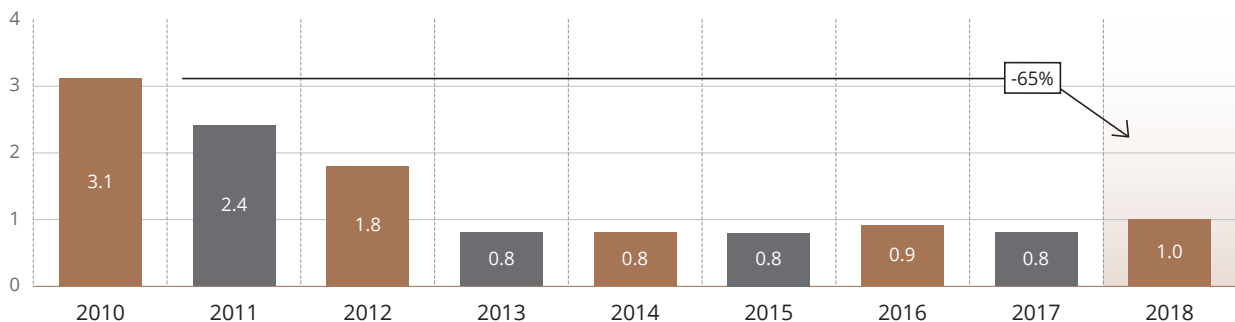


In KGHM INTERNATIONAL LTD., in accordance with the adopted obligations, the Occupational Health and Safety Management System is consistently implemented, based on a systematic approach to the identification, assessment, elimination and/or control of hazards and risks related to advancing and continuously improving the organisational culture of Zero Harm, which at the same time represents one of the company's values. This system comprises all of the companies which are fully owned by KGHM INTERNATIONAL LTD. or in which KGHM INTERNATIONAL LTD. is a managing partner, and at the same time reflects the cultural and legal differences of activities of individual entities. In North America the Zero Harm policy encompasses employees, contractors and local communities. It is a process of continuous prevention and improvement in counteracting threats to occupational health and safety, as well as to environmental protection. In 2018, in the mines and projects supervised by KGHM INTERNATIONAL LTD. in Canada and the United States of America, a total of 51 workplace accidents were registered, while the TRIR ratio amounted to 2.90.

In Chile, KGHM Polska Miedź S.A. conducts mining operations in two entities, which have separate systems of OHS management adapted to legal requirements and to mining conditions in this country. These systems encompass both the employees in these entities as well as sub-contractors, and are aimed at achieving the long-term vision „Zero harm”. In KGHM Chile SpA, which oversees the Franke mine, and which also engages in its own exploration and other activities, two workplace accidents were recorded in 2018, with a TRIR ratio of 0.22. In the joint venture company Sierra Gorda S.C.M., 16 workplace accidents were recorded in 2018, with a TRIR ratio of 0.38.

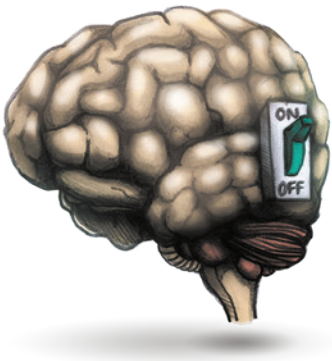
In 2018 in the entities in which KGHM Polska Miedź S.A. conducts mining operations in Canada, the United States and Chile, a total of 69 workplace accidents were recorded. The consolidated TRIR ratio (Total Recordable Incident Rate) for these operations reached 1.0. This was 0.2 higher as compared to 2017 and at the same time 68% lower than the level recorded in 2010.

### TRIR<sup>1</sup> ratio in KGHM INTERNATIONAL LTD.



<sup>1</sup> TRIR (Total Recordable Incident Rate) calculated using accepted methodology as the number of accidents at work meeting the conditions of registration as defined in the ICMM (International Council on Mining & Metals) standard, in total for the employees of KGHM INTERNATIONAL LTD., KGHM Chile SpA and Sierra Gorda SCM and sub-contractors for these entities, per 200 000 worked hours.

# OHS golden rules



I THINK BEFORE I ACT



I USE APPROPRIATE PROTECTIVE EQUIPMENT



I COME TO WORK RESTED AND SOBER, AND NOT UNDER THE INFLUENCE OF INTOXICANTS



I WORK WITH PROPERLY FUNCTIONING TOOLS, MACHINERY AND EQUIPMENT



I REACT WHEN I SEE UNSAFE BEHAVIOUR OR SITUATIONS



I AM AWARE OF THE OCCUPATIONAL HAZARDS AND RISKS



I THINK OF MY FAMILY



I MAINTAIN HARMONY AND ORDER AT MY WORKPLACE

## Occupational Safety Council of KGHM Polska Miedź S.A.

The Parent Company's employees are represented in the Occupational Safety Council whose functioning is based on the principles of mutual trust and cooperation. The Council is the opinion-making and advisory authority with respect to matters of occupational safety and health. It consists of 40 persons, including representatives of the employers (Divisions), representatives of the trade unions operating in the Company and the Company Voluntary Labor Inspectors in KGHM Polska Miedź S.A.'s Divisions.

The responsibilities of the Occupational Safety Council include among others periodic assessment of occupational safety and health in the Company, submitting opinions on preventive actions and formulating conclusions with respect to improvement of the working conditions.


## Zero Harm Policy of KGHM Polska Miedź S.A.

Risk management, including the principle of prudence, is an essential element of our business. KGHM strives for minimization of any threats to its employees, local communities and the environment (Zero Harm Policy). The best facilities are those with the highest level of safety.

Employees of the copper ore mines of KGHM Polska Miedź S.A. work in difficult conditions and are exposed to a great number of various hazards. Natural hazards connected with underground mining of copper ore deposits are among the most important threats to life and health of employees of KGHM Polska Miedź S.A. Specifically, the threats connected with tremors of rock masses and their potential impact in the form of bursts and falls are considered to be very important in terms of safety as they may lead to serious or fatal accidents, damages to machinery, equipment, and underground infrastructure, as well as exploitation downtimes. Since employee safety is our priority, the KGHM Polska Miedź S.A. Group has been taking a number of preventive and protective measures. Regular seismic observations are conducted in the mining companies based on a

At each facility of KGHM Polska Miedź S.A., the representatives of the employer, employees and medical services who are members of the Company Committees for Occupational Safety and Health perform periodic reviews of the working conditions, assess occupational safety and health and draw conclusions with respect to improvement of the Divisional working conditions. Since 2016, the current occupational safety issues have been discussed at each meeting of the Supervisory Board of KGHM Polska Miedź S.A. In 2017 and 2018, the occupational safety and health issues were analyzed many times and in various modes. An ongoing assessment of occupational safety in the Company is made at weekly meetings of the Vice President of the Management Board responsible for Production and at monthly meetings of the Management Board with the management of all the Divisions.

well-developed network of underground and surface-based seismic monitoring stations, encompassing all the regions and mining areas. The Company has implemented an integrated model of occupational safety and health management. The following entities are involved in it:

-  the Company Occupational Safety and Health service;
-  the Mine-Smelter Emergency Rescue Unit of proven world-class excellence,
-  Miedziowe Centrum Zdrowia S.A., an entity providing specialized medical services;
-  a research and development unit, KGHM Cuprum Sp. z o.o. CBR;
-  CBR and an accredited laboratory of Centrum Badań Jakości Sp. z o.o.;
-  an entity specialized in rescue services equipped with its own medical facilities.



## 6.10 Work Regulations

---

KGHM Polska Miedź S.A. adheres to work regulations which define the organization and order in the labor process, as well as the related rights and duties of the employer and the employees. The regulations define the manner and rules of accounting for working time and granting of holidays, as well as the time and manner of

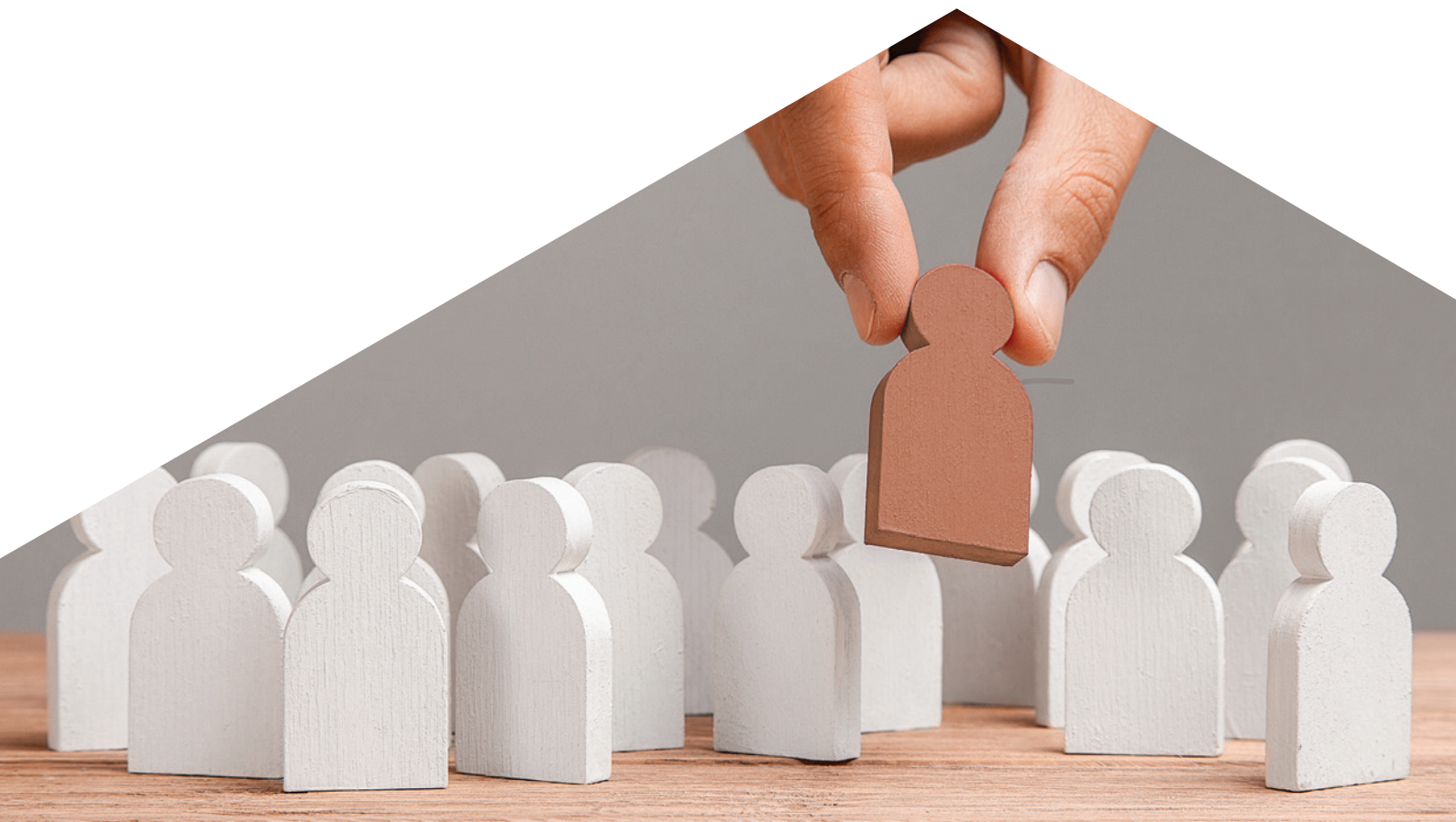
remuneration payment. They define rules of occupational health and safety. Moreover, the work regulations describe the practice with regard to rewards and distinctions, as well as penalties for breaches of work order and discipline.

## 6.11 Company collective bargaining agreement (CCBA)

---

The CCBA specifies the conditions to be met by the employment relationship, in particular: working hours, recreational and additional leave, remuneration rules, protection of working conditions, benefits associated

with employment and rules of their assignment and provision, benefits for former employees, old-age and disability pensioners and members of their families, mutual obligations of the parties to the Agreement.





---

# Activities on behalf of society

---





The KGHM Polska Miedź S.A. Group is a global Company with rich mining and metallurgy traditions, open to new directions of development. At the present moment, due to its size, the KGHM Polska Miedź S.A. Group affects the well-being of communities, regions and even countries, and our values allow us to achieve the foregoing objectives in a wise and responsible manner.

In its relations with clients, employees, external partners and local communities, the KGHM Polska Miedź S.A. Group complies with the laws which are in effect in the countries where it carries out its operations. The Group also complies with voluntary obligations resulting from ISO and ASTM standards as well as from membership in international organizations such as the International Copper Association, European Precious Metals Federation, Eurometaux, Euromines, London Bullion Market Association, European Technology Platform on Sustainable Mineral Resources, European Innovation Partnership, Federation of European Mineral Programs,

and domestic organizations, including: the Polish Association of Listed Companies, Stowarzyszenie Inżynierów i Techników Metali Nieżelaznych [Association of Non-Ferrous Metals Engineers and Technicians], Economic Chamber of Non-Ferrous Metals and Recycling, Polish Committee of the World Mining Congress, Polish-Canadian Chamber of Commerce, Polish Chamber of Commerce for High Technology, and the Employers' Organization of Polish Copper. The KGHM Polska Miedź S.A. Group does not participate in undertakings which involve breaking the law and putting its reputation at risk.

### The rules:

-  Compliance with the regulations of the commonly binding law as well as the internal regulations in effect in KGHM.
-  Compliance with both the obligations contemplated in the agreements, and verbal promises made to our clients, suppliers and social partners.

-  Reliable performance of assigned duties.
-  The KGHM Group does not offer or accept bribes or other material or personal benefits; and does not enter into cooperation with companies of doubtful reputation.

### The KGHM Polska Miedź S.A. Group. takes responsibility for the quality of products and services

The KGHM Polska Miedź S.A. Group requires observance of the "zero tolerance for corruption" principles in mutual relationships. It puts special focus on transparency of transactions. It monitors the supply chain and product life. Business partners of the KGHM Polska Miedź S.A. Group are evaluated with regard to corruption risk. Business is conducted only with entities of proven reputation.

Thanks to appropriate procedural arrangements, the KGHM Polska Miedź S.A. Group prevents money laundering and the financing of criminal activities, including terrorism.

It specifically protects the personal data of its partners as well as commercial, technical or organizational information entrusted to it. The KGHM Polska Miedź S.A. Group is guided by the principles of fair competition.

The Corporate Social Responsibility Strategy regulates the KGHM Polska Miedź S.A. Group's approach to achieving the position of a trusted and stable business partner through:

-  extensively promoting KGHM in domestic and international industry initiatives (related to sustainable development),
-  communication support in maintaining and developing trade cooperation with long-term and stable partners,
-  development of cross-sectoral cooperation,
-  attaining the position of the "investor of choice" thanks to compliance with the principles of sustainable development,
-  respecting human rights and expectations of local communities.

## 7.1 KGHM Group's competition law policy

---

The KGHM Group has in place a Competition Law Policy. Its purpose is to establish the operational framework for the system that will enable the Group to ensure compliance with the competition laws prevailing in all the countries in which we operate.

## 7.2 Responsible supply chain policy

---

The KGHM Polska Miedź S.A. Group has a Competition Law Policy. Its purpose is to establish the operational framework for the system that will enable the Group to ensure compliance with the competition laws prevailing in all the countries in which we operate.

The KGHM Group complies with the highest standards of production and business ethics. We are guided by those principles across our value creation chain, which is reflected in the Code of Ethics of the KGHM Group. We are fully aware of the fact that selection of responsible suppliers, especially as regards the sourcing of conflict minerals (such as gold, tin, tungsten and tantalum) and silver, is of key importance for conducting operations oriented towards sustainable development. The foregoing issues are regulated in the Responsible Supply Chain Policy. Its purpose is not only to guarantee the selection of only responsible suppliers, especially with respect to the so-called conflict minerals (gold, tin, tungsten and tantalum) and silver, but also to ensure that the goods and services procured by us do not contribute to financing terrorism and are manufactured or provided in compliance with basic human rights, labor standards, standards of environmental protection and preventing corruption.

The Parent Company has fully implemented the internal responsible gold and silver supply chain management system which is comprised of the Responsible Supply Chain Policy in the KGHM Group and the Responsible Bullion Supply Chain Audit Procedure in KGHM Polska Miedź S.A. The system is subject to independent external audit to ensure its compliance with LBMA Responsible Gold Guidance and the LBMA (The London Bullion Market Association) certification.

In order to ensure compliance with the due diligence principles, the KGHM Group has implemented the internal system of responsible supply chain management which is comprised of the scope of the system's application, the system's organization, the participants of the process, the criteria for acknowledging a business relationship as being a high risk relationship, the supply chain audit process (taking into account the procedure of business partner reliability assessment), transaction monitoring, documentation storage and employee training. The management of the process has been entrusted to the Corporate Risk and Compliance Management Department Head, reporting directly to the Company's Management Board. KGHM has also set up an e-mail address [conflict.minerals@kghm.com](mailto:conflict.minerals@kghm.com) to which any comments and observations related to the gold supply chain may be sent by employees, business partners and other stakeholders.

In 2018, all suppliers passed the Responsible Ore Supply Chain Audit Procedure with a positive result.



## 7.3 Social dialogue and cooperating with local communities

Approach to management in the area of relations with market stakeholders – wherever we operate or intend to operate, we hold meetings with local authorities. Due to the fact that KGHM Polska Miedź S.A. conducts its operations on several continents, it encounters various cultures and interacts with local indigenous communities. Maintaining proper relations is one of our priorities. We always act in accordance with the law and we care for KGHM's reputation.

The Corporate Social Responsibility Strategy regulates the KGHM Group's approach to forging collaboration with local communities and internal organizations through:

1. building the principles of long-term cooperation for social engagement,
2. determining the principles for conducting dialogue with local communities and gaining social approval for running the business ("license to operate") on the basis of best business practices,
3. implementing uniform and transparent principles governing charitable activities and sponsorship – building the position of a global leader who cares about the common good,
4. creating social involvement programs to better understand the stakeholders' expectations and respond to their needs,
5. supporting KGHM's key investment processes at all stages.

Approach to management in the area of relations with local communities – in every area in which we operate, we feel responsible for local communities, and we analyze the social and cultural aspects of our impact

As part of the social dialogue, KGHM Polska Miedź S.A. cooperates with the municipalities of the Copper Basin in, among others, their development strategies, it supports their growth through payment of taxes or hiring residents of adjacent towns and implements a number of social Agreements aimed at improving the living standard of the residents. The Company's representatives

participate in meetings and sessions of city and town Councils, and in events organized by local governments. Every year, the mayors of municipalities, towns and cities participate in festivities organized to commemorate Miner's Day and the Metallurgy Worker's Day. The parent company sponsors events organized by municipalities, grants support from the budget of the KGHM Polska Miedź Foundation, finances children's summer and winter holidays, sponsors environmentally-oriented camps (the "Green School" program) and trips to the swimming pool.

