

# Central Alberta Corridor Initiative Solutions

## Alberta Critical Materials Research, Development & Innovation Network

### Summary Solution Brief

#### The Challenge

Alberta has strong universities, polytechnics, applied research capacity, and deep industrial expertise, yet its critical-materials research, development, and innovation (RDI) system remains fragmented and poorly aligned with industrial reality. Industry struggles to identify relevant expertise or engage research partners, while researchers and training institutions lack clear, consistent signals about real operational needs. As a result, promising technologies stall before commercialization, training programs lag emerging demand, and Alberta's competitiveness for capital and projects is weakened.

In a global race to build resilient, non-Chinese critical-materials supply chains, success depends not on producing more research, but on translating knowledge into deployable technologies, skilled workers, and investable projects.

#### The Initiative

The Alberta Critical Materials Research, Development, and Innovation (RDI) Network is a proposed, post-secondary-led coordinating platform that brings together universities, polytechnics (including Indigenous-specific training institutions), applied research centres, industry, government agencies, and Indigenous rights holders.

Rather than creating a new institution, the Network organizes and activates existing capabilities around a shared regional vision for critical-materials processing, refining, and advanced materials development. It provides a structured mechanism to connect siloed actors, align initiatives, and coordinate action across the ecosystem.

At its core, the Network acts as a practical interface between industry and the RDI system. Real-world industrial challenges (i.e. feedstock variability, process reliability, water and waste constraints, regulatory compliance, and cost competitiveness) are translated into research priorities, training needs, and technology-development pathways. In parallel, research outputs are translated into forms that industry, investors, and policymakers can act upon.

A central pillar is expertise and workforce development. The Network deliberately bridges Alberta's existing strengths in chemical engineering, process operations, automation, and large-scale industrial delivery, built through oil and gas, petrochemicals, and mining, into new applications in critical-materials processing and refining. This ensures training and innovation efforts prepare people to design, build, operate, and optimize real facilities.

## Opening Moves

**Training Needs Framework:** A value-chain-based framework co-developed with industry that identifies specific roles, skills, and experience requirements across critical materials processing and refining. It highlights where existing oil and gas, petrochemical, and mining expertise can be rapidly adapted through targeted upskilling and micro-credentials.

**Innovation Living Labs:** Applied, industry-anchored environments where technologies are tested under real-world conditions and advanced toward commercialization. These Labs integrate technical, economic, regulatory, and ESG considerations and draw on best practices from allied jurisdictions, particularly advanced European RDI hubs.

**Technology & Capital Gathering:** A purpose-built technology and capital gathering that brings senior capital market actors, public innovation agencies, Indigenous financial partners, and project proponents into direct, structured dialogue with the Alberta RDI Network. The gathering functions as a two-way learning platform, helping innovators better understand capital requirements while improving capital-market literacy around the unique risk, scale-up, and infrastructure realities of critical materials innovation. Linked to Supercharge the Alliance, it elevates senior champions, aligns public and private finance, and moves the ecosystem from fragmented conversations toward clearer capital pathways and actionable investment readiness.

## Role of the FMA

The Network is envisioned as post-secondary-led. The role of the Future Materials Alliance is catalytic, convening partners, advocating for enabling policy and funding, recruiting participants, and ensuring the Network is tightly integrated with the broader Central Alberta Corridor effort.

## What Success Looks Like

Success is measured by outcomes, not activity: technologies moving from labs into pilots and facilities; training programs producing industry-ready talent; faster learning cycles between research and operations; and increased attraction of companies, capital, and talent. Over time, the Network helps make Alberta an easier place to build, operate, and innovate, turning fragmented effort into a coordinated, competitive critical-materials ecosystem.

## Detailed Solution Brief

### Barrier That Needs Addressing:

Alberta's research, development, and innovation (RDI) system related to critical materials is fragmented, opaque, and poorly aligned with industrial reality. While the province possesses strong universities, polytechnics, applied research centres, and technical talent, these capabilities operate largely in isolation from one another and from the needs of industry. As a result, there is no coherent, visible, or coordinated body of critical-materials expertise that can credibly support large-scale project development, attract investment, or accelerate commercialization.

