The Energy Resource Governance Initiative
Clean energy technology deployment is driving mineral demand

Projected demand for mineral intensive clean energy technologies...

...leading to surging demand for strategic minerals by 2050.
ERGI Aims to Broaden the Market for Energy Minerals

Challenge: Exponential Growth in Mineral Demand Means the World Needs to Diversify Sources of Supply and Make Supply Chains More Resilient.

• One country controls most mines, most of the refining and processing capacity for critical energy minerals.
• Private companies are unlikely to invest where there are prohibitive above-ground risks.
• Even if the Administration's Executive Order on Critical Minerals reinvigorates domestic mining, The U.S. alone will not be able to meet global demand, without help from friends and allies.

Solution: Create the Correct Above-ground Conditions to Encourage Investment in Mining.

• Affect above ground conditions to level the playing field.
• Support capacity-building through targeted technical support.
• Publically encourage good governance.
• Develop partnerships with like-minded countries with strong records of responsible mining.
What is the ERGI Toolkit?

The ERGI toolkit is a public-facing educational resource for mining sector stakeholders, and for policymakers working with energy minerals in particular, to promote leading practices in mining sector governance. The toolkit supports sustainable mining development and resilient energy supply chains through a combination of interactive tools and case studies.

**Interactive Tools**
User-driven visuals and interactive scenarios bring the key decisions and compromises inherent to any mining project to life. Users get to chart their own path, and experience industry best-practices, via:

- Examples of best-practice policies and strategies to promote a well-governed sector
- Step-by-step guides to building the institutional skills required to sustain progress
- Trade-off demonstrations for key variables, to help guide decision-making

**Case Studies**
Real-world examples of the mining industry, local populations and the public sector partnering to achieve multi-stakeholder benefits. Case studies link back to ERGI tools to illustrate key issues, such as:

- Transparent and competitive markets promote accelerated investment
- Economic value for a host country, and local population, can extend beyond life-of-mine
- New technologies can result in improved mine economics and a cleaner environment

To learn more visit: www.ERGI.tools
What Does the Toolkit Cover?

ERGI Founding Partners structured the toolkit to highlight how adopting/implementing leading governance practices can help create value and economic opportunity throughout the entire mine development lifecycle. The foundation of the toolkit is a strong focus on stewardship – inclusive governance activities to create shared value through social, economic, and environmental outcomes. A sample tool has been developed for each of the four Toolkit modules:

- **Resource Management**
  - how governments collect, analyze and share actionable mineral data

- **Project Development**
  - how mineral rights are acquired and mineral deposits developed

- **Production**
  - how to facilitate extraction and effectively regulate the industry

- **Stewardship**
  - how to maximize value to all stakeholders by promoting and innovating shared value
Resource Management: National Geological Surveys

The Resource Management module includes a tool on Understanding & Promoting Your Resource Endowment. This is primarily focused on the mission and features of national geographical surveys, and how such organizations can help to define, develop and defend a State’s natural resource endowment. Interactive features include: the importance of data management, and which Survey investments can have the greatest impact in the shortest time.

Step-by-Step Guide

- What is a Geological Survey?
- Measuring & Communicating Your Resource Potential
- Structuring & Funding a Survey
- Survey Priorities

Learning Objectives

- How do Surveys obtain and analyze geological data?
- What are the core functions of a Survey?
- How do Surveys accelerate mining investment?
- What investments best set a Survey up for success?

Sample Interactive Feature

Prioritizing Survey activities: time vs. cost vs. impact
Project Development: Mineral Licenses and Leases

The Project Development module includes a tool on Awarding Mineral Licenses and Leases. This tool examines how the decisions the State makes at the start of the mineral development life cycle can impact future relationships, responsibilities and economic development. Interactive features include: how mineral asset ownership affects stakeholder relationships, and the relative value to the State of open access and competitive tenders.

Step-by-Step Guide

- Fundamentals of mineral rights, ownership structures, and the roles of key stakeholders
- Methods of awarding mineral rights

Learning Objectives

- How the structure of mineral rights impacts investment
- Creating value via the licensing process
- When to use open access vs. tenders
- The importance of transparent processes.

