



# RESQTOOL

## SUSTAINABLE HARD METAL RECYCLING FOR A GREENER FUTURE



### INTRODUCTION

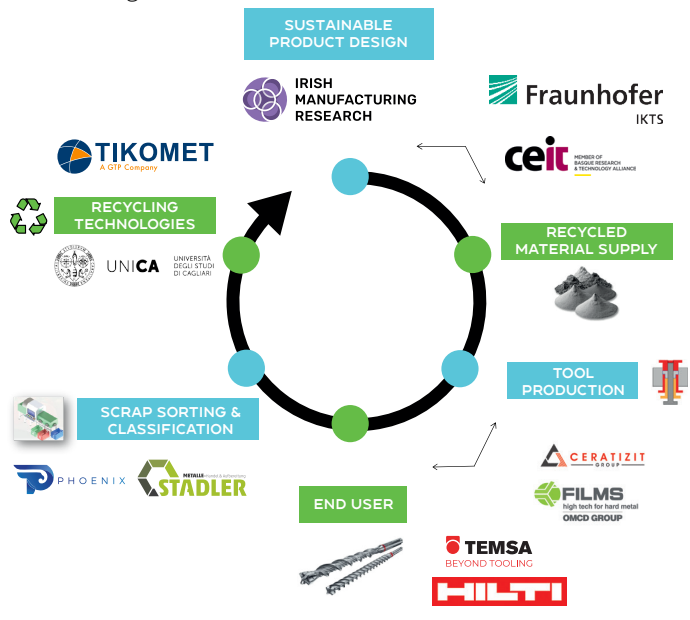
**Hardmetals** today form the backbone of the tool manufacturing industry with diverse applications and show a wide range for the combination of high hardness and toughness, making them suitable for many wear applications such as machining of metallic and non-metallic materials, chipless forming, mining, industrial nozzles and wear parts, dental and medical tools, paper, plastic and textile knives, guide rolls, seal rings, tire studs, forestry and agriculture tools, earth moving and consolidation tools), and many others..

### METHODOLOGY

- **RESQTOOL** will identify HM scrap sources by their initial Industry uses.
- This will serve for identification of a certain recycling code for each group to be used in determining their recycling scheme.
- Sampling protocols and methodologies to quantify CRM resources in specific products will be setup and used to collect HM scrap samples from the entire EU zone.
- Collected materials will be investigated to determine the size and shape distribution etc. important for its segregation and recycling.
- Every group will be forwarded to a certain recycling scheme.

### GLOBAL OBJECTIVE

Offer a sustainable and energy efficient solution for recycling and responsible supply of Critical Raw Materials (Co, W, Ta, Ti, Nb) from EoL products in metal/wood cutting, construction and manufacturing industries by lowering the carbon footprint of Zinc Reclaim process and developing advanced hydro-and solvo-metallurgical chemical recycling based on agro-industrial waste-bioderived chemicals.



🕒 1 Dec 2023 - 30 Nov 2027

€ 8.8ME

🌐 [WWW.RESQTOOL.EU](http://WWW.RESQTOOL.EU)



## IMPACT

- Higher re-use of raw materials and resources with reduced environmental impact and lower costs as demonstrated by Life Cycle Assessment
- Responsible supply of critical raw materials to Europe in line with the EU principles for sustainable raw materials through application of a circular economy
- Contributing to EU climate neutrality objectives by decreasing level of resource and energy consumption leading to a lower CO<sub>2</sub> footprint
- Increase productivity, innovation capacity, resilience, sustainability and global competitiveness of European energy intensive industries
- Determination of requirements for sustainable critical raw materials recovery and processing in Europe in terms of social, environmental and economic performance

## PROJECT PARTNERS

Coordinated by the European Powder Metallurgy Association (EPMA), the **RESQTOOL** consortium comprises 12 partners from 10 EU/EEA countries (Belgium, Finland, France, Germany, Ireland, Italy, Liechtenstein, Luxembourg, Poland, Spain) covering the entire value chain of Hardmetals.

Several profiles are represented in the Consortium, as it contains 3 research institutions, 1 university, 7 enterprises and 1 sectorial association, ensuring that the needed knowledge to succeed during the project execution is brought together.