Industry actors frequently do not know who is doing relevant work, what capabilities exist across post-secondary institutions and research organizations, or how to engage them. At the same time, researchers and training institutions lack clear, consistent signals from industry about priority problems, operational constraints, and workforce needs. This creates a patchwork RDI landscape characterized by duplication, capability gaps, and missed opportunities for collaboration.

Research is often conducted under idealized laboratory conditions that do not reflect real-world flowsheets, impurity profiles, feedstock variability, water and waste constraints, reagent availability, or capex and opex realities. Industry, meanwhile, is focused on applied questions of reliability, scale-up, regulatory compliance, and commercial performance. The result is mutual frustration: industry perceives RDI outputs as interesting but unusable, while researchers perceive industry as resistant to innovation.

This misalignment is reinforced by mismatched time horizons. The RDI system operates on grant cycles, academic timelines, and pilot-scale milestones, while industry operates on investment cycles, financing deadlines, and construction schedules. Without an intermediary structure to align these timelines and translate needs in both directions,

promising technologies stall before commercialization, and training programs lag behind sector evolution.

### **Why This Is Important:**

Without a coordinated, industry-anchored RDI network, the Central Alberta Corridor will struggle to compete for capital, talent, and projects in an increasingly competitive global critical-materials landscape.

A functioning Alberta Critical Materials RDI Network is not about producing more research for its own sake. It is about ensuring that knowledge is deployable, that innovation is industrialized, and that training programs produce professionals equipped to operate, optimize, and scale real facilities. By deliberately connecting industry challenges with academic expertise, the Network would accelerate technology maturation, reduce costly scale-up failures, and improve project bankability.

This capability is especially critical for Alberta's unconventional feedstocks and midstream ambitions, where success depends on solving complex, site-specific engineering problems rather than deploying off-the-shelf solutions. A coordinated RDI network enables Alberta to turn its existing strengths (i.e. chemical engineering expertise, applied research capacity, and industrial operating experience) into a competitive advantage that is legible to global partners and investors.

Ultimately, the Network underpins the broader CAC and FMA thesis: ecosystem development must precede and enable project development. By translating industrial needs into research agendas and translating research outputs into commercially relevant solutions, the Alberta Critical Materials RDI Network becomes a foundational piece of social and technical infrastructure, one that shortens learning curves, aligns incentives, and transforms Alberta's innovation capacity into real economic and strategic outcomes.

### **The Initiative:**

The Alberta Critical Materials Research, Development, and Innovation (RDI) Network is proposed as a coordinated platform that brings together universities, polytechnics (including Indigenous-specific training institutions), applied research centres, innovation organizations, industry, and government agencies to strengthen technical excellence and accelerate commercially relevant outcomes in the critical-materials sector. The Network provides a structured mechanism to convene actors who would otherwise remain siloed,

align initiatives across institutions, and coordinate action across organizational and sectoral boundaries. It organizes and activates Alberta's existing research, training, and industrial capabilities around a shared regional vision for critical-materials processing, refining, and advanced materials development.

A central function of the Network is to act as a practical interface between industry, capital markets, and the RDI ecosystem. It establishes a shared platform through which real-world industrial challenges (such as feedstock variability, flowsheet reliability, water and waste constraints, regulatory compliance, and cost competitiveness) are translated into research priorities, training needs, and technology-development pathways. In parallel, research outputs and innovations are translated into forms that are meaningful and actionable for industry, investors, and policymakers. In this way, the Network bridges technical, financial, regulatory, and academic languages and ensures that RDI efforts remain grounded in operational realities and commercialization pathways.

