

Layers of Possibilities



Individual Investors Day

Lubin, May 28, 2015

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 utilising 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.

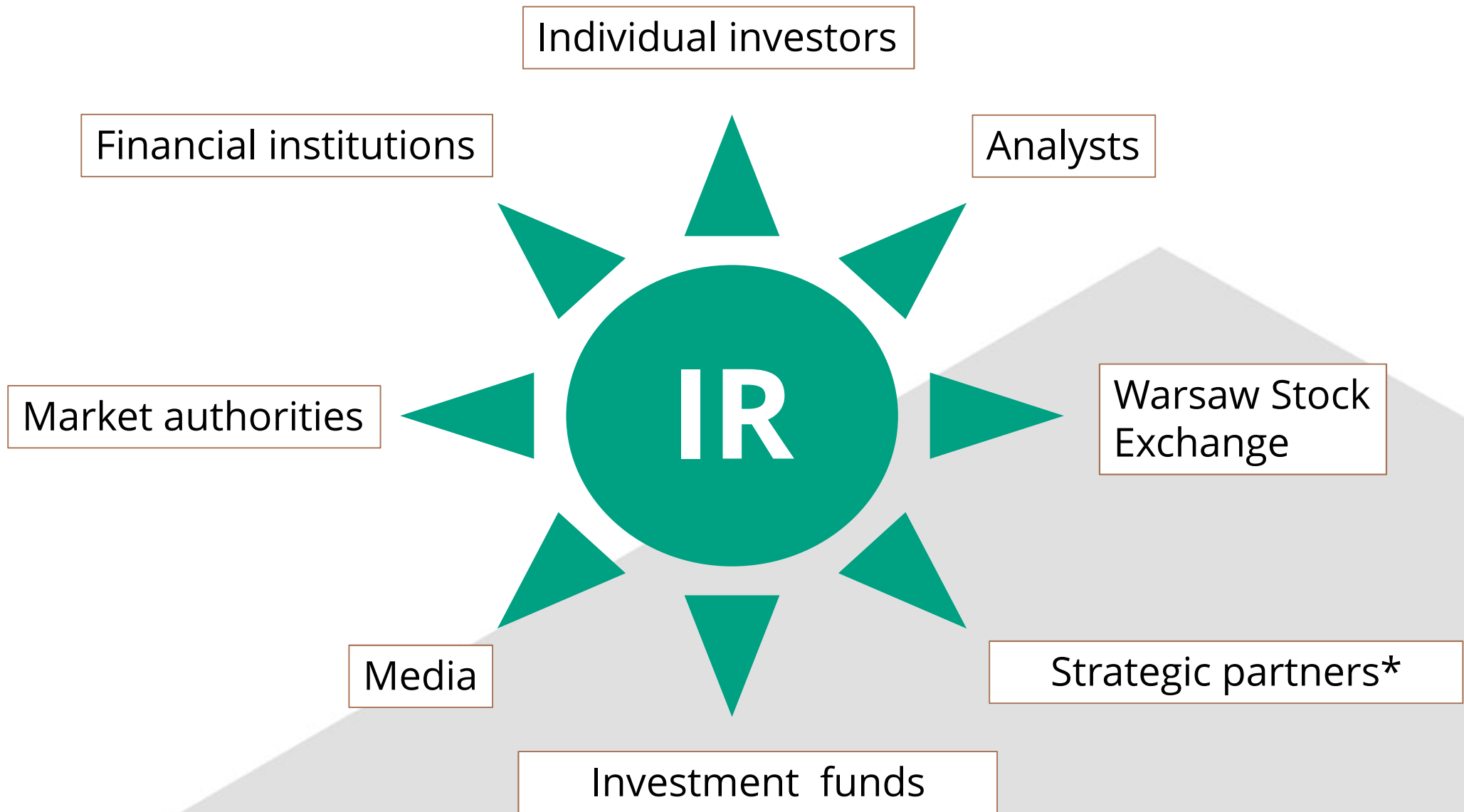
Layers of Possibilities



New Investor Relations website

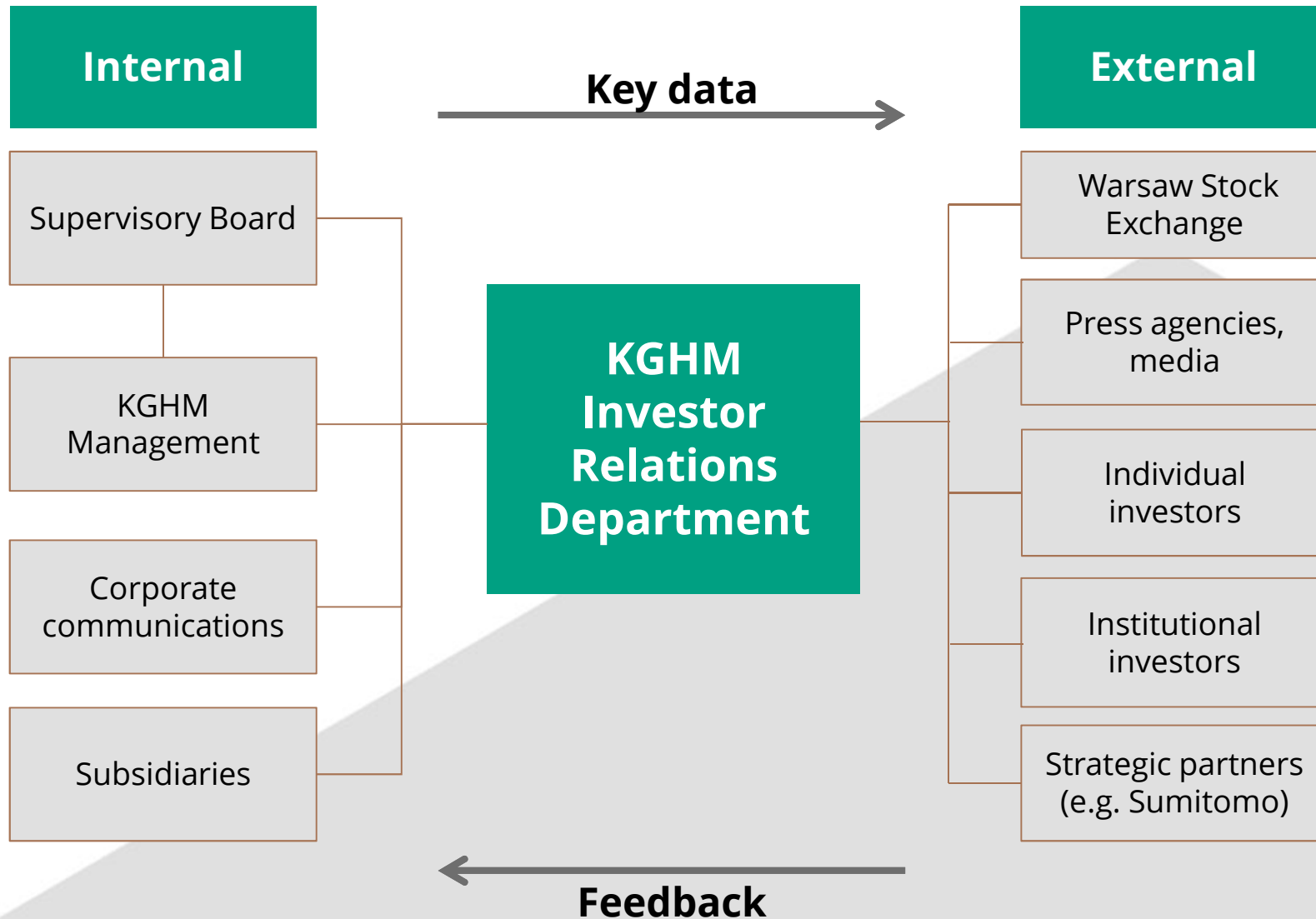
Artur Tarnowski
Executive Director, Investor Relations

The Investor Relations universe



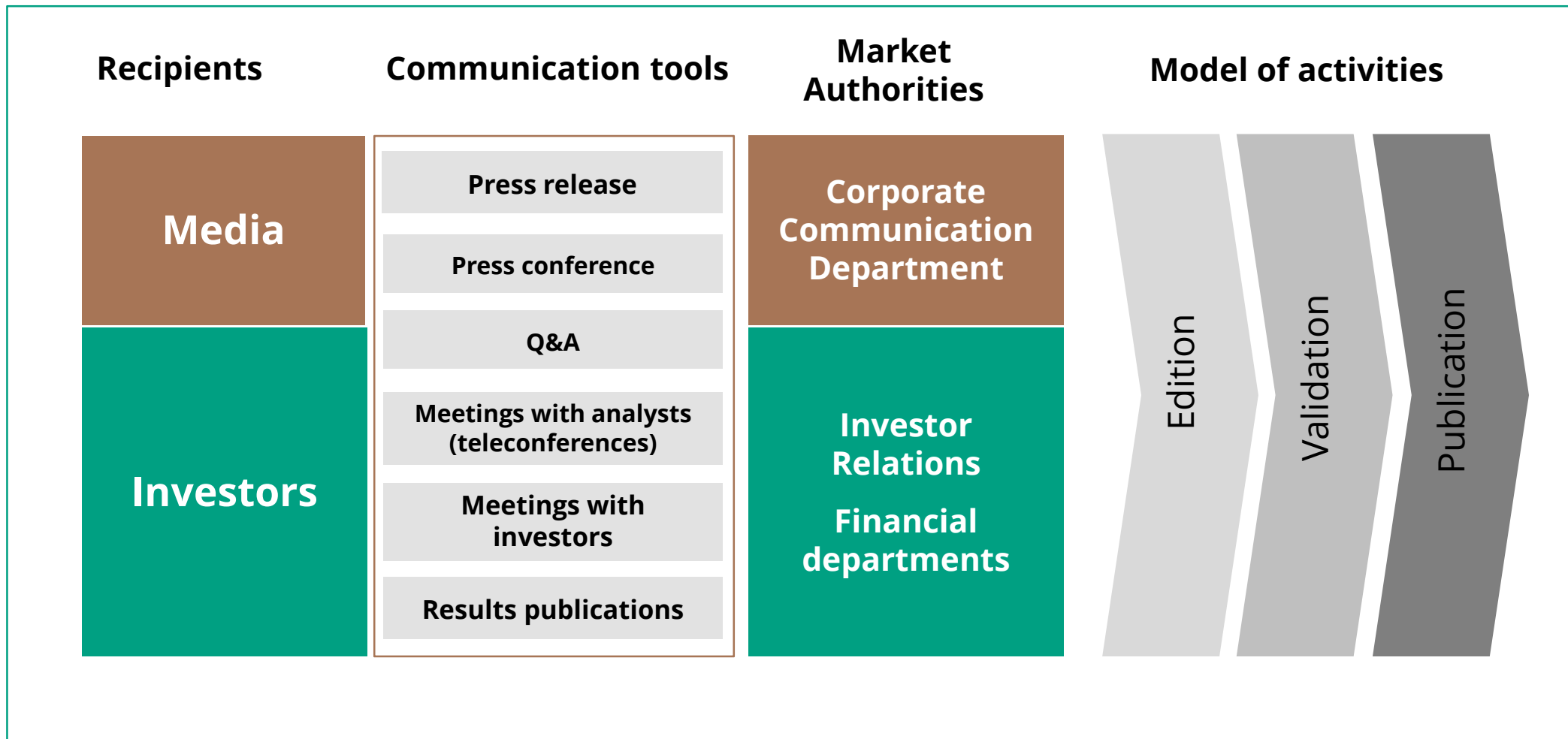
The role of Investor Relations

Communications fields



Model of communication with the market

- Two paths of communication: with Investors and with the Media:



Investor Relations Tools



Participation in major investor events in Poland and across the world



Regular meetings with analysts and investors



Visits of analysts and investors to KGHM and its divisions



On-going communication with the market through regulatory filings and press releases



Quarterly presentation of KGHM results - meeting with analysts and investors



Development of an interactive website



New Investor Relations website

Why have we built a new website?

Because...

...the KGHM Group has largely changed due to acquisitions and the launch of the new Sierra Gorda project. KGHM used to operate as a large but local producer of copper. Today it is one of the global industry's major players, with mines on three continents and one of the largest deposits of copper in the world.



Rules of dialogue with investors

A revolutionary business change demanded a modified approach to communication. The key was to unify our corporate image through coherent communication with international investors. We are still faithful to our investor relations rules:

- **Openness**



- **Transparency**

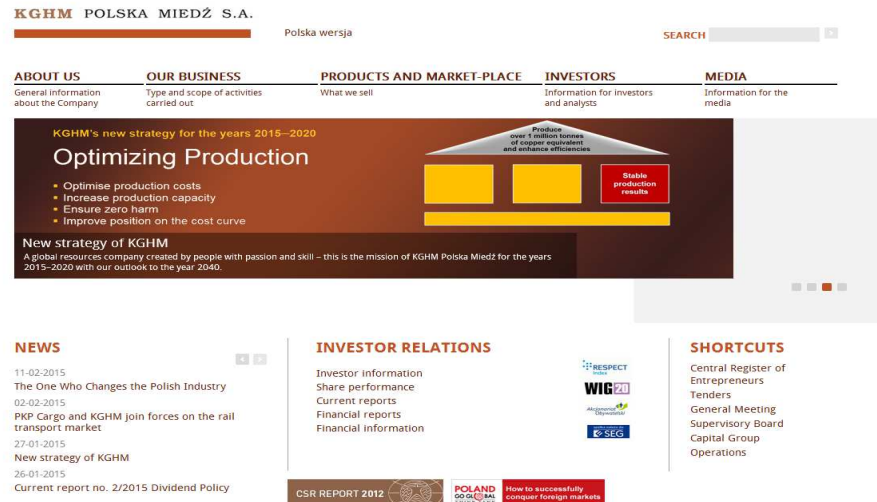


- **Constant dialogue**

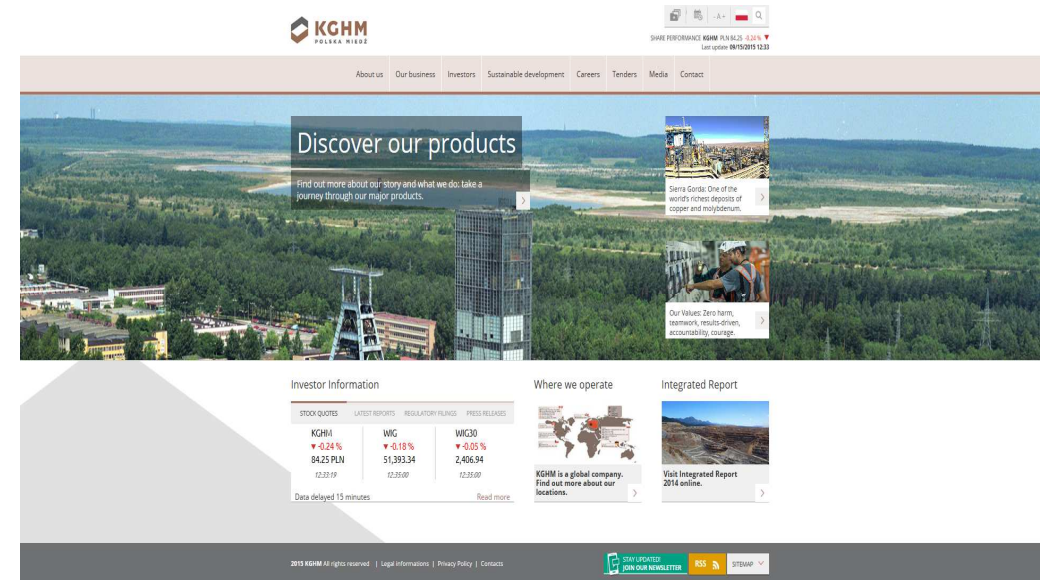


Our main aim is to present a comprehensive view of the KGHM Group to investors and to clarify all doubts. We want our website to contain all necessary information.

