

Layers of possibilities



Individual Investor Day

Lubin, 27-28 September 2022

Cautionary Statement

This presentation was prepared by KGHM Polska Miedź S.A. (KGHM). The presentation is strictly of an informational nature and should not be construed as containing investment advice. The users of this presentation are solely responsible for their own analysis and assessment of the market situation and of the potential future results of KGHM based on the information contained in this presentation. The presentation is not, and should not be construed to be, an offer to sell, or to submit an offer to purchase, any of the securities of KGHM. The presentation is also neither in whole nor in part the basis for concluding any agreement or contract whatsoever or for undertaking any liabilities whatsoever. Moreover, this presentation does not represent a recommendation to invest in the securities of KGHM.

Neither KGHM nor any of its subsidiaries shall be held liable for the results of any decisions taken based on or utilizing the information contained in this presentation or arising from its contents. The market-related information contained within this presentation was partially prepared on the basis of data arising from those third parties mentioned in this presentation. Furthermore, certain declarations contained in this presentation may be of a forward-looking nature – in particular, such declarations may be in the nature of projections, developed based on actual assumptions, reflecting known and unknown types of risk as well as a certain level of uncertainty. The actual results, achievements and events which occur in future may significantly differ from the data directly contained or understood to be contained within this presentation.

In no case whatsoever should the information contained within this presentation be considered as a clear or understood declaration, or as any type of assertion whatsoever by KGHM or persons acting in its behalf. Neither KGHM nor any of its subsidiaries are required or obligated to update this presentation or to provide its users with any additional information whatsoever. KGHM furthermore hereby notifies the users of this presentation, that the sole reliable source of data on its financial results, forecasts, events and company indicators are the current and periodic reports published by KGHM in performance of the informational obligations arising from Polish law.

Please consider the environment before printing this document. All of our investor presentations are available at the corporate website <https://kghm.com/en/investors/results-center/presentations>. The last printed results presentation of the KGHM Group was the Q4 and full year 2019 presentation.



Intellectual Property Rights

All rights reserved. All content on this presentation of the KGHM are protected by copyright and other protective laws.

The presentation and the trademarks, service marks and logos on the presentation are owned by or licensed to KGHM, and are subject to copyright, trademark and other intellectual property rights under Polish, EU and foreign laws and international conventions. KGHM content, includes, without limitation, all text, databases, photographs, images, designs, graphics, written and other materials that appear as part of the presentation. All KGHM graphics, logos, designs, headers, scripts and service names are registered trademarks or trade dress of KGHM in Poland and/or other countries. Company's trademarks and trade dress may not be used, including as part of trademarks and/or as part of domain names, in connection with any product or service in any manner that is likely to cause confusion, and may not be copied, imitated, or used, in whole or in part, without the prior written permission of KGHM.

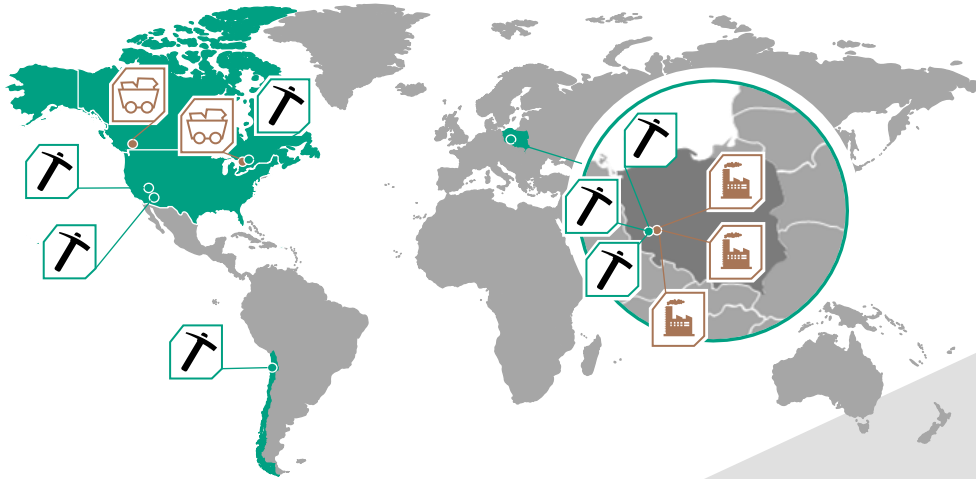
KGHM content on the presentation is provided for personal use only and may not be use used, copied, reproduced, distributed, transmitted, displayed, sold, licensed, or otherwise exploited for any other purposes whatsoever without the prior written consent of KGHM.

The users agree not to change or delete any ownership notices from materials downloaded or printed from the presentation. Provided that users are eligible to use the presentation, they are granted a limited (personal, non-transferable, non-sublicensable and revocable) license to access and use the presentation and the company content and to download or print a copy of any portion of the company content to which they have properly gained access solely for their intended purpose. This limited use does not constitute a waiver of any of KGHM's rights to the content and presentation. KGHM reserves the right to monitor use and to alter or revoke this license at any time and for any reason.

Unauthorized use of the content may constitute a breach of copyright, trademark or other intellectual property laws and may subject users to criminal or civil charges and penalties.

KGHM Group globally

Our location



Legend: Mining projects of KGHM Mines of KGHM Metallurgical facilities of KGHM

Seventh largest copper producer



Second largest silver producer



Source: Kitco 2022, World Silver Survey 2022

Other KGHM Group products:

- Molybdenum
- Lead
- Nickel
- Gold
- Palladium
- Platinum
- Rhenium
- Sulphuric acid
- Selenium
- Copper sulphate
- Nickel sulphate

Geology



Mining



Metallurgy



Exploration and evaluation

Ore extraction

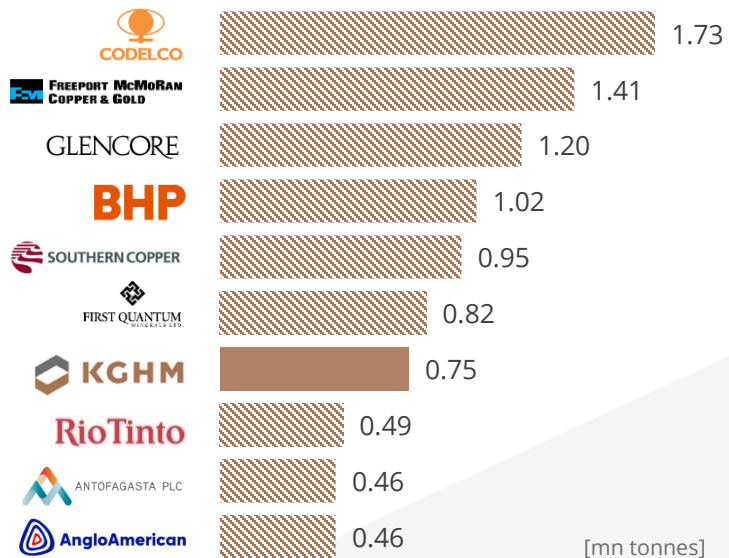
Ore enrichment

Smelting and refining

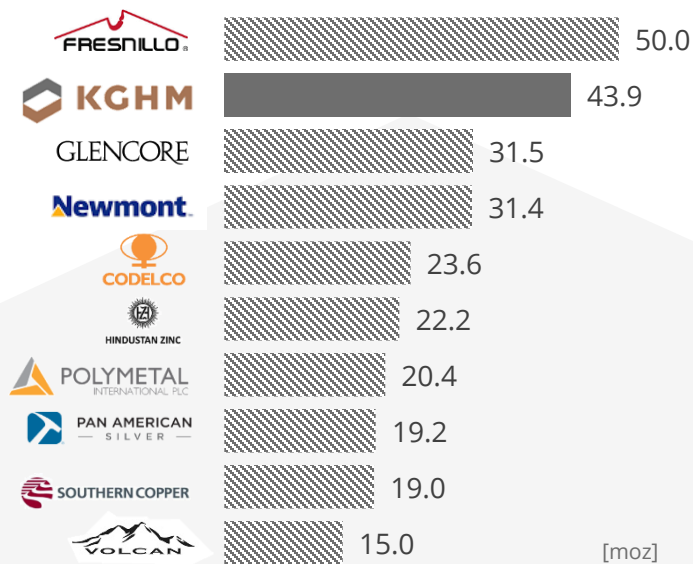
Casting

KGHM among the biggest copper and silver producers

Mined Copper production 2021¹⁾



Silver production 2021²⁾



1) KITCO, April 2022

2) World Silver Survey 2022

The KGHM Group offers a diversified portfolio of products

Main products

Copper products



Copper cathodes



Copper wire rod



Copper concentrate



Oxygen-free copper wire



Copper granules

Precious metals



Silver bars



Gold bars



Silver granules

Other



Molybdenum oxides



Molybdenum concentrate



Copper, nickel and TPM ore

In addition, rock salt, sulphuric acid, lead, rhenium and others

ESG – an additional challenge for WSE-listed companies

KGHM fully supports initiatives related to the global challenge of sustainable development and the reporting of ESG data:



Environmental: counteracting climate change, adapting to climate change, water security, biodiversity and ecosystems

Social: safety, ethics, employees, supply chain employees, suppliers, customers and other stakeholders

Governance: corporate governance, ethics, organisation and management

We are cognizant of our obligations and responsibilities associated with sustainable development. For many years we have been developing and implementing appropriate rules and regulations in the form of Codes and Policies which reflect our commitment and approach to our social and natural environment, such as:

ESG reporting in compliance with laws in force and Best Practice as set forth among others in:

The Climate Policy - 2021

The Environmental Policy - 2021 update

The Anticorruption Policy - 2021 update

The Human Rights Policy - 2022



**HUMAN RIGHTS
POLICY**
IN THE KGHM POLSKA MIĘDŹ S.A.



The Copper Mark®

The Copper Mark® was created to promote responsible copper production. The prolongation of this certification enables KGHM's products to continue being registered (copper cathodes and lead products) on the London Metal Exchange.

The Copper Smelters and Refineries in Głogów and Legnica joined the Copper Mark® program in 2020. International experts reviewed the compliance of the business processes in these divisions of KGHM with 32 criteria required for the granting of the Copper Mark®. Amongst the areas assessed were actions involving environmental protection, the supply chains for metals, working conditions, risk management practices and cooperation with local communities. This year a follow-up assessment was conducted to assess compliance with the Copper Mark® certificate.

- **Głogów Copper Smelter/Refinery** - certified 2021, follow-up assessment 2022
- **Legnica Copper Smelter/Refinery** - certified 2021, follow-up assessment 2022
- **Cedynia Wire Rod Plant** - preparations to become certified underway



RESPONSIBLY
PRODUCED
COPPER

The Copper Mark® arose to enable a better understanding of, and to deal with, the growing demands for independently verified, responsible production practices as well as to make a positive contribution to sustainable development. It is a voluntary program for companies in the copper industry which thereby have the opportunity to receive their own quality assurance certification. Companies which successfully pass the requirements may utilise the Copper Mark® in their corporate publications, in contracts and on their copper products.

The 32 topics covered by The Copper Mark® include:

- *Forced Labor*
- *Gender Equality*
- *Occupational Health and Safety*
- *Freshwater Management and Conservation*
- *Waste Management*
- *Biodiversity and Protected Areas*
- *Community Development*
- *Human Rights*
- *Indigenous Peoples' Rights*
- *Cultural Heritage*

The full Summary Reports are available at The Copper Mark® website:

<https://coppermark.org/participants-home/participants/>

Climate neutrality by 2050

Achieving climate neutrality by 2050 is the overriding goal of the Climate Policy of KGHM Polska Miedź S.A. Intermediate goal – the reduction of total Scope 1 and Scope 2 emissions by 2030 by 30%¹⁾



Main goals of decarbonisation:

- 1 Reduce indirect emissions (Scope 2):**
 - Develop internal zero-emission and low-emission sources
 - Improve energy efficiency in the production divisions and enhance the efficiency of technological processes
 - Purchase RES energy under PPA contracts
- 2 Gradually reduce direct emissions (Scope 1):**
 - Admixture of hydrogen in technological processes
 - Initial implementation of electromobility projects

Reduction goals for the entire KGHM Group will be announced at the latest in the first half of 2023

Main goals of decarbonisation:

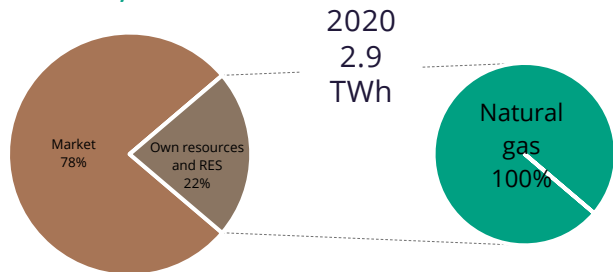
- 1 Total reduction of indirect emissions (Scope 2):**
 - Power and heat solely from zero-emission sources (mainly conversion to internal zero-emission sources)
- 2 Maximum reduction of direct emissions (Scope 1):**
 - Hydrogen technology
 - Electromobility
 - Implementation of advanced production technology
 - Utilisation of CCU and CCS technology²⁾
- 3 Potential offset of other emissions**

Details regarding capital expenditures on actions to restrict greenhouse gas emissions will be included and announced as part of the Decarbonisation Program of the KGHM Group

By 2030 the increase in share of RES will lead to a substantial reduction in CO₂ emissions

Share of power source in supplies to KGHM Polska Miedź S.A.

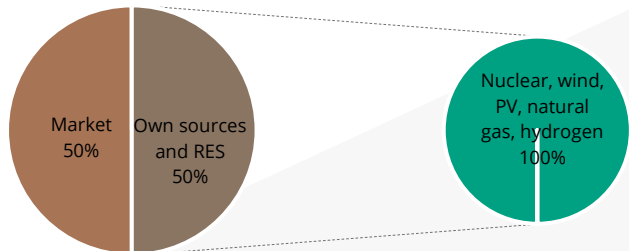
2020 – base year:



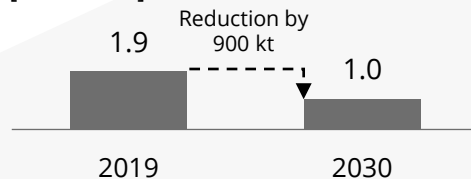
2021¹⁾:

Own generation sources covered 18.70% of KGHM's total power needs in 2021

2030 - goal:



Estimated CO₂ emissions due to electricity consumption [mn tonnes]



100% of electricity to be generated **by RES** in the **Sierra Gorda mine** from 2023

Implementation of the „Development of Energy generation, incl. RES” Program alongside changes in the national energy system structure will enable the avoidance of approx. 900 kt of CO₂ annually

Why is it worth being our shareholder?