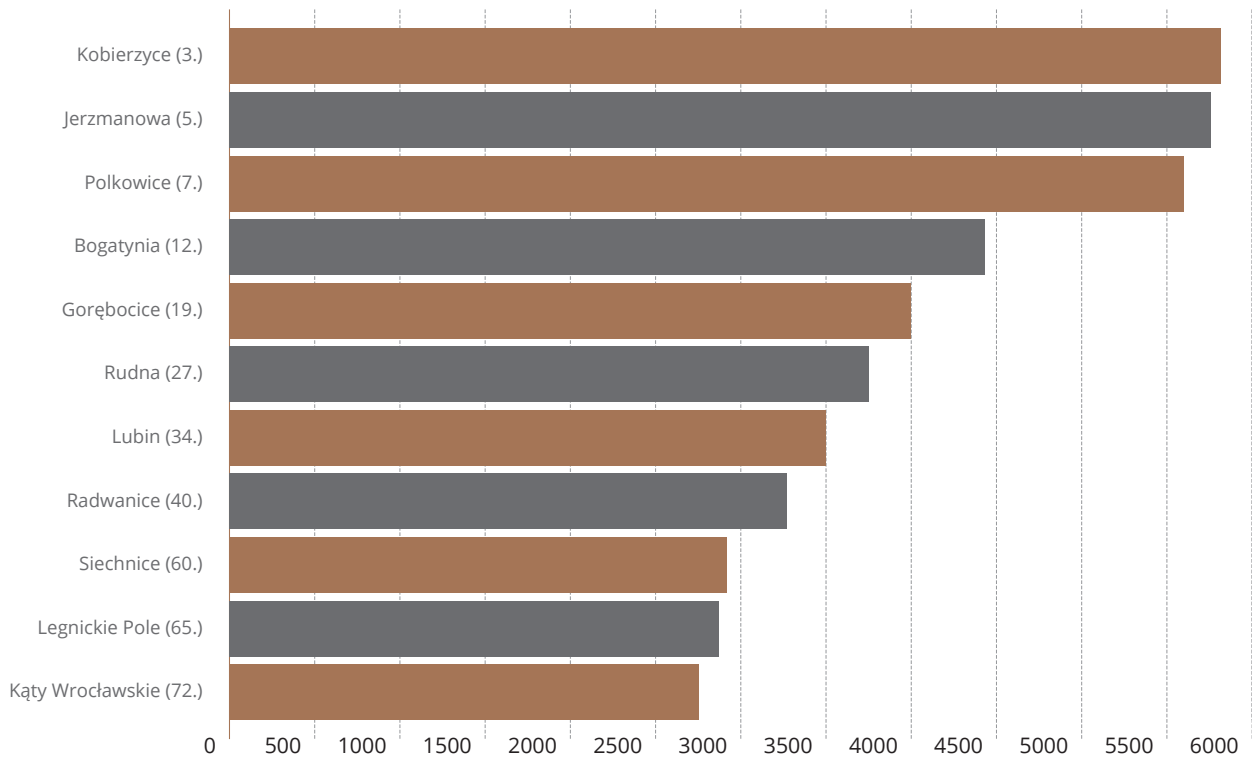
In 2017, as part of our collaboration in the extension of the Żelazny Most Tailings Storage Facility to include a Southern Quarter, we signed Memoranda of Agreement with the municipalities of Rudna and Grębocice, which provide for funding until 2019 tasks in the following areas: children's holidays, healthcare, spa holidays for adults, revitalization of parks and leisure areas, cleaning ditches, securing rivers, protection of soil and crops from harmful impacts of the industry, and protection of cultural heritage sites. A Memorandum of Agreement was signed with the Polkowice municipality for cooperation with KGHM in the following areas: organization and co-funding of summer and winter holidays for children and youth, healthcare, protection of soil and crops, identifying alternative heating solutions, wider Internet and mobile telephony access, support in preparation of recruitment processes conducted by KGHM and ensuring safety of the local communities directly adjacent to Żelazny Most.

In March 2018, a tripartite Memorandum of Agreement was signed between KGHM, Miedziowe Centrum Zdrowia (a health care center) and the Municipality of Głogów for conducting specialist research among residents with an increased level of arsenic.

Since 2017, negotiations continued with the Municipality of Żukowice regarding the construction of the GG-2 shaft. In October 2018, a memorandum of agreement was signed in which, in addition to financial resources for the development of the municipality, KGHM will provide health care to residents and recreational cards.

This figure shows the results of the above activities.

The richest municipalities of Lower Silesia (ranking in Poland given in brackets):



Source: <https://wroclife.pl/nasze-miasto/najbogatsze-gminy-dolnego-slaska-2017/>

In June 2018, the Government of Canada, through the Governor-in-Council (Cabinet), issued a negative decision regarding the implementation of the Ajax project due to its anticipated significant adverse environmental impact.

Decisions were made in the process of environmental impact assessment which included the substantial

involvement of provincial and federal government agencies, indigenous groups and a broad range of stakeholders, including thousands of representatives of local communities.

In 2018, work related to necessary monitoring and security of existing infrastructure were carried out.



## 7.4 Foundations, sponsorship and CSR activities

---

KGHM is a “good neighbor and trustworthy investor”. We support local communities, social organizations and institutions related to science, culture and sport. We promote an active lifestyle and help people in need.

### KGHM Polska Miedź Foundation

The KGHM Polska Miedź Foundation was established in 2003 to continue long traditions of pro publico bono activities conducted by its Founder – KGHM Polska Miedź S.A., and to implement local and regional initiatives and projects of national and global reach.

The Foundation supports important social initiatives and interesting projects in the following four areas: health and safety, science and education, sports and recreation, and culture and tradition.

After three years’ of operation, it obtained the status of a public benefit organization, while in 2008 it expanded its activities to include donations for natural persons, previously supported by the Charity Committee of KGHM.

A determinant of the Foundation’s day-to-day activities are the values held by the Founder, which include security, cooperation, results orientation, responsibility and courage. The basis for the operation of the KGHM Polska Miedź Foundation are financial and material donations granted to: individuals in the field of health protection and assistance to victims of natural catastrophes and disasters; Institutions for project execution.

In 2018, the Foundation supported many valuable activities, and yet it was not able to meet the growing needs of the environment and society. The level of aid granted to the institutions accounted for 29% of all applications registered, and in the case of support for individuals, it was 23%.



The projects planned for 2019 are a natural continuation of the Foundation’s activities to date and the result of program changes determined in the course of mutual arrangements between the Management Board and the Foundation Council and the authorities of KGHM Polska Miedź S.A. – the Founder. The assumptions are based on an analysis taking into account the needs of the inhabitants of the Copper Basin, Lower Silesia and all of Poland as regards health and safety, sports and recreation, culture and tradition and science and education.

The activity of the KGHM Polska Miedź Foundation in 2019 will continue to focus on granting donations and controlling their spending as well as on running programs and courses. The commitments undertaken by the Foundation will be carried out with the utmost care, thorough analysis of the submitted requests and with a detailed consideration of the capacity to help.

As in previous years, applications for donations will be accepted by the Foundation Office, while they will be examined at meetings of the Foundation Board.

The most important result values related to the statutory activity of the KGHM Polska Miedź Foundation in 2018 are as follows:



### Health and safety

are the strategic area of operation for the KGHM Polska Miedź Foundation. In 2018 funding was provided for the implementation of **74** projects, amounting to **PLN 3,686,410.00** and **175** individuals were granted donations amounting to **PLN 1,499,880.67**.



### Sports and recreation

is the area of operation for the KGHM Polska Miedź Foundation which was the most popular one among the Foundation's beneficiaries in 2018. **PLN 4,570,032.10** was spent for the implementation of **171** projects. The Foundation considers sport and recreation an important field of social life and therefore intends to continue activities promoting an active and healthy lifestyle.



### The Foundation

respects the cultural heritage of previous generations. In 2018 alone funding was provided for **150** projects in the area of culture and tradition, in total amounting to **PLN 8,263,551.65**. In 2019, the Foundation intends to support projects consisting in commemorating and promoting Polish cultural or historical heritage as well as strengthening local cultural identity and participation in culture at the local, regional, national and global level.



### Science and education

is the area of operation for the KGHM Polska Miedź Foundation for which in 2018 **PLN 2,565,532.33** was spent for the implementation of 74 projects. In 2019, the Foundation intends to conduct comprehensive activities supporting the development of education, science as well as the industry and higher education sector. It will promote innovation in education and the need for education in line with trends observed in the labor market. More information on the activity and projects of the KGHM Polska Miedź Foundation may be found at <http://www.fundacjakghm.pl/>

In 2014, KGHM Polska Miedź S.A. created Revimine Foundation whose main goal is the implementation of activities protecting cultural heritage and metallurgical traditions of the Copper Basin. The Foundation supports projects and initiatives aimed at technical, environmental and social regeneration of post-industrial areas excluded from exploitation.

Since 2016, KGHM Polska Miedź S.A. together with over a dozen other major Polish enterprises from key sectors of economy, is a founder of the Polish National Foundation.

More about PFN at <https://www.pfn.org.pl>

## Sponsorship

The Parent Company is a patron of culture and science. It supports both local and nationwide initiatives. It regularly supports a number of sports initiatives addressed both to children and to adults. It provides financing for professional and amateur sports activities. Hence the cooperation of KGHM Polska Miedź S.A. with swimmer Radosław Kawęcki.

The Parent Company is the major sponsor (owner) of Zagłębie Lubin – a football team from Ekstraklasa, the top Polish professional league, but the company also supports handball or volleyball clubs (teams playing in top league games in Poland).

For years, KGHM Polska Miedź S.A. has been one of the sponsors of “Bieg Piastów”, a cross-country skiing marathon, in Jakuszyce. KGHM also supports other running events – “Cross Straceńców” (Cross-Country Race

of Desperados), the New Year running and walking event in Głogów, the Wolf’s Trail Run to commemorate Polish “cursed soldiers”, as well as local sports organizations whose members include employees of the KGHM Group.

To ensure transparent rules of taking decisions to support a given project, offers are analyzed by the Sponsorship Committee. Decisions issued by the Committee are recorded in a report, which is approved each time by the President of the Management Board of KGHM Polska Miedź S.A.

The sponsorship activity of the KGHM Group is subject to regulations given in the Sponsorship Policy of KGHM Polska Miedź S.A. and the procedure of obtaining an opinion from the Sponsorship Committee.

Amounts granted in 2018 by KGHM Polska Miedź S.A. as part of its Sponsorship per area:

| Area         | Amounts granted (PLN) |
|--------------|-----------------------|
| Sport        | 22 289 270.00         |
| Culture      | 5 514 214.75          |
| Science      | 1 826 500.00          |
| <b>Total</b> | <b>29 629 984.75</b>  |

The amount granted in the KGHM Group (without the Parent Company) as part of its Sponsorship activity in 2018 was: **PLN 5,409,972.**

## KGHM Polska Miedź S.A. CSR Programs

Social responsibility and sustainable development are important elements of business operations today. A Company that cares for the development of its own organization must take into account activities aimed at achieving a balance between its profitability and the broadly understood social interest.

The CSR is particularly important in the mining industry. Due to the specificity of their operations, Companies like KGHM have a special responsibility for the implemented projects.

In implementing the mission of social responsibility, the Company is aware that a stable and prosperous future is marked by good relations with all its stakeholders. Hence the need for a continuous dialogue with our stakeholders, which allows renewing the “operating license”, so important for the Company, and manifested by the social acceptance of its business activity.



## EKO Zdrowie [ECO Health]

The EKO-Zdrowie program was launched over 4 years ago as part of the Company's social responsibility efforts. Pro-health projects implemented as part of the EKO-Zdrowie program are addressed to the largest possible number of recipients of different age. By such a wide range of program activities, KGHM is striving to achieve a balance between the business interest and the social interest of the environment in which the company operates. The health-promoting activities of the Program include cyclic Nordic Walking Activities for adults, recreational gymnastics for Seniors 60+ and swimming lessons for children. The Nordic Walking project is addressed to people over 40 years of age. It assumes cyclic activities with the participation of qualified and experienced instructors in various cities and towns of the Copper Basin. (Measure: so far, the 7 editions of the activities gathered over 1,000 participants.)

In the autumn of 2018, the next edition of swimming lessons in five towns of the region took place. The swimming learning program offered regular lessons of swimming basics for children aged 5-10. Classes were held in indoor swimming pools in several towns of the Copper Basin. Over 350 children participated in them, developing their basic swimming skills under the supervision of qualified instructors from swimming clubs in the region, licensed by the Polish Swimming Association. (Measure: so far, the 7 editions of the swimming classes gathered 2,000 children.)

In addition to the above projects, in autumn 2018 KGHM Polska Miedź S.A. implemented a recreational gymnastics class for Seniors 60+, in which specialist hammocks were used. The project gathered 90 people in two cities: Lubin and Legnica (45 people each), from October to December. (Measure: so far, 1 edition of the class has been held, which gathered 90 participants aged 60+.)



## Volunteering „Copper Heart”

We are particularly proud of our global employee volunteering program. Our program has already been in place for several years and, thanks to the commitment of our employees, we have carried out dozens of major projects and activities as part thereof. We have helped those in need and, at the same time, released huge amounts of positive energy and capabilities. The benefits of the volunteering program are not only a positive image of the Company but also highly-motivated employees. Moreover, thanks to their participation, volunteers develop their own competencies, including leadership skills, teamwork, communication, and analytical or problem-solving skills. Such development pays off in the workplace. Volunteering strongly integrates us and strengthens our identification with the Company.

The “Copper Heart” employee volunteering program is in place at KGHM Polska Miedź S.A. For years, there have been individual initiatives of employees to spontaneously help others by sharing skills, competencies, knowledge and professional experience. Such initiatives have now been integrated and enjoy support at Group level. Our “Copper Heart” program proves that combining social activities and an opportunity to pursue one's own interests is an excellent idea. Our program involves active participation in activities supporting local communities and environmental protection projects.





---

# Activities on behalf of the natural environment

---





# 8.1 Environmental policy

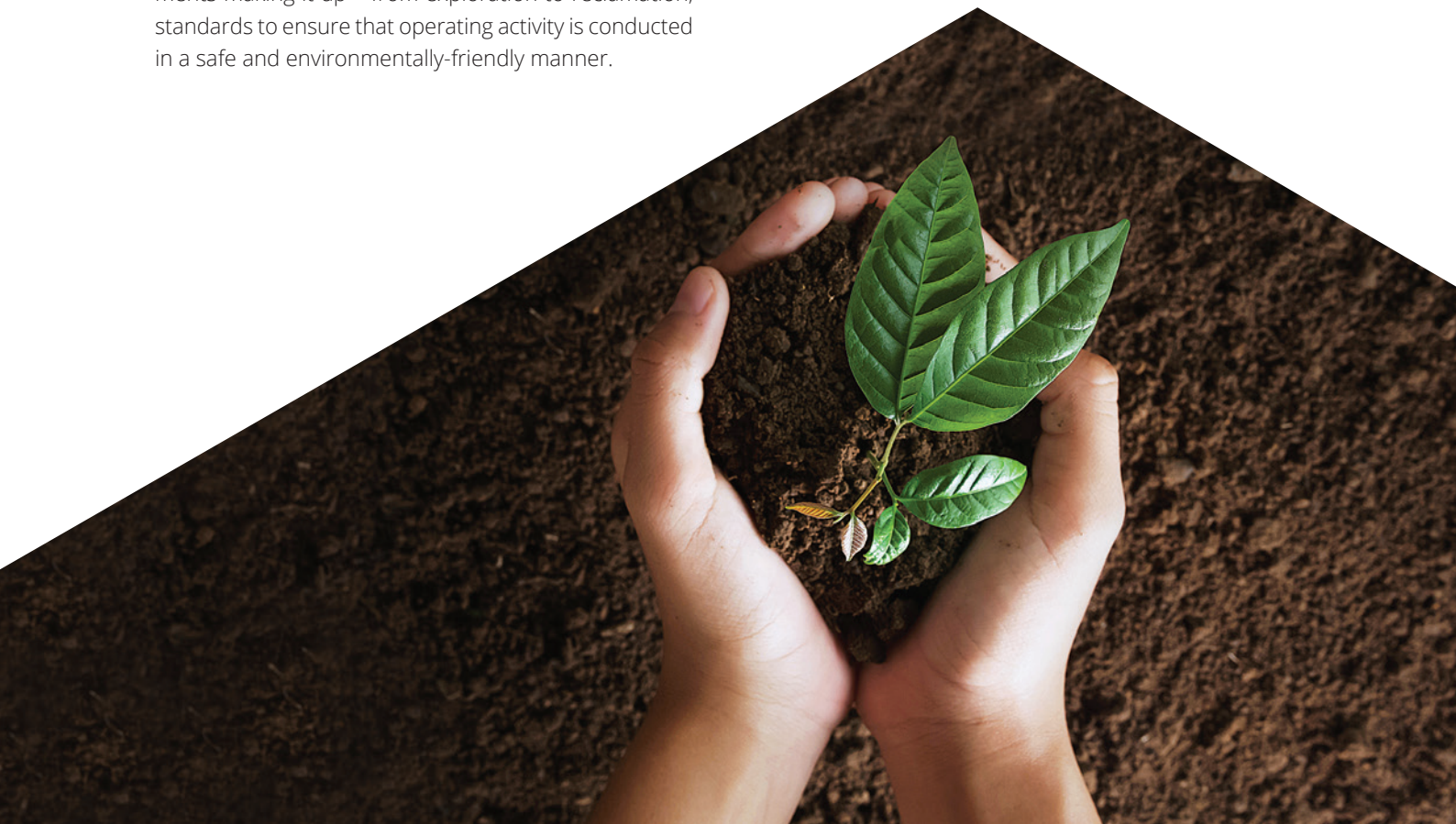
GRI 102-11, GRI 102-12, GRI 103-3

KGHM is aware that its involvement in exploration, production and metallurgy on a global scale directly affects the natural environment. The environmental policy of KGHM confirms the Company's concern for the area in which it operates. In line with the directions set out in the 4E Strategy and as an element of its CSR Strategy, KGHM undertakes a number of activities in the scope of limiting its environmental impact. KGHM compensates for its environmental impact by, among other things, modernization, allowing a reduction in the amount of pollutants emitted, investing in innovative and renewable energy sources, effective waste management, reclamation and preservation of biodiversity in post-mining areas, reforestation of protection zones around steel mills, investing in activities in the field of environmental protection in the areas of its operation, and it engages in local, national, industry and international initiatives for the environment. It constantly monitors data related to the environmental impact of its operations. It complies with the requirements resulting from regulations and standards and good practices in the field of environmental protection.

Care for the natural environment is combined with our business model in which we apply, through all the segments making it up – from exploration to reclamation, standards to ensure that operating activity is conducted in a safe and environmentally-friendly manner.

KGHM Polska Miedź S.A.'s Environmental Policy includes:

- ✎ maintenance of fully operational equipment protecting the environment,
- ✎ tracing technical developments to reduce the environmental impact of the industry and implementing them as needed and possible,
- ✎ development of waste management techniques and a steady increase in the share of managed waste in the total waste amount,
- ✎ ongoing cooperation with the local community and authorities for the benefit of the environment,
- ✎ cooperation at the level of the Ministry of Environment in the implementation of the state's environmental policy,
- ✎ cooperation with the European mining and non-ferrous metal industries within the framework of industry organizations when drawing up European Union environmental documents.



## 8.2 Environmental protection

### GRI 103-1, GRI 103-2

KGHM Polska Miedź S.A. as one of the largest, socially responsible companies in Lower Silesia, cannot and does not want to avoid its responsibility for the environment in which we live. The idea of sustainable growth, and in particular respect for the natural environment, is one of the most important values of the Company. The extraction of copper ore, followed by its processing at all stages of production, is inextricably linked to its impact on various aspects of the natural environment. Adherence to strict environmental standards, mandated by law, is possible thanks to the systematic modernisation of installations protecting the environment, both those built in the past as well as new investments in this area. In 2018, the Company spent PLN 143 million on investments to protect the natural environment, of which the largest expenditure, in the amount of over PLN 32 million, was incurred on modernisation of the installation for removal of carbonates during the flotation process at the Polkowice Concentrator.

In 2018, the program of supporting crop-raising farmers in areas impacted by the operations of the Company's installations continued. This support was in the form



of cash subsidies for the purchase of fertilising lime necessary for soil liming in order to reduce its acidity and immobilise heavy metals in agricultural terrain. The program encompassed farmers from the gmina (municipality) of Grębocice which, in accordance with a resolution of the Management Board and Supervisory Board, received PLN 0.8 million for the liming of soil.



### Environmental fees

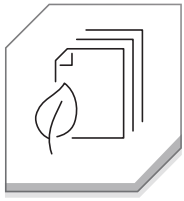
Environmental fees paid by the Divisions of KGHM Polska Miedź S.A. in 2018 amounted to PLN 14 million. The amount of fees paid has remained at this low level for two years, thanks to the functioning in the copper ore mines of a system for monitoring chlorides and sulphides volumes, which annually enables the amount of around PLN 22 million to be deducted from the fee paid for the emission of over-sediment water from the Żelazny Most tailings storage facility. In 2018, in the structure of fees, the highest amount incurred was the fee for atmospheric emissions of dusts and gases: PLN 5 million. Another item of costs, over PLN 4 million, is the waste storage fee.



