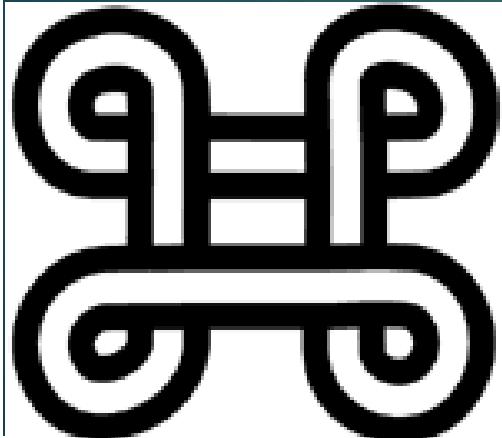


Modern Mining & Social License

**Perpetua Resources Webinar series
May 18, 2021**

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Program

- ▶ Introduction
- ▶ ESG: A new integrated framework
- ▶ International standards & ESG
- ▶ Aspects of a new way of mining
- ▶ The old way: Not exactly ESG focused!
- ▶ Moves towards a new way: What are the pressures for this?
- ▶ Social Performance leading to Social License to Operate
- ▶ The Stibnite Project



Who am I?

- ▶ Social anthropologist; PhD, Adjunct Professor, Sustainable Minerals Institute, UQ; Colorado School of Mines
- ▶ Twenty years, Indigenous and tribal focus (Australia, West Africa, Indonesia, Brazil)
- ▶ Director, Yirri Global LLC; consultancy; working at intersection of communities & companies
- ▶ Focus: Stakeholder relations, risk assessment, due diligence, social performance standards, conflict prevention/trouble shooting, community agreements
- ▶ Two dozen countries on four continents
- ▶ A ‘student’ & participant observer of mining for twenty-four years
- ▶ Roles in global mining initiatives & policy: e.g., International Council on Mining & Metals, International Finance Corporation, Extractive Industries Transparency Initiative

ESG: A new integrated framework

Environmental criteria:

How a business performs as a steward of the natural environment, focusing on:

- Water management
- Waste management
- Resource depletion
- Greenhouse gas emissions
- Biodiversity
- Energy
- Recycling

Social criteria:

How a company treats people:

- Employee relations & diversity
- Working conditions, including child labor and slavery
- Local communities; engagement & sustainable support
- Health and safety
- Conflict management

Governance criteria:

How a corporation polices itself; how the company is governed; focus on:

- Corruption and bribery
- Board diversity and structure
- Executive remuneration
- Donations and political lobbying

International standards

The most important standards in the extractive industry ESG space:

- ▶ International Finance Corporation Performance Standards
- ▶ Equator Bank Principles
- ▶ Global Reporting Initiative
- ▶ Dow Jones Sustainability Index

Each sector often has its own:

- ▶ ICMM Sustainability Principles
- ▶ IPIECA/API: Oil and gas industry guidance on voluntary sustainability reporting

Other 'sign up' and reporting initiatives include the Responsible Gold Mining Principles & the Aluminum Stewardship Initiative; Initiative for Responsible Mining Assurance; Alliance for Responsible Mining



IFC Performance Standards



Equator Bank Principles

- ▶ **Principle 1: Review and Categorization**
- ▶ **Principle 2: Environmental and Social Assessment**
- ▶ **Principle 3: Applicable Environmental and Social Standards**
- ▶ **Principle 4: Environmental and Social Management System and Equator Principles Action Plan**
- ▶ **Principle 5: Stakeholder Engagement**
- ▶ **Principle 6: Grievance Mechanism**
- ▶ **Principle 7: Independent Review**
- ▶ **Principle 8: Covenants**
- ▶ **Principle 9: Independent Monitoring and Reporting**
- ▶ **Principle 10: Reporting and Transparency**

Aspects of a new way of mining

- ▶ Companies agree to adopt and follow certain national or international frameworks or principles
- ▶ Companies are required in many cases by funders, investors and shareholders to do so
- ▶ Good ESG practice requires companies to focus as much on ESG functions as on the technical & financial
- ▶ Taking part in these initiatives usually requires regular monitoring and reporting; some have a form of certification
- ▶ One negative of this is that the ESG trend can become an exercise in ‘box checking’.
- ▶ Best in class miners now focus on ‘Social Performance’.