Expertise and workforce development is also a core pillar of the Network. Alberta's universities and polytechnics already possess strong foundations in chemical engineering, process engineering, automation, environmental management, and large-scale industrial operations (capabilities built over decades in the oil and gas and petrochemical sectors). The Network helps deliberately bridge this existing expertise into new, sector-specific training and applied research relevant to critical materials processing and refining. This includes guiding post-secondary institutions in adapting curricula, developing micro-credentials and professional training programs, and aligning research chairs and applied labs with emerging industry needs, ensuring that graduates and mid-career professionals are equipped to design, build, operate, and optimize next-generation critical material facilities.

The Alberta Critical Materials RDI Network can support this mandate by:

- Promoting regular stakeholder and rights-holder convenings to intensify collaboration and knowledge exchange;
- Guiding post-secondary institutions in developing and updating training programs that reflect evolving critical-materials and midstream processing needs;
- Advocating for shared pilot-scale and demonstration infrastructure to accelerate learning, validation, and commercialization;
- Brokering alignment across industry investment cycles, RDI timelines, and government funding programs to stabilize expectations and delivery;

- Encouraging governments to strategically backstop early-stage technologies where technical risk limits private investment;
- Attracting researchers, companies, and innovators to the region by clearly articulating Alberta's capabilities and opportunities;
- Mapping and mobilizing existing expertise (particularly from oil and gas, petrochemicals, mining, and heavy industry) into emerging critical-materials applications;
- Facilitate joint industry-PSI engagement with communities and pursue outreach opportunities targeting new students to join training programs;
- Collecting and disseminating best practices from leading jurisdictions globally and adapting them to Alberta's context; and,
- Hosting structured regional dialogues that inform new policies, programs, and enabling tools.

By articulating a clear, shared vision and organizing collective effort around it, the Alberta Critical Materials RDI Network strengthens coordination, reduces fragmentation, and improves the overall investment and innovation environment. In doing so, it becomes a foundational enabler of Alberta's and the Central Alberta Corridor's transition from isolated activity toward a more integrated, competitive, and commercially oriented critical-materials ecosystem.

### **Success Looks Like:**

Success for the Alberta Critical Materials Research, Development, and Innovation Network is defined not by the volume of dialogue it convenes or the quantity of research it produces, but by its ability to translate knowledge into action and outcomes. The Network succeeds when ideas move decisively from research into pilot-scale validation, demonstration, and commercial deployment—when intellectual property is not only generated, but actively used, licensed, and embedded in operating facilities and investable projects.

Over time, success is evident in a steady pipeline of technologies that progress through higher technology-readiness levels, supported by rigorous technical and economic assessment and deliberately bridged to commercialization. Research efforts are consistently shaped by real industrial constraints, and innovation pathways are designed with scale, cost, and operability in mind from the outset. As a result, the region becomes

known not just for technical excellence, but for its ability to de-risk and advance technologies in ways that matter to industry and investors.

A successful Network also reshapes Alberta's talent and training ecosystem. Universities and polytechnics continuously adapt programs to reflect the needs of the critical-materials value chain, producing graduates and mid-career professionals with hands-on, industry-relevant experience. Existing oil and gas, petrochemical, mining, and industrial skillsets are deliberately bridged into new applications in critical-materials processing and refining, allowing Alberta's workforce to evolve alongside the sector rather than be displaced by it. Scientists, engineers, and technologists are increasingly cross-trained to operate at the intersection of technology, policy, economics, and public communication, strengthening the region's capacity to execute complex, multi-stakeholder projects.

Success is also reflected in a shift from fragmented activity to action-oriented coordination. Industry, researchers, governments, and Indigenous rights holders move beyond general alignment toward shared problem definition, sequencing of work, and joint execution. The Network reduces transaction costs across the system, shortens feedback loops between research and operations, and replaces multi-year "dead zones" with rapid-learning cycles that allow projects and ideas to advance (or fail and adapt) more quickly and at lower cost.

As the Network matures, Alberta becomes an easier place to invest, build, and innovate. Companies and researchers are attracted to the region by a clear understanding of available capabilities, enabling infrastructure, and collaborative partners. Universities and industry work together on community engagement and outreach, encouraging new students to enter training programs aligned with emerging opportunities and reinforcing a long-term talent pipeline.

