

# SEG 2022 Conference: Minerals For Our Future

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## Exploring New Business Models for Mineral Exploration

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Currently, it's not worthwhile to invest in exploration:

- With only 1 project becoming a producing mine out of 500 to 1000 grassroots exploration projects (Allen, 2015; Eggert, 2010), more money is invested than value generated by discoveries (Schodde, 2020).
- The industry faces increasing difficulty obtaining the social license to operate as well as rigorous environmental standards and permitting requirements.
- Mineral deposits are deeper and located in more remote areas (with higher costs and lower success rate). Also, the ores are more complex to process and have lower grades (requiring higher specific energy, water and land uses in mining).

These challenges occur at a time when new mines are needed to transition to a sustainable economy. Green energy, high-tech and defense industries demand a growing volume and variety of raw materials, such as lithium, cobalt, magnesium, copper and REE. The aftermath of the coronavirus and the geopolitical long-term consequences of war in Ukraine exacerbate the trend to deglobalization, each block aiming for self-sufficiency in critical minerals.

This creates both opportunity and responsibility for the exploration industry; yet it must reinvent itself. It must be more efficient, with better targeting, evaluation tools, and methodologies. It needs to fundamentally change its business models, focusing on natural and social systems rather than only on mineral deposits, shareholders, and Boards, while transforming from a linear to a circular economy business model.

We look at the operation, business strategy and value creation of a sample of junior mining companies listed on the TSX-V. A vast majority of junior companies is focused on gold exploration, adopting a business-as-usual approach. However, recent years have witnessed an increased number of new ventures focusing on lithium, and other battery and high-tech metals, some of them with innovative business models.