Mining: The old way

- ▶ Possibility of making a lot of money in a short period of time
- ▶ Boom/Bust economy
- ▶ Culture of inalienable rights (supported by *Mining Act of 1872*)
- ▶ Culture of rampant individualism; frontier busting
- ▶ As little restriction as possible
- ▶ Total focus ‘inside the fence’ (if there was a fence!); ‘problems’ were pushed off the property
- ▶ The ‘environment’ only existed to be exploited and abused; negative impacts were merely left behind (‘Not my problem’)
- ▶ Safety was an individual miner’s responsibility
- ▶ Licenses could be bought; though having a license and paying tax was ‘optional’
- ▶ If communities were near, they were generally wholly owned and run by the mining companies; ‘trapped labor’

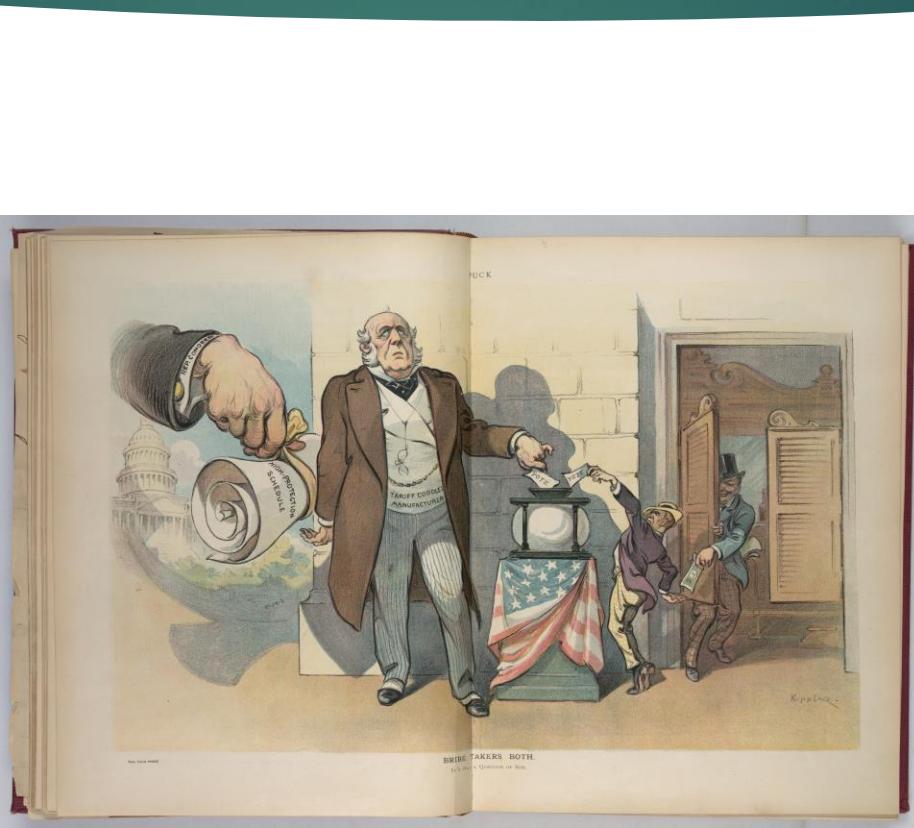
Environment - The Old Way



Social - The Old Way



Governance - The Old Way



But: we need mining

Single 3mw wind turbine

- **335 tons of steel**
- **4.7 tons of copper**
- **1,200 tons of concrete**
- **3 tons of aluminum**
- **2 tons of rare earth elements**
- **Zinc**
- **molybdenum**

