Remote Controlled:
Technology and the Canadian Mining Sector
Preliminary BC Case Study Findings

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Dr. Sarah-Patricia Breen
Laura Stern

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BC Case Study Region – The Kootenays
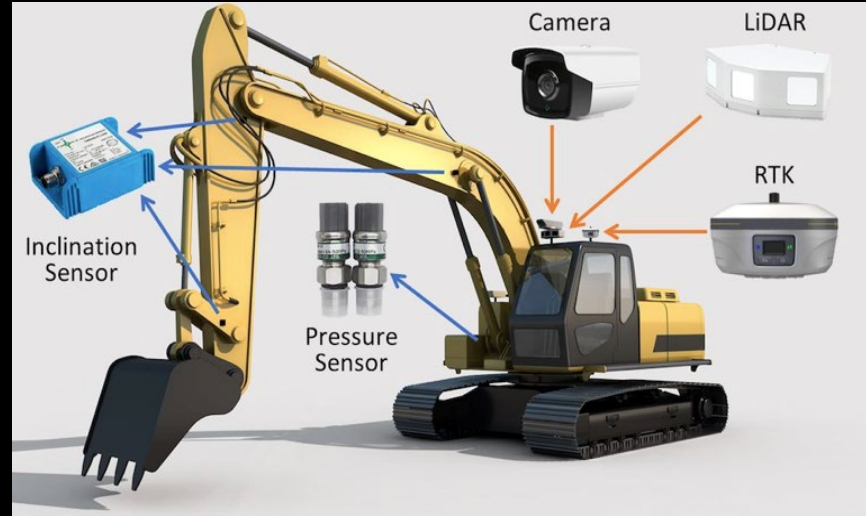

Source: Teck

Source: The Star

Data Collection – The Kootenays

- 32 interviews
  - 4 – mining companies
  - 11 – technology companies
  - 17 – sector supports, stakeholders, experts

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Top Current Technologies

- Software

- Sensors

- Autonomous Equipment

- Electric Vehicles

https://mobilerobotguide.com/2021/07/01/baidu-develops-autonomous-excavator-system/

Technological Progression

Current Technologies

New Application

- Mapping Software

- Virtual and Augmented Reality

- Autonomous Shovels

- Autonomous Vehicles and

- Machine Learning

- Electric Vehicles

- Electric Haulers with Regenerative Breaking

New Technologies

- Drones
- Internet of Things
- Mine of the Future

https://rockroadrecycle.com/autonomous-and-remote-control-operations-the-future-has-happened/

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Drivers

- **Worker safety**
- Improving efficiency
- Making mining more sustainable
- Place specific challenges

https://im-mining.com/2021/12/31/dassault-systemes-sets-centre-excellence-india-texmin-foundation-indian-school-mines-dhanbad/

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Barriers

https://www.teck.com/operations/canada/operations/elkview/

- Staffing
- Cost
- Industry collaboration and support
- Place specific challenges

Preliminary Implications – Rural Communities

Opportunities and Risks

- People

- Infrastructure

- Place

- Capacity

Thank You
Questions?

Resources:

- sbreen@selkirk.ca

- https://selkirk.ca/rural-resilience

- https://uwaterloo.ca/disruptive-technologies-economic-development/remote-controlled-impacts-disruptive-technologies-canadian