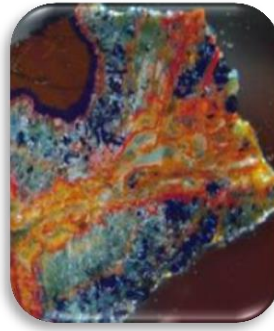


Hydrometallurgy Industrial Upscaling

- **Focus** : Hydrometallurgy at **Advanced Pilot / Pre-Industrial Stage**
- **Opportunity** : ULiège-GeMMe can provide state of the art laboratory installations for upscaling of hydrometallurgy processes.
- **Synergies and complementarities** : Can work with primary ores or wastes in conjunction with other techniques (pyrometallurgy, pyrolysis, ...).
- **References** :
 - **Copper** recovery from fine shredder residues.
 - **Various critical metals** recovered from WEEE.
 - Hydrometallurgy in **Hydrochloric media**.
 - **Cobalt** hydrometallurgy.
- **“One Stop Shop” Business opportunities** :
 - Expertise in a wide variety of metals recovered from a broad range of **“Primary”** and **“Urban”** ores.
 - From laboratory to semi-industrial pilot : **Batch** (<200g pd*), **Mini Pilot** (200g pd to 1kg pd*) to **Semi-Industrial Pilot** (up to 20kg pd*).
 - Available for all key steps of hydrometallurgy : Leaching, Precipitation, Solid/Liquid Separations, Cementation, Solvent Extraction, Ion Exchange and Electrowinning.
- **Current hydrometallurgy project partners** :
 - Comet Traitements, Prayon, CMI, Hydrometal, Eramet, First Quantum, BRGM.
- **Wanted additional partners** :
 - Leverage current expertise for additional circular economy projects.
 - Can provide substantial KIC Complementary Activities (KCA) to potentially interested partners / consortium.

ULiège - GeMMe

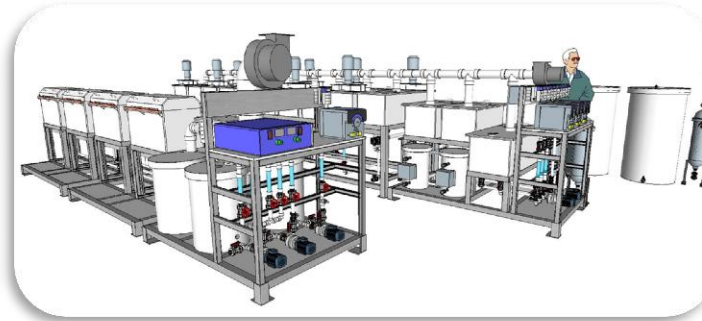
can provide state of the art laboratory installations for upscaling hydrometallurgy processes to the pre-industrial stage



Mines and Urban Mines

Ores and Recyclates

Bench Scale



Refined Products and Metals

Semi-Industrial Pilot

Mini-Pilot