



Mine2Ammonia: Decommissioned Mines to Green Ammonia Hubs

PROJECT FACTS

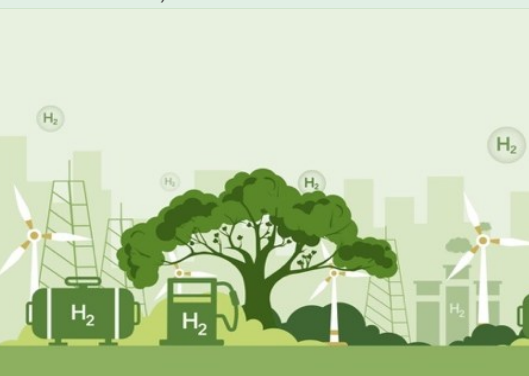
Duration: 13 April - 15 Dec 2026

Country: Germany/South Africa

Partners: d-fine GmbH
ENICRON

Outputs:

- A cost-optimising energy and process model simulating integrated PV, wind, electrolysis, and ammonia synthesis systems
- A detailed risk analysis and recommended risk mitigation strategies
- A techno-economic feasibility assessment tailored to the selected mine site
- A concept for integrating the project into mining rehabilitation frameworks (incl. use of rehabilitation funds)



PROJECT OVERVIEW

The Mine2Ammonia Project aims to transform decommissioned and rehabilitating mine sites in South Africa into hubs for renewable energy and green ammonia production. By leveraging surplus mine water, large tracts of rehabilitated land, and existing infrastructure (power lines, rail access, water treatment), the project establishes a replicable model for integrating mine closure obligations with sustainable industrial development. Turning liabilities into assets, the project aims to unlock new industrial value creation in regions undergoing structural change, particularly former coal-mining areas central to South Africa's Just Transition.

As part of the H2Uppp public-private partnership, the project assesses the technical, economic, environmental, and regulatory feasibility of producing green ammonia at decommissioned or rehabilitating mines in South Africa. The initial prefeasibility target is a 100,000 t/year green ammonia facility. The project will be able to supply both local demand and export markets, positioning South Africa as a reliable supplier of RFNBO-compliant green ammonia.

OBJECTIVES & EXPECTED RESULTS

- Develop and test a concept for ammonia production using a selected mine as a reference site, including technical and economic feasibility
- Analyse environmental impacts and applicable legal requirements, including mining legislation
- Engage mining operators and regulators on framework conditions and permitting needs
- Examine whether private rehabilitation funds can be mobilised to support hydrogen and PtX project development at former mine sites
- Conduct a structured site assessment of decommissioned mines in Northwest, Mpumalanga, and KwaZulu-Natal provinces

ABOUT H2UPPPP

- H2Uppp paves the way for companies to develop the global green hydrogen market through project identification, project development, support and trade.

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