A leading player on the copper and silver market in terms of mine output and size of documented resources, in mining-friendly jurisdictions



Experienced management committed to creating shareholder value



A wide portfolio of products with unique properties



Assets located in geopolitically stable countries open to the development of mining



A diversified portfolio of assets at various stages of development



The idea of sustainable development implemented at every stage of the value chain

Challenges facing the KGHM Group



Strategy goals

- achieving by 2030 the key success measures among the five pillars

Decarbonization Program

- energy projects
- achievement of climate goals

Facing new regulatory challenges

- including ESG

Strengthening the Company's resilience in the face of current and potential global threats

- incl. the war in Ukraine, rising cost inflation, unstable markets



25 years on the Warsaw Stock Exchange

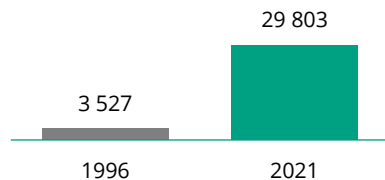
Development of KGHM over 25 years

Financial and production results

Group revenues

[mn PLN]

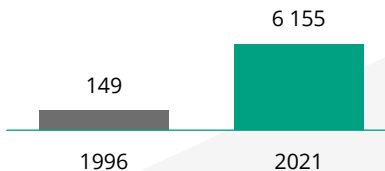
+745%



Group profit

[mn PLN]

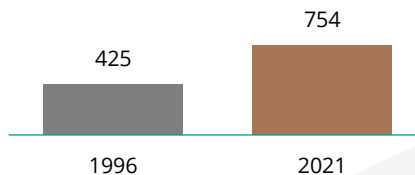
+4 031%



Copper production

[kt]

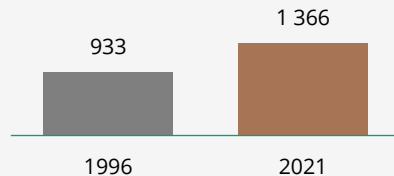
+77%



Silver production

[t]

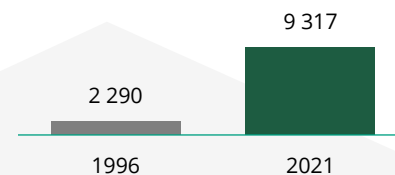
+46%



Copper prices

[USD/t]

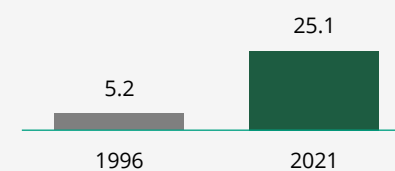
+307%



Silver prices

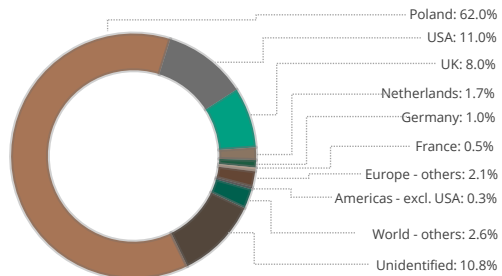
[USD/oz t]

+383%



Shareholding and analytical coverage

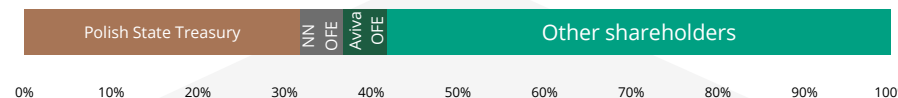
Geographical shareholding structure



Source: CMI2i, February 2022

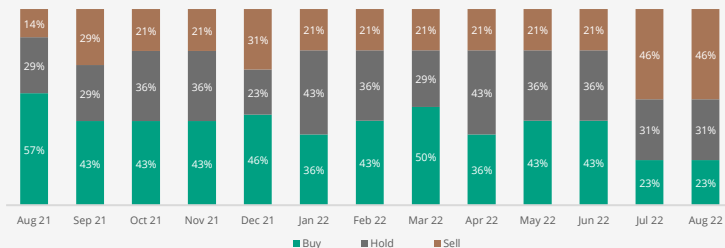
Ownership structure

Shareholder	No. of shares/ votes	Percentage of share capital	Share in total numbers of votes
Polish State Treasury	63 589 900	31.79%	31.79%
Nationale-Nederlanden OFE	10 104 354	5.05%	5.05%
Aviva OFE	10 039 684	5.02%	5.02%
Other shareholders	116 266 062	58.14%	58.14%
Total	200 000 000	100.00%	100.00%



Analytical coverage and recommendations

Trigon Dom Maklerski	DM Banku Handlowego	Morgan Stanley	UBS
Biuro Maklerskie mBanku	Biuro Maklerskie PKO BP	Bank of America Merrill Lynch	JP Morgan
Dom Maklerski BOŚ	Santander Biuro Maklerskie	Goldman Sachs	WOOD & Company
Erste Group	IPOPEMA Securities	EVA Dimensions	Global Mining Research
Biuro Maklerskie Pekao			



Data: KGHM, Bloomberg

25 years of growth in the value of the shares of KGHM Polska Miedź S.A.

Share price of KGHM Polska Miedź S.A. versus the WIG20 index and copper prices since 1997

Stock Exchange
ISIN
GPW ticker
Bloomberg
Reuters ticker

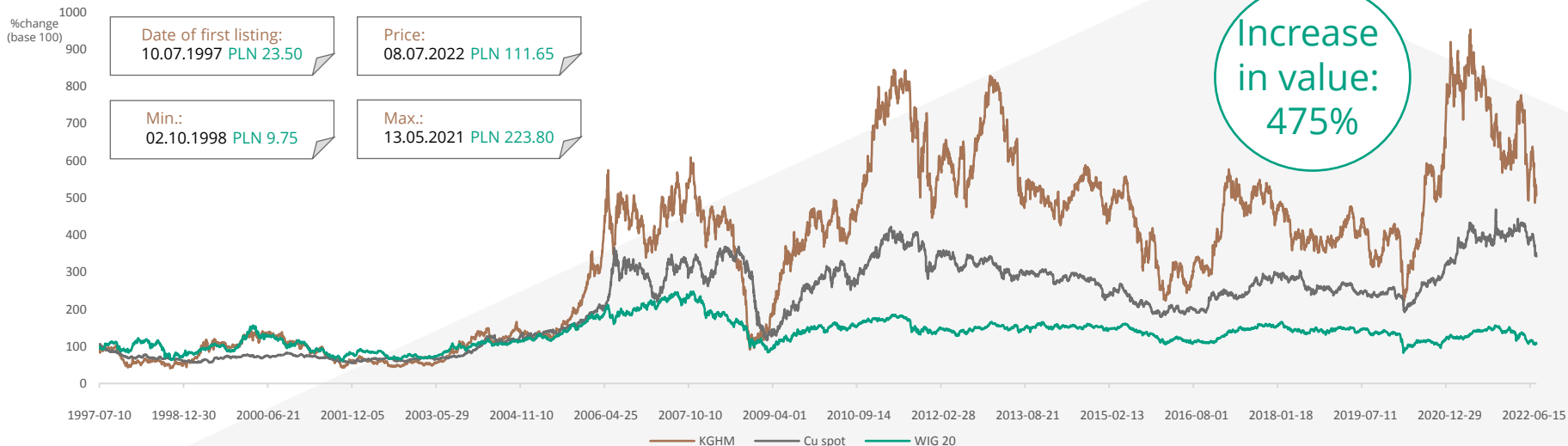
GPW - Warsaw Stock Exchange
PLKGHM000017
KGH
KGH PW
KGH.WA



Share price [PLN]
Market cap [Bn PLN]
No. of shares
Share capital [PLN]

111,65
22.33
200 000 000
2 000 000 000

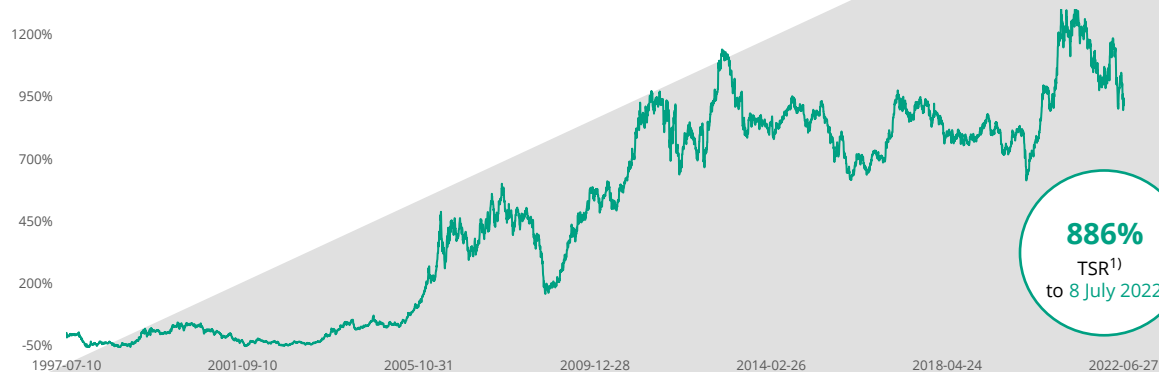
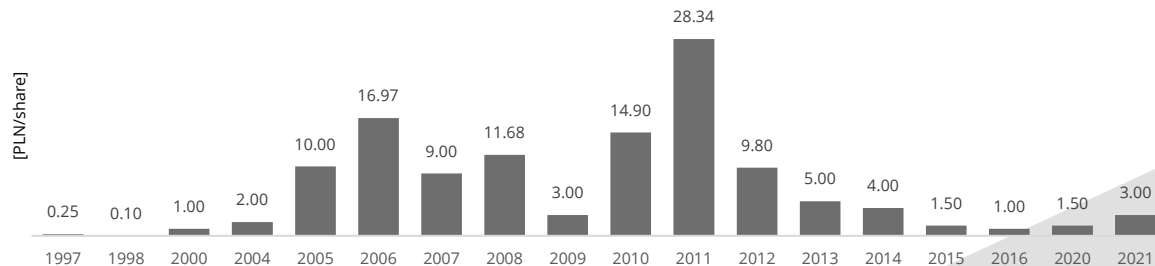
On 07/08/2022



Sharing our profits with shareholders

Dividend payouts

KGHM for years has followed a policy of sharing our earnings with shareholders at a level which is comparable to our peers in the mining sector. In future the Company intends to continue this policy in order to optimise shareholder returns.



1) TSR = Total Shareholder Return

- KGHM has distributed a total of more than **PLN 22 billion** to shareholders in the form of dividends.
- Highest dividend paid: **28.34** PLN/share (for 2011).
- Another year with a dividend payout of **3** PLN/share (for 2021).
- **18th** dividend paid out by KGHM over the 25 years of its listing on the Warsaw Stock Exchange.

KGHM is committed to the highest standards of communication with the capital market

Investor Relations in KGHM: means of communication

Investor conferences



- Participation in major sector conferences in Poland and abroad, including:
 - DM PKO BP, Investor day: mining sector
 - Erste Group Investor Conference
 - Goldman Sachs
 - Wood & Company
 - Individual Investors Association, WallStreet

Meetings with investors and analysts



- Annually around 100 one-on-one online/onsite meetings with portfolio managers and analysts during conferences and individual meetings
- 4 quarterly conferences and 4 investor chats to discuss the quarterly results
- Non-deal Roadshows

Analyst coverage



- Analyst coverage:
 - 9 Poland-based analysts
 - 8 analysts based abroad

Informational obligations



- Regulatory filings
- Financial statements
- Monthly production-sales reports
- Integrated Annual Report
- Disclosure Committee

Communication tools



- Publication of IR Newsletter, IR Release, KGHM IR LinkedIn page
- Answers to inquiries from the market – email, phone
- Participation in online meetings with investors and analysts via dedicated internet platforms
- ESG reporting: cooperation with stakeholders (incl. rating agencies, CDP, Company customers)



Investor Relations

Main areas of activity

Quarterly conferences

4 conferences per year
with investors and analysts to
discuss financial/operational
results

~100 answers per year
provided during the results
conferences

Effective communication
utilising both online
and traditional forms of
communication



Investor chats

4 quarterly investor chats to discuss the financial results

~80 responses provided during the chats

~400 people take part each year in the chats

Czaty
25 mar 2022, 09:58
Czaty Inwestorskie
Wyniki finansowe Grupy KGHM za 2021
czat z Wiceprezesem Zarządu ds. Finansów
Andrzejem Kensbokiem

KGHM Polska Miedź S.A. to światowy lider w wydobyciu i przetwórstwie cennych metali surowców naturalnych – miedzi oraz srebra. KGHM od wielu lat zajmuje wysoką pozycję w światowej czołówce największych producentów srebra.

04 22 lutego 2022 roku KGHM pozyskał nowego partnera w spółce Sierra Gorda SCM. Jest to australijska firma odwołująca się do...

Strefa Inwestorów
3 022 obserwujących
6 mies. •

Witamy!

KGHM Investor Relations
150 obserwujących
6 mies. •
We invite you to an investor chat with the Vice President of Board of KGHM Polska Miedź S.A. Andrzej Kensbok. This will be the financial results for Q1 2021 released yesterday.

Zobacz tłumaczenie



CZAT INWESTORSKI KGHM
Andrzej Kensbok, Wiceprezes Zarządu ds. Finansowych

Wyniki finansowe Grupy KGHM za I kwartał 2021 roku – czat z Wiceprezesem Zarządu ds. Finansowych, Andrzejem Kensbokiem
strefainwestorow.pl • Do przeczytania w 1 min



In the first quarter of this year we are proud of **the highest historical EBITDA in the KGHM Group**, which increased compared to Q1'21 by 20% and amounted to PLN 3 133 million. The company's revenues reached PLN 8 993 million, i.e. 33% more compared to Q1'21. **Our operating and financial results for Q1'22 show the consistency of the Strategy implementation and stable operation in turbulent times.**

Andrzej Kensbok, CFO

więcej na stronie
strefainwestorow.pl



Participation by KGHM in major capital market events

Our investor relations activities are driven by the overarching principle of open dialogue with all capital market participants. We follow this rule both in our standard activities as well as whenever there arise communication challenges posed by the market. For years we have regularly participated in events dedicated to enriching investors' knowledge which are organised by the most important capital market institutions.

Polish Chamber of Brokerages conferences

WallStreet Conference, Individual Investors Association

Investor Relations Congresses, Polish Association of Listed Companies

XXII Konferencja Izby Domów Maklerskich

„RYNEK KAPITAŁOWY WOBEC PRZEMIAN GOSPODARCZYCH XXI WIEKU I WYZWAŃ ZRÓWNOWAŻONEGO ROZWOJU”



WallStreet 26

Największe spotkanie
inwestorów indywidualnych w Polsce

27-29 maja 2022 r. Zakopane
+ 26 maja ON-LINE

KRI XIII KONGRES
RELACJI INWESTORSKICH SEG



1-2 czerwca 2022

Hotel Warszawianka
w Jachrance



Individual Investor Day

The Investor Relations Department, jointly with the Individual Investors Association, regularly organises Individual Investor Days. These events are aimed at familiarising investors with the Company, the advancement of its development strategy, the current operating and financial situation of the KGHM Group and its individual assets.

Participation by individual investors

Site visits, workshops, panel discussions

Expansion of dialogue amongst individual investors as part of KGHM's information policy

Once per year on average

The screenshot shows the KGHM website's Investor Days page. The top navigation bar includes 'About us', 'Our business', 'Investors', 'Sustainable development', 'Careers', 'Tenders', 'Media', and 'Contact'. The main content area features a sidebar with a menu for 'INVESTORS' including 'Results center', 'Shares and bonds', 'Investor handbook', 'Investment case', 'Investor calendar', 'Factsheet', 'Investor Days', 'Market information', 'Corporate governance', 'ESG', and 'Contacts'. The main text describes the Investor Days event, stating it is organized by the Investor Relations Department of KGHM Polska Miedź S.A. to familiarize investors with the company's development strategy and financial situation. It also mentions a Twitter post from KGHM Polska Miedź @kgm_sa about the event in Lubin. On the right, there is a 'Gallery' section with a 'Stowarzyszenie Inwestorów Indywidualnych' logo and a photo of investors at a site visit. Below the gallery is a Facebook post from KGHM to my, dated 13 447 polubień · 2 października o 05:19, mentioning that individual investors visited the Polkowice-Sieroszowice mine.