Antimony

- Large storage batteries
- Flame retardants, wind and hydro turbines, solar panels, cell phones
- Semiconductors

To replace 32m cars with hybrids today:

- **207,900 tonnes of cobalt**
- **264,600 tonnes of lithium carbonate (LCE)**
- **7,200 tonnes of neodymium and dysprosium**
- **2,362,500 tonnes of copper**

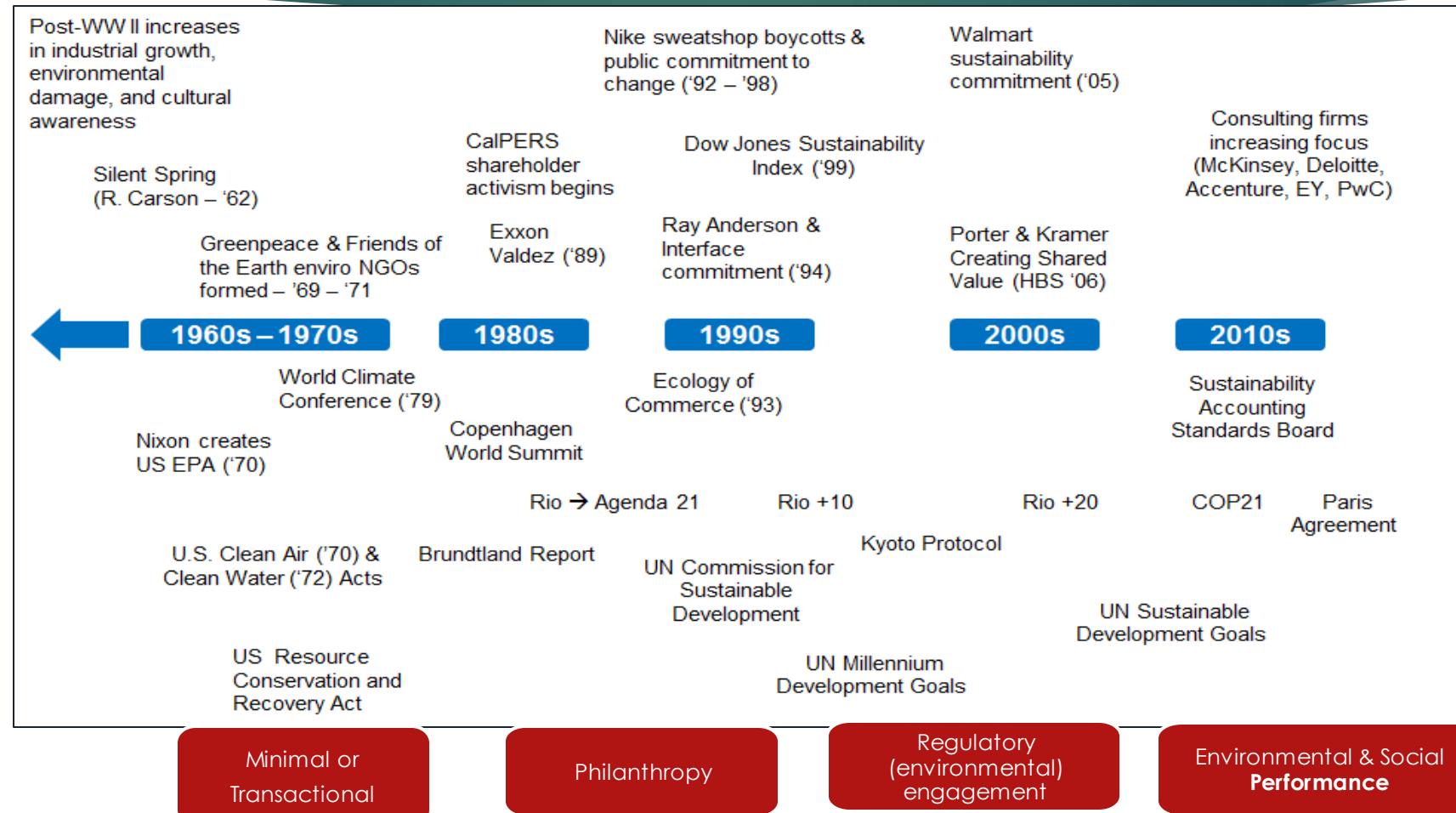
Copper

90lbs average electric car; 800lbs elec; bus; 440Lbs av house; only 34% recycled

Multiple trajectories to new ways

