

# Datapartner Customer story

### INVEST FOR EXCEL- A MODERN APPROACH TO CAPITAL BUDGETING, CASH-FLOW MODELING AND VALUATION



KGHM Polish Copper SA (KGHM Polska Miedź SA) www.kghm.pl

#### About company

KGHM is the 9th-largest producer of copper and the 3rd-largest producer of silver in the world.

#### Industry

The basic operations of the Company are primarily limited to:

- copper ore mining
- copper production
- production of precious metals and other non-ferrous metals

#### Turnover

PLN 20 097 392 thousand (2011) ~ EUR 5 billion

#### Personnel

Total number of personnel: 18 619

#### Customer story KGHM POLISH COPPER

"Two years after implementation of the Invest for Excel software, we think that it was a perfect selection when it comes to standardization of investment feasibility studies in the entire organization"

KGHM investment team

## How to standardize investment feasibility studies throughout the organization?

Author: KGHM Investment Team November 2009

This case study was published as an article in the leading financial monthly magazine in Poland: Controlling and Financial Strategic Management (Controlling i Rachunkowość Zarządcza) in November 2009.

KGHM Polish Copper SA is the organization of strategic importance for the economy of Poland. According to the statement of the company's Vice President - Maciej Tybura - KGHM plans to achieve net profit of 1.9 billion PLN, with revenues exceeding 9 billion PLN in 2009. KGHM is the 9th-largest producer of copper and the 3rd-largest producer of silver in the world.



This is the company with deep traditions, rich in experience and numerous achievements.

With employment of over 28 thousand people, the KGHM Group is largest employer in Lower Silesia Region. The company's core business is mainly mining of copper ore, copper production, the production of precious metals and other non-ferrous metals.

By realizing the Development Strategy, KGHM will become a major, global copper producer and increase annual copper production to approx. 700 thousand tones. It is assumed that total expenditures on the realization of new projects will amount to approx. PLN 19.8 billion over 10 years. The Strategy for the years 2009-2018 is based on 5 pillars:

1) Improving productivity, aimed at halting increases in the unit cost of production,

2) Developing the resource base,

3) Diversifying sources of revenues, which assumes: - continued investment in the telecoms sector, - gradual entrance into the power sector,

#### 4) Regional support and

5) Developing organizational know-how and capabilities.

In this study, we will give some overview of the investment evaluation process in KGHM. We will also give an answer to the question of how this area of management was improved.

#### Typical investment projects

KGHM has its own bed of copper ore and its own integrated production structure, which consists of three mines, three copper smelters and branches to support core activities. Investment planning in the company provides the basis for all strategic decisions.



The front cover of Controlling and Financial Strategic Management magazine, in which this case study was published.

In order to reverse the trend of rising costs, we must continually seek solutions that improve production efficiency. The task of the investment departments in the company is to prepare the feasibility studies of various categories - in new technology, including combines for the mechanical mining of ore and the construction of a flash furnace; modernisation of existing infrastructure, including intensifying replacement of mining machinery; optimalisation of production procedures and organization. How to streamline such a wide range of tasks in capital budgeting into an effective process?

#### The spreadsheet was not an ideal solution

For many years the company has performed calculations in a spreadsheet following the UNIDO methodology. There did not exist any official template, the calculations were based on a customary practice developed in the organization for years.

Spreadsheets allowed the author for any input, which made it difficult for tracking by others and slowed down analysis by the management board office. While projects grew bigger, it was more and more challenging to track the base case and scenarios especially that the calculations were prepared by multiple users. Despite a common agreement to use the template, there were additional comments, modifications to simulations, extensive analysis. The result was that the files were clear only to experts and authors of the calculations.

## Organizational procedures must be transparent

Search for a tool to support the work of investment teams was aligned with other actions designed to standardize management processes in the company. KGHM is a publicly listed company and organizational procedures should be transparent and accessible to shareholders. We needed a tool that would allow for imposing and consistent follow-up of the guidelines on investments

planning. We looked for a program that would enable the development of complex technology undertakings with detailed specification, but which also would provide a quick answer about the profitability of the project and facilitate the sensitivity analysis.

#### Selection of the solution

Standardization of the investment calculations happened thanks to the implementation of Invest for Excel software developed by a Finnish company Datapartner Oy. The tool was implemented in all branches in the third quarter of 2007 and is used nowadays by over 100 users.

Capital budgeting in KGHM covers a 5-year period, however investments in the coming vear are considered most important and are analyzed in detail. The investments realizations exceed 5 years very often. The profitability analysis provides the clear overview of the prerequisites leading to investment decision.

### What are the effects of the implementation?

Investment feasibility studies are carried out in a standard format of the program and this is the template introduced by an official organizational procedure. Some of decisions at the branch level may be taken based on the common calculations in Microsoft Excel, but all larger projects the standard method require of sensitivity calculation, analysis and reporting of results.



In order to use the tool properly, people must have some economic knowledge, but the program guides you step by step. The big advantage is that it is programmed in the popular Microsoft Excel environment, which allows us to link own files in Excel worksheets.

The tool does not allow to use own creativity in the formulation of the profitability calculations. The transparency higher compared is much to the calculations previously performed in Excel spreadsheets. We know what to pay attention to, while reviewing investment from proposals received different branches of the company. The same structure of files and certainty that data is calculated in the same way (formulas are non-editable) greatly accelerate the verification of projects and facilitate their comparison. Software users liked the standard program. It took little time to change our old practices and start actively using the new tool.

#### The criteria for selection of the solution

In KGHM there were several solutions considered. The selected proposal has convinced us with a ready software product operating in similar industries for many years and having hundreds of good references in over 25 countries. For the final selection, our evaluation criteria were functionality, references, ease and speed of implementation, and price.

The additional advantage was that we could test the program, because it was ready and standard. We considered development of the tool internally, according to our specific guidelines, but it would have been a long-term project.

One alternative that we considered was to use the investment modules in the ERP system, but in comparison to spreadsheets, they did not meet the criteria of flexibility and sensitivity analysis. We preferred Microsoft Excel environment, due to its popularity, flexibility and skills of the users.

In the end, we chose a product that met our list of functional requirements and was easy to implement, not only from the technical side, but also from the user support and training viewpoint. The supplier provided training sessions during implementation. It was sufficient to start using the program on our own.

#### Success of implementation

Two years after implementation of the software, we think that it was a perfect selection when it comes to standardization of investment feasibility studies in the entire organization. We have a tool that allows investment, production and technology specialists for great flexibility in modeling and at the same time - the calculations for are transparent teams. management The software provides a bridge between specialists and management of the company in evaluating the profitability of investments.

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