Before



Now



When creating the new investor relations website at KGHM, we decided it should meet the following three aims:

- **Serve investors as an encyclopedia of knowledge about the KGHM Group** – with detailed information on KGHM's assets across the globe, historical and current financial data, presentations, product information, global copper, molybdenum and precious metals analyses, and much more
- **Provide investors with tools to analyze financial data, prices and ratios** – enable comparison of KGHM's share price with competitors and indices, present returns on capital etc.
- **Be an interactive tool for communication with investors** – allow constant contact with the company and update a broad spectrum of information about it



Encyclopedia of Knowledge: the IR website contains all necessary data about KGHM and the copper market

Why to invest in KGHM:

Quality assets

- Our main producing assets in Poland (over half of KGHM Group production) are based on a world-class, long-lived orebody (30-40 additional years).
- Our premier low-cost operation in Chile at Sierra Gorda has a mine life of over 20 years, and has the potential for further increases in resources and mine life.

Experienced management

- Our senior management staff has a wealth of experience and a strong track record in project execution as well as broad sector knowledge.
- We also have strong teams of experts in all aspects of mining and metallurgy, in Europe and the Americas, providing additional support to boost the value of the company.
[see more](#)

Geographic and operational diversification

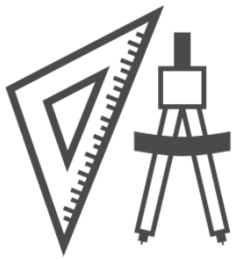
- Our assets are located in mining friendly jurisdictions which are politically and economically stable.
- Both open-pit and underground operations located on three continents (Poland, Canada, the USA and Chile)
[see more](#)

Copper market

KGHM is **one of the top global copper producers** with 2014 mined copper production of 507 thousand tonnes and controls one of the world's largest single deposits of copper and silver.

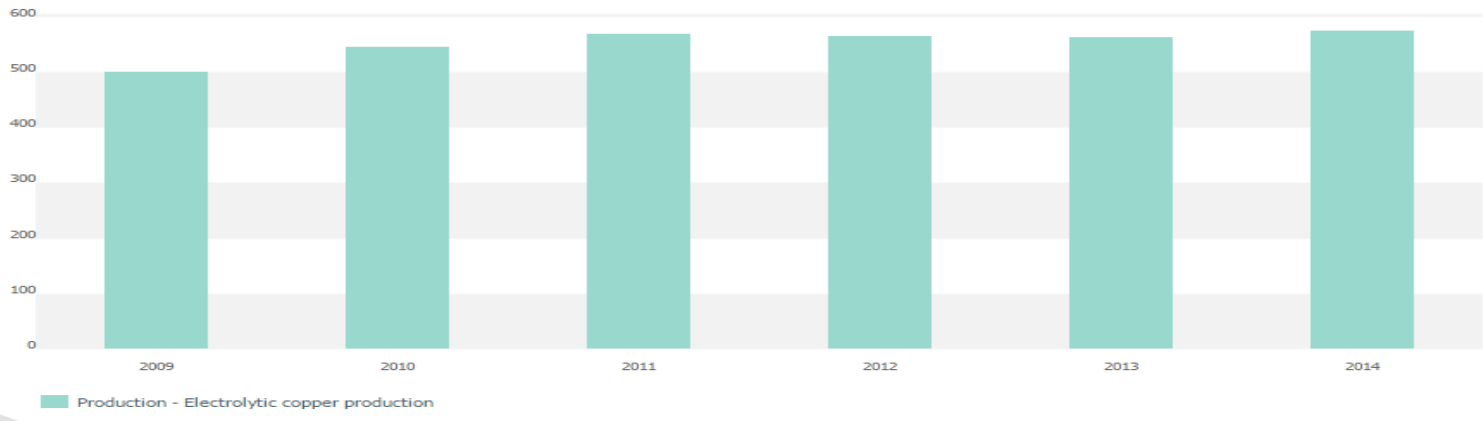
Copper is one the most universal and, at the same time, one of the most sought-after natural resources in the world. It is corrosion-proof, a perfect conductor of heat and electricity, and also possesses strong antimicrobial properties. Copper is indispensable for such industries as telecommunications, the power industry, transport, health and construction.

Documented global geological resources of copper amount to 1 billion tonnes, 70% of which is today suitable for mining. There are 1000 copper ore deposits known in the world, 400 of which are being mined. Copper constitutes 16% of the overall value of all metals extracted from the world's deposits. on the good outlook for the copper market is primarily a result of high demand from China and other Asian countries.



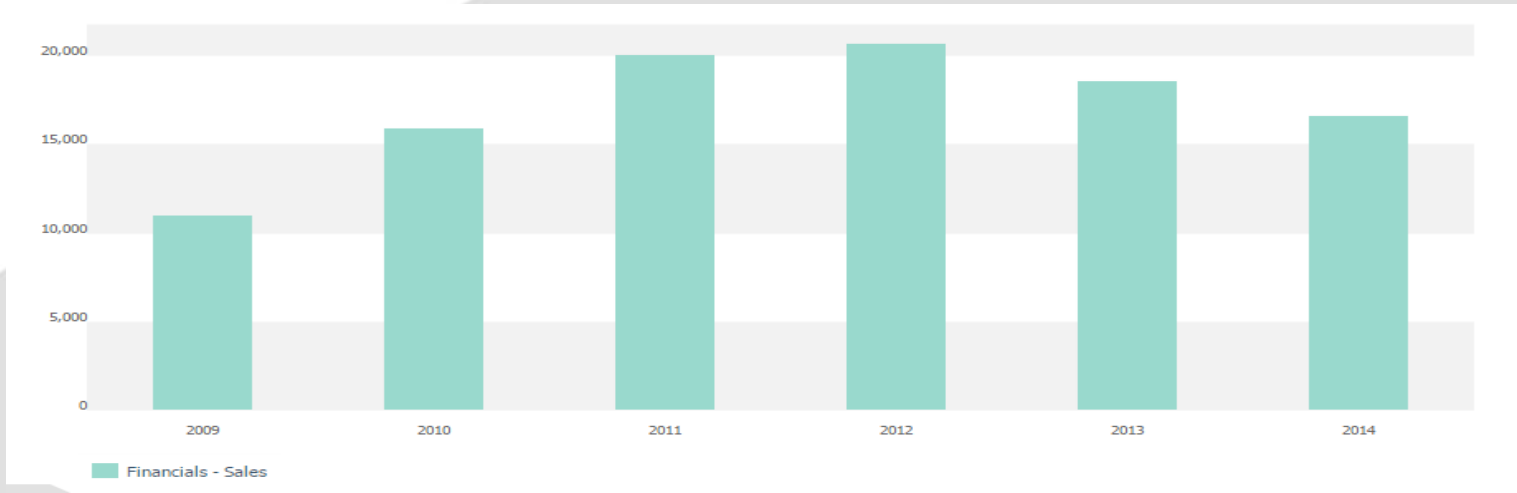
Tools to analyze data: The KGHM investor relations website allows you to analyze 14 KPI indicators. All data may be exported to spreadsheets

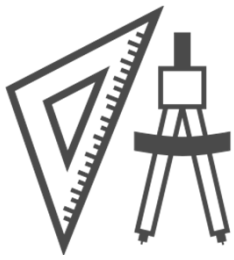
DOWNLOAD IMAGE [IMG](#)
DOWNLOAD EXCEL [XLS](#)



Electrolytic copper production in 2009-2014

Sales





Tools to analyze data: Key information for investors is published immediately after it is sent to the stock exchange reporting system. The website contains both current data and archives that go back ten years. You can also find a detailed description of KGHM's production assets.

Archive

PAGE TOOLS ▼ SHARE ▼

FILTER BY: - ANY - ▼ SEARCH: APPLY RESET

2015 2014 2013 2012 2011 2010 2009 2008 2007 2006

2005

HALF YEAR

Date	Type	Name	Media	File
26-06-2015	PRESENTATION	Mineral Resources and Reserves presentation		PDF 1.9 MB

FIRST QUARTER

Date	Type	Name	Media	File
11-05-2015	PRESENTATION	Group results for Q1 2015		PDF 977 KB
08-05-2015	FINANCIAL REPORT	Consolidated report 1st quarter 2015		PDF 835 KB

Investors can easily acquire information on KGHM's results in Poland and globally, as well as descriptions of all assets

OUR BUSINESS

- Mining and enrichment ▼
- Carlota
- Franka
- Lubin
- McCreedy
- Morrison
- Polkowice-Sieroszowice
- Robinson
- Rudna
- Sierra Gorda**
- Smelting and refining ▼
- Down-stream processing ▼
- Projects under development ▼
- Products ▼
- Production process overview ▼
- Innovation and technology ▼

Sierra Gorda

The Sierra Gorda open-pit mine in Chile was commissioned in July 2014. Over the next 20+ years it will mine one of the world's richest deposits of copper and molybdenum.

PAGE TOOLS ▼ SHARE ▼

General Information

The Sierra Gorda mine is located in the richest copper basin in Chile – the Atacama desert in the Antofagasta region, approx. 60 km south-west of the town of Calama in northern Chile. Target production is approx. 220 thousand tonnes of copper, 11 thousand tonnes of molybdenum and two tonnes of gold.

History

The **Sierra Gorda mine** operates on one of the **world's largest copper-molybdenum deposits**, comprising both sulphide copper ore as well as an upper layer of oxide copper ore.

The deposit was discovered in **2006**. Two years later, KGHM INTERNATIONAL LTD. took over the project, which since September 2011 has been a joint venture of KGHM International Ltd (55%), Sumitomo Metal Mining (31.5%) and Sumitomo Corporation (13.5%).

Production

Construction of the mine is being carried out in two stages. The first stage was completed in July 2014. It comprised the construction of a conventional **open-pit mine** (extraction using blasting materials and dump trucks, loading and the transporting of ore for processing), infrastructure (including a tailings pond, power line and sea water pipeline) as well as a processing plant for the separation of **molybdenum concentrate** (high-pressure grinding rollers, ball mills and conventional floatation) with a processing capacity of 110 thousand tonnes of ore per day.

The oxide ore being stored for potential bean leaching. The **concentrate**

Location

Antofagasta - Chile ▶

Gallery

Lightbox Download

Ag Cu Mo

OWNERSHIP: 55% KGHM INTERNATIONAL LTD., 45% SPOLNA GRUPA

OUR BUSINESS

- Mining and enrichment ▼
- Smelting and refining ▼
- Down-stream processing ▼
- Projects under development ▼
- Deep Głogów**
- Victoria
- Ajax
- Products ▼
- Production process overview ▼
- Innovation and technology ▼

Deep Głogów

Deep Głogów is the largest deep deposit mining project in Europe. The mining of the deposit will make it possible for KGHM to maintain extraction levels in Poland for decades.

PAGE TOOLS ▼ SHARE ▼

General Information

The Deep Głogów copper ore deposit is located in the **Lower Silesia** region of **Poland**. The project is wholly owned by KGHM. The mineral resources are estimated at over **300 million tonnes** with average copper content of 2.5%. They constitute one-fourth of KGHM's copper resources and around one-third of its silver resources in all of the areas concessioned by the company in Poland. Infrastructure from the Rudna and Polkowice-Sieroszowice mines is used to access the deposit.

"Głogów Głęboki-Przemysłowy" deposit is characterized by the **biggest** depth of orebody occurrence from all deposits operated by KGHM. The orebody layers are located deeper than neighboring Rudna and Sieroszowice deposits, the maximum deepness of deposit reach around 1385 m in depth. Geological works, that were done so far in deposit area, shows less frequent orebody faulting, but with depth increase much more common and intensive thermal and gas events than in other deposits. In "Głogów Głęboki-Przemysłowy" balance mineralization is presented in all three main lithological types of ore: **sandstone amount to 60% of resources, shale – 13% and dolomites – around 27%** of industrial resources of this deposit.

History

Location

Głogów Głęboki - Poland ▶

Ag Au Cu

OWNERSHIP: KGHM POLSKA MIEDZ SA - 100%

TYPE OF MINE: UNDERGROUND

MAIN PRODUCT: COPPER ORE

ASSOCIATED SILVER, GOLD, LEAD PRODUCTS

MINING 265.5 MLN T, 1.66 % CU, RESERVES 54 PPM AG

TYPE OF ORE: STRATABOUND "BODY"

MINELIFE APPROX. 40 YEARS

PRODUCTION WITHIN "RUDNA" AND "POLKOWICE-SIEROSZOWICE" OPERATIONS

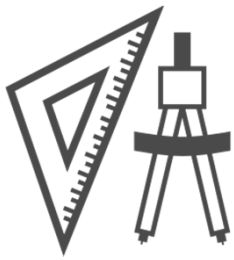
EMPLOYMENT WITHIN "RUDNA" AND "POLKOWICE-SIEROSZOWICE" OPERATIONS

START OF 2014 PRODUCTION

END OF MINE 2055

Contacts

KGHM Polska Miedz S.A., ul. Skłodowskiej-Curie 48 Głogów Głęboki, Poland



Tools to analyze data: Investors can use the IR website to analyze the price of KGHM's shares...

