

Humidity cell test. Temperature and humidity conditions of the cells are controlled and monitored during the test. © AGQ Mining and Bioenergy







Fire assay is a classical method used for the separation of platinum group elements and gold by pre-concentration. After the fusion in a furnace, the mixture is poured into a mould for cooling. © AGQ Mining and Bioenergy

## www.intmet.eu

## INTEGRATED METALLURGY FOR POLYMETALLIC, COMPLEX AND LOW GRADE ORES AND CONCENTRATES

# REDUCING EU'S DEPENDENCY ON NON-FERROUS METAL IMPORTS

The European Union is heavily reliant on non-ferrous metal imports to satisfy the domestic demand. 62 percent of the used copper, 65 percent of zinc, and even 92 percent of gold is imported. For several base metals including Critical Raw Materials such as e.g. Rare Earths, Platinum Group Metals, indium and cobalt, the EU countries completely rely on imports.

However, Europe has a considerable potential of low-grade polymetallic mineral deposits but they are often dismissed, because of the technical impossibility to recover metals in an efficient and economically sustainable way. Currently, there is no economical process for on-site metal extraction from low grade polymetallic deposits, and even more, there is not any industrial process able to deal with polymetallic (Cu+Zn+Pb) concentrates.

### INTMET'S SOLUTIONS

The INTMET project meets the challenge to recover valuable metal from low-grade and complex ores. For that purpose, INTMET uses three innovative hydrometallurgical processes, aiming to maximise metal recovery yield and minimising energy consumption and environmental footprint. INTMETs approach represents a radical solution and a unique technological breakthrough for low grade and complex ores to achieve high efficient recovery of valuable metals such as Cu, Zn, Pb, Ag, but also critical metals like Co, In, Sb.

INTMET is applying on-site Mine-to Metal approach and integrated treatment of the produced concentrates. It combines hydrometallurgical processes (atmospheric, pressure and bioleaching), and novel metals extraction techniques, e.g. Cu/Zn-SX-EW. Additionally, secondary materials like mining and metallurgical wastes will be added to the process for valorisation and metal recovery. The technical, environmental and economic feasibility of the entire approach will be integrated into an innovative business solution.

#### COORDINATOR

**COBRE LAS CRUCES, S.A.** General offices Cobre Las Cruces S.A. Carretera SE-3410 – Km. 4,100 41860 Gerena – Sevilla – SPAIN

Copyright © INTMET project consortium.

CONTACT US @ office@intmet.eu

#### CONSORTIUM

KGHM POLSKA MIEDZ S.A., Poland SOMINCOR – SOCIEDADE MINEIRA DE NEVES CORVO S.A., Portugal OUTOTEC, Finland TECNICAS REUNIDAS S.A., Spain INSTYTUT METALI NIEZELAZNYCH, Poland MINTEK, South Africa MINING AND METALLURGY, INSTITUTE BOR LTD, Serbia BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES, France AGQ MINING & BIOENERGY SL, Spain INSTITUTUL NAȚIONAL DE CERCETARE, Dezvoltare pentru Metale Neferoase și Rare – IMNR, Romania MINPOL GmbH, Austria



۲

STAY TUNED AND FOLLOW US @

INTMET - Integrated Metallurgy





This project has received funding from the European Union's Horizon2020 research and innovation programme under grant agreement No 689515.