

Engineering Performance

Sustainable Magnesium Production

Kupres, Canton 10, Bosnia and Herzegovina

Project overview

The magnesium production plant at Kupres which planned to be launched in 2027 will utilize eco-friendly, advanced aluminothermic technology to produce magnesium—a key resource for automotive, construction, hydrogen storage, etc.. The plant aims to position Bosnia and Herzegovina as a European leader in sustainable industrial development.

Environmental Sustainability

- The plant captures CO₂ emissions during calcination and repurposes them into calcium carbonate for various industries, with surplus CO₂ sold as dry ice.
- Hydro, wind and solar energy will power the plant, reducing reliance on fossil fuels and minimizing emissions.
- Closed-loop water recycling and rainwater collection, with excess shared with the local community.
- 99.5% of products are sold to the market and the remains are recycled or safely disposed.

Social Responsibility

- The project will create many jobs during construction and operations with the opportunity for Bosnians to return home with work and housing
- Investments in local infrastructure (roads, water and waste water systems and transport) will improve living standards.
- Open communication and regular reporting ensure transparency with local authorities and communities.

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Support for all stages of mine development and operation

Advanced technology

- Adheres to EU environmental and safety regulations for sustainable production.
- Air and water quality will be independently monitored to ensure safety.
- The aluminothermic process involves no hazardous chemicals, ensuring safety for workers and the environment.

Key Benefits:

- Eco-friendly operation
- No chemicals used
- Safe for people and environment
- No harmful fumes or gases to be emitted
- Renewable energy sourced
- Fully closed-loop system using recycled materials
- Minimal waste





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