Analyst Day

As part of its communications with the market, the Investor Relations Department organises Analyst Days. These events provide the opportunity to talk more deeply about the company, its finances and operations, and to build closer relations with the capital market.

Participation by domestic and international analysts

Site visits, workshops, panel discussions

An opportunity for deep dives into the operations and to build working relationships with analysts

Once per year on average

Analyst Day

The Investor Relations Department of KGHM Polska Miedź S.A. regularly organizes e capital market, such as Analyst Day. This type of meeting is aimed at familiarising ana with the advancement of the Company's development strategy as well as with the act and financial situation of the KGHM Group and its assets.



PAGETOOLS

INTRODUCTION

MATERIALS

For years, KGHM Polska Miedź S.A. has been one of the world's leading producers of copper and silver. The steady development of trust amongst analysts and investors has resulted in the Company being included in the prestigious **RESPECT Index**. In pursuit of even better investor relations and to demonstrate its commitment to maintaining an open dialogue, KGHM invited people from the business community for direct contact with the company through its recent **Analyst Day**.

During his introductory remarks at the start of this year's Analyst Day, Marcin Chłudzkiński, President of the Management Board of KGHM Polska Miedź S.A., emphasised the following: *We are renewing the tradition of holding meetings with our investors. It is important for us to ensure that an open informational policy is the foundation of our operations. We want to be open and transparent and we want to ensure that. I hope that your visits to our facilities and seeing close-hand the degree of care we take to do quality work has shown you that KGHM Polska Miedź represents an enormous variety of diverse and complex processes.*

Our guests were given tours through the operations of KGHM Polska Miedź S.A. and were familiarised with its activities. Starting from the very beginning of the process, from the extraction of copper ore from the Polkowice-Sieroszowice mine, through the concentration into refined copper cathodes and the production of copper rods at our Cedyňa Wire Rod plant.



IR Newsletter

Ongoing distribution of KGHM's IR Newsletter: we continue to publish our bulletin for investors which has garnered praise from the capital market community.

4 annual issues

Provides accurate information about KGHM

A source of information about the global copper market

Facilitates analysis and assessment of the reasons and rationale for investing in the Company's shares



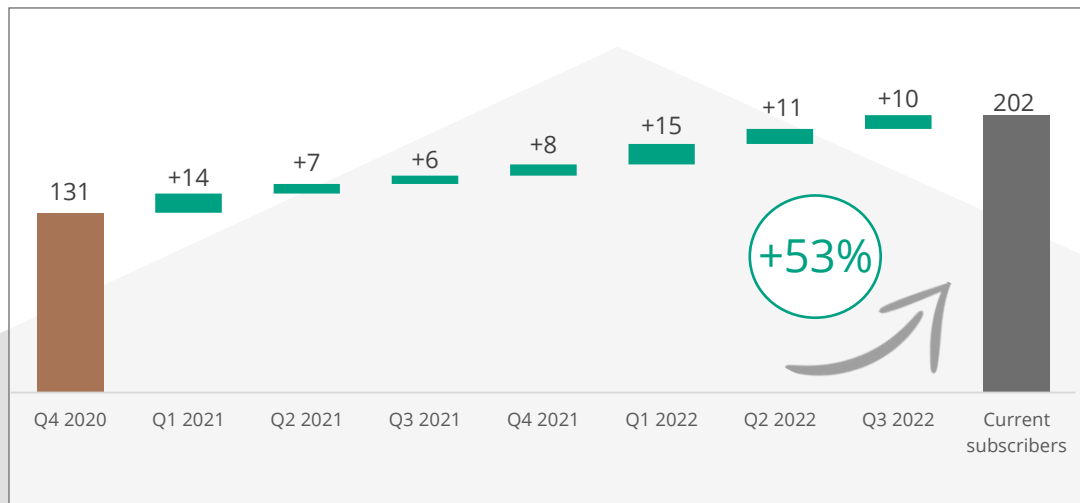
Subscribers to the IR Newsletter

The goal of the IR Newsletter is to provide accurate knowledge about KGHM and the global copper market.

The IR Newsletter continues to meet with the satisfaction of investors and persons associated with the capital market

The IR Newsletter has over **200** subscribers and that number is constantly growing

Our project was awarded and recognised as IR Best Practice during a WSE webcast, as well as by the Individual Investors Association



Production-sales reports

Monthly, published as a regulatory filing

Preliminary production and sales data

Data for the KGHM Group

Additional data included in the Results Center

Results of the KGHM Group in August 2022 - y/y:

Production and sales of the KGHM Group	August 2022	August 2021	I - VIII 2022	I - VIII 2021
Production				
Payable copper (kt)	60.3	64.6	497.9	394.4
- including KGHM Polska Miedz S.A.*	48.7	49.9	91	
Payable silver (t)	113.9	109.5		
TPM (koz t)	13.5	14.5		
Molybdenum (mn lbs)	0.2	1.0		
Sales				
Copper (kt)	58.9	56.1		
Silver (t)	99.2	105.6		109.5
TPM (koz t)	17.5	20.1		2.7
Molybdenum (mn lbs)	0.3	0.8		

* Production of electrolytic copper

Production of the KGHM Group:

- **Production of payable copper amounted to 60.3 thousand tonnes** - a decrease compared to August 2021 by 4.3 thousand tonnes (-7%) and was in respect of KGHM Polska Miedz S.A. and KGHM INTERNATIONAL LTD., with production by Sierra Gorda S.C.M. at a comparable level to that achieved in August 2021.
- **Production of payable silver amounted to 113.9 tonnes**, or by 4.4 tonnes (+4%) more than in the corresponding month of 2021.
- **Production of TPM amounted to 13.5 thousand troy ounces** and was 1.0 thousand troy ounces (-7%) below the level recorded in the prior year, mainly due to lower gold production by KGHM INTERNATIONAL LTD. (the Robinson mine).
- **Production of molybdenum amounted to 0.2 million pounds**, or a decrease by 0.8 million pounds (-80%) compared to August 2021. The substantial decrease in production was mainly due to the planned extraction from mining zones (Sierra Gorda) with a lower content of this metal compared to 2021 as well as lower molybdenum recovery.

Type of newsletter: *

- Market overview reports
- Regulatory filings
- Financial statements
- Tenders
- Stock quotes report

IR profile on LinkedIn

KGHM created an Investor Relations profile on the social media website LinkedIn.

Another tool dedicated to serving investors and analysts

A place for news which could be of interest to investors, in a very flexible form

Our priority is to ensure equal access to information for everyone in the capital markets community



KGHM Investor Relations
Investor Relations Department of KGHM Polska Miedź S.A.
Mining · Lubin, Lower Silesia · 220 followers

[Following](#) [Visit website](#)

Home **About** Posts Jobs Peo

KGHM Investor Relations
220 followers
1w · Edited · 🌐

KGHM Polska Miedź S.A., in accordance with its #Dividend Policy, announced the Management Board's recommendation regarding the appropriation of profit for 2021, in the amount of PLN 5 169 153 267.61, by:

- paying out a dividend in the amount of PLN 600 000 000.00 (PLN 3.00 per share),
- transferring the amount of PLN 4 569 153 267.61 to the Company's reserve capital.

Moreover, the Management Board of KGHM Polska Miedź S.A. proposes that the Ordinary General Meeting of KGHM Polska Miedź S.A. set the dividend date at 7 July 2022 and the dividend payment date at 14 July 2022.

The above proposal of the Management Board was positively reviewed by the Supervisory Board of the Company.

The final decision regarding the appropriation of KGHM Polska Miedź S.A.'s #profit for 2021 will be made by the Ordinary General Meeting of KGHM Polska Miedź S.A.

The full wording of the regulatory filing is available at: https://tkkd.in/4y8g_rmr

KGHM Investor Relations
220 followers
7mo · Edited · 🌐

We are proud to have disclosed our environmental data through CDP in 2021 along with over 13 000 other companies globally and several Polish #WIG20 listed companies. It is crucial now more than ever to be transparent when it comes to environmental data.

CDP DISCLOSURE 2021

We know that environmental transparency is crucial for a sustainable future

KGHM amongst the best: prizes and awards

The KGHM Investor Relations Team have been recognised for their effective process of communication with the investment community.

The KGHM Investor Relations Team strives to be pro-active in communicating with the capital market, as demonstrated by the appreciation bestowed both by the investment community as well as by major capital market institutions

Good IR is based on dialogue which makes use of effective, modern communication tools, as expected by capital market participants

Prompt reaction to important newsflow is critical, especially in crisis situations – the information coming from Investor Relations should be complete and accurate, even if the circumstances are not favourable





Results of the KGHM Group



Key financial indicators of the KGHM Group

2021

Substantially higher adjusted EBITDA for the KGHM Group compared to 2020

Higher adjusted EBITDA compared to 2020 (+PLN 3 704 mn; +56%), of which by segment:

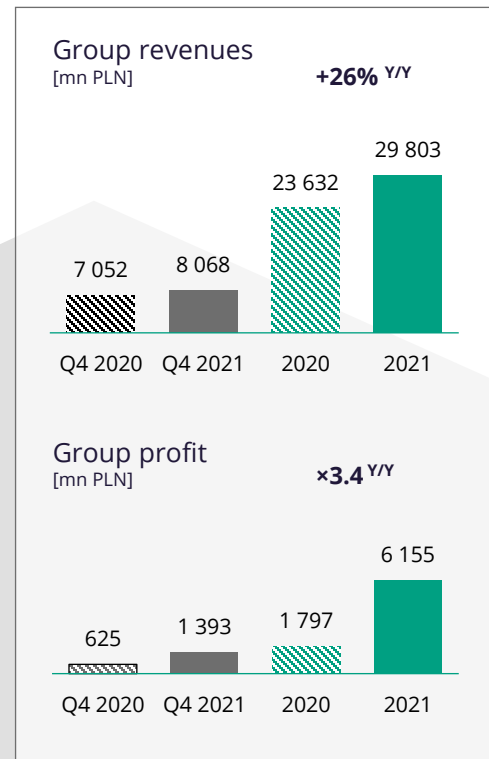
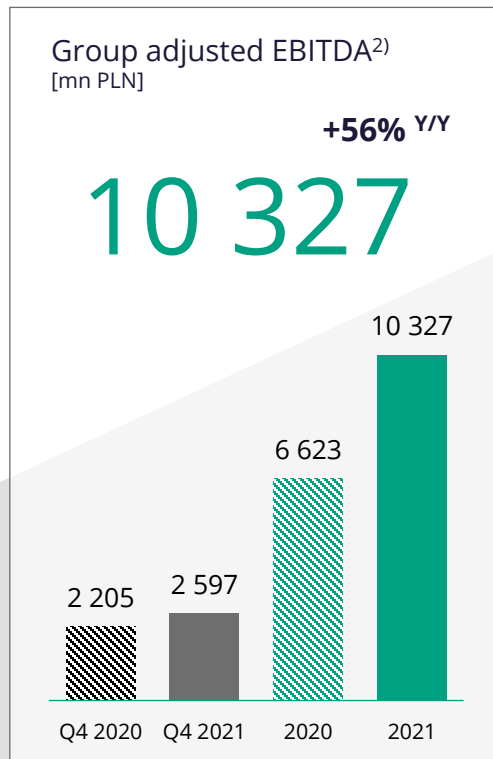
- KGHM Polska Miedź +PLN 1 016 mn – higher copper prices
- Sierra Gorda¹⁾ +1 821 mn PLN – mainly higher revenues from copper sales due to higher prices and a higher sales volume
- KGHM INTERNATIONAL +PLN 732 mn – higher copper prices

Higher Group revenues

- Impact of higher metals prices

Higher Group profit for the period

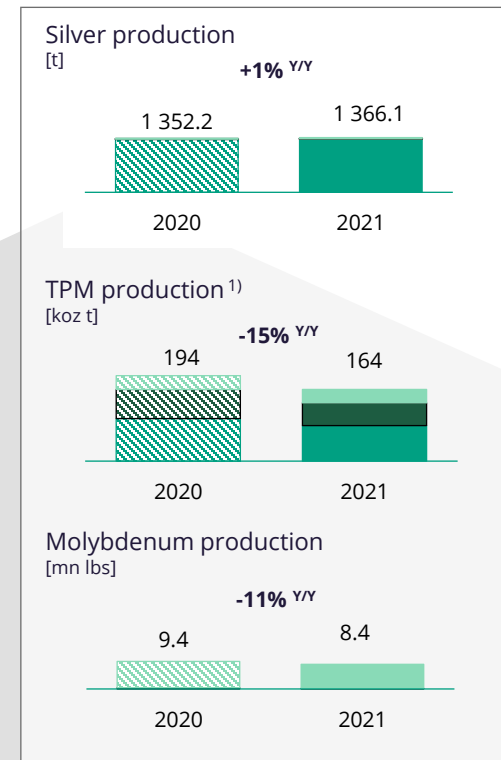
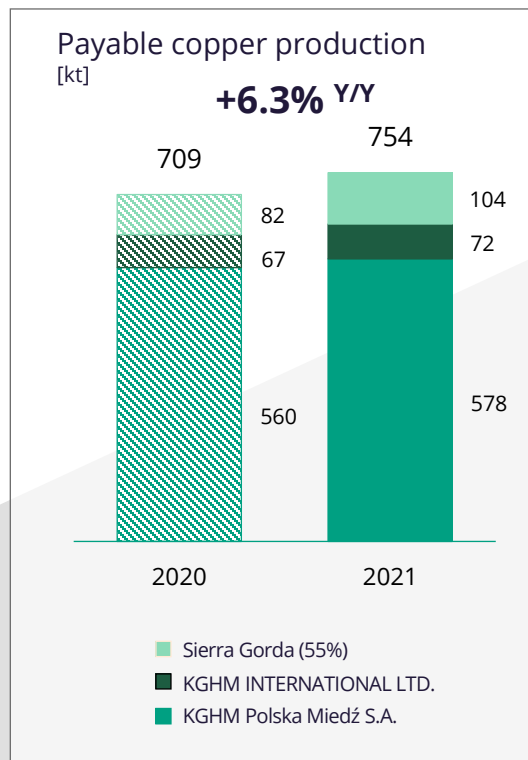
- Improvement in EBITDA and reversal of impairment on loans aided in achieving a profit higher by PLN 4 358 mn (a more than 3.4-times increase) than in 2020.



