

The Unearth Innovation Act

Sen. John Hickenlooper & Sen. Thom Tillis

Problem: The United States faces significant challenges in securing a reliable and sustainable supply of critical minerals necessary for key industries, including energy, defense, and advanced technology. Current mining and mineral processing methods can be environmentally harmful, inefficient, and are often reliant on outdated technologies. Furthermore, the U.S. is heavily dependent on foreign nations, particularly adversarial countries, for many of these critical minerals, threatening national security and economic stability. Despite these challenges, the U.S. underinvests in mining innovation and technology.

Solution: The ***Unearth Innovation Act*** establishes a Mining and Mineral Innovation Program within the Department of Energy. This program will drive research, development, and commercialization of advanced mining, recycling, and processing technologies. The program prioritizes practices and technologies that reduce environmental and human impacts, improve outcomes for communities, and reclaim and remediate existing mine and waste sites. These strategic investments are designed to secure our critical mineral supply chains, reduce the environmental and human footprint of future mining operations, and diminish the need for new mining through innovative technologies.

Key research priorities

- **Technological advancement**
 - Support research and development of technologies for better identifying, mining, recycling, and processing minerals while reducing environmental, energy, and community impacts.
 - Encourage the use of data analytics and automation in critical mineral projects.
 - Conduct research into better technologies to reclaim, remediate, and reuse existing mines.
- **Environmental Performance and Community Engagement**
 - Promote responsible mining practices that minimize human and environmental impact.
 - Engage with communities and consult with tribal nations to ensure socially responsible mining practices and support strategies to increase the prosperity of mining communities.
- **Collaboration**
 - Coordinate with various federal agencies, such as the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health, on mining safety innovations.
 - Partner with academic institutions, non-government organizations, and the private sector to accelerate technological adoption and workforce development.

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