Finally, success is visible through clear, shared performance indicators that demonstrate progress and credibility: new intellectual property and its commercial use; joint ventures, consortia, and start-ups; pilot and demonstration projects; measurable advances in technology readiness; and the attraction of talent, companies, and capital to the region. Together, these outcomes signal that the Alberta Critical Materials RDI Network has become a functioning engine of ecosystem development—one that consistently converts knowledge into value and positions Alberta and the Central Alberta Corridor as leaders in critical-materials innovation and commercialization.

## The Role of the FMA:

The Network itself is envisioned as being led by post-secondary institutions, reflecting their core mandate in research, training, and innovation. The FMA's value lies in acting as a catalyst, connector, and advocate, helping to bring the Network into being, strengthening its relevance to industry and communities, and ensuring it is tightly integrated with the broader Central Alberta Corridor and Western Canadian critical-materials ecosystem.

At an early stage, the FMA can convene a smaller, targeted group of CAC participants and relevant organizations (including select universities, polytechnics, applied research centres, industry leaders, Indigenous partners, and funders) to further articulate the purpose, scope, and structure of the Network. This convening role builds on the Alliance's credibility as a neutral, trusted platform capable of bringing together actors who do not typically collaborate, and of framing discussions around shared regional outcomes rather than institutional interests.

The FMA can also play an important advocacy and alignment role. Drawing on its relationships with federal and provincial governments, the Alliance can advocate for funding mechanisms and policy support that enable the Network to launch and mature, including support for coordination capacity, shared pilot and demonstration infrastructure, and applied training initiatives. In doing so, the FMA helps ensure that public investments are informed by industry-relevant priorities and contribute to long-term ecosystem development rather than isolated projects.

A further contribution of the FMA is in targeting and recruitment. The Alliance can help identify and recruit the post-secondary institutions best positioned to lead elements of the Network, as well as industry partners willing to anchor applied research, training programs, and pilot activities. By leveraging its broad, cross-sector membership, the FMA can help ensure that participation reflects the full diversity of the Corridor and Western Canada, including Indigenous rights holders, SMEs, and large industrial players.

Critically, the FMA serves as a bridge between the Network and the wider ecosystem. It can connect insights, priorities, and outputs from the RDI Network into the broader FMA effort, ensuring that learnings inform other initiatives related to infrastructure, capital attraction, international partnerships, and policy development. At the same time, the Alliance can channel intelligence from its wider network (such as emerging industry needs, global

trends, or policy developments) back into the RDI Network to keep its work grounded and forward-looking.

Additional roles the FMA could play to strengthen the success of this initiative include:

- Helping articulate a shared narrative that explains the purpose and value of the Network clearly to governments, investors, and communities;
- Acting as a neutral broker when tensions arise between institutional, regional, or sectoral priorities;
- Supporting the development of common success metrics that align RDI outcomes with broader CAC and FMA objectives; and,
- Using its national and international relationships to connect the Network to allied jurisdictions and complementary initiatives beyond Alberta.

Through these contributions, the FMA does not manage or control the Alberta Critical Materials RDI Network, but materially increases its chances of success. In doing so, it reinforces the Alliance's broader mission: to move Western Canada from fragmented activity toward coordinated, ecosystem-level action capable of delivering durable economic, technological, and societal outcomes in critical materials.

### Who Needs To Be Involved:

The Alberta Critical Materials Research, Development, and Innovation Network must be built as a deliberately inclusive, locally anchored ecosystem, not a narrow research consortium. Its effectiveness depends on engaging the full set of actors who generate knowledge, apply it in industrial settings, finance risk, regulate outcomes, and train the workforce required to design, build, and operate critical-materials facilities at scale. Participation should prioritize organizations that already operate locally, while remaining open to external partners that accelerate learning and reduce execution risk.