Metals production

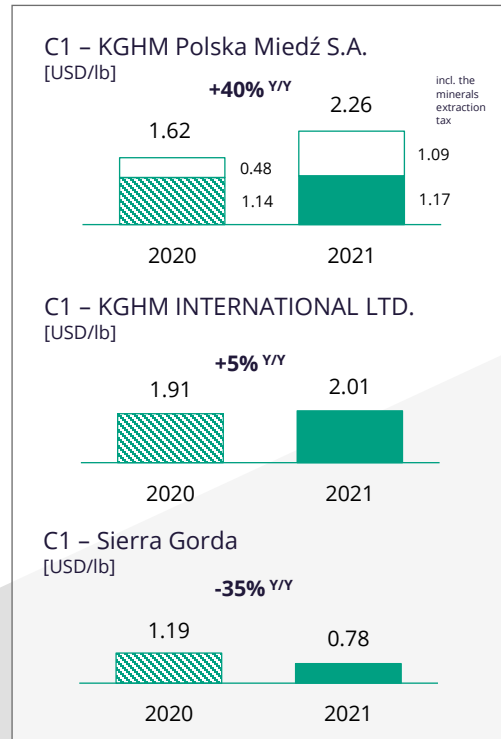
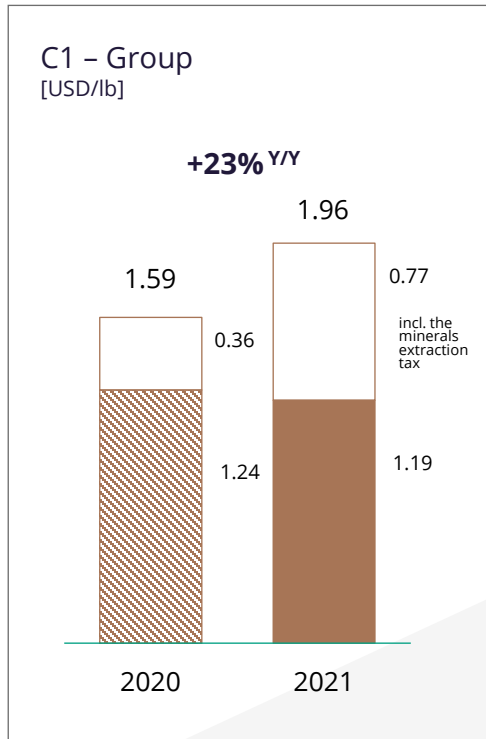
KGHM Group

- Higher payable copper production:
 - by KGHM Polska Miedź due to higher production from purchased copper-bearing materials
 - by KGHM INTERNATIONAL due mainly to higher production by the Robinson mine
 - by the Sierra Gorda mine due to higher recovery, higher copper content in ore and higher ore throughput
- Lower production of TPM by KGHM Polska Miedź, the Sudbury Basin and Sierra Gorda
- Lower molybdenum production – by Sierra Gorda and Robinson
- In the international assets, TPM was lower by 2% compared to the target for 2021.
- Lower molybdenum production – by Sierra Gorda and Robinson. Compared to the target for 2021 production was higher by 19%.



C1 unit cost¹⁾

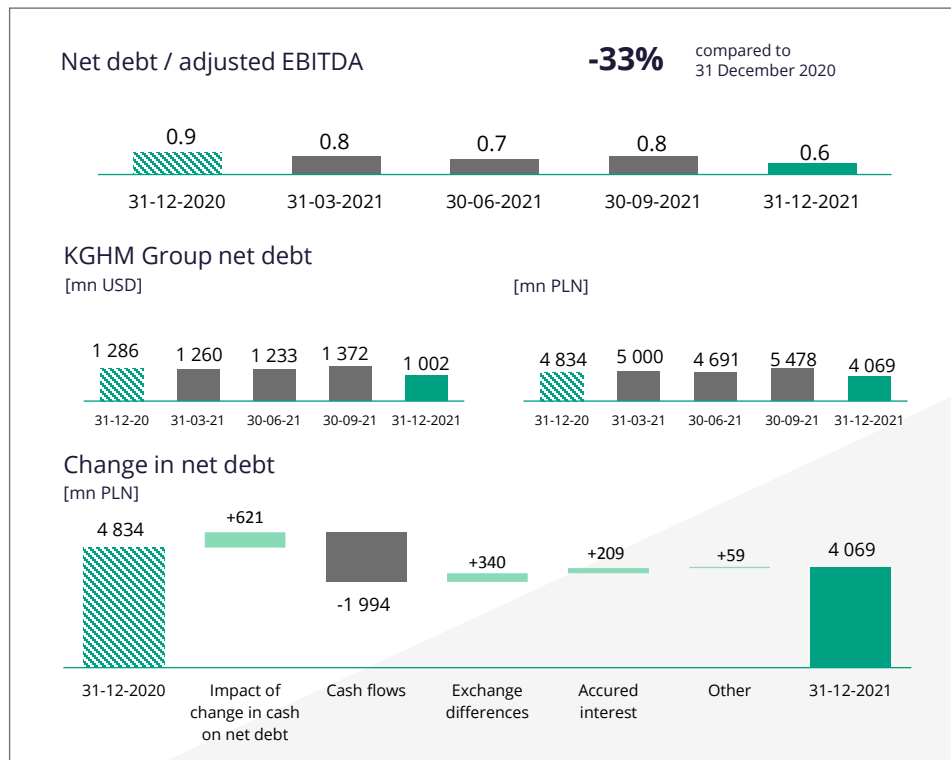
KGHM Group



- The increase in C1 cost in KGHM Polska Miedź by 40% versus 2020 was mainly due to an increase in the minerals extraction tax charge (C1 excluding this tax was higher by only 3%)
- The increase in C1 by 5% in KGHM INTERNATIONAL versus 2020 was due to a lower copper sales volume and lower revenues from sales of associated metals
- The decrease in C1 cost in Sierra Gorda by 35% compared to the prior year was due to a higher copper sales volume and higher revenues from sales of associated metals

Net debt of the KGHM Group

As at the end of Q4 2021



Main factors affecting net debt in 2021

Increases in debt

- Cash expenditures on property, plant and equipment (PLN 3 890 mn)
- The minerals extraction tax (PLN 3 548 mn)
- Change in inventories (higher by PLN 1 933 mn)
- Negative exchange differences (an increase in PLN-denominated debt by PLN 340 mn)
- Dividend paid by KGHM Polska Miedź S.A. (PLN 300 mn)
- Change in trade and other payables, incl. trade liabilities transferred to the factor (lower by PLN 128 mn)
- Change in trade and other receivables (higher by PLN 97 mn)
- Borrowing costs recognised in cash flow (PLN 94 mn)

Decreases in debt

- Positive cash flow from operating activities, excluding the change in working capital and the minerals extraction tax (PLN 9 973 mn)
- Proceeds from repaid loans (PLN 1 259 mn)
- Proceeds from disposal of shares in the company PGE EJ1 (PLN 53 mn)

Minerals extraction tax

Change in the minerals extraction tax act

1



-15%

An Act dated 12 April 2019 on changing the minerals extraction tax act **was signed into law on 1 July 2019**

The update foresaw a decrease in the tax rate by reducing the coefficients applied in the calculation of the tax on the mining of copper and silver.

2



-30%

An act on on changing corporate income tax, the act on vocational and social rehabilitation and the employment of handicapped persons as well as the minerals extraction tax act

New formula:



In the period from 1 January 2022 to 30 November 2022 the tax rate per tonne of mined copper is calculated under the following formula:

tax rate = $[0.033 \times \text{average copper price} + (0.001 \times \text{average copper price})^{2.5}] \times 0.6$



In the period from 1 January 2022 to 30 November 2022 the tax rate per tonne of mined silver is calculated under the following formula:

tax rate = $[0.125 \times \text{average silver price} + (0.001 \times \text{average silver price})^4] \times 0.6$

over **2** billion PLN

in savings thanks to the change in the minerals extraction tax formula since July 2019



KGHM's Production Assets in Poland

Concessioned areas, resource base

CONCESSIONS

DEPOSITS

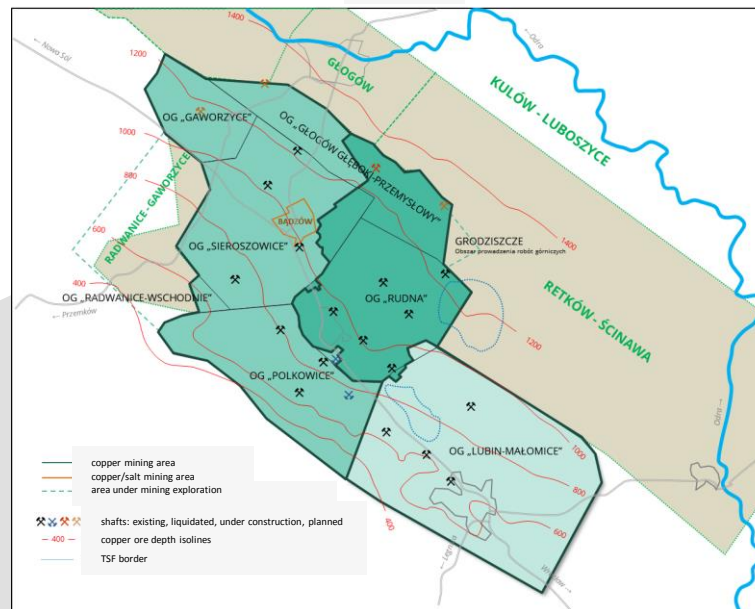
- ◆ LUBIN-MAŁOMICE
Concession no.10/2013 dated 12.09.2013 (31.12.2063)
- ◆ POLKOWICE
Concession no. 7/2013 dated 14.08.2013 (31.12.2063)
- ◆ SIERSZOWICE
Concession no. 11/2013 dated 12.09.2013 (31.12.2063)
- ◆ RADWANICE-GAWORZYCE
Concession no. 8/2013 dated 14.08.2013 (31.12.2063)
Concession no. 2/2017 dated 23.02.2017 (13.03.2065)
- ◆ RUDNA
Concession no. 9/2013 dated 14.08.2013 (31.12.2063)
- ◆ GŁOGÓW GŁĘBOKI-PRZEMYSŁOWY (i.e. Deep Głogów)
Concession no. 16/2004 dated 25.11.2004 (25.11.2054)
- ◆ BĄDZÓW
Concession no. 14/2013 dated 18.11.2013 (18.11.2063)

Since 2013 KGHM has held, directly adjacent to currently-mined areas, copper ore deposit exploration concessions for the areas „Retków-Ścinawa” and „Radwanice-Gaworzyce”.

MINING RESERVES*

As at 31 December 2021

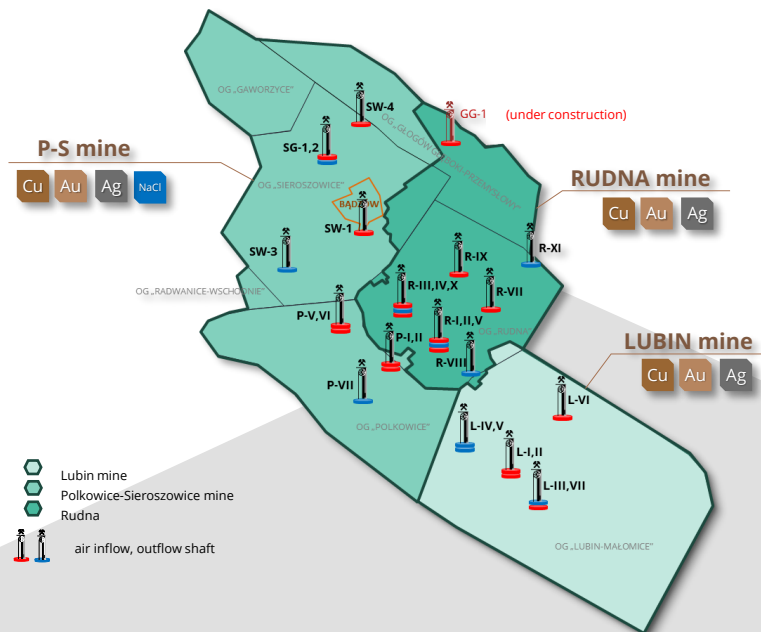
		Ore			
47 265	[Mg]	Ag	1 014 894	Cu	15 753
46,6	[g/Mg]		[kMg]		[kMg]
					1,55 [%]



Characteristics of mining plants



		2021	6M 2022
Ore extraction	mn t	31.6	16.2
Amount of Cu in ore	kt	442.6	225.6
Amount of Ag in ore	t	1 521.7	774.8
Rock salt extraction	kt	212.5	104,7



499.9

Mining area [km²]

59

Number of active mining fields

27
+ 1 under construction

Number of shafts

457

Amount of air in the ventilation shafts [k m³/min]

~ 2 000

Length of the ventilation paths [km]

1 243

Number of mining vehicles

19.2

Annual consumption of explosives [kt]

Production results of mining plants in 2021



Lubin mine

- Ore extraction: 8.4 mn t
- Amount of Cu in the ore: 71.5 kt
- Amount of Ag in the ore: 339.1 t



Polkowice-Sieroszowice mine

- Ore extraction: 11.9 mn t
- Amount of Cu in the ore: 195.4 kt
- Amount of Ag in the ore: 477.0 t



Rudna mine

- Ore extraction: 11.3 mn t
- Amount of Cu in the ore: 175.7 kt
- Amount of Ag in the ore: 705.6 t

Average employment - 2021



	Total	Underground
Lubin mine	3 179	2 934
Polkowice-Sieroszowice mine	4 782	4 461
Rudna mine	4 492	4 152
Total	12 453	11 547

Mining conditions in concessioned areas

GEOLOGICAL-MINING CONDITIONS

- ⊕ increasing depth
- ⊕ high variability in deposit lithology
- ⊕ high primary rockmass temperature and more challenging microclimate conditions
- ⊕ more challenging working conditions
- ⊕ provoking of natural hazards

OPERATIONAL GOALS – DEVELOPMENT DIRECTIONS

TECHNIQUES AND TECHNOLOGY

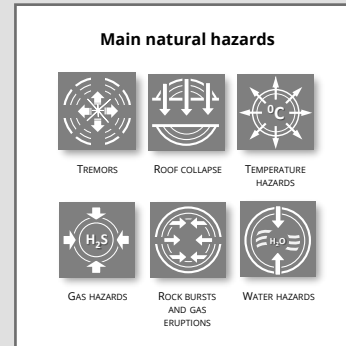
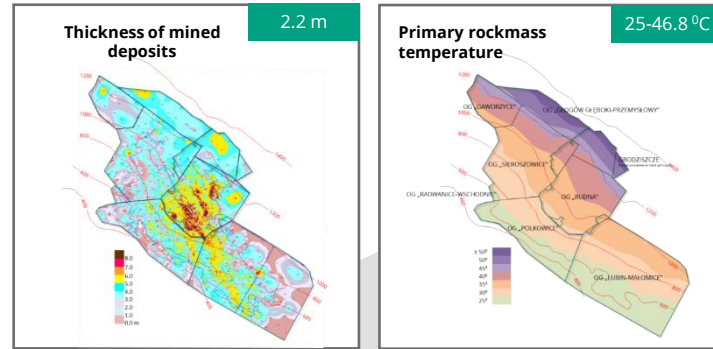
- new technologies for mining at greater depths,
- improved prevention of natural hazards,
- introduction of new generation of machines with low-emission or electrical engines.

VENTILATION AND AIR COOLING

- building of new shafts,
- expansion of ventilation network infrastructure,
- expansion of central and worksite air cooling system (air-conditioned cabins, rest chambers).

IMPROVING EXTRACTION EFFICIENCY

- automated and roboticised mining operations,
- optimal management of underground machines,
- implementation of integrated tools supporting production.