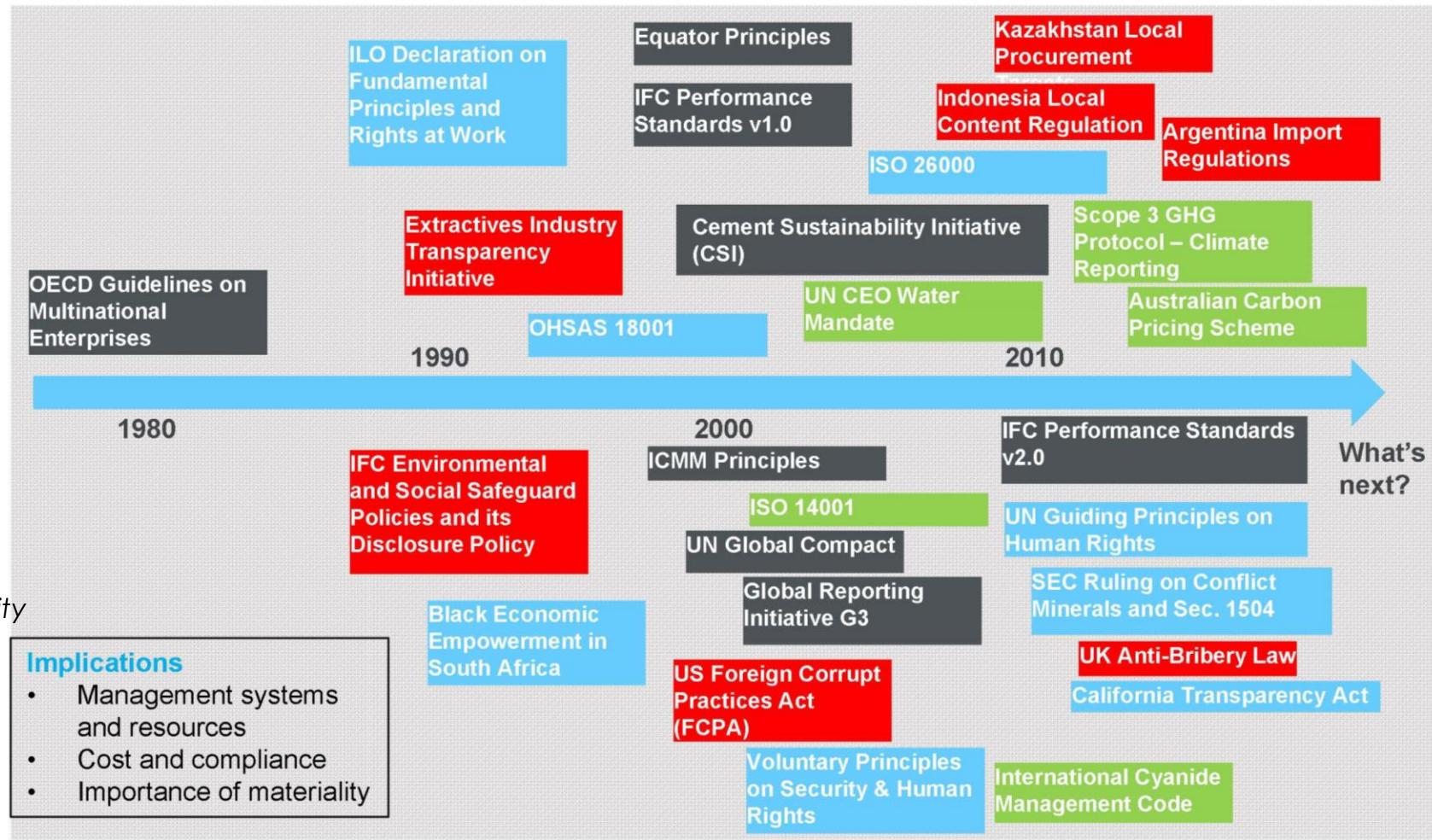
- ▶ Safety becomes a major concern for mining companies (1950s)
- ▶ Environmental movements of the late 1960s push miners to include & professionalize environmental management
- ▶ Community interaction remains as sponsorship and ‘community development’; ‘good corporate citizen’ ('70s & 80s)
- ▶ ‘Sustainability’ emerges, and some businesses adopt (90s)
- ▶ ‘Corporate social responsibility’ (CSR) and ‘Social License to Operate’ (2000s)
- ▶ ‘Social Performance’ (2010 onwards)

