

# The AGEMERA Project: Building European capacities with innovative exploration technologies

Tony Hand

Department of Geology, Tallinn University of Technology

On March 18, 2024, the European Council gave its final approval to the Critical Raw Materials Act (the Act). The Act is a significant initiative by the European Commission to address the challenges related to raw materials supplies for the European Union. The Act aims to ensure a secure and sustainable supply of critical raw materials for European industries. These materials play a crucial role in powering the green transition and digital transformation necessary for delivering the EU's Green Deal. One of the benchmarks set in the Act is an increase of 10% in the extraction of raw materials within the EU. Many of these materials are not sourced in Europe as most of the rare earth elements (REEs) and battery-related raw materials come from China, Africa and South America. To build up European capacities, the uptake and deployment of breakthrough technologies related to critical raw materials is vital for success, as is the development of national exploration capabilities.

The Horizon Europe-funded AGEMERA project aims to enhance Europe's resource potential and promote responsible mineral exploration. AGEMERA focuses on improving knowledge of mining and mineral exploration while ensuring environmentally and socially sustainable practices. It aims to increase access to and supply of critical raw materials within the EU. This project will examine the use of innovative methods and technologies to unlock the EU's resource potential, improve public knowledge of the role of critical raw materials in the modern world, and promote environmentally and socially friendly mineral exploration. Employing cutting-edge methods and non-invasive technologies to better understand existing mineral deposits and discover new ones supports the EU's drive to create a sustainable future for Europe.