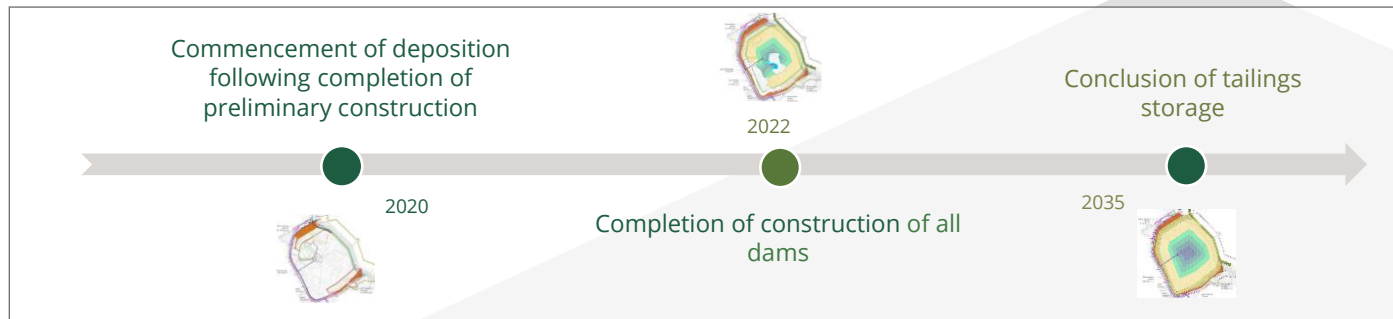


Change in tailings storage technology

Żelazny Most TSF – Construction of Southern Quarter

- Capacity of Southern Quarter: 170 mn m³
- Planned crown height of Southern Quarter: 195.00 m a.s.l.
- Area covered by Southern Quarter: 600 hectares
- Planned date when Southern Quarter, together with the main facility (Żelazny Most) reaches full capacity: 2035
- Change in tailings storage technology

The decision to change the tailings storage technology into compacted form was based on lower restoration costs, the relative ease in its introduction and greater environmental safety. The selection of this new technology will lead to a substantial decrease in the environmental impact of the Żelazny Most TSF on the environment and greater safety in the process of storing tailings.

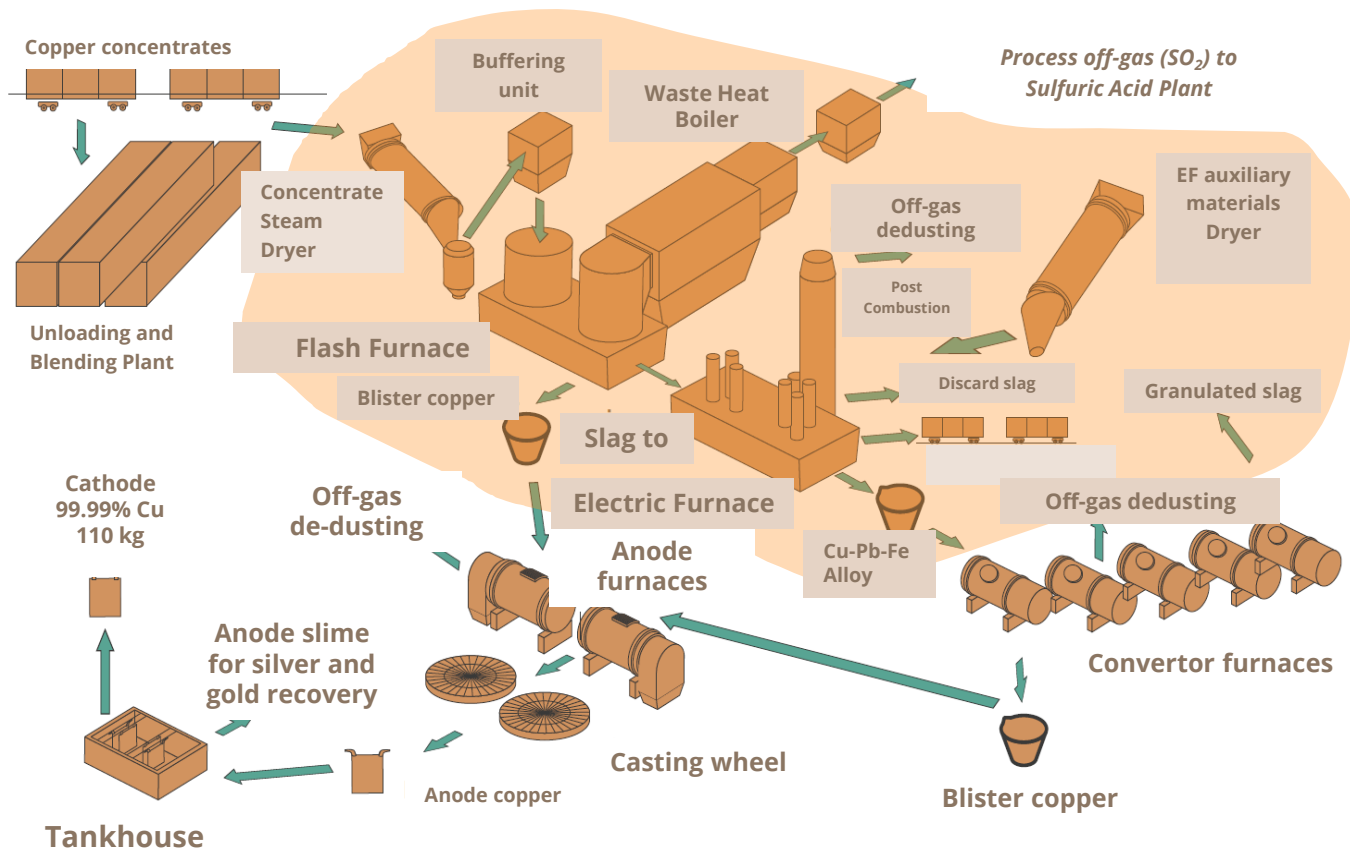


Construction of Southern Quarter

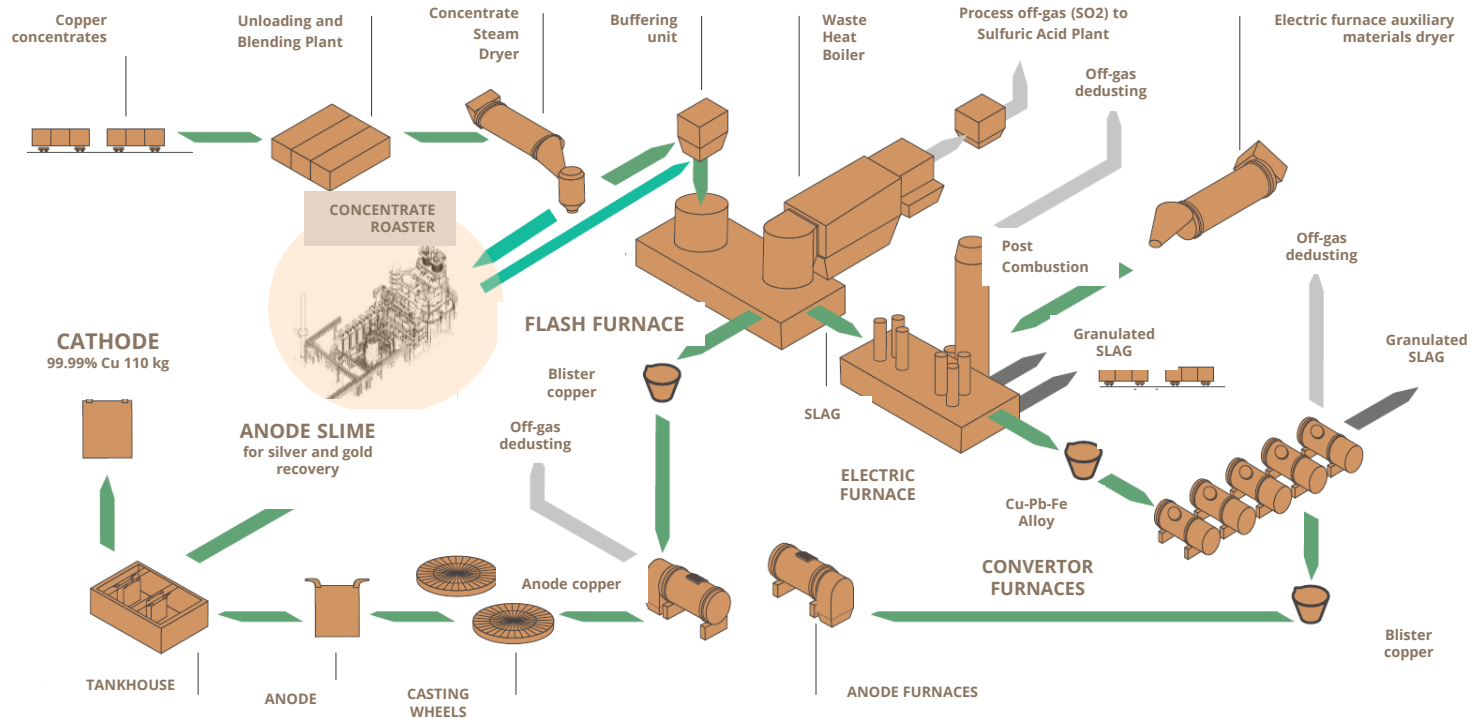
Żelazny Most TSF – Construction of Southern Quarter



Technology used by the Głogów I smelter from September 2016



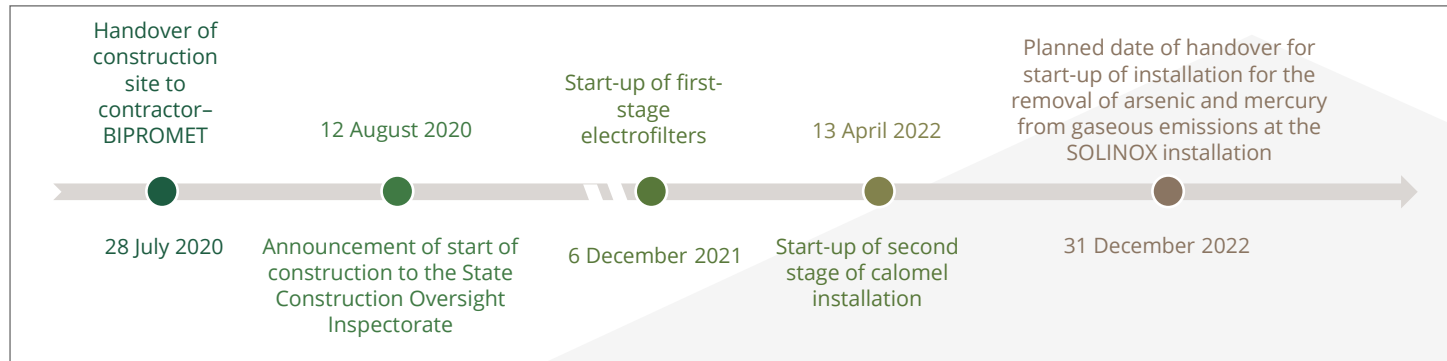
Głogów I – copper concentrate roasting installation



Start-up of installation for the removal of arsenic and mercury from gaseous emissions at the SOLINOX installation

Legnica Copper Smelter and Refinery

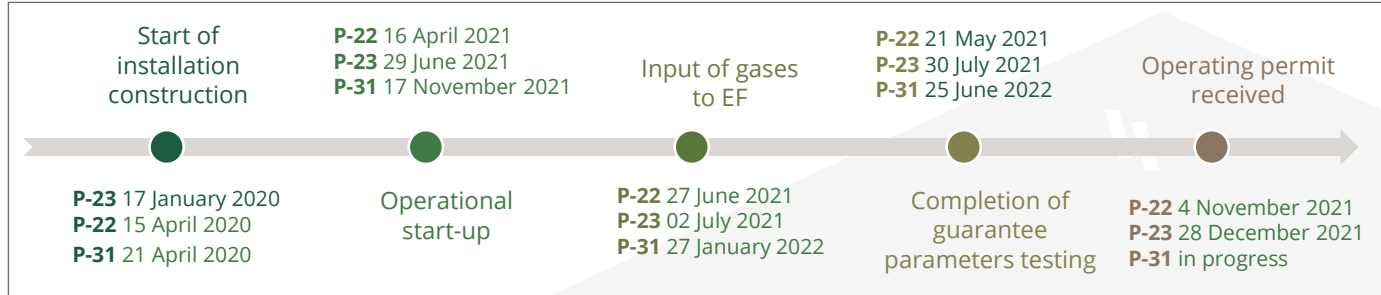
The purpose of building the installation was to adapt the emissions of arsenic and mercury to new, increasingly stringent European air emissions standards set forth in BAT (Best Available Technique) conclusions for the non-ferrous metals industry. To achieve the expected effects, innovative, dedicated solutions were designed. Two new gas treatment units were built at the SOLINOX installation. The first unit is for the removal of arsenic, and the second for mercury. Gases from the cooling tower are sent to the first-stage wet electrofilters, following which they move to the absorption tower of the installation working with the calomel technique, where mercury compounds are removed from the gases. Final dedusting and gas treatment is performed in second-stage wet electrofilters.



Start-up of wet electrofilters installation at the P-22 units of the flash furnace, electric furnace and P-23 convertors and P-31 lead

Głogów Copper Smelter and Refinery

Another investment involving BATAs conclusions was the construction in various parts of the plant of wet electrofilters, which is currently one of the best and most effective methods for treating gases. This is additional equipment, augmenting the existing gases treatment installations. It is used at the final stage of contaminants removal. Wet electrofilters are at present the best means of treating process gases. A substantial positive environmental impact may be expected from the application of this method in various parts of the plant.





KGHM Group International Production Assets

Key international assets

Existing operations and growth potential from projects

Production assets



Sierra Gorda, Chile

22 years LOM

- Open-pit mine porphyry

2021 production stats:

- Cu production (payable): 189.8 kt (100% interest)
- 104.4 kt (55% interest)



Robinson, USA

6 years LOM

- Open-pit mine
- Porphyry/skarn orebody

2021 production stats:

- Cu production (payable): 53.7 kt



Other production assets:

Sudbury, Canada – assets prepared for sale (not applicable to the Victoria project)

Carlota, USA – asset intended for sale, the sale process is currently suspended



Potential growth projects



Sierra Gorda Oxide, Chile

~ 11 years LOM

- The project aims at processing the oxide ore
- The project provides for the leaching of the oxide ore in a heap and recovery of copper using the SX-EW technology



Victoria, Canada

14 years LOM

- The projects assumes building an underground copper-nickel mine
- Current development scenario assumes accessing the deposit via 2 shafts



Ajax (80% interest), Kanada

19 years LOM

- The project assumes building an open-pit copper-gold mine and processing plant with associated infrastructure

International assets of KGHM Group



Canada (Ontario)

KGHMI Headquarters – Vaughan (Toronto)

DMC Mining Services Headquarters – Vaughan

Sudbury Basin– underground mines:

- **McCreeedy West** (Cu, Ni, TPM)
- **Morrison/Levack/Podolsky** mines placed in the Care & Maintenance condition

Victoria Project (Cu, Ni, TPM)



USA

Robinson (Cu, Au, Mo) – open-pit mine

Carlota (Cu) – open-pit mine



Canada (B.C.)