Share Information

Ownership

Share graph

Dividend

Analysts

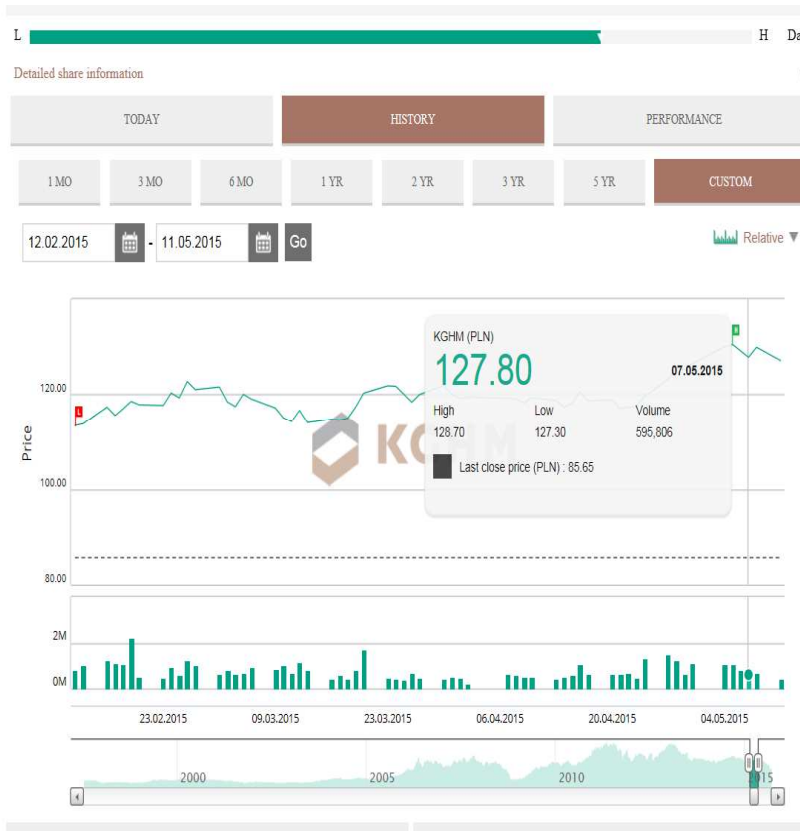
Investor Information

Corporate Governance

Risk Management

Civic Shareholder

Contacts



...and to compare these prices with those of KGHM's competitors and indices

Comparative data

SHARE	DISPLAY PEERS	TRACE INDICES
<input checked="" type="checkbox"/> KGHM	<input type="checkbox"/> Anglo American	<input type="checkbox"/> FTSE 100
	<input type="checkbox"/> Antofagasta	<input type="checkbox"/> FTSE 350 mining
	<input type="checkbox"/> First Quantum	<input type="checkbox"/> Gold
	<input type="checkbox"/> Glencore Xstrata	<input type="checkbox"/> Copper
	<input type="checkbox"/> Kazakhmys	<input type="checkbox"/> WIG 30
	<input type="checkbox"/> Norilsk Nickel	
	<input type="checkbox"/> Rio Tinto	
	<input type="checkbox"/> Vedanta Resources	
	<input type="checkbox"/> Barrick Gold	
	<input type="checkbox"/> BHP Billiton	
	<input type="checkbox"/> Freeport McMoRan	
	<input type="checkbox"/> Southern Copper	
	<input type="checkbox"/> Teck	
	<input type="checkbox"/> Vale	
LOWER PART OF THE GRAPH	TECHNICAL ANALYSIS	SHAREHOLDER RETURN
<input checked="" type="radio"/> Volume	<input type="checkbox"/> Moving average	<input type="checkbox"/> Total return
<input type="radio"/> Daily change	<input type="checkbox"/> Momentum	

INVESTIS

FTSE Disclaimer

An Investis service. Copyright Investis Ltd. All rights reserved. By using this site, you agree to the terms of service and privacy policy. Data is delayed by 15 minutes. Quotes are in local exchange time.

Data provided by **vwdgroup**: excellence in financial solutions



Interactive communication with investors:

The IR website is designed to support communication, that is why:

- it answers the most frequently-asked questions about the shares and bonds of the KGHM Group

INVESTORS

- Why to invest in KGHM?
- Results center ▼
- Reports and presentations ▼
- Performance ▼
- Financial calendar
- Share Information ▼
- Dividend
- Analysts
- Investor Information ▼
- Equity investors
- Fixed income investors
- Market overview
- Corporate Governance ▼

Equity investors

PAGE TOOLS ▼ SHARE ▼

How to buy KGHM shares?

If you want to invest on the Warsaw Stock Exchange (WSE) you need to open a securities account with one of the licensed brokerage houses.

Full information on how to purchase shares on the WSE may be found at their [website](#).

Another useful website for the Polish capital market is [WSEInfoStrefa](#).

Electronic communication

Shareholders may receive information from KGHM using electronic means of communication.

Electronic communication is faster and more environmentally friendly. To register your inquiry please use the following [contact form](#).

Fixed income investors

PAGE TOOLS ▼ SHARE ▼

On 15 June 2015 the 7.75% **Senior Notes** issued by Quadra Mining Ltd. (now KGHM International Ltd.) in a private placement in 2011 in the principal amount of \$500m were redeemed in full. KGHM International LTD. has exercised the option for early redemption of the **Senior Notes** in whole at their nominal price plus a premium of 3.875%.

Further information on the redemption of the senior notes was provided in regulatory filing numbers [19/2015](#) and [19/2015](#).

[Click here](#) to see the archival reports of KGHM International.

- and provides a daily and bi-weekly **market bulletin** on the most important events in the copper and precious metals industries

as of: 31 August 2015

Market Overview

- Copper: Over the last four weeks copper slipped further, with the price looking to be sticky to around \$2000 USD/t levels. Base metals markets are carefully assessing Chinese economy, although other EMs are also source of uncertainty. In some ways, producers are even more hurt than during Asian financial crisis. Freeport-McMoran is the first major copper producer to announce significant cuts. In Zambia, water scarcity resulted in major electricity cuts for red metal producers (page 2).
- Gold: After hitting the lowest point since 2010, gold prices rebounded 3.3% in the last four weeks. Meanwhile, silver continued its downward march, putting gold-to-silver ratio close to very high levels of 80. According to Citi analysis, USD behaviour will be more important for gold prices than Fed hikes themselves. Some short-term bear pressure may come from possible Venezuelan bullion reserves liquidation, as the country struggles with default phantom and low oil prices (page 6).
- China: Chinese central bank unexpectedly decided to change its currency regime to more market-driven. By doing that PBOC may be aiming at achieving few goals, but it seems that it is rather adjusting to IMF's SDR requirements than boosting economic growth (page 8).

Key market prices			
	Close price	4w chng.	
LME (USD/t)			
▼ Copper	5 095.00	-2.4%	
▼ Nickel	9 835.00	-10.0%	
LBMA (USD/100oz)			
▼ Silver	14.44	-0.8%	
▲ Gold (PM)	1 135.00	3.3%	
FX			
▲ EUR/USD	1.1268	2.7%	
▲ EUR/PLN	4.2325	2.0%	
▼ USD/PLN	3.7493	-1.1%	
▲ USD/CAD	1.3269	1.7%	
▲ USD/CLP	699.69	4.1%	
Stocks			
▼ KGHM	79.50	-16.3%	

Source: Bloomberg, KGHM; more on page 12

Important macroeconomic data			
Release	For		
▲ GDP (annlzd., qoq)	2Q	3.7%	▲
▲ GDP (sa, yoy)	2Q	1.2%	▲





Interactive communication with investors

means we are in constant contact with them

- We cooperate with the Individual Investors Association of Poland
- We are an active participant of the Polish government's Civic Shareholder program , through which we promote the idea of capital markets as widely as possible
- We are open to any questions our investors may have. You can find us any time here:



Stowarzyszenie
Inwestorów
Indywidualnych



Contacts

Head Office

ul.M. Skłodowskiej-Curie 48
59-301 Lubin
Poland
+48 76 74 78 200
+48 76 74 78 500

Warsaw Office

ul. Rondo ONZ 1, 36th floor
00-124 Warsaw
Poland
+48 22 492 10 52/60

Investor Relations

Artur Tarnowski

Executive Director, Investor Relations
KGHM Polska Miedź S.A.
+48 76 74 78 280
+48 76 74 78 205
ir@kghm.com

- Soon, we are planning to launch a new tool: **Daily Alert**



Layers of Possibilities



**Resource base development:
key elements and exploration
projects**

Maciej Matuszewski
Strategic Analyses Unit



Agenda

Long-term challenges in the copper market

The new strategy for the years 2015-2020, with an outlook to the year 2040

Why to invest in KGHM?

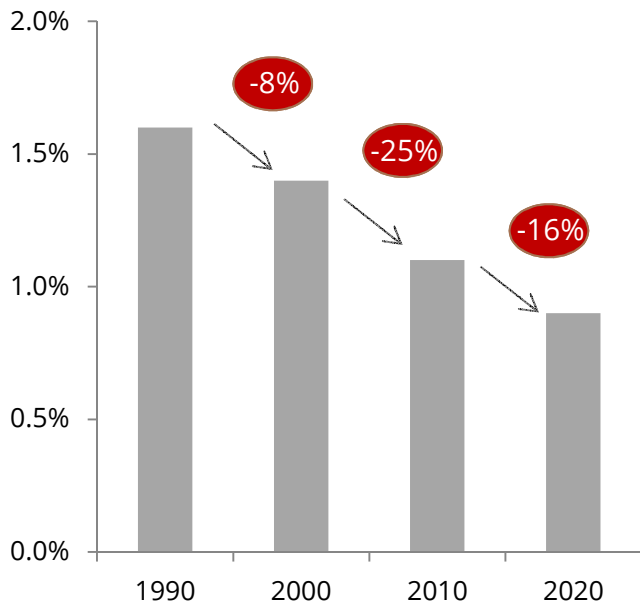
Growing risk for new copper projects in the world

Lower copper content
in ore...

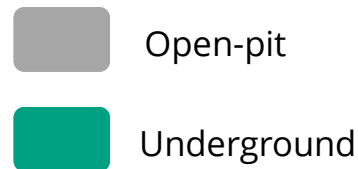
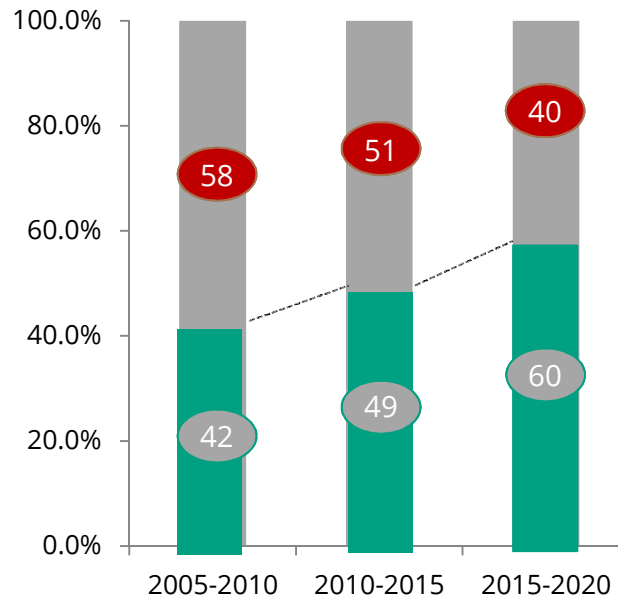
...means a growing share
of more costly underground mines...

...as well as investments in places
that are geopolitically more risky

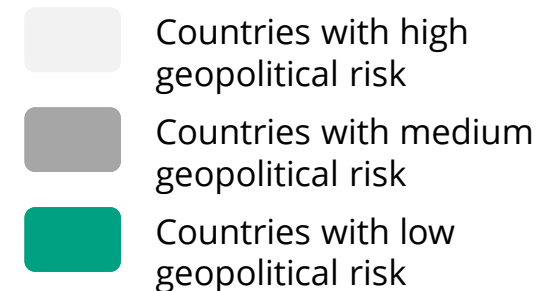
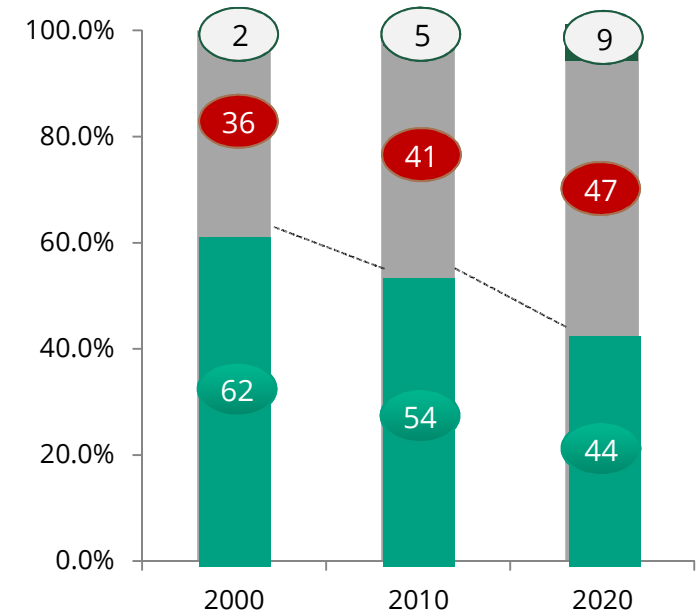
Cu content (%)



Type of mine (%)

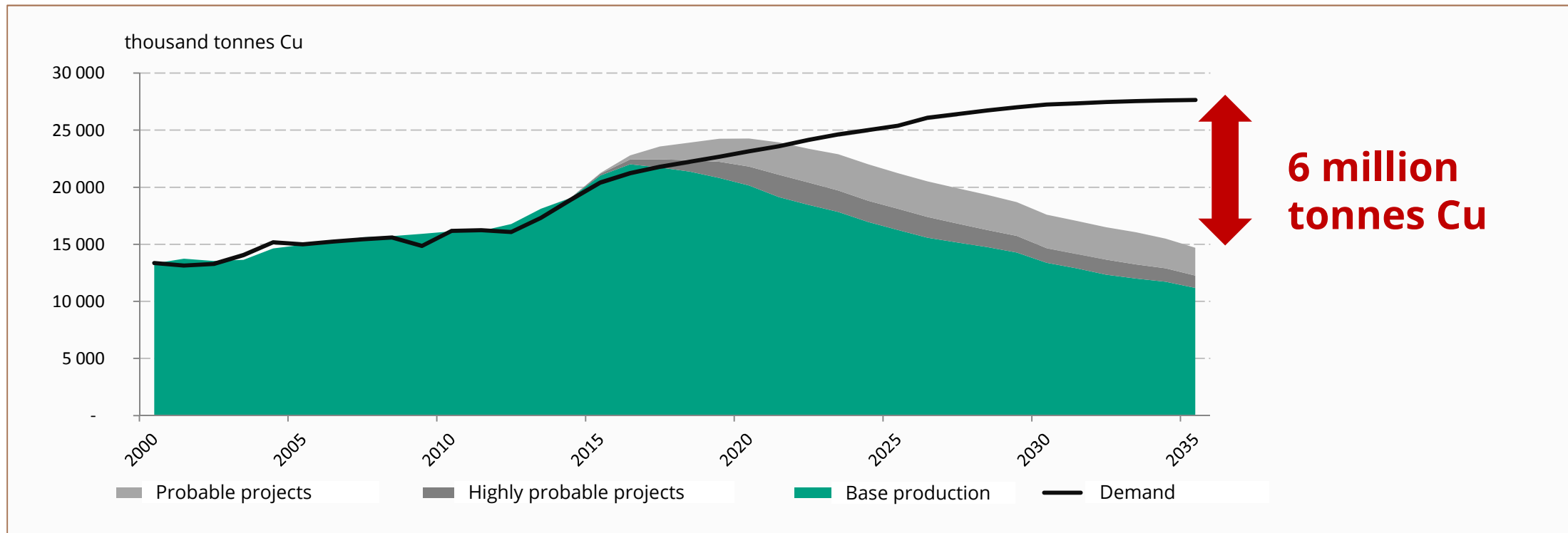


Mine location (%)



Fundamental analysis proves that the copper market is developing in a direction expected by producers

For 60 years, KGHM has been active in the copper exploration, exploitation and processing business. The company aims at developing its portfolio of cost-competitive projects in Poland and abroad.