### Legal status and future actions

KGHM Polska Miedź S.A. operates ten installations whose functioning, in accordance with the Act on Environmental Protection, requires integrated permits. As a result of the coming into force of Implementing Decision 2016/1032 of the European Commission establishing best available techniques (BAT) conclusions for the non-ferrous metals industries, we were required to amend the permits held for the metallurgical facilities. In 2018, we completed this procedure and now hold new decisions for the Głogów and Legnica Copper Smelters and Refineries and the Cedynia Wire Rod Plant.

In addition, the Tailings Division holds permits for the operation of the Żelazny Most Tailings Storage Facility, and sector permits required by law. The mines operate on the basis of current sector permits with respect to airborne emissions and waste management.



Metallurgical installations at the Głogów and Legnica Copper Smelters and Refineries as well as the gas-steam blocks in Polkowice and Głogów also hold permits to participate in the CO<sub>2</sub> emissions trading system, as since 2013 KGHM Polska Miedź S.A. has been participating in the obligatory European Union Emissions Trading System (EU ETS).

In 2018, emissions in the previous year (2017) in the amount of 1 080 thousand tonnes of CO<sub>2</sub> were settled by freely-acquired rights (around 950 thousand tonnes of CO<sub>2</sub>) supplemented by purchases of rights (EUAs or European Emission Allowances and CERs - certified emission reduction).

It is expected that 2018 emissions at the level of around 1.15 million tonnes of CO<sub>2</sub> will be settled thanks to freely-acquired rights for the Głogów and Legnica Copper Smelters and Refineries as well as rights for the Gas-Steam Blocks in Polkowice and Głogów (around 930 thousand tonnes of CO<sub>2</sub>) along with rights from prior years and purchases of rights (EUA i CER) in the amount of PLN 10 million.

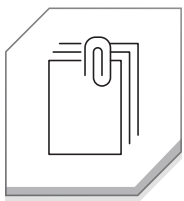
## The most important planned undertakings related to environmental protection in the near term are as follows:

- completion of construction of a concentrate roasting installation at the Głogów Copper Smelter and Refinery,
- work related to ensuring the security of the Żelazny Most Tailings Storage Facility, such as strengthening the containment dam,
- updating of the integrated permit for the RCR furnace investment underway at the Legnica Copper Smelter and Refinery,
- continuation of a program to promote health and prevent environmental threats, aimed at the people living in the nearest proximity to our metallurgical facilities, and
- overseeing the system for trading CO<sub>2</sub> emissions,
- construction of the southern quarter of the Żelazny Most tailings storage facility.



## Activities to meet REACH Regulation requirements

KGHM is a member of six international consortia created to meet the requirements of EC Regulation No. 1907/2006, the so-called REACH Regulation. In 2018, cooperation with the consortia involved adaptation to changes in REACH requirements as regards registration documentation, the classification of substances, assessment and authorisation. These changes are to be introduced smoothly, which is why the REACH consortia will continue to function. In 2018, KGHM's costs of cooperation with consortia amounted to 202 thousand EUR and 7 thousand GBP. It is expected that current cooperation with REACH consortia will be at the level of 140 thousand EUR per year.



## Updating of BREF documentation

BREF documents are required by the EU and comprise descriptions of techniques applied in various industries with an emphasis on best available ecological techniques, for use by Member States as a starting point for the issuance of environmental permits. Work is being conducted by the Joint Research Centre – Institute of Prospective Technological Studies (JRC-IPTS) in Seville in cooperation with Technical Working Groups (TWGs), composed of representatives of Member States, organisations and industry (including KGHM). In 2018, work was concluded on updating the BREF for dealing with mining tailings and waste, the MWEI BREF document. This document was published in December 2018.



## 8.3 Actions to reduce environmental impact

---

Amongst the Polish companies of the Group, the largest environmental impact comes from the activities of the company „Energetyka” sp. z o.o. In 2018, this company incurred the highest environmental fees. They amounted to PLN 3.8 million and were mainly comprised of payments for water intake and waste discharge (over PLN 2.9 million) and for emission of contaminants to the atmosphere (PLN 0.8 million). In 2018, the company advanced investments aimed at limiting emissions of atmospheric pollutants, including in the following power plants: EC-3 Głogów – construction of water/gas boilers, EC-4 Legnica - modernisation of a steam boiler, EC-1 Lubin – construction of a fumes treatment installation.

Due to the specific nature of the products manufactured by the company NITROERG S.A. (explosives, initiation systems, fuel additives), it has an impact on the environment. The environmental fees incurred by this company in 2018 amounted to PLN 0.5 million. In 2018, the company advanced investments aimed at limiting the environmental impact, including the treatment of sewage and construction of a new installation for the production of fuel additives, which will allow for the re-use of concentrated acids in the production process.



## 8.4 Energy policy

The primary objective of KGHM Polska Miedź S.A. in respect to energy management is to implement a rational energy economy while ensuring security of energy supply to facilities and installations within the Company's production line. The process of implementing the standard of energy utility management in accordance with the ISO 50001 standard began with the adoption of Energy Policy by the President of the Management Board of KGHM Polska Miedź S.A. (28 November 2016).

The Energy Policy contains the most important assumptions of KGHM Polska Miedź S.A.'s activity in the area of energy management. In performance of its guidelines, we are committed to:

- ☞ provide all the resources required to achieve the planned objectives and tasks in the energy management area,
- ☞ operate in accordance with legal regulations and other energy requirements relating to energy management,
- ☞ developing desirable attitudes, building energy awareness and constantly improving competences of the Company's employees and business partners who carry out tasks for the benefit of KGHM Polska Miedź S.A.
- ☞ prevent waste in the area of energy consumption,
- ☞ cooperate with partners and suppliers in procurement of material goods and services having regard to energy efficiency as an important selection criterion.

The assumptions adopted in the Energy Policy of KGHM Polska Miedź S.A. are implemented by all employees of the Company, as well as other persons and entities performing tasks for its needs.



Application of the Energy Policy in KGHM Polska Miedź S.A. has resulted in introducing several regulations and taking actions to ensure that energy management is rational, legal and includes, among others:

- ☞ rules of conduct in the investment and procurement process,
- ☞ energy reviews carried out at KGHM Divisions and the Head Office in accordance with the approved methodology,
- ☞ approved objectives and tasks approved,
- ☞ implementation of the regulations: Legal and other requirements in the field of power generation and evaluation of their conformity for purposes of the Energy Management System at KGHM Polska Miedź S.A.



## 8.5 Energy management system (EMS)

---

In 2017, the Parent Company and Energetyka Sp. z o.o. implemented the Energy Management System (SEZ) compliant with the norm PN-EN ISO 50001:2012.

As a result of the implementation of EMS and application of the Energy Policy, the costs of energy audits are avoided, which must be performed pursuant to the Energy Efficiency Act if no certified Energy Management System is in place as imposed by the Energy Efficiency Act and further improvement of the energy consumption optimization process.

The first supervision audit by the external certifying unit UDT Cert carried out in June 2018 at KGHM Polska Miedź S.A. confirmed that KGHM Polska Miedź S.A. has implemented and maintains an EMS compliant with ISO 50001 and upheld the Certificate granted in September 2017, which is shown in the figure below.

As a result of the conducted energy reviews, 46 energy efficiency improvement targets have been set. 46 energy tasks were defined and the key energy performance measures were specified. The implementation of EMS also reduces the costs related to the purchase and consumption of power utilities. In 2017, related savings amounted to approx. 34 GWh of energy. By 2020 we are planning to achieve further savings of 230 GWh of energy (700 GWh of primary energy). At the same time, we are reducing greenhouse gas emissions, thus lowering the cost of purchasing CO2 emission rights, And most importantly, by implementing standards and improving procedures, we are also improving occupational safety and increasing the competence of our employees.



---

# Operations and results in 2018

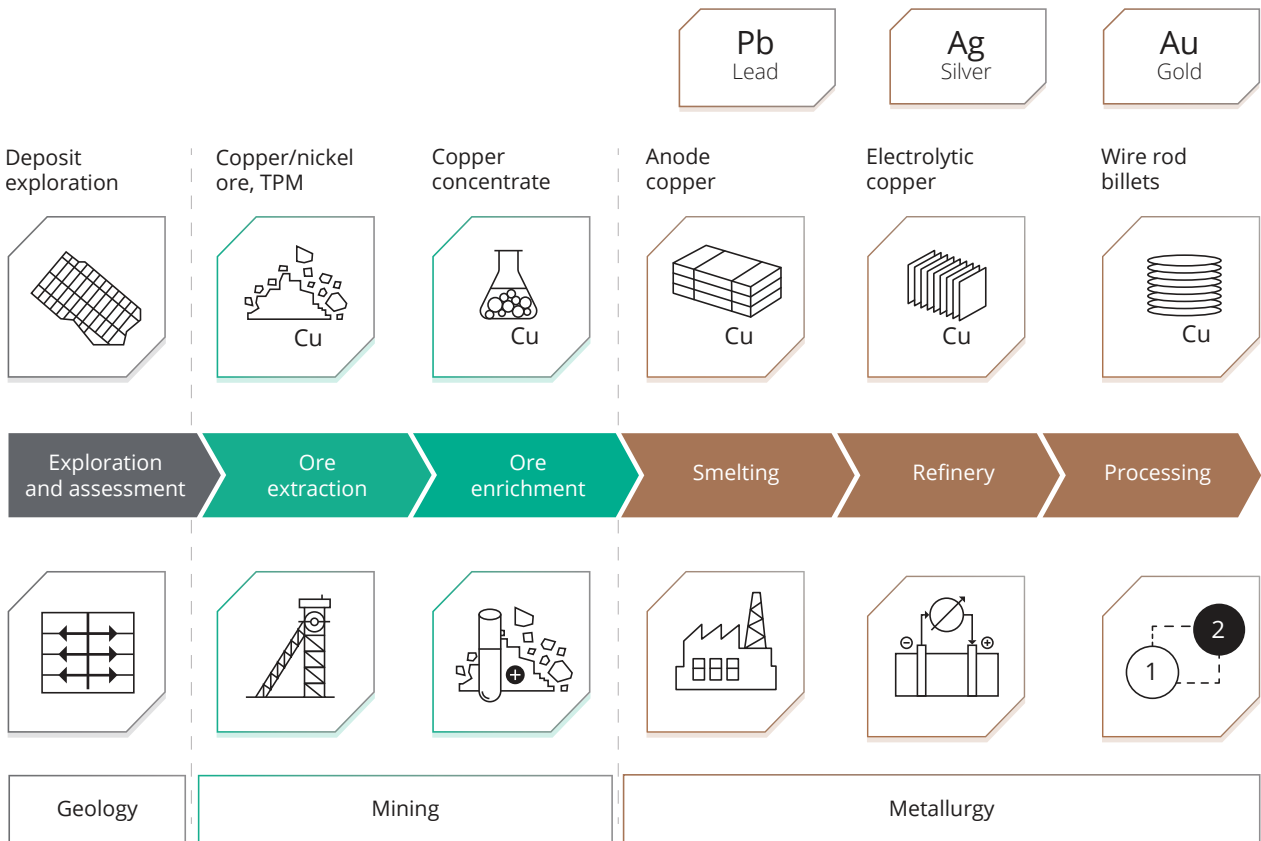
---



# 9.1 Production process

Production in the Group is based on the processes illustrated in the following two diagrams:

Integrated mining, processing, smelting and refining processes in KGHM Polska Miedź S.A.



Production in KGHM Polska Miedź S.A. is a fully integrated process, in which the end product of one technological phase is the starting material (half-finished product) used in the next phase. Mining in KGHM Polska Miedź S.A. is performed by three mining Divisions: Lubin, Rudna and Polkowice-Sieroszowice. In the subsequent phase the Concentrators Division prepares concentrate

for the smelters and refineries, while the Tailings Division is responsible for storing and managing the tailings generated by the copper ore enrichment process. The organisational structure of KGHM includes two metallurgical facilities: the Legnica Copper Smelter and Refinery and the Głogów Copper Smelter and Refinery, as well as the Cedynia copper wire rod plant.

## Mining

The technology of mining the copper ore in all 3 mines is based on the room-and-pillar system with the use of blasting technology for ore extraction. This involves access and preparatory work, comprised of the excavation of a drift network on all sides of the site to be mined, cutting of the unmined rock mass with rooms and drifts separating a number of operating pillars, as

well as extraction of the ore followed by the transport of the ore to underground dumping stations, where the large rocks are crushed and sifted through a grate, and then the crushed muck is transported to the storage areas near the shafts, from which it is transported to the surface by skip hoisting shafts.



The work related to mining of the copper ore is fully mechanised, in a 4-shift labour system, with the use of motorised mining rigs, most of which are equipped with air-conditioned cabins and systems supporting the work of the operators. Mining work is conducted in the following cycle: drilling the blasting holes with the support of motorised drilling rigs, loading blasting material into drilled holes by drilling rigs, group blasting in mining divisions, followed by the ventilation of the areas blasted (from 30 minutes to 2 hours; in seismically-sensitive areas this time is longer). The next stage involves the loading of the muck using motorised loaders into haulage vehicles and its transport to dumping stations, along with protection of the exposed face by roof anchor bolts using bolting rigs. The crushed muck is transported by conveyor belts or mine rail trolleys to the storage sites near the shafts, and is then transported to the surface. After the muck is unloaded at the shaft top, it is transported by conveyor belts or railway to the ore concentrators located at each of the three mines.

The operations and processes applied at each of the three ore concentrators are the same. However, due to the varied lithological and mineralogical composition of the ore from individual mines, the production layout of each facility differs. The enrichment technologies applied include the following individual operations: screening and crushing, milling and classification, flotation and drying of the concentrate.

The flotation process results in concentrate with an average copper content of approx. 22-23%, and flotation waste. The Rudna mine concentrator produces

concentrate with the highest copper content (approx. 26%), while the lowest is at the Lubin mine concentrator (approx. 13%). The Polkowice mine concentrator produces concentrate of approx. 25% copper content.

The dried concentrate of approx. 8.5% water content is transported by rail to the following smelter/refineries: the Legnica Copper Smelter and Refinery located in Legnica, the Głogów I Copper Smelter and Refinery and the Głogów II Copper Smelter and Refinery, located in Głogów.

The flotation waste, in the form of slimes, are transported through pipelines to the Żelazny Most Tailings Storage Facility, where the sedimentation of the solid particles takes place and the clarified water is collected and redirected to the ore concentrators. The storage site also serves as a retention-dosage reservoir for excess mine water. Excess water is hydrotechnically discharged (periodically) to the Odra River. This method was developed and implemented in partnership with research institutions, and it has been officially approved for use under the provisions of the Water Law. Studies demonstrate that the discharging of mine and process water to the Odra River cannot result in any changes that would make the proper functioning of water ecosystems impossible or prevent conformance with the applicable water quality requirements.

## Metallurgy

The copper smelters/refineries produce electrolytic copper from own concentrates as well as from purchased metal-bearing material (copper concentrates, copper scrap, blister copper). The Legnica Copper Smelter and Refinery uses a multi-stage process whose main stages include: preparation of the charge material, its reduction smelting in shaft furnaces to the form of matte copper, conversion to the form of blister copper with approx. 98.5% Cu content; fire refining in anode furnaces to produce anodes of 99.2% Cu content; and electrorefining. The final product is electrolytic copper cathodes with 99.99% Cu content.

The Głogów Copper Smelter and Refinery applies one-stage flash furnace technology based on a license from the Finnish company Outokumpu. The dried concentrate, with a moisture content of 0.3% H<sub>2</sub>O, is

smelted in a flash furnace into blister copper containing around 98.6% Cu, which is subject to fire refining in anode furnaces. The slag, which still contains on approximately 14% copper, is sent to an electric furnace, where the copper is removed while the CuPbFe alloy obtained is sent to the converters, from which the resulting copper is sent for refining in anode furnaces. The copper anodes produced from fire refining are then sent for electrorefining, and the end product is electrolytic copper in the form of cathodes containing 99.99% Cu.

Approx. 45% of the electrolytic copper produced by KGHM's smelters and refineries are further processed in the Cedynia Copper Wire Rod Division, where copper wire rod is produced by a continuous smelting, casting and rolling process as well as oxygen-free copper rod

and oxygen-free, low-alloy, silver-bearing copper rod based on UPCAST technology are produced.

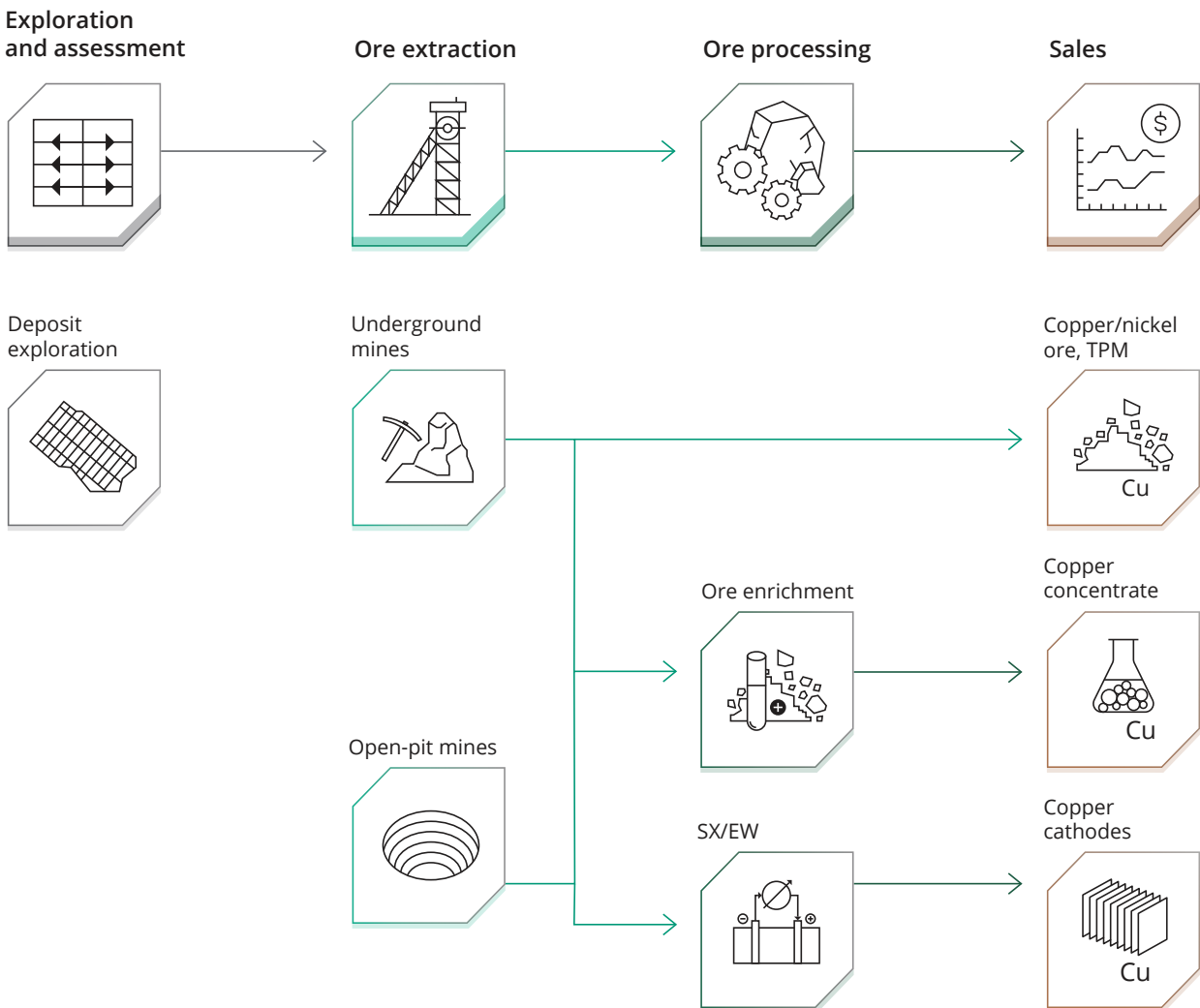
The anode slime produced during the electrorefining process at KGHM's smelters and refineries contains precious metals, and is the raw material used by the Precious Metals Plant at the Głogów Copper Smelter and Refinery to produce the following products: refined silver, gold, palladium-platinum concentrate and selenium. The electrolyte in the Tank Hall, once the copper is removed, is used to produce crude nickel sulphate.

