



PRESS RELEASE

CIRCULAR ECONOMY, LAZIO'S INDUSTRIAL SITE AT THE FOREFRONT IN EUROPE ON THE RECOVERY OF CRITICAL RAW MATERIALS

INSPIREE PROJECT PRESENTED IN ROME: 500 TONNES OF RARE EARTHS RECOVERED AT THE ITELYUM PLANT IN THE PROVINCE OF FROSINONE

Rome, July 10 2024 - A state-of-the-art rare earths recovery plant will be built in Ceccano (Frosinone) by the Itelyum Regeneration industrial site to meet the geopolitical challenge of strategic critical raw materials.

Starting from the European goal of substantial autonomy in the supply of rare earths elements, **INSPIREE** was designed, **the first plant in Europe for the** production of rare earth oxides and carbonates (neodymium, praseodymium and dysprosium) from chemical recycling of spent permanent magnets extracted from end-of-life hard disks and electric motors. The European Commission has declared an urgency in tackling Europe's dependence on the rest of the world for key materials in more and more sectors, following which the Italian government recently approved the 'Critical Raw Materials' decree-law, which implements the European Union's Critical Raw Materials Act regulation.

Today the **LIFE INSPIREE** project officially kicked off with the presentation in Rome, in the presence of the Councillor for Budget and Economic Planning Giancarlo Righini and, representing the Councillor for the Environment Elena Palazzo, the Head of the Secretariat Pietro Stabile. The Lazio Region, as highlighted during their speeches, is today home to many excellences, and is a candidate to become a champion of the green economy, with a focus on sustainability, combining territorial development, environmental protection, and attention to the community.

The industrial scale-up of the plant will take place through a two-level process: the first step involves the disassembly of the magnets, while the next level consists of the recovery of REE (Rare Earth Elements) oxalates by means of hydrometallurgy with a very low environmental impact.

'Itelyum is leading a cutting-edge project,' explains Marco Codognola, CEO Itelyum, *'that brings together the best Made in Italy skills. Circular economy and sustainability are part of our DNA and it is an honour to make them available in the construction of new supply chains, of national and European strategic importance, with high value partners'.*

The dismantling plant will be able to process 1,000 t/year of electric rotors and the hydrometallurgical plant when fully operational will be able to process 2,000 t/year of permanent magnets obtained from various sources including hard disks, small and large electric motors, resulting in the recovery of approximately 500 t/year of REE oxalates, a quantity sufficient to operate 1 million hard disks and lap tops and 10 million permanent magnets for various applications in the electric automotive industry.

Project partners are: **EIT Raw Materials**, the world's largest consortium in the raw materials sector; **Erion**, the non-profit multi-consortium system for the management of different types of waste and the valorisation of secondary raw materials; **Glob Eco**, a company with many years of experience in the collection and treatment of WEEE; and the University of L'Aquila, which developed, patented and optimised the hydrometallurgical technology.

"We are pleased to be able to make available the specific expertise we have gained thanks to the NEW-RE project, funded by the European EIT Raw Materials Organisation," said Danilo Bonato, General Manager of Erion Compliance Organisation. *"For the supply of strategic raw materials, Europe is still too dependent on third countries, despite the efforts being made to make our economy more circular. However, we now have the opportunity to build the value chain of rare earth recycling, through the construction of plants with innovative technologies and more effective strategies to maximise the collection of technological waste'.*