A long-lasting balance in the copper market demands the development of **new mining projects** with yearly production capacity of more than **6 million tonnes Cu**. Due to effective management of projects the company is going to strengthen its market position.



Agenda

Long-term challenges in the copper market

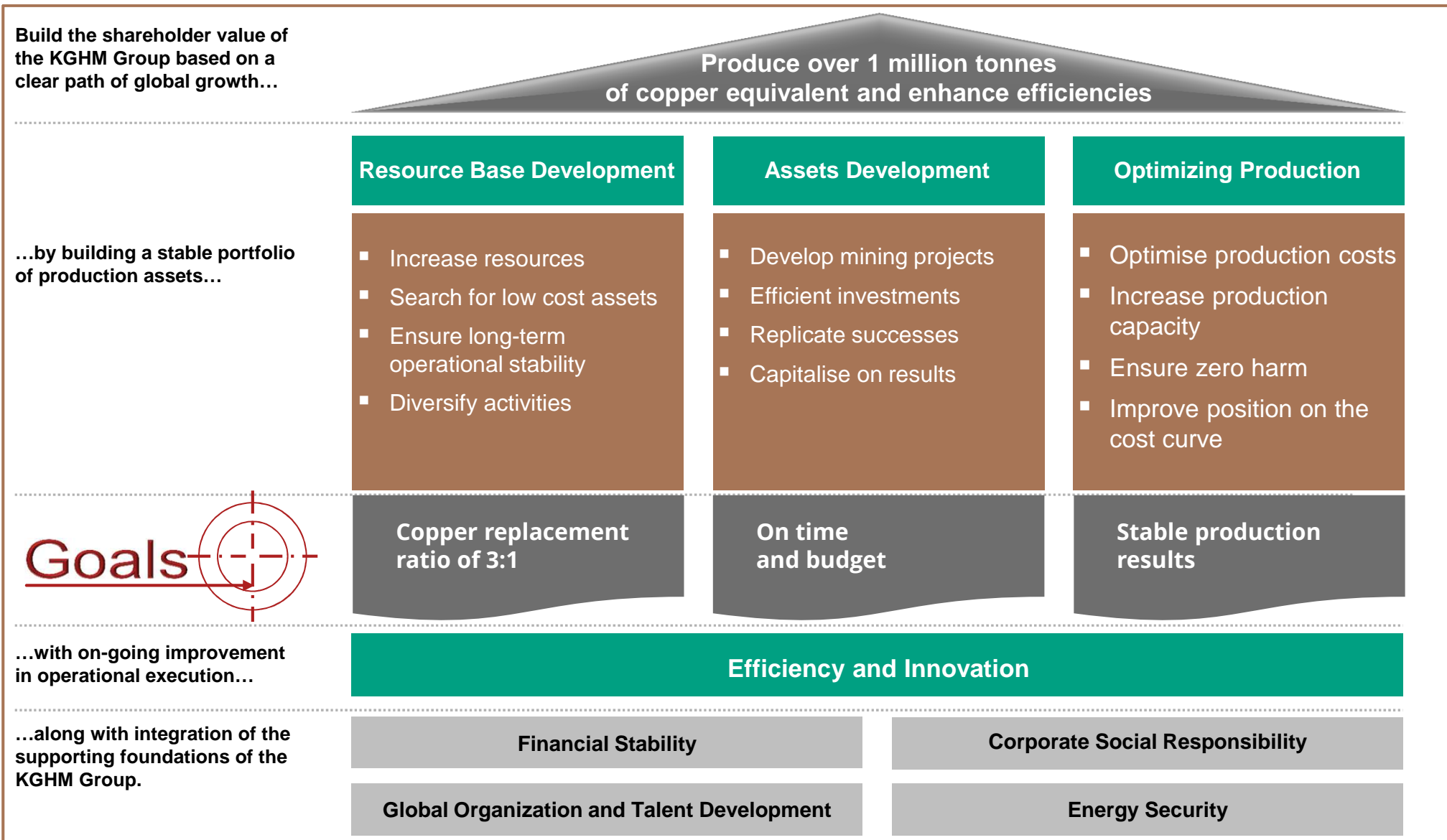
The new strategy for the years 2015-2020, with an outlook to the year 2040

Why to invest in KGHM?

KGHM Polska Miedź S.A. successfully achieved its strategic goals from 2009

- 1** The rising costs trend was reversed
 - From 2012 the average yearly **cost of production per tonne dropped 2% per year**¹
- 2** KGHM grew its resource base and achieved yearly **copper production of 700 thousand tonnes**
 - In 2012 Quadra FNX was acquired at a favorable price
 - In 2014 Sierra Gorda, a world-class project, was commissioned
 - The total **resource base grew by 12 million tonnes of copper**, over 40% growth
- 3** By growing its resource base **KGHM's operations were diversified**
 - KGHM owns production assets in Europe, North America and Chile
 - Production was extended to other non-ferrous metals (molybdenum, gold)
- 4** KGHM remains an important partner for the local region **generating 40% of local taxes and directly employing almost 40 thousand people**
- 5** KGHM introduced **management by goals** for key managers and created numerous programs promoting knowledge transfer and **developing talented employees**

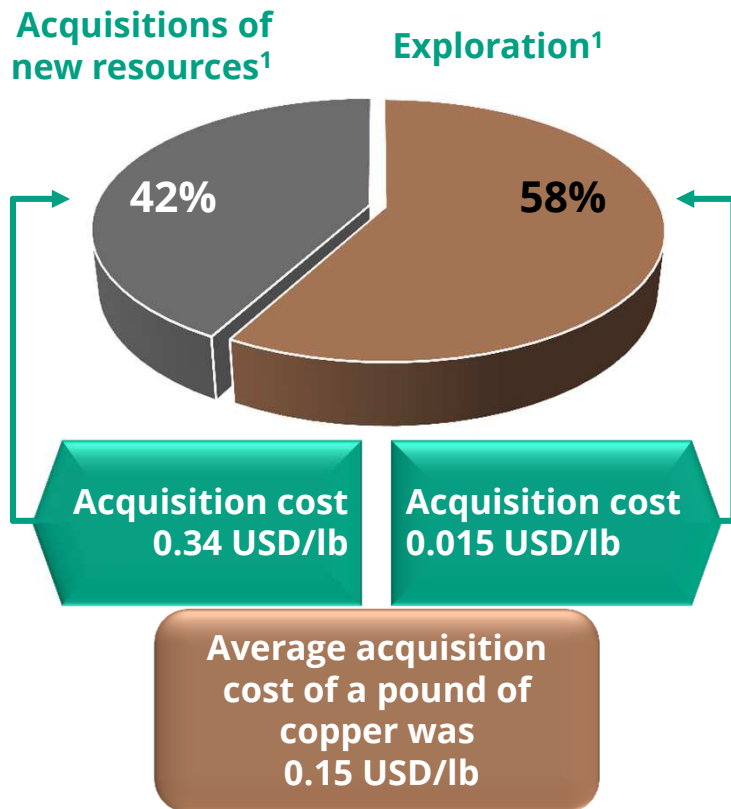
KGHM's new strategy for the years 2015–2020 with an outlook to 2040 focuses on continuing growth and maximizing shareholder value



To ensure a stable resource base, KGHM plans to launch an exploration program and to set the replacement ratio at 3:1

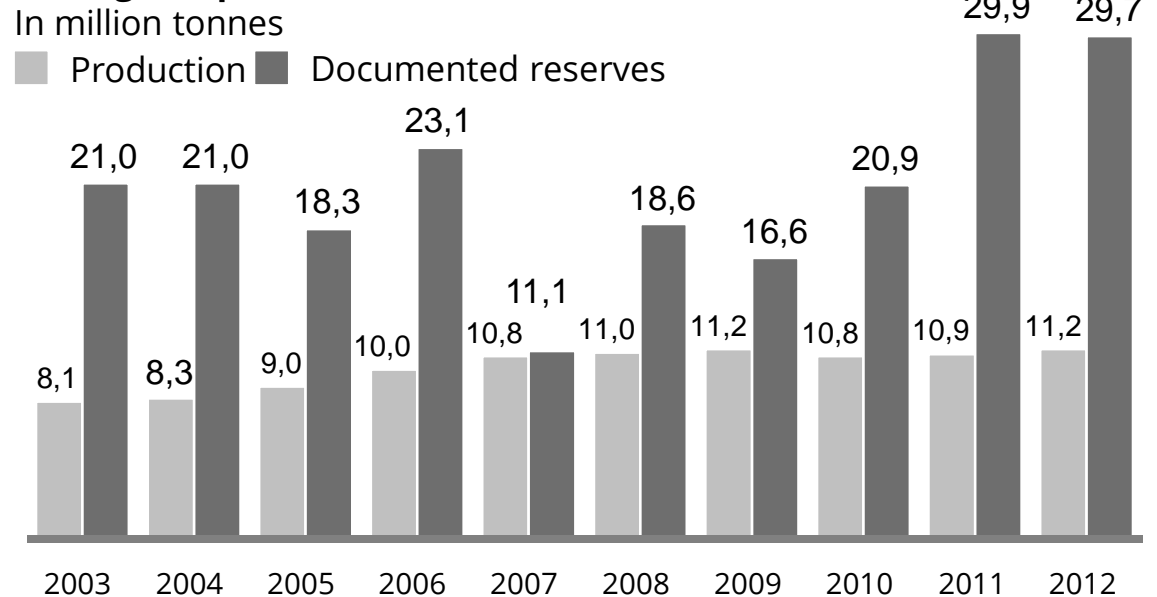
To ensure balanced resource base growth KGHM plans to augment its plan to acquire low cost assets with an exploration program

Resource acquisition by the 23 largest copper mining companies¹



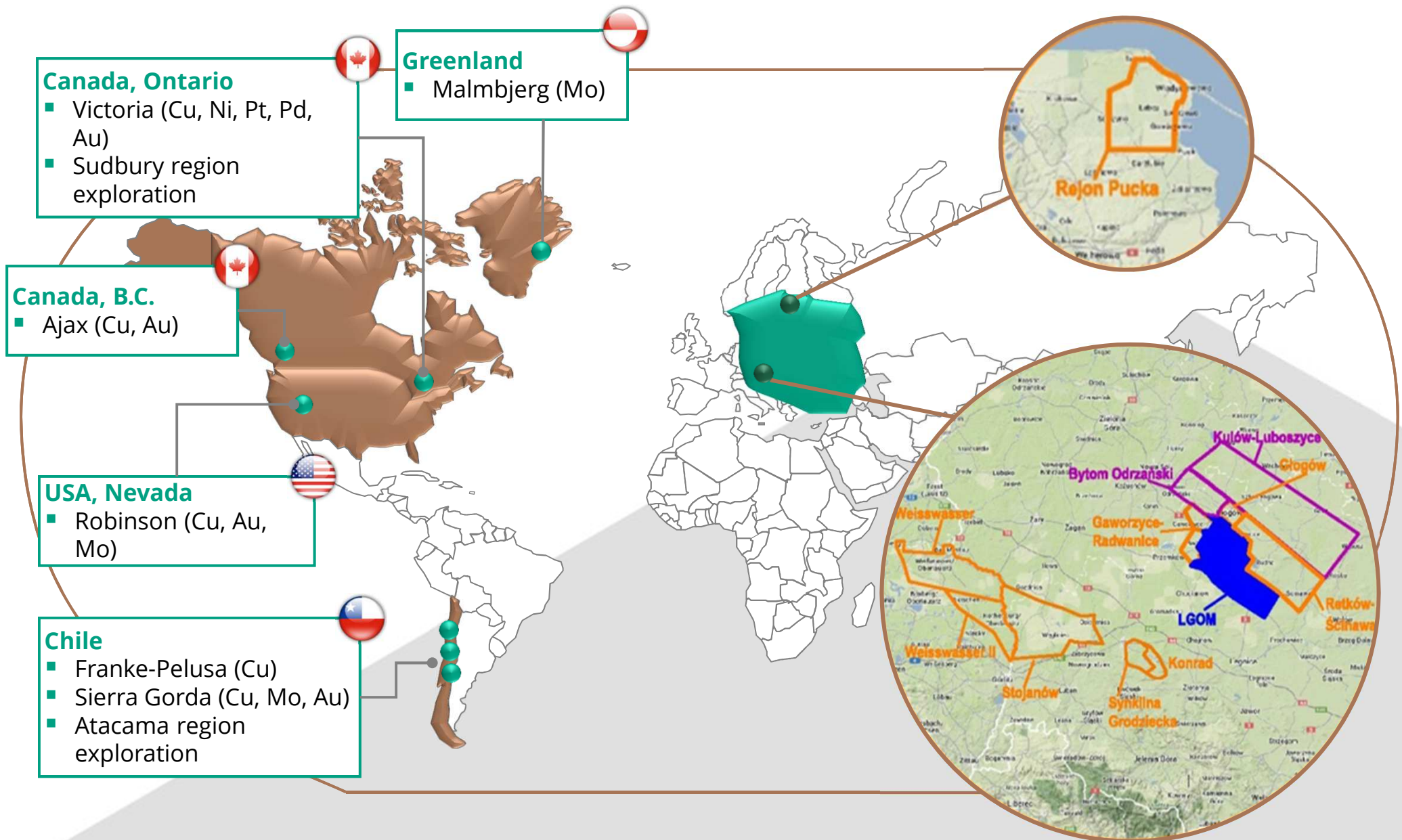
Newly documented deposits have tended to exceed copper production by a 3:1 ratio – KGHM plans to follow market standards and set its own replacement ratio at the level of 3:1

Production and documented reserves of the 23 largest copper mining companies¹



In the years 2003-2012 every extracted tonne of copper was replaced on average by almost 3 tonnes of copper in documented reserves (~3:1 ratio)

