



Virtual Forum Series:
Intelligent Underground Mining

During the workshop portion of the virtual forum, participants focused in on priorities and challenges within underground mining operations through the lens of potential future projects and initiative on which GMG could focus collaboration efforts.

	Health & Safety	Data Use & Management	Infrastructure & Standards
Priorities	<ul style="list-style-type: none"> - Address new health and safety challenges with automation 	<ul style="list-style-type: none"> - Provide data that's useful in the day-to-day running of the mine - Enable a better understanding of ore body by bringing multiple stakeholder data together – external and internal - Common data platform for exchanging data between different systems - Enable nimble process automation and analytics - Effective and integrated operations scheduling, planning, and execution - Employ collaborative platforms (ex. Building Information Modeling) through the mine life cycle - Mine owners and vendors can partner on case study presentations 	<ul style="list-style-type: none"> - Advances in mine services and charging - Standards for electrical batteries and charging infrastructure - Find solutions for spent battery disposal - Many underground mines are operated by contractors without visibility of their activities - New and better standards for underground vehicle traffic control and vehicle-to-vehicle interaction - Establish test beds to develop/demonstrate/evaluate new solutions without accessing an operational mine - Operating standards – fully double isolated or mixed use operating conditions

Challenges	<ul style="list-style-type: none"> - Interconnectivity and platform interchange - Tight standards - Working with competitors on specific integrations - Benchmarking to clarify step change differences in business cases - A common data platform for exchanging data between different systems to enable nimble process automation and analytics - Mine scheduling and geology, FMS, M2M, maintenance
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