The lead-bearing dust and slimes collected as a result of the removal of dust from technological exhaust gases at the smelters and refineries are smelted, together with decopperised converter slag from the flash furnace production line, in Dörschel furnaces at the Lead Section of the Głogów Copper Smelter and Refinery into crude lead containing 99.3% Pb. This crude lead is then refined at the Legnica Copper Smelter and Refinery to obtain the end product - refined lead containing 99.85 % Pb.

## The segment KGHM INTERNATIONAL LTD.

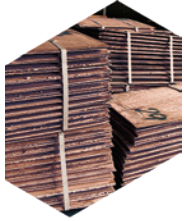
The core business of the KGHM INTERNATIONAL LTD. Group of companies is the mined production of metals, such as copper, nickel, gold, platinum and palladium, from both open-pit and underground mines, as well as advancement of mining and exploration projects. The following drawing shows a simplified flowchart of core business of the KGHM INTERNATIONAL LTD. Group.

Simplified flowchart of core business of the KGHM INTERNATIONAL LTD. Group.





## 9.2 Primary Group products



### Copper cathodes

Copper cathodes made from electrolytic copper with a minimum copper content of 99.99% are the basic product of KGHM Polska Miedź S.A. They meet the highest quality requirements and are registered as Grade „A” on the London Metal Exchange (LME) under three brands: HMG-S, HMG-B and HML and on the Futures Contracts Exchange in Shanghai. Copper cathodes are also the primary product of the Carlota mine in the USA and the Franke mine in Chile, both part of the KGHM INTERNATIONAL LTD. Group. The main customers for the cathodes are producers of wire rod, other rods, flat bars, pipes, sheets and conveyor belts.



### Copper wire rod

The second copper product, in terms of volume, produced by KGHM Polska Miedź S.A. is 8 mm copper wire rod manufactured through the Contirod® continuous process of melting, casting and drawing. Depending on the needs of the customer, wire rod is produced in various classes of quality. The main customers for wire rod are the cable, electrical goods and electrotechnical industries.



### Silver

Electrolytic silver is produced mainly by KGHM Polska Miedź S.A. in the form of bars (ingots, billets) and grains containing 99.99% silver. Silver bars (weighing approx. 32 kg) hold a certificate registered on NYMEX in New York as well as a Good Delivery certificate issued by the London Bullion Market Association. Granule silver is packed in bags weighing 25 kg or 500 kg. The main customers for silver are financial institutions, the jewellery industry, photographic industry, and the electronics and electrical industries as well as producers of coins and medallions.



### Copper concentrate

Produced by the Robinson mine in the USA, part of the KGHM INTERNATIONAL LTD. Group, containing over 20% of copper. This product is also produced by the Sierra Gorda mine in Chile (copper content is above 20%). Both of these concentrates also include gold as an additional product. The copper concentrates are sold for further processing as a commodity product. Occasionally KGHM Polska Miedź S.A. also sells copper concentrate produced by the Lubin, Rudna and Polkowice-Sieroszowice mines (average copper content, depending on the type of concentrate, is from approx. 13% to approx. 25%).



### Molybdenum concentrate

Another commercial product (apart from copper concentrate) produced by the Robinson mine in the USA, part of the KGHM INTERNATIONAL LTD. Group. Production of molybdenum concentrate is derivative from the process of copper concentrate production.



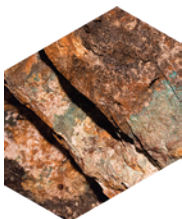
## Molybdenum oxides

One of the main commercial products of Sierra Gorda is molybdenum oxide, arising from the processing of the molybdenum sulphide concentrate (containing approx. 48% Mo) produced by the Sierra Gorda mine. Molybdenum is used in the aircraft, defense, oil, nuclear and electronics industries.



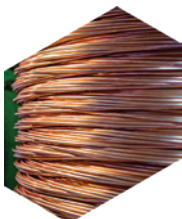
## Gold

Gold in the form of bars weighing approximately 0.5 kg, 1 kg, 4 kg, 6 kg and 12 kg containing 99.99% gold is produced by KGHM Polska Miedź S.A. Gold is used in the jewellery industry, by banks and in the electrical industry.



## Ore containing copper, nickel and TPM (precious metals – gold, platinum, palladium)

Produced by the mines in the Sudbury Basin in Canada, part of the KGHM INTERNATIONAL LTD. Group. The ore containing copper, nickel and TPM is sold for further processing to a smelter and refinery in the Sudbury Basin.



## Oxygen-free copper rod

Two types of rod are produced: Cu-OFE oxygen-free rod and CuAg(O)F oxygen-free, silver-bearing rod. Rod is produced using UPCAST® technology, in diameters from 8 mm to 25 mm (8 mm, 12.7 mm, 16 mm, 20 mm, 22 mm, 24 mm and 25 mm). Customers for this product are in the cable industry, with application in the form of thin wires, enamelled wires and fire-resistant cables, as well as cables for transmitting audio and video signals. In addition, oxygen-free, silver-bearing rod is used in the manufacture of trolleys and commutators.



## Round copper billets

Round copper billets produced from copper cathodes cast in the classification Cu-ETP1 and Cu-ETP, and from oxygen-free phosphorus-containing copper cathodes in the classification Cu-HCP, Cu-PHC, Cu-DLP and Cu-DHP are used in the construction industry (to manufacture pipes) and the electrotechnical industry (to manufacture belts, rods and profiles).



## Refined lead

Refined lead in the form of bars (dimensions: 615 x 95 x 80 mm) has been produced by KGHM Polska Miedź S.A. since 2007. It has been registered on the London Metal Exchange since 2014 under the brand „KGHM”. Refined lead is mainly used to produce batteries and lead oxides.

## 9.3 Main production goals

The main goals set by the Management Board in terms of production and occupational health and safety for 2019 are a continuation of actions taken in 2018, i.e.:

1. optimal utilisation of the resource base and of the production capacity of the Company, and
2. optimisation of Cu content in ore and concentrate.

Key tasks in 2019:

|                          |   |
|--------------------------|---|
| <p>in mining</p>         | <ul style="list-style-type: none"> <li>• access and development work to intersect the ore in the Deep Głogów area,</li> <li>• continuation of work related to exploration of the Retków copper ore deposit in the Grodziszczce area,</li> <li>• continuation of work related to prevention of gas-related threats (hydrogen sulphide and methane) and the use of new technical solutions and means of prevention to counteract this threat,</li> <li>• continuation of work related to utilising the capacity of the input and output ventilation shafts in the interconnected mine ventilation system,</li> <li>• achieving a level of dilution of the extracted ore which is adequate to the deposit's parameters,</li> <li>• continuation of the GG-1 shaft construction project,</li> <li>• continued construction of the central air conditioning system at the GG-1 shaft,</li> <li>• continuation of Stage 1 of the Project „Construction of the GG-2 shaft” – continuation of planning work, acquisition of legal title to land,</li> <li>• realisation of the planned scope of mine development and access work using the commissioning system in 2019 at the level of 59 thousand meters,</li> </ul>  |
| <p>in ore processing</p> | <ul style="list-style-type: none"> <li>• modernising the classification systems,</li> <li>• improving the energy performance of the machinery park in the Concentrators Division,</li> <li>• optimising the concentration process in terms of decreasing the impact of changes in ore quantity-quality parameters by applying the FloVis system,</li> <li>• continued separation of concentrate produced into two products with varied organic carbon content at the Rudna Concentrator Division,</li> <li>• optimising control of the milling units based on visual product parameters and a mill's sound and vibration characteristics at the Concentrators Division (using the MillVis and ConVis systems),</li> <li>• modernising the carbonate removal installation in the flotation process of the Polkowice Concentrator Division,</li> <li>• optimising the milling, classification and flotation process,</li> <li>• maintaining the availability of the machine park and the production capacity of individual Concentrators Division Areas to the amount of ore supplied,</li> <li>• maintaining the production of concentrates in an amount and quality necessary for optimal use of the production capacity of the smelters and refineries,</li> </ul> |

|  |  |
|--|--|
| <p>in metallurgy</p>                     | <ul style="list-style-type: none"> <li>• minimising environmental impact by actions directed towards improving the effectiveness of the dedusting and hermetic sealing processes to decrease fugitive emissions,</li> <li>• maintaining recovery levels of copper and silver in metallurgical processes and the availability of metallurgical equipment,</li> <li>• improving the productivity of the flash furnace complex at the Głogów I Copper Smelter and Refinery as a result of the commissioning of the concentrate roasting installation planned for the second half of 2019,</li> <li>• increasing the share of recycling in production thanks to the start-up of the revolving-casting-refining (RCR) furnace for processing copper scrap at the Legnica Copper Smelter and Refinery in April 2019,</li> <li>• stage I of renovation of the Tank Hall at the Głogów I Copper Smelter and Refinery, and</li> <li>• optimum management of half-finished products between the metallurgical facilities,</li> </ul> |
| <p>in occupational health and safety</p> | <ul style="list-style-type: none"> <li>• monitoring occupational hazards and achieving organisational, technical and investment goals aimed at limiting occupational risks and workplace accidents,</li> <li>• advancing the adopted training program to optimise the knowledge and skills of KGHM Polska Miedź S.A.'s employees,</li> <li>• unifying the approach to advancement of the Program to improve workplace safety by applying consistent messaging about safety,</li> <li>• searching for new initiatives involving organisational and technical solutions enabling the achievement of a higher level of safety amongst employees in the Company's Divisions,</li> <li>• optimising health care for KGHM Polska Miedź S.A.'s employees, in particular after accidents at work.</li> </ul>   |

## Mine production

**GRI 301-1** In 2018 extraction of ore (dry weight) amounted to 30.3 million tonnes, which was 0.9 million tonnes less than in 2017.

Average copper content in extracted ore amounted to 1.49% and was lower than the level achieved in 2017 due to mining in regions with a lower copper ore content. In the case of silver in ore, content was higher and amounted to 48.6 g/t. *Produkcja górnicza KGHM Polska Miedź S.A. w 2018 roku*

As a result the amount of copper in extracted ore was lower than in 2017 by 14.8 thousand tonnes of Cu and

amounted to 452.0 thousand tonnes. The volume of silver in ore decreased by 18 tonnes and amounted to 1 471 tonnes.

In 2018, 30.3 million tonnes of ore (dry weight) were processed (or 1 247 thousand tonnes less than in 2017). The lower amount of ore extracted by the mines directly affected the amount of copper in concentrate, which amounted to 401.3 thousand tonnes.

The production of concentrate (dry weight) decreased as compared to 2017 by 72 thousand tonnes (a decrease from 1 833 thousand tonnes to 1 761 thousand tonnes).

The amount of silver in concentrate was lower than the amount produced in 2017 by 2%.

|  | Unit | 2017    | 2018    | Change(%) | 4Q'18 | 3Q'18 | 2Q'18 | 1Q'18 |
|--|------|---------|---------|-----------|-------|-------|-------|-------|
| Mined ore (wet weight)                 | mn t | 32.8    | 31.8    | (3.0)     | 7.6   | 8.1   | 8.0   | 8.1   |
| Mined ore (dry weight)                 | mn t | 31.2    | 30.3    | (2.9)     | 7.3   | 7.7   | 7.6   | 7.7   |
| Copper grade                           | %    | 1.50    | 1.49    | (0.7)     | 1.47  | 1.49  | 1.52  | 1.50  |
| Copper in ore                          | kt   | 466.8   | 452.0   | (3.2)     | 106.6 | 114.2 | 114.8 | 116.4 |
| Silver grade                           | g/t  | 47.8    | 48.6    | +1.7      | 48.4  | 48.9  | 48.7  | 48.5  |
| Silver in ore                          | t    | 1 489.7 | 1 471.4 | (1.2)     | 351.8 | 375.3 | 368.8 | 375.4 |
| Production of concentrate (dry weight) | kt   | 1 833   | 1 761   | (3.9)     | 423   | 442   | 448   | 447   |
| Copper in concentrate                  | kt   | 419.3   | 401.3   | (4.3)     | 95.3  | 101.0 | 102.3 | 102.7 |
| Silver in concentrate                  | t    | 1 289.9 | 1 264.3 | (2.0)     | 304.0 | 320.8 | 317.7 | 321.8 |





## Metallurgical production

The production of electrolytic copper as compared to 2017 decreased by 20.2 thousand tonnes, or by 3.9%. The lower production of electrolytic copper was due to the maintenance shutdown of the concentrate smelting installation at the Głogów II Copper Smelter and Refinery, which lasted from 8 April to 25 June. Production re-commenced 8 days sooner than projected by the initial schedules. By supplementing own concentrate with purchased metal-bearing materials in the form of scrap, copper blister and imported concentrate, existing technological capacity was effectively used.

The production of other metallurgical products (silver, wire rod, OFE rod and round billets) derives from the level of electrolytic copper production and depends on the type of raw material used, and above all on market demand.

In comparison to 2017, the production of metallic gold decreased by 1 061 kg, or 29%, and metallic silver production was lower by 29 tonnes, closing the year at 1 189 tonnes.

### Metallurgical production of KGHM Polska Miedź S.A.

|  | Unit  | 2017    | 2018    | Change(%) | 4Q'18 | 3Q'18 | 2Q'18 | 1Q'18 |
|--|-------|---------|---------|-----------|-------|-------|-------|-------|
| Electrolytic copper, including:          | kt    | 522.0   | 501.8   | (3.9)     | 135.4 | 138.9 | 116.7 | 110.8 |
| · from own concentrates                  | kt    | 358.9   | 385.3   | +7.4      | 103.6 | 110.4 | 85.3  | 86.0  |
| · from purchased metal-bearing materials | kt    | 148.0   | 116.5   | (21.3)    | 31.8  | 28.5  | 31.4  | 24.8  |
| · from third party processing            | kt    | 15.1    | -       | ×         | -     | -     | -     | -     |
| Wire rod, OFE and CuAg rod               | kt    | 257.9   | 266.4   | +3.3      | 62.3  | 72.0  | 65.9  | 66.2  |
| Round billets                            | kt    | 13.7    | 15.8    | +15.3     | 3.7   | 3.9   | 4.3   | 3.9   |
| Metallic silver                          | t     | 1 218.0 | 1 188.8 | (2.4)     | 352.6 | 357.8 | 239.1 | 239.3 |
| Metallic gold                            | koz t | 117.3   | 83.2    | (29.1)    | 21.1  | 23.7  | 20.1  | 18.3  |
| Refined lead                             | kt    | 30.0    | 30.1    | +0.3      | 8.2   | 6.9   | 7.6   | 7.5   |

## Main production goals

The main goals set by the Management Board in terms of production and occupational health and safety for 2019 are a continuation of actions taken in 2018, i.e.:

1. optimal utilisation of the resource base and of the production capacity of the Company, and
2. optimisation of Cu content in ore and concentrate.

|                          |   |
|--------------------------|---|
| <p>in mining</p>         | <ul style="list-style-type: none"> <li>• access and development work to intersect the ore in the Deep Głogów area,</li> <li>• continuation of work related to exploration of the Retków copper ore deposit in the Grodzisz-cze area,</li> <li>• continuation of work related to prevention of gas-related threats (hydrogen sulphide and methane) and the use of new technical solutions and means of prevention to counteract this threat,</li> <li>• continuation of work related to utilising the capacity of the input and output ventilation shafts in the interconnected mine ventilation system,</li> <li>• achieving a level of dilution of the extracted ore which is adequate to the deposit's parameters,</li> <li>• continuation of the GG-1 shaft construction project,</li> <li>• continued construction of the central air conditioning system at the GG-1 shaft,</li> <li>• continuation of Stage 1 of the Project „Construction of the GG-2 shaft” – continuation of planning work, acquisition of legal title to land,</li> <li>• realisation of the planned scope of mine development and access work using the commissioning system in 2019 at the level of 59 thousand meters,</li> </ul>  |
| <p>in ore processing</p> | <ul style="list-style-type: none"> <li>• modernising the classification systems,</li> <li>• improving the energy performance of the machinery park in the Concentrators Division,</li> <li>• optimising the concentration process in terms of decreasing the impact of changes in ore quantity-quality parameters by applying the FloVis system,</li> <li>• continued separation of concentrate produced into two products with varied organic carbon content at the Rudna Concentrator Division,</li> <li>• optimising control of the milling units based on visual product parameters and a mill's sound and vibration characteristics at the Concentrators Division (using the MillVis and ConVis systems),</li> <li>• modernising the carbonate removal installation in the flotation process of the Polkowice Concentrator Division,</li> <li>• optimising the milling, classification and flotation process,</li> <li>• maintaining the availability of the machine park and the production capacity of individual Concentrators Division Areas to the amount of ore supplied,</li> <li>• maintaining the production of concentrates in an amount and quality necessary for optimal use of the production capacity of the smelters and refineries,</li> </ul> |

|  |  |
|--|--|
| <p>in metallurgy</p>                     | <ul style="list-style-type: none"> <li>• minimising environmental impact by actions directed towards improving the effectiveness of the dedusting and hermetic sealing processes to decrease fugitive emissions,</li> <li>• maintaining recovery levels of copper and silver in metallurgical processes and the availability of metallurgical equipment,</li> <li>• improving the productivity of the flash furnace complex at the Głogów I Copper Smelter and Refinery as a result of the commissioning of the concentrate roasting installation planned for the second half of 2019,</li> <li>• increasing the share of recycling in production thanks to the start-up of the revolving-casting-refining (RCR) furnace for processing copper scrap at the Legnica Copper Smelter and Refinery in April 2019,</li> <li>• stage I of renovation of the Tank Hall at the Głogów I Copper Smelter and Refinery, and</li> <li>• optimum management of half-finished products between the metallurgical facilities,</li> </ul> |
| <p>in occupational health and safety</p> | <ul style="list-style-type: none"> <li>• monitoring occupational hazards and achieving organisational, technical and investment goals aimed at limiting occupational risks and workplace accidents,</li> <li>• advancing the adopted training program to optimise the knowledge and skills of KGHM Polska Miedź S.A.'s employees,</li> <li>• unifying the approach to advancement of the Program to improve workplace safety by applying consistent messaging about safety,</li> <li>• searching for new initiatives involving organisational and technical solutions enabling the achievement of a higher level of safety amongst employees in the Company's Divisions,</li> <li>• optimising health care for KGHM Polska Miedź S.A.'s employees, in particular after accidents at work.</li> </ul>   |

## 9.4 Sales

In 2018, the sales volume of copper and copper products produced by KGHM Polska Miedź S.A. amounted to 514.4 thousand tonnes and was comparable to the sales volume in 2017 (+2%), although in 2018 there were sales of copper concentrate in the amount of 149.5 thousand tonnes dry weight (of which 22.3 thousand tonnes was Cu). There was however a decrease in the volume of cathodes sold by 19.2 thousand tonnes (-8%). Sales of copper wire rod increased by 2.8 thousand tonnes (+1%) and OFE rod by 2.1 thousand tonnes (+16%).

Sales of metallic silver in KGHM Polska Miedź S.A. in 2018 amounted to 1 147 tonnes and were lower than the level of sales in 2017 by 38 tonnes (-3%). In 2018 there also occurred the sale of silver in concentrate (81 tonnes).

The volume of gold sales in 2018 amounted to 83.8 thousand troy ounces, or a decrease by 28% as compared to 2017 (117.1 thousand troy ounces).