KGHM will carry out an exploration program both in Poland and world-wide for optimal resource base diversification

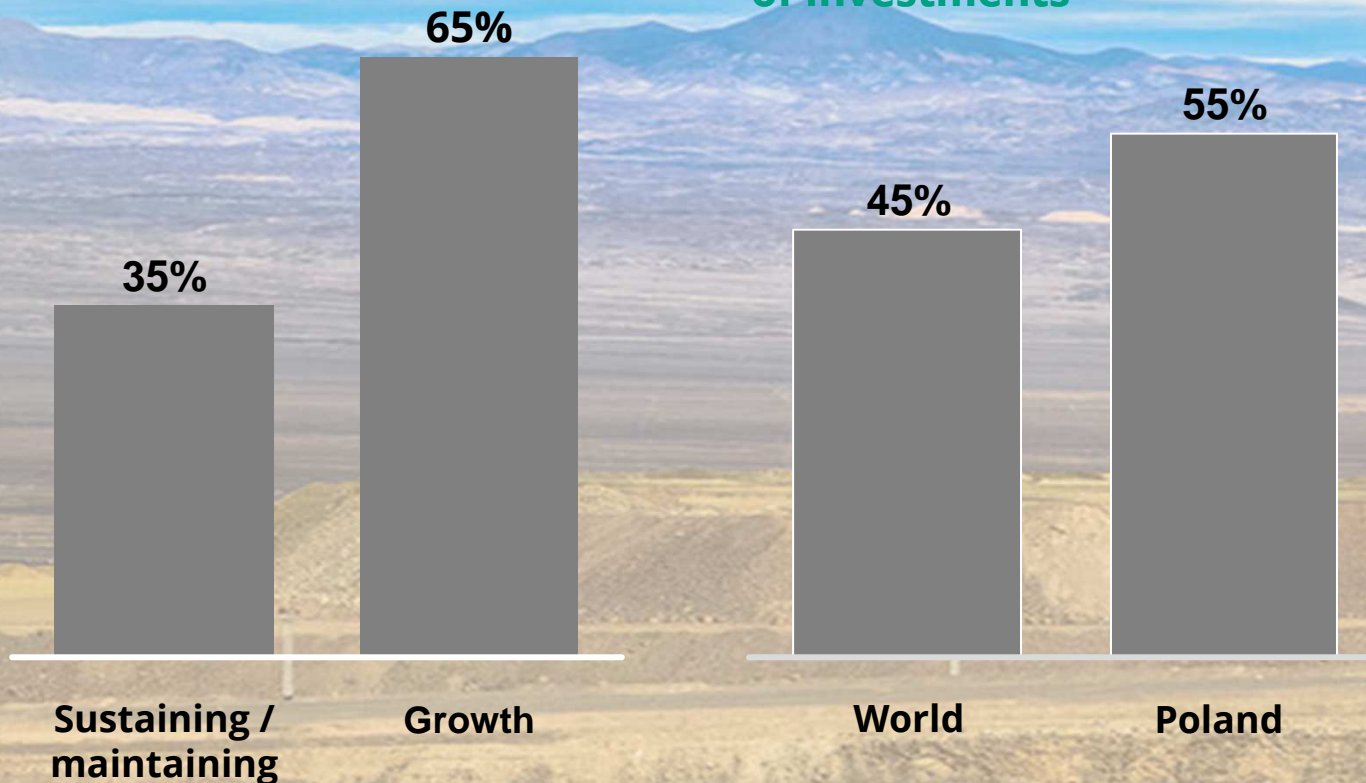


KGHM plans within 6 years to invest around PLN 27 billion in the development of its existing assets

Investment Program

Type of investment

Geographical distribution of investments



Key facts

- Largest investment program in the 60-year history of KGHM Polska Miedź S.A.
- Focused on development of promising low-cost production assets

Under its investment program KGHM will supplement its portfolio with world-class mining and metallurgical projects

Main investments



Deep Głogów

Ensuring continuity of production



Pyrometallurgy Modernization Program

Improving global smelting competitiveness



Sierra Gorda

Commencement of phase II and processing of the oxide ore



Victoria

Building an underground mine (copper, nickel and platinum group metals)



Ajax

Open pit mine (copper and gold)

Sierra Gorda

Daily processing reaches nearly 80% of target capacity

Sierra Gorda

Cu Mo Au

- | | |
|---|---|
| ▪ Average annual production
(Phases I & II) | 220 kt Cu
25 mn lbs Mo*
64 koz Au |
| ▪ Ownership | 55% KGHM
45% Sumitomo |
| ▪ Mine profile | Open-pit |



Loading of molybdenum concentrate

Key events update

- Daily ore processing is currently around 80% of target phase I capacity.
- In the first quarter work involved increasing processing capacity, along with continued ramp-up and technical handover of the molybdenum concentrate production installation.
- Production of copper in concentrate in Q1 2015 amounted to 65 thousand tonnes.
- In March the vicinity of the Sierra Gorda mine and processing plant experienced weather conditions of an unusual type for this region – heavy rain and strong winds. The brief shutdown of the Sierra Gorda mine had no substantial impact on operations.
- In 2015 we will undertake work aimed at optimising basic assumptions as well as on basic engineering work on phase II of the project.
- In the second quarter of 2015 work continued on the feasibility study for the Oxides processing project.

Victoria and Ajax – key resource projects at the development phase

Victoria

Ni Cu Pt Pd Au

Ajax

Cu Au

▪ Average annual production	~16 kt Ni ~15 kt Cu ~150 koz TPM	~50 kt Cu ~100 koz Au
▪ Ownership	100% KGHM	80% KGHM 20% Abacus
▪ Mine profile	Underground	Open-pit

Key events update

- Work is underway to prepare for shaft sinking.
 - Project resources are estimated at 13.6 Mt with an average grade of 2.6% copper, 2.7% nickel and 8.3 g/t TPM*.
 - The project will have a negative cash cost of copper production, i.e. revenues from the sale of associated metals will be higher than production costs.
- Three milestones for 2015:
 - Submitting of application for environmental permit
 - Submitting of application for mining permit
 - Completion of a *Basic Engineering Report*
 - The Minister of Energy and Mines for British Columbia paid a visit to site of the future Ajax mine, ensuring his support for the project.



Companies engaged in developing the Victoria project

Drilling at the Ajax project

Key milestones to 2020



If appropriate financing is available and market conditions are favorable, KGHM expects further involvement in new mining projects

Key themes of KGHM's new strategy for the years 2015-2020 with an outlook to 2040

- Production of over **1 million tonnes of copper equivalent** – **TOP 7** among global mining companies
- **Investment of PLN 27 billion in the development of existing assets** – largest investment program in KGHM's 60-year history
- Securing **some of the largest copper deposits in the world** – the largest exploration program in Polish history
- A world-class innovation program in the mining sector – **a longwall mining system in the next 5–10 years** and the creation of **intelligent mines in the next 10–15 years**
- Cost reduction thanks to innovation and efficiency improvement programs – **a 10% decrease in the KGHM Group's C1 cash cost by 2020**
- Further development of **geological, mining and technological skills** that are necessary to achieve sustainable competitive advantage based on innovation
- Cooperation with government institutions to **redefine the minerals extraction tax formula**



Agenda

Long-term challenges in the copper market

The new strategy for the years 2015-2020, with an outlook to the year 2040

Why to invest in KGHM?

Attractive investment opportunity

- 1 Good copper market outlook** in the mid-and long-term
 - The forecasted balance in the global copper markets suggests a trend of growing prices
- 2 Diversified portfolio of long life assets** and **stable resource base**
 - Mining projects in politically and economically stable countries (Poland, Canada, USA, Chile)
 - The resource base which currently allows for production for another forty years
- 3 Reversal of the rising costs trend** (from 2012 the average yearly cost of production per tonne dropped 2% p.a.¹) as well as focus on improving cost efficiencies
- 4 Consistent dividend payout** of up to one-third of net profits
- 5 Experienced team** who have successfully developed new mining projects
- 6 Stable organization with strong values** and focused on acting responsibly

Layers of possibilities



Risk Management in the KGHM Group

Grzegorz Laskowski
Head of Market Risk Division

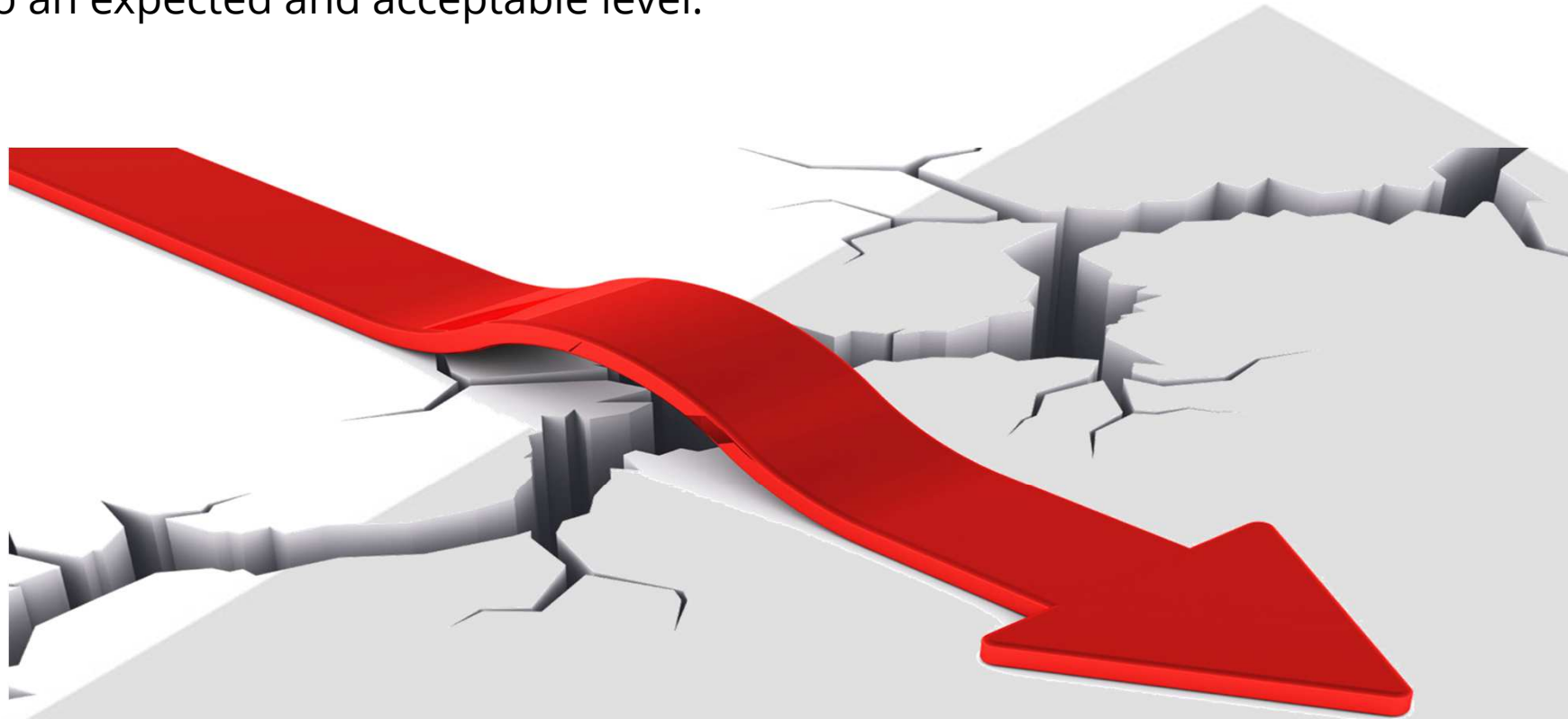
Agenda

1. Hedging
2. Motivation behind risk management
3. Risk management process
4. Market
5. Hedging position
6. Instruments



Hedging – definition

Hedging – market risk management aims at limiting or eliminating potential losses stemming from changes in the market prices of commodities, exchange rates and equities. Hedging makes use of various techniques, however the primary one involves transactions on derivatives, with an inverse ratio to the hedged position. Hedging allows companies to modify their risk profile and lower it to an expected and acceptable level.



Natural hedging – a natural step in market risk management

Natural hedging – all techniques that limit exchange rate risk using only internal company tools

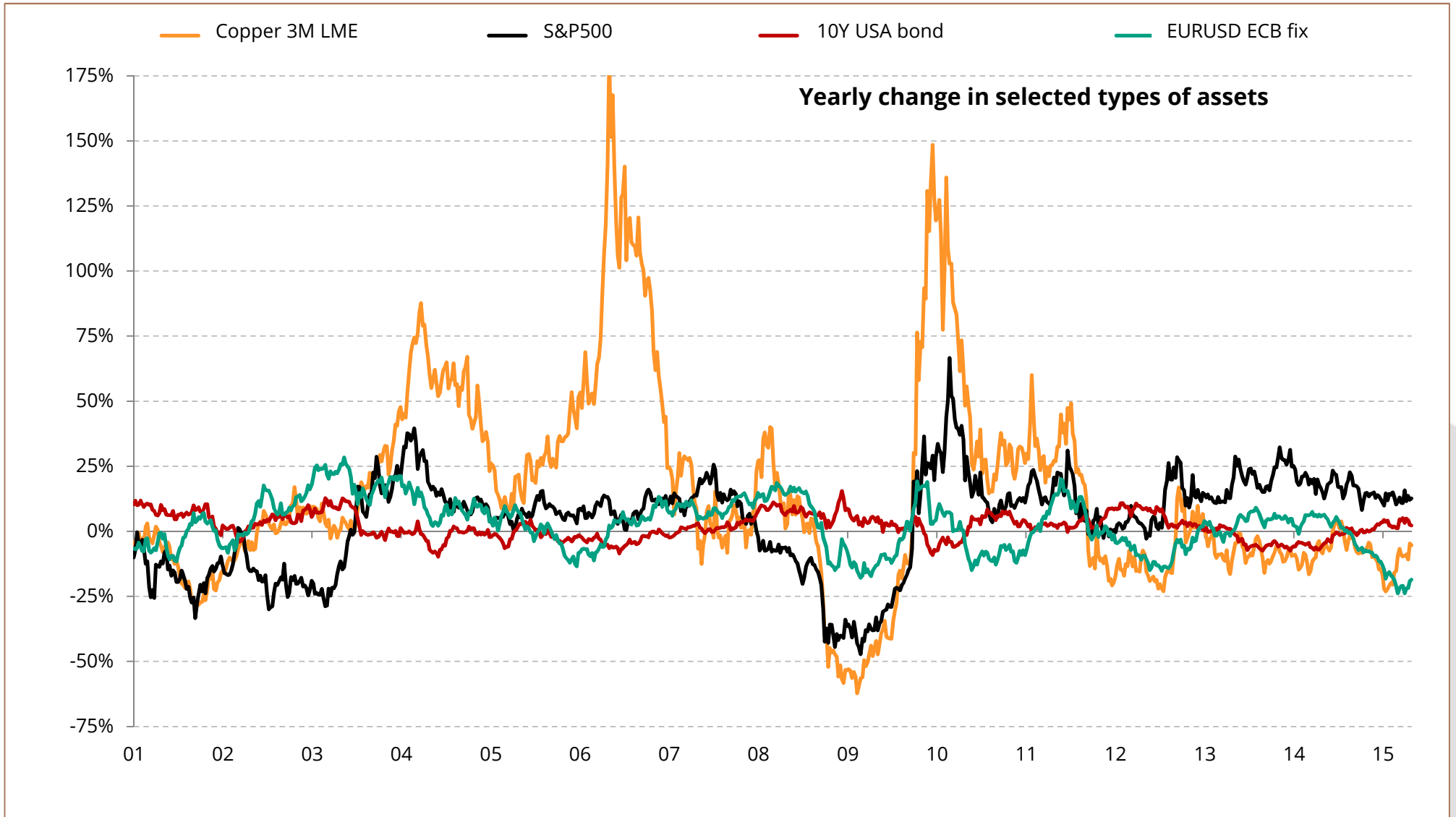
Types of natural hedging:

- Costs in the same currency as incomes
- Netting
- Loans in one currency only
- Adjustment of purchase and sales QPs (quotational periods)
- Payments advanced or delayed
- Creating the proper portfolio of assets

Motivation behind KGHM's market risk management

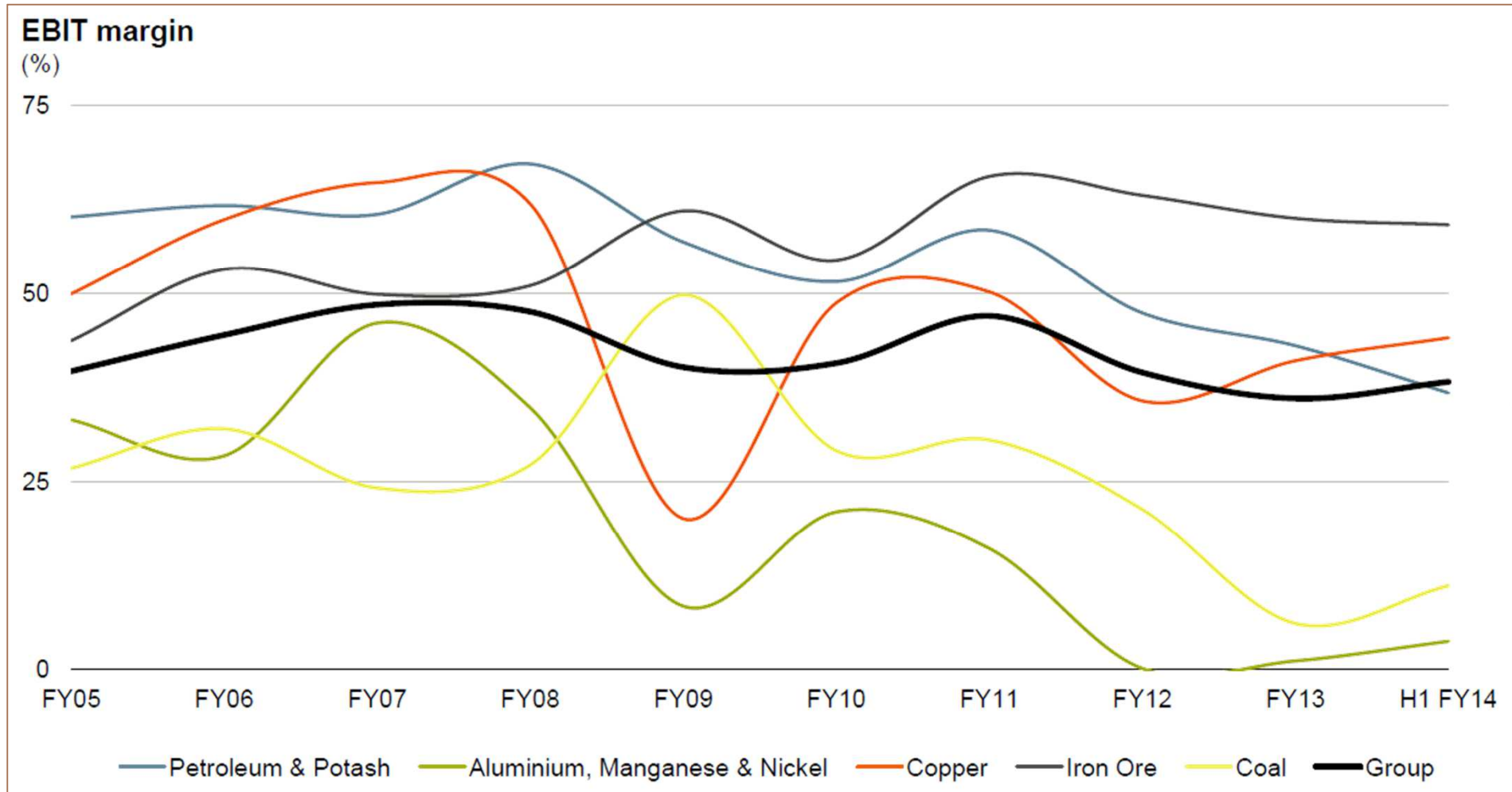
- Very large volatility of commodity prices and exchange rates
- Considerable sensitivity of KGHM's financial results to the economic conditions
- Cycles that characterize commodities markets
- Yearly revenues of around USD 5 billion, costs mainly in PLN
- Relatively high (compared to peers) production costs
- Investment plans
- Corporate social responsibility

Metals market is characterized by large volatility



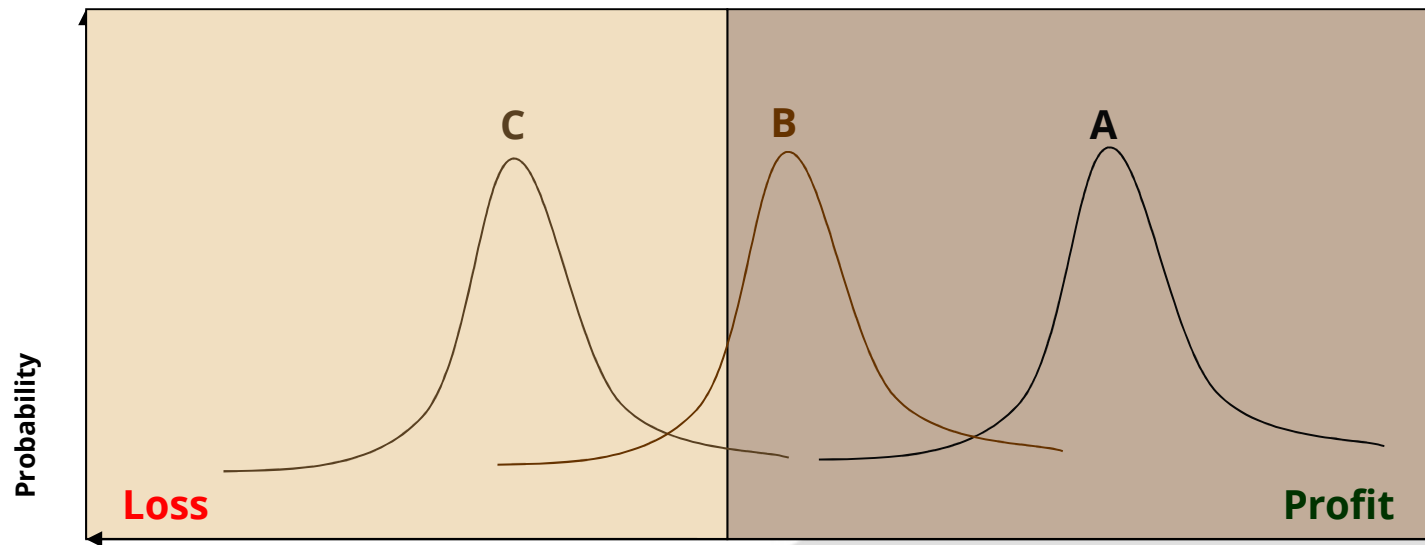
Thanks to diversification, the risk of bankruptcy is greatly reduced

EBIT margin on selected assets of BHP Billiton



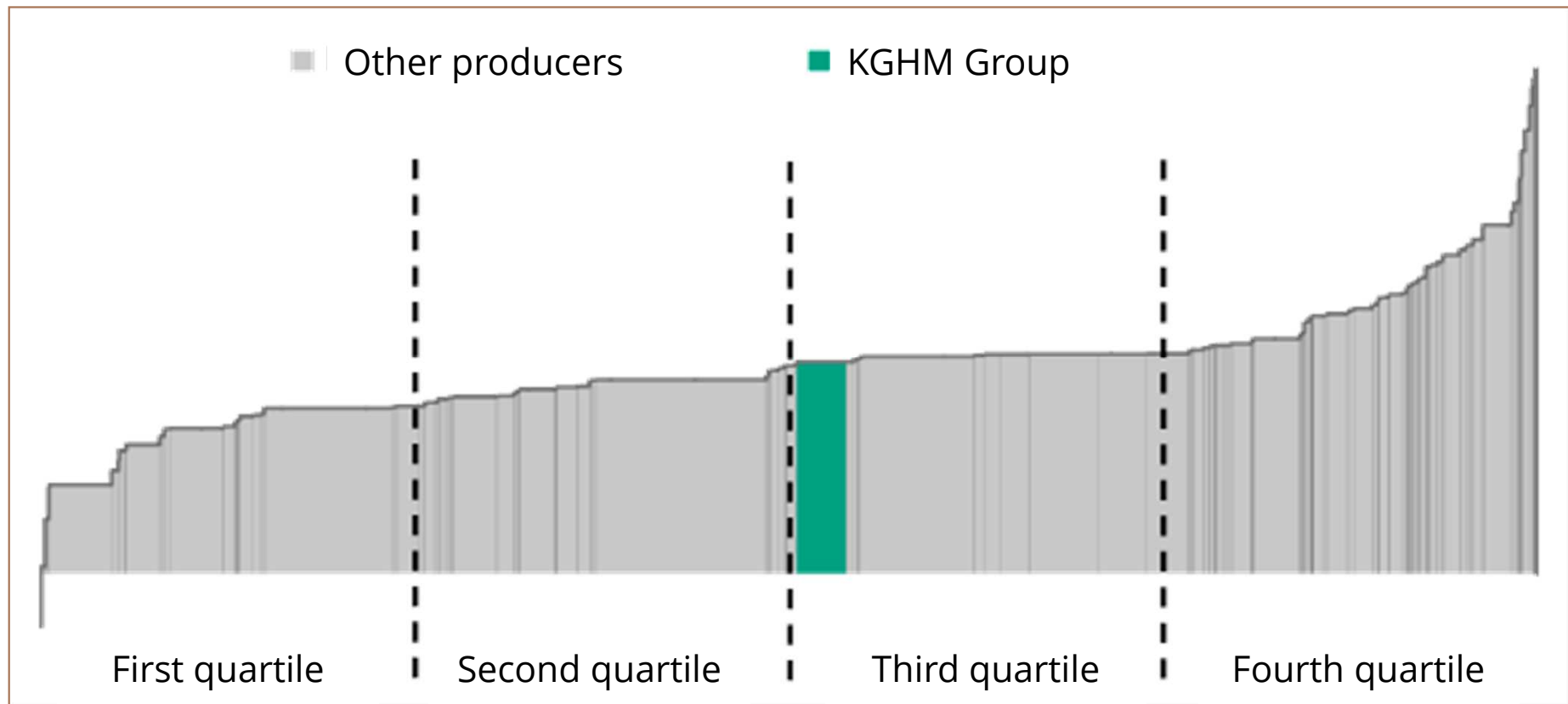
The main strength of BHP Billiton's business model is its reliance on resource diversification

Investors accept the company's exposure to market risk. What they do not accept is the risk of bankruptcy



- **A - BHP Billiton, Rio Tinto**
- **B - KGHM, Boliden**
- **C - New mines, minor mining projects**

Production costs in the industry are key to analyzing the risk of losing liquidity

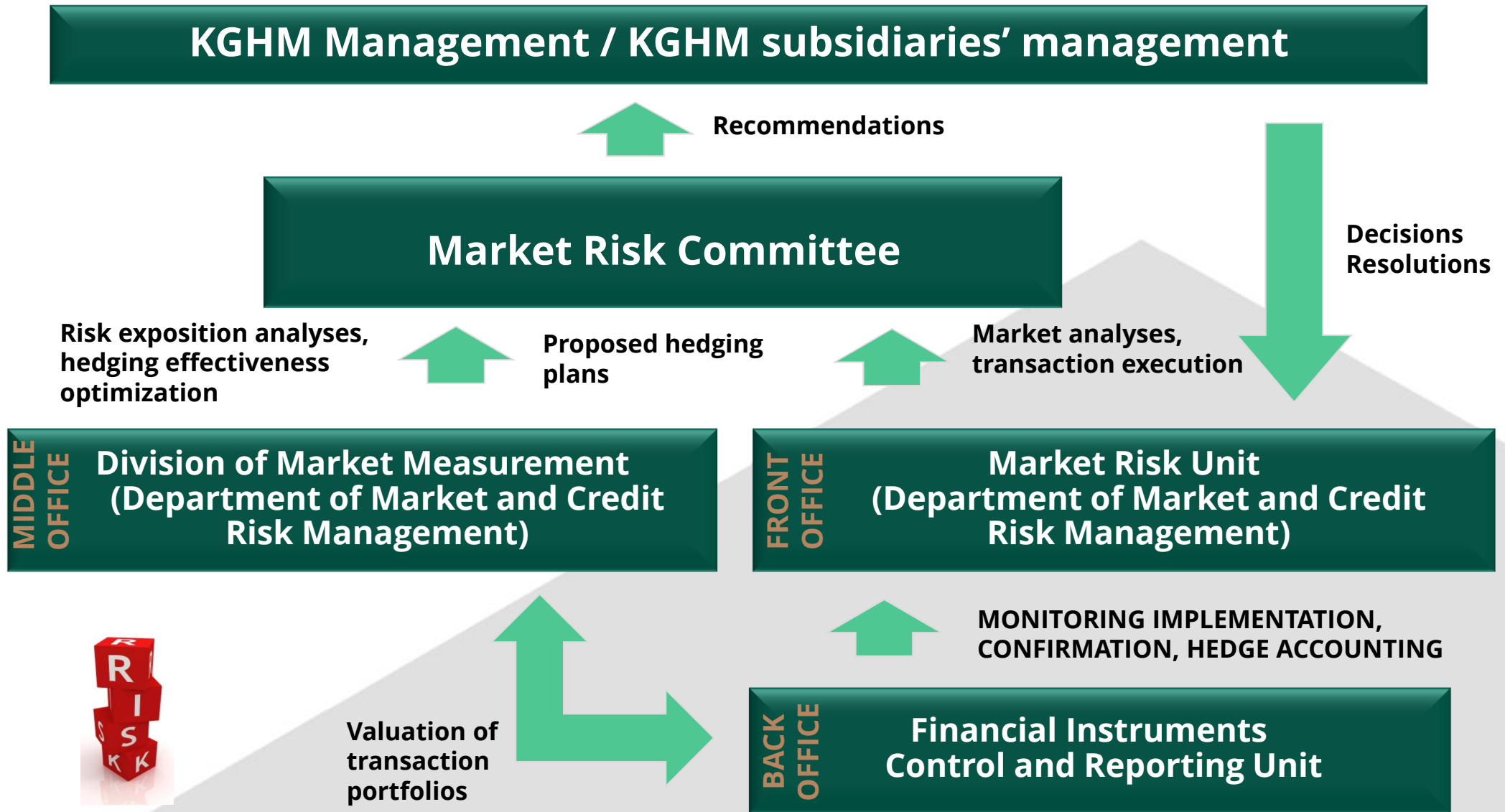


KGHM meets the aims of market risk management based on its corporate policy

Goals of the market risk management process: *

- To reduce volatility in the pre-tax financial results,
- To increase the probability of achieving budget targets (taking into consideration current macroeconomic conditions and sales),
- To decrease the probability of the loss of liquidity by the Group,
- To keep the Group in a good financial condition, especially as far as credit ratings and covenants are concerned,
- To support the process of accomplishing the strategy and of making decisions with respect to investments, taking into consideration the sources of financing these investments

