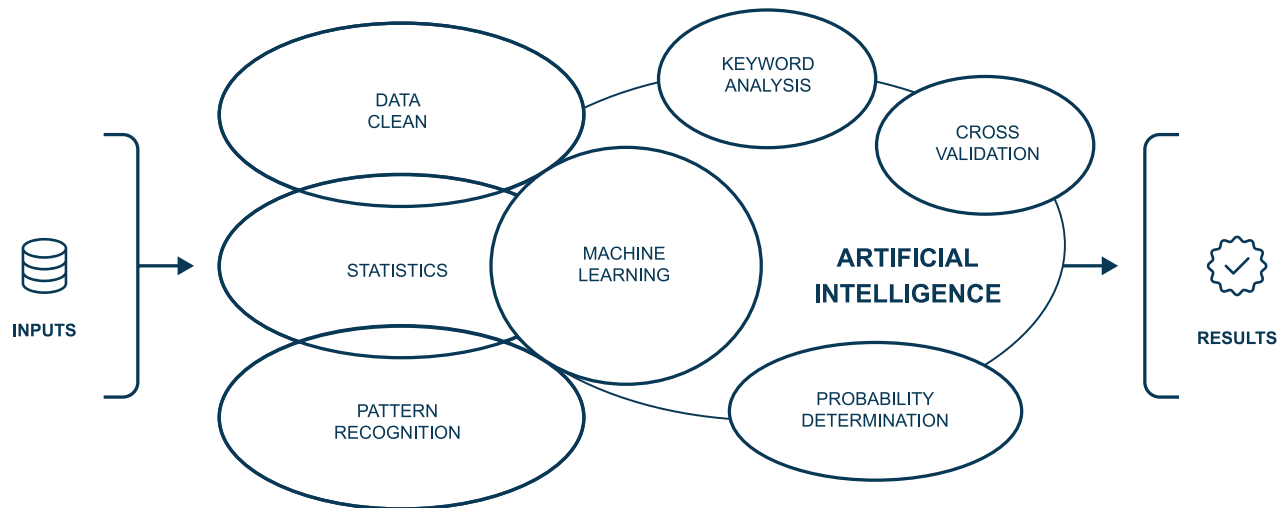


What to Expect from Day One

Insight Risk Systems is a Thinking Partner to talk through your risk management approach



SHARED LANGUAGE

Calibrate language: Across your organization's geography and business units, do you consistently define and track:

- Hazards: major incident hazards, ST(C)KY, high energy hazards, energy wheel
- Loss of control/containment scenarios: root cause analysis, after action reviews, event trees, fault trees, bowtie analysis
- High consequence risks: major unwanted event, serious injury and fatality (SIF), high-impact low likelihood (HILL), and potential losses (SIFp, PSIF)
- Controls: life-critical controls, critical controls assurance, critical controls management, tied to RACI to track responsibility/accountability
- Hazard-Risk-Control bundles: life-critical tasks, life saving rules, life saving actions
- Individual, team, and organizational factors: that can reinforce or degrade your ability to identify hazards, understand loss scenarios, change probability and consequences, implement controls

IDENTIFY GAPS

Give you line-of-sight to your gaps, inconsistencies, and ambiguities that block integration of your occupational and operational risks into your enterprise risk management system.



Detailed cold-eyes review / due diligence of your risk management system using GapFinder. Where are your strengths? Where are your priority opportunities?



HAZARD RECOGNITION

“Do I see it?” – hazard recognition:

- The first failure mode is not that people choose the wrong control. It is that the hazard is not recognized clearly enough in the first place.
- This means the question is not simply: What hazards exist?
- It is: Are the hazards that can seriously harm people, assets, and environment visible in incidents, inspections, critical controls assurance, work planning, and business-unit reporting?
- Mining operations often ‘know’ their high-energy hazards, but the real question is whether the management system is consistently seeing them in practice.

HUMAN FACTORS

“Do I understand it?” and “Do I tolerate it?” – human/organizational factors and risk normalization:

- Even when a hazard is recognized, it may not be reported if workers / contractors fear social repercussions. If workers are fearful, they’re more likely to tell a third-party like Insight Risk Systems.
- If hazards are identified and reported, workers may still tolerate it because of familiarity, confidence, production pressure, time constraints, role modelling, voluntary action, perceived control, budget constraints, or normalized exposure.
- That gives GapFinder a stronger human-and-organizational layer: Not only “was the control present?” but “what conditions made weak control, degraded control, or risky exposure seem acceptable?”

CONTROL LAYERS

“How do I prevent or mitigate it?” – multi-layered controls:

- This is where the enhanced hierarchy of controls and process-safety layers of protection come in.
- By examining loss of control/containment scenarios by hazard/task, using bowtie analysis, we can identify more effective, upstream options to prevent and mitigate risk. And we can understand how human and organizational factors reinforce or degrade those controls.
- That is valuable because it connects:
 - occupational safety controls
 - process safety barriers
 - critical controls
 - LOPA-style layered protection
 - human and organizational performance
 - prioritized by potential consequences

GapFinder helps organizations see where controls break down: when hazards are not recognized, when exposure becomes tolerated, or when mitigation relies too heavily on weak or degraded layers of control.



Detailed quantitative risk assessment, techno-economic, regulatory gap analysis, and staged implementation to derisk new technologies

RECENT WORK



Derisking the hydrogen value-chain in Canada



Automated train inspection



Enhanced train control systems



Contact us as a ‘thinking partner’ to discuss your company’s progress and how data analytics can create opportunities for enterprise-level enhancements:

Dr. Lianne Lefsrud, P.Eng., CEO, Insight Risk Systems
780.951.3455 or lianne.lefsrud@insightrisksystems.com