At the foundation of the Network are Alberta's post-secondary institutions, which anchor both knowledge creation and workforce development:

- Universities and polytechnics, including Indigenous and non-Indigenous institutions
- Applied research centres and laboratories with capabilities in processing, refining, and advanced materials

- Indigenous-specific training institutions, ensuring workforce development and innovation pathways support Indigenous economic participation and long-term community benefit

Equally essential is industry participation across the full value chain, ensuring that research and training remain grounded in real operational and commercial realities:

- Start-ups and scale-ups developing processing, refining, and enabling technologies
- Established firms in mining, oil and gas, petrochemicals, chemicals, and heavy industry
- Downstream users of refined and advanced materials
- A strong emphasis on companies already operating in Alberta and the Central Alberta Corridor, who bring contextual knowledge of infrastructure, labour markets, regulation, and community dynamics

The Network also relies on active engagement from government agencies and public funders, which shape incentives, timelines, and the conditions for scale-up:

- Provincial innovation and funding bodies such as Alberta Innovates and Emissions Reduction Alberta;
- Relevant federal departments and regulators where technology development intersects with permitting, environmental performance, and national industrial priorities; and,
- Workforce, infrastructure, and economic-development agencies aligned with long-term ecosystem outcomes

To ensure ideas move beyond pilots and into viable businesses, the Network must also include investors and capital providers experienced in emerging technologies:

- Venture capital and growth-equity funds;
- Corporate venture arms and strategic investors; and,
- Global accelerators and early-stage technology platforms (such as Y Combinator) or comparable clean-tech and industrial-tech investors.

Finally, Alberta benefits from learning alongside more advanced jurisdictions, rather than reinventing proven approaches. Strategic international participation should include:

- Research and innovation hubs in allied jurisdictions with mature critical-materials ecosystems;
- European RDI initiatives and advanced-materials programs operating within the European Union; and,
- Partners willing to share best practices in governance, pilot-to-commercial pathways, and workforce-training models

Together, these participants ensure the Network functions as a true ecosystem, one that combines local depth with global insight, aligns research with industrial execution, and creates the conditions for Alberta and the Central Alberta Corridor to compete credibly in critical-materials processing, refining, and advanced manufacturing.

## Opening Moves:

### **1. Training Needs Framework:**

To ensure training programs are genuinely aligned with industry needs, the Alberta Critical Materials RDI Network could undertake the development of a Training Needs Framework that is explicitly grounded in the realities of critical-materials processing, refining, and advanced materials production. The Framework would not be an abstract skills taxonomy, but a practical, value-chain-based tool designed to guide curriculum development, professional training, and workforce policy.

The foundation of the Framework would be a clear mapping of the critical-materials value chain, from feedstock preparation and processing through refining, chemical conversion, materials fabrication, waste management, and facility operations. For each stage, the Framework would identify:

- The specific roles and positions required to design, build, operate, and optimize facilities (e.g., process engineers, metallurgists, control-room operators, maintenance specialists, environmental and water-treatment leads, commercialization and project-development professionals); and,
- The core technical, operational, and cross-cutting skill sets associated with each role, including safety, regulatory compliance, digital systems, and ESG performance.

This approach moves beyond generic “skills gaps” toward a clear articulation of who is needed, to do what, and at what level of proficiency.

A defining feature of the Training Needs Framework would be its co-development by industry and post-secondary institutions. Industry participation ensures that identified roles and skills reflect real operational demands rather than theoretical constructs, while academic and training partners translate those needs into credible, deliverable programs.

Through structured workshops and working groups, industry leaders, operators, and technology developers would help define:

- Critical competencies that are currently scarce or emerging;
- Areas where existing oil and gas, petrochemical, or mining expertise can be adapted rather than rebuilt from scratch; and,
- Practical experience requirements, such as exposure to pilot facilities, simulations, or industrial placements.

The Framework would explicitly identify opportunities to bridge Alberta’s existing industrial skill base—particularly from oil and gas, petrochemicals, and mining—into critical-materials processing and refining. Rather than treating the sector as entirely new, the Framework would highlight where incremental training, micro-credentials, or targeted upskilling can unlock rapid workforce readiness.