### Sales volume of basic products of KGHM Polska Miedź S.A.

|  | Unit      | 2017         | 2018         | Change (%)  | 4Q'18        | 3Q'18        | 2Q'18        | 1Q'18        |
|--|-----------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|
| Cathodes and cathode parts                   | kt        | 233.5        | 214.3        | (8.2)       | 74.1         | 58.4         | 47.3         | 34.5         |
| • Copper wire rod and OFE rod                | kt        | 259.9        | 264.6        | +1.8        | 66.4         | 68.3         | 65.2         | 64.7         |
| • Payable copper in concentrate <sup>1</sup> | kt        | (0.3)        | 22.3         | ×           | 4.2          | 6.8          | 11.3         | -            |
| • Other copper products                      | kt        | 12.9         | 13.2         | +2.3        | 3.0          | 3.6          | 3.3          | 3.3          |
| <b>Total copper and copper products</b>      | <b>kt</b> | <b>506.0</b> | <b>514.4</b> | <b>+1.7</b> | <b>147.7</b> | <b>137.1</b> | <b>127.1</b> | <b>102.5</b> |
| Metallic silver                              | t         | 1 185.0      | 1 146.8      | (3.2)       | 344.8        | 349.9        | 245.0        | 207.0        |
| Payable silver in concentrate                | t         | -            | 80.6         | ×           | 13.5         | 33.2         | 33.8         | -            |
| Metallic gold                                | koz t     | 117.1        | 83.8         | (28.4)      | 21.9         | 22.7         | 18.9         | 20.3         |
| Refined lead                                 | kt        | 29.6         | 30.5         | +3.0        | 8.6          | 7.8          | 6.7          | 7.4          |

<sup>1</sup> negative values result from settlement of prior-year contracts

Total sales revenue of KGHM Polska Miedź S.A. in 2018 amounted to PLN 15 757 million and was comparable to the revenues achieved in 2017 (a decrease by 2%, in 2017: PLN 16 024 million).

Revenues from copper sales in 2018 amounted to PLN 12 342 million, or a difference of +1% compared to the level of sales revenue in the prior year (PLN 12 213 million).

Revenues from metallic silver sales in 2018 amounted to PLN 2 101 million and were lower by 14% as compared

to the level of sales revenue in 2017. Additionally, in 2018 KGHM Polska Miedź S.A. earned revenues from the sale of silver in concentrate in the amount of PLN 141 million.

The decrease in revenues from silver sales in 2018 was mainly due to the decrease in the price of this metal expressed in the Polish zloty as compared to 2017. Revenues from gold sales in 2018 amounted to PLN 381 million, and in 2017 to PLN 556 million. The difference was due to lower production of gold in 2018.

## Sales revenue of KGHM Polska Miedź S.A. (PLN million)

|  | 2017          | 2018          | Change (%)   | 4Q'18        | 3Q'18        | 2Q'18        | 1Q'18        |
|--|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Cathodes and cathode parts                 | 5 541         | 5 097         | (8.0)        | 1 725        | 1 345        | 1 191        | 836          |
| Copper wire rod and OFE rod                | 6 276         | 6 525         | +4.0         | 1 630        | 1 623        | 1 662        | 1 610        |
| Payable copper in concentrate <sup>1</sup> | 86            | 400           | ×4.7         | 73           | 99           | 228          | -            |
| Other copper products                      | 310           | 320           | +3.2         | 74           | 82           | 85           | 79           |
| <b>Total copper and copper products</b>    | <b>12 213</b> | <b>12 342</b> | <b>+1.1</b>  | <b>3 502</b> | <b>3 149</b> | <b>3 166</b> | <b>2 525</b> |
| Metallic silver                            | 2 447         | 2 101         | (14.1)       | 607          | 628          | 474          | 392          |
| Payable silver in concentrate <sup>2</sup> | -6            | 141           | ×            | 22           | 55           | 64           | -            |
| Metallic gold                              | 556           | 381           | (31.5)       | 101          | 100          | 89           | 91           |
| Refined lead                               | 273           | 262           | (4.0)        | 68           | 66           | 60           | 68           |
| Other goods and services                   | 356           | 345           | (3.1)        | 93           | 87           | 78           | 87           |
| Merchandise and materials                  | 185           | 185           | -            | 47           | 43           | 52           | 43           |
| <b>Total sales revenue</b>                 | <b>16 024</b> | <b>15 757</b> | <b>(1.7)</b> | <b>4 440</b> | <b>4 128</b> | <b>3 983</b> | <b>3 206</b> |

<sup>1</sup> value of payable copper less treatment charges (TC), Cu refining charges (RcCu) and other deductions impacting the value of Cu concentrate (apart from the Ag refining premium)

<sup>2</sup> value of payable silver less the Ag refining premium (RcAg), negative values result from settlement of prior-year contracts

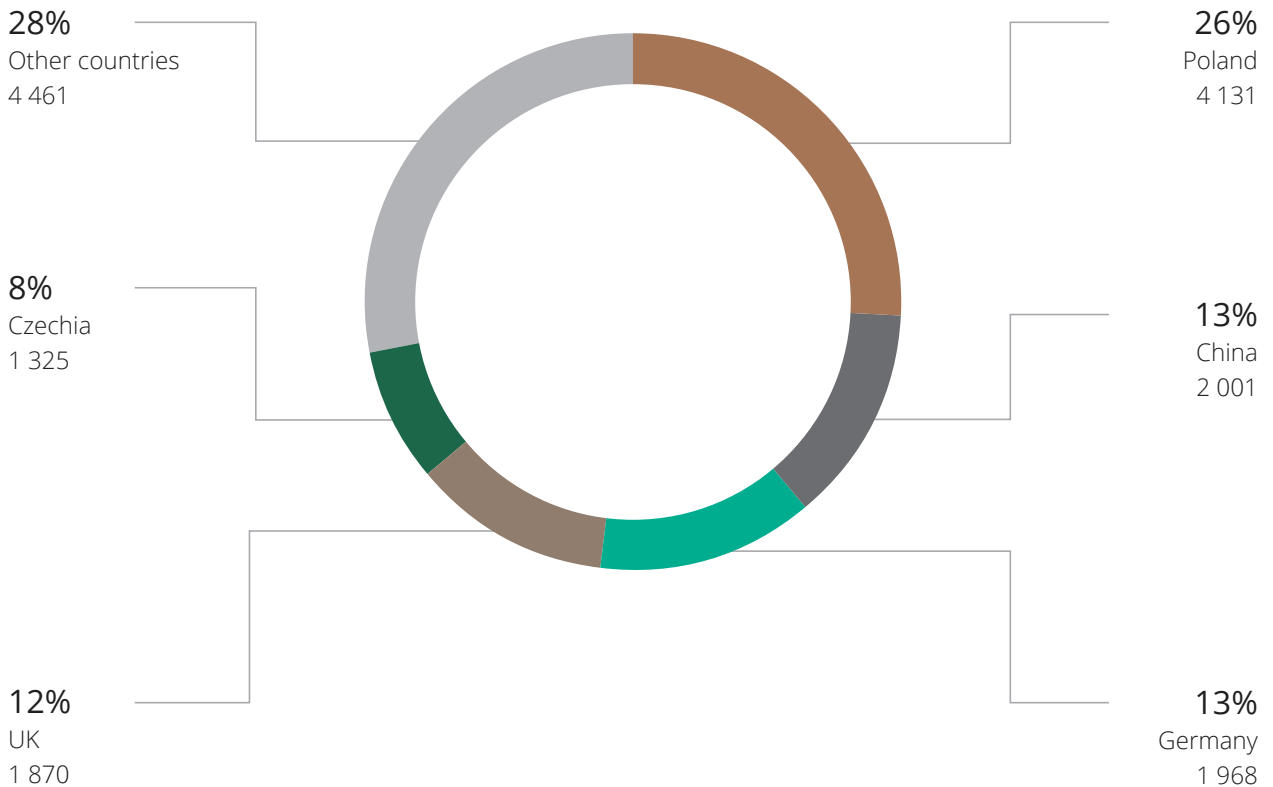


## Geographical breakdown of sales

The largest proportion, i.e. 26%, of KGHM Polska Miedź S.A.'s sales revenue in 2018 was from the Polish market. The largest remaining recipients of the products, merchandise and services offered by the Company were: China, Germany, the United Kingdom and Czechia.

The Company's revenues from sales to external customers is broken down geographically in the following table. Sales revenue includes the result from the settlement of hedging instruments.

Sales revenue of KGHM Polska Miedź S.A. by market (PLN million)



## 9.5 Costs

The Company's cost of sales, selling costs and administrative expenses (cost of products, merchandise and materials sold plus selling costs and administrative expenses) in 2018 amounted to PLN 13 460 million and was 4% higher as compared to 2017. The Company's cost of sales, selling costs and administrative expenses was substantially affected by the change in inventories of half-finished products, products and work in progress, which in 2018 amounted to -PLN 236 million (in 2017 - PLN 1 097 million) and was mainly due to the decrease in the level of half-finished products inventories. At the

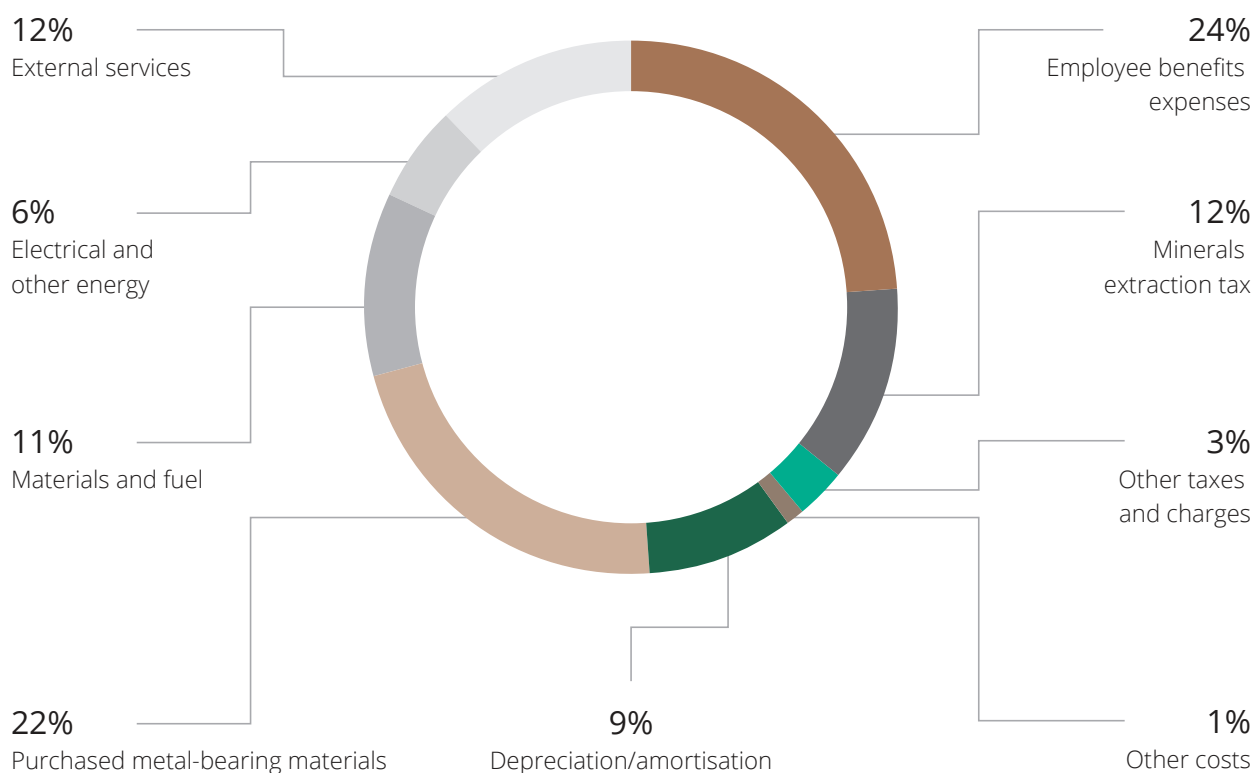
end of 2018 there was a slight increase in inventories of work in progress and finished goods.

Total expenses by nature in 2018 as compared to 2017 were lower by 2.1%, mainly due to the lower consumption of purchased metal-bearing materials (a lower amount by 27 thousand tonnes and a lower price by 1.5%) as well as a lower minerals extraction tax (lower production of own concentrate and lower silver prices).

### Expenses by nature of KGHM Polska Miedź S.A. (PLN million)

|   | 2017          | 2018          | Change (%)   | 4Q'18        | 3Q'18        | 2Q'18        | 1Q'18        |
|---|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Depreciation of property, plant and equipment and amortisation of intangible assets | 1 072         | 1 173         | +9.4         | 305          | 288          | 287          | 293          |
| Employee benefits expenses  | 3 210         | 3 324         | +3.6         | 805          | 835          | 902          | 782          |
| Materials and energy, including:  | 5 831         | 5 312         | (8.9)        | 1 471        | 1 292        | 1 144        | 1 405        |
| • purchased metal-bearing materials   | 3 750         | 3 040         | (18.9)       | 862          | 701          | 611          | 866          |
| • electrical and other energy   | 775           | 803           | +3.6         | 203          | 228          | 187          | 185          |
| External services   | 1 531         | 1 649         | +7.7         | 455          | 406          | 419          | 369          |
| Taxes and charges, including:   | 2 154         | 2 083         | (3.3)        | 471          | 494          | 575          | 543          |
| • minerals extraction tax   | 1 765         | 1 671         | (5.3)        | 374          | 397          | 466          | 434          |
| Other costs   | 126           | 92            | (27.0)       | 26           | 22           | 15           | 29           |
| <b>Total expenses by nature</b>   | <b>13 924</b> | <b>13 633</b> | <b>(2.1)</b> | <b>3 533</b> | <b>3 337</b> | <b>3 342</b> | <b>3 421</b> |

### Structure of expenses by nature in 2018

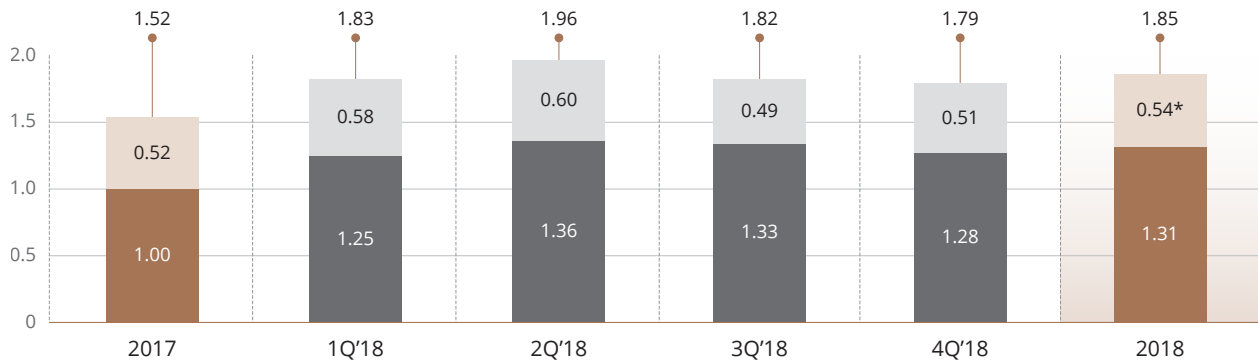


The structure of expenses by nature in 2018 is presented below. As compared to the prior year, they were at a very similar level. The Company's operating costs are decisively impacted by the costs of electrolytic copper production (prior to decrease by the value of by-products), whose share is about 91%.

Cost of producing copper in concentrate - C1 (unit cash cost of producing payable copper in concentrate,

reflecting costs of ore extraction and processing, transport costs, the minerals extraction tax, administrative costs during the mining stage, and smelter treatment and refining charges (TC/RC), less the value of by-products) was as follows: in 2017: 1.52 USD/lb and in 2018: 1.85 USD/lb. The cost was impacted by a strengthening in the PLN as compared to the USD, lower silver prices and lower production of own concentrate.

Cost of producing copper in concentrate – C1 (USD/lb)

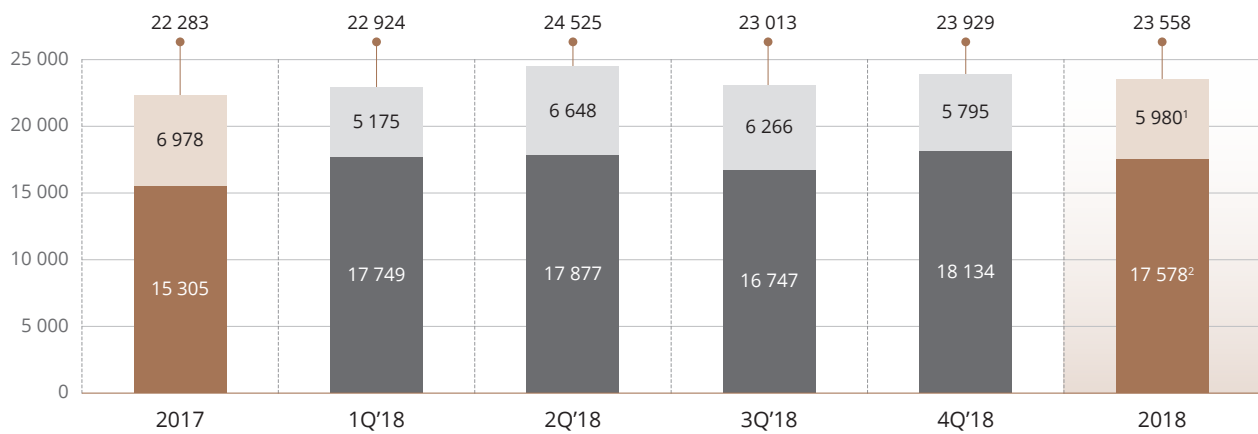


\* including tax on the extraction of certain minerals

The pre-precious metals credit unit cost of copper production from own concentrate (unit cost prior to decrease by the value of anode slimes containing among others silver and gold) was higher than that recorded in 2017 by 1 275 PLN/t (6%), alongside a lower minerals extraction tax (-56 PLN/t) and higher production from

own concentrate by 26 thousand tonnes of Cu (7.3%). The increase in the unit cost was mainly due to higher costs of materials, fuel and energy (excluding purchased metal-bearing materials), labour costs, depreciation/ amortisation and external services.

Pre-precious metals credit unit cost of electrolytic copper production – from own concentrate (PLN/t)



<sup>1</sup> value of anode slurries

<sup>2</sup> total unit cost of copper production from own charges

## 9.6 Financial results

### Statement of profit or loss

The Company recorded a profit for 2018 in the amount of PLN 2 025 million, or PLN 702 million (53%) higher than in the prior year.