The role of business in communities continues to evolve in response to both societal and commercial pressures

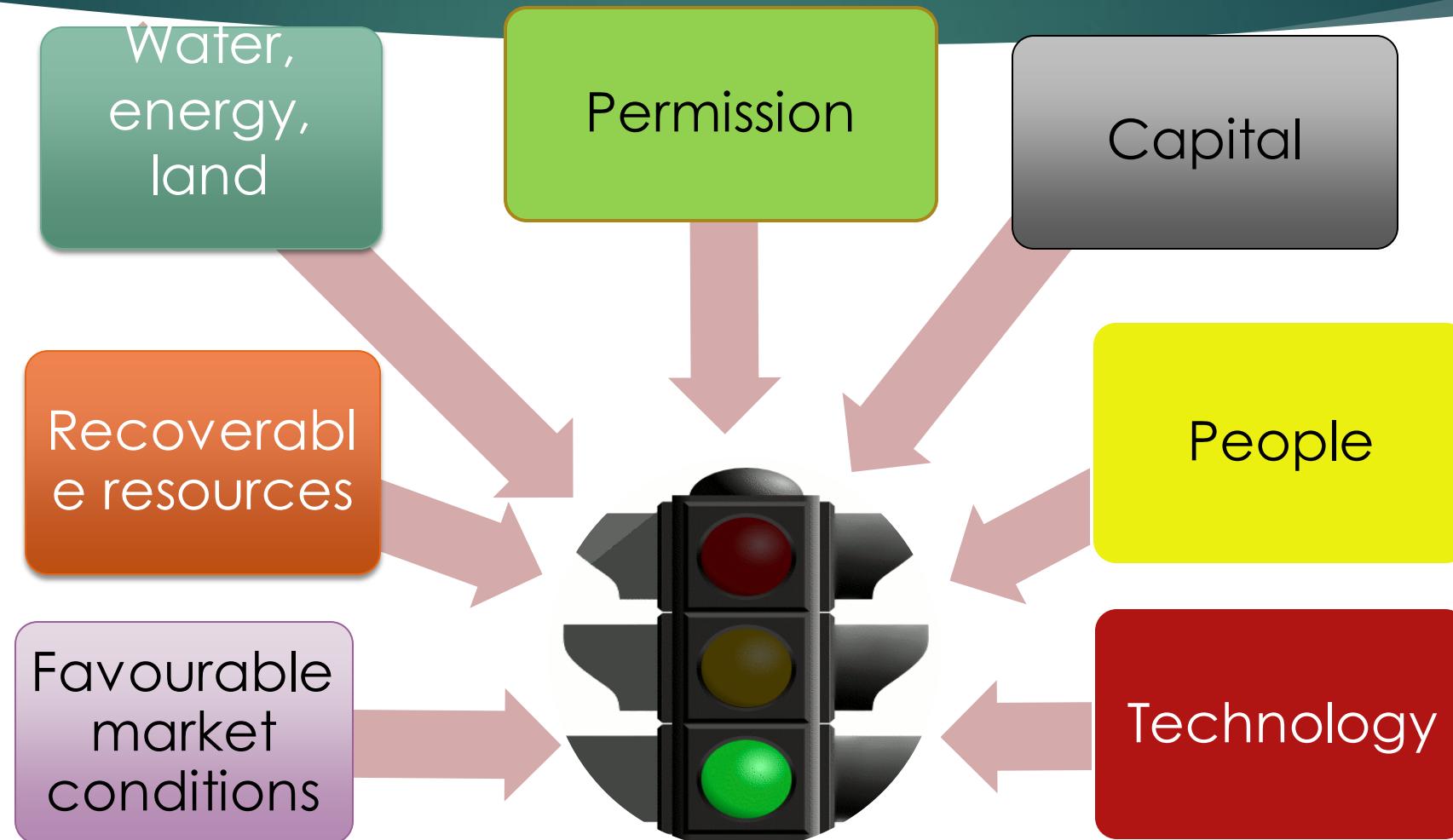


Adapted from
Michael Oxman,
Sustainability
Overview, EMIL,
Georgia Tech.
Oct 2016

Proliferation of regulations, industry standards, and good practice guides support sustainability shift



Making a mine happen



'Permission' encompasses:

- ▶ The formal approval of governments, as primary **stakeholders**, granted through the regulatory process ('license to operate')
- ▶ The endorsement, acceptance or at least acquiescence of, local **communities** and other key stakeholders ('social license to operate')
- ▶ Increasingly, the approval of Indigenous or other landowners ('Free, Prior & Informed Consent').



Good Social Performance leads to a Social License to Operate

- ▶ At the level of an individual mining project, the social license is rooted in **the beliefs, perceptions, & opinions held by the local population** and other stakeholders about the mine or project. It is therefore “**granted**” by the community and stems from the Company’s social performance.
- ▶ It is dynamic, intangible & nonpermanent because beliefs, opinions, and perceptions are subject to change as new information is acquired. Hence the social license has to be **earned and then nurtured**.
- ▶ SLO is only achieved by good **social performance** by the company on the ground. SLO comes when host communities believe they are engaged, listened to, and are better off for your project being there than not, both in the short and long term.



