

## Launch of EU project METALLICO

**Objective:** The sustainable recovery of (critical) battery metals from primary and secondary resources

On January 1, 2023, the EU project METALLICO has started. The main objective of the project is to recover (critical) battery metals (lithium, cobalt, copper, manganese, nickel) from primary and secondary resources using sustainable methods. The project has a duration of 48 months and consists of a consortium of 23 partners from 9 countries. The coordinator is IDENER (Spain).

While the battery sector has been experiencing increasing demand for raw materials for several years, it is at the same time vulnerable to risks in the procurement of these materials. As batteries are of great importance for the energy and mobility transition and drive the shift towards sustainable and environmentally friendly technologies in the battery sector, the availability of (critical) battery metals must be ensured. Various strategies are being pursued here, with the utilization of residual materials through recovery and recycling of materials playing a central role.

"Within METALLICO, we will optimize and further develop five innovative processes for recovering and producing lithium, cobalt, copper, manganese and nickel from primary and secondary raw material sources," says María González-Moya Jiménez of coordinator IDENER. "These will then be demonstrated at an industrially relevant scale in four case studies and evaluated in terms of sustainability."

In addition, the project is developing a digital (open source) platform in which, on the one hand, primary and secondary battery metal sources are identified and characterized. On the other hand, digital twins of innovative plants for the recovery and production of metals will make it possible to simulate the efficiency as well as the economic, environmental and social impacts in the recovery of the respective metal.

The results produced in METALLICO will allow industrial companies to invest in new mining and metal recovery facilities. González-Moya Jiménez: "The new processes will enable industry to develop significant quantities of new, currently unused or under-utilized resources in the EU. This will help reduce dependence on volatile raw material markets and ensure the availability of metals in the battery sector, but also in other industrial sectors."

Partners involved in METALLICO: IDENER Research and Development AIE, Technische Universität Bergakademie Freiberg, Universitat Politècnica de Catalunya, Siec Badawcza Lukasiewicz - Instytut Metali Nieżelaznych, Teknologian Tutkimuskeskus VTT OY, Fraunhofer Gesellschaft Zur Forderung der Angewandten Forschung EV, G.E.O.S.Ingenieurgesellschaft MBH, Cementos La Cruz, S.L.,

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## Contact

Coordinator: IDENER Research and Development AIE

**María Gonzalez-Moya Jimenez**

maria.gonzalez@idener.es

**Ana Lara Quijano**

ana.lara@idener.es

Communications: DECHEMA e.V.

**Jana Gäbler**

Jana.gaebler@dechema.de

**Ramona Simon**

Ramona.simon@dechema.de

**Dipl. Ing. Katja Wendler**

Katja.wendler@dechema.de

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