Basic items of the statement of profit or loss of KGHM Polska Miedź S.A. (PLN million)

|  | 2017     | 2018     | Change (%) | 4Q'18   | 3Q'18   | 2Q'18   | 1Q'18   |
|--|----------|----------|------------|---------|---------|---------|---------|
| Sales revenue  | 16 024   | 15 757   | (1.7)      | 4 440   | 4 128   | 3 983   | 3 206   |
| • adjustment to revenues due to hedging transactions   | 16       | 125      | ×7.8       | 15      | 34      | 18      | 57      |
| Cost of sales, selling costs and administrative expenses   | (12 899) | (13 460) | +4.3       | (3 911) | (3 526) | (3 337) | (2 686) |
| • including the minerals extraction tax  | (1 488)  | (1 705)  | +14.6      | (477)   | (427)   | (447)   | (354)   |
| Profit on sales (EBIT)   | 3 125    | 2 297    | (26.5)     | 529     | 602     | 646     | 520     |
| Other operating income / (costs)   | (2 004)  | 1 149    | ×          | 490     | (49)    | 625     | 83      |
| • foreign exchange gains/ (losses) on assets and liabilities other than borrowings                 | (1 179)  | 386      | ×          | 162     | (103)   | 451     | (124)   |
| • interest on loans granted and other financial receivables  | 310      | 244      | (21.3)     | 56      | 62      | 69      | 57      |
| • dividend income  | 4        | 239      | ×59.8      | -       | -       | 239     | -       |
| • provisions recognised  | (23)     | (162)    | ×7.0       | (10)    | (3)     | (148)   | (1)     |
| • measurement and realisation of derivatives   | (213)    | (136)    | (36.2)     | (49)    | (59)    | (6)     | (22)    |
| • fees and charges on re-invoicing of costs of bank guarantees securing the payment of liabilities | 51       | 53       | +3.9       | 4       | 21      | 10      | 18      |
| • recognition/reversal of impairment losses on shares and investment certificates in subsidiaries  | (330)    | 355      | ×          | 355     | -       | -       | -       |



Operations and results in 2018

|  | 2017             | 2018             | Change (%) | 4Q'18            | 3Q'18            | 2Q'18            | 1Q'18            |
|--|------------------|------------------|------------|------------------|------------------|------------------|------------------|
| • gains/(losses) on changes in fair value of financial assets measured at fair value through profit or loss  | N/A <sup>1</sup> | (63)             | ×          | (115)            | 11               | (72)             | 113              |
| • reversal of allowances for impairment of loans measured at amortised cost                                  | N/A <sup>1</sup> | 183              | ×          | (6)              | 18               | 136              | 35               |
| • allowances for impairment of loans under IFRS 9  | N/A <sup>1</sup> | (4)              | ×          | 40               | -                | (42)             | (2)              |
| • reversal of impairment losses on assets impaired at the moment of initial recognition                      | N/A <sup>1</sup> | 85               | ×          | 85               | -                | -                | -                |
| • (recognition)/reversal of allowances for impairment of loans due to restructuring of intra-group financing | N/A <sup>1</sup> | 15               | ×          | -                | -                | -                | 15               |
| • allowances for impairment of loans under IAS 39  | (606)            | N/A <sup>1</sup> | ×          | N/A <sup>1</sup> | N/A <sup>1</sup> | N/A <sup>1</sup> | N/A <sup>1</sup> |
| • other  | (18)             | (46)             | ×2.6       | (32)             | 4                | (12)             | (6)              |
| Finance income / (costs)   | 1 033            | (774)            | ×          | (275)            | 97               | (720)            | 124              |
| • exchange differences on borrowings   | 1 247            | (592)            | ×          | (206)            | 145              | (681)            | 150              |
| • interest on borrowings   | (113)            | (127)            | +12.4      | (37)             | (32)             | (34)             | (24)             |
| • fees and commissions on bank and other loans   | (28)             | (23)             | (17.9)     | (5)              | (6)              | (6)              | (6)              |
| • measurement and realisation of derivatives   | (30)             | 11               | ×          | (17)             | 2                | 11               | 15               |
| • other  | (43)             | (43)             | -          | (10)             | (12)             | (10)             | (11)             |
| Profit / (loss) before income tax  | 2 154            | 2 672            | +24.0      | 744              | 650              | 551              | 727              |
| Income tax expense   | (831)            | (647)            | (22.1)     | (149)            | (207)            | (94)             | (197)            |
| PROFIT / (LOSS) FOR THE PERIOD   | 1 323            | 2 025            | +53.1      | 595              | 443              | 457              | 530              |
| Depreciation/amortisation recognised in profit or loss   | 1 035            | 1 119            | +8.1       | 299              | 286              | 283              | 251              |
| EBITDA <sup>2</sup> (EBIT + depreciation/amortisation)   | 4 160            | 3 416            | (17.9)     | 828              | 888              | 929              | 771              |
| Adjusted EBITDA <sup>3</sup>   | 4 160            | 3 416            | (17.9)     | 828              | 888              | 929              | 771              |

<sup>1</sup> „N/A“ – not applicable – items which were not measured in accordance with principles arising from the application, from 1 January 2018, of IFRS 9.

<sup>2</sup> EBITDA = EBIT + depreciation/amortisation (recognised in profit or loss)

<sup>3</sup> Adjusted EBITDA = EBIT + depreciation/amortisation (recognised in profit or loss) + impairment loss (-reversal of impairment losses) on non-current assets, recognised in cost of sales, selling costs and administrative expenses

## Main reasons for the change in profit/(loss) of KGHM Polska Miedź S.A.

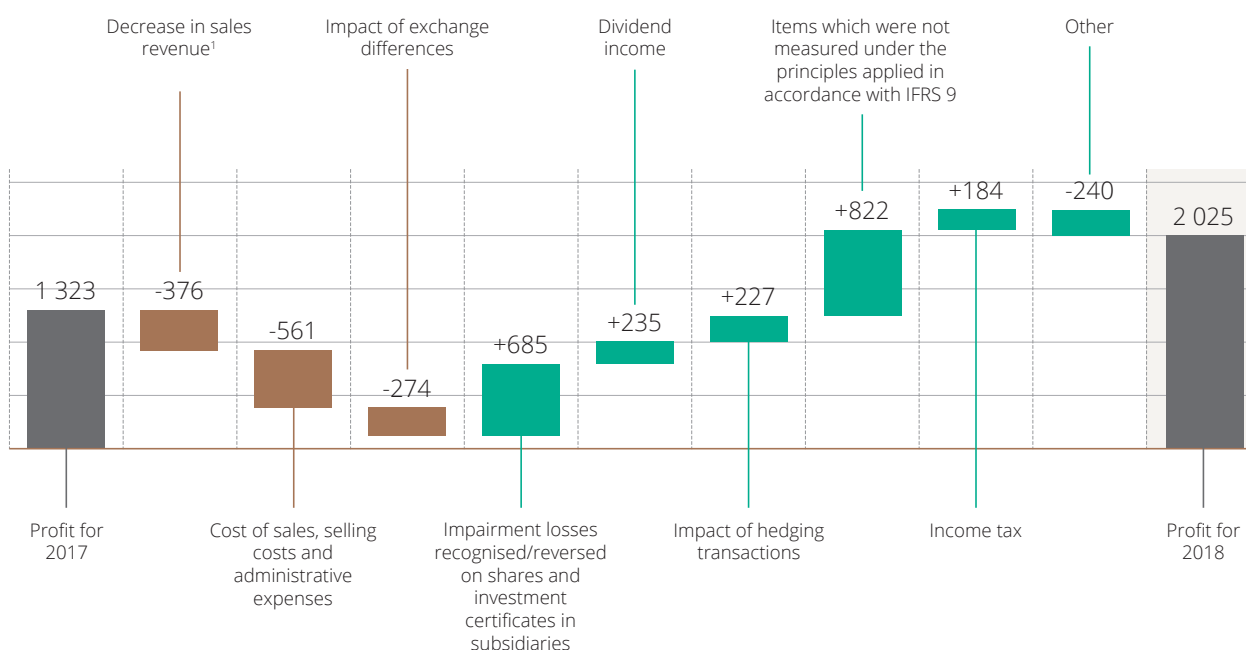
Below are the main values that have an impact on changing the result of the comparison between 2017 and 2018:

| Item   | Impact on change in result (PLN million) | Description   |
|--|--|---|
| Decrease in sales revenue by PLN 376 million (excluding the impact of hedging transactions +PLN 109 million) | (643)                                    | A decrease in revenues from sales of basic products (Cu, Ag, Au) due to a less favourable average annual USD/PLN exchange rate (a change from 3.78 to 3.61 USD/PLN).  |
|  | (575)                                    | A decrease in revenues due to a lower volume of copper sales (-14.2 kt, -3%), silver (-38 t, -3%) and gold (-33 koz t, -28%).   |
|  | +461                                     | An increase in revenues due to the sale of copper concentrate from PLN 80 million to PLN 541 million.   |
|  | +419                                     | An increase in revenues due to higher prices of copper (+357 USD/t, +6%) and gold (+11 USD/koz t, +1%) alongside lower silver prices (-134 US\$/koz t, -8%).  |
|  | (38)                                     | A decrease in revenues due to the sale of merchandise and other goods and services, including the value of third party processing of concentrate into cathodes (-PLN 58 million) and lower sales of refined lead (-PLN 12 million).   |
| An increase in cost of sales, selling costs and administrative expenses <sup>1</sup> by PLN 561 million      | (861)                                    | A change in inventories of half-finished products, products and work in progress in 2018 (reducing costs) amounting to -PLN 236 million, compared to 2017: -PLN 1 097 million.  |
|  | +710                                     | Lower consumption of purchased metal-bearing materials by 27 thousand tonnes Cu (-18%) alongside a lower purchase price by 1.5%.  |
|  | (410)                                    | Including an increase in other expenses by nature by PLN 419 million, mainly due to a change in costs: other materials and energy (+PLN 191 million), external services (+PLN 118 million), depreciation/amortisation (+PLN 101 million), employee benefits (+PLN 114 million) and the minerals extraction tax (-PLN 94 million). |
| Impairment losses recognised/reversed on shares and investment certificates in subsidiaries                  | +685                                     | Change in the balance of impairment losses recognised/ reversed from -PLN 330 million in 2017 to PLN +355 million in 2018   |
| Impact of exchange differences (-PLN 274 million)  | +1 565                                   | A change in the result due to exchange differences from measurement of assets and liabilities other than borrowings – in other operating activities.  |
|  | (1 839)                                  | A change in the result due to exchange differences on measurement of borrowings (presented in finance costs).   |
| Dividend income  | +235                                     | An increase in dividend income from PLN 4 million to PLN 239 million.   |
| Impact of hedging transactions (+PLN 227 million)  | +109                                     | A change in adjustments to sales revenue due to the settlement of hedging transactions from PLN 16 million to PLN 125 million.  |
|  | +248                                     | A change in the result due to the measurement of derivatives from -PLN 233 million to +PLN 15 million.  |
|  | (130)                                    | A change in the result due to the realisation of derivatives from -PLN 10 million to -PLN 140 million.  |

| Item   | Impact on change in result (PLN million) | Description  |
|--|--|--|
| Provisions recognised  | (139)                                    | Provisions recognised in 2018 in the amount of PLN 162 million versus PLN 23 million in the prior year. The provisions recognised in 2018 were mainly in respect of disputed issues (PLN 103 million) mainly involving rationalisation and inventions and the property tax on mining divisions (PLN 49 million). |
| Change in the balance of income and costs due to interest on borrowings, including fees and commissions (-PLN 75 million)    | (66)                                     | A decrease in income due to interest on loans granted.   |
|  | (14)                                     | Higher interest costs on borrowings.   |
|  | +5                                       | A decrease in costs of fees and commissions on bank loans drawn.   |
| Items which were not measured under the principles applied in accordance with IFRS 9 since 1 January 2018 (+PLN 822 million) | (63)                                     | Fair value gains/(losses) on financial assets measured at fair value through profit or loss (in 2018)  |
|  | +183                                     | Reversal of allowances for impairment of loans measured at amortised cost (in 2018)  |
|  | (4)                                      | Allowances for impairment of loans under IFRS 9 (in 2018)  |
|  | +85                                      | Reversal of impairment losses on assets impaired at the moment of initial recognition  |
|  | +15                                      | (Recognition)/reversal of allowances for impairment of loans due to restructuring of intra-group financing (in 2018)   |
|  | +606                                     | Allowances for impairment of loans under IAS 39 (in 2017)  |
| Income tax reduction   | +184                                     | The lower tax results from the lower tax base.   |

<sup>1</sup> Cost of products, merchandise and materials sold plus selling costs and administrative expenses

### Change in profit for the period of KGHM Polska Miedź S.A. (PLN million)



<sup>1</sup> Excluding adjustment for hedging transactions

## Cash flows

## Statement of cash flows of KGHM Polska Miedź S.A. (PLN million)

|  | 2017           | 2018           | Change(%)    | 4Q'18        | 3Q'18        | 2Q'18        | 1Q'18        |
|--|----------------|----------------|--------------|--------------|--------------|--------------|--------------|
| Profit / (loss) before income tax  | 2 154          | 2 672          | +24.0        | 744          | 650          | 551          | 727          |
| • Depreciation/amortisation recognised in profit or loss                     | 1 035          | 1 119          | +8.1         | 299          | 286          | 283          | 251          |
| • Interest on investment activities  | (299)          | (219)          | (26.8)       | (43)         | (57)         | (65)         | (54)         |
| • Impairment losses and reversals of impairment losses on non-current assets | 940            | (623)          | ×            | (465)        | (19)         | (91)         | (48)         |
| • Other adjustments to profit / (loss) before income tax                     | 304            | 23             | (92.4)       | 275          | (111)        | 88           | (229)        |
| Exclusions of income and costs, total  | 1 980          | 300            | (84.8)       | 66           | 99           | 215          | (80)         |
| Income tax paid  | (934)          | (710)          | (24.0)       | (189)        | (189)        | (188)        | (144)        |
| Changes in working capital   | (1 120)        | 553            | ×            | 1 059        | 207          | (128)        | (585)        |
| <b>Net cash generated from operating activities</b>                          | <b>2 080</b>   | <b>2 815</b>   | <b>+35.3</b> | <b>1 680</b> | <b>767</b>   | <b>450</b>   | <b>(82)</b>  |
| Expenditures on mining and metallurgical assets                              | (1 970)        | (1 884)        | (4.4)        | (523)        | (419)        | (386)        | (556)        |
| Expenditures on other property, plant and equipment and intangible assets    | (21)           | (23)           | +9.5         | 3            | (7)          | (4)          | (15)         |
| Loans granted  | (490)          | (682)          | +39.2        | (413)        | -            | (264)        | (5)          |
| Other expenses   | (83)           | (84)           | +1.2         | (17)         | (14)         | (15)         | (38)         |
| Dividends received   | 4              | 239            | ×59.8        | -            | 138          | 101          | -            |
| Other proceeds   | 48             | 35             | (27.1)       | 7            | 3            | 19           | 6            |
| <b>Net cash used in investing activities</b>                                 | <b>(2 512)</b> | <b>(2 399)</b> | <b>(4.5)</b> | <b>(943)</b> | <b>(299)</b> | <b>(549)</b> | <b>(608)</b> |
| Proceeds from borrowings   | 2 416          | 2 257          | (6.6)        | 221          | (8)          | 932          | 1 112        |
| Repayments of borrowings   | (2 030)        | (2 073)        | +2.1         | (692)        | (235)        | (665)        | (481)        |
| Proceeds from cash pooling   | 160            | -              | ×            | -            | -            | (60)         | 60           |
| Expenses due to cash pooling   | -              | (80)           | ×            | (30)         | (10)         | (40)         | -            |
| Dividends paid   | (200)          | -              | ×            | -            | -            | -            | -            |
| Interest paid and other costs of borrowings                                  | (138)          | (152)          | +10.1        | (45)         | (41)         | (36)         | (30)         |

|   | 2017         | 2018        | Change(%)   | 4Q'18        | 3Q'18        | 2Q'18      | 1Q'18       |
|---|--------------|-------------|-------------|--------------|--------------|------------|-------------|
| <b>Net cash generated from/(used in) financing activities</b> | <b>208</b>   | <b>(48)</b> | <b>×</b>    | <b>(546)</b> | <b>(294)</b> | <b>131</b> | <b>661</b>  |
| <b>TOTAL NET CASH FLOW</b>                                    | <b>(224)</b> | <b>368</b>  | <b>×</b>    | <b>191</b>   | <b>174</b>   | <b>32</b>  | <b>(29)</b> |
| Foreign exchange gains/(losses) on cash and cash equivalents  | (24)         | 25          | ×           | 7            | 6            | 2          | 10          |
| Cash and cash equivalents at the beginning of the period      | 482          | 234         | (51.5)      | 429          | 249          | 215        | 234         |
| <b>Cash and cash equivalents at the end of the period</b>     | <b>234</b>   | <b>627</b>  | <b>×2.7</b> | <b>627</b>   | <b>429</b>   | <b>249</b> | <b>215</b>  |

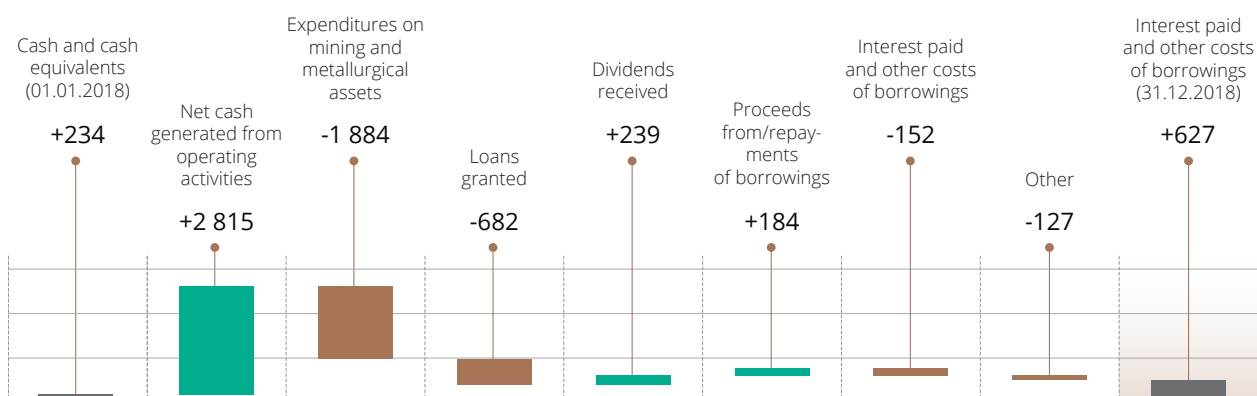
Net cash generated from operating activities in 2018 amounted to +PLN 2 815 million and mainly comprised profit before income tax in the amount of PLN 2 672 million adjusted by depreciation/amortisation in the amount of +PLN 1 119 million, less income tax paid in the amount of -PLN 710 million and the change in working capital in the amount of +PLN 553 million.

Net cash used in investing activities in 2018 amounted to -PLN 2 399 million and mainly comprised net expenditures on mining and metallurgical property, plant and equipment and intangible assets in the amount of -PLN 1 884 million and loans granted of -PLN 682 million alongside dividend income in the amount of PLN 239 million.

Net cash used in financing activities during the same period amounted to -PLN 48 million and mainly comprised proceeds from borrowings in the amount of +PLN 2 257 million as well as repayments of borrowings and the cash pooling in the amounts respectively of: -PLN 2 073 million and -PLN 80 million, along with interest paid and other costs of borrowings in the amount of -PLN 152 million.

After reflecting exchange gains/losses on cash and cash equivalents, at the end of 2018 cash and cash equivalents increased by PLN 393 million and amounted to PLN 627 million.

