Mining Equipment, Technology and Services

A Roadmap for unlocking future growth opportunities for Australia

MAY 2017
ENABLING BUSINESS CHANGES

In order to unlock this opportunity, METS companies will need to invest in business transformation—taking action internally and externally.

BUSINESS PRIORITIES: CREATING ADVANTAGE THROUGH CAPABILITY AND LEADERSHIP

People and skills
- Develop geophysical and geospatial knowledge in parallel with data sciences, modelling and geographic information system (GIS) skills. For example, develop statistical modelling and interrogation techniques to improve targeting using available data or gaps in datasets.
- Work with universities to develop graduates that understand established geological fundamentals as well as emerging computational and analytical skills.
- Improve field skills to take advantage of real-time (or near real-time) sensing and targeting data.

Process and standards
- Improve data integration and data transfer standards to take advantage of new sensors and emerging 'big data' technologies. The geospatial data standards that have been developed over the last 10 years have been funded and adopted by government agencies and will need further work for commercial application. The pathway to developing these standards is now well defined and should be leveraged rather than reinvented.
- Identify and promote best practice in data acquisition and processing to improve data quality and reduce issues with integrating large exploration datasets.

Culture and collaboration
- Facilitate greater collaboration between junior explorers, METS and mining companies to address market failure risks and increase recognition of innovation needs. Note: While METS and junior explorers are often treated separately, both groups have a high degree of commonality.
- Improve multidisciplinary collaboration: such as between geologists and biologists for improving operation and post-closure outcomes.
- Create opportunities for sampling and analyzing vegetation / geology for traces of minerals in exploration (but also for other industries, e.g. Agriculture, etc.).
- Improve stakeholder and community engagement methods to reduce current barriers (e.g. raising capital, gaining licences, regulatory approvals).
- Promote the sharing and integration of exploration and geological data and leverage crowd sourcing to allow data science experts from fields other than mining to interrogate exploration data across tenement and regional boundaries.
- Support activities that improve decision-making related to resource geography and its potential, and develop models and predictive tools to help resource governance.

METS are an emerging component of the global supply chain that is developing to deliver major value to the mining and agricultural sectors. The METS sector is a key enabler for the mining industry's transition to a low-carbon economy, contributing to the achievement of the United Nations' Sustainable Development Goals (SDGs).

The METS sector is composed of companies that provide technologies, services, and solutions that support the mining industry's operations. These solutions range from exploration to production, mining to processing, and waste management to environmental health and safety. METS companies are playing a critical role in driving the mining industry towards sustainability and responsible mining practices.

The METS sector is continuously evolving, with new technologies and services being developed to meet the changing needs of the mining industry. This evolution is driven by the increasing demand for cleaner, more sustainable mining practices, as well as the need to increase the efficiency and productivity of mining operations.

In summary, the METS sector is a vital component of the global mining industry, driving innovation and sustainability through the development and implementation of new technologies and services. The METS sector is a key enabler for the mining industry's transition to a low-carbon economy and plays a critical role in achieving the United Nations' Sustainable Development Goals.