This includes identifying “translation gaps” where professionals understand core processes but require additional knowledge in areas such as impurity management, hydrometallurgy, materials chemistry, or circular-economy considerations. Addressing these gaps reduces retraining time and helps retain experienced workers within the province.

The Training Needs Framework would be designed to inform action across multiple levels:

- Post-secondary institutions use it to adapt curricula, design new programs, and develop modular training and micro-credentials;
- Industry uses it to articulate hiring needs, co-design training, and support experiential learning;

- Governments and agencies use it to align workforce funding, immigration pathways, and skills programs with real demand; and,
- The FMA and CAC use it to communicate a clear workforce narrative to investors and partners.

Importantly, the Framework would be periodically updated to reflect changing technologies, market conditions, and project pipelines, ensuring it remains relevant over time.

Ultimately, the Training Needs Framework becomes a shared reference point across the ecosystem—a common language that connects industry demand, academic supply, and government support. By linking training directly to value-chain roles and commercial outcomes, it helps ensure that workforce development is not a lagging indicator of growth, but a proactive enabler of Alberta's critical-materials ambitions.

Done well, the Framework shortens the distance between training and employment, reduces skills mismatches, and strengthens Alberta's credibility as a region capable of supplying not only resources and infrastructure, but the people needed to build and operate globally competitive critical-materials facilities.

## **2. Innovation Living Labs:**

To ensure that knowledge, ideas, and research outputs are translated into real commercial opportunities, the Alberta Critical Materials RDI Network could establish a set of Innovation Living Labs—applied, industry-facing environments where technologies, processes, and operating models are developed, tested, and validated under real-world conditions.

Innovation Living Labs are not traditional research facilities. Innovation Living Labs function as a bridge between research, development, and commercialization. They are deliberately designed translation spaces where industry problems, research capability, infrastructure, and capital intersect. Their purpose is to take ideas off the page and out of the lab, and convert them into technologies, practices, and business models that industry can realistically adopt.

At their core, Innovation Living Labs focus on doing, not just studying. Each Lab would be organized around a clearly defined set of industrial challenges—such as

feedstock variability, impurity management, water and waste constraints, emissions reduction, process reliability, or cost optimization in critical-materials processing and refining.

Within this setting:

- Researchers, engineers, operators, and technology developers work side by side;
- Technologies are tested at pilot or pre-commercial scale using realistic inputs and operating conditions;
- Technical, economic, regulatory, and ESG considerations are evaluated in parallel; and,
- Lessons are rapidly fed back into design, training, and investment decisions.

This approach shortens the path from concept to deployment and helps avoid “solutions in search of a problem” by anchoring innovation in clearly articulated industry needs.

Each Innovation Living Lab would be anchored by industry participation, ensuring relevance and credibility. Industrial partners, particularly those already operating in Alberta and the Central Alberta Corridor, help define problem statements, provide access to data, materials, or facilities, and validate whether solutions are commercially viable.

Importantly, the Labs would be designed to complement Alberta’s existing industrial assets, leveraging the region’s strengths in large-scale operations, chemical processing, automation, and project execution. This ensures that innovations developed through the Labs are inherently compatible with Alberta’s infrastructure, workforce, and regulatory environment.

A defining feature of the Innovation Living Labs is their explicit international orientation. Alberta does not need to reinvent approaches that have already been proven elsewhere. The Labs would actively develop strategic partnerships with allied and like-minded jurisdictions, particularly advanced RDI hubs operating within the European Union and other leading critical-materials regions.

These partnerships could involve:

- Knowledge exchange on governance models, pilot-to-commercial pathways, and workforce integration;
- Joint testing or adaptation of technologies developed abroad for Alberta's specific conditions;
- Researcher and operator exchanges to accelerate learning; and,
- Co-development of standards, metrics, or best practices.

By embedding global learning directly into local experimentation, the Living Labs help ensure Alberta benefits from international experience while tailoring solutions to regional realities.

Innovation Living Labs also serve as partnership platforms. They create neutral spaces where start-ups, established firms, researchers, investors, governments, and Indigenous partners can collaborate without immediately committing to full-scale projects. This lowers barriers to participation, encourages experimentation, and fosters trust among actors who may not otherwise work together.