### Cash flows of KGHM Polska Miedź S.A. (PLN million)









## Assets, equity and liabilities

## Assets of KGHM Polska Miedź S.A. (PLN million)

|  | 31.12.2018    | 31.12.2017    | Change(%)    | 30.09.2018    | 30.06.2018    | 31.03.2018    |
|--|---------------|---------------|--------------|---------------|---------------|---------------|
| Mining and metallurgical property, plant and equipment | 16 382        | 15 355        | +6.7         | 15 674        | 15 554        | 15 373        |
| Mining and metallurgical intangible assets             | 576           | 507           | +13.6        | 557           | 550           | 532           |
| Other property, plant and equipment                    | 92            | 75            | +22.7        | 71            | 69            | 71            |
| Other intangible assets                                | 52            | 34            | +52.9        | 34            | 34            | 32            |
| Investments in subsidiaries                            | 3 510         | 3 013         | +16.5        | 3 020         | 3 013         | 3 013         |
| Financial instruments, including:                      | 7 453         | 6 031         | +23.6        | 6 742         | 6 781         | 5 901         |
| • Loans granted  | 6 262         | 4 972         | +25.9        | 5 559         | 5 580         | 4 780         |
| • Derivatives  | 319           | 109           | ×2.9         | 398           | 328           | 212           |
| • Other financial instruments measured at fair value   | 496           | 613           | (19.1)       | 419           | 508           | 534           |
| • Other financial assets                               | 376           | 337           | +11.6        | 366           | 365           | 375           |
| Deferred tax assets                                    | 9             | 31            | (71.0)       | 94            | 140           | 110           |
| Other non-financial assets                             | 24            | 25            | (4.0)        | 35            | 22            | 24            |
| <b>Non-current assets</b>                              | <b>28 098</b> | <b>25 071</b> | <b>+12.1</b> | <b>26 227</b> | <b>26 163</b> | <b>25 056</b> |
| Inventories  | 4 102         | 3 857         | +6.4         | 4 588         | 4 627         | 4 651         |
| Trade receivables                                      | 310           | 1 034         | (70.0)       | 782           | 683           | 730           |
| Tax assets   | 275           | 214           | +28.5        | 167           | 166           | 160           |
| Derivatives  | 300           | 195           | +53.8        | 243           | 158           | 263           |
| Other assets   | 538           | 342           | +57.3        | 569           | 693           | 405           |
| Cash and cash equivalents                              | 627           | 234           | ×2.7         | 429           | 249           | 215           |
| <b>Current assets</b>                                  | <b>6 152</b>  | <b>5 876</b>  | <b>+4.7</b>  | <b>6 778</b>  | <b>6 576</b>  | <b>6 424</b>  |
| <b>TOTAL ASSETS</b>                                    | <b>34 250</b> | <b>30 947</b> | <b>+10.7</b> | <b>33 005</b> | <b>32 739</b> | <b>31 480</b> |

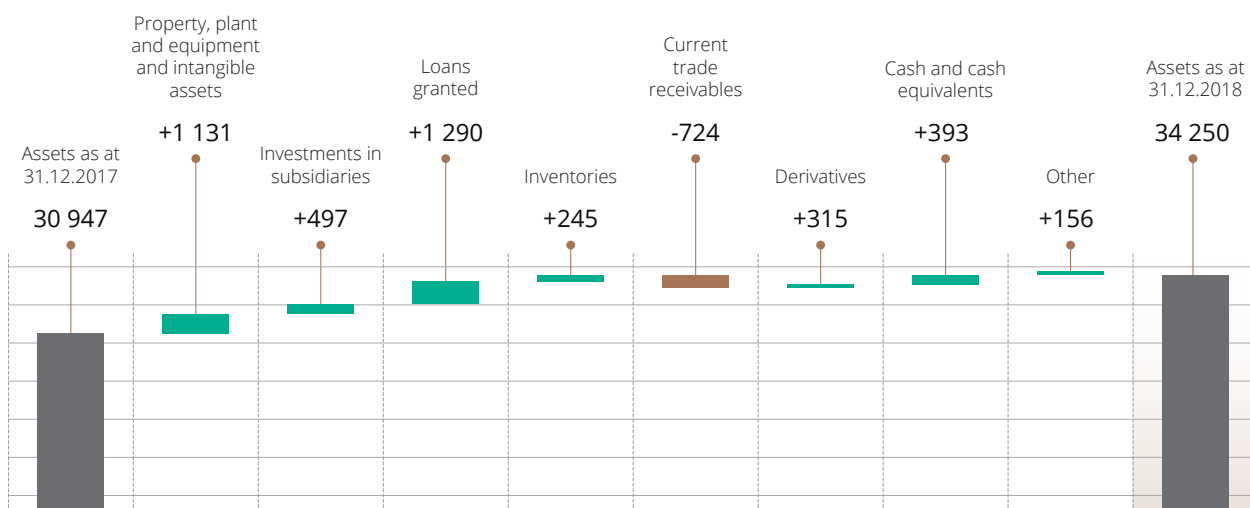
As at 31 December 2018, total assets amounted to PLN 34 250 million, or an increase as compared to the end of 2017 by PLN 3 303 million, or by 11%, mainly due to increases in the following items:

-  **non-current financial instruments** by PLN 1 422 million, including mainly loans granted (+PLN 1 290 million) and derivatives (+PLN 210 million),
-  **mining and metallurgical property, plant and equipment** by PLN 1 027 million, arising from the realisation of investments – expenditures on property, plant and equipment and intangible assets in 2018 amounted to PLN 2 132 million,

-  **cash and cash equivalents** by PLN 393 million and
-  **inventories** by PLN 245 million, including mainly half-finished products and work in progress (+PLN 144 million) and finished products (+PLN 117 million).

alongside a decrease in trade receivables by PLN 724 million, in connection with the implementation of new receivables financing programs (factoring), a decrease of copper prices in the second half of 2018 and a change in the manner of settling December spot contracts.

### Change in assets of KGHM Polska Miedź S.A. in 2018 (PLN million)




The carrying amounts of equity and liabilities as at 31 December 2018 are presented below.


### Equity and liabilities of KGHM Polska Miedź S.A. (PLN million)


|  | 31.12.2018    | 31.12.2017    | Change(%)    | 30.09.2018    | 30.06.2018    | 31.03.2018    |
|--|---------------|---------------|--------------|---------------|---------------|---------------|
| Share capital  | 2 000         | 2 000         | -            | 2 000         | 2 000         | 2 000         |
| Other reserves from measurement of financial instruments | (307)         | 142           | ×            | (419)         | (518)         | (439)         |
| Accumulated other comprehensive income                   | (593)         | (348)         | +70.4        | (499)         | (537)         | (495)         |
| Retained earnings  | 17 945        | 15 462        | +16.1        | 17 263        | 16 820        | 16 363        |
| <b>Equity</b>  | <b>19 045</b> | <b>17 256</b> | <b>+10.4</b> | <b>18 345</b> | <b>17 765</b> | <b>17 429</b> |
| • Borrowings   | 6 758         | 6 085         | +11.1        | 7 012         | 7 343         | 5 863         |
| • Derivatives  | 68            | 84            | (19.0)       | 82            | 97            | 80            |
| • Employee benefits liabilities                          | 2 235         | 1 879         | +18.9        | 2 125         | 2 139         | 2 049         |


|  | 31.12.2018    | 31.12.2017    | Change(%)     | 30.09.2018    | 30.06.2018    | 31.03.2018    |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| • Provisions for decommissioning costs of mines and other technological facilities | 980           | 797           | +23.0         | 791           | 844           | 794           |
| • Other liabilities  | 199           | 207           | (3.9)         | 202           | 196           | 211           |
| <b>Non-current liabilities</b>   | <b>10 240</b> | <b>9 052</b>  | <b>+13.1</b>  | <b>10 212</b> | <b>10 619</b> | <b>8 997</b>  |
| • Borrowings   | 1 035         | 923           | +12.1         | 1 053         | 1 112         | 1 627         |
| • Cash pooling liabilities   | <b>80</b>     | <b>160</b>    | <b>(50.0)</b> | <b>110</b>    | <b>120</b>    | <b>220</b>    |
| • Derivatives  | 13            | 74            | (82.4)        | 11            | 16            | 36            |
| • Trade payables   | 1 920         | 1 719         | +11.7         | 1 452         | 1 145         | 1 321         |
| • Employee benefits liabilities  | 611           | 649           | (5.9)         | 709           | 614           | 759           |
| • Tax liabilities  | 405           | 416           | (2.6)         | 377           | 593           | 428           |
| • Other liabilities  | 901           | 698           | +29.1         | 736           | 755           | 663           |
| <b>Current liabilities</b>   | <b>4 965</b>  | <b>4 639</b>  | <b>+7.0</b>   | <b>4 448</b>  | <b>4 355</b>  | <b>5 054</b>  |
| <b>Non-current and current liabilities</b>   | <b>15 205</b> | <b>13 691</b> | <b>+11.1</b>  | <b>14 660</b> | <b>14 974</b> | <b>14 051</b> |
| <b>TOTAL EQUITY AND LIABILITIES</b>  | <b>34 250</b> | <b>30 947</b> | <b>+10.7</b>  | <b>33 005</b> | <b>32 739</b> | <b>31 480</b> |

There was an increase in equity and liabilities, mainly due to increases in the following items:

 **equity** by PLN 1 789 million, including with respect to the profit for 2018 in the amount of PLN 2 025 million,

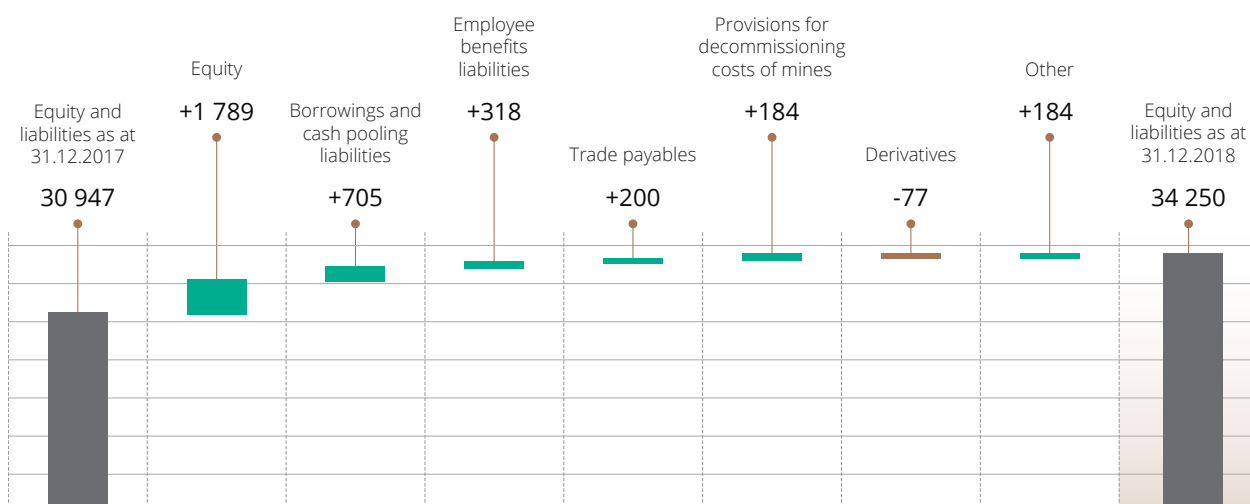
 **borrowings and cash pool liabilities** by PLN 705 million, due to exchange rate differences (+PLN 597 million), accrued interest (+PLN 277 million) and cash flows (-PLN 169 million),

 **employee benefits liabilities** by PLN 318 million and in trade payables by PLN 200 million, and

 **provisions for decommissioning costs of mines and other technological facilities** by PLN 184 million,

alongside a decrease in derivatives by PLN 77 million.

## Change in equity and liabilities of KGHM Polska Miedź S.A. in 2018 (PLN million)



## Contingent assets and liabilities

At the end of 2018, contingent assets amounted to PLN 558 million and related mainly to promissory notes receivables (PLN 225 million) and guarantees received by the Company with respect to the proper performance of agreements (PLN 168 million).

At the end of 2018, contingent liabilities amounted to PLN 3 151 million and mainly concerned guarantees and letters of credit in the total amount of PLN 2 828 million and due to promissory notes payable in the amount of PLN 176 million, including:

- a corporate guarantee securing repayment of a specified part of payment to guarantees set by Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation, securing repayment of a corporate loan drawn by the joint venture Sierra Gorda S.C.M. (PLN 677 million),
- a letter of credit granted set as security for the proper performance of a long-term contract for the off-take of electricity to the joint venture Sierra Gorda S.C.M. (PLN 517 million),
- corporate guarantees securing the repayment of short term working capital facilities drawn by the joint venture Sierra Gorda S.C.M. (PLN 496 million),
- a security for the costs of restoring the areas of the Robinson mine, Podolsky mine and the Victoria project, and obligations related to the proper performance of the agreements signed (PLN 401 million),

- a security for the proper performance of future environmental obligations of the Company to restore the area, following the conclusion of operations of the Żelazny Most tailings storage facility (PLN 160 million in the form of a bank guarantee and PLN 160 million in the form of an own promissory note),
- a security for the proper performance by DMC Mining Services (UK) Ltd. and DMC Mining Services Ltd. of a contract for sinking shafts under a project underway in the United Kingdom (PLN 188 million),
- corporate guarantees securing the proper performance of lease agreements entered into by the joint venture Sierra Gorda S.C.M. (PLN 125 million).

Other liabilities not recognised in the statement of financial position in the amount of PLN 451 million, comprised of:

- liabilities due to an operating lease in the amount of PLN 338 million,
- liabilities towards local government entities due to expansion of the tailings storage facility by KGHM Polska Miedź S.A. in the amount of PLN 113 million.

## Capital expenditures

In 2018, capital expenditures on property, plant and equipment amounted to PLN 2 127 million and were higher than in the previous year by 4%. Together with expenditures incurred on uncompleted development work, capital expenditures amounted to PLN 2 132 million.

Structure of expenditures on property, plant and equipment and intangible assets of KGHM Polska Miedź S.A. (PLN million)

|                                | 2017         | 2018         | Change (%)  | 4Q'18      | 3Q'18      | 2Q'18      | 1Q'18      |
|--------------------------------|--------------|--------------|-------------|------------|------------|------------|------------|
| Mining                         | 1 286        | 1 483        | +15.3       | 580        | 352        | 300        | 251        |
| Metallurgy                     | 735          | 573          | (22.0)      | 261        | 116        | 118        | 78         |
| Other activities               | 32           | 71           | ×2.2        | 55         | 9          | 6          | 1          |
| Development work - uncompleted | 4            | 5            | +25.0       | 4          | 1          | -          | -          |
| <b>Total</b>                   | <b>2 057</b> | <b>2 132</b> | <b>+3.6</b> | <b>900</b> | <b>478</b> | <b>424</b> | <b>330</b> |
| including borrowing cost       | 61           | 133          | ×2.2        | 33         | 33         | 42         | 25         |

Investment activities comprised projects related to the replacement of equipment and maintaining mine production, as well as development projects:

Projects related to the replacement of equipment aimed at maintaining production equipment in an undeteriorated condition, represent 36% of total expenditures incurred.

Projects related to maintaining mine production aimed at maintaining mine production on the level set in approved Production Plan (development of infrastructure

to match mine advancement) represent 26% of total expenditures incurred.

Development projects aimed at increasing production volume of the core business, implementation of technical and technological activities optimising use of existing infrastructure, maintaining production costs and adaptation of the company's operations to changes in standards, laws and regulations (conformatory projects and those related to environmental protection) represent 38% of total expenditures incurred.



## Major tasks and facilities advanced by KGHM Polska Miedź S.A. in 2018

| <b>Replacement (PLN 768 million)</b>                                  |  |
|---|--|
| Mining machinery replacement  | With respect to modernisation and replacement of mining machinery, 263 mining machines were purchased. Expenditures incurred in 2018: PLN 266 million.   |
| Infrastructure replacement - other                                    | Investments aimed at the replacement of infrastructure in the Divisions in order to maintain it in an undeteriorated condition. Expenditures incurred in 2018: PLN 502 million.  |
| <b>Mining Development (PLN 508 million)</b>                           |  |
| Deposit Access Program  | <p>Work continues under the Program on sinking of the GG-1 ventilation and material-transport shaft with a target depth of 1 350 meters with a diameter of 7.5 meters. The shaft's depth has reached 1 070 meters (as at 31 December 2018).</p> <p>In 2018, construction began on the Surface-based Central Air Conditioning System (PSK) at the GG-1 shaft. A decision was received with respect to environmental conditions to advance the PSK as well as a building permit.</p> <p>With respect to the project to build an Ice Water Transportation System (IWTS), in 2018 work continued related to advancing the construction project and on obtaining an environmental decision to advance the IWTS.</p> <p>In 2018 an agreement was signed with the Gmina (municipality) of Żukowice and procedures commenced related to amending planning documentation with respect to the planned construction of the GG-2 „Odra” shaft.</p> <p>In 2018, 45 kilometers of tunneling were excavated in the Rudna and Polkowice-Sieroszowice mines, representing nearly 80% of the total amount of access and development tunnels in KGHM.</p> <p>As at 31 December 2018, total expenditures incurred on the Deposit Access Program amounted to PLN 3 010 million, including PLN 413 million in 2018 (development expenditures alone amounted to PLN 365 million).</p> |
| Change in the L-VI shaft's function to a material-transport shaft     | <p>In 2018, the complete power supply system for the L-VI shaft region was brought online. Final work is underway on: construction of the shaft complex together with buildings and surface infrastructure; construction of the rainwater pipeline and of the sewage pipeline together with telecommunications cables between shafts L-VI and L-I. In addition, in 2018 construction commenced on the following buildings: for the shipment of explosives, the Góra Logistics Center, a waste processing building and the construction of functional chambers together with the Underground Logistics Center. Work is underway on a mine telecommunications-announcements system: SAT-DOTRA.</p> <p>As at 31 December 2018, expenditures were incurred in the amount of PLN 235 million, including PLN 120 million in 2018.</p>  |
| Modernisation of classification systems in the Concentrators Division | <p>Polkowice Concentrator: work was completed on two more hydrocyclone batteries. A contractor was selected for the construction of the last 9 classification units.</p> <p>Lubin Concentrator: work was completed on 8 classification units and they were brought online.</p> <p>Rudna Concentrator: work was completed on 4 classification units.</p> <p>As at 31 December 2018, expenditures were incurred in the amount of PLN 126 million, including PLN 30 million in 2018.</p>  |

| <b>Metallurgy Development (PLN 241 million)</b>  |   |
|--|---|
| <p>Program to adapt the technological installations of KGHM to the requirements of BAT Conclusions for the non-ferrous metals industry together with restricting arsenic emissions (BATAs)</p> | <p>The BATAs Program which began in 2018 comprises 26 new investment projects, including 20 at the Głogów Copper Smelter and Refinery and 6 at the Legnica Copper Smelter and Refinery.</p> <p>By the end of December 2018 11 projects had commenced, including 9 at the Głogów Copper Smelter and Refinery and 2 at the Legnica Copper Smelter and Refinery. In addition, 7 tenders are underway, while project assumptions are being updated for 8 projects. A decision was made to terminate 2 of the projects underway at the Głogów Copper Smelter and Refinery.</p> <p>As at 31 December 2018, expenditures were incurred in the amount of PLN 2 million.</p>   |
| <p>Metallurgy Development Program</p>  | <p>In 2018 the stage of technological trials for the steam drier was completed. Following the maintenance shutdown of the Głogów II Copper Smelter and Refinery, production is underway with the full use of the newly-built steam drier. Work is underway on the settlements and final handover stage.</p> <p>The concentrate roasting installation is undergoing start-up trials.</p> <p>In terms of conformatory projects work continues on settlements with contractors, the completion of post-construction documentation and obtaining operating permits.</p> <p>As at 31 December 2018, expenditures on the program were incurred in the amount of PLN 1 192 million, including PLN 52 million in 2018.</p>  |
| <p>Increasing cathode production at the Legnica Copper Smelter and Refinery to 160 kt of copper cathode/year (HML160)</p>  | <p>In 2018 work on the project comprised continued construction of the Revolving-Casting-Refining Furnace (RCR) at the Legnica Copper Smelter and Refinery. The following equipment was assembled: the RCR furnace, post combustion chamber, full evaporation tower, casting machinery, the installation to provide utilities, electrical installation and the APKiA ("Aparatury Kontrolno-Pomiarowej i Automatyki", or Control-Measurement and Automation Apparatus).</p> <p>As at 31 December 2018, expenditures were incurred in the amount of PLN 96 million, including PLN 83 million in 2018.</p>   |
| <p>Pyrometallurgy Modernisation Program (PMP)</p>  | <p>Production by the flash furnace of the Głogów I Copper Smelter and Refinery was stabilised in accordance with the current production plan. Settlement procedures and the final handovers of contracts and orders with respect to the Pyrometallurgy Modernisation Program are near completion.</p>   |
| <b>Other Development (PLN 43 million)</b>  |   |
| <p>KGHM 4.0 Program</p>  | <p>The KGHM 4.0 Program which began in 2018 is a venture which addresses the Industry 4.0. concept within the technical-organisational environment of KGHM Polska Miedź S.A. The KGHM 4.0 Program comprises the advancement of projects in 3 areas: INDUSTRY, ICT and SUPPORTING PROJECTS. The Program is aimed at the unified management of production and the utilisation of data in order to improve productivity and efficiency.</p> <p>In December 2018 an electric vehicle charging station open to the public was created in Lubin. This is a result of an agreement with the company Tauron, which foresees the cooperation between the companies in the area of electromobility, including the construction of vehicle charging station infrastructure for car-sharing services (so-called "auta na minuty"), and mutual pro-ecological activities.</p> <p>As at 31 December 2018, expenditures were incurred in the amount of PLN 41 million.</p> |

| <b>Exploration Development (PLN 12 million)</b> |  |
|---|--|
| Exploration projects                            | <p>Synklina Grodziecka, Konrad – Synklina Grodziecka, Konrad – hydrogeological research planned for the years 2018-2020 remains underway. In January 2019 administrative proceedings in the concession-granting body for the Synklina Grodziecka concession were concluded.</p> <p>Retków-Ścinawa – Based on the results from 3 drillholes sunk in 2017 (S-761, S-708 and S-745) it was decided to alter the scope of drilling under the concessions a result of which in December 2017 it became necessary to introduce changes in the scope of planned geological and mining work by submitting a request to the Ministry of the Environment for a change in the concession. In the third quarter of 2018 a decision was received altering the concession and work commenced on the sinking of another drillhole under stage 2 of the geological research.</p> <p>Głogów - In 2018, surface-based geophysical research was conducted under stage 2 of the geological research. At the start of December 2018 a request was submitted to the concession-granting body for a change in the concession involving extension of its life (to March 2020).</p> <p>Bytom Odrzański, Kulów-Luboszyce – On 30 November 2017 the Supreme Administrative Court dismissed the claims of KGHM against a decision of the Regional Administrative Court dated 10 July 2015. At the start of 2019 the Ministry of the Environment announced a re-opening of the proceedings regarding a re-hearing of concession applications.</p> <p>Puck region - in 2018 drilling work continued and Amendment no. 1 to the Geological Work Project, in which a proposal was made for an additional drillhole, was submitted to the concession-granting body for its approval. At a hearing on 27 February 2019, the Supreme Administrative Court dismissed the cassation appeals of a competing company which had filed a complaint against the concession granted to KGHM for the same region.</p> <p>In the years 2010-2018 expenditures were incurred on exploration projects in the amount of PLN 363 million, including PLN 12 million in 2018.</p> |