Market risk management process in the KGHM Group



Risk measurement – Earning at Risk

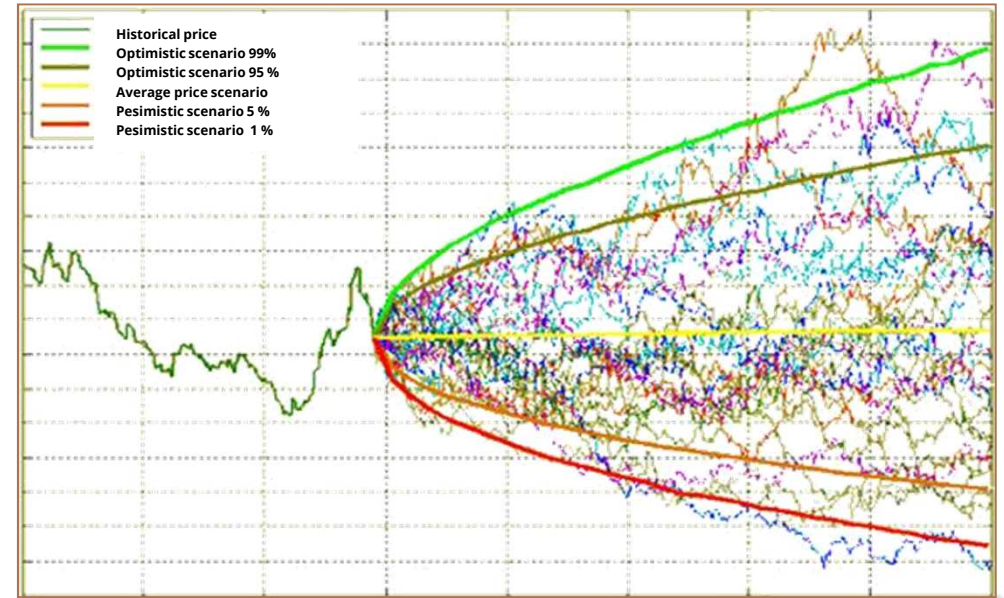
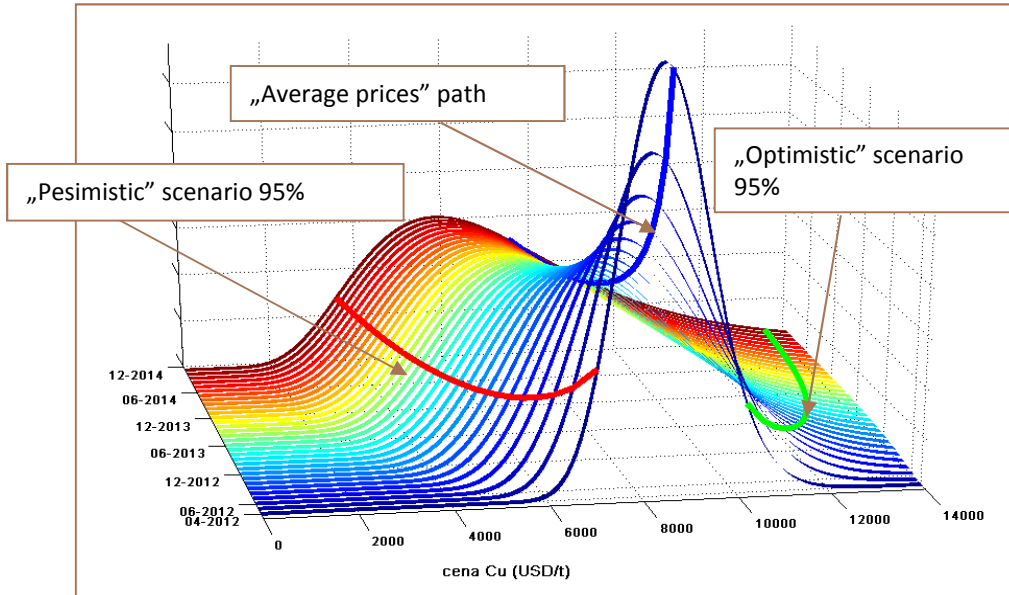
Earnings at Risk determines the maximum acceptable level of decline in earnings against the budgeted level, as a result of **normal changes in the prices of resources and exchange rates** in a given accounting period and at a given *ceteris paribus* (i.e. all other conditions remaining unchanged) probability.

- Planned pre-tax earnings for a given year equal a (in PLN).
- Measurement (of planned pre-tax earnings at risk): EaR (B/95%)
- **EaR (B/95%)** for a **95%** probability equals b (in PLN)

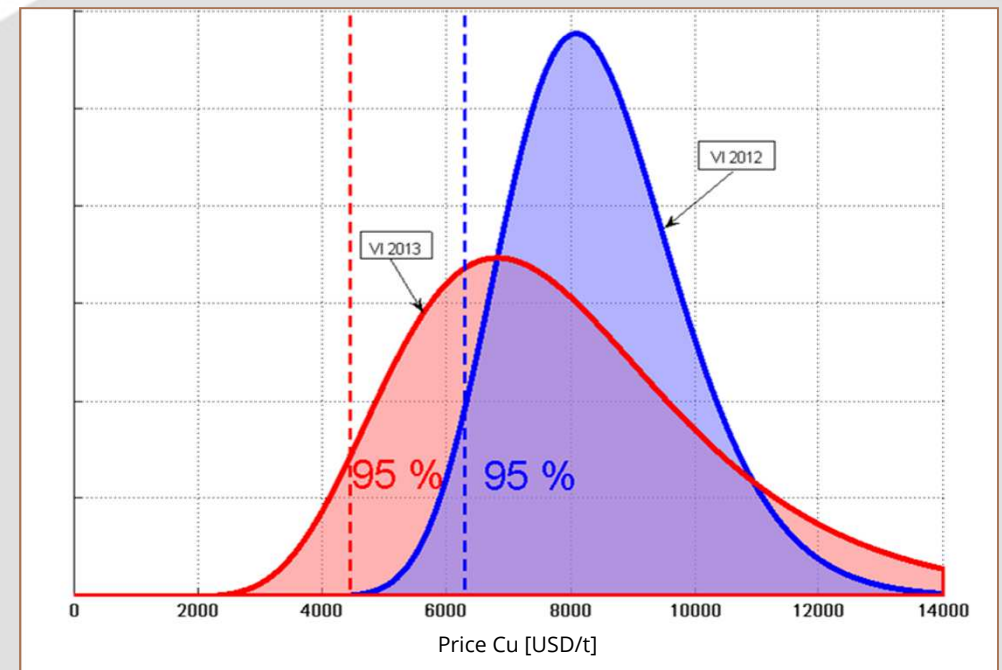
At a probability of **95%** the pre-tax earnings in a given year will not equal less than a minus b .



Risk measurement as the basis for making hedging decisions



- Scenario analysis
- Stress tests
- Historical analysis

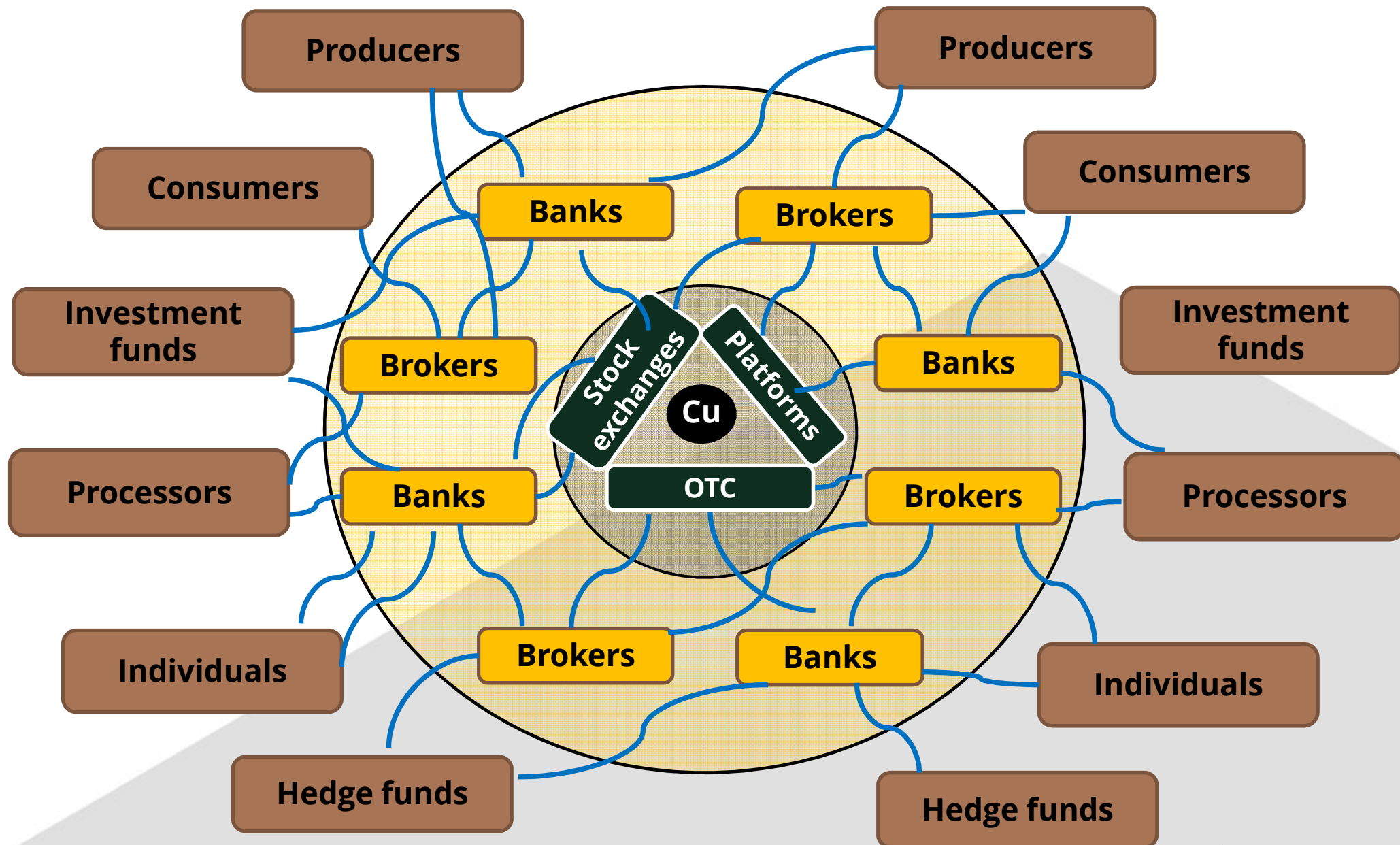


Our approach to market risk management

- Natural hedge: part of purchases in USD
- Derivatives:
 - KISS „Keep it simple, stupid”
 - Options (budget for option premiums)
 - Instruments in use: plain vanilla options, Asian options, SWAPs, no exotic instruments
 - Simple option strategies like collar, seagull
 - No „toxic structures”
- Transparency: hedging positions presented in detail in financial statements



Participants in the derivatives market - the copper market



Stock exchange vs OTC



	Futures	Forward
Amount	Standard	Negotiated
Delivery Date	Standard	Negotiated
Counter party	Clearing house	Bank
Collateral	Deposit	Negotiated
Market	Stock exchange	OTC
Costs	Broker and stock exchange fee	Bid-ask spread
Liquidity	High	Likely low
Regulations	Government (stock exchange)	Contract terms
Location	Stock exchange	Not applicable

Metals exchanges

Basic metals

- Copper
- Aluminum
- Zinc
- Lead
- Nickel
- Tin

London Metal Exchange (LME)



New York Mercantile Exchange (Comex)  CME Group

Shanghai (SHFE)



Singapore (SMX) – copper only



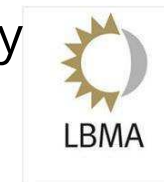
Over The Counter (OTC)

Precious metals

- Gold
- Silver
- Platinum
- Palladium

New York Mercantile Exchange (Comex)  CME Group

Singapore (SMX) – gold & silver only



Over The Counter (OTC)

Rare-earth metals

- Molybdenum
- Cobalt
- Rhenium
- Others

LME (Molibdenium, Cobalt)



