



BC Mining Innovation Roadmap

Our pathway to leveraging
BC's ESG advantage



The BC Mining Innovation Roadmap serves as a guide to our destination, where BC is a globally competitive mining region with a thriving culture of innovation and collaboration, a regulatory regime that supports innovation and high environmental and safety standards, and a workforce prepared for the future.

A vision underpinned by trusted relationships and shared values with Indigenous and non-Indigenous communities, and all mining industry stakeholders.

A destination where BC is regarded as a world leader in sustainable mining.

The BC Mining Jobs Task Force envisions the province's mining industry as the backbone of an inclusive, progressive and low-carbon economy, and a desired career path for the next generation. The Innovation Roadmap is one of the Task Force's key recommendations in its final report. As directed by the Task Force, the Innovation Roadmap was developed through an extensive multi-stakeholder engagement process under the guidance of a highly experienced advisory committee. Consultation involved more than 280

participants spanning the entire mining ecosystem and more than a dozen engagement events.

A HOME FOR MINING INNOVATION

The creation of a BC Mining Innovation Hub is the priority recommendation of the Innovation Roadmap. The Hub in partnership with industry, academia, and the federal and provincial governments will accelerate innovations and enhance competitiveness across a range of areas including environmental protection, clean tech, emissions reduction, and regulatory competitiveness. The Hub will provide the key functions of coordination, communication and knowledge sharing to implement and achieve the Innovation Roadmap's four goals and 18 supporting actions.

Four goals

1 FOSTER AN INNOVATIVE AND COLLABORATIVE CULTURE

Regulators wishing to maintain existing safety and environmental health standards can be resistant to new technologies and practices. Industry and investors wishing to minimize the risk of delays in regulatory processes and potential cost increases are also wary. A cultural shift to embrace new technologies, processes and services is needed to further strengthen efficiency and safety and reduce environmental impact. The mining sector has begun to collaborate with BC tech and clean tech companies. A carefully planned strategy, including support from the provincial government, can assist to bring these sectors together, enabling them to develop and implement new innovations in mining.

2 IMPROVE REGULATION TO SUPPORT INNOVATION

The absence of clear regulatory pathways can impede investment in innovation and stifle attempts to address challenges in innovative ways. Government and industry both recognize that embracing innovation will result in more efficiency, enhanced safety and better environmental management. There is strong support to adopt a risk-based approach that ensures applications receive an appropriate level of review. This type of regulatory regime would allow government to focus its finite resources on the highest-risk activities while enabling industry to more easily adopt low- or no-risk innovations.

4 LEVERAGE BC'S ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) ADVANTAGE

The world is more focused on the challenge of climate change and the environmental, social and governance performance of supply chains. BC is well-positioned to emerge as a leader in providing the sustainably-sourced materials required to support the transition to a lower carbon future. BC's mining industry can make important contributions toward global sustainability through export of knowledge, services, solutions and materials for use in clean and green technologies. By expanding our reach, BC can contribute to the achievement of the UN Sustainable Development Goals while enhancing the mining industry's economic competitiveness.

3 BUILD THE WORKFORCE FOR THE FUTURE MINE

The ideal future mine will be more digitally connected, enabling broad use of automation and autonomy, robotics, big data analytics and artificial intelligence. It will also be electrified and have a smaller environmental footprint. As this evolution in mining occurs, the workforce profile will evolve — shifting away from a heavy reliance on unskilled and physical labour toward a focus on information technology, data analytics and technical expertise. For the BC mining sector to remain competitive, innovative approaches to building a workforce — attracting new skilled/educated workers, retaining skilled workers and re-skilling existing workers — is vital.



“I am proud to be an Indigenous woman in mining, allowing me to influence positive change, shifts in process and ensuring mutual beneficial relationships are developed between industry and communities.”

– CHRISTY SMITH

Vice President, Indigenous and Stakeholder Engagement,
Falkirk Environmental Consultants.