## Non-financial results in 2018

### GRI 205-3 GRI indicators of ethical behavior

#### G205-3 – Confirmed corruption cases and actions taken in response thereto in 2018

| Recorded corruption cases ended in:  | KGHM Polska Miedź S.A. Group | KGHM Polska Miedź S.A. |
|--|------------------------------|------------------------|
| disciplinary dismissal or punishment of employees  | 1                            | 0                      |
| refusal to renew contracts with business partners due to breach of corruption rules  | 0                            | 0                      |
| legal actions pertaining to corruption practices taken against the reporting organization or its employees in the reporting period | 0                            | 0                      |
| <b>Total</b>   | <b>1</b>                     | <b>0</b>               |

## GRI indicators of ethical behaviour

### Selected GRI HR indicators

#### GRI 102-8, GRI 401-1 Total number of employees

| Total number of employees (head count) | Number of employees |                        |
|--|---------------------|------------------------|
|  | KGHM Group          | KGHM Polska Miedź S.A. |
| <b>Total</b>                           | <b>34 386</b>       | <b>18 331</b>          |

## Number of new hires and employee departures

### New hires in 2018:

| Total number of employees (head count) broken down to: | Number of employees (head count) |                        | Number of new hires |                        | Percentage of new hires (head count) |                        |
|--|----------------------------------|------------------------|---------------------|------------------------|--------------------------------------|------------------------|
|  | KGHM Group                       | KGHM Polska Miedź S.A. | GK KGHM             | KGHM Polska Miedź S.A. | KGHM Group                           | KGHM Polska Miedź S.A. |
| <b>Total</b>   | <b>34,249</b>                    | <b>18,500</b>          | <b>2,723</b>        | <b>1,135</b>           | <b>7.95 %</b>                        | <b>6.14 %</b>          |

### Employee departures in 2018:

| Total number of employee departures (head count) broken down to: | Number of employees (head count) |                        | Number of employee departures (head count) |                        | Percentage of employee departures |                        |
|--|----------------------------------|------------------------|--|------------------------|-----------------------------------|------------------------|
|  | KGHM Group                       | KGHM Polska Miedź S.A. | KGHM Group                                 | KGHM Polska Miedź S.A. | KGHM Group                        | KGHM Polska Miedź S.A. |
| <b>Total</b>   | <b>34,249</b>                    | <b>18,500</b>          | <b>2,254</b>                               | <b>988</b>             | <b>6.58 %</b>                     | <b>5.34 %</b>          |

## Number of work-related accidents by gender

|  | KGHM Group |     | KGHM Polska Miedź S.A. |     |
|--|------------|-----|------------------------|-----|
|  | Women      | Men | Women                  | Men |
| Total number of work accidents (incidents)         | 115        | 558 | 2                      | 295 |
| Number of fatal accidents (incidents)              | 0          | 3   | 0                      | 2   |
| Number of severe accidents (incidents)             | 3          | 20  | 0                      | 2   |
| Number of minor accidents (incidents)              | 106        | 537 | 0                      | 293 |
| <b>Total number of people injured in accidents</b> | <b>673</b> |     | <b>291</b>             |     |

## Average number of hours of training during the year per employee

|                                  | Total number of training hours |                        |
|----------------------------------|--------------------------------|------------------------|
|                                  | TOTAL                          |                        |
|                                  | KGHM Group                     | KGHM Polska Miedź S.A. |
| Total number of training hours   | 662 066,50                     | 501 352,00             |
| Number of employees              | 34 249                         | 18 500                 |
| Average number of training hours | 19,33                          | 27.10                  |



## Selected GRI standards performance indicators reflecting activities relating to social issues

Selected GRI Standards indicators for 2018 presenting actions in the area of social issues:

List of donations from the KGHM Polska Miedź Foundation for institutions in 2018, by areas

| No.          | Areas                 | Donations                  |                    |
|--------------|-----------------------|----------------------------|--------------------|
|              |                       | Amount awarded (gross) PLN | Number of projects |
| 1.           | Health and Safety     | 3,686,410.00               | 74                 |
| 2.           | Science and education | 2,515,532.33               | 73                 |
| 3.           | Sports and recreation | 4,041,192.10               | 166                |
| 4.           | Culture and tradition | 8,263,551.65               | 150                |
| <b>Total</b> |                       | <b>18,506,686.08</b>       | <b>463</b>         |

List of donations from the KGHM Polska Miedź Foundation for individuals in 2018, by areas

| Purpose of the donation | Donations                   |             | Number of donations | Location of donations |  |  |
|-------------------------|-----------------------------|-------------|---------------------|-----------------------|--|--|
|                         | Amount awarded (gross, PLN) | %           |                     | Copper Basin          | Voivodship of Lower Silesia (without the Copper Basin) | Other voivodships (without the Copper Basin and the Voivodship of Lower Silesia) |
| Health care             | 1,480,963.67                | 99%         | 172                 | 131                   | 17   | 24   |
| Social aid              | 18,917.00                   | 1%          | 3                   | 0                     | 1  | 2  |
| <b>Total</b>            | <b>1,499,880.67</b>         | <b>100%</b> | <b>175</b>          | <b>131</b>            | <b>18</b>  | <b>26</b>  |

A detailed list of donations granted to institutions is presented at <http://www.fundacjakghm.pl/>

## GRI 302-1

## Selected GRI Standards with respect to activities involving the natural environment

Selected GRI Standards for 2018 with respect to activities involving the natural environment:

## Direct and indirect energy consumption by the organization

| 1             | Total consumption of non-renewable raw materials (own or purchased) in Joules or a multiple thereof, broken down by type of raw material | Values (MWh)      |                        |
|---------------|--|-------------------|------------------------|
|               |  | KGHM Group        | KGHM Polska Miedź S.A. |
| Non-renewable | Coal   | 1622525,91        | -                      |
|               | Natural gas  | 2276181,32        | 2156781                |
|               | Heating oil  | 6315,65           | -                      |
|               | Diesel fuel  | 2 505 506,34      | -                      |
| <b>Total</b>  | <b>Total consumption</b>   | <b>6410529,21</b> | <b>2156781</b>         |
| 2             | Total consumption of energy from renewables (own or purchased) in Joules or multiples thereof, by type of renewable                      | Values (MWh)      |                        |
|               |  | GK KGHM           | KGHM Polska Miedź S.A. |
| Renewable     | Biomass  | -                 | -                      |
|               | Biofuel  | -                 | -                      |
|               | Wind power   | -                 | -                      |
|               | Solar power  | 302,03            | -                      |
|               | Geothermal energy  | 168               | -                      |
|               | Water power  | -                 | -                      |
|               | Other (t)  | -                 | -                      |
| <b>Total</b>  | <b>Total consumption</b>   | <b>470,03</b>     | <b>-</b>               |
| 3             | Total consumption of energy produced or purchased, by electricity, heat in Joules or multiples thereof                                   | Values (MWh)      |                        |
|               |  | GK KGHM           | KGHM Polska Miedź S.A. |
|               | electricity  | 4237058,47        | 2852918                |
|               | Heat (including consumption of steam, consumption of cooling energy)   | 190336,23         | -                      |
| <b>Total</b>  | <b>Total consumption</b>   | <b>4427394,77</b> | <b>2852918</b>         |

| 4            | Total energy sales: electricity, heat, cooling and steam, in Joules or multiples thereof | Values (MWh)      |                        |
|--------------|--|-------------------|------------------------|
|              |  | GK KGHM           | KGHM Polska Miedź S.A. |
|              | Total sales of electricity   | 428394,24         | 340574                 |
|              | Total sales of heat (net)  | 1584845,74        | -                      |
|              | Total sales of cooling energy  | -                 | -                      |
|              | Total sales of steam   | -                 | -                      |
| <b>Total</b> | <b>Sales</b>   | <b>2013239,98</b> | <b>340574</b>          |
| 5            | Total energy consumption within the organization   | 8825154,03        | 4669125                |

**GRI 305-2** G305-2 – Indirect greenhouse gas emissions

| Indirect emissions, by source  | Greenhouse gas emissions (tCO <sub>2</sub> e) |                        |
|--|---|------------------------|
|  | KGHM Group                                    | KGHM Polska Miedź S.A. |
| Emissions resulting from electricity purchased for own needs             | 24680643,96                                   | 1847663                |
| Emissions resulting from heat purchased for own needs                    | 520271,10                                     | 199981                 |
| Emissions resulting from cooling energy or steam purchased for own needs | 11697,10                                      | -                      |
| <b>Total indirect emissions</b>  | <b>25212612,12</b>                            | <b>2047644</b>         |

**GRI 306-2** G306-2 - Total weight of waste by type and disposal method

| No. | Total weight of hazardous and non-hazardous waste, by treatment method | Weight of waste in 2018 [t]      |                        |                 |                        |
|-----|--|----------------------------------|------------------------|-----------------|------------------------|
|     |  | Waste other than hazardous waste |                        | Hazardous waste |                        |
|     |  | KGHM Group                       | KGHM Polska Miedź S.A. | KGHM Group      | KGHM Polska Miedź S.A. |
| 1   | Re-use of waste  | 33 379,42                        | 14 594,01              | 0               | 0                      |
| 2   | Recycling (including organic recycling, e.g. composting)               | 3 367,62                         | 1 816,73               | 1 049,40        | 15,28                  |
| 3   | Recovery (including recovery of energy)                                | 19 589 369,92                    | 19 465 505,68          | 102 066,52      | 102 039,32             |
| 4   | Incineration (or use as fuel)  | 31,39                            | 0                      | 217,67          | 0                      |
| 5   | Storage in landfills   | 30 351 832,32                    | 10 310 972,89          | 77 173,43       | 73 867,20              |
| 6   | Discharge to deep wells  | 0                                | 0                      | 0               | 0                      |
| 7   | Storage on site  | 234 949,63                       | 228 400,11             | 78 543,83       | 77 466,91              |

| No.          | Total weight of hazardous and non-hazardous waste, by treatment method | Weight of waste in 2018 [t]      |                        |                   |                        |
|--------------|--|----------------------------------|------------------------|-------------------|------------------------|
|              |  | Waste other than hazardous waste |                        | Hazardous waste   |                        |
|              |  | KGHM Group                       | KGHM Polska Miedź S.A. | KGHM Group        | KGHM Polska Miedź S.A. |
| 8            | Other  | 1 438,63                         | 211,44                 | 38 979,37         | 38 826,95              |
| <b>TOTAL</b> |  | <b>50 214 368,92</b>             | <b>30 021 500,86</b>   | <b>298 030,21</b> | <b>292 215,67</b>      |

**GRI 307-1** G307-1 – Monetary value of fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

| Information on administrative and judicial sanctions imposed on the organization for non-compliance with environmental legislation |            |                        |
|--|------------|------------------------|
| Total value of fines for non-compliance with environmental laws and regulations [PLN]  | KGHM Group | KGHM Polska Miedź S.A. |
|  | 0          | 0                      |

Amongst the evidence confirming the effectiveness of environmental initiatives and of the reduced environmental impact of the Company's activities is the fact that no non-financial sanctions were imposed within the KGHM Polska Miedź S.A. Group or in the Parent Entity.

---

# Outlook

---





## Outlook

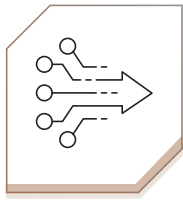
The rapid changes taking place in the mining industry related to macroeconomic, technological, social and legislative challenges represent a test for the entire extractive sector and determine the way in which mining companies set their strategic targets. The following factors have the greatest impact on the commodities sector:

- Global economy: the speed and rate of economic growth, trade conflicts, customs goals, infrastructure development (urbanisation),
- European economy: economic growth in the Eurozone, the final shape and possible impact of Brexit,
- Monetary policy: interest rates, borrowing costs, currency volatility, investment risks,
- Situation in the mining industry: degree of involvement in investment projects involving mining, the opening/closure of mines,
- Policies: energy, environment, trade (restrictions in the import of scrap),

- Growth in the significance of new mining technology: digitalisation, 4.0 industry, artificial intelligence,

- Outlook for the metals markets: demand for supply of commodities, price forecasts and assumptions, increased demand for selected metals: nickel, copper, cobalt, lithium, related to the further development of the consumer electronics segment, dynamic changes in the transportation industry (EV), but also in the impact of the growing demand for electricity and the development of renewable energy sources (RES) and the associated development of distribution networks and storage systems.

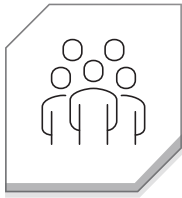
In the medium and long terms perspective, the competitive situation and results achieved will be primarily shaped by the global megatrends identified during work on the 4E Strategy in the following manner:



### 1. Technological watersheds

This megatrend is primarily composed of the following factors:

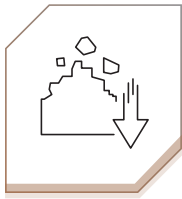
- The so-called 4.0 Industry – enhancing capacity by combining technological changes with the organisation of work in the production sector
- The universality of analysing large batches of data to support decision-making (Big Data Analysis),
- Internet of Things – IoT: connecting equipment with in-built electronics and software to the internet, enabling the acquisition of information on the functioning of this equipment and its analysis in real time,
- Digitalisation: universal utilisation of digital/technological solutions to improve corporate functioning,
- The development of Artificial Intelligence (AI).



## 2. Demographic and social changes

This megatrend is primarily composed of the following factors:

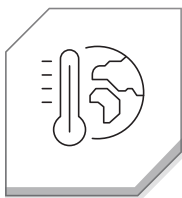
- ✂ Knowledge-based society: an increase in the importance of human capital, especially in the context of the development and utilisation of modern technology,
- ✂ Ageing society: universal extension of a person's period of professional activity,
- ✂ Generation „Z”: entrance onto the market of a new generation of employees with specific requirements and behaviors which are substantially different from those previously seen,
- ✂ „Localness” trend: cooperation with local communities, supporting the creation of a positive corporate image.



## 3. Depletion of natural resources

This megatrend is primarily composed of the following factors:

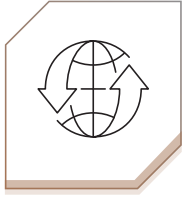
- ✂ New production methods – the application of modern methods, enabling a decrease in the consumption of natural resources, including the use of re-cycling to a much greater extent than to-date,
- ✂ Closed-circuit economy – greater use of deposits and reduction in environmental impact,
- ✂ Depletion of „easily-accessed” deposits – more difficult geological conditions resulting in higher mining costs, and consequently the need for changes in mining techniques or for searching for new deposits,
- ✂ Volatility in commodities prices: Market risk related to volatility in commodities prices.



## 4. Climate change

This megatrend is primarily composed of the following factors:

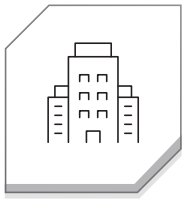
- ✂ Greater importance of renewable energy sources: larger share of RES in energy generation,
- ✂ Focus on environmentally-friendly production: Changing consumer demands, also related to attention being paid to the means of production, and not only on the quality and price of the end-product,
- ✂ Electromobility - dynamic development of electromobility to protect the natural environment,
- ✂ Tighter environmental regulations – active regulatory policy as regards environmental protection – new laws covering e.g. polluting emissions.m.in. emisji zanieczyszczeń.



## 5. Changes in global economic power

This megatrend is primarily composed of the following factors:

- ☞ Rise in the significance of the economies of China and India – the rate of growth of the economies of China and India means that they are becoming increasingly important economies on the global scale,
- ☞ Risk of restrictions to free trade: Political decisions upsetting the global business-economic balance,
- ☞ Diversification through the development of new areas of activity: Global corporations are diversifying their operations by entering new areas of activity,
- ☞ Increase in competitiveness: greater competition of economies and companies.



## 6. Rapid urbanisation

This megatrend is primarily composed of the following factors:

- ☞ The growth of cities and increased demand for raw materials - rapid growth of cities related to development of infrastructure, generating demand for raw materials,
- ☞ Intelligent buildings/cities – popularisation of new technological solutions in urban construction and infrastructure,
- ☞ Improved living standards - Higher standards of living,
- ☞ Increased share of the services sector – increase in the share of this sector in the economy.

# 10.1 Strategic development directions for the KGHM Group

As a result of the analysis and synthesis of six global megatrends, four strategic development directions were developed for the KGHM Group: Elasticity (flexibility), Efficiency, Ecology and E- industry. The following actions comprise the individual strategic directions of the 4E Strategy:

## Elasticity:

Adaptation of the operating model of the KGHM Group to a changeable market environment:

1. Rational management of the resources of the Legnica-Głogów Copper Basin.
2. Optimisation of metallurgical production.
3. Mining projects in Poland.
4. Optimisation of the international assets portfolio.

Efficiency: Improved efficiency in the use of resources and production processes

1. Programs to restrict energy consumption.
2. Replacement and availability of mining machinery
3. Innovation which optimises the production line – CuBR program.
4. Work to increase the use of factoring.

Integration of the KGHM Group around the idea of sustainable development

1. Adherence to BAT Conclusions.
2. Occupational Health and Safety Program.
3. Closed-Circuit economy.
4. Development of the Żelazny Most Tailings Storage Facility.
5. Electromobility.

Technological transformation under the KGHM 4.0 program

1. Work on advancing projects under the KGHM 4.0 Program.
2. Advancement of projects related to automatisation of production lines in the mines and metallurgical facilities.



# Contact data

---

Correspondence should be sent to the address of the Company's main head office

KGHM Polska Miedź S.A.

ul. M. Skłodowskiej-Curie 48  
59-301 Lubin  
Polska

Please submit questions concerning  
KGHM Polska Miedź S.A. to the following:

Investor Relations Department

tel.: +48 76 74 78 280  
fax: +48 76 74 78 205  
ir@kghm.com

Communication and CSR

tel.: +48 76 74 78 200  
fax.: +48 76 74 78 507  
csr@kghm.com