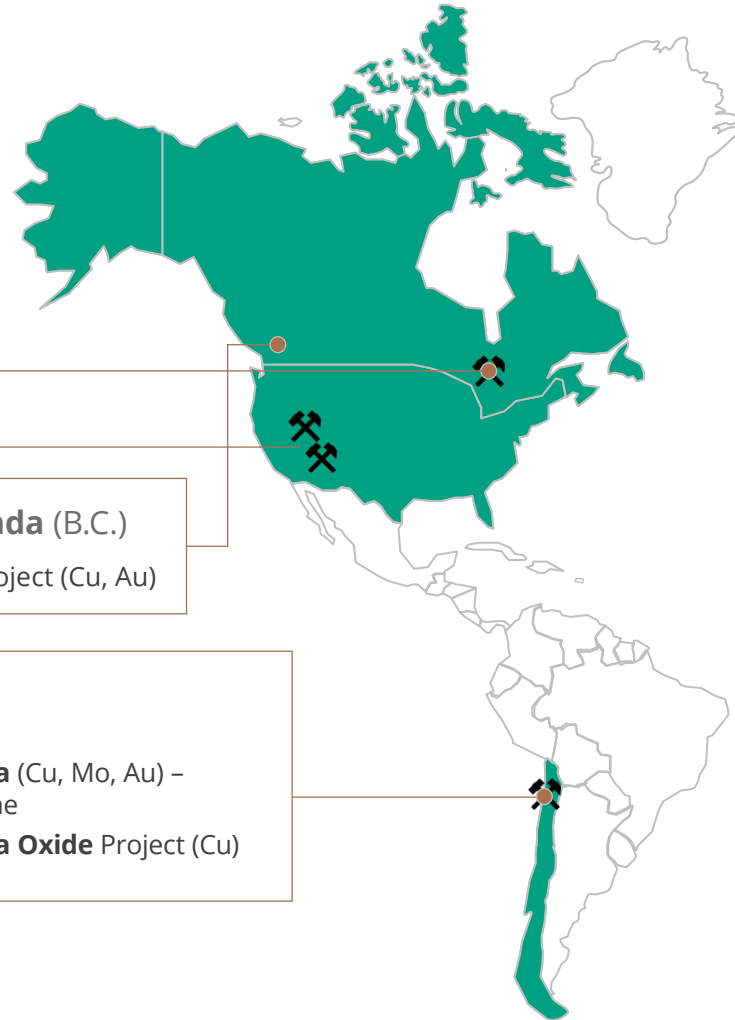
Ajax Project (Cu, Au)



Chile

Sierra Gorda (Cu, Mo, Au) – open-pit mine

Sierra Gorda Oxide Project (Cu)



Main international assets - Robinson mine

KGHM INTERNATIONAL LTD.

- The open-pit Robinson mine is located in **Nevada, USA**, around 400 km north of Las Vegas
- Apart from the mine, the operations contain ore processing plants and a tailings storage facility
- The mine produces copper concentrate with gold and silver content, as well as molybdenum concentrate
- The life of mine of Robinson is currently forecast to **2028**
- Payable copper production in 2021: **53.7 kt**



Main international assets - Sierra Gorda

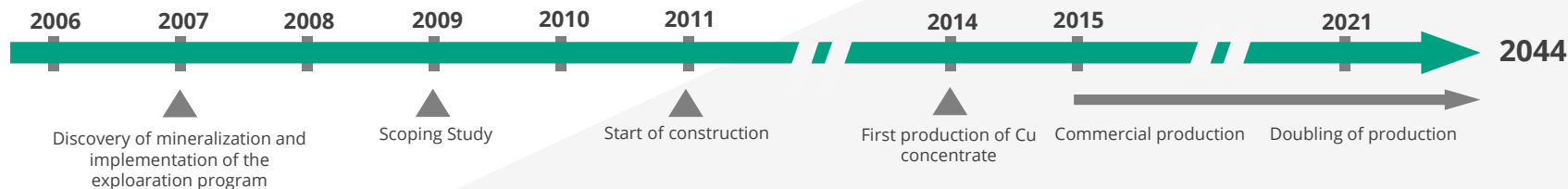
Sierra Gorda is an open-pit copper and molybdenum mine located in the Chilean Antofagasta region in the Atacama desert, 60 km from the town of Calama in the north of Chile.

Sierra Gorda is a Joint Venture between:

- KGHM Polska Miedź S.A. – 55% interest
- South32 Limited – 45% interest¹⁾



The history of the development of the Sierra Gorda project



The mine's projected mine life, based on the resources documented so far, is 22 years.

Sierra Gorda produces copper concentrate and molybdenum concentrate

Cu Payable in 2021

189.8 kt²⁾

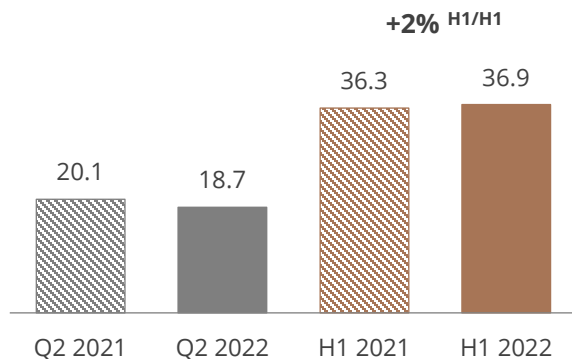
Mo Payable in 2021

14.9 Mlbs²⁾

Production results

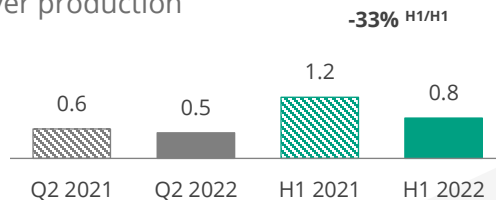
KGHM INTERNATIONAL LTD.

Payable copper production [kt]

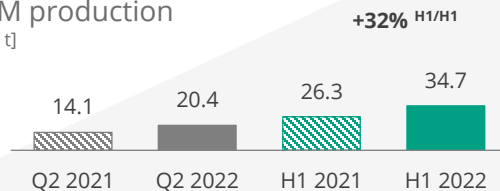


- Higher production by the Robinson mine (higher copper content in mined ore)
- Sale by subsidiaries of KGHM INTERNATIONAL LTD. of 100% of the shares of Sociedad Contractual Minera Franke (SCMF), being the owner of the Franke mine in Chile

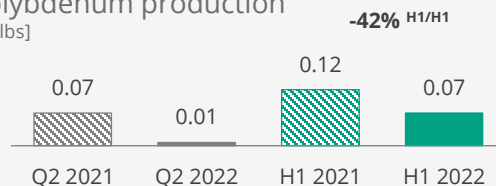
Silver production [t]



TPM production [koz t]



Molybdenum production [mn lbs]

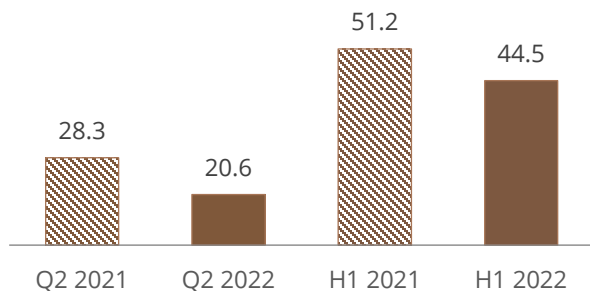


- Lower silver production by the Sudbury Basin due to lower silver content in ore
- Higher gold production by the Robinson mine (higher gold content in mined ore) and TPM by the Sudbury Basin (higher extraction)
- Lower molybdenum production by the Robinson mine due to mining of lower-quality ore from a transition zone

Production results

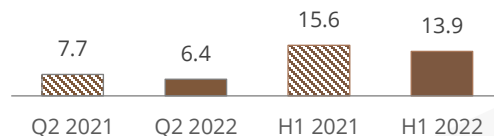
Sierra Gorda¹⁾

Payable copper production [kt] **-13% H1/H1**

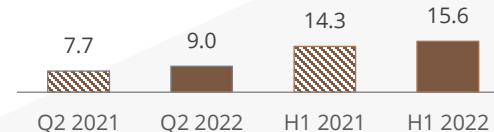


- Lower payable copper production in H1 2022 compared to H1 2021 due to the mining of ore with lower copper content and lower recovery

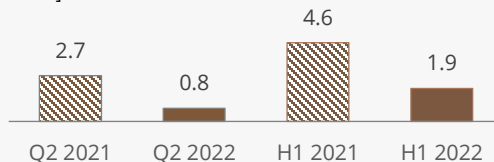
Silver production [t] **-11% H1/H1**



TPM production [koz t] **+9% H1/H1**



Molybdenum production [mn lbs] **-59% H1/H1**

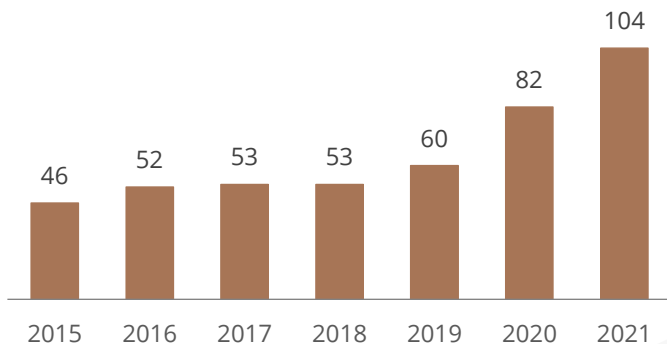


- The volume of precious metals production derived from the content of these metals in mined ore
- The decrease in molybdenum production was due to extraction from areas with lower molybdenum content compared to ore mined in the prior year. This was partially offset by the higher volume of ore processed

Historical results

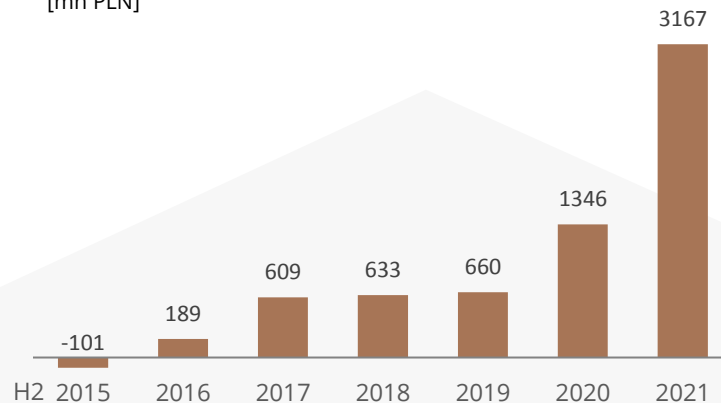
Sierra Gorda¹⁾

Payable copper production
[kt]



- Higher copper production thanks to the optimisation program aimed at increasing processing capacity and improving recovery, as well as higher metal content in mined ore

Adjusted EBITDA
[mn PLN]

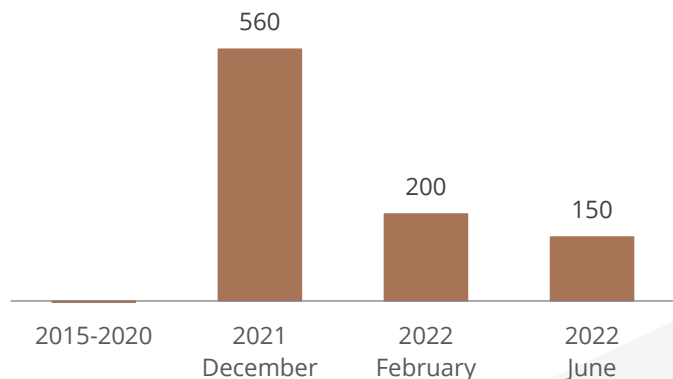


- Mainly higher revenues from copper sales due to higher metals prices and higher sales volumes

Important events

Sierra Gorda

Repayment of owner loans¹⁾
[mn USD]



- The first repayment of owner loans was in December 2021. Total amount repaid to date: USD 910 million

From 2023, 100% of Sierra Gorda's power needs will come from renewable resources.

Agreement between AES Gener and Sierra Gorda to supply electricity from renewable energy sources (RES), including solar power farms, which guarantees full coverage of the mine's power needs (approx. 1.3 TWh annually).



100% of electricity to be generated by **RES** in the **Sierra Gorda mine** from 2023

Source: [AES Gener to supply renewable power to Chilean miner for 19 years \(renewablesnow.com\)](https://renewablesnow.com)

Development projects

Victoria, Ajax and Sierra Gorda Oxide



Ajax

Type of mine
Property
Main product:
Metals
LOM

open-pit mine
80% KGHM, 20% Abacus
copper concentrate
copper, gold
ca. 19 years



Sierra Gorda Oxide

Type of mine
Property
Mine product:
LOM

Oxide ore leaching and cathode copper production
by SX-EW method
Sierra Gorda SCM (55% KGHM, 45% South32)
copper cathodes
ca. 11 years



Victoria

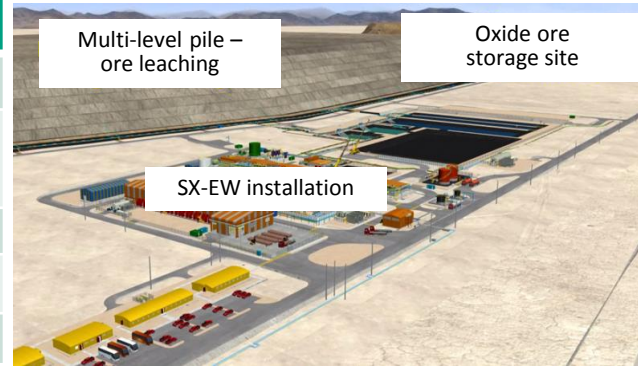
Type of mine
Property
The mine product
Metals

underground
100% KGHM
copper nickel ore
copper, nickel, gold,
silver, platinum,
palladium, cobalt
ca. 14 years

LOM

Sierra Gorda Oxide project

Basic information	
Mine type/plant type	Ore leaching and copper production via SX-EW
Ownership	Sierra Gorda SCM
Main product	copper cathodes
Annual copper production	approx. 30 thousand tonnes
LOM	approx. 11 years



Current project status

- Since January 2022 the owner of the project has been Sierra Gorda SCM, which is continuing work on the Oxide project (in prior years the project was advanced by KGHM Chile SpA.).
- The project foresees the processing of copper oxide ore, which initially overlaid the Sierra Gorda sulphide deposit. The mined ore will be processed via leaching on a multi-level pile, with production of copper cathodes in an SX-EW installation. At present, most of the ore which is destined to be processed has been extracted and stored near the projected site of the plant.
- The project has completed the Basic Engineering stage, with a partially-completed Detailed Engineering project, updated in 2022 with the aid of an external engineering firm.
- Further stages will continue this work, aimed at determining the subsequent directions for the project by the owners of Sierra Gorda SCM.