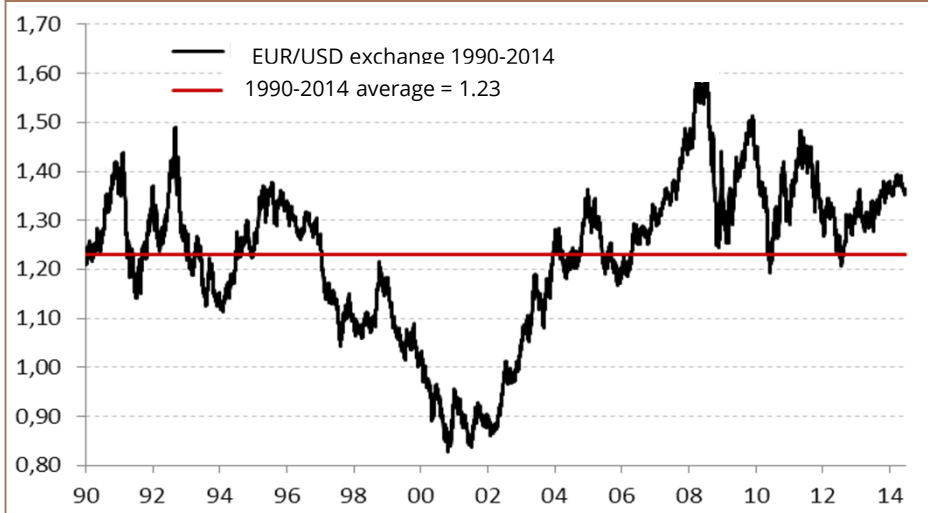
Over The Counter (OTC)

In the long run fundamentals are the most important

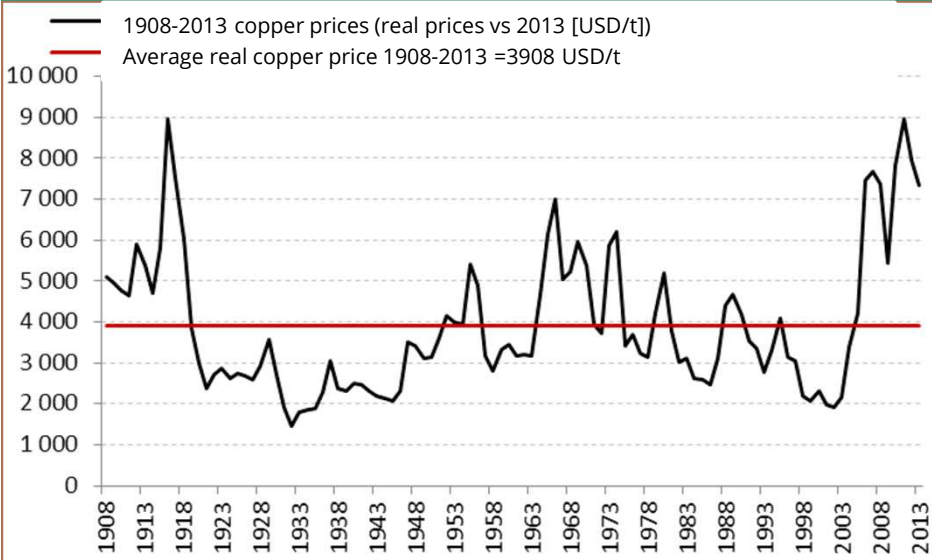
Stocks



Currencies



Commodities



- For prices of raw materials (metals) and currencies it is possible to set **long-term average** prices, which over the long term these prices tend to return to.
- Commodity and currency markets have **both limited long-term growth potential and downside risk**

Familiarity with particular markets allows appropriate actions to be taken on each of them

Markets – characteristics of Cu, Ag and USD/PLN



Copper

This market is strongly linked to the state of the global economy, **the price climbs slowly** – this gives sufficient time to gradually build a position with small transactions. It falls very quickly and suddenly – not allowing for timely hedging.



Silver

Short-term, strong upward price movements, mainly due to inflation, speculation and limited liquidity, not enough time to build positions at attractive levels - the need to make larger transactions.



USD/PLN

Rapid, short-term depreciation of the zloty related to risk aversion - not enough time to build positions at attractive levels - the need to make larger transactions. Beneficial carry trade - the further the hedging horizon, the more possible it becomes to hedge attractive exchange rates

Cycles and negative correlation present opportunities for gain

Two cyclical assets, strongly negatively correlated (-0.92)



- The longer the hedging horizon, the greater the probability that the overall hedge level will be above average prices.
- The occurrence of extreme and irrational market behaviour should be consciously exploited to build or close out positions.

London Metal Exchange - RING



OTC Market – Over The Counter



Hedging in financial statements

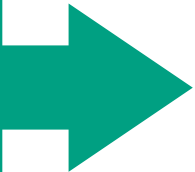
- The Company applies cash flow hedge accounting in relation to transactions that meet the requirements of IAS 39 and IFRS 7
- Hedge accounting reduces volatility in financial results
- At the end of each reporting period derivatives are measured at fair value
- The fair value is divided into intrinsic value (the effective portion) and time value (the ineffective portion)

Hedging in financial statements

Profit and Loss Account

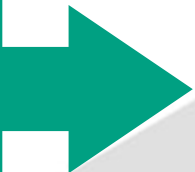
Balance sheet

Settlement of transactions



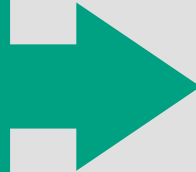
Sales

Valuation - ineffective part



Other operating income
Other operating costs

Valuation - effective part

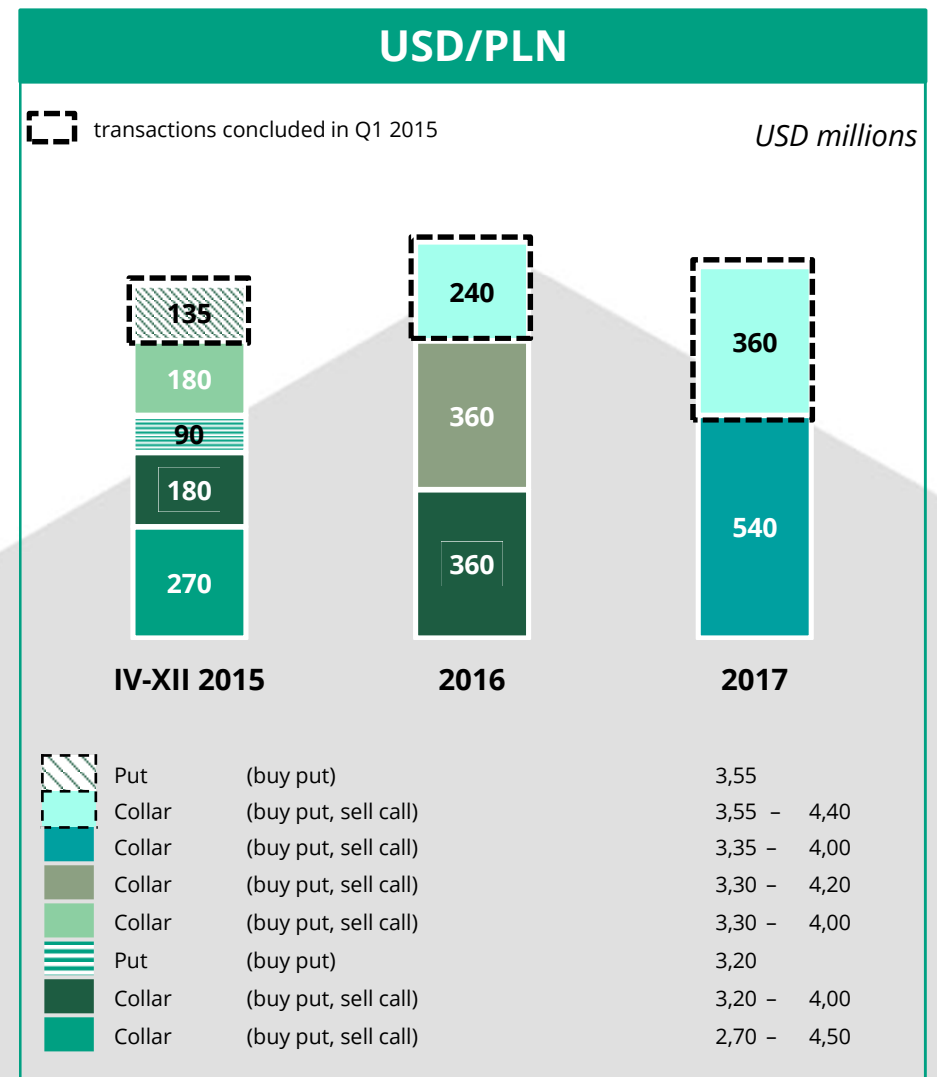
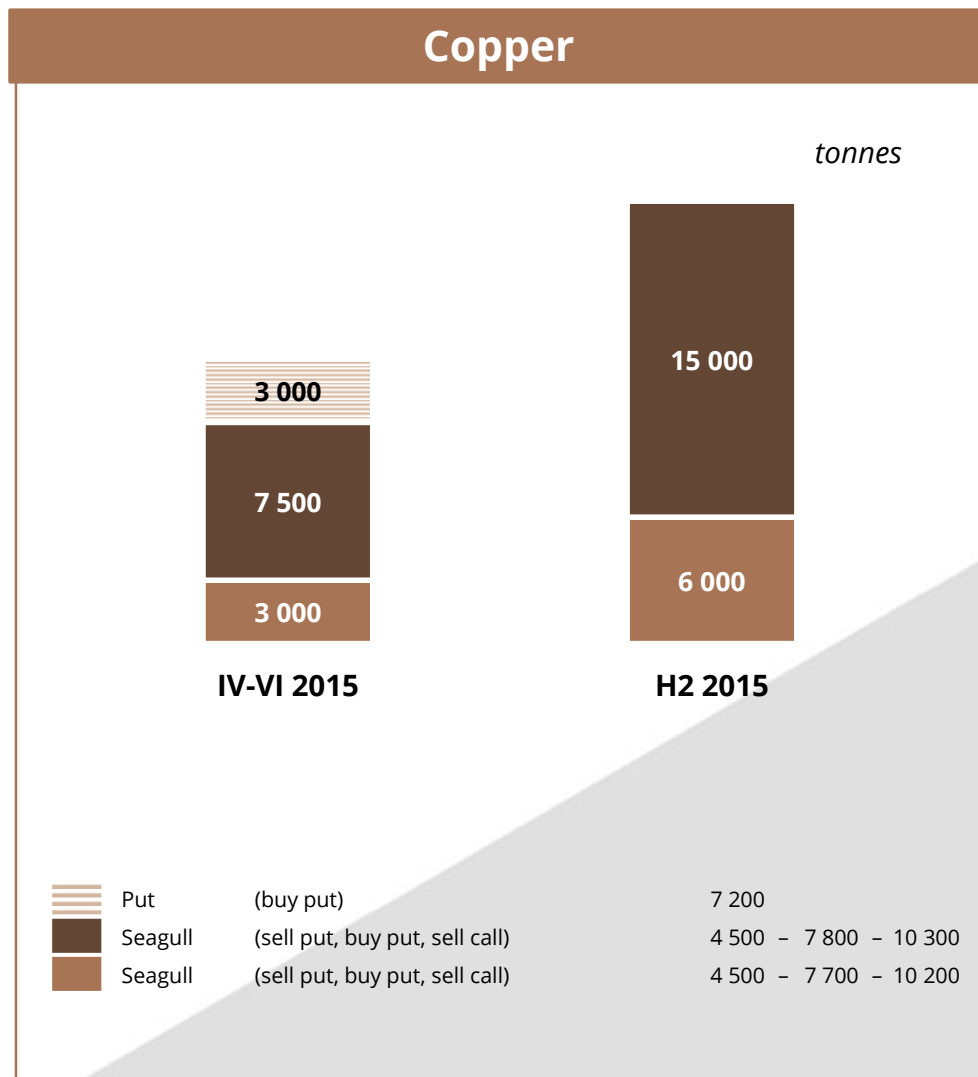


Equity

KGHM Polska Miedź SA result on derivatives as of March 31, 2015 totalled PLN (134) million

Market risk management - hedging positions (as of March 31, 2015)

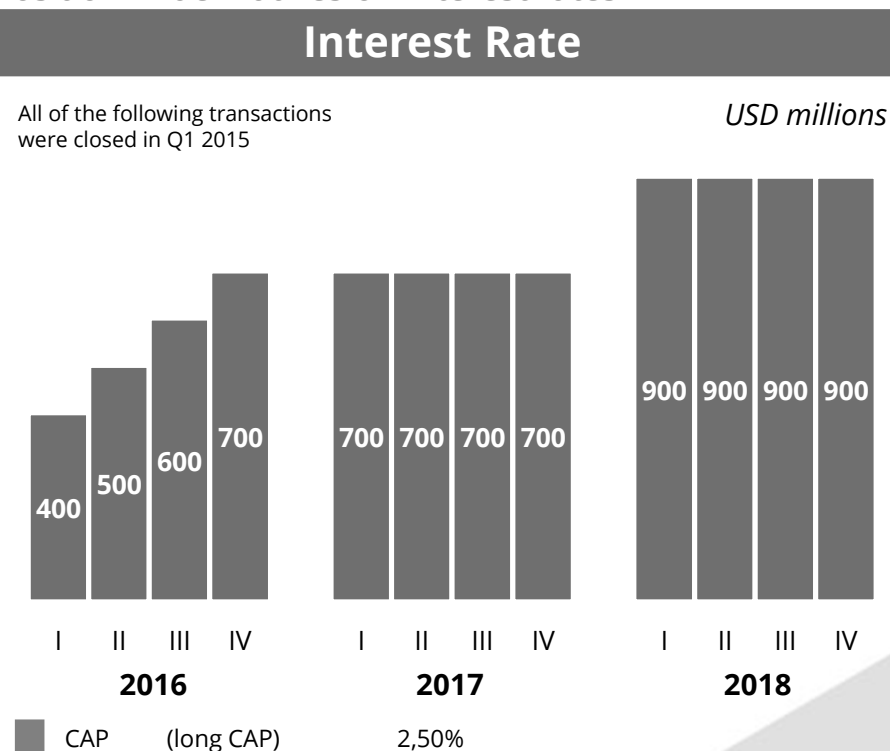
Position in derivatives on the FX and metals markets



KGHM in Q1 2015 implemented hedging against the risk of rising market interest rates

Market risk management - hedging positions (as of March 31, 2015)

Position in derivatives on interest rates



Due to exposure to interest rate risk, the persistence of 3M USD LIBOR at historically low levels and the market consensus pointing to a possible rate hike in the future, the Management Board decided to implement a strategy to partially hedge the exposure of the Company in the periods indicated.

Result on derivatives

- In January-March 2015, KGHM recorded a negative result on derivatives in the amount of PLN 134 million, of which:
 - PLN 118 million increased sales (transactions settled in the first quarter)
 - PLN 252 million decreased the result on other operating activities (change in valuation of open transactions as of March 31, hedged until the end of 2018).
- The fair value of derivatives (MtM) of KGHM at March 31, 2015 amounted to PLN 89 million.
- Capital from the valuation of financial instruments hedging cash flows at March 31, 2015 amounted to PLN 289 million.



Thank you for your participation
in KGHM's Individual Investors Day!



www.kghm.com

Investor Relations

Telephone +48 76 74 78 280

Facsimile +48 76 74 78 205

E-mail ir@kghm.com