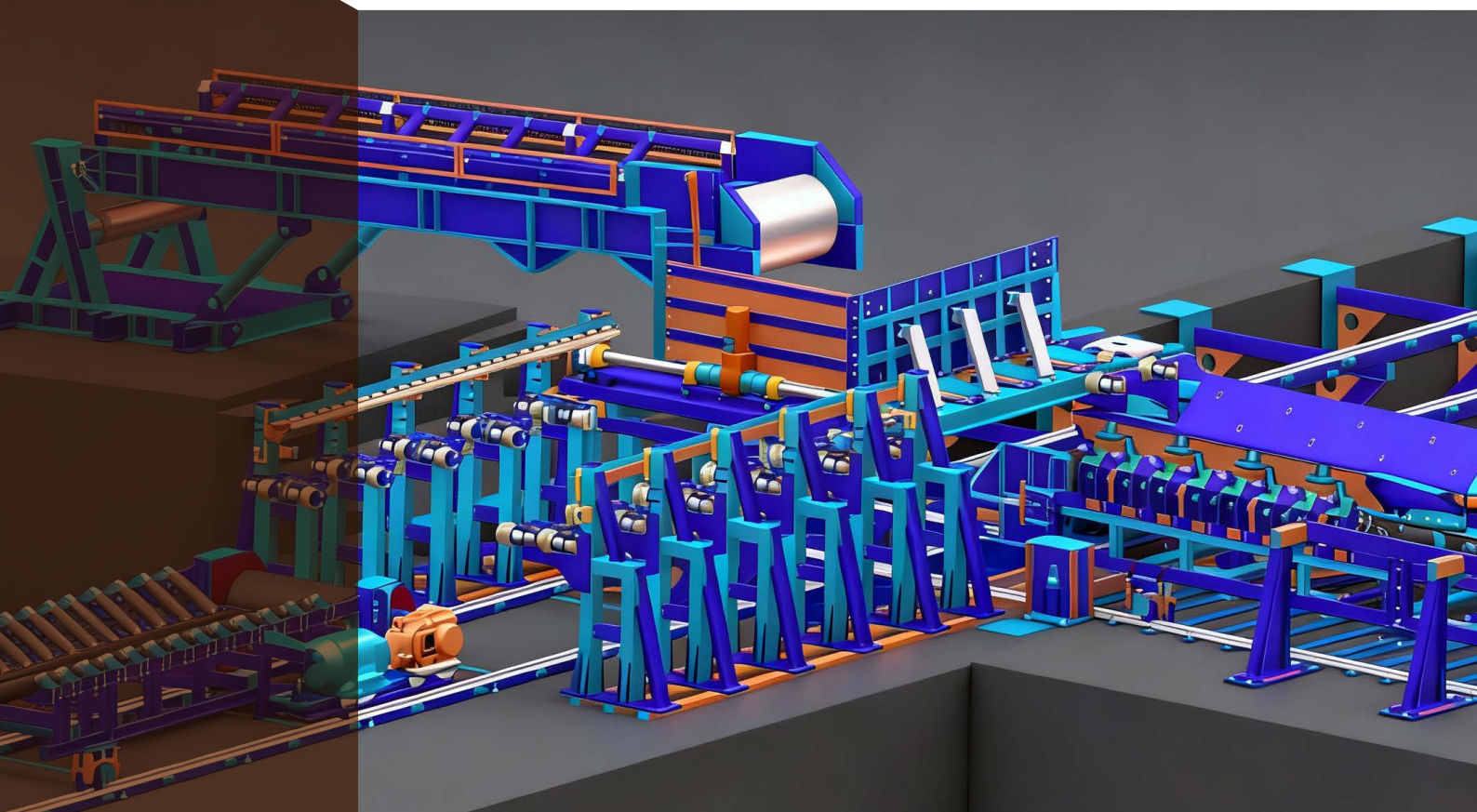


# Mechanical and Electrical Engineering Department

## Implementation of innovative technological solutions for the copper industry

The Mechanical and Electrical Engineering Department delivers **research, expert consultancy, and design services** in areas related to **mechanisation of processes** associated with **mineral extraction, transport and processing, operation of technological installations,** as well as **utilisation, operation and maintenance of machinery and equipment** in the mining sector.

We have been involved at every stage of the development of the Legnica–Głogów Copper District (LGOM). Today, our studies, expert opinions and engineering designs continue to support day-to-day operations as well as **strategic decision-making** at KGHM Polska Miedź S.A.



# Our Services

- + We prepare **engineering studies and design solutions** for mining, ore processing, and metallurgical technologies, covering technological, mechanical and installation aspects, including:
  - mechanisation systems,
  - hydraulic and pneumatic drives,
  - pumping systems and pump stations,
  - ore haulage and transfer equipment,
  - ore transport systems, including belt conveyors,
  - underground retention reservoirs with associated infrastructure,
  - mine water networks and industrial installations,
  - primary and auxiliary self-propelled mining machinery and mine fleet management systems,
  - remote monitoring and control of equipment operation,
  - simulation and optimisation of production processes,
  - conceptual designs for mineral processing plants.
- + **Issuing expert opinions and technical assessments** relating to the operation of mining machinery and mechanical equipment,
- + **Preparation of documentation required for product approval and certification** for use in mining operations,
- + **Preparation of equipment and installation certification documentation**, in accordance with applicable EU Directives,
- + **Development of technical and economic concepts, as well as feasibility analyses** for new technological solutions and investment projects, in line with **UNIDO methodology**,
- + **Expert analyses**, balance calculations and performance assessments of infrastructure related to mine water and waste management.

## Selected studies and implementations:

- + **Chilled water transmission system for the central air conditioning system in the GG-1 shaft area** – Delivery of the project from concept design through construction and detailed design, including operating instructions, as-built documentation and supervision of construction and commissioning,
- + **Silver ingot casting station compliant with London Bullion Market Association (LBMA) requirements** – Implementation of construction and detailed design projects; preparation of documentation for the certification process in accordance with EU Directives, including obtaining certification for the design documentation; preparation of operating manuals for workstations and equipment; and supervision of construction and installation works,
- + **Comprehensive concept for dewatering and mine/technological water management** developed for the processing chain of KGHM Polska Miedź S.A.,
- + **Design of equipment and systems for the main dewatering installation** in the SW-4 shaft area.

## Contact us

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