Sample Interactive Feature

Stakeholder mapping: relative influence of mineral asset owner
**Production: Mineral Asset Classification and Royalties**

The Production module includes a tool on **Mineral Asset Classification and an Introduction to Royalties**. This describes the important role the State plays in influencing the economic geology within which a mine must operate, and how government decisions directly impact future economic and social development. Interactive features include: the complexity and costs of exploration, common royalty/tax structures, and mine life vs. royalty tradeoffs.

**Step-by-Step Guide**
- Mineral Asset Classifications
- Promoting Investment & Resource Development
- Introduction to Royalties

**Learning Objectives**
- Distinctions between, and impacts of, different mineral classifications and sub-classifications
- How State decisions can promote/prevent private sector investments in mineral exploration and development
- Options to maximize value from national royalty regimes

**Sample Interactive Feature**
Royalty Regimes: taxes, timelines, and trade-offs

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![Diagram](image)
Stewardship: Social License to Operate

The Stewardship module includes a tool on Social License to Operate. This describes how mines should be developed and operated with the ongoing consent of the local community. This consent, or social license, must be cultivated and maintained over the life cycle of the mine. Interactive features include: a visualization of the triple bottom line, and using social impact monitoring to show how local innovations can drive value beyond compliance.

Step-by-Step Guide

- Social License to Operate Frameworks
- Stakeholder Engagement Strategies
- Social Impact Strategies and Monitoring

Learning Objectives

- Identify key elements of a social license to operate and provide a framework through which to view community informed consent to operate
- How investors work to cultivate a social license to operate, innovating to create shared value, and the policy levers governments use to incentivize social license investments

Sample Interactive Feature

Value beyond compliance: scenario-based visualizations

Scenario 3: Shared-Value

Government works with industry to implement regulatory streamlining – reducing compliance costs while maintaining standards and enabling operator flexibility. VBC initiatives used to create local supply chain, training and services options, reducing costs. Lower per-ton costs enable production expansion back into lower-grade areas, increasing jobs and providing government with options to balance royalty rates vs. long-term revenues.
Learning From Our Partners – Geological Surveys

**Geoscience Australia**
- Long history dating back to 1910. In addition to mapping, also serves as the geoscience technical adviser, marine and coastal research, and more
- Exploring for the Future (EFTF) program invested over $100 million from 2016 to 2020 in understanding northern Australia’s natural resources
- EFTF resulted 13 tenements

**The Geological Survey of Canada**
- Canada’s oldest scientific agency, founded in 1842 to help develop robust mining sector through public geoscience data access
- Targeted Geosciences Initiative (TGI) in the early 2000s led to more effective targeting of subsurface mineral assets and how mineral deposits are formed
- Geomapping for Energy and Minerals (GEM) program greatly increased mapping of Canada’s north, leading to investment

**Reliable, public data attracts investment and supports a healthy and competitive mining sector**
CASE STUDIES

Learning From Our Partners – Stewardship

Red Dog Mine

- One of the largest zinc mines in the world located in remote northwestern Alaska
- The mine is a collaboration between Teck Resource and the Iñupiat native company NANA, over half of Red Dog’s personnel are NANA shareholder
- The mine has paid upwards of $140 million since 1989 to the Northwest Arctic Borough, works with tribe elders to ensure economic opportunity and continuity of traditions

Geoscience Australia – Indigenous Engagement

- Geosciences Australia committed to meaningful engagement with indigenous stakeholders through free, prior, and informed consent
- In 2019, worked closely with Aboriginal communities for the Barkly Seismic Survey, consulting 18 Aboriginal communities and employing 39 different Aboriginal custodians
- Geosciences Australia routinely holds consultations with indigenous groups to better serve their interests

Providing value beyond compliance to all mining stakeholders ensures a long-lived, fruitful project
Collaborating on Content

Building from toolkit foundations already put in place by ERGI’s Founding Partners, ERGI will collaborate with public and private sector counterparts to build out the toolkit with a demand-driven, inclusive and compelling range of tools and case studies. The toolkit will expand to provide real-world examples and leading practices across the full spectrum of mineral governance disciplines, while remaining a living resource that can adapt as new ideas emerge and additional needs are identified.

To learn more visit: www.ERGI.tools
Thank you.