

# SEG 2024 Conference: Sustainable Mineral Exploration and Development

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## Redefining Viability: Integrating Social and Environmental Dimensions into Mineral Exploration Success

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In the field of mineral exploration, a standard narrative suggests that only one in a thousand projects culminates in success, highlighting the industry's inherent risks and the significant uncertainty involved in identifying viable projects. This prevailing statistic reflects the technical and geological challenges the industry faces and underscores a potential oversight in the traditional metrics used to define project viability.

In this presentation we propose a re-evaluation of what constitutes a 'viable' mineral exploration project, advocating for a paradigm shift beyond the conventional geological and technical parameters. We introduce an integrated framework that considers social and environmental factors from the project's inception, suggesting that these elements are essential to the project's overall success and sustainability.

Our approach involves a detailed methodology that intertwines social responsibility and environmental stewardship with technical exploration strategies. This includes engaging with local communities to understand and address their concerns, conducting comprehensive environmental impact assessments, and developing strategies that minimise ecological footprints while exploring.

The potential benefits of this integrated approach are multifaceted. By considering social and environmental aspects early in the exploration process, companies can build stronger relationships with local communities, enhance their social license to operate, and potentially identify and mitigate environmental and social risks before they escalate. Moreover, this holistic view of project viability could lead to more sustainable mining practices, aligning the industry with global sustainable development goals and potentially improving the public perception of mining activities.

Through case studies and theoretical models, this presentation will explore how redefining viability in mineral exploration can lead to more responsible and successful exploration projects. We will discuss the implications of this shift for industry practices, policy-making, and the broader goal of sustainable development in the context of mineral exploration.