Over time, the Labs become places where:

- New commercial partnerships and joint ventures are formed;
- Local companies gain early access to emerging technologies;
- Students and professionals gain hands-on, industry-relevant experience; and,
- Alberta's capabilities are made visible to external partners and investors.

Done well, Innovation Living Labs become a core mechanism for ecosystem development. They accelerate learning, reduce duplication, and ensure that innovation efforts are tightly coupled to industrial outcomes. Most importantly, they help convert Alberta's research strength and industrial expertise into tangible competitive advantage, turning ideas into real things, and experimentation into economic opportunity for the region.

### **3. Plan and Deliver a Technology and Capital Gathering**

A consistent theme emerging from Workshop #2 was that the right capital was not yet in the room. While the Central Alberta Corridor has strong project proponents, applied research capability, and promising technology pathways, these assets remain insufficiently visible and legible to senior decision-makers in capital markets

and public innovation finance. As a result, capital providers often apply expectations, timelines, and risk frameworks drawn from more mature sectors, reinforcing perceptions that critical materials innovation is overly risky, fragmented, or premature.

This opening move responds directly to that gap by planning and delivering a purpose-built technology and capital gathering designed to connect the Alberta Research, Development, and Innovation Network with the financial and policy actors who shape capital allocation. Rather than waiting for capital to discover the opportunity, the gathering brings capital into structured, informed dialogue with the ecosystem. The intent is mutual learning, alignment, and familiarity, not promotion.

For the RDI Network, the gathering functions as a critical feedback mechanism. It allows researchers, innovators, and project proponents to better understand what capital providers require in terms of risk clarity, scale-up pathways, governance, and commercial readiness. At the same time, it builds literacy among capital market actors, helping them understand how critical materials innovation differs from sectors they are more accustomed to financing, including longer development cycles, infrastructure intensity, and the importance of coordinated public and private capital.

The gathering would convene a curated group of participants, including:

- Senior leaders from banks, institutional investors, infrastructure funds, strategic corporate investors, and development finance institutions;
- Executives from technology developers, project proponents, and industrial operators with near-term scale-up potential;
- Federal and provincial innovation, industrial, and finance agencies with mandate authority, including organizations such as Alberta Innovates and Emissions Reduction Alberta, alongside federal counterparts; and,
- Select Indigenous economic development organizations and Indigenous financial institutions positioned for partnership and co-investment

Content would be organized around real technologies, real projects, and real capital pathways. Sessions would focus on clarifying risk drivers, surfacing structural bottlenecks, and aligning expectations around what it takes to move from applied research and pilot activity toward demonstration and commercial deployment in the Corridor.

Key elements of this opening move include:

- Showcasing applied RDI and investable technologies emerging from the Corridor, with clear articulation of scale-up needs, capital requirements, and timelines;
- Creating direct, structured dialogue between innovators, project proponents, and capital providers to surface diligence requirements, risk perceptions, and deal structures early;
- Providing public innovation agencies with a forum to signal strategic focus, commitment, and coordination to capital markets, helping reduce uncertainty and crowd in private investment; and,
- Using the gathering to identify senior champions within capital markets, industry, and government who can help carry momentum beyond the event itself.

This opening move is deliberately linked to the Supercharge the Alliance initiative. The technology and capital gathering becomes a mechanism to elevate the Alliance's relevance among senior decision-makers, expand the circle of engaged leaders, and integrate capital market perspectives directly into the Alliance's ongoing work. It shifts the Alliance from being primarily a convening platform to being a place where capital, innovation, and policy intersect in practical ways.

The intended outcome is not a one-off conference, but a step change in who is engaged in the RDI ecosystem and how they engage. Success looks like clearer capital pathways for RDI-driven projects, improved alignment between innovation development and investment expectations, better-informed innovation policy, and a growing cohort of senior financial and public-sector leaders who understand the sector and are prepared to act on it.