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ION4RAW

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We're on Twitter and LinkedIn!

A SHORT INTRODUCTION
by coordinator, María Tripiana (IDENER)

The recent developments on the COVID-19 have illustrated a need to adapt the project goals to the current reality. We have had to be innovative in the way we collaborate as a consortium and our M12 meeting even took place virtually!

With this newsletter, we will update you every year on the latest developments regarding cost-efficient mineral processing technology and critical raw materials. Please sign up for this newsletter, and follow our social media accounts to be updated on the outcomes, results and events delivered by ION4RAW up until 2023.

Do not hesitate to contact us for any questions or feedback you have. And for now, please stay safe and stay healthy.

Project overview
Get to know our objectives

The new Horizon 2020-funded project, ION4RAW (ionometallurgy of primary sources for an enhanced raw materials recovery) will run for four years and involves thirteen partners from six countries across Europe as well as the United Kingdom and Peru.

Coordinated by IDENER, we will develop a new energy- and material-efficient mineral processing technology to recover by-products from primary sources by means of innovative Deep Eutectic Solvent (DES) ionic liquids and advanced electro-recovery as an only step.

Our project has a promising business potential since it will allow mining and mineral processing companies to fully exploit by-product potential by recovering them at their own facilities. This will eventually contribute to the EIP Raw Materials Strategic Implementation Plan, unlocking the full potential of Europe's inner wealth by converting new and currently unexploited resources into reserves.

More on our website

The project so far
Project highlights, updates and latest news

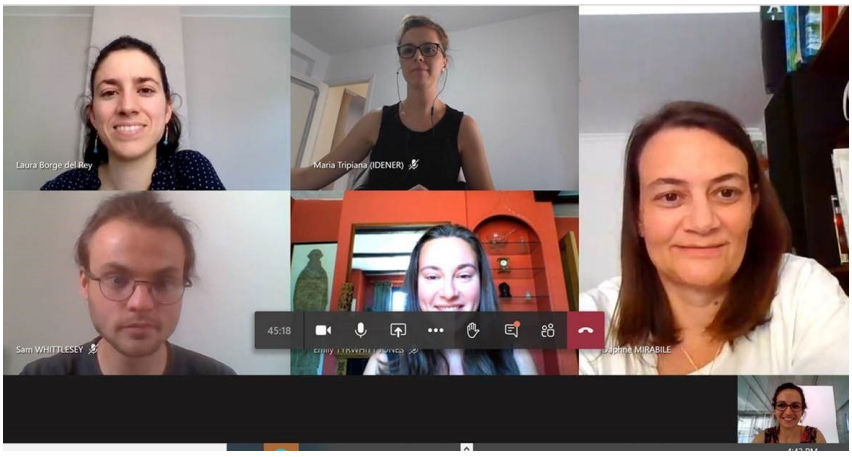
WP2 – By-products potential evaluation
The objective of this task is to produce an assessment and inventory of target by-products distribution in existing and currently unexploited resources from Europe. At the moment, approximately 50% of raw material samples for this project have been received by BRGM for the characterization purposes.

WP3 – Upstream and downstream activities
This task is concerned with both upstream (concentrate production) and downstream activities (DES solution handling and disposal or utilisation of solid residues after leaching). Sampling was completed by January 2020, and samples collected from sites in Peru were received in the WAI Lab in Cornwall by the end of January 2020. Mineral Processing test work – to produce concentrates containing as many by-product metals as possible has been affected by COVID-19 work practices.

WP4 – Ionometallurgical process development
The objective here is to investigate and fine tune the leaching, separation and purification process for the selective recovery of the targeted metals (CRM such as Pt, Co, Ge, In, Sb or Bi) by an ionometallurgical process. In this first period, a preliminary mineralogical characterization (3D tomography) of the bulk ore received from the Cononish gold mine in Scotland has been carried out. Due to the lab work restrictions started in mid-march 2020 (the effective date depends on each partner's country), some delays on the progress of the different tasks involved in WP4 are envisaged.

Our exploitation & dissemination team are ready!

The Exploitation and Dissemination Team (EDT) had their first meeting last Thursday, during which they all agreed that the Exploitation Plan should a flexible document with a long-term coherent vision on exploitation matters. The EDT comprises of members from LGI (Yasmina Dkhissi, Chair), PNO (Laura Borge del Rey & Nader Akil), CSM/RINA (Emily Tyrwhitt-Jones & Daphne Mirabile) and IDE (Maria Tripiana Serrano).



Our partners

Our project integrates diverse disciplines, namely: mineralogy, metallurgy, electrochemistry, mathematical and modelling optimisation, sustainability assessment methodologies, and process and chemical engineering. We bring together 13 partners from 7 EU countries as well as Peru whose competencies are clearly defined to maximise synergies and avoid duplication while covering all the steps for technology development and the whole value chain of by-product recovery.

More information.

Project news
What we've been up to

- VIDEO: processing of the Orovalle ore
- Our first remote workshop focused on Intellectual Property (IP) & exploitation and was hosted by LGI
- ION4RAW goes to PDAC 2020: The World's Premier Mineral Exploration & Mining Convention
- ION4RAW clustering event: the green transition challenged by the metal

Upcoming relevant events

Hydrometallurgy in raw materials utilization – an educational and communication programme, September 8th and 10th, 2020 - Online

Raw Materials Summit 2020, 29 - 30 September 2020 - Online

Dross seminar, November 5, 2020 - Trondheim Norway

Electromagnetic methods in deep mineral exploration, 9 - 13 November 2020 - Online

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