

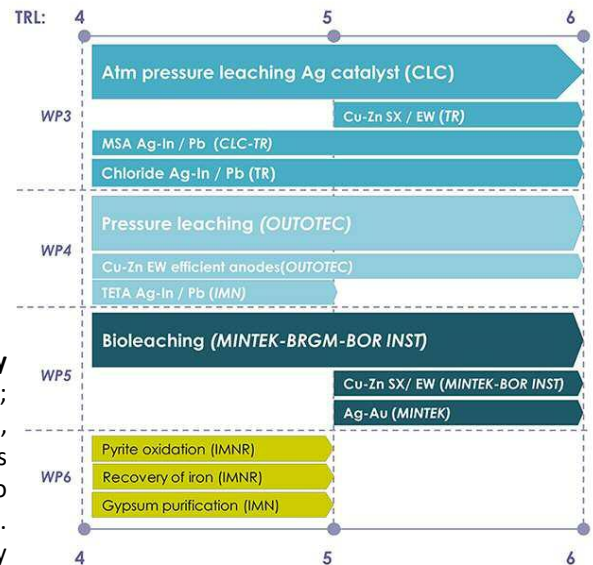
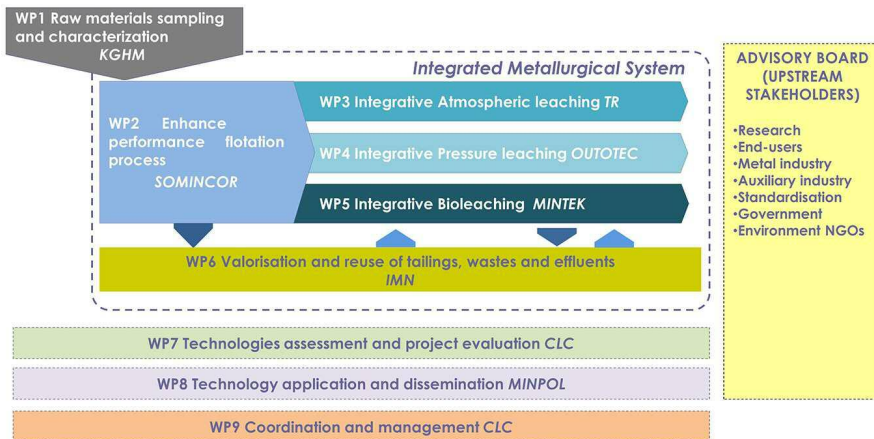
# INTEGRATED INNOVATIVE METALLURGICAL SYSTEM TO BENEFIT EFFICIENTLY POLYMETALLIC, COMPLEX AND LOW GRADE ORES AND CONCENTRATES



Project duration: 1. February 2016 to 31. January 2019

The **INTMET** approach represents a unique technological breakthrough to overcome the limitations related to difficult low grade and complex ores to achieve high efficient recovery of valuable metals (Cu, Zn, Pb, Ag) and CRM (Co, In, Sb).

Applying on-site **mine-to-metal** hydroprocessing (atmospheric, pressure & bioleaching) of the produced concentrates enhancing substantially raw materials efficiency thanks to increase Cu+Zn+Pb recovery.



## IMPACTS

The business models developed by the **INTMET** project will increase the recovery efficiency of metals at least 40%, including base metals Cu>63 %; Zn >51%; Pb> 125%; Ag> 180% and Au> 21%) and allow recovery of critical materials (e.g. In, Co not recovered currently from low grade polymetallic ores, deposits (as well as secondary materials) by providing an **integrated hydrometallurgical** way to process low qualified concentrates with efficient metal extraction technologies. Besides there will be increased **process efficiency** including water and energy consumption (20%), CO<sub>2</sub> (up to 36 %), lower SO<sub>2</sub> emission).

## INTMET industry-driven multi sectoral Consortium

- 5 public academic centres:
- Bor Institute of Non-ferrous Metals, Mining and Metallurgy Institute, Serbia
  - Institute of Non Ferrous Metals (IMN), Poland
  - French Geological Survey BRGM, France
  - National Research Development Institute for Non-Ferrous and Rare Metals –IMNR, Romania
  - Mintek, South Africa

- 3 mines:
- KGHM in Poland,
  - Cobre Las Cruces in Spain,
  - Sociedad Mineira de Neves Corvo -SOMINCOR- in Portugal

- 3 technology providers:
- Outotec, Finland
  - Tecnicas Reunidas, Spain
  - AGQ – Mining & BioEnergy, Spain

- 1 consultancy expert network in mineral policy:
- MinPol