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Geosciences pour une Terre durable

brgm

PROMETHEE : THE FRENCH RESEARCH NETWORK DEDICATED TO HYDROMETALLURGY

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PROMETIA Scientific Seminar – November 26, 2025



#01

GDR PROMETHEE INTRODUCTION

GDR PROMETHEE

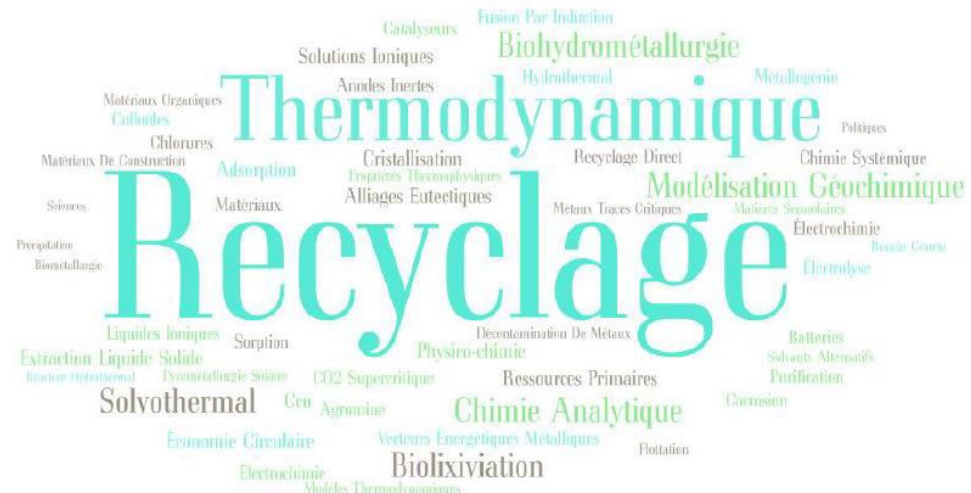
What is a “GDR”?

- **PROMETHEE** is one of the **195 GDR** (“Groupement de Recherche”) supported by the **CNRS**.
- **GDR** : a network of researchers from different fields working on the same topic.
- The label is given by the CNRS for a **duration of 5 years**, which can be renewed once.
- Each GDR receives every year some funding (**between 8 and 10 k€**) from the CNRS.

PROMETHEE

- Creation: 2016 (5 + 5 years)
- **Hydrometallurgy**
- 32 academic laboratories (affiliated to universities) + 3 public research organisations (BRGM, CEA, IFPEN)
- ~150 researchers
- Chemistry, process engineering + LCA

→ PROMETHEE will be replaced in 2026 by METEXTRA, a new GDR dedicated to hydrometallurgy AND pyrometallurgy



GDR PROMETHEE

What are we doing?

- **A yearly scientific seminar (2 days):**
 - to discuss about the recent advancements in the field
 - to promote links between researchers from different labs
 - To give young researchers (PhD, post-doc) the opportunity to present on-going work
 - ~70 participants
 - Opened to industry
- **Funding for the mobility** of young researchers (PhD, post-doc)

- **Autumn webinars:**

- A series of 3 webinars in November and December
- One topic, 3 speakers (45 minutes each)
- Between 70 to 100 people connected
- The webinars are recorded and available on PROMETHEE website
- 2025:
 - Treatment of metallurgical effluent (Nov. 6, 73 participants)
 - Innovations in Electrochemistry and Electrodialysis (Nov 20, 69 participants)
 - Nature based solutions in hydrometallurgy (Dec. 4)

<https://gdr-promethee.cnrs.fr/index.php/fr/publications>



#02

SOME EXAMPLES OF RESEARCH PROJECTS

EXAMPLE 1

BIOMECALIX: A novel mechanically enhanced bioleaching process

Duration: 42 months, started in February 2019

Partners:

- Chemical Engineering Laboratory (LGC, University of Toulouse)
- BRGM

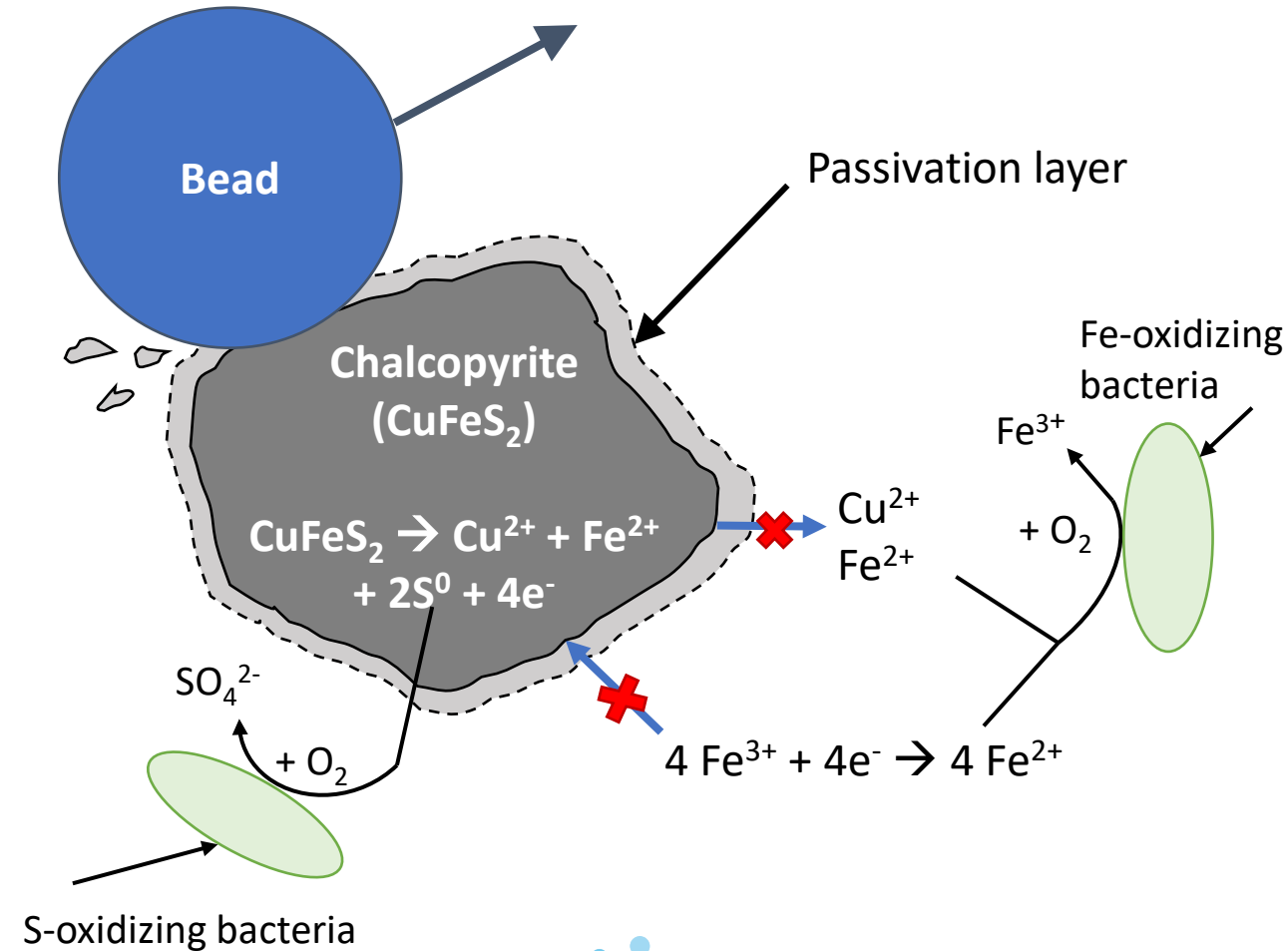
1 post doc (24 months) + 1 PhD

Main achievements: A proof of concept + the design of a hybrid bioreactor

<https://anr.fr/Project-ANR-18-CE07-0031>

Dakoune et al. (2023): doi.org/10.1021/acsengineeringau.2c00051

Po et al. (2025): <https://doi.org/10.1016/j.mineng.2025.109885>



EXAMPLE 2

CAREME: Catalysis with recycled metals: from waste to wealth

Duration: 42 months, started in June 2021

Partners:

- ICSM Institut de Chimie Séparative de Marcoule
- LIT Laboratoire d'Innovation Thérapeutique
- IRCELYON (Institut De Recherches Sur La Catalyse Et L'environnement De Lyon)
- Eurecat France SAS
- Activation

<https://anr.fr/Project-ANR-21-CE07-0057>

Hubau et al. (2025): <https://doi.org/10.1016/j.wasman.2025.115198>

Martin et al. (2023): <https://doi.org/10.1002/cctc.202300354>