[Other companies and ESG

ICMM Principles (28 companies)

1. Ethical Business
2. Decision making
3. Human Rights
4. Risk Management
5. Health & Safety
6. Environmental performance
7. Conservation of biodiversity
8. Responsible production
9. Social Performance
10. Stakeholder Engagement

In 2020, the NMA established a CEO-led Environmental, Social and Governance (ESG) Task Force.

Lundin's Eagle Mine: 'Stop the whine. Start the mine.'
Only after serious ESG/CSP

**Red Dog Mine, Alaska: largest Zinc mine in world
On Native Alaskan land; most employees Native;
royalties to 50%**

"Newmont's commitment to ESG is fundamental, it is part of the company's fabric and history, and is essential to our license to operate." Newmont CEO
First miner on the Dow Jones Sustainability World Index

Stibnite Project: Highlights of good practice

- Solving a bad environmental legacy
- Community advisory council and transparency of meetings, processes and outcomes.
- Independent Water Monitoring Program
- Stibnite Foundation
- Formal community agreements
- Localization of senior roles and board; Idaho-based American company
- Focus on Yellow Pine, Donnelly, Cascade and Riggins as local communities
- Multi-level communications plan and activities; constant and personal interaction, group meetings and face to face
- Engagement with those who do not support project
- Good mix of front-end communication and hands-on processes that build trust and personal links at a local level.
- Good balance of government interaction at every level



Thanks!
Questions please

Interaction welcome: JChrisAnderson@Yirri.Global

