Perspectives and challenges for sustainable post-remediation management of uranium legacy sites in Portugal

Edgar Carvalho

[edgar.carvalho@edm.pt](mailto:edgar.carvalho@edm.pt)

Catarina Diamantino

[catarina.diamantino@edm.pt](mailto:catarina.diamantino@edm.pt)

EDM – Empresa de Desenvolvimento Mineiro, S.A.

# Abstract

The exploitation of radioactive ores in Portugal initiated after the discovery of the first radium deposit in 1907 and was developed until the early nineties. Since 2001, the Portuguese State committed with the environmental remediation of all mining legacy sites in Portugal, including 62 radium and uranium legacy sites. After two decades of remediation 45 radioactive mining sites are remediated, 8 are undergoing remediation (in 2023) and 9 are planned to be remediated until 2030.

Despite the use of safe and complex remediation technologies, it is necessary to ensure the continuous post-remediation management activities to ensure the long-term protection of the people and the environment and the sustainable use of the remediated areas.

This paper will present the main perspectives and challenges for the sustainable use of the remediated legacy sites in Portugal, such as the use for energy production, for scientific or research and development activities, for remining or for touristic activities. It will also discuss the challenges related with the implementation of post-remediation management activities and institutional controls, such as end use and resource restrictions, but also to ensure the continuous monitoring, maintenance, groundwater remediation, records and knowledge preservation and other post-remediation activities.