

SEG 100 Conference: Celebrating a Century of Discovery

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Developing Capable Technical Professionals to Support the Future Resource Industry

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The resources industry is transforming due to digital disruption and the application of new technologies, discovery and extraction of increasingly deep and complex orebodies, a changing future-facing commodity and energy mix, scarcity of water resources, and environmental, heritage and social value commitments and constraints.

At the same time, an aging and experienced technical workforce is contemplating retirement; early-career resource scientists and engineers require upskilling; industry professionals require continuous development; universities face significant financial challenges; breadth of resources-industry career options isn't understood by students, educators, or careers advisors; and perception of the resources industry is at an all-time low. These factors are contributing to unprecedented low numbers of enrollments in resources-related degrees such as Geoscience, Geotechnical Engineering, Mining Engineering, and Metallurgical Engineering.

The future resources industry needs a consistent supply of diverse, quality geoscience and resources engineering graduates and access to workforce development programs to meet forecast technical, technology, and innovation requirements and societal/environmental demands.

This paper will discuss the challenges and collaboration opportunities for educators, governments, and industry to inform, influence, and support students to build careers in geoscience and resources engineering and to support career professionals for a lifetime of learning and development.