Victoria project

Basic information	
Mine type/plant type	Underground copper/nickel mine
Ownership	100% KGHM
Main product	Copper-nickel ore
Annual copper production	approx. 18 thousand tonnes/ approx. 16 thousand tonnes
LOM	approx. 14 years



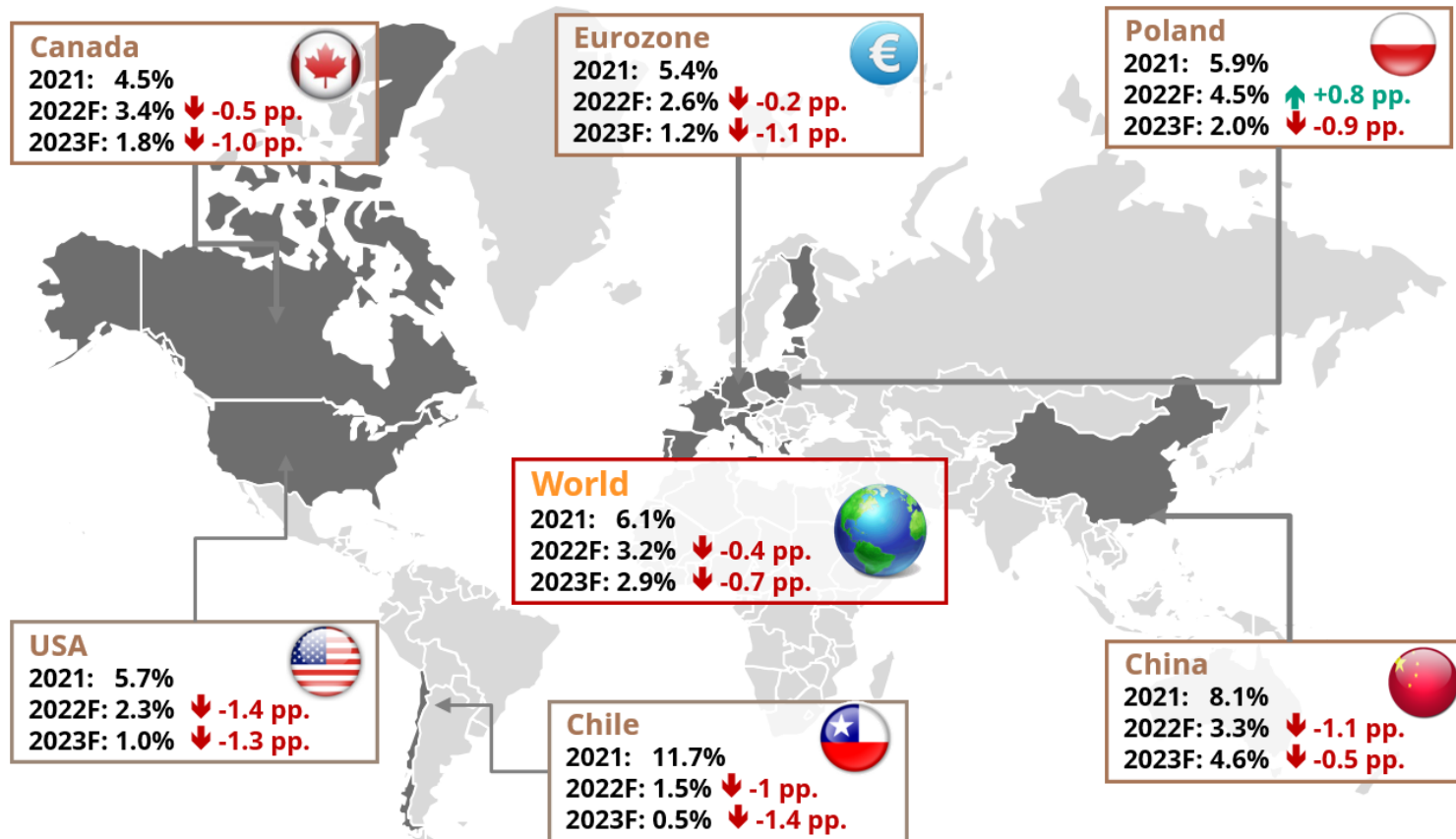
Current project status

- The Victoria project is located within the Sudbury Basin, in the Canadian province of Ontario, around 35 km west of the town of Sudbury.
- The project foresees the mining of a polymetallic copper-nickel ore which also contains platinum, palladium, gold, silver and cobalt. The deposit will be accessed by two shafts: a production shaft and a ventilation shaft, at target depths of 2000 m and 1860 m below the surface.
- Geological resources are currently assessed as Inferred and partially as Indicated.
- Development work is currently underway to enable subsequent project stages, including: construction of elements of the shaft's headframe, a water treatment plant, parking, work related to the siting of a waste rock containment pad, etc. Work also began on updating the design for the production shaft.
- Work also continued aimed at maintaining good relations with key stakeholders in the project as well as administrative actions connected with obtaining the requisite project permits.

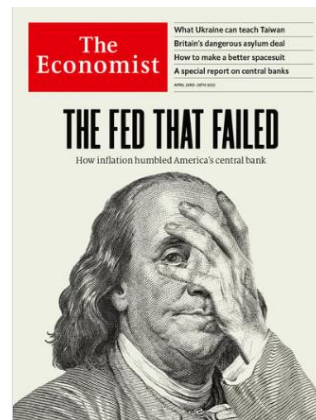


Macroeconomic situation

IMF World Economic Outlook – July 2022



Key events impacting the assessment of the prospects for the global economy



Investor sentiment began to worsen in the face of Russia's aggression against Ukraine and the risk of a recession due to the lack of gas in Europe

	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	mar 22	Apr-22	May-22	Jun-22	Jul-22	
USA (ISM)	50,3	49,1	41,6	43,5	52,4	53,9	55,4	55,4	58,8	57,3	60,5	59,4	60,9	63,7	60,6	61,6	60,9	59,9	59,7	60,5	60,8	60,6	58,8	57,6	58,6	57,1	55,4	56,1	53,0	52,8	
USA (PMI)	48,5	36,1	39,8	49,8	50,9	53,1	53,2	53,4	56,7	57,1	59,2	58,6	59,1	60,5	62,1	62,1	63,4	61,1	60,7	58,4	58,3	57,7	55,5	57,3	58,8	59,2	57,0	52,7	52,2	51,5	
Canada	46,1	33,0	40,6	47,8	52,9	55,1	56,0	55,5	55,8	57,9	54,4	54,8	58,5	57,2	57,0	56,5	56,2	57,2	57,0	57,7	57,2	56,5	56,2	56,6	58,9	56,2	56,8	54,6	52,5	48,7	
Mexico	47,9	35,0	38,3	38,6	40,4	41,3	42,1	43,6	43,7	42,4	43,0	44,2	45,6	48,4	47,6	48,8	49,6	47,1	48,6	49,3	49,4	49,4	46,1	48,0	49,2	49,3	50,6	52,2	48,5	48,5	
Brazil	48,4	36,0	38,3	51,6	58,2	64,7	64,9	66,7	64,0	61,5	56,5	58,4	52,8	52,3	53,7	56,4	56,7	53,6	54,4	51,7	49,8	49,8	47,8	49,6	52,3	51,8	54,2	54,1	54,0	51,9	
Eurozone	44,5	33,4	39,4	47,4	51,8	51,7	53,7	54,8	53,8	55,2	54,8	57,9	62,5	62,9	63,1	63,4	65,4	62,8	61,4	58,6	58,3	58,4	58,0	58,7	58,2	56,5	55,5	54,6	52,1	49,8	49,6
Germany	45,4	34,5	36,6	45,2	51,0	52,2	56,4	58,2	57,8	58,3	57,1	60,7	66,6	66,2	64,1	65,1	65,9	62,6	58,4	57,8	57,4	57,4	59,8	58,4	56,9	54,6	54,8	52,0	49,3	49,1	
France	43,2	31,5	40,6	52,3	52,4	49,8	51,2	51,3	49,6	51,1	51,6	56,1	59,3	58,9	59,4	59,0	58,0	57,5	55,0	53,6	55,9	55,6	55,5	57,2	54,7	55,7	54,6	51,4	49,5	50,6	
Italy	40,3	31,1	45,4	47,5	51,9	53,1	53,2	53,8	51,5	52,8	55,1	56,9	59,8	60,7	62,3	62,2	60,3	60,9	59,7	61,1	62,8	62,0	58,3	58,3	55,8	54,5	51,9	50,9	48,5	48,0	
Spain	45,7	30,8	38,3	49,0	53,5	49,9	50,8	52,5	49,8	51,0	49,3	52,9	56,9	57,7	59,4	60,4	59,0	59,5	58,1	57,4	57,1	56,2	56,2	56,9	54,2	53,3	53,8	52,6	48,7	49,9	
Netherlands	50,5	41,3	40,5	45,2	47,9	52,3	52,5	50,4	54,4	58,2	58,8	59,6	64,7	67,2	69,4	68,8	67,4	65,8	62,0	62,5	60,7	58,7	60,1	60,6	58,4	59,9	57,8	55,9	54,5	52,6	
Austria	45,8	31,6	40,4	46,5	52,8	51,0	51,7	54,0	51,7	53,5	54,2	58,3	63,4	64,7	66,4	67,0	63,9	61,8	62,8	60,6	58,1	58,7	61,5	58,4	59,3	57,9	56,6	51,2	51,7	48,8	
Ireland	45,1	36,0	39,2	51,0	57,3	52,3	50,0	50,3	52,2	57,2	51,8	52,0	57,1	60,8	64,1	64,0	63,3	62,8	60,3	62,1	59,9	58,3	59,4	57,8	59,4	59,1	56,4	53,1	51,8	51,1	
UK	47,8	32,6	40,7	50,1	53,3	55,2	54,1	53,7	55,6	57,5	54,1	55,1	58,9	60,9	65,6	63,9	60,4	60,3	57,1	57,8	58,1	57,9	57,3	58,0	55,2	55,8	54,6	52,8	52,1	47,3	
Greece	42,5	29,5	41,1	49,4	48,6	49,4	50,0	48,7	42,3	46,9	50,0	49,4	51,8	54,4	58,0	58,6	57,4	59,3	58,4	58,9	58,8	59,0	57,9	57,8	54,6	54,8	53,8	51,1	49,1	48,8	
Poland	42,4	31,9	40,6	47,2	52,8	50,6	50,8	50,8	50,8	51,7	51,9	53,4	54,3	53,7	57,2	59,4	57,6	56,0	53,4	53,8	54,4	56,1	54,5	54,7	52,7	52,4	48,5	44,4	42,1	40,9	
Czech Rep.	41,3	35,1	39,6	44,9	47,0	49,1	50,7	51,9	53,9	57,0	57,0	56,5	58,0	58,9	61,8	62,7	62,0	61,0	58,0	55,1	57,1	59,1	59,0	56,5	54,7	54,4	52,3	49,0	46,8	46,8	
Turkey	48,1	33,4	40,9	53,9	56,9	54,3	52,8	53,9	51,4	50,8	54,4	51,7	52,6	50,4	49,3	51,3	54,0	54,1	52,5	51,2	52,0	52,1	50,5	50,4	49,4	49,2	48,1	46,9	47,4		
Russia	47,5	31,3	36,2	49,4	48,4	51,1	48,9	46,9	46,3	49,7	50,9	51,5	51,1	50,4	51,9	49,2	47,5	46,5	49,8	51,6	51,7	51,6	51,8	48,6	44,1	48,2	50,8	50,9	50,3	51,7	
Azia	42,0	42,6	42,7	47,2	48,6	50,6	51,5	52,4	52,2	52,8	52,9	52,7	52,4	53,4	51,9	50,8	51,3	50,6	51,3	52,0	52,1	52,1	52,1	51,8	51,6	51,3	50,0	50,9	51,6	50,7	
China (Caixin)	50,1	49,4	50,7	51,2	52,8	53,1	53,0	53,6	54,9	53,0	51,5	50,9	50,6	51,9	52,0	51,3	50,3	49,2	50,0	50,6	49,9	50,9	49,1	50,4	48,1	46,0	48,1	51,7	50,4	49,5	
China	35,7	52,0	50,8	50,6	50,9	51,1	51,0	51,5	51,4	52,1	51,9	51,3	50,6	51,9	51,1	51,0	50,9	50,4	50,1	49,6	49,2	50,1	50,3	50,1	50,2	49,5	49,4	50,6	50,2	49,0	
Japan	44,8	41,9	38,4	40,1	45,2	47,2	47,7	48,7	49,0	50,0	49,8	51,4	52,7	53,6	53,0	52,7	51,5	53,2	54,5	54,3	55,4	52,7	54,1	53,5	53,3	52,7	52,1	51,5			
India	51,8	27,4	30,8	47,2	46,0	52,0	56,8	58,9	56,3	56,4	57,7	57,5	55,4	55,5	50,8	48,1	55,3	52,3	53,7	55,9	57,6	55,5	54,0	54,9	54,0	54,7	54,6	53,9	56,4	56,2	
Indonesia	45,3	27,5	28,6	39,1	46,9	50,8	47,2	47,8	50,6	51,3	52,2	50,9	53,2	54,6	55,3	53,5	40,1	43,7	52,2	57,2	53,9	53,5	53,7	51,2	51,3	51,9	50,8	50,2	51,3	51,7	
Malaysia	48,4	31,3	45,6	51,0	50,0	49,3	49,0	48,5	48,4	49,1	48,9	47,7	49,9	53,9	51,3	39,9	40,1	43,4	48,1	52,2	52,3	52,8	50,5	50,9	49,6	51,6	50,1	50,4	50,6	50,3	
Taiwan	50,4	42,2	41,9	46,2	50,6	52,2	55,2	55,1	56,9	59,4	60,2	60,4	60,8	62,4	62,0	57,6	59,7	58,5	54,7	55,2	54,9	55,5	55,1	54,3	51,1	51,7	50,0	49,8	44,6	42,7	
Thailand	46,4	35,8	41,3	42,5	45,3	50,0	49,6	51,1	50,7	52,3	48,5	47,2	49,2	49,7	46,4	48,9	48,0	48,5	49,1	51,5	51,4	50,3	52,4	52,8	51,4	50,4	50,0	49,8	52,1	54,0	
South Korea	44,2	41,6	41,3	43,4	46,9	48,5	49,8	51,2	52,9	52,9	53,2	55,3	55,3	54,6	53,7	53,9	53,0	51,2	52,4	50,2	50,9	51,9	52,8	53,8	51,2	52,1	51,8	51,3	49,8	47,6	

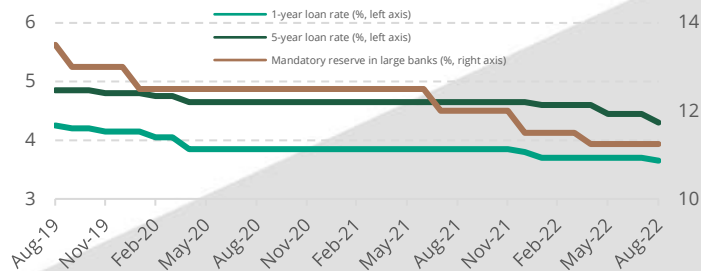
China: 'zero-covid' policy led to a weakening of GDP growth this year and calls into question the planned growth path

GDP dynamics weakened and according to forecasts it will be difficult to achieve the assumed rate of 5.5% for this year



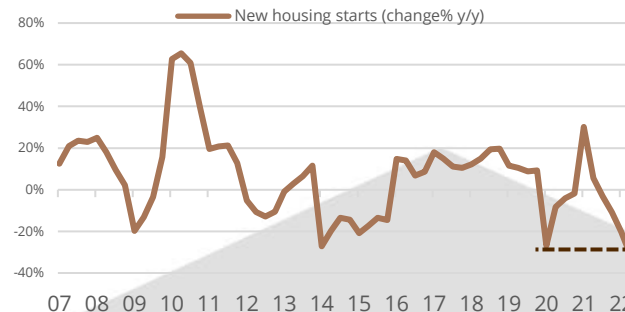
Source: Bloomberg, Bank of China, KGHM Polska Miedz

The People's Bank of China continued to ease its monetary policy to stimulate weakening demand



Source: Bloomberg, KGHM Polska Miedz

Newly started house construction in Q2 2022 below levels from the first wave of the pandemic

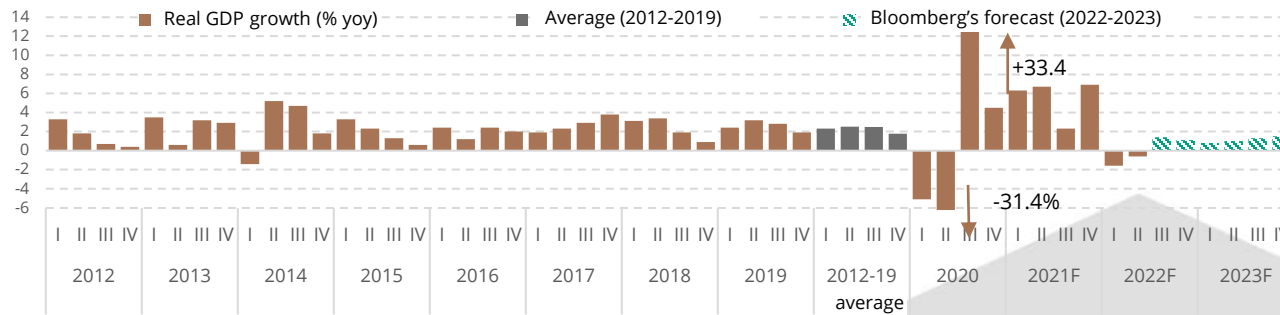


Source: Bloomberg, KGHM Polska Miedz

- Achieving the GDP growth target of 5.5% in 2022 seems unlikely
- It is unlikely that President Xi Jinping will give up his "zero-covid" policy before the autumn party elections
- The central bank of China is trying to stimulate the economy and weakening lending by further cuts in interest rates, especially the 5-year one responsible for housing loans. Subsidies for enterprises affected by the closure of the economy are being considered
- The difficulties in the real estate market are of a structural nature and will be a challenge for the Chinese economy in the coming quarters

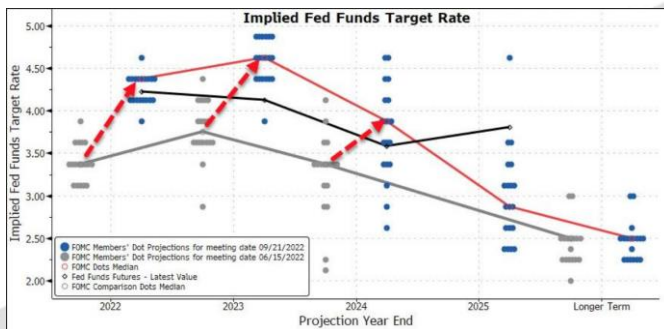
USA: The Fed is on a fine line between monetary tightening and a potential recession

The tandem of weaker GDP in 1H'22 and monetary tightening raises concerns about slowing growth



Source: Bloomberg, KGHM Polska Miedz analysis

Fed members are presenting an increasingly hawkish approach to monetary policy

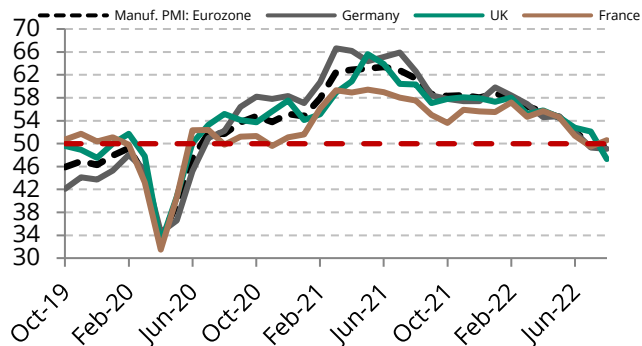


Source: US Federal Reserve, KGHM Polska Miedz

- Another two quarters of negative economic growth have raised investor fears, but the continued strong labor market is a stabilising factor
- Inflation surprised the members of the Fed both in terms of its level and its duration
- Expectations as to the target level of interest rates and how long they should be in effect are of key significance for the financial markets
- The scale of interest hikes by the Fed will have an impact not only on the American economy, but will also effect countries with USD-denominated debt and as a result of the USD's value on commodities quoted in this currency
- While an economic slowdown may lead to lower demand for commodities, in the case of metals connected with the green transformation, the impact of the slowdown will be softer

Europe: Inflation, tightening of monetary policy, the war in Ukraine and the energy crisis increased the risk of a visible slowdown in 2023

While PMIs in the largest European economies indicate a slowdown...



Source: Bloomberg, KGHM PM SA analysis

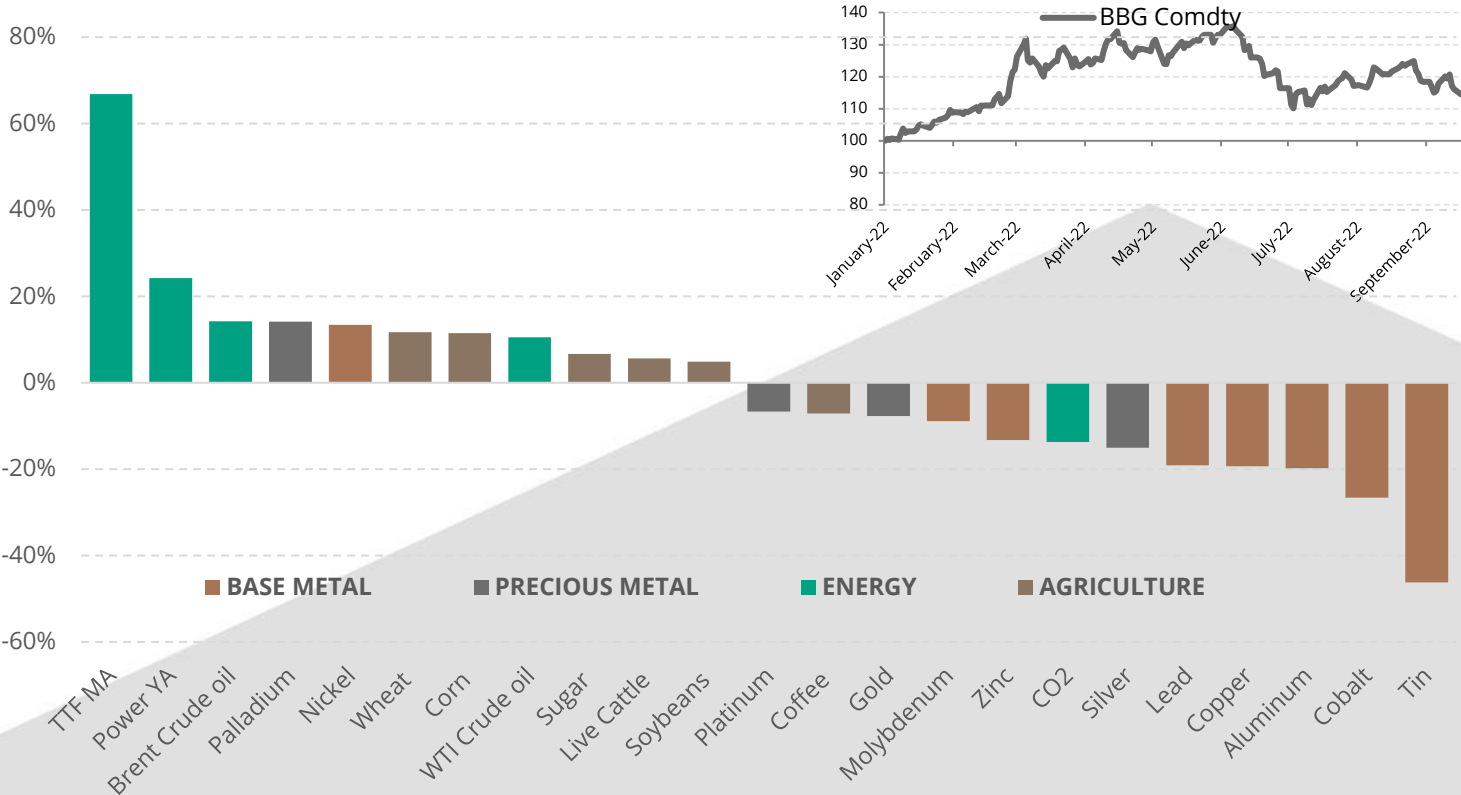
...the peak of inflation and the end of the cycle of interest rate hikes is still ahead of us



Source: ECB inflation projection - September 2022

- The war in Ukraine and the associated energy and food crises are exacerbating inflation
- High inflation is pushing central banks to tighten monetary policy
- The high and rising interest rates are having a negative impact on the conduct of business and are reducing the potential rate of economic growth, which will also impact demand for commodities

Commodities market: price movements of individual commodities since the start of 2022



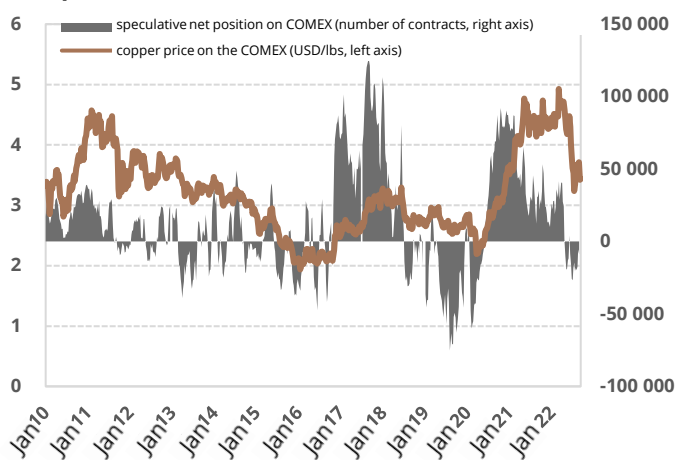
Metals market

- To achieve the goal of „net-zero” and to stop the rise in global temperatures requires enormous investments which, in the near term, form the foundation of global economic growth. Moreover, decarbonisation, electromobility and renewable energy sources should aid in extracting the global economy from this crisis and in the introduction of a new growth path, while at the same time starting a new supercycle for selected commodities.
- Official metals inventories are at multi-year lows, while years of under-investment and an increasingly complicated social and political situation in the major commodity-producing countries raises doubts about the availability of metals, especially in the second half of this decade.
- Due to the need to find alternative sources for Russian commodities (mainly energy commodities), Europe has undertaken a variety of measures aimed at ending the use of fossil fuels even more rapidly than heretofore declared, which should support metals, including copper and silver, although in the short term, volatility in the global economy could have a negative impact on the metals market.



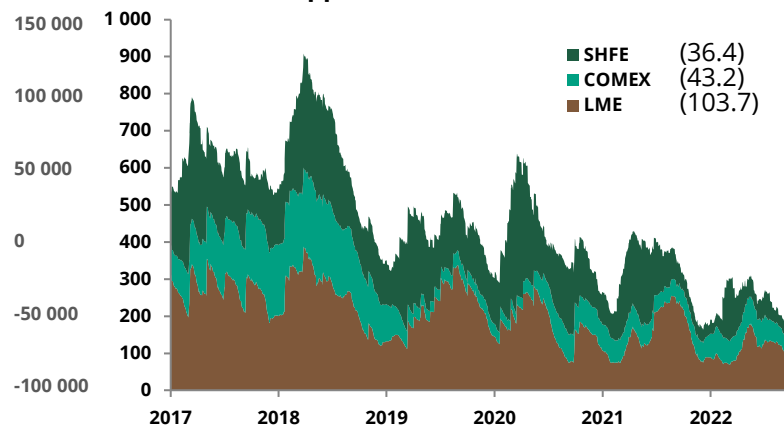
The low level of inventories means that any significant increase in demand or interruption to supply could result in substantial price volatility

Net position of financial investors - COMEX



Source: CFTC, COMEX, KGHM analysis

Official LME copper stocks

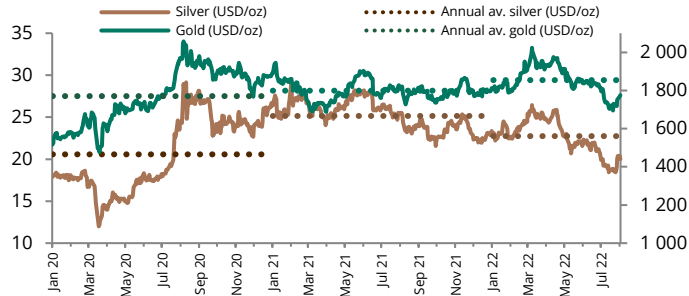


Source: SHFE, COMEX, LME, own study

- Official inventory levels on the main three markets remain at the level of multi-year lows, with a similar situation in the case of bonded warehouse inventories in China
- This reduced availability of material could slow the rate of current decreases
- The net position of financial investors on COMEX confirms the negative sentiment of investors towards the metals market observed in market prices

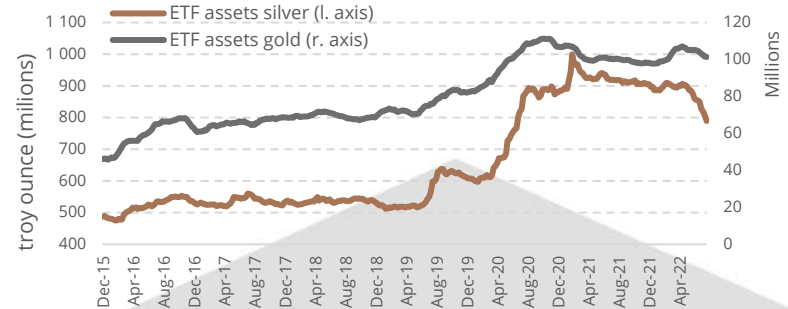
Silver: USD putting pressure on precious metals

Despite inflation and volatility associated with the pandemic and geopolitical instability, precious metals have been losing value



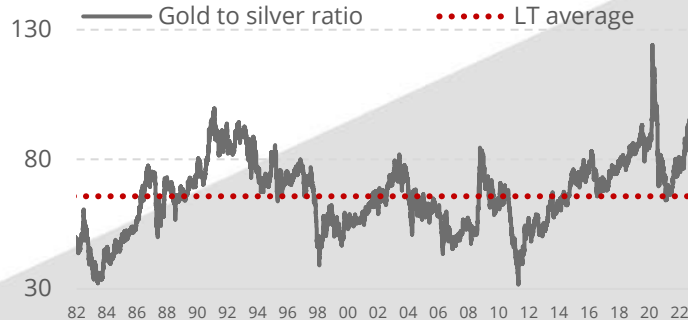
Source: Bloomberg, KGHM Polska Miedz

Recent weeks have also been characterised by strong outflows from ETF funds



Source: Bloomberg, KGHM Polska Miedz

The Gold/Silver ratio is at levels far above average, suggesting possible adaptation



Source: Bloomberg, KGHM Polska Miedz

- Silver, which is treated as both an investment and industrial material, has reflected to a greater extent the highly-negative impact of macroeconomic and geopolitical uncertainty than in the case of gold
- The outflow of money from ETFs is more evident in the case of silver
- The Gold/Silver ratio in recent weeks has again reached 90 points, the highest level since the start of the pandemic, and last seen in the 1990s. The average long-term level is approx. 66 points

Follow us on social media:



Thank you!

Investor Relations Department

kghm.com/en/investors

ir@kghm.com

+48 76 74 78 280