# PRE-COMMERCIAL PILOT FOR THE EFFICIENT RECOVERY OF PRECIOUS METALS FROM EUROPEAN END OF LIFE RESOURCES WITH NOVEL LOW-COST TECHNOLOGIES

## THE CHALLENGE AND PEACOC SOLUTION

Precious Metals and Platinum Group Metals are widely used in a variety of economic sectors in many industrial applications worldwide. Due to their unique properties, such as low corrosiveness, catalytic properties, low electrical resistivity, there are often no alternatives to replace them.

PEACOC aims at solving the current challenges that limit the recovery of Precious Metals at massive scale, while exploiting the vast potential of EU secondary resources. The project will research and demonstrate on a pre-commercial level, novel, effective, low-cost and environmentally friendly technologies for recovering gold, silver and Platinum Group Metals from complex waste mixtures. PEACOC aims at treating end-of-life products in Europe, including spent autocatalysts, low/mid-grade printed circuit board assembly and photovoltaic waste.

## OBJECTIVES

- ***Setting up a new large-and-complete value chain*** of 19 partners to produce Precious Metals from end-of-life products available in Europe that are not recovered yet.
- ***Demonstrating new technologies*** to address the challenge of effectively and efficiently recovering low grade Precious Metals from complex waste matrices designed with a near zero-waste approach and a true circular economy mindset.
- ***Developing the first-in-kind pre-commercial compact, mobile and modular refining system*** at pilot scale with a production capacity of up to 2 kg of Precious Metals per week to expand the business of their recycling across Europe.
- ***Designing and produce novel equipment*** at pre-commercial scale for Precious Metals refining by European SMEs.
- ***Easing the decision for investment in new production plants*** as potential investors will be able to lease and test the PEACOC solution at pre-commercial scale, without the need for prior large investments.
- ***Supporting the European Commission in reaching the ambitious energy and climate targets*** stated in the Green Deal.
- ***Promoting sustainability*** by developing valorisation and up-cycling strategies for all by-product associated with the recovery of Precious Metals.

## IMPACT

- ***Significantly improve the economic viability and market potential of Precious Metals recycling***. This will be gained through the pilot-scale process, leading to expanding the business across Europe.
- ***Increase the health, safety and environmental performance of the Precious Metals recycling process*** aiming to reach secure and sustainable access and exploitation of Precious Metals from end-of-life products.
- ***Produce Precious Metals at a profit margin up to 80%*** compared to current Precious Metals market prices.
- ***Unlock a significant volume of various secondary raw materials*** currently unexploited/underexploited across Europe.
- ***Create new job opportunities*** in raw